Office of Rail and Road and Network Rail

#16354 Review the progress of Structures Year one Work bank delivery

Final Report

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1 Executive Summary

1.1 Purpose

The ORR have a responsibility to hold Network Rail (NR) to account for efficient use of public funds and sustainable management of the network to ensure value for money. Historically, NR has provided ORR with Cost and Volume data as required by the data protocol agreed under Part C paragraph 8.1 of the Network Licence.

As part of the evolution of the regulatory process for CP6, the ORR and NR agreed to undertake detailed reviews of the structures work bank at Regional Level. To assure the structures portfolio is being maintained to an acceptable, safe and sustainable level.

As part of the devolution of NR each Region is responsible for the management and delivery of their work bank; the five Regions are:

1. Eastern
2. North West & Central
3. Scotland's Railway
4. Southern and
5. Wales & Western

Network Rail centrally retain a role overseeing asset management as part of the Technical Authority.

The purpose of the review was to investigate changes from the baseline programme, the robustness of the change control processes in place, justification as to why changes were accepted and the impact this has had on outcomes across the portfolio at a Regional Level.

Arup, in their role as the Independent Reporter, have assessed Network Rail's delivery of the structures CP6 Year 1 work bank in support of the progressive assurance of the control period.

1.2 Methodology

Initial observations indicated that the recent formation of the NR's Regions, meant that multi route regions in year 1 had not operated under common practices for the development and delivery of the Structures work bank. It was therefore agreed with ORR that the assurance assessment is conducted for eight instead of the five groups as initially planned. For each of the following routes & regions a review of the work bank has been conducted:

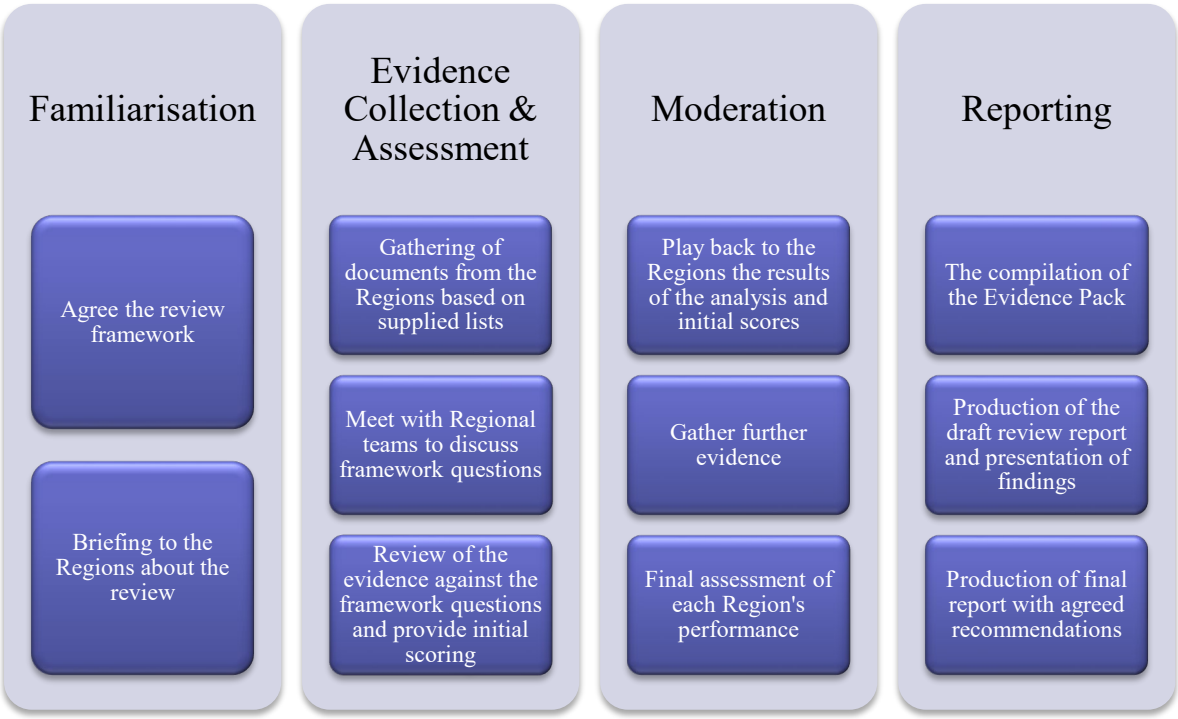
1. Eastern Region: Anglia Route
2. Eastern Region: East Routes (incl. (i) East Midlands route, (ii) North and East route, and (iii) East Coast route

3. North West and Central Region
4. Scotland's Railway
5. Southern Region: South East Routes (incl. (i) Kent route and (ii) Sussex route)
6. Southern Region: Wessex route
7. Wales & Western Region: Wales route
8. Wales & Western Region: Western route

It is noted that the Network Rail High Speed route (geographically located in the Southern Region) and the separate processes and their application undertaken by the Technical Authority were outside the scope of this review.

Arup have developed a standardised review framework and methodology for reviews of this nature, which has been modified to meet the needs of the ORR's evaluation of NR. The methodology, outlined in Figure 1, has been used to assess routes and regions through workshops and quantitative, and qualitative investigation and analysis.

Figure 1 – Assessment Methodology



In addition, to assessing the performance of NR and its Regions the review acts as a learning opportunity for the business to drive asset management best practice. Accordingly, clear development observations and recommendations were identified and agreed, as appropriate. Implementation of these recommendations in the future will drive best practice across the organisation and ensure lessons learned are shared across all Regions and with the Technical Authority.

1.3 Findings from Evidence Assessment

The framework uses five evaluation topics, see table below, to cover the regional management and delivery of the work banks. Each topic was divided into a series of supporting exploratory questions to understand in depth the process and tools used by each region. A total of 34 questions were asked across the evaluation topics.

Table 1 – Evaluation Topics

Evaluation Topic	Description	Total Questions
A	Workbank Changes	16
B	Risk Quantification	4
C	Regional Assurance	5
D	Costs	7
E	Completed CP6 Projects	2

To evaluate regional performance the following confidence levels were used to quantitively assess the evidence collated against each assessment question.

Table 2 – Confidence Ratings Description

Confidence Rating	Description
4	Evidence largely complete / consistent explanations with sound rationale
3	Evidence reasonable but with some gaps / inconsistencies in a few areas
2	Partial evidence with some significant gaps / inconsistencies identified
1	Evidence incomplete / contradictory with major gaps identified
0	Insufficient information provided

1.3.1 National Results

The use of a matrix to visually demonstrate the strengths and weakness evidenced through the review across the Regions / Routes and framework topics contributed to the process of the identification of areas of improvement – both nationally and in certain Regions / Routes.

The performance matrix summarising the outcomes is shown in Figure 2.

Figure 2 – Framework Question vs Region / Route Performance Matrix

			REGIONS							
			Eastern		North West & Central	Scotland	Southern		Wales & Western	
			ROUTES							
Topic	Ref	Framework Question	Anglia	East Coast East Midlands North & East	Central North West WCML South	Scotland	Kent Sussex	Wessex	Wales & Borders	Western
A Workbank Changes	A1	How have Regions developed / agreed workbanks?	3	4	4	4	3	4	3	3
	A2	How has Asset Policy been applied in developing workbanks?	4	4	4	3	4	4	4	3
	A3	How are Regions deciding selection of intervention types and timings?	3	4	4	4	4	4	4	4
	A4	How have volumes of work been prioritised in the workbanks?	3	3	3	4	3	4	3	3
	A5	What evidence is there of a consistent approach across Regions (e.g. are nationally consistent choices being made? Is there communication between Routes?)	2	2	4	4	2	2	3	3
	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	4	4	3	2	2	2	2	4
	A7	To what extent can the delta between planned vs actual renewals be identified via analytical methods?	4	4	4	3	3	3	4	4
	A8	To what extent does the actual delivered renewals workbank for Year 1 differ from the planned renewals workbank for the same period?	4	4	3	2	2	3	3	3
	A9	To what extent have schemes been deferred?	3	4	3	3	4	4	4	4
	A10	How were deferred schemes justified?	3	4	4	2	3	3	3	3
	A11	To what extent have schemes been cancelled?	4	4	4	4	4	4	4	4
	A12	How were cancelled schemes justified?	4	4	4	4	3	3	4	3
	A13	To what extent have schemes been swapped / accelerated?	4	3	3	3	4	4	4	4
	A14	How were swapped / accelerated schemes justified?	4	4	4	4	3	4	4	3
	A15	When was the workbank agreed and was it updated before the start of the year?	3	4	2	2	3	3	3	3
	A16	What, if anything, was included in the Year 1 plan as items deferred or which had fallen out of the previous year's plan?	3	4	2	4	3	4	4	4
B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	2	4	4	4	4	4	4	2
	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	3	3	3	4	4	4	4	2
	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	2	4	4	4	4	4	4	2
	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	2	4	4	4	4	4	4	2
C Regional Assurance	C1	What regional workbank Change Control process is adopted?	3	4	4	2	4	3	0	3
	C2	What evidence is there of a consistent Change Control approach across Regions?	2	2	3	1	2	2	2	2
	C3	To what extent do Regions individual projects remain aligned to policy requirements through the workbank Change Control process?	3	3	3	2	4	3	3	3
	C4	To what extent are there any notable shortcomings in the Change Control process?	3	3	3	3	2	2	3	3
	C5	To what extent has there been any cross-Route impact as a result of devolution? - e.g. a Route cancelled work which another Route was piggy-backing to do its own work.	4	4	4	4	4	4	4	4
D Costs	D1	To what extent (and how) have volumes of work been identified and costed?	4	4	2	3	3	4	3	4
	D2	To what extent can the delta be between estimated vs actual renewal cost be identified via analytical methods?	4	4	4	3	3	3	4	3
	D3	To what extent does the estimated renewal costs for Year 1 differ from the actual renewal costs for the same period?	3	4	4	3	3	3	3	3
	D4	What is the potential impact on the Business Plan of the difference between the estimated vs actual renewal costs for Year 1?	3	4	3	3	4	4	3	4
	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	2	2	2	2	1	2	2	2
	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	2	3	4	4	4	3	4	4
	D7	What was the operational impact (if any) of changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.	4	4	4	4	4	4	3	3
E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	2	3	3	4	2	3	3	3
	E2	What measures of effectiveness are in place for each Region?	2	2	3	1	1	3	3	3

1.3.2 National Current Practice

Based on the evidence provided by the Routes and Regions for each evaluation topic the current practice and processes observed within the organisation have been established. Table 3 below summaries these findings.

Current best practice within the organisation is demonstrated through maximum/minimum confidence ratings across all regions. Confidence ratings of 4 and 3 relate to practices with limited opportunity for improvement.

Where responses from regions were weak nationally, confidence scores of 1 to 2 where given; these have been highlighted (see pink shaded cells in Table 3) for driving potential improvement themes.

Where a mixed performance has been observed Regional opportunities have been identified separately within specific route and region analysis.

Table 3 – Organisational Current Practice

Ref	Question	MAX	MIN	Current Practice Observations
A1	How have Regions developed / agreed work banks?	4	3	Each Region / Route articulated a robust process for the development of their work bank. Regions scoring '4' demonstrated this process through a report, document, or presentation.
A2	How has Asset Policy been applied in developing work banks?	4	3	Asset policy was applied consistently across all Regions / Routes on the network. Regions / Routes scoring '4' tracked, in their work banks, the policy level/ target each scheme achieved.
A3	How are Regions deciding selection of intervention types and timings?	4	3	Good capability was shown across Regions with clearly defined tools and methodologies in place. Types and timings of activities were based primarily on policy/standard compliance. Access planning and possession timing played a significant role in the planning of the work bank.
A4	How have volumes of work been prioritised in the work banks?	4	3	Delivery of work items was prioritised based on compliance to policy and standards by all Regions using their appropriate tools. Volumes were based on early stage scheme estimates which were subject to change as schemes developed. Regions / Routes had the opportunity to smooth volume delivery across their plans.

Ref	Question	MAX	MIN	Current Practice Observations
A5	What evidence is there of a consistent approach across Regions (e.g. are nationally consistent choices being made? Is there communication between Routes?)	4	2	There was consistency in the principles used across the Regions for developing and prioritising work banks. However, within certain Regions there were inconsistencies in the approaches and tools used within their constituent Routes. There was some evidence to suggest that the way in which the reporting of core planning and the contingent over-planning items was handled, was one factor in this variance. It was however noted that the final structure of the five Regions was not in place during 2019/20. The evidence collated from the Regions, in the majority of cases, was that they were moving towards integrating their planning and change control approaches.
A6	To what extent can the composition of the planned renewals work bank be presented visually (i.e. dashboard style volume / cost, by structure type, location, etc.)?	4	2	There was limited use of graphical analysis across the Regions to communicate the composition and movements in the work bank during delivery. Regions / Routes scoring '4' demonstrated use of visuals to track volume and cost movement. Regions / Routes scoring '2' did not use graphical analysis in any way to communicate or manage changes in their work banks.
A7	To what extent can the delta between planned vs actual renewals be identified via analytical methods?	4	3	In general, it was possible to review work bank changes through analytical methods. Regions scoring '3' had inconsistent primary keys for schemes which made analysis unnecessarily more complex. Opportunities exist in those Regions to introduce primary keys for schemes that remain unique between different spreadsheets / documents and systems.
A8	To what extent does the actual delivered renewals work bank for Year 1 differ from the planned renewals work bank for the same period?	4	2	There was movement from the baseline plan across all Regions / Routes. Routes scoring '4' had been able to justify the changes and could present the movement visually. Scores of '3' showed consistency in the Year 1 reporting but lacked clarity around the cause of the change. Regions / Routes scoring '2' demonstrated a lack of consistency between the reported cost/volume for Year 1 and the baseline.
A9	To what extent have schemes been deferred?	4	3	All Regions / Routes clearly demonstrated the extent that schemes were deferred during Year 1. Routes scoring '3' showed greater variances from the baseline than 5%.
A10	How were deferred schemes justified?	4	2	Deferrals were generally well justified across the Regions / Routes. Opportunities existed to improve justification for deferrals in Routes scoring '3'. Routes scoring '2' showed a lack of clarity around justification of deferrals.
A11	To what extent have schemes been cancelled?	4	4	There were no cancelled schemes in the CP6 Year 1 work bank.

Ref	Question	MAX	MIN	Current Practice Observations
A12	How were cancelled schemes justified?	4	3	When cancelled schemes arise, these would be justified as part of the Change Control and Deferral Renewal processes. The Change Control processes implemented across the network showed it was possible to record the appropriated level of justification needed for cancelled schemes.
A13	To what extent have schemes been swapped / accelerated?	4	3	Based on the documentation supplied and the workshops held there was a minimal acceleration of schemes across all the Regions / Routes.
A14	How were swapped / accelerated schemes justified?	4	3	Accelerated schemes were justified through the Change Control process which showed the appropriate level commentary across all Regions / Routes.
A15	When was the work bank agreed and was it updated before the start of the year?	4	2	Across all the Regions / Routes there was movement from what the ORR understood as expected cost/volume for Year 1, and what Network Rail centrally forecasted at the start of the Control Period. It was clear that there was no baseline plan accepted by all parties to ensure there was one source of the truth.
A16	What, if anything, was included in the Year 1 plan as items deferred or which had fallen out of the previous year's plan?	4	2	It was clear that there was a spill over of schemes from CP5 into Year 1 of CP6. Routes scoring a '3' lacked sufficient evidence that these schemes had been completed based on the documentation provided. Routes scoring '2' demonstrated further slippage of CP5 schemes programmed for Year 1 into later years in the Control Period.
B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	4	2	Across the Regions / Routes good processes were in place to manage risks arising from deferrals in line with the Deferred Renewals Standard. This included evidence demonstrating sound engineering judgment and analysis. Regions with scores of '4' clearly demonstrated good process, qualitative analysis and the use of CRAM to support quantitative analysis of deferral risks. Routes scoring '2' were not able to evidence through documentation the use of CRAM to support deferral risk assessment.
B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	4	2	Across the business there appeared to be a lack of understanding with no single sustainability metric used in work bank development or quoted by Regions in the management of risk. There was also no evidence that the impact of the planned and delivered renewals work bank, from a sustainability perspective, had been evaluated. It was also noted that the CRAM process included a metric for Asset Management which had been used as a proxy for sustainability by some Routes. It was articulated that sustainability funding had been made available, but this had not been associated with changes to the plan.

Ref	Question	MAX	MIN	Current Practice Observations
B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	4	2	Across the Regions / Routes good processes were in place to manage risks arising from deferrals in line with the Deferred Renewals Standard. This included evidence demonstrating sound engineering judgment and analysis. Regions with scores of '4' clearly demonstrated good process, qualitative analysis and the use of CRAM to support quantitative analysis of deferral risks. Routes scoring '2' were not able to evidence through documentation the use of CRAM to support deferral risk assessment.
B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	4	2	Across the Regions / Routes good processes were in place to manage risks arising from deferrals in line with the Deferred Renewals Standard. This included evidence demonstrating sound engineering judgment and analysis. Regions with scores of '4' clearly demonstrated good process, qualitative analysis and the use of CRAM to support quantitative analysis of deferral risks. Routes scoring '2' were not able to evidence through documentation the use of CRAM to support deferral risk assessment.
C1	What regional work bank Change Control process is adopted?	4	0	The Change Control processes adopted by Regions / Routes were generally robust. One Route failed to provide evidence of a Change Control process leading to a score of '0'. Scores of '2' were given where the documentation provided did not provide sufficient clarity for the process to be understood. Regions scoring '3' had a process document but the Change Log lacked the expected level of detail.
C2	What evidence is there of a consistent Change Control approach across Regions?	3	1	Within Regions where the Year 1 plan had been assembled in the constituent Routes there was no alignment of Change Control process. It was however noted that the final structure of the five Regions was not in place during 2019/20. The evidence collated from the Regions in the majority of cases was that they were moving towards integrating their planning and Change Control approaches.
C3	To what extent do Regions individual projects remain aligned to policy requirements through the work bank Change Control process?	4	2	Regions demonstrated that schemes were policy aligned through the use of their Change Control processes. Any change or deviation in policy would be documented in the Change Log. Opportunities exist for Regions/Routes to demonstrate any change to a scheme's policy objective over its life cycle.

Ref	Question	MAX	MIN	Current Practice Observations
C4	To what extent are there any notable shortcomings in the Change Control process?	3	2	Change Control processes across Regions / Routes were noted as evolving with all the described processes having their own shortcomings. These included, but were not limited to, evolving integration of tools, reliance on individuals, not being a bespoke to structures, etc.
C5	To what extent has there been any cross-Route impact as a result of devolution?	4	4	There had been no impact on scheme delivery in Year 1 as a result of impacts in other Regions. Regions had mitigations in place to limit this type of issue.
D1	To what extent (and how) have volumes of work been identified and costed?	4	2	Regions / Routes were able to demonstrate robust processes to identify unit costs and the use of appropriate guidance to develop volumes. They developed their cost/volumes for schemes in the work banks along different stages of the GRIP process using different approaches to try to make them as accurate as possible. Costs were generally bespoke to Routes using evidence from CP5 outturn costs, modelling, and unit rates from the Technical Authority. There was however evidence from a number of the Regions to indicate that they would benefit from guidance in the application of overlays associated with scheme maturity and other activity factors.
D2	To what extent can the delta be between estimated vs actual renewal cost be identified via analytical methods?	4	3	It was possible to review movement of cost/volume within the work bank using analytical methods. Regions scoring '3' had inconsistent primary keys for schemes which made the analysis more complex. Opportunities exist to introduce primary keys for schemes where these do not exist at present.
D3	To what extent does the estimated renewal costs for Year 1 differ from the actual renewal costs for the same period?	4	3	There had been movement from the baseline across all Regions / Routes. There were several causes associated with over/under spend and over/under volume delivery most notable were the unreliability of unit costs and changes in work bank makeup from the baseline. Routes scoring '3' had movement from the baseline but the justification and recording of movement in cost/volume could be improved.
D4	What is the potential impact on the Business Plan of the difference between the estimated vs actual renewal costs for Year 1?	4	3	Movement from baseline to Live Plan had not impacted the ability for Regions / Routes to deliver future years of the work bank. Adoption of early contractor engagement principles were seen across a number of Routes, aimed at supporting scheme maturity and improving cost/volume accuracy. There was no clear trend observed for cost/volume movements across the entire Year 1 work bank.

Ref	Question	MAX	MIN	Current Practice Observations
D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	2	1	On all Regions there was significant variance from the +/-5% threshold for cost, with less variation taking place in terms of volume changes. This appeared to be driven through the immaturity of scheme estimates at work bank development stage and unit costs being unreliable or not representative of the works actually being undertaken.
D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	4	2	Justification of scheme cost changes was well recorded across most Regions and could generally be understood using analytical methods. Opportunities exist to record all movements and their causes for schemes in a single source to minimise the need for tacit knowledge when reviewing cost/volume variances.
D7	What was the operational impact (if any) of changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans?	4	3	There had been no TSRs or operational restrictions as a result of structure renewal changes during Year 1.
E1	To what extent have completed schemes met their expected outcomes?	4	2	Most Regions / Routes demonstrated that they had processes in place for recording hand back of completed projects to ensure outcomes had been achieved. There are opportunities to record that projects have been completed and goals achieved, but this was not recorded in the Live Plan.
E2	What measures of effectiveness are in place for each Region?	3	1	Some Routes had introduced a process which allowed them to review their effectiveness in planning and delivery of schemes. This acted as a platform for developing best practice. There was very limited use of cross Region / Route sharing of lessons learned in evidence. Routes with a score of '1' did not demonstrate any process for measuring effectiveness and development of best practice.

1.3.3 Improvement Themes

The following themes have been identified by the review team though use of the performance matrix where several Routes or Regions have shown lower scores or where there was a high degree of variance. They may be considered by the organisation to drive asset management best practice forward.

Table 4 – Proposed Improvement Themes

Improvement Themes	Theme Description
Consistency in Work Bank Development	Each Region should adopt a common framework to develop their structures renewal annual plan to provide a consistent means of understanding the drivers of inclusion and support better decision making across the Region. This could include separate tracking of core and over-planning work items.
Consistency of Presentation	Regions should adopt a graphical means of monitoring the status of individual work bank items (e.g. on-site, delivered, deferred, accelerated, etc.) such that a visual overview of the annual plan can be produced to aid understanding of delivery progression and support decision making.
Agreeing the Annual Baseline	Ensure that there is an agreed the baseline for the structures' renewal plan in terms of cost and volume for a core plan at the start of each year. Ensure the agreed Control Period Baseline is recorded. This will support the monitoring of delivery and act as a foundation from which change can be measured and justified.
Integration of Sustainability	An exercise to update the knowledge and understanding of current sustainability measures in the Regions is necessary. This will allow them to monitor the impact their delivery has on sustainability. Sustainability analysis should be considered during reforecasting of control period work banks to enable end of year validation of work bank outputs. This approach will provide a tracker of sustainability in terms of initial aims and then the impact of interventions, force a longer-term view of cost, and allow longer term trends to be observed.
Consistent Change Control	Each Region should adopt a common framework to capture and record changes to their structures' renewal plans. This will provide a consistent means of monitoring and tracking change such that better decision-making takes place across the individual Region.
Costing Methodology Development and Overlay Guidance	Regions should undertake their own review and assurance of their suite of structures costing methodologies. This will improve accuracy in scheme estimation and provide greater consistency of estimation to ensure a more accurate fit with the various work types. The development of guidance on cost overlays to address scheme maturity and environmental factors. Regions could consider a collaborative approach in sharing rates and guidance nationally between them to stimulate budgeting lesson learned exercises.
Project Close Out	Regions should comply with the relevant project close out process. Regions should ensure that hand back requirements and close out of projects is captured in the Live Plan. This will aid understanding of scheme status and support decision making regarding schemes where the expected outcomes were not delivered.
Regional Effectiveness	Regions should adopt the relevant framework (e.g. PACE - Project Close) to report on their effectiveness against identified criteria. This will support understanding of what 'good' looks like in terms of planning and delivery to drive performance and identify areas of weakness.

1.4 Agreed Recommendations

Based on the suggested Improvement Themes in Table 4, the following are Recommendations that were agreed at a joint workshop in January 2021 between the ORR, Network Rail Technical Authority and the Independent Reporter team.

Table 5 – Agreed Recommendations

#	Recommendation to Network Rail	Benefits	Evidence of Implementation	Location in Text	Network Rail Champion	Due Date
SOW16354-1	**Consistency in Work Bank Development:** It is recommended that each Region adopts a common framework to develop their structures control period renewal plan. This should include the management and designation of core and over-planning schemes.	This will provide a Regionally consistent means of understanding the drivers of inclusion and support better decision making and audit within the Region.	Common renewals planning framework adopted at Regional level, as appropriate.	Section 5.4.1	Regional Leads	During CP7 Planning
SOW16354-2	**Agreeing the Annual Baseline:** Ensure there is a baseline for the structure's renewal plan in terms of cost and volume for a core plan at the start of each year. Ensure the agreed Control Period Baseline is recorded.	This will support the monitoring and delivery of the annual plans. It will act as a foundation from which change can be measured and justified. This will allow the Reforecasts to be compared with the Control Period Baseline	Recorded Control Period Baseline that is recognised by ORR, and Network Rail Regionally and in the TA.	Section 5.4.1	Regional Leads	During CP7 Planning
SOW16354-3	**Integration of Sustainability:** It is recommended that Regions are briefed on how the structures Composite Sustainability Index (CSI) and effective volumes are used as measures of sustainability at portfolio level and can be influenced by changes in the annual plans.	The Region will understand how changes to their annual plans will affect the CSI at portfolio level. This approach will: • provide a tracker of sustainability in terms of initial aims • Show the impact of interventions, • Enable a longer-term view of LCC, • allow longer term trends to be observed.	The structures Composite Sustainability Index and effective volumes are used at regional level to aid understanding of how their annual plans affect sustainability at portfolio level.	Section 5.4.2	Regional Leads	During CP7 Planning
SOW16354-4	**Sustainability Analysis:** Sustainability analysis should be considered during control period work bank reforecasting, based on the structures CSI and effective volumes. This should be validated at each year end once delivery is completed.					

#	Recommendation to Network Rail	Benefits	Evidence of Implementation	Location in Text	Network Rail Champion	Due Date
SOW16354-5	**Consistent Change Control:** It is recommended that each Region adopts a common framework to capture / record changes to their structures renewal plans to provide a consistent means of monitoring and tracking change and sustaining alignment with policy.	This will support better monitoring and tracking of decision-making.	Changes (and continued policy alignment) clearly linked and / or captured in the work bank	Section 5.4.3	Regional Leads	During CP7 Planning
SOW16354-6	**Costing Methodology Development and Overlay Guidance:** It is recommended that each of the Regions undertakes an assurance exercise to ensure the structures costing methodologies are sufficiently accurate to suit the work types being planned. This could include guidance on cost overlays to address scheme maturity and environmental factors, as appropriate. Regions could consider a collaborative approach in sharing costing methodologies and related guidance nationally between them.	This will improve accuracy in scheme estimation, provide greater consistency of estimation and stimulate budgeting lesson learned exercises.	Regional costing methodology and relevant guidance in place.	Section 5.4.4	Centre of Excellence	During CP7 Planning
SOW16354-7	**Project Close Out:** It is recommended that Regions should follow the relevant project close out processes. Regions should ensure that hand back requirements and close out of projects are documented and evidenced. This includes the required updates to the Live Plan.	This will aid understanding of scheme status and support decision making regarding schemes where the expected outcomes were not delivered.	Records showing project close out / hand back are captured / stored.	Section 5.4.5	Centre of Excellence	March 2022
SOW16354-8	**Regional Effectiveness:** It is recommended that Regions adopt the relevant framework (e.g. PACE Project Close – demonstrate delivery to planned requirements) for monitoring their effectiveness against identified criteria.	This will support understanding of what 'good' looks like in terms of planning and delivery of renewals to drive up performance and identify areas of weakness.	Records of measuring effectiveness are captured / stored.	Section 5.4.5	Centre of Excellence	March 2022

1.5 Acknowledgements

The Independent Reporter Team would like to thank both ORR and Network Rail staff for their assistance with this study.

2 Introduction

2.1 Background

Arup, in its role as Independent Reporter, was appointed by the Office of Rail and Road (ORR) and Network Rail (NR) to undertake an assurance review in order to assess delivery of the year one Structures work bank in each Region, its impact on the outcomes across the Structures portfolio, and the robustness of regional assurance through the work bank change control process.

The scope of this assessment was defined in the Statement of Work (SoW) #16354 and as clarified by the ORR over the course of the assessment as described in this report.

A copy of the SoW is included in Appendix A below.

2.2 Mandate Aims and Requirements

The purpose of this review, as set out in the SoW, was for the Independent Reporter to assist the ORR assess the delivery of the year one structures work bank of CP6. This assessment was to support ORR's progressive assurance and investigate changes from the baseline programme, the robustness of the change control processes in place, justification as to why changes were accepted and the impact this has had on outcomes across the structures' portfolio at a Regional Level.

The five NR Regions are:

1. Eastern
2. North West & Central
3. Scotland's Railway
4. Southern and
5. Wales & Western

These five regions were formed in June 2019 to operate, maintain and renew infrastructure to deliver a safe and reliable railway for passengers and freight customers. The regions encompass multiple routes and transport hubs to better align operations with passengers' and communities' needs.

The ORR have a responsibility to hold NR to account for efficient and sustainable management of the network to ensure value for money. Historically, NR has provided ORR with Cost and Volume data as required by the data protocol agreed under Part C paragraph 8.1 of the Network Licence.

During CP6, the ORR planned to undertake a detailed review of the structures work bank delivered at Regional Level. This is to assure the structures portfolio is being maintained to an acceptable, sustainable level.

Although the SoW initially required that the assurance assessment be conducted at regional level (i.e. five regional groups), it subsequently transpired that due to the recent formation of the NR's Regions some of the multi route regions had insufficient time to adopt common practices for the development and delivery of the Structures work bank.

It was therefore agreed with ORR the assurance assessment is conducted for eight instead of the five groups initially planned, as follows:

9. Eastern Region: Anglia Route
10. Eastern Region: East Routes (incl. (i) East Midlands route, (ii) North and East route, and (iii) East Coast route
11. North West and Central Region
12. Scotland's Railway
13. Southern Region: South East Routes (incl. (i) Kent route and (ii) Sussex route)
14. Southern Region: Wessex route
15. Wales & Western Region: Wales route
16. Wales & Western Region: Western route

It is noted that the Network Rail High Speed route, located in the Southern Region, was outside the scope of this review.

An assessment was required to be conducted of the delivery of the year one structures work banks and associated change control processes based on evidence collated and considered for:

1. **Work bank Changes:** the changes between the planned renewal work bank and the actual delivered work bank; highlighting schemes that have been deferred, cancelled and/or swapped and the associated justification for these changes
2. **Risk Quantification:** information the regions provided on the description of their process for quantifying how renewal intervention and management of deferrals / accelerations affect sustainability, performance, and safety
3. **Regional Assurance:** the robustness of Region assurance processes with respect to how individual projects remain aligned to policy requirements through the work bank change control process
4. **Costs:** the changes in actual costs against estimated costs used to develop the SBP, including the review of a representative sample of individual projects to identify any variances where +/- 5% to cost or volume is exceeded, their causes and identifying the potential impact that these might have had on changes to the business plan
5. **Completed CP6 projects:** whether completed year 1 CP6 projects met their expected outcomes and what measures of effectiveness are in place.

Initially the SoW required the Independent Reporter to point out areas of best practice and to provide recommendations for improvement. In agreement with ORR and NR, improvement opportunities where initially identified for the eight individual groups and potential improvement themes at regional level. Promoting improvement opportunities and themes into recommendations was decided collectively between the Independent Reporter in discussion with ORR and NR. These are presented in subsequent sections of this report.

2.3 Report Structure

The report structure is as outlined in the table below

Table 6 – Report Layout

Section	Description
2 Introduction	Provides the background and summarised the aims and requirements of the mandate.
3 Methodology	A description of the methodology adopted for the assurance assessment.
4 Findings from Regional Analysis and Evidence Assessment	Summarises the findings from the application of the methodology, analysis and evidence assessed. It outlines areas of good practice and provides further observations for each of the eight groups of Routes/Regions.
5 Potential Improvement Themes	Draws together the results from the application of the assurance assessment methodology to provide potential improvement themes across all Regions.
6 Agreed Recommendations	Provides recommendations for future improvements.
Appendices	Provide additional detail in support of the main text. They are used to simplify the flow of the report, while retaining the detail generated during the assessment.

2.4 Glossary of Terms

Table 7 – Abbreviations

Acronym	Meaning
AFC	Anticipated Final Cost
ATR	Asset Technical Review
BCMI	Bridge Condition Measuring Index
CAM	Civils Adjustment Mechanism
CARRS	Civils Asset Register and Reporting System
CP	Control Period
CRAM	Corporate Risk Assessment Matrix
DEAM	Director of Engineering and Asset Management
DRAM	Director Route Asset Management
ETY	Engineering Target Year
FD	Final Determination
GRIP	Governance for Railway Investment Projects
HCE	Hidden Critical Element
HETI	Headwinds, Efficiencies, Tailwinds and Inefficiencies
IMS	Integrated Management System
IP	Infrastructure Projects
KCL	Key Cost Line
KVL	Key Volume Line
NR	Network Rail
OP	Oracle Platform
ORR	Office of Rail and Road
PACE	Project Acceleration in a Controlled Environment
PoaP	Policy on a Page
RAM	Route Asset Manager
RF	Rolling Forecast
SBP	Strategic Business Plan
SoFA	Statement of Funds Available
SoW	Statement of Work
SWEPT	Structures Work bank, Efficiency, Policy and Targets
TA	Technical Authority

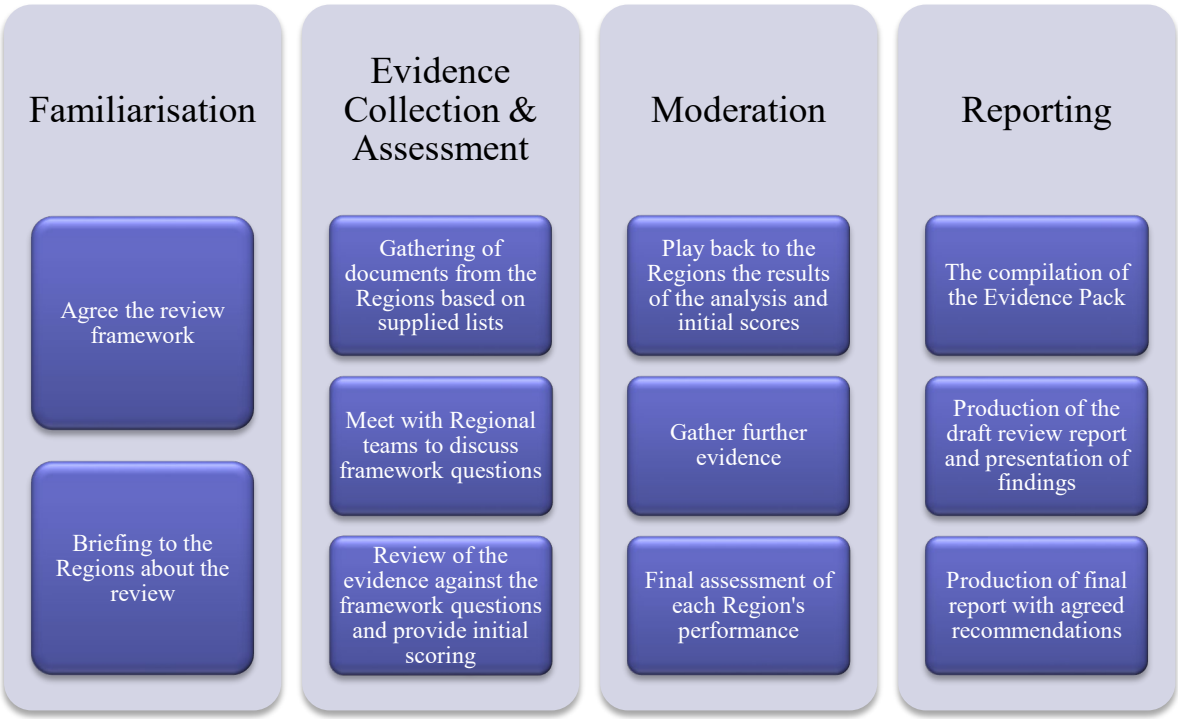
3 Methodology

3.1 Overview

This section provides a description of the methodology adopted for the assurance assessment and the progression of the review undertaken.

Based on this overall approach the key stages in the delivery of the commission following award and the project inception meeting were as shown in Figure 3.

Figure 3 – Assessment Methodology



The following sub-sections provide a more detailed description of the stages identified in Figure 3.

3.2 Familiarisation

3.2.1 Agreeing the review framework

The proposal submitted by Arup to undertake this review was founded on a framework of questions, which had been identified at tender stage, so as to address the issues raised in the Statement of Works (also outlined in Section 2.2). The framework was enhanced at the project inception meeting to cover thirty-four questions and the following key topic areas:

A. Work bank changes;

B. Risk quantification;

C. Regional assurance;

D. Costs; and

E. Completed CP6 projects.

Core to the successful delivery of the review was engagement with the Regional structures' teams. This was necessary in order to identify and obtain copies of key documentation and to meet with them to understand the background and actual practices to their planning and delivery of the Year 1 work bank.

To enable this, NR supported Arup in the formulation of a stakeholder register covering relevant representatives across all Regions. This was confirmed and finalised following the briefing of the regions described in the following section.

3.2.2 Briefing the regions

In order to deliver the commission within the timeframe set for the project it was necessary to ensure that the engagement with the Network Rail structures teams in the Regions was swift and efficient.

The review team took the opportunity presented to them by Network Rail to provide a briefing to the gathering of the Business Planning Working Group. This forum was attended by representatives from each of the Regions' structures teams and allowed the review team to provide a first-hand explanation of:

- The purpose of the review, its aims and objectives;
- The structure of the review including sight of the framework questions;
- The support that would be required from the Regions in terms of documents and meetings to discuss their Year 1 renewals; and
- The timescales for the review.

This briefing session was considered particularly beneficial in warming up the Regions to the review's requirements in the short-term.

3.3 Evidence Collection and Assessment

3.3.1 Document Collection

Following the initial briefing, requests were made to the Regions for specific documentation associated with the review. Specifically, this included:

- Planned renewal work banks;
- Actual renewals work banks;
- Change management guidance and records;
- Additional change justification documents; and
- Documents relating to Delivery Plan 18/19, RF11, and RF13.

In addition, Regions were encouraged to supply other relevant documentation to assist the review in understanding the processes associated with the planning and delivery of their structures renewals in Year 1.

Documents received from the Regions that were referred to during the review are listed in the documents register included in Appendix B.

3.3.2 Initial Assessment

Based on the submitted evidence an initial review and analysis was undertaken of respective Regions' performance in relation to each of the framework questions. This initial review and analysis focused on:

- Consideration of whether sufficient and relevant information had been provided to allow an assessment of individual questions to be made;
- Numerical analysis, in so far as this was possible, based on the submitted information regarding variances between forecast and actual at both a Business Plan and individual scheme level; and
- The identification of specific areas of inquiry with Region at the planned first meeting to discuss the evidence.

3.3.3 First Regional Meeting

Based on the initial analysis described above a series of meetings were convened with the Regions to walk-through the framework. The purpose of these meetings was to:

- Share the current level of review and understanding of the Region's approach based on the submitted documentation; and
- To provide an opportunity for the Regions to provide further input to the review both verbally by way of an explanation of events and also in terms of further documentation.

Meetings were held with each of the structures' teams noting that the final structure of the five Regions was not in place during 2019/20 and as such the ownership for the renewal plans lay in a mixture of Regional and Route based organisations as shown in Table 8.

Following these series of meetings, the Regions provided further documentation to support the discussion on key points.

Based on the discussion at the meetings and the follow-up documentation a further round of analysis of the Regions' response to individual questions in the framework was undertaken by the review team.

Table 8 – Regional Meetings Split

Region	Routes	Meeting
Eastern	Anglia Route	1
	East Coast	2
	East Midlands	
	North and East	
North West and Central	Central	3
	North West	
	West Coast Mainline South	
Scotland	Scotland	4
Southern	Kent	5
	Sussex	
	Wessex	6
	Network Rail High Speed	Out of scope
Wales and Western	Wales and Borders	7
	Western	8

3.3.4 Draft Evidence Pack

On completion of the review of the input from the Regions together with any supplementary documentation the review team undertook a full review of the previously scored framework. This included the capture of the discussion held at the meeting, and any further numerical analysis based on newly supplied evidence.

The framework assessment was updated to provide a commentary showing the development of understanding with respect to each of the questions and providing:

- A summary descriptive assessment of the evidence;
- A scoring against the agreed confidence rating; and
- Identified opportunities for Network Rail.

In addition to this descriptive text a graphical analysis of the results from the Region was included in the form of a radar diagram showing the Region's scoring against each of the framework questions.

3.3.5 Consistency in Assessment

Throughout the review, the analysis of Regional evidence was split between review team members. This provided the opportunity for the review to be focused through individual reporters whilst meeting the timescales for the commission. In order to ensure consistency across the review 'check and challenge' sessions were held between the Reporters before each meeting with the Regions to ensure

understanding and assessments across the framework were being applied consistently.

3.4 Moderation

Integral to the process of delivering the review, it was agreed that having reached this stage in the assessment the draft results would be shared with the individual Regions in order to present back to them the review findings. The purpose of this was:

- To ensure there were no misunderstandings in the assessment;
- To afford the Regions the opportunity to provide further input, if/where it was clear that there was a gap in the evidence; and
- To demonstrate openness in the assessment process and avoid surprises.

During these moderation sessions with the Regions the assessment of each of the framework questions was reviewed and agreement reached on the findings, or the opportunity taken for more evidence to be provided in the form of further explanation and/or documentation, as appropriate. The output from this round of meetings was either confirmation of the earlier assessment or the modification of the findings considering new evidence.

As a final check on consistency a further review-wide 'check and challenge' session was held within the review team to validate the scoring of Regions across each of the questions.

3.5 Reporting

The reporting of the results of the review was undertaken in two stages.

An Evidence Pack (included in Appendix B) was produced which provided a detailed account of the assessment and scoring for each question for all Regions. This was presented in a single Excel file with separate tabs for each Route/Region. These results were summarised in a 'performance matrix ' covering all Regions and all the framework questions. The Evidence Pack was issued for comment in December 2020 to ORR, Network Rail, the commission's Peer Reviewer and the Arup Named Independent Reporter.

The second stage was the presentation of the findings of the review in a draft report. The report was supported by the Evidence Pack taking account of comments received for the various reviewers. The draft report formed the basis of a tri-partite presentation to the joint clients in January 2021.

As part of the process the review identified opportunities for Network Rail associated with areas where deficiencies had been found in the Regions. These suggested areas for improvement had specifically not been classified as Recommendations since in many cases they were not endemic across the Regions but could stem from local issues. Nevertheless, the performance matrix showing the results from each of the Regions for each question provided a very visual means of identifying the weaknesses in the processes. As such the review was

able to readily identify ‘improvement themes’. These themes effectively summarised the identified issues into eight groupings. From these themes it was then possible to develop a series of suggested recommendations some of which were applicable nationally and others which were more focused on a sub-set of Regions or Routes.

The suggested recommendations were discussed at a tri-partite meeting and agreed for inclusion in the final study report.

4 Findings from Regional Analysis and Evidence Assessment

4.1 Overview

This section summarises the findings from the analysis undertaken and available evidence assessed. It outlines areas of good practice and provides further observations for each of the eight groups of Routes/Regions listed in Table 8.

The full evidence pack is included in Appendix B and contains a summary of:

- Evidence form the documentation review;
- Queries stemming from the documentation review, subsequently raised and discussed with Regional Stakeholders;
- Evidence gathered from discussion with Regional Stakeholders;
- Confidence Ratings;
- Evidence Assessment Summary; and
- Opportunities for Network Rail.

The evidence evaluation topics covered five aspects as described in Section 2.2) and indicated below; each was divided into a series of supporting exploratory questions (34 in total). For the full list of questions, see Appendix B.

Table 9 – Evaluation Topics

Evaluation Topic	Description
A	Workbank Changes
B	Risk Quantification
C	Regional Assurance
D	Costs
E	Completed CP6 Projects

The following confidence levels were used in the numerical assessment of the evidence collated against each assessment topic forming part of the evaluation

Table 10 – Confidence Ratings Description

Confidence Rating	Description
4	Evidence largely complete / consistent explanations with sound rationale
3	Evidence reasonable but with some gaps / inconsistencies in a few areas
2	Partial evidence with some significant gaps / inconsistencies identified
1	Evidence incomplete / contradictory with major gaps identified
0	Insufficient information provided

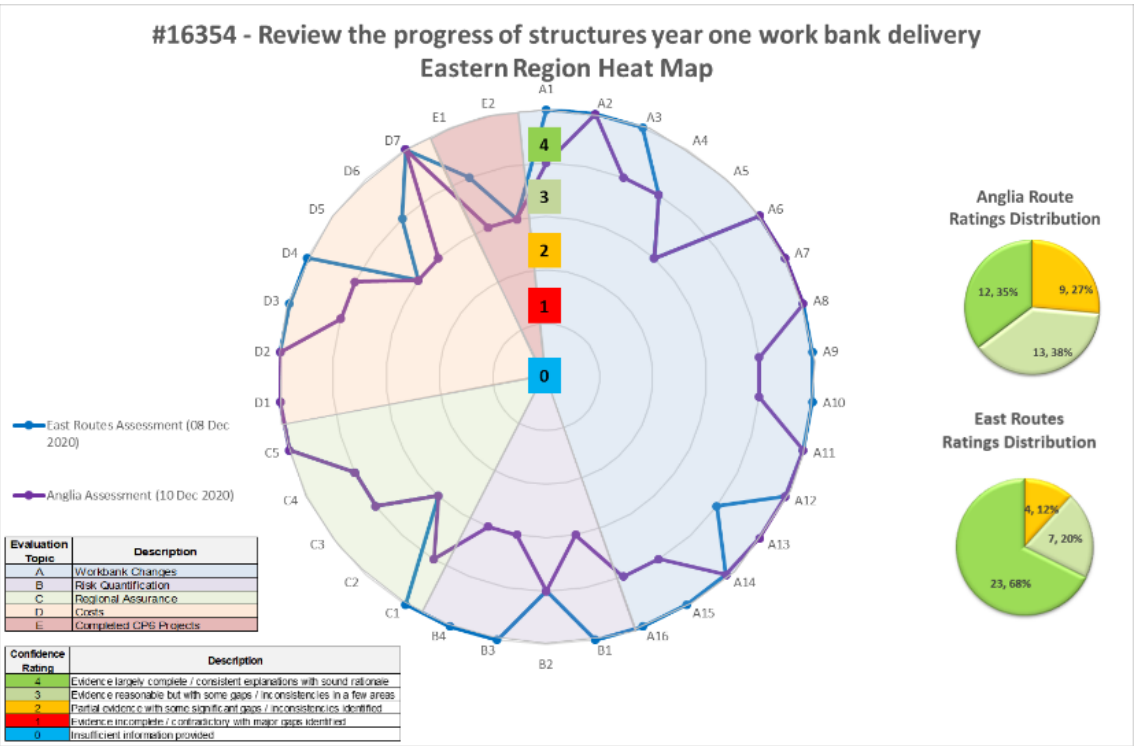
4.2 Eastern Region

The Eastern region consists of four routes, East Coast, North & East, East Midlands, and Anglia. Anglia was managed separately during the review. A temporary hosting arrangement was in place during the transition and East Coast, North & East and East Midlands were managed as a collective group during the review. This review reflects the current arrangement with comparisons made where appropriate. The summary of the results of the review are presented here for the two routes; for further details see Appendix B.

4.2.1 Eastern Region Heatmap

The final assessment of the performance of the Eastern Region is shown in Figure 4.

Figure 4 – Radar Diagram Summarising Eastern Region's Performance



Eastern region showed consistent good performance across the evaluation topics. Clear processes have been developed to manage the work bank from development to delivery.

East Routes have developed innovative tools for both managing and developing the work bank, aided with clear visuals to present data and support operational performance.

Anglia developed good management processes with clear objectives and principles for CP6. Strong performance is seen in the management of scheme change and visual reporting of the work bank.

Both Routes in the region saw minimal scheme changes and deferrals in Year 1. Where scheme changes and deferrals occurred, there is good management process in place and a clear concise understanding of any change to a scheme.

Regionally the approach to close out and lessons learned is weak, interviews with stakeholders highlighted an appetite for improved feedback processes.

The routes are yet to fully align as a region, and this is evident in the lack of consistency in the approaches taken and tools that are in place. This is not expected at this time and both routes operate from the same principles which will smooth the transition. Overall, the region has evidenced robust processes and the management of the structures work bank in Year 1 of CP6.

4.2.2 East Routes Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice areas for the East Routes:

- **[A1-A4] Work bank Development:** The work bank was developed using a process that was based on previous experience and included all anticipated elements. To develop the work bank into a deliverable plan the route employed a prioritisation tool to support planning of similar policy aligned schemes. The tool is used alongside engineering judgment to provide a repeatable and comparable view of a scheme's priority to operational needs. The route outlined that the prioritisation model was imperfect, and work is being undertaken to further develop it for re-deployment in CP7 work bank planning. A tool of this nature was not utilised within other routes to support the prioritisation of scheme for CP6.
- **[A6] Visual representation of work bank composition:** To support understanding of movement within the work bank visual aids have been developed to communicate change in scheme costs, including using waterfall diagrams. The dashboard demonstrates the movement in costs in a clear and effective manner and is viewed as best practice within the organisation.
- **[A7, A8] Delta between planned vs actual renewals:** Maintaining the unique IDs from the baseline to live plan allows for clear analytical analysis to be undertaken. The comparative analysis undertaken showed that over 71% of the baseline schemes were undertaken in the year. This includes a contribution of 4% from the delivery of over-planning schemes. A further 16 schemes (9%) were introduced and delivered during the year. 24% of the baseline core schemes had no spend during the year.
- **[A9] Quantity of deferred schemes**: Eight schemes have been deferred from Year 1 delivery to later years in the control period. All of the schemes were deferred from CP5 and are under ongoing monitoring programmes.
- **[A11] Quantity of cancelled schemes:** There were no schemes cancelled in Year 1. The Region however shared examples of where schemes had been previously cancelled to demonstrate the practice adopted.
- **[A10, A12, A14] Justification for deferred, cancelled, swapped or accelerated schemes:** Across the change control process and deferrals register

the East Routes provide a clear and concise justification of any changes to the work bank.

- **[A15] When was the work bank agreed:** The review highlighted that there are differences between the baseline stipulated by the region and what was provided by the ORR. The ORR baseline for Year 1 was £53m with volume of 10,933; while the route outlines a baseline of £61.1m and a total volume of 15,239. The route clearly defines schemes that are included in the work bank for over planning purposes, hence the change between the baselines. The work bank can be filtered to remove the over planning from the baseline to achieve the same numbers. The practice could be even further improved in order to highlight core and non-core items to aid understanding in the flexibility / contingencies built in the baseline.
- **[B] Risk quantification:** The integration of the deferred renewals register with the business plan is considered a positive approach along with the linkages between the business plan and deferred renewals risk decision points. This demonstrated that the Route has a good understanding of the impact of deferred renewals on the work bank and cost/volumes which can be tracked and understood trough analytical methods. The corporate risk matrix is used to quantify risk in the deferred renewals register covering primary impacts such as: Asset Management, Finance, Performance, Reputation and Safety
- **[C1] Change Control Process:** The Region's change control process was found to be appropriate for the management of the changes to the work bank. The process involves the assimilation of changes for all disciplines to region level which are issued and then archived. To support the historical understanding of changes waterfall diagrams are used to graphically demonstrate the change impacts to cost and plan.
- **[D1] Identification and costing of work volumes:** The route provided a good account of an iterative process to develop initial costs supported by external consultants. The route outlined a flexible approach to determining unit costs and volume based on specific scheme criteria. A clear focus for the route was to develop robust cost and volumes for high value or complex schemes. The route uses the waterfall diagrams monitor the accuracy of the rates.
- **[D2, D3] Identifying the delta / differences between estimated vs actual renewal cost via analytical methods for Y1:** The route experienced a -£7.3m 'underspend' and an over delivery of 769 volume units. From a baseline of £61.1m and a total volume of 15,239. The movement from the baseline is attributed to the maturity of the schemes along the GRIP stages and the inaccuracy of unit costs available when the work bank was developed. The route has a good understanding of cost movements from the baseline both qualitatively and quantitively demonstrated in the work bank, delta report and change control documents provided.
- **[D4] Impact on the business plan due to the difference between the estimated vs actual renewals cost for Y1:** The comments made by the Region regarding the impact on the Business Plan were based on the delivery of the core plan. This accords with the view of the Region's plan held by ORR. The planned delivery of the 'core' plan was achieved during the year and the

Region provided a coherent explanation of the management of the over plan in future years which suggests that the impact on the plan was being managed effectively.

4.2.3 East Routes Observations

The following are observations, which were attributed a rating of 3 or below, and may present opportunities for improvement for the East Routes:

- **[A5] Consistent approach across Regions:** Within the Region it was clear that there has been a separation in the development of the work bank, i.e. there were no evidence provided regarding the understanding or consideration of the principles or approach taken by Anglia and thus suggesting inconsistency in the Region.

  It is however noted that the new Eastern Region is relatively immature and the relationship between the Routes will develop evolve to form a more aligned way of working but there was insufficient time to put this in place for Year 1.

- **[A13] Quantity of swapped / accelerated schemes:** The use of the Delta Report was considered useful in summarising the changes that had been made. Total change outlined in the Delta Report is that 17 schemes saw delivery slip, resulting with spend in Years 1 & 3 with no spend in Years 1 & 2. Schemes spilled over from CP5 and 1 scheme was accelerated from later years in CP6.

  It is suggested that the terminology associated with deferrals and slippage (from CP5) be reviewed to improve clarity of meaning.

- **[C2, C4] Consistent change control approach and shortcomings:** In year one there were two change control processes used within the region, one for the East Routes and one for the Anglia Route. As such there was inconsistency in the Region in terms of the process in use.

  It is suggested that a road map be prepared for the move to a single change control process within the Region.

  During the review it was noted that the day-to-day working of the process rested heavily on one individual.

  This was acknowledged by the Region as a risk that may potentially require the appropriate mitigations to be identified and/or adopted in the future.

- **[C3] To what extent do regions individual projects remain aligned to policy requirements through the work bank change control process:** There is no reference to a check on policy alignment of the change. further discussion on this point it was accepted that there is a gap in the process where a change of scope could occur to an item. However, it was recognised that for majority of cases the change would either be captured in the Deferred Renewals process or be a 'right side failure' in terms of the acceleration of an item.

  It is suggested that a check on policy compliance should form part of the Change Control process.

- **[D5] Extent of cost or volume variances greater than +/- 5%:** The Route acknowledged that there had been significant changes in the cost and volumes over the course of year 1 which was clear through the analysis. The variation seen sits within a wide range of 3131% to -98% for cost and volume change 2% to -49%. Seven projects had a 100% increase in volume and twenty-two schemes had a -100% decrease in volume from the baseline.
- **[D6] Causes for cost/volume variances of greater than +/- 5%:** There was an acknowledgement by the Region that cost variances were an area which could be improved. The Route was able to provide a good explanation of the causes of the variations including the level of maturity of schemes being a big factor. It is noted that there is work going on to try to improve understanding of the causes of the variations.

  It is suggested that a more detailed analysis of the individual variations in schemes be undertaken to foster improvements in the forecasting for future years. The route noted that as a discipline Structures is undertaking a review with the TA to better develop unit rates to provide cost clarity to begin with.
- **[E1] Completed schemes met outcomes:** The review process described by the Region appears to be robust in terms of the formal documentation of the completion of each job and the sharing of information on any capability enhancement.

  To improve oversight of the plan it is suggested that there is inclusion in the Live Plan of columns which flag the completion of an item and also a clear statement that the anticipated outcomes were achieved.
- **[E2] Measures of effectiveness**: Whilst there appears to be a level of overall look back taking place and the barometers provide a means of visually appreciating the progression of the plan the lack of any comparative measure of effectiveness is considered a gap. Whilst the scorecards did provide the means of comparing effectiveness these did not appear to be wide enough to allow a meaningful comparison to be made of effectiveness between the Regions.

  It is suggested that a more formal means of sharing effectiveness of each Region be considered to identify best practice and foster improvement.

4.2.4 Anglia Route Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice areas for the Anglia Route:

- **[A2] Work bank Development:** Policy is the main driver for development of the work bank is based predominantly on policy compliance and ensure safety compliance on the network. The route describe how they keep an offline copy to maintain structures specific information including policy targets due to the use of Route wide work bank tool for all assets.
- **[A6] Visual representation of work bank composition:** The route uses graphics to look at in year cost and volume movements. This includes graphics

that were developed to look at each year of the control period to understand how deferrals impact on future years.

- **[A7] Delta between planned vs actual renewals:** The route uses the same primary key across their work bank, deferred renewals register and change log. This consistent approach allows for easy comparison between baseline and live status of schemes and to trace any movements from the baseline to live plan accurately.
- **[A8] Differences between the actual delivered and the planned renewals work bank for Y1:** The route's baseline position anticipated year 1 delivery of £25m spend with 1629 volume units and effective volume of 835. The live plan shows the route's end of year position as £21.7m spent, delivering 2232 units of volume and effective volume as 1245.

  Anglia is the only route to have demonstrated use effective volumes as a measurement tool for understanding volume and cost links in line with reporting for the centre. Effective Volume is being used as a method of aligning the complexity of works to cost and volume.
- **[A11, A13] Extent of cancelled, swapped or accelerated schemes:** The documentation indicated that there were no scheme cancellations in year one, a fact which the route confirmed. The route stated and evidenced that in year 1 there had not been any accelerated or swapped jobs. There was no opportunity to accelerate schemes due to deferrals, i.e. schemes were deferred late in the year due to Covid-19 and could not be replaced in year with new schemes to utilise the funding.
- **[A12, A14] Justification for cancelled, swapped or accelerated schemes:** The change log provided robust justification for the cause of any cancelled swapped or accelerated schemes. Changes are recorded in the live work bank, and cancelled schemes removed. The route then maintains the log of the cancelled schemes in an 'offline' work bank as a separate record.
- **[D1] Identification and costing of work volumes:** The route has demonstrated sound practice for developing and challenging unit rates. Outturn capital costs from CP5 were used to create a baseline estimate based generally on GRIP Stage 3 estimates. Scheme estimates were then challenged based on the perceived project complexity to improve accuracy of unit rates. Volume and costs for the work bank were then reviewed by an external consultant to verify and challenge the outcomes.
- **[D2] Identifying the delta between estimated vs actual renewal cost via analytical methods for Y1:** The route uses the same primary key across their work bank, deferred renewals register and change log. This enables a delta to be calculated movements using analytical methods which provides a clear understanding of the movements.

4.2.5 Anglia Route Observations

The following are observations, which were attributed a rating of 3 or below, and may present opportunities for improvement for the

- **[A1, A3] Work bank Development:** The route has developed a clear process based on policy for the development of the work bank which was supported by working with access planners and review of cost and volume estimates for baseline schemes to plan a deliverable work bank for CP6. The route has evidenced the development of a prioritisation tool to further support work bank development for CP7.

  Develop a process document that shows how the justification of moving from the unconstrained to delivery plan is achieved. The route is in the process of developing a prioritisation ranking methodology.

- **[A5] Consistent approach across Regions:** Anglia is less developed in terms of prioritisation ranking methodologies used by other routes in the Region. There is alignment within the route as to how the work bank has been developed to meet policy and safety standards and through utilising a company-wide proforma.

- **[A9, A10] Quantity and justification of deferred schemes**: The deferral log communicates a reduction in spend of -£2.3m with an associated volume spend of -506. Across the schemes in the work bank that can be tracked back through the deferral log. This accounts for 5% of the total schemes or 17% of baseline schemes.

  The justification is a short summary of the scheme specific reasons for the project being deferred, recorded in the register.

  Using a wrapper to group scheme deferrals would allow trends in cause of schemes to be more effectively understood.

- **[A15] Agreed work bank:** There are discrepancies between the baseline anticipated by the ORR and the route; in the ORR baseline Y1 spend is £22.3m for 1083 volume units. The route outlined that is was due to some over planning in the work bank and that the ORR figures for RF11 would have been taken from OPI. OPI figures are taken from the expected cost and volume by delivery teams and not the structures work bank.

  Consideration should be given to adopting a single source regarding the agreed baseline and all parties should have the same understanding of what is expected to be delivered at any given point in time.

- [**B] Risk quantification:** The route described how the CRAM is used as a supporting tool alongside engineering judgment for assessing risk in deferred renewal. However, the review has highlighted that the assessment of the CRAM is not fully recorded, only the highest severity score and the likelihood score are. It is therefore unclear as to which metric is driving the most severe risk.

  The route has acknowledged that the deferred renewal register requires improvement to ensure that risk scores are recorded for both assurance and monitoring purposes.

- **[C1] Change Control Process:** The process has been developed for use across all asset types within the Anglia Route and has been developed by the region. Though a robust system is in place it is not possible to track historical

movements for assurance purposes and understanding without tacit knowledge.

Opportunities exists to ensure the system includes all changes to schemes and to highlight how schemes have changed over time.

- **[C2, C4] Consistent change control approach and shortcomings:** The route has developed their own bespoke change management process which is used across asset classes within the Anglia. The Anglia process is not structures' specific and through the workshop the RAM noted that it does not contain all information required. Work should be undertaken between the structures Regional Representatives to produce a road map to develop one single change control process.
- **[C3] To what extent do regions individual projects remain aligned to policy requirements through the work bank change control process:** The change log records if the scheme is compliant to policy and has a field for the Policy targeted and any alignment to POAP.

  Recommended to include a column within the change log to identify historic policy if change is undertaken.
- **[D3] Extent of differences between estimated vs actual renewal cost via analytical methods for Y1:** There is a 37% increase in volume and 49% increase in effective volume. Additional volume output is described and evidenced primarily from the additional Culvert works undertaken. The underspend of the route in year one of 10% is due to delay in underbridge schemes to later years in the programme. Deferrals account for 5% of the underspend with the remaining due to change in early stage development cost.
- **[D4] Impact on the business plan due to the difference between the estimated vs actual renewals cost for Y1**: The deferred renewals to later years has not put additional strain on the work bank from what the route have described and what the graphics show. The route does not perceive any impact on deliverability of the remining years of the control period due to Y1 changes.
- **[D5] Extent of cost or volume variances greater than +/- 5%:** There were 28 schemes in the baseline with 22 (78%) experiencing change greater than the +/-5% threshold, all schemes breaking the threshold for volume also broke the threshold for cost.

  Cost variances range from +84% to -87% and volume variances from 181% to -5% are seen across the region with one structure accounting for the greatest volume & cost change.
- **[D6] Causes for cost/volume variances of greater than +/- 5%:** The change log and work bank documents do not outline historical changes, so it is unclear why the changes have occurred.

  Developing a record of the changes seen in work bank will improve the understanding of variances from the baseline**.**

- **[E1] Completed schemes met outcomes:** The route has a process in place for recording project close out but the outcomes of these are not always populated within the work bank.

  There is an opportunity to develop a feedback loop to record the review of asset management planning files and Health and Safety Files.

- **[E2] Measures of effectiveness:** For Year 3 the route has developed their Route Requirements Document to ensure that a lesson learned session is undertaken as part of the hand bank which are led by delivery teams with contractors. The outcomes of which is put into a lesson learned report and feedback is captured to enable information to be recorded in the work bank.

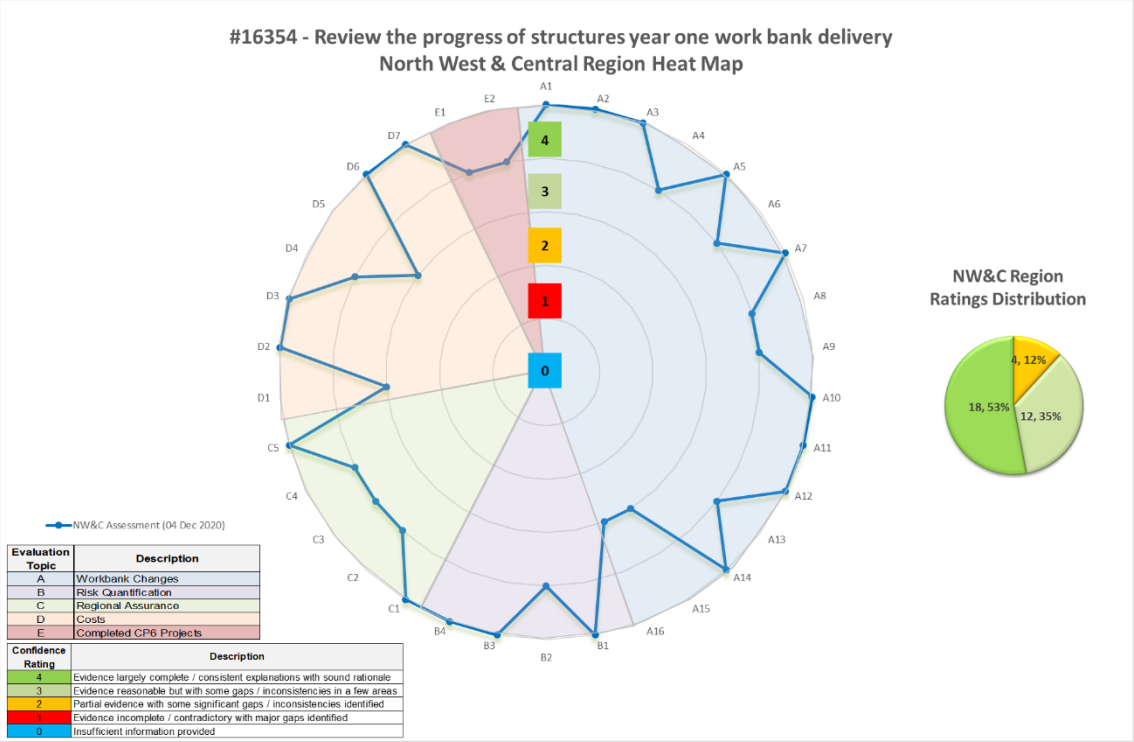
4.3 North West & Central Region

North West & Central was reviewed at Regional level. The summary of the results of the review are presented here for the North West & Central Region, see Appendix B for further detail.

4.3.1 North West & Central Heatmap

The final assessment of the performance of North West & Central Region is shown in Figure 5.

Figure 5 – Radar Diagram Summarising NW&C Region's Performance



NW&C scored strongly in the majority of areas in the framework and it was clear from the engagement with their team that the processes in use for Year 1 planning and delivery were well-tested.

Specific areas of weakness were identified associated with the setting of the baseline plan at the start of 2019/20 and the clear identification of items which spilled over from 2018/19. It is considered that these areas are linked to the degree of over-planning included in the Year 1 work bank.

The development of their costing for schemes at the start of the year was described in some detail by the Region but there was a lack of evidence regarding how the respective figures had been derived.

Finally, whilst those presenting the Region's position were able to articulate the reasons for variations in cost and volume as the year progressed the dynamic nature of the delivery plan throughout the year made independent understanding and interpretation of the variations difficult to follow and thus validate.

4.3.2 North West & Central Region Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice being undertaken by the North West & Central Region:

- **[A1] Developed and agreed work banks:** The documentary evidence provided by the Region and the description of the process to create the work bank provided a high level of confidence in the Region's approach. This was supported by their use of an Integrated Management System (IMS) to link the various parts of the process into a single system. This approach was considered a positive move which did not appear in this form in other Regions.
- **[A2] Policy application:** There was strong evidence that policy compliance was an integral part of the process to develop the work bank. This was supported by the analysis of the live plan showing the actual delivery in 19/20 where there were clear flags for policy compliance with the vast majority being linked to Level 1 activities.
- **[A3] Selection of intervention type and timing:** It was clear that the selection of activities and their timing was an integral part of the process described by the Region. This was also linked to the work bank's alignment with policy. The Region advised that the type of intervention could alter, as the maturity of a scheme developed, noting that this would be managed through the Region's Change Control process.
- **[A5] Consistent approach across the regions:** The work bank for NW&C had been developed by one team covering the three Routes in the Region. As such there was clear evidence of consistency in the way in which the plan had been assembled within the Region.
- **[A7] Delta between planned vs actual renewals:** The Region provided planned and actual plans in Excel format which made the assessment of the changes in cost and volume of the plan possible by analytical means.
- **[A10, A12, A14] Justification for changes in schemes:** The recording of justification of changes to the plan in the form of deferrals, cancellations, accelerations and swaps were all managed through the Region's IMS. Evidence of the process was taken in the form of tracking changes through the system. This included the reasons for the change request, the risk assessment and the identification of appropriate mitigation actions.
- **[A11] Quantity of cancelled schemes:** There had been no cancelled schemes in the Year 1 plan.
- **[B1] Quantification of risk associated with changes:** The process as described, being an integral part of the IMS, appears to be appropriate to the required governance. The evidenced involvement of key senior engineers and the use of CRAM provides confidence in the Region's approach.
- **[B3 and B4] Assessment of performance and safety risks associated with work bank changes:** There was strong evidence that consideration of performance and safety risks were intrinsically linked into the approval and

change processes. The CRAM was evidenced by the Region as the means of evaluating the level of risk the results of which were included in the IMS. There was thus a high level of confidence that risk is being properly assessed and considered.

- **[C1] Work bank change control process:** The Region's work bank change process documentation was provided to the review and it was clear that, in walking through two example items that it was a logical process with clear steps and the outcomes. As a result, the review has high confidence in the process as a management tool. The issue identified with the over-writing of the plan at year end is considered unhelpful but not material to the operation of the Change Control process.
- **[C5] Cross-regional change impact:** There is no evidence that the delivery of Year 1 was adversely impacted by cross-Regional activity. The Region was able to provide an example of an enhancement scheme where dialogue with Eastern Region was necessary to co-ordinate planning. (This was corroborated by Eastern in their review).
- **[D2 and D3] Ability to identify and the scale of the delta between estimated vs actual costs by analytical means:** It was clear from the form of the live plan that the delta between the forecast and actual costs for schemes could be identified in this way. It was clear from the description of the variations to the plan and the volatility of the schemes coming into and out of the original plan that the delivery of the renewals was a highly dynamic process. The Region produces graphical information showing the forecast cost and volume by year split by work types. This also shows the delivery partner portions of the work. A further download from the system showed the on-going changes to the plan and the associated drivers linked to the individual schemes. A summary graphic showing the impacts of the changes throughout the year was also provided. This was considered to provide a good account of the changes in the plan in terms of cost and volume. Based on the account provided by the Region and the available documentation there was good confidence that the extent of the variation in the costs was understood at a portfolio level.
- **[D6] Causes of cost / volume variances of greater than +/-5%:** The following is linked to the Region's response to question D5 (see Section 4.3.3 below). It was noted that despite the significant variations in the costs the Region were aware of the reasons behind this (for example the adoption into the plan of schemes with relative immaturity, emerging works etc). Thus, the review was satisfied that despite the level of variation there was a clear understanding and associated management in the Region to support this.
- **[D7] Operational impact of changes:** It was reported that there had been no operational impact caused by changes in the plan during Year 1. The Region provided a coherent account of the process of identification of potential operational performance risks and this seemed entirely appropriate. It was also noted that the Change Control process which was founded on the CRAM included the assessment of performance risk.

4.3.3 North West & Central Region Observations

The following are observations associated with framework responses which did not score '4'. In two instances observations are included here to further improve questions where the response was rated '4' (A3 and D3).

- **[A3] Selection of intervention type and timing:** It is clear from the process and timing of the assembly of the plan for Year 1 that schemes were at various stages of development and hence the best view had to be taken of the type of work to be undertaken.

  Whilst the developing maturity of the scheme during the year allowed a more considered view to be taken and where necessary the Change Control process was invoked, if only schemes at GRIP stage 3 were included in the baseline plan then the level of change necessary would be reduced.

- **[A4] Prioritisation approach:** The volumes linked to the items in the Plan are integral to the process of scheme prioritisation.

  Whilst the inclusion of the delivery partner in the prioritisation process is considered useful in selecting practical means of delivery there should be an overt recognition that the delivery teams have a different focus to that of the engineer's responsible for the structures' portfolio.

- **[A6] Visual representation work bank composition:** There was a very significant amount of churn in the progression of the renewals plan for 2019/20. This involved: schemes being deferred, schemes spilling over from CP5, schemes emerging during the year and those being accelerated from Year 2 and beyond.

  Against this background of change it is considered that it would be beneficial if some form of graphical interpretation was created to track the status of schemes during the year. It was noted that this Region has a particularly strong ability to produce graphical interpretations of the work bank delivery stages and so should be an easy addition to their portfolio of reporting.

- **[A8] Difference between planned and actual delivered work bank**: The variations in the plan have been highlighted in previous responses and the analysis that was undertaken showed that around 25% of the delivered items costing in excess of £50k had not been included in the baseline plan. The reasons for the changes came from several causes including the emergency of new schemes in the year, spillage from CP5 and acceleration of items.

  Whilst the oversight of individual schemes was well understood the portfolio level understanding of the plan was less clear. The suggested visual tracker of schemes noted above, it is believed, will aid this portfolio level understanding.

- **[A9] Quantity of deferred schemes:** The Region had a robust approach to the management of deferred schemes however their unique definition of deferral in terms of its relationship to the Engineering Target Year and not the financial year was noted and considered to be outside the requirements of the associated standards. Nevertheless, the logic of the approach taken by the Region was noted.

However, it is considered that the adoption of the more generally accepted definition of deferral could be adopted by the Region.

- **[A13] Quantity of swapped / accelerated schemes:** There is clear evidence and confirmation from the Region that there was a degree of churn in the delivery of the Plan. This is obvious from a comparison between the baseline and actuals. However, the changes being made to the Plan are difficult to see at a high level to understand the current state of individual projects in the Plan leading to a clear picture of the changes.

  As noted in the observations associated with question A6 it is considered that the adoption of a graphical tracker of the churn of schemes like those being accelerated or swapped should be considered to aid the understanding of the status of the portfolio as a whole. It is suggested that this could be driven by the Region's IMS.

- **[A15] When was work bank agreed:** The common understanding of the baseline plan in terms of cost and volume was not apparent in the figures that were supplied by the Region, ORR and Network Rail centrally. This may be due to the presence of over-planning in the baseline plan.

  It is considered important that there is a consistent understanding of the baseline cost and volume from which delivery is measured. This may include the separate reporting of over-planning items.

- **[A16] Inclusion of deferred renewals from CP5:** There was evidence that as part of the year end reconciliation of the plan that there had been over-writing of the justification for certain deferrals in the live plan. This was considered unhelpful in understanding the background to particular schemes.

  Whilst there was no suggestion that the justification was lacking it would be beneficial if such changes to the live plan could be made impossible to over-write to ensure that there is a visible trail particularly where a deferral is concerned.

- **[B2] Assessment of sustainability risk associated with work bank changes:** The Region relied heavily on the factors in the CRAM when undertaking an assessment of the risk level associated with changes to the plan. The use of CRAM is considered good practice. However, CRAM does not take account of sustainability. As such the Region was not able to demonstrate consideration of sustainability in its change control process.

  It is therefore suggested that the inclusion of some evaluation of the impact on sustainability is undertaken at year end or at the end of the Control Period as a minimum.

- **[C2] Consistent change control across Regions:** NW&C Region has a well-developed process to manage Change control through their IMS. As noted previously this regime is different to that adopted by other Regions.

  It is considered that at a national level the adoption of a standard process may be beneficial in terms of providing a consistent approach to management of work banks going forward.

- **[C3] Alignment to policy through change process:** Whilst the Change Control process used by the Region was found to be sound in terms of understanding the justification for the change, the management of risk, and the approval process there was a complete lack of reference to policy in the decision-making process.

  As such it is suggested that specific reference is made in the Change Control documentation to clearly demonstrate the maintenance of policy alignment or the provision of justification for deviation.

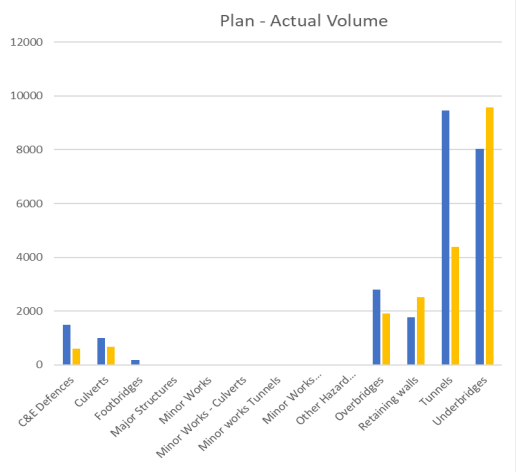
- **[C4] Identified shortcoming in approach:** As noted previously the Region has the most sophisticated system in place to manage their work bank development and changes.

  During the engagement with the Region, it was stated that IMS had several identified limitations, however, it was noted that these were being addressed on an on-going basis to further improve the system. This evolution of IMS is considered beneficial and should be continued.

- **[D1] Identification and costing of work volumes:** The Region was able to demonstrate that it had undertaken a considerable effort in the determination of rates for the work bank at the start of the year to try to ensure they were as accurate as possible. This involved the use of data from several sources.

  Whilst this process appears to have been thorough the tracking of the sources and thus the provenance of the rates adopted was not as comprehensive. It is suggested that a more formal means of recording the development of the unit rates used in the assembly of the baseline plan be adopted to help future understanding and improvement in rate development.

- **[D3] Extent of differences between estimated and actual renewal costs through analytical means:** Whilst the Region scored highly for this question it is considered that the creation of a scheme tracker which highlights the variations in the overall plan as it emerges during the year linked to cost and volume would foster a better understanding of the overall delivery and the help identify lessons for the future.



- **[D4] Impact on Business Plan of differences between estimated and actual renewal costs:** The business plan delivery was clearly cost driven and this facilitated several changes throughout the year. However, the Region were not able to give a sound account of the potential impact of the changes on the delivery of the plan as set out at the start of the year. As an example, volumes associated with tunnels and proportionately coastal defences were significantly lower than had been planned.

It is suggested that a more formal regime to monitor the impacts of changes to the delivery plan be instigated to allow corrective action, or at least to inform decision making, to take place.

- **[D5] Extent of cost / volume variances of greater than +/-5%:** In terms of the reasons for the variations in individual schemes it was clear that these could be tracked in the system but there did not appear to be any systemic reason for the variation but rather a highly dynamic plan which made the detailed analysis of the variations potentially meaningless.

  Whilst those managing the plan on a day-to-day basis were able to drill down to explain the variations it was considered that the way in which data was presented made it difficult to understand the reasons for change (particularly where these had not been included in the spreadsheets).

  Consideration should therefore be given to the presentation of data such that it is easier to follow the progression of individual schemes. It is also suggested that there is a tightening of the completion of the documentation to support the understanding of scheme status.

- **[E1] Completed schemes met outcomes:** The Region provided a description of the completion process for works which included the confirmation of completion recorded in CARRS, and the documentation associated with the recording of any capability changes.

  Whilst this system appeared to meet the requirement it was noted that it did involve an element of manual input and that the recording systems were remote from the plan itself.

  It is therefore suggested that consideration is given to the inclusion of columns in the Live Plan to flag completed delivery and the fulfilment of expected outcomes.

- **[E2] Measures of effectiveness:** The Region produce a range of charts to show how it performed. The encouragement of the Region to get their delivery partners to produce annual reports was highlighted and was considered positive. Evidence was provided of the sharing of information with other Regions based on experience in Year 1. The meeting highlighted several mechanisms whereby the effectiveness or other measure of the Region were gathered however this information was not widely disseminated. This was considered an omission and lost opportunity.

  If measures of the Regions' effectiveness are being compiled and shared, then it is suggested that this information is shared more widely to inform those at the 'sharp end' of delivery to support their decision making and identify weaknesses.

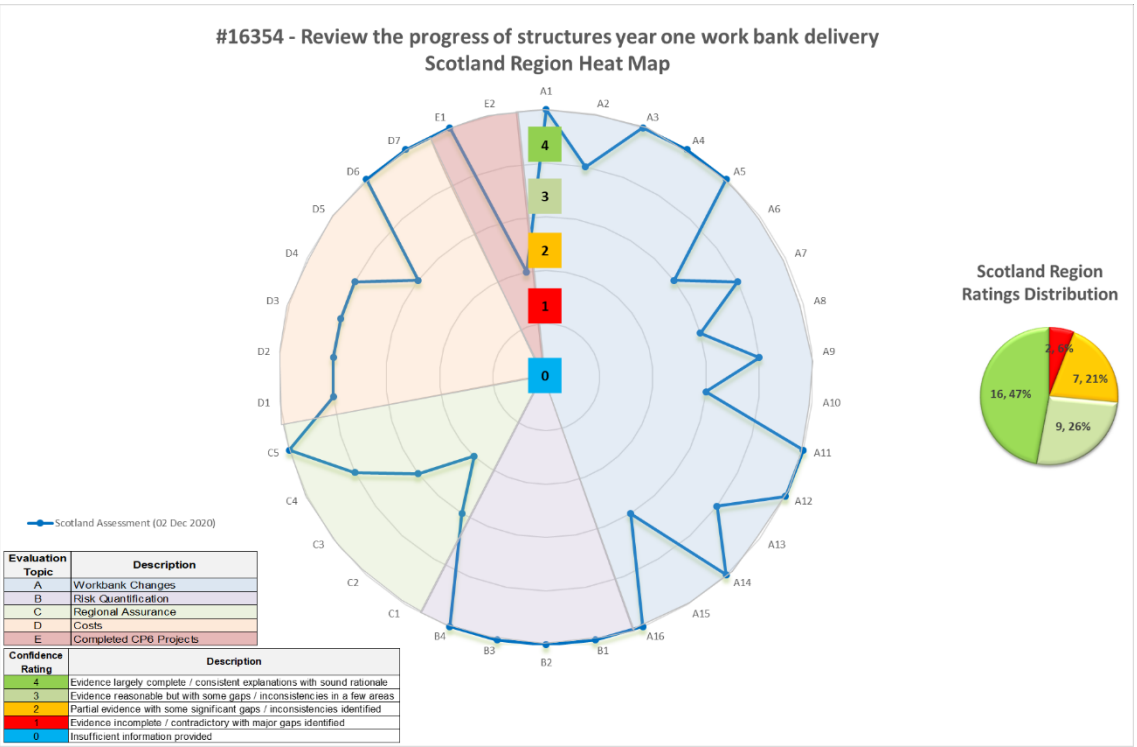
4.4 Scotland Region

Having a single Route status Scotland was reviewed at Regional level. The summary of the results of the review are presented here for Scotland, see Appendix B for further detail.

4.4.1 Scotland Region Heatmap

The final assessment of the performance of Scotland Region is shown in Figure 6.

Figure 6 – Radar Diagram Summarising Scotland Region Performance



Evaluation Topic	Description
A	Workbank Changes
B	Risk Quantification
C	Regional Assurance
D	Costs
E	Completed CP6 Projects

Confidence Rating	Description
4	Evidence largely complete / consistent explanations with sound rationale
3	Evidence reasonable but with some gaps / inconsistencies in a few areas
2	Partial evidence with some significant gaps / inconsistencies identified
1	Evidence incomplete / contradictory with major gaps identified
0	Insufficient information provided

Scotland Region had a mixed result with some areas of strength in process and delivery but with a number of areas of weakness. This is considered surprising given the single Route status of the Region and the apparent maturity of the processes in use.

In a similar way to other Regions Scotland scored poorly with the questions associated with the setting of the baseline plan at the start of 2019/20. The variances in the respective figures were difficult to reconcile but, again, it is considered that this is linked to the degree of over-planning included in the Year 1 plan.

The Region showed weakness in Change Control where there was little evidence of consistency and it was noted that alignment with policy in the changing of the work bank was not considered material.

Finally, there was little evidence provided to demonstrate the measurement of the Region's effectiveness both internally and as a comparator to other Regions.

4.4.2 Scotland Region Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice being undertaken by the Scotland Region:

- **[A1, A3, A4] Work bank development, intervention types and prioritisation:** The Region was able to provide a robust account of its processes to develop an unconstrained work bank and then through a well-trodden planning path develop the constrained work bank which formed the plan for the Control Period and in particular Year 1. This process used work bank analysis in tandem with work bank planning meetings to develop the plan. During the review meeting the Region showed graphically how the development of the work bank over time had progressed; this was very useful in understanding the status of the work bank development process. It was noted that as part of this process the Region also has a range of other tools to prioritise between schemes, for example underbridges / overbridge capability, condition, route criticality to ensure the items are planned in the most appropriate year in the Plan. Reference to these tools is made in the "Procedure for raising and managing structures renewal work items in CARRS" document. Examination of the spreadsheet showing the prioritisation for Year 1 clearly identified schemes in priority order for underbridges, for example.
- **[A5] Consistent approach across Regions:** The Region has been created out of one Route. The development of the work bank was thus undertaken by a single team who have experience of dealing with the Regional portfolio. The evidence provided by the Region was sufficient to demonstrate the potential for a good level of cross Region working and sharing of issues and lessons at the ATR; noting that the TA is also present at these meetings. The notes from the meetings provided evidence of the topics under discussion which were relevant to the process associated with the development of the work banks.
- **[A11] Quantity of cancelled schemes:** There had been no schemes cancelled during Year 1. However, the Region provided an appropriate description of the process they would follow should a cancellation occur. This provided good confidence of the management of the work bank in this circumstance.
- **[A12] Justification for cancelled schemes:** This could not be tested in practice, but it was noted that the Change Control process required justification which would include the reasoning for the cancellation and the identification of any mitigation measures necessary as a result of the removal.
- **[A14] Justification for swapped / accelerated schemes:** The justification for the swapping or acceleration of items was managed through the Region's Change Control process. It was also noted that the views of the delivery partner concerning their ability to deliver any swapped or accelerated items was integral to the process in order to de-risk the scheme.
- **[A16] Inclusion of deferred renewals from CP5:** The Region had principally twelve underbridge items deferred from CP5 which were delivered in Year 1 of CP6. The Region was able to explain the reasons for the spillage into CP6 as being associated mainly with lack of access, reaction to further

investigatory work and the expiry of SEPA licence. The Region's management of the spillage through the Change Control process was considered robust.

- **[B1] Quantification of risk associated with changes:** As well as reliance on the documented process associated with the setting up of the Business Plan, Deferred Renewal and Change Control processes the Region also evidenced risk assessments which were done at various stages and levels to understand the impact of changes to the plan. As part of this they used the CRAM to undertake a pre and post deferral risk assessment to ensure that any contemplated interventions are adequate. In terms of financial risk this was done in conjunction with the Region's finance team and they also undertook a deliverability review with their capital works team. In addition, a copy of a sample Headwind and Efficiency tracker was provided which evidenced a series of workstreams and key actions linked to the delivery risk of the plan.
- **[B2] Assessment of sustainability risk associated with work bank changes:** As noted in B1 the Region adopted the CRAM to assess risk. However, this does not identify sustainability as a factor to be considered. The very limited impact an individual scheme would have on the measure of sustainability as expressed by the Region is understood by the review team. No evidence was provided to show that sustainability was considered at any stage in the process although it was stated that the impact of one year would be negligible and that a more meaningful measure could cover the entire Control Period. The impact from Year 1 of the changes was agreed to be very low.
- **[B3 and B4] Assessment of performance and safety risk associated with work bank changes:** The Region assessed their risk associated with any changes to the work bank through the use of CRAM which includes criteria associated with performance and safety. This was integral to their processes.
- **[C5] Cross Regional delivery reliance:** The Region confirmed that their delivery plans had not been impacted by the actions of a neighbouring Region. It stated that when they were planning their renewals, they specifically de-risked their plan by making sure that it was independent of other Regions' work items.
- **[D6] Causes of cost / volume variances greater than +/-5%:** Whilst it was acknowledged that there had been a significant level of variations in the costs and volumes in the plan the Region had undertaken analysis of the variance of cost between the forecast and actual. This looked at various aspects of the work bank in terms of the influencing factors but focused primarily on underbridges which were the largest single element in the plan. As well as providing evidence to understand the variances it also contained suggested improvements for the next round of plan development. This was considered strong evidence of an understanding of the variations and a pro-active means of managing the scale of change going forward.
- **[D7] Operational impact of change:** It was noted that no performance impacts in terms of TSRs had to be imposed as a result of deferrals during Year 1. The Region stated that the operational impact of any changes to the plan, like deferrals, would be assessed as part of the process using the CRAM.

- **[E1] Completed schemes met outcomes:** Rather than undertake a 'post-mortem' of the way in which the year had panned-out in terms of the delivery of expected outcomes the Region relied on the current delivery process and the wide involvement of the team to monitor delivery in real time. This was believed by them to negate the need for the formal look-back. However, as part of their processes Advice of Works forms were completed on site at the end of a job to confirm completion of the works and to advise on any capability changes to the structure.

4.4.3 Scotland Region Observations

The following are observations associated with framework responses which did not score '4'. In two instances observations are included here to further improve questions where the response was rated '4' (B2 and E1).

- **[A2] Policy application:** The evidence provided by the Region showed a detailed analysis of the schemes and their alignment to the various levels of policy. These documents were from 2017 when the CP6 work bank was being developed. However, it was not clear how that alignment had been translated into the final Business Plan and more specifically the work bank for Year 1.

  It is suggested that a better integration of the Business Plan with clarity on policy compliance would make the assessment of overall compliance easier to determine particularly when the Plan becomes dynamic in its delivery.

- **[A6] Visual representation of work bank composition:** It was noted that there was no requirement for the structures team to report on the delivery of its renewal programme within the Region. Any reporting that is done outside the Region is done mainly covering the financial aspects of the plan using OP.

  Whilst this is recognised as the 'one version of the truth' it is suggested that more use could be made of the potential of the Business Plan to allow the graphic reporting of progress on schemes and to track deferrals and advancement of schemes particularly when the plan is dynamic in its composition from period to period.

- **[A7] Delta between planned and actual renewals:** Whilst it was possible to identify the variance in the plan between the two spreadsheets the use of the term 'baseline' in the P14 'actuals' document was confusing. This represented the updated figures for schemes and was not representative necessarily of the RF11 base.

  It is suggested that the terminology 'baseline' be modified to avoid confusion between what the plan was at the start of the year and shared with ORR, and that which changed subsequently.

- **[A8] Difference between planned and actual delivered work bank:** The Year 1 plan had a number of schemes built into it which were described as 'over-planning'. This was to provide some fallback if a core scheme could not be progressed for whatever reason. This ability to change items during the year to allow delivery to continue meant that there was a significant degree of churn in the schemes. Whilst this approach provides a degree of flexibility in the spend during the year there is a danger that the core schemes can be

delayed. This was evident through the achievement of budget spend but significant drop in volume delivery - see table below.

Asset Type	Budget (£k)			Volumes		
	Baseline	Actual	Difference	Baseline	Actual	Difference
Coastal and Estuarial	£943	£468	-£475	100	0	-100
Culverts	£3,808	£5,451	£1,643	445	540	95
Footbridges	£1,143	£1,242	£99	42	181	139
Holding Provision	£2,805	£0	-£2,805	0	0	0
IUT Maintenance		£8,119	£8,119	0	0	0
Major Structures	£6,970	£7,291	£321	0	0	0
Overbridges	£8,541	£8,697	£156	1633	1083	-550
Retaining Walls	£4,004	£3,539	-£465	1904	1872	-32
Other Structures	£2,485	£379	-£2,106	-200	0	200
Tunnels	£411	£411	£0	315	315	0
Underbridges	£39,067	£35,024	-£4,043	18537	11902	-6,635
Total	£70,177	£70,621	£444	22776	15893	-6,883

As a result, it is considered that the adoption of the schematic tracking of the delivery of the plan (as described in A6 above) would be beneficial particularly if the over-planning items in the plan were separately tracked.

- **[A9] Quantity of deferred schemes:** The Region provided a copy of their deferred renewal process which was aligned to Network Rail Standard NR_L2_HAM_02201 [Issue 5] - Management of the risk arising from Deferred Renewals. The process described in the document was considered by the review team to be appropriate however it was noted that the document was over twelve months old and was still in draft form.

  It is suggested that the draft process document should be agreed and signed-off as soon as practical.

- **[A10] Justification for deferred schemes:** The Region had recently updated its Deferred Renewal Register and it was considered by the review team that the new version was a significant improvement on the previous version. In examining the Register, it was noted that a number of the descriptions of the justification for a deferral lacked any detail.

  This weakness was acknowledged by the Region. It is therefore suggested that a more rigorous approach to the documentation of the justification of any deferral in the Register be undertaken.

- **[A13] Quantity of swapped / accelerated schemes:** As noted previously it was clear that there had been a considerable churn in the schemes during Year 1. This included the swapping and in some cases the acceleration of items from Year 2. However, the tracking of these schemes by the Regional team was not clear.

  It is suggested that there may be merit in creating a visual means of tracking the movement of schemes into and out of the plan to provide a ready understanding of the status of schemes and the overall delivery for the year in terms of progress.

- **[A15] When was the work bank agreed:** The Region agreed that the RF11 should be taken as the baseline plan for the year. However, it was clear that there had been updates to the 'baseline' ahead of the start of CP6. This

combined with the variances in the figures submitted to ORR as the plan for Year 1 meant that there was some doubt about the 'true' base. The ORR figures showed a budget of £61.4m with associated volume of 17,613. This was at variance with the figures supplied by the Region at RF11 of £70.2m for a volume of 22,776.

It was therefore considered essential to the management of annual delivery plans that there be a 'single source of truth' regarding the baseline plan.

- **[B2]: Assessment of sustainability risk associated with work bank changes:** The Region adopted the CRAM to calculate the level of risk associated with changes to its delivery plan. Sustainability is not a factor in the CRAM and thus there was no evidence of the assessment of the impact on sustainability in the change process.

  Whilst the Region were able to provide justification for the omission of sustainability in their risk process it is suggested that consideration of sustainability be factored into an assessment of the impact of changes at an appropriate frequency to make the results meaningful, but not greater than the Control Period.

- **[C1] Work bank change control process:** The Region was able to provide a good account of its Change Control process and examples were reviewed of the process in action. In terms of the documentation of the process the evidence provided to the review focused on the mechanics of the change process, such as the inputting of data to the system. There was however no documentation which succinctly describe the process, the roles and responsibilities of those involved in the decision-making process along with a timeline.

  It is suggested that a Regional Change Control process document is produced to identify the responsibilities in the process as well as timescales associated with the various steps.

- **[C2] Consistent change control across Regions:** In considering the consistency of the various change control processes nationally the Region cited the ATR meetings as the forum for such dialogue. To support this, evidence was provided in the form of the minutes of a series of ATR meetings. However, none of these made any reference to the change control process and thus it was difficult to judge the validity of the Region's assertion.

  It is therefore suggested that at a national forum like the ATR a review should be undertaken of the various change Control processes to establish consistency.

- **[C3] Alignment to policy through change process:** The Region exhibited a strong focus on delivery and their success in this regard could be seen from the delivery of budget spend in the year. Whilst it was acknowledged that the original plan had been largely policy compliant the continual alignment to policy was not part of their Change Control process.

  It is suggested that the policy implications of change, along with deliverability, are considered in the process in order to form a view on the overall impact of the Plan being delivered.

- **[C4] Identified shortcomings in approach:** The Region acknowledged the weaknesses in their processes, but it was also clear from the evidence provided that their approach was effective in managing the renewals work bank. It was noted that the Region had considered the adoption of the systems used by NW&C Region.

  The wider understanding of the variety of processes in use (see C2) was considered beneficial to the adoption of best practice.

- **[D1] Identification and costing of work volumes:** The Region adopted the national unit rates at Key Volume Line level and then adjusted these to make them a better fit with specific schemes. Where significant development had taken place on a scheme the cost and volume estimates were more accurate, but it was accepted that this was highly variable in terms of the level of maturity of individual scheme development.

  It is suggested that a greater degree of granularity may be applied to the national unit rates to form the basis of the core work and then be capable of being overlaid with allowances for access, project management, preliminaries, etc.

- **[D2] Identification of the delta between estimated and actual renewal costs by analytical methods:** Individual items in the work bank had unique business plan identifications which allowed them to be tracked across the RF11 baseline plan and then the actuals at year end. The use of Excel spreadsheets made analytical assessment of variations easy to quantify.

- **[D3] Extent of differences between estimated and actual renewal costs:** The volatility of the plan during the year linked to the uncertainty over the baseline plan budget and volume, and the level of over-planning made it difficult to quantify the differences between planned and actual at a portfolio level for the year.

  It is therefore suggested that, as noted previously, there should be agreement by all parties on the baseline cost and volume; over-planning should be kept in the plan but flagged accordingly; and graphical tracking of schemes should be undertaken throughout the year.

- **[D4] Impact on Business Plan of differences between estimated and actual costs:** Analysis was undertaken of the differences across the asset types within structures – see below:

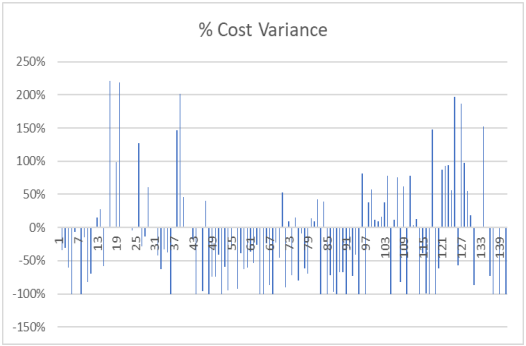
	Budget		Variance		Volume		Variance		
Asset Type	Baseline (P11 18/19)	Actual (P14 19.20)		%	Baseline (P11 18/19)	Actual (P14 19.20)		%	
Coastal & Estuarial Defences	582	468	-114	-20%	100		-100	-100%	Deferral of scheme and inclusion of Minor works C&E schemes
Culverts	3,731	5,451	1,720	46%	459	540	81	18%	Deferral of schemes and increased costs vs unit rate. Some schemes where outliers due to needing a deeper dig and track works not included for in unit rate and also the new framework supplier being less efficient than the out going CP5 supplier.
Footbridges	836	1,242	406	49%	139	181	42	30%	Additional scheme added to plan from Yr2. Supplier capability following period of high outturn, enabled continuity of workforce and generated efficiency
Holding Provision	5,056	0	-5,056	-100%	0	0	0	#DIV/0!	Allocated to schemes for future years development and MW items. Provision fully realised
IUT Maintenance		8,119	8,119	#DIV/0!	0	0	0	#DIV/0!	CAPEX minor works provision
Major Structures	8,385	7,291	-1,094	-13%	0	0	0	#DIV/0!	rephasing of spend into future years based on contract progress
Overbridges	8,630	8,697	67		916	1,083	167	18%	Additional minor works scheme added (OB 240/162) and additional volume associated with planned renewal becoming repair and paint
Retaining Walls	2,480	3,539	1,059	43%	1,904	1,872	-32	-2%	Scheme deferral and increased costs vs unit rate. Repairs more extensive than unit rate allowed
Other Structures	2,485	379	-2,106	-85%	0	0	0	#DIV/0!	Allowances for contribution items rationalised
Tunnels	340	1,425	1,085		0	345	345	#DIV/0!	MW schemes added from holding provision
Underbridges	35,422	35,024	-398	-1%	16,033	11,902	-4,131	-26%	Significant movement in workbank due to rollover of incomplete CP5 schemes, CP6 Yr 1 deferrals due to delivery issues such as third party consents and land. Increase seen in unit rate due to workbank composition on schemes completed.
TOTAL	**67,947**	**71,635**	**3,688**	5%	**19,551**	**15,923**	**-3,628**	-19%	

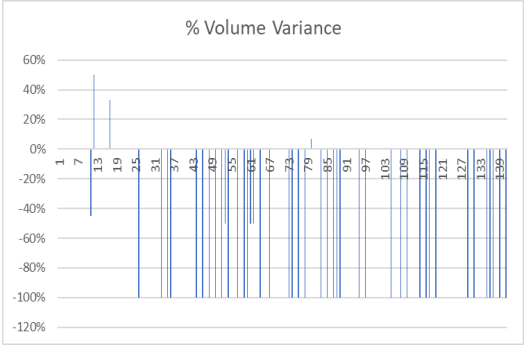
The analysis clearly confirms the level of variances in the delivery of the plan but there was no evidence provided by the Region to suggest that the overall impact of these changes on the plan for CP6 had been considered.

It is suggested that consideration be given to undertaking a review of the impact on the changes to the annual plan from the perspective of the Business plan for the entire Control Period.

- **[D5] Extent of cost / volume variances greater than +/-5%:** Analysis was undertaken of the variances in the schemes in the plan at the start of the year. This revealed that around 2% of the schemes were within the forecast price by +/-5% and 45% within that tolerance for volume delivery. The reasons for the variation centred on the level of development of the schemes when they were included in the plan.

  Whilst it was not clear what analysis was undertaken by the Region to understand that variations in cost and volume it is suggested that the creation of such a report may be useful in the proactive refinement of rates.





- **[E1] Completed schemes met outcomes:** The Region presented a detailed account of their processes in terms of a rolling review of delivery.

  Nevertheless, it is suggested that a high-level review of the delivery of the plan at year end would be beneficial in the identification of any potential systemic issues and gaining an understanding of wider lessons for future years.

- **[E2] Measures of effectiveness:** The Region presented no evidence of any form of measure of its effectiveness which could then be compared to other Regions in the development of better delivery.

  It is suggested that the development of a set of effectiveness measures is undertaken to allow a meaningful comparison between Regions with the aim of promoting best practice.

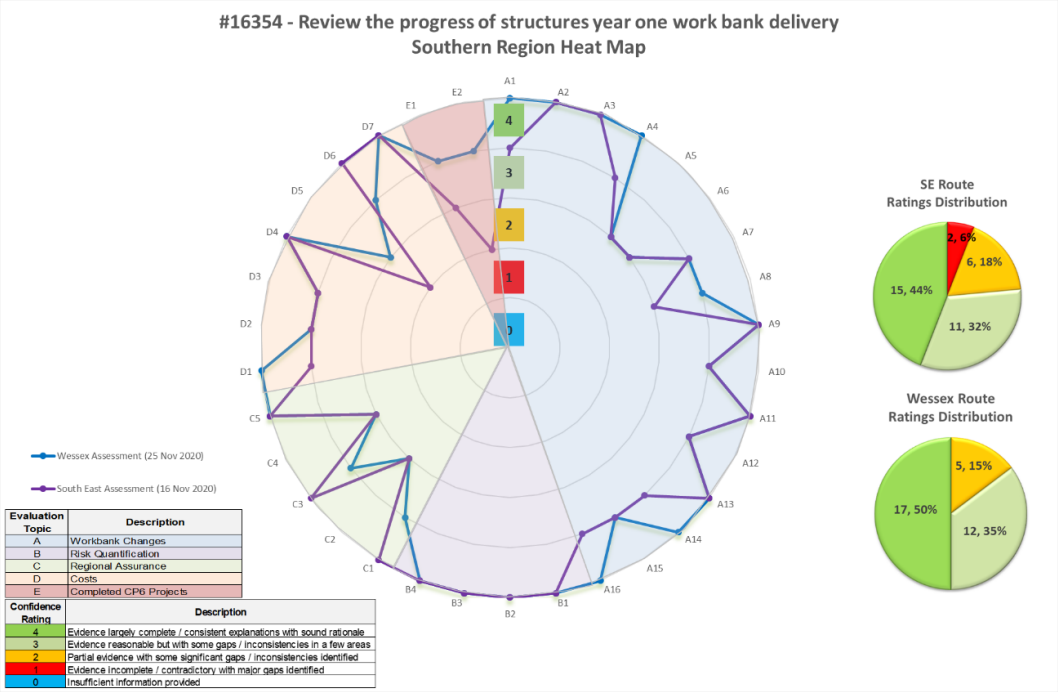
4.5 Southern Region

The Southern Region consists of four lines which are managed in three routes, South East, Wessex and High Speed. The South East Route consists of the Kent and Sussex lines with the Wessex line manged separately. The review considered the South East and Wessex Routes separately with comparisons made where appropriate. The Network Rail High Speed Route was outside the scope of this review. The summary of the results of the review are presented here for the two routes, see Appendix B for further detail.

4.5.1 Southern Region Heatmap

The final assessment of the performance of Southern Region is shown in Figure 7.

Figure 7 – Radar Diagram Summarising Southern Region Performance



Southern Region had a mixed result with many areas of strength in the work bank development process and work bank management including risk quantification and scheme delivery but with a small number of areas of weakness.

Like other multi-route Regions, the approach taken to develop the work bank by the routes within the Southern Region (South East Route vs. Wessex Route) is different but follows the same principles as guided by the TA. This creates inconsistencies in the approaches and tools used within Routes.

Similarly, inconsistencies where identified in the Change Control approaches within the region, although continued alignment with policy in the changing of the work bank was not identified and an area of concern.

Significant variance was identified from the +/-5% threshold for cost and/or volume changes. This appears to be driven through the immaturity of scheme

estimates at work bank development and unit costs being unreliable or not representative of the works being undertaken.

Despite the current separation of practices between the South East and Wessex Routes, performance is comparable except for the Completed Projects evaluation topic, where the Wessex Route was found to adopt stronger practice in terms of measuring outcomes and their effectiveness.

4.5.2 South East Route Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice areas at the South East Route:

- **[A2] Policy application**: There is evidence that the South East route refer to the policy for developing work banks as analysis indicated that the majority of spend in Y1 is for policy compliant work. In a small number of cases deviation from policy was required to ensure the most economic or less disruptive solutions are adopted.
- **[A3] Selection of interventions types and timings**: Interventions are identified bottom up though interrogating asset needs, e.g. asset condition or capability. No national approach was specifically mentioned but the policy on a page appears to be used for triggering interventions.
- **[A9] Quantity of deferred schemes**: Deferred renewals (from Y1 into a future year) can be identified / traced in the 'live' work bank, the change log, and the Deferred Renewals register. A summary of the key variances was provided by the route, which lists 10 deferred schemes. Many of these were identified in the Deferred Renewals register, with additional information on their risk assessment and mitigated risks.
- **[A11] Quantity of cancelled schemes:** There were no cancelled schemes from Y1 and the small number cancelled from future years were considered as no longer required.
- **[A13] Quantity of swapped / accelerated schemes:** Only one scheme was swapped, and two accelerated schemes, which were listed in the key variances document and can be identified / traced in the base and live work bank.
- **[B] Risk quantification:** Engineering review was conducted to identify schemes that should be included in the CP6 Business Plan based on safety and performance. The structures policy was also referred to identify schemes that should be included. The corporate risk matrix is used to quantify risk in the deferred renewals register covering primary impacts such as: Asset Management, Finance, Performance, Reputation and Safety.

  Typically, sustainability activities (including preventative works) are Level 3 in the structures policy and hence of lower priority. The route is applying the policy appropriately in this respect but recognise that this has the potential and does lead to underinvestment. The live work bank has 23 sustainability schemes in CP6, 7 of which are in Y1.
- **[C1] Work bank change control process:** There is a well-established change process including the relevant justification and approvals through appropriate

channels. There are multiple documents recording change and justification / impact, including the Change Control History, the key variances, the deferred renewals register and the live work bank.

- **[C3] Projects continued alignment to policy through change control:** Each change in a scheme (e.g. timing or scope) is considered on a scheme by scheme basis in terms of compliance both with standards and with policy. Changes are risk assessed for impact on: Asset Management, Finance, Performance, Reputation and Safety and recorded in the deferred renewals register.
- **[D4] Impact on the business plan due to the difference between the estimated vs actual renewals cost for Y1:** The route takes the necessary actions to manage individual schemes and adjusts activities accordingly to ensure that the available budget is not exceeded in year and across the CP.
- **[D6] Causes for cost/volume variances of greater than +/- 5%:** The route had a very clear understanding of the many reasons for these variances, including for example:
    - work timing (e.g. carrying out work over Christmas) or using alternative patterns of possessions to minimise disruption but inevitably at increased cost
    - prices/quotations for key work components having increased in CP6 compared to similar work done in CP5
    - changes to the type of intervention, i.e. reconstruction rather than repairs necessitated from the results of further, more intrusive investigations
    - BP developed while many schemes were at early GRIP stages, i.e. prior to developing a full / detailed work scope or quantum of work
- **[D7] Operational impact of changes:** Projects are planned to minimise potential operational impact. Deferred projects are subject to the risk assessment in the deferred renewals process where relevant mitigation measures are identified and applied, as needed.

4.5.3 South East Route Observations

The following are observations, which were attributed a rating of 3 or below, and may present opportunities for improvement for the South East Route:

- **[A1] Developed and agreed work banks:** the route develops their plan bottom up, prioritising work based on asset condition or capability. An unconstrained work bank is initially developed which then gets adjusted based on evolving budget constraints. There isn't a documented process for the development of the business plan. A few ‘agreed’ delivery plans appear to exist with misalignment in the levels of costs / volumes.

  The route could consider documenting the process for developing and agreeing the work banks. This should provide a structured approach that

enables consistency during development within different control periods and avoids discrepancies in costs / volumes for the agreed work bank.

- **[A4] Prioritisation approach:** Work / Volume prioritisation is conducted by engineering judgement without the use of a formal process. There is limited evidence of documenting prioritisation decisions beyond the inclusion of schemes in the work bank.

  The route could consider developing or adopting a formal works / volume prioritisation approach or become more disciplined in documenting decisions.

- **[A5] Consistent approach across Regions:** Routes / Regions use similar principles, i.e. identify defects / deficiencies and refer to the central policy for developing the work banks. The local processes and templates used are different and the prioritisation approach is not universal. This is not surprising given the devolution model. The use of engineering judgement is always necessary and should not be underestimated but also can bring challenges if not being consistently applied.

  The Business Planning Working Group could become the forum and catalyst for sharing good practice in the approach to consistently developing work banks. In this forum Routes/Regions themselves could collectively consider whether adopting a universal approach may be appropriate.

- **[A6] Visual representation of work bank composition:** There is no reporting that is done at engineering level within the route and so no standard dashboards were created. Central reporting of actual / forecast volumes and effective volumes is produced regularly via assurance reports. For Y1 the live plan states actual volume 1,849 while the end of Y1 assurance report includes a delivered volume of 4,236. It was unclear why this difference existed.

  The route could consider the use of a single reporting dashboard.

- **[A7] Delta between planned vs actual renewals:** It is possible to identify the lines / activities that contain budget in both the baseline plan (134) and the live plan (107) for Y1. There is no clear / accurate 'status' in the live plan identifying what schemes are ongoing / complete.

  The route could consider adding 'status' in the live plan for clearly identifying what schemes are complete. Consider better connectivity between base and live plan.

- **[A8, A15] Differences between the actual delivered and the planned renewals work bank for Y1:** There are various versions of work bank held at different levels and by different stakeholders, which can cause both inconsistency and lack of clarity. For example, the delivered volume (1,849) held in the live business plan at route level differs to that in the end of Y1 assurance report, which includes a volume forecast of 3,902 and delivered volume of 4,236. The RF11 Assurance pack provided by the route includes a volume forecast of 6,413 and delivered volume of 3,258. The latter report may be at region level, but this is unclear. RF11 CP6 Renewals Data Book (ORR Final) has a forecast volume of 3,721 for Y1.

It is suggested that a 'single source' that can be used across all levels/departments of Routes/Regions/NR may be needed to more easily and clearly be able to identify planned vs. actual renewals delivered.

- **[A10, A12, A14] Justification for deferred, cancelled, swapped or accelerated schemes:** Scheme changes are subject to a well-established change process including the relevant justification and approvals through appropriate channels. For deferred schemes, there are at least two documents for recording changes and their associated justification - (i) change control history and (ii) deferred renewals register but these appear to be somewhat misaligned. For cancelled schemes there is evidence that the justification is recorded in either of two separate documents (live BP or the Change Control History) that may not always be synchronised. For swapped / accelerated schemes there is evidence that the justification is recorded in the key variances document but not all of them were found in the Change Control History extract. The Route could consider consolidating sources of information relating to change for deferred schemes to support ease of traceability of changes and associated justification.

  The Route could examine consistency in recording the change justification for cancelled, swapped / accelerated schemes.

- **[C2, C4] Consistent change control approach and shortcomings:** There are two different approaches in the Southern region for change control, i.e. e two different systems in South East Route and Wessex Route.

  The Routes are currently considering a move to a single change control process / system within the Region.

- **[D1] Identification and costing of work volumes:** The route identified volumes based on the Cost and Volume handbook, which provides guidelines as to how volume should be measured. The route makes significant strides in developing unit rates that are relevant to the route and their specific structures projects. These unit rates are derived from a mixture of project costs, some historic and others based on experience and engineering judgement. The rates developed were shared with the centre; there was no objection but no endorsement either centrally. It is unlikely that national unit rates will become available but may benefit from a structured approach across the regions in determining unit rates to ensure consistency.

  For example, NR could consider the possibility of sharing unit rate libraries across the regions to expand and make visible the coverage of rates. Consider splitting out of unit rate cost components that may also be beneficial and/or subject to regional variations, e.g. works cost separated from add-ons like access, traffic management, preliminaries, project management, etc.

- **[D2, D3] Identifying the delta / differences between estimated vs actual renewal cost via analytical methods for Y1:** It is possible to calculate the delta between estimated vs actual renewal cost via analytical methods. Note, this analysis was carried out using the information provided by the route only. No central cost report was provided for Y1. The delta for individual schemes varies significantly, beyond +/- 5%. In some instances, this is due to the delivery time (festive season) and the type of possession adopted to deliver

work in a way that minimises disruption. Also, prices/quotations for key work components have increased in CP6 compared to similar work in CP5. Overall, there is a £2.8m reduction of actual cost in Y1 compared to the estimated cost. this is equivalent to 8.8%. Note, this analysis was carried out using the information provided by the route only. No central cost report was provided for Y1. Nevertheless, this analysis suggests that the route is managing individual variances such that the overall expenditure in year and across CP6 remains within the available budget.

It is suggested that the Route considers investigating if/how increased cost certainty can be achieved.

- **[D5] Extent of cost or volume variances greater than +/- 5%:** At individual scheme level, most variances are significantly beyond +/- 5%. The delta (for Y1 only) was calculated between the base and live BP. Out of 390 items in the work bank 107 have expenditure in Y1; of these 58 have an indicated change when determining deltas. The percentage range of cost reduction is 7%-100% and the percentage range of cost increase is 10% - 1961%. In addition, as mentioned in A8 above there are various versions of work banks held at different levels and by different stakeholders, with differing values of volume planned vs delivered.

  The Route could consider investigating if/how increased cost certainty can be achieved. Also, it is suggested that a 'single source' that can be used across all levels/departments of Routes/Regions/NR may be needed to more easily and clearly be able to identify planned vs. actual renewals delivered.

- **[E1] Completed schemes met outcomes:** The route believes that all projects completed in Y1 have met their outcomes. Form 1 (approval in principle) is used to agree the scope and monitor the work in accordance with the scope and perhaps anticipated outcomes therein. There were no see clear objectives or outcomes set in the example Form 1, the scope was clear. Although the consequence of doing work is normally improved carrying capacity and/or improved BCMI scores, usually these are updated someway down the line after completing the work; no other record was provided clearly stating that a specific project has met its stated outcomes. At the feedback session the route also suggested that the assessment database holds capacity information and completed projects follow through with H&S file and hand back documentation that allows restrictions to be lifted.

  Consider introducing specific data / record to provide a clear statement of anticipated outcomes and a layer of confirmation for outcomes met / not met. This should be able to be easily accessed.

- **[E2] Measures of effectiveness:** Though a process exists via GRIP requirements there seems to be limited application of the process for systematically capturing of lessons learned. No mention of a hand back process.

  Ensure formal lessons learned are systematically captured, recorded and shared both between regions and amongst asset classes. For example, this could be part of an existing hand back process.

4.5.4 Wessex Route Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice areas at the Wessex Route:

- **[A1] Developed and agreed work banks:** the route developed the work bank by using an asset specific capability approach and full consideration of their objectives to ensuing the network meets the relevant performance standards and the route's ability to deliver this. The work bank development process is documented in the Wessex Structures Assurance Pack for CP6, which steps through how the work bank was developed and how policy was applied.
- **[A2, A3] Policy application and Selection of interventions types and timings:** There is evidence that the policy was considered heavily in the development of the work bank. The baseline work bank and the Wessex Structures Assurance Pack documentation clearly outline how the route objectives/schemes were aligned to the Policy. The baseline work bank demonstrates how each structures' activity has been associated to a policy standard and the appropriate intervention type. The link between policy and schemes has been lost in the live work bank due to the change to the new universal within the route work bank template, however, the route maintain an offline copy to with the additional policy compliance information and in this way ensure robustness.
- **[A4] Prioritisation approach:** Volumes are established from the GRIP Stage 3 reports and develop as schemes mature and move along the GRIP process. Work has been prioritised based on the specific assets capability approach, network needs/requirements, likely deliverability, and compliance to standards and policy.
- **[A9] Quantity of deferred schemes:** The live work bank accurately reflects the deferrals register. The route has not had to defer any schemes from Y1 to later years in the control period.
- **[A11] Quantity of cancelled schemes:** There were 5 schemes identified that have been cancelled from the program due to Funding Constrains or the Scheme being no longer required. The documentation provides a clear identification of schemes cancelled in the live work bank. Individual descriptions for specific schemes are provided with generic grouping for causes.
- **[A13, A14] Quantity and justification of swapped / accelerated schemes:** There are a few projects (15 projects) that moved into Y1. Nine projects have undergone accelerated development, with funds moved from later years in the control period to undertake early scheme development initiatives and improve delivery. One scheme has been brought in as a result of emergency works. Five Schemes have been introduced to the programme as part of over planning for the Year. The live work bank and the change log complement each other highlighting the acceleration of spend on schemes over Y1. There is no evidence of schemes being swapped between year groups a fact that was confirmed by the Route.

- **[B] Risk quantification:** The Route uses the CRAM process as a means of assessing the impact of change to the delivery programme with particular emphasis on any deferrals. This matrix includes the quantification of the risk associated with performance and safety. Consideration of these factors is also evident in any acceleration of scheme delivery, but this would involve a more high-level assessment. The Wessex Route view that sustainability is only material at the population level rather than individual schemes. It was also noted that whilst the impact on sustainability had not been quantified for Year 1, the Route had delivered a greater volume during Year 1 than was planned so the likelihood is that there would be a positive effect on sustainability.
- **[D1] Identification and costing of work volumes:** The Costs and Volume handbook is used to derive the relevant volumes for specific work activities. The Route was able to present a detailed guidance of the way in which the forecast costs of the plan items had been built up. This was an in-depth assessment of the methods used to derive costings based on a priority listing of sources and the associated level of confidence. At year end an assessment is made of the 'fitness' of these costs from the tracking of the annual budget spend, which supports to improving costs estimates for future years.
- **[D4] Impact on the business plan due to the difference between the estimated vs actual renewals cost for Y1:** The analysis indicated a cost reduction by £2.47m (17%), and volume increase of 473 units (16%). The evidence from the analysis of the planned and delivered volumes shows a high degree of correlation with all areas delivering close to plan except for underbridges which exceeded the planned volumes. This analysis supports the view from Wessex that the plan had been delivered at the reduced cost.
- **[D7] Operational impact of changes:** There were no examples in Year 1 of changes which impacted operational performance. It was noted that the planning of works takes account of the need for TSRs during the works. The route advised that the delivered works in Year 1 allowed the removal of operational restrictions as part of two schemes.

4.5.5 Wessex Route Observations

The following are observations, which were attributed a rating of 3 or below, and may present opportunities for improvement for the Wessex Route:

- **[A5] Consistent approach across Regions:** The approach taken to develop the work bank by the routes (South East Route vs. Wessex Route) within the region is different but follows the same principles as guided by the TA. Wessex route use a work bank template/format that is consistent with by other routes/regions comparable to other routes/regions approach.

  It was suggested by regional representatives that the strengths of the two processes will be reviewed to develop a new process, as appropriate, which will improve regional planning for CP7. In addition, the Business Planning Working Group could become the forum and catalyst for sharing good practice in the approach to consistently developing work banks. In this forum Routes/Regions themselves could collectively consider whether adopting a universal approach, if considered more appropriate.

- **[A6] Visual representation of work bank composition:** There is a rolling forecast process in place to report volume/ effective volume which is reported in a regular manner to feed into the Route and National perspective of the business position at an RF period. Some discrepancies were noted; in terms of the overall figures in the baseline across RF11, ORR and the NR Year-end report vary by about 1%. In terms of the delivered volumes the variance between Region and Central reporting is less than 10%. No specific documentation was received that demonstrates work bank composition in a visual manner, and which could readily support the tracking and communication of changes the composition of the work bank.

  The route could consider the use of a single reporting dashboard that could be used at any given point in time to communicate cost and volume breakdown and any movement of these parameters in the work bank.

- **[A7] Delta between planned vs actual renewals:** Analysis is possible though there were issues with the unique IDs used in the baseline plan and live plan due to the change in system. Project Chainage, Location and Description columns were used to align and compare the two work banks to allow analysis to be undertaken. There is a difference of 26 projects with spend against them in the live plan compared to the baseline. There are five accelerated schemes as part of over planning and accelerated early development schemes.

  When planning the CP7 business plan unique IDs could be better maintained between the baseline and live plan.

- **[A8] Differences between the actual delivered and the planned renewals work bank for Y1:** The difference between the baseline and live plan is primarily due to over plan projects being undertaken to utilise additional volume capacity. Minor works programs that were not identified in the baseline work bank are included in the live plan hence additional programme lines; 26 in total. The evidence shows the adoption of early contractor involvement on schemes to drive efficiencies though early scheme development.

  The baseline plan forecast is £14.9m and 2395 volume units with the live plan showing £12.8m and 3394 volume units. Volume difference +998.1 and Cost difference -£2.49m. The Centre RF report indicated estimated 2941 volume units and delivered 3102. There is a discrepancy between the delivered volume reported by the Centre and the Region (292 units).

  NR may wish to ensure better alignment between the volume reported centrally and that shown in the region plan.

- **[A10, A12] Justification for deferred and cancelled schemes:** The change log indicates changes that occurred though this is provided at a high level with minimal detail in the documentation. For instance, it is not clear from the documentation provided why a scheme is no longer required as in the justification for the two schemes in Y1 that have been cancelled/deferred; e.g. These schemes have been classified as 'Deferral - Not Required'.

  A slide pack was produced for the Periodic Change Panel which articulated movement across the entire route portfolio. For each change commentary is provided to outline why a change is required.

A link between the Period Change Panel slide deck commentary and the change log would provide clarity on the justification of scheme changes, where appropriate.

- **[A15] Agreed work bank:** The document provided is identifiable as the baseline prepared and previously submitted to the ORR with the region stating that it was the baseline provided at RF11 2019 and is also used as the baseline for change control. The region baseline cost and volume were £10.34m and 2920 units, respectively. The baseline for the same period provided by the ORR states cost and volume were £16.3m and 2961 units, respectively. The centre equivalent report stated an expected volume of 2941 units. This indicates that there are various versions of baseline work bank held at different levels and by different stakeholders, which can cause both inconsistency and lack of clarity.

  It is suggested that a 'single source' that can be used across all levels/departments of Routes/Regions/NR may be needed to more easily and clearly be able to identify planned vs. actual renewals delivered.

- **[C1, C2, C4] Consistent change control approach and shortcomings:** There is a documented change process for Wessex. There are two different approaches in the Southern region for change control, i.e. e two different systems in South East Route and Wessex Route.

  The Routes are currently considering a move to a single change control process / system within the Region.

- **[C3] Projects continued alignment to policy through change control:** There is evidence that the initial plan takes account of policy, but this is not a feature in the live plan. It was noted that policy compliance is tracked outside the plan and reported as a policy compliance statement at year end. The separation of the live plan from policy alignment is considered weakness whereby any focus on compliance may be lost.

  It is suggested that the live plan could be adjusted to include reference to policy compliance, which can be updated in line with changes to the plan.

- **[D2, D3] Identifying the delta / differences between estimated vs actual renewal cost via analytical methods for Y1:** It is possible to calculate the delta between forecast and actual renewal costs by analytical means to some degree. The difference between budget and forecast values is £2.47m; this is equivalent to reduction of 17% in cost with an increase in volume of 16%.

  The analysis was undertaken on the basis of the data provided by Wessex (see details in Appendix B) for KCL level showing where there had been variations in spend on individual asset types. The structure of the plan also supported the analysis of cost changes at individual scheme level. There was however difficulty in undertaking a variation analysis across individual items because of the lack of unique IDs for jobs.

  It is suggested that a system of unique identifiers is put in place and kept aligned in different systems / documents, to facilitate the tracking of items from the original plan to the year-end actual results.

Wessex implemented a number of delivery changes and efficiencies which resulted in cost savings during the year. These savings were particularly attributed to the packaging of works delivered. The route also delivered £0.5m of over planning during the year indicating a potential over-estimation of the cost base going into the year.

The cost savings have been used across the route's different asset classes. The route described how there is on-going debate on how best utilise efficiency savings in year.

- **[D5] Extent of cost or volume variances greater than +/- 5%:** Deltas were calculated for the 57 line items / activities in Y1 of the live plan compared to the baseline plan. 15 activities appear to be new, totalling to £1.33m. 21 activities had a percentage cost change that varied between -72% and 115%. 21 activities could not be matched between the base line and the live plan due to missing unique identifiers. Of the 21 activities that had percentage cost change calculated only were 3 within +/- 5%. of the 57 line items/ activities for Y1 in the live BP, 26 have a volume value. There are percentage volume changes that can be calculated in 8 of them with only 2 items having a change greater than -70% and one item at 100%. The lack of consistent IDs between the baseline and live plan makes identifying and determining variance at scheme level, complex.

  As previously suggested, maintaining unique IDs between the two plans would allow variances to be better understood and tracked.

- **[D6] Causes for cost/volume variances of greater than +/- 5%:** There are 130 changes recorded in the change log against 70 projects in Y1. Change drivers are used classify the changes, e.g. Rephased-Planned, Reduced Costs, Accelerated Schedule, etc. The change control documentation highlights all the changes that have been recorded against a scheme and any justification of that change. Within the work bank it is not always possible to identify changes from the baseline and their causes. By stepping through a structure in the change log it is possible to determine the cause of variances. STR 0062, for example, reports four changes in the control log which outline how the scheme was accelerated from Y2 into Y1 with subsequent change to the spend profile in Y1 due to efficiencies and challenges on target AFC. The STR 0062 ID exists in the live plan but not in the baseline plan.

- **[E1] Completed schemes met outcomes:** The route indicated that there is a formal review undertaken at Route and Regional level. This covers the delivery of volumes, costs efficiencies, restrictions removed, hand back process compliance (all documentation, etc). The formal reporting is done through the Scorecard for the Route covering train accident risk reduction, scour mitigation, etc. For individual, schemes reference was made by the Region to the GRIP process as a means of measuring the outcomes for the individual items. The route described how both condition and capability improvements to structures are captured over the project lifecycle. For each scheme the status of the scheme is partially filled out to demonstrate progress.

  There is scope to more clearly record, for reporting purposes, if a scheme has met its desired outcome, either condition based or structural improvement.

- **[E2] Measures of effectiveness:** The route undertakes a formal review of their delivery during the year which feeds into the Regional reporting packs. This covers the delivery of volumes, cost efficiencies and improvements in structure capability. This reporting process provides an opportunity for learning lessons from the previous year. Reference was made to the Working Group, which would provide an opportunity to share performance between Regions, although it was noted that the current focus is on CP7 planning.

  It is suggested that a more formal means of sharing effectiveness of each Region be considered to identify best practice and foster wider improvements, as appropriate.

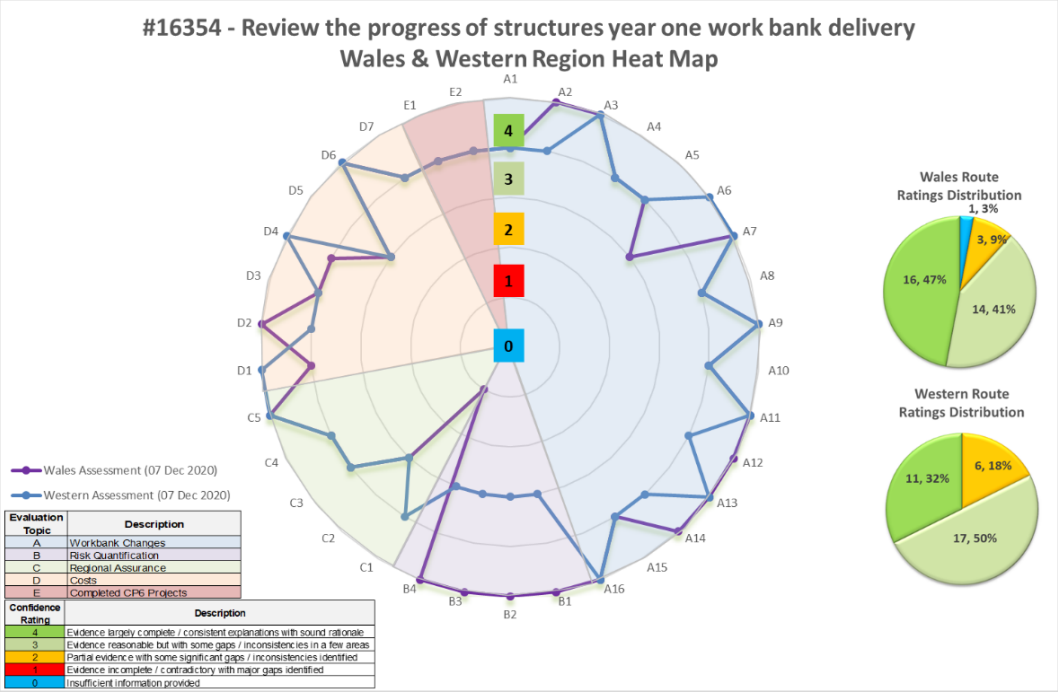
4.6 Wales & Western Region

The region consists of the Wales & Borders Route, and Western Route the two routes are closely aligned and subsequently the review looked at both routes together but has recorded separate findings for each route with comparisons made, where appropriate. A summary of the results of the review are presented here for the two routes; see Appendix B for further detail.

4.6.1 Wales & Western Region Heatmap

The final assessment of the performance of the Eastern Region is shown in Figure 8.

Figure 8 – Radar Diagram Summarising Wales & Western Region's Performance



Overall, the Region has shown strong consistent performance across the evaluation topics. For Year 1 both routes in the region have performed strongly in the management of project close out and the justification of change from the baseline at both a macro and micro level. The Region has demonstrated good early integration of the management tools and processes during Year 1 that align across the Region.

Unlike other multi-route Regions, there is close alignment of the process and approach taken to develop the work bank by the routes within the Region. Both Routes follow the same principles outlined by the TA and place similar emphasis on policy and scheme development. This is allowing for the work bank management tool to be implement on both routes moving forward.

Wales showed good performance throughout the review with 88% of responses achieving score of more than 3. The route demonstrated a best practice work bank management tool to ensure alignment between finance and structures mangers.

Western performance across the evidence topics is consistent there are no significant gaps found from the review. The region did not use the CRAM process for deferrals risk identification in Y1. The route had minimal +/-5% variance in cost and volumes for Y1 and where these occurred, there is good justification.

4.6.2 Wales Route Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice areas for the Wales Route:

- **[A2, A3] Policy application and selection of interventions types and timings:** The route has applied the CP6 policy objectives and targets and mapped these against the baseline in an effective manner, although this information is not represented in the live business plan. The process implemented by the Route clearly demonstrates a mature approach for identifying types and timing of the interventions aligned to the GRIP process and Policy used across the business.
- **[A7] Delta between planned vs actual renewals:** A delta between the baseline position can be easily understood and analysed. Each line within the business plan is recorded at different rolling forecast periods or the baseline to enable quick and simple comparison across the period and understand changes that have taken place. The business plan has a checking process place to ensure that business plan and OPI systems are aligned.
- **[A9] Quantity of deferred schemes**: The work bank has largely been maintained with only 9 schemes that have been deferred from Y1, moved to Y2 and Y3 for delivery.
- **[A11, A13] Quantity of cancelled, swapped or accelerated schemes:** The documentation accurately allows for any cancelled / accelerated schemes to be identified within the work bank. No cancelled schemes and one accelerated scheme were identified.
- **[A12, A14] Justification for cancelled, swapped or accelerated schemes:** The work bank highlights the changes to schemes with new lines added which identify the reasons for change with additional commentary to describe why the decision has been made. Cancellations would be recorded in this manner.
- **[B] Risk quantification:** The corporate risk matrix is used to quantify risk in the deferred renewals register covering primary impact such as: Asset Management, Finance, Performance, Reputation and Safety.
- **[D2] Identifying the delta / differences between estimated vs actual renewal cost via analytical methods for Y1:** A delta can be easily generated between the baseline position and the live plan. The live work bank documentation provides and interactive tab to compare between the current status and the baseline position in the live plan. This allows for quick comparisons to be made and understood.
- **[D6] Causes for cost/volume variances of greater than +/-5%:** Justification of variances is recorded against a scheme in the work bank when they have arisen. The work bank maintains a record of all the changes against a scheme,

so the history of change is easily understood along with any change to future years. This should be considered best practice within the business as it presents a clear and concise account of change to all parties.

4.6.3 Wales Route Observations

The following are observations, which were attributed a rating of 3 or below, and may present opportunities for improvement for the Wales Route:

- **[A1] Work bank Development:** The route describes a pragmatic development process to ensure that the business plan reflects the needs and condition of the network. A mature capability approach to the development the programme has been applied using sound engineering judgment and aligned to policy.

  Consider development of a process map/document to highlight how the plan was moved from a wish list to the business plan specific to the route

- **[A4] Volume Prioritisation approach:** Scheme prioritisation is based on capability and deliverability this forms the main approach for volume prioritisation. Qualitative analysis supported by engineering judgement is used to assess risk and network performance to prioritise one scheme over another.

  There is an opportunity to consider quantitative means for prioritisation, performance and risk.

- **[A5] Consistent approach across Regions:** The approach between the two routes within the Region is similar, with the same tools and process used.

  The key difference being Western's utilisation of the One Plan to support planning and timing of interventions which Wales is looking to adopt.

- **[A6] Visual representation of work bank composition:** The Route described that there are no visualisation tools that they currently use to monitor the work bank movements.

  Using visual trackers would enable asset managers to effectively communicate changes to work bank makeup to third parties and improve reporting with the business.

- **[A10] Justification for deferred schemes:** Justification of scheme deferrals is provided in the Deferrals Register and this information is then translated into the work bank to act as one source of truth. Descriptions are broad allowing for grouping of deferrals, but these do not communicate the detail of deferrals, for instance these are limited to descriptions such as: stoppage in delivery programme.

  There is an opportunity to a develop deferral register that would provide further scheme specific information, such as full change justification and risks.

- **[A8, A15] Differences between the actual delivered and the planned renewals work bank for Y1 and When was the work bank agreed:** There is a -£8.6m difference from the baseline to the live plan and a +21,513 difference in the volume. The baseline document provided was updated prior to the start of the CP6. The baseline that should be used for comparison is the

one within the live plan and not the baseline document itself. These values are demonstrated below.

- Route Live Plan — Cost £28.3m — Volume 27,301
- Route Baseline — Cost £36.9m — Volume 5,788
- ORR Expected — Cost £29.5m — Volume 6,254
- Centre Expected — Cost not available — Volume 4,961
- Centre Delivered — Cost not available — Volume 27,340

There should be one source of truth on what the ORR, Centre and Route are expecting to be delivered in any year. An appropriate point in time should be chosen to set the baseline**.**

- **[C1-C2, C4] Consistent change control approach and shortcomings:** The route was not able to provide the relevant documentation for the change control process used in Year 1. They were in the process of moving to a new system and the associated documentation has not been approved for release.

  During Year 1 the processes used by Wales and Western were not aligned. The outcomes of change captured in the work bank by Wales is significantly more detailed than that of Western's. For Year 2 the process used by Wales has been adopted by the Region as a whole.

  A wider perspective of change could be considered and impact on other assets and the One Plan should be looked at during integration.

- **[C3] Projects continued alignment to policy through change control:** The route described how projects are aligned to the policy throughout the change process and that any change to the direction or deviating from policy would be captured in the change log and within the live work bank. Each scheme's policy goal is maintained in the scheme documentation.

  The route could consider including policy targets within the live work bank.

- **[D1, D3] Identifying the delta / differences between estimated vs actual renewal cost via analytical methods for Y1:** The route moved to a new work bank management tool that has been established by the route finance team. The tool provides one source of truth for any movements of cost and volume within the work bank. The tool allows quick comparison between the baseline and live position at both the macro and scheme level which enable a clear understanding and justification of change.

  Consequently, the route's end of year position is clearly understood with actual year 1 delivery volumes reported by the route and technical authority in close alignment. There is an underspend of -£8.6m and over delivery of 21,513 units of volume from the route baseline spend £36.9 and volume 5,788. Year 1 delivery is stated as £28.3 million and 27,340 units. The underspend is accounted from primarily on underbridges. The large increase in volume is seen due to Sea Defence volume responsible for an additional 12,750 units and increase in Retaining Wall volume of 6,000 from the baseline.

- **[D4] Impact on the business plan due to the difference between the estimated vs actual renewals cost for Y1:** There is no impact that can be attributed to the changes in year 1 to the remaining years of the control period from the documentation provided.

  The use of visualisation tools would quickly and accurate highlight any changes to later years in the control period.

- **[D5] Extent of cost or volume variances greater than +/- 5%:** The analysis shows that there are a significant number of projects that have a difference of greater than +/-5% from baseline for both Cost and Volume. Large variances in project cost are apparent from -390% to +2,803%, this does not include new or deferred schemes. A significant number of projects (73) did not have volume in the baseline but have been accelerated and delivered in the Year 1.

  It is suggested that the creation of a delta report that outlines changes above the threshold may be useful in the proactive refinement of rates.

- **[E1] Completed schemes met outcomes:** The Asset Management Plan outlines the procedures and steps to ensure that a scheme has met the expected outcomes.

  It is suggested that the Route records in the work bank if a scheme has met the objectives set at the start of project and any additional improvements / benefits achieved.

- **[E2] Measures of effectiveness:** The route's hand back checklists stipulate the steps that are required when closing out a scheme. Ensuring that any recalculation of BCMI, asset changes due to scheme implementation, updates to CARRS with BCMI, removal of operational restriction, health and safety files, etc., is undertaken with assurance from a RAM.

  There is an opportunity for the Route/Region to develop a formalised process for recording and sharing learning outcomes wider than the scheme itself.

4.6.4 Western Route Evidence of Good Practice

The following, which were attributed a rating of 4, are considered good practice areas for the Western Route:

- **[A3] Selection of intervention types and timings:** The workshop allowed the route to demonstrate a robust process to determine intervention types and timings. As the work bank is policy compliant intervention timings are stipulated by the policy requirements and standards.

- **[A6] Visual representation of work bank composition:** The route produces a volume report that effectively communicates the comparison between baseline and actual delivered volumes. The report is used by the route to monitor volume for end of year reporting.

- **[A7] Delta between planned vs actual renewals:** Reporting at Asset level and Key Volume Lines (KVL) is understood, allowing for clear comparisons to be made between the baseline and the live work bank. There is a 13% cost increase and a 1% volume increase between the baseline and actuals for Y1.

- **[A9] Quantity of deferred schemes**: Only 14 Schemes have been deferred into later years in the control period and these were clearly outlined by the documentation. In the majority of cases this was due to access related issues.
- **[A11] Quantity of cancelled schemes:** There were no cancelled schemes. The change control documentation would accurately demonstrate and record the cancelation of schemes.
- **[A13] Quantity of swapped / accelerated schemes:** The documentation provided indicated that there were no scheme acceleration or swaps. The route highlighted that any instances would be recorded in the change control documentation.
- **[D1] Identification and costing of work volumes:** Unit cost information is provided through the financial system and monitored against KVL in Hyperion. Costs were developed using Cost Curves form CP5 from the delivery teams based on outturn costs. There is a slight disconnect where spend is not reported out by different activities and/or a breakdown of preliminaries and start-up costs.
- **[D4] Impact on the business plan due to the difference between the estimated vs actual renewals cost for Y1:** The deferrals register shows the movement of £1.3m from projects that were supposed to deliver volume in year one to delivery in year two. There are several projects that have spent in later years that have been delayed due to access issues in Year 1.
- **[D6] Causes for cost/volume variances of greater than +/-5%:** The variances seen in the work bank can be traced back through the change control log and deferral register to establish the causes. Schemes can be traced back to the baseline to see original starting position using unique IDs. Examples of causes of change are, but not limited to: lower AFC tendered cost, forecast adjustment through GRIP, design development funds brought forwards and scheme slipped to year 2, etc.

4.6.5 Western Route Observations

The following are observations, which were attributed a rating of 3 or below, and may present opportunities for improvement for the Wester Route:

[A1, A2, A4] Work bank Development: The route uses a condition-based process to determine their unconstrained work bank. Through alignment to policy, engineering judgment and analysis the route moves to a constrained baseline plan. However, there is a miss alignment between the baseline position expected by the ORR and the Centre and that presented by the Route. A single source of reference for the baseline should be made available to provide a consistent picture this will be supported though the development of a process map to provide clarity.

Though the work bank links the intervention to the policy on a page documentation, there's is no link to the CP6 policy standards that were provided to the review team.

Opportunities exist to develop a process map or flow chart to highlight how the work bank is developed to ensure robust procedure moving forward, effort should be made to highlight how policy targets and levels have been used in the development of the work bank.

- **[A5] Consistent approach across Regions:** The process that was used by Western is similar to that used by Wales. The difference between the approaches is that Wales place more weight on optioneering than Western who rely more on engineering judgement. Through the workshops the route demonstrated why they relied on engineering judgement and experience rather than optioneering for simple intervention schemes. No documentation exists to outline the development of the work banks for each route.

  There is an opportunity to document and align how the work banks of the two routes are developed for CP6. Process maps will support this alignment activity.

- **[A8, A15] Differences between the actual delivered and the planned renewals work bank for Y1 and when was the work bank agreed:** There is an increase in the volume delivered 9,442 units (1%) and the number of schemes undertaken, 39, in Year 1. There is a cost increase of £4.6m (13%). It is unclear why there is such a large difference in volume between in the ORR and Centre baseline.

  The documentation provided did not clearly demonstrate the workback was stable between submission of the delivery plan and the start of CP6 Y1 as shown by the comparison of values below.

  - Route Live Plan £39.4m Volume 9052 units
  - Route Baseline £34.8m Volume 8976 units.
  - ORR RF11 (March 2019) £28.0m Volume 5099 units
  - Centre Estimated Baseline No cost given Volume 5072 units

  It is important to ensure one source of truth across all parties this will ensure expectations are met.

- **[A10, A12, A14] Justification for deferred, cancelled and accelerated schemes:** The justification of scheme movement is generic, not bespoke to a scheme.

  It would be prudent to have project specific comments to justify the movement with the work bank. It was noted that noted Western is moving to the Wales Route change control process in Year 2.

- **[B] Risk quantification:** The corporate risk matrix was not used in year 1 to quantify risk in the deferred renewals register. Qualitative risks and mitigation of the risk are demonstrated in the documentation provided.

  The route has provided evidence of the use of CRAM for year 2.

- **[C1] Change Control Process:** The documentation provided outlines a robust process that considers the changes that could occur to schemes from the key

routes, the RAM, Regional One Plan and Finance teams. Meeting minutes outline consideration/impact of changes to schemes.

Maintain any desired capabilities when moving to the new change control process to align with Wales, such as the impact on the one plan due to change in structures schemes.

[C3] Projects continued alignment to policy through change control: There is no evidence in the documentation that outlines the impact of a project being deferred or change based on the policy target stipulated. The route described that changes to an intervention that would trigger policy change and would occur early in the GRIP process. There is no mention of policy at all in the change log documentation provided.

The opportunity for the region is to update the change log or deferral register to record this information rather than relying on inferred knowledge.

- **[C2, C4] Consistent change control approach and shortcomings:** During Year 1 the processes used by Wales and Western were not aligned. With the Wales process providing significantly more detail than the Western process.

  For Year two the process used by Wales has been adopted by the Region as a whole. A wider perspective of change should be considered and impact on other assets and the one plan should be looked at during integration.

- **[D2, D3] Identifying the delta / differences between estimated vs actual renewal cost via analytical methods for Y1:** A delta between the actual cost and baseline cost can be established through the documentation provided. The volume graph provided gives an accurate summary of the volume delivered in the year compared to the baseline. There is an increase of 13% cost and 1% in volume from the baseline to the actual plan.

  - The baseline plan gives an expected cost of £34.79m with associated volume of 8,976.
  - The live plan reports costs of £39.43m with associated volume of 9,052.

  Though a delta can be established at the programme level as the work bank is broken down into activities on structures there are not unique IDs at scheme level so understanding change and causes of change at this level is not possible.

  Using unique ID numbers in the baseline and live plan would allow for comparisons between the two. Using CARRS IDs to do so at this time does not allow confident comparisons to activities being undertaken, only against the individual structures, which limits the analysis.

  [D5] Extent of cost or volume variances greater than +/- 5%: The baseline consisted of 30 Schemes of which 13 (43% of baseline work bank) saw cost movement with four of these also undergoing volume movement above the threshold. The variance range for costs was between +72% to -98% and volume variance of 117% to -100% demonstrates a large difference between baseline estimates and live scheme status at a micro level.

The work bank was developed using early stage GRIP estimates, using more advanced GRIP stage estimates will improve further cost accuracy.

- **[E1] Completed schemes met outcomes:** The Asset Management Plan outlines the procedures and steps to ensure that a scheme has met the expected outcomes.

  It is suggested that the Route records in the work bank if a scheme has met the objectives set at the start of project and any additional improvements / benefits achieved.

- **[E2] Measures of effectiveness:** The route's hand back checklists stipulate the steps that are required when closing out a scheme. Ensuring that any a recalculation of BCMI, asset changes due to scheme implementation, updates to CARRS with BCMI, removal of operational restrictions, health and safety files, etc. is undertaken with assurance from a RAM.

5 Potential Improvement Themes

5.1 Overview

This section draws together the results from the application of the assurance assessment methodology to provide potential improvement themes across all Regions.

The results from each of the Regions / Routes were combined in a matrixed heatmap showing the score or ratings obtained from each structures team against each of the 5 evaluation topics and 34 questions (see topic and ratings descriptions in Sections 2.2 and 4.1).

By using a matrixed heatmap to indicate the ratings obtained in each case it was possible to visually identify areas of weakness in the processes at a national level as well at the Region / Route level. The heatmap also graphically illustrated where there was generally a strong performance across Regions and where there were significant variations. The national results and heatmap are included in Section 5.2.

Based on the analysis of the national heatmap evidence of good practice was identified – see Section 5.3. Conversely, it was also possible to cluster areas where there was weakness, both at a local level and nationally, in order to identify improvement themes – see Section 5.4. It is these themes that will form the basis of any recommendations that will emerge from the review.

5.2 National Results

The use of a performance matrix to visually demonstrate the strengths and weakness evidenced by the review across the Regions / Routes and framework topics contributed to the process of the identification of areas of improvement – both nationally and in certain Regions / Routes.

The Performance matrix summarising the outcomes is shown in Figure 9.

Figure 9 – Framework Question vs Region / Route Performance Matrix

			REGIONS							
			Eastern		North West & Central	Scotland	Southern		Wales & Western	
			ROUTES							
Topic	Ref	Framework Question	Anglia	East Coast East Midlands North & East	Central North West WCML South	Scotland	Kent Sussex	Wessex	Wales & Borders	Western
A Workbank Changes	A1	How have Regions developed / agreed workbanks?	3	4	4	4	3	4	3	3
	A2	How has Asset Policy been applied in developing workbanks?	4	4	4	3	4	4	4	3
	A3	How are Regions deciding selection of intervention types and timings?	3	4	4	4	4	4	4	4
	A4	How have volumes of work been prioritised in the workbanks?	3	3	3	4	3	4	3	3
	A5	What evidence is there of a consistent approach across Regions (e.g. are nationally consistent choices being made? Is there communication between Routes?)	2	2	4	4	2	2	3	3
	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	4	4	3	2	2	2	2	4
	A7	To what extent can the delta between planned vs actual renewals be identified via analytical methods?	4	4	4	3	3	3	4	4
	A8	To what extent does the actual delivered renewals workbank for Year 1 differ from the planned renewals workbank for the same period?	4	4	3	2	2	3	3	3
	A9	To what extent have schemes been deferred?	3	4	3	3	4	4	4	4
	A10	How were deferred schemes justified?	3	4	4	2	3	3	3	3
	A11	To what extent have schemes been cancelled?	4	4	4	4	4	4	4	4
	A12	How were cancelled schemes justified?	4	4	4	4	3	3	4	3
	A13	To what extent have schemes been swapped / accelerated?	4	3	3	3	4	4	4	4
	A14	How were swapped / accelerated schemes justified?	4	4	4	4	3	4	4	3
	A15	When was the workbank agreed and was it updated before the start of the year?	3	4	2	2	3	3	3	3
	A16	What, if anything, was included in the Year 1 plan as items deferred or which had fallen out of the previous year's plan?	3	4	2	4	3	4	4	4
B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	2	4	4	4	4	4	4	2
	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	3	3	3	4	4	4	4	2
	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	2	4	4	4	4	4	4	2
	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	2	4	4	4	4	4	4	2
C Regional Assurance	C1	What regional workbank Change Control process is adopted?	3	4	4	2	4	3	0	3
	C2	What evidence is there of a consistent Change Control approach across Regions?	2	2	3	1	2	2	2	2
	C3	To what extent do Regions individual projects remain aligned to policy requirements through the workbank Change Control process?	3	3	3	2	4	3	3	3
	C4	To what extent are there any notable shortcomings in the Change Control process?	3	3	3	3	2	2	3	3
	C5	To what extent has there been any cross-Route impact as a result of devolution? - e.g. a Route cancelled work which another Route was piggy-backing to do its own work.	4	4	4	4	4	4	4	4
D Costs	D1	To what extent (and how) have volumes of work been identified and costed?	4	4	2	3	3	4	3	4
	D2	To what extent can the delta be between estimated vs actual renewal cost be identified via analytical methods?	4	4	4	3	3	3	4	3
	D3	To what extent does the estimated renewal costs for Year 1 differ from the actual renewal costs for the same period?	3	4	4	3	3	3	3	3
	D4	What is the potential impact on the Business Plan of the difference between the estimated vs actual renewal costs for Year 1?	3	4	3	3	4	4	3	4
	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	2	2	2	2	1	2	2	2
	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	2	3	4	4	4	3	4	4
	D7	What was the operational impact (if any) of changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.	4	4	4	4	4	4	3	3
E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	2	3	3	4	2	3	3	3
	E2	What measures of effectiveness are in place for each Region?	2	2	3	1	1	3	3	3

5.3 National Current Practice

From the overview of the results from each Region / Route the following evidence of current practice has been assembled for each of the five evaluation topics and all framework questions.

Where good practice across the Regions has been identified this appears in the following sections in green boxes. Those framework questions not in the green boxes displayed a range in the quality of the practices observed.

5.3.1 Work Bank Changes

Evidence of current practice as gathered from the framework questions relating to the evaluation topic *A: Work Bank Changes* are listed below.

- **[A1] Developed and agreed work banks:** Each Region/Route articulated a robust process for the development of their work bank. Regions scoring '4' demonstrated this process through a report, document, or presentation.
- **[A2] Policy application:** Asset policy was applied consistently across all Regions / Routes on the network. Routes scoring '4' tracked, in their work banks, the policy level / target each scheme achieved.
- **[A3] Selection of intervention type and timing:** Good capability was shown across Regions / Routes with clearly defined tools and methodologies in place. Types and timings of activities were based primarily on policy/standard compliance. Access planning and possession timing played a significant role in the planning of the work bank.
- **[A4] Prioritisation approach:** Delivery of work items was prioritised based on compliance to policy and standards by all Regions using their appropriate tools. Volumes were based on early-stage scheme estimates which were subject to change as schemes developed.
- **[A5] Consistent approach across the Regions:** There was consistency in the principles used across the Regions for developing and prioritising work banks. However, within certain Regions there were inconsistencies in the approaches and tools used within their constituent Routes. There was some evidence to suggest that the way in which the reporting of core planning and the contingent over-planning items was handled, was one factor in this variance. It was however noted that the final structure of the five Regions was not in place during 2019/20. The evidence collated from the Regions in the majority of cases was that they were moving towards integrating their planning and change control approaches.
- **[A6] Visual representation of work bank composition:** There was limited use of graphical analysis across the Regions to communicate the composition and movements in the work bank during delivery. Routes scoring '4' demonstrated use of visuals to track volume and cost movement. Regions / Routes scoring '2' did not use graphical analysis in any way to communicate or manage changes in their work banks.

- **[A7] Delta between planned vs actual renewals:** In general, it was possible to review work bank changes through analytical methods. Regions scoring '3' had inconsistent primary keys for schemes which made analysis unnecessarily more complex.
- **[A8] Differences between planned and actual renewals:** There was movement from the baseline plan across all Regions / Routes. Routes scoring '4' had been able to justify the changes and could present the movement visually. Scores of '3' showed consistency in the Year 1 reporting but lacked clarity around the cause of the change. Regions / Routes scoring '2' demonstrated a lack of consistency between the reported cost/volume for Year 1 and the baseline.
- **[A9] Quantity of deferred schemes:** All Regions / Routes clearly demonstrated the extent that schemes were deferred during Year 1. Routes scoring '3' showed greater variances from the baseline than 5%.
- **[A10] Justification for deferred schemes:** Deferrals were generally well justified across the Regions / Routes. Opportunities existed to improve justification for deferrals in Routes scoring '3'. Routes scoring '2' showed a lack of clarity around justification of deferrals.
- **[A11] Quantity of cancelled schemes:** There were no cancelled scheme in the CP6 Year 1 work bank.
- **[A12] Justification for cancelled schemes:** When cancelled schemes arise, these would be justified as part of the Change Control and Deferral Renewal processes. The Change Control processes implemented across the network showed it was possible to record the appropriated level of justification needed for cancelled schemes.
- **[A13] Quantity of swapped/accelerated schemes:** Based on the documentation supplied and the workshops held there was a minimal acceleration of schemes across all the Regions / Routes.
- **[A14] Justification for swapped/accelerated schemes:** Accelerated schemes were justified through the Change Control process which showed the appropriate level commentary across all Regions / Routes.
- **[A15] When was work bank agreed:** Across all the Regions / Routes there was movement from what the ORR understood as expected cost/volume for Year 1, and what Network Rail centrally forecasted at the start of the Control Period. It was clear that there was no baseline plan accepted by all parties to ensure there was one source of the truth.
- **[A16] Inclusion of deferred renewals from CP5:** It was clear that there was a spill over of schemes from CP5 into Year 1 of CP6. Routes scoring a '3' lacked sufficient evidence that these schemes had been completed based on the documentation provided. Routes scoring '2' demonstrated further slippage of CP5 schemes programmed for Year 1 into later years in the Control Period.

5.3.2 Risk Quantification

The following paragraphs show the evidence of good practice as gathered from the framework questions relating to the evaluation topic *B: Risk Quantification.*

- **[B1, B3 and B4] Quantification of risk associated with change:** Across the Regions / Routes good processes were in place to manage risks arising from deferrals in line with the Deferred Renewals Standard. This included evidence demonstrating sound engineering judgment and analysis. Regions with scores of '4' clearly demonstrated good process, qualitative analysis and the use of CRAM to support quantitative analysis of deferral risks. Routes scoring '2' were not able to evidence through documentation the use of CRAM to support deferral risk assessment.

- **[B2] Assessment of sustainability risk associated with work bank changes:** Across the business there appeared to be a lack of understanding with no single sustainability metric used in work bank development or quoted by Regions in the management of risk. There was also no evidence that the impact of the planned and delivered renewals work bank, from a sustainability perspective, had been evaluated. It was noted that the CRAM process included a metric for Asset Management which had been used as a proxy for sustainability by some Routes. It was articulated that sustainability funding had been made available, but this had not been associated with changes to the plan.

5.3.3 Regional Assurance

The evidence of good practice from the framework questions relating to the evaluation topic *C: Regional Assurance* are described below.

- **[C1] Change Control Process:** The Change Control processes adopted by Regions / Routes were generally robust. One Route failed to provide evidence of a Change Control process leading to a score of '0'. Scores of '2' were given where the documentation provided did not provide sufficient clarity for the process to be understood. Regions scoring '3' had a process document but the Change Log lacked the expected level of detail.

- **[C2] Consistent change control across Regions:** Within Regions where the Year 1 plan had been assembled in the constituent Routes there was no alignment of Change Control process. It was however noted that the final structure of the five Regions was not in place during 2019/20. The evidence collated from the Regions in the majority of cases was that they were moving towards integrating their planning and Change Control approaches.

- **[C3] Alignment to policy through change process:** Regions demonstrated that schemes were policy aligned through the use of their Change Control processes. Any change or deviation in policy would be documented in the Change Log.

- **[C4] Identified shortcoming in approach:** Change Control processes across Regions / Routes were noted as evolving with all the described processes

having their own shortcomings. These included, but were not limited to, evolving integration of tools, reliance on individuals, not being a bespoke to structures, etc.

- **[C5] Cross-Regional change impact:** There had been no impact on scheme delivery in Year 1 as a result of impacts in other Regions. Regions had mitigations in place to limit this type of issue.

5.3.4 Costs

The following paragraphs show the evidence of good practice as gathered from the framework questions relating to the evaluation topic D*: Costs.*

- **[D1] Identification and costing of work volumes:** Regions / Routes were able to demonstrate robust processes to identify unit costs and the use of appropriate guidance to develop volumes. They developed their cost/volumes for schemes in the work banks along different stages of the GRIP process using different approaches to try to make them as accurate as possible. Costs were generally bespoke to Routes using evidence from CP5 outturn costs, modelling, and unit rates from the Technical Authority. There was however evidence from a number of the Regions to indicate that they would benefit from guidance in the application of overlays associated with scheme maturity and other activity factors.
- **[D2] Identification of the delta between estimated and actual renewal costs by analytical methods:** It was possible to review movement of cost/volume within the work bank using analytical methods. Regions scoring '3' had inconsistent primary keys for schemes which made the analysis more complex.
- **[D3] Extent of differences between estimated and actual renewal costs through analytical methods:** There had been movement from the baseline across all Regions / Routes. There were several causes associated with over/under spend and over/under volume delivery most notable were the unreliability of unit costs and changes in work bank makeup from the baseline. Routes scoring '3' had movement from the baseline but the justification and recording of movement in cost/volume could be improved.
- **[D4] Impact on Business plan of differences between estimated and actual renewal costs:** Movement from baseline to Live Plan had not impacted the ability for Regions / Routes to deliver future years of the work bank. Adoption of early contractor engagement principles were seen across a number of Routes, aimed at supporting scheme maturity and improving cost/volume accuracy. There was no clear trend observed for cost/volume movements across the entire Year 1 work bank.
- **[D5] Extent of cost/volume variances of greater than +/-5%:** On all Regions there was significant variance from the +/-5% threshold for cost, with less variation taking place in terms of volume changes. This appeared to be driven through the immaturity of scheme estimates at work bank development stage and unit costs being unreliable or not representative of the works being undertaken.

- **[D6] Causes of cost/volume variances of greater than +/-5%:** Justification of scheme cost changes was well recorded across most Regions and could generally be understood using analytical methods.
- **[D7] Operational impact of change:** There had been no TSRs or operational restrictions as a result of structure renewal changes during Year 1.

5.3.5 Completed CP6 Projects

The evidence of good practice from the framework questions relating to the evaluation topic *E: Completed CP6 Projects* are described below.

- **[E1] Completed schemes met outcomes:** Most Regions / Routes demonstrated that they had processes in place for recording hand back of completed projects to ensure outcomes had been achieved but this was not recorded in the Live Plan.
- **[E2] Measures of effectiveness:** Some Routes had introduced a process which allowed them to review their effectiveness in planning and delivery of schemes. This acted as a platform for developing best practice. There was very limited use of cross Region / Route sharing of lessons learned in evidence. Routes with a score of '1' did not demonstrate any process for measuring effectiveness and development of best practice.

5.4 Improvement Themes

The following describes the review's findings in summary for each of these five requirements and where appropriate identifies where the findings lead to Improvement Themes.

5.4.1 Work Bank Changes

The creation of the work banks at the start of Year 1 was generally found to be a robust process usually based on experience of a well-tried system and based on asset condition linked to policy and deliverability. It was however noted that the formation of the new Regions had led to significant variations in the detail of the process and mechanics of the development of the baseline work banks. This was particularly true where Routes were still coalescing to form their Region during Year 1.

The baseline plan produced by the Regions was however inconsistent with versions of costs and volumes held by Network Rail centrally, the Region, and ORR. All of which presented the review with various figures thus making the establishment of the 'planned work bank' difficult to define. In dialogue with some Regions, it appeared that the creation of a core plan to meet budget and then the inclusion of a degree of over-planning (to provide a buffer should issues emerge with delivery on certain core schemes) contributed to this confusion.

During the course of the year it was clear that the delivery plan in all Regions changed to varying degrees. What was also clear was that all Regions had processes in place to manage these changes including Change Control and

Deferred Renewal processes which in general were fit for purpose. Thus, deferrals were documented and generally justified. There were however instances where the justification for change lacked detail and appeared to be generic in its origins.

Based on the foregoing assessment the following proposed Improvement Themes have been identified:

Improvement Theme 1 - Consistency in Work Bank Development: Each Region should adopt a common framework to develop their structures renewal annual plan to provide a consistent means of understanding the drivers of inclusion and support better decision making across the Region. This could include separate tracking of core and over-planning work items.

Improvement Theme 2 - Agreeing the Annual Baseline: Ensure that there is an agreed baseline for the structures' renewal plan in terms of cost and volume for a core plan at the start of each year. Ensure the agreed Control Period Baseline is recorded. This will support the monitoring of delivery and act as a foundation from which change can be measured and justified.

5.4.2 Risk Quantification

In the review of the process of change to the work banks there was strong evidence that Regions had integrated the Corporate Risk Assessment Matrix (CRAM) in the evaluation of risk associated with work bank change. The CRAM uses four criteria to assess risk:

- Safety, Health and Environment;
- Performance;
- Finance; and
- Satisfaction and Reputation.

In addition, some of the Regions use the 'Asset Management' criterion required by the Network Rail Standard NR_L2_HAM_02201 [Issue 5] - Management of the risk arising from Deferred Renewals.

Based on the approaches used by the Regions it was clear that the impact of changes to their work bank delivery plan, which went through this process, were assessed for risk associated with safety and performance as a result of the application of the CRAM.

What was not clear was how the impact on sustainability was being managed. In challenging this with the Regions the view was expressed that the impact on portfolio sustainability of a single scheme would be extremely small thus it was not a significant factor in the decision-making process. Whilst this was undoubtedly true the lack of an overall tracking of sustainability was considered a gap. As a result, the following Theme was identified:

Improvement Theme 3 - Integration of Sustainability: An exercise to update the knowledge and understanding of current sustainability measures in the Regions is necessary. This will allow them to monitor the impact their delivery has on sustainability. Sustainability analysis should be considered during reforecasting of control period work banks to enable end of year validation of work bank outputs. This approach will provide a tracker of sustainability in terms of initial aims and then the impact of interventions, force a longer-term view of cost, and allow longer term trends to be observed.

5.4.3 Regional Assurance

Policy alignment in the formulation of the annual work bank was generally good however, the tracking of policy compliance when changes to the work bank occurred varied from very comprehensive to non-existent. Picking up the point above, this variation occurred in separate Routes in the new Regions as well as where central Regional planning was observed. It was thus clear that there were areas of good and bad practice nationally which could be addressed.

Whilst alignment with policy was one of the variations which existed within Regions this was part of an observed variation in the Change Control processes where separate Routes had developed and managed their plans. It was considered that such variations were not conducive to the best decision making in a Region given that whilst the principles of the change process may be similar the weighing of certain factors could vary. This led to the following Theme:

Improvement Theme 4 - Consistent Change Control: Each Region should adopt a common framework to capture and record changes to their structures' renewal plans. This will provide a consistent means of monitoring and tracking change such that better decision-making takes place across the individual Region.

5.4.4 Costs

The means by which Regions forecast cost and volumes for Year 1 were founded on the Unit Rates supplied by the Technical Authority during the budgeting process. There was broad agreement between Regions that these unit rates had limitations and did not present them with the necessary degree of granularity to allow their adoption without 'adjustment'.

This was principally because a single rate could cover significantly different activities and also did not take account of environmental factors, such as access, or restrictions on works. There was thus evidence of a variety of changes made to the rates by the Regions to make them more applicable to the particular circumstances pertaining to the work in hand. A number of the Regions were able to give a detailed account of the costing methodologies used, and these were considered a reasonable effort to forecast the actual costs.

A further factor which was also noted was the maturity of the development of the work item when it was being estimated at the start of the year. Clearly those schemes in the early GRIP stages were less robust in terms of cost than those where development was significantly more advanced.

The result of the foregoing was that there was a very significant degree of variation in terms of the cost of schemes with the bulk of those lying outside the targeted +/-5% threshold.

Based on the foregoing assessment the following Improvement Theme has been identified:

Improvement Theme 5 – Costing Methodology Development and Overlay Guidance: Regions should undertake their own review and assurance of their suite of structures costing methodologies. This will improve accuracy in scheme estimation and provide greater consistency of estimation to ensure a more accurate fit with the various work types. The development of guidance on cost overlays to address scheme maturity and environmental factors. Regions could consider a collaborative approach in sharing rates and guidance nationally between them to stimulate budgeting lesson learned exercises.

5.4.5 Completed CP6 Projects

The closing out of projects was generally good not least because there are safety implications associated with the handing back of the railway on completion of works if the project is of some size. A number of the Regions provided evidence of the close out of schemes and then, if there were changes made to the capability of the structure, the documentation flow through the Region to advise colleagues in other departments of, for example, the removal of a Route Availability restriction. From the examination of the structures' renewal Live Plan it was not at all obvious if the scheme had been completed and the objectives achieved.

The Regions' monitoring of their effectiveness was generally poor with no group scoring '4' in this category. A number of Regions operated some form of internal reporting but the value of this was not clear from a learning perspective in the structures' renewals field. It was reported that there were some KPIs measured by the Technical Authority on Regional effectiveness, but this was not evidenced and, again, the purpose and impact of these was not clear.

From these observations the following two Themes have been suggested:

Improvement Theme 6 - Project Close Out: Regions should comply with the relevant project close out process. Regions should ensure that hand back requirements and close out of projects is captured in the Live Plan documentation. This will aid understanding of scheme status and support decision making regarding schemes where the expected outcomes were not delivered.

Improvement Theme 7 - Regional Effectiveness: Regions should adopt the relevant framework (e.g. PACE - Project Close) to report on their effectiveness against identified criteria. This will support understanding of what 'good' looks like in terms of planning and delivery to drive performance and identify areas of weakness.

6 Agreed Recommendations

6.1 Overview

The process to undertake this review has by necessity been a collaborative exercise between the review team and the various structures teams from across the country. The Regions were very open about the processes and systems they had used in the development and delivery of the Year 1 structures renewal plan. That openness has allowed the review team to identify certain areas where it is believed there would be benefit to Network Rail in modifying their practices, in some cases nationally, in others to share the best practice between the Regions.

As a result of the examination that has been undertaken and the follow up analysis the following recommendations have been developed and agreed from the review.

6.2 Recommendations

The recommendations which have emerged from the study are listed in Table 11.

Table 11 – Agreed Recommendations

#	Recommendation to Network Rail	Benefits	Evidence of Implementation	Location in Text	Network Rail Champion	Due Date
SOW16354-1	**Consistency in Work Bank Development:** It is recommended that each Region adopts a common framework to develop their structures control period renewal plan. This should include the management and designation of core and over-planning schemes.	This will provide a Regionally consistent means of understanding the drivers of inclusion and support better decision making and audit within the Region.	Common renewals planning framework adopted at Regional level, as appropriate.	Section 5.4.1	Regional Leads	During CP7 Planning
SOW16354-2	**Agreeing the Annual Baseline:** Ensure there is a baseline for the structure's renewal plan in terms of cost and volume for a core plan at the start of each year. Ensure the agreed Control Period Baseline is recorded.	This will support the monitoring and delivery of the annual plans. It will act as a foundation from which change can be measured and justified. This will allow the Reforecasts to be compared with the Control Period Baseline	Recorded Control Period Baseline that is recognised by ORR, and Network Rail Regionally and in the TA.	Section 5.4.1	Regional Leads	During CP7 Planning
SOW16354-3	**Integration of Sustainability:** It is recommended that Regions are briefed on how the structures Composite Sustainability Index (CSI) and effective volumes are used as measures of sustainability at portfolio level and can be influenced by changes in the annual plans.	The Region will understand how changes to their annual plans will affect the CSI at portfolio level. This approach will: • provide a tracker of sustainability in terms of initial aims • Show the impact of interventions, • Enable a longer-term view of LCC, • allow longer term trends to be observed.	The structures Composite Sustainability Index and effective volumes are used at regional level to aid understanding of how their annual plans affect sustainability at portfolio level.	Section 5.4.2	Regional Leads	During CP7 Planning
SOW16354-4	**Sustainability Analysis:** Sustainability analysis should be considered during control period work bank reforecasting, based on the structures CSI and effective volumes. This should be validated at each year end once delivery is completed.					

#	Recommendation to Network Rail	Benefits	Evidence of Implementation	Location in Text	Network Rail Champion	Due Date
SOW16354-5	**Consistent Change Control:** It is recommended that each Region adopts a common framework to capture / record changes to their structures renewal plans to provide a consistent means of monitoring and tracking change and sustaining alignment with policy.	This will support better monitoring and tracking of decision-making.	Changes (and continued policy alignment) clearly linked and / or captured in the work bank	Section 5.4.3	Regional Leads	During CP7 Planning
SOW16354-6	**Costing Methodology Development and Overlay Guidance:** It is recommended that each of the Regions undertakes an assurance exercise to ensure the structures costing methodologies are sufficiently accurate to suit the work types being planned. This could include guidance on cost overlays to address scheme maturity and environmental factors, as appropriate. Regions could consider a collaborative approach in sharing costing methodologies and related guidance nationally between them.	This will improve accuracy in scheme estimation, provide greater consistency of estimation and stimulate budgeting lesson learned exercises.	Regional costing methodology and relevant guidance in place.	Section 5.4.4	Centre of Excellence	During CP7 Planning
SOW16354-7	**Project Close Out:** It is recommended that Regions should follow the relevant project close out processes. Regions should ensure that hand back requirements and close out of projects are documented and evidenced. This includes the required updates to the Live Plan.	This will aid understanding of scheme status and support decision making regarding schemes where the expected outcomes were not delivered.	Records showing project close out / hand back are captured / stored.	Section 5.4.5	Centre of Excellence	March 2022
SOW16354-8	**Regional Effectiveness:** It is recommended that Regions adopt the relevant framework (e.g. PACE Project Close – demonstrate delivery to planned requirements) for monitoring their effectiveness against identified criteria.	This will support understanding of what 'good' looks like in terms of planning and delivery of renewals to drive up performance and identify areas of weakness.	Records of measuring effectiveness are captured / stored.	Section 5.4.5	Centre of Excellence	March 2022

Appendices

Appendix A – Statement of Work #16354

Independent Reporter Framework

Statement of Works

1.0 COMMISSION INFORMATION	
Project Name:	Review the progress of Structures Year one Work bank delivery
Bravo Sourcing Request Number:	#16354
Network Rail Contact:	Matthew Blackwell
Network Rail Department:	Planning & Regulation
SoW Number:	0004
Network Rail PO Number:	[insert NR PO# when available]
Commission Value:	[insert the SoW value after this has been agreed with the supplier]
Supplier Name:	[insert the name of the selected supplier after appointment]
Main Supplier Contact:	[name and email address of the main supplier contact]

This Statement of Work (SoW) is the contractual vehicle for defining, authorising and commissioning a piece of work to be undertaken under the Independent Reporter Framework. The SOW has six sections:

1 *Commission Information*
2 *Commission Overview*
3 *Scope of Services and Deliverables*
4 *Knowledge Transfer*
5 *Resource & Commercial Details*
6 *Invoicing*

This SoW is entered into under and in accordance with the terms of the Independent Reporter Framework dated 1 February 2020 between Network Rail, the Office of Rail and Road, and the Supplier and includes and incorporates any special Terms and Conditions and any other amendments captured in this SoW.

Any dispute surrounding this SoW will be resolved in accordance with the Terms and Conditions outlined in the Framework Agreement.

Ownership and use of any Intellectual Property Rights shall be in accordance with the Framework Agreement Terms and Conditions.

Change control procedures are to be applied as set out in the Terms and Conditions of the Framework Agreement.

2.0 COMMISSION OVERVIEW	
2.1 Background	Historically, Network Rail has provided ORR with Cost and Volume data as required by the data protocol agreed under Part C paragraph 8.1 of the Network Licence. In CP6, to obtain progressive assurance that Network Rail's structures portfolio are being maintained at sustainable level, ORR will undertake detailed monitoring of workbank delivery at Regional level.
2.2 Business Objectives and Priorities	ORR's business objective is to hold Network Rail to account for efficient and sustainable management of the network and ensure value for money. As part of ORR's commitment to monitoring and regulating Network Rail at Regional Level, we are undertaking this assurance review to assess delivery of the year one Structures workbank in each Region, its impact on the outcomes across the Structures portfolio, and the robustness of regional assurance through the workbank change control process.

3 .0 SCOPE OF SERVICE AND DELIVERABLES	
3.1 Key requirements	The Independent Reporter shall be expected to provide an assessment (as detailed below) of delivery of the year one structuresworkbanks and associated change control processes based on evidence collated: 1. The Independent Reporter shall assess and comment on the changes between the planned renewal workbank and the actual delivered workbank. The Independent Reporter should highlight schemes that have been deferred, schemes that were cancelled and schemes that were swapped. Justification will be required for these three changes; 2. The Independent Reporter shall assess and comment on Information the regions shall provide on the description of their process for quantifying how renewal intervention and management of deferrals/accelerations affects sustainability, performance and safety (on a sample of assets) 3. Independent reporter to assess and comment the robustness of Region assurance processes with respect to how individual projects remain aligned to policy requirements through the workbank change control process. Where shortcomings are identified, the Independent Reporter is to provide recommendations for improvement; 4. Independent reporter to assess and comment on the changes in actual costs against estimated costs used to develop the SBP, including the potential impact that these might have had on changes to the business plan. The independent reporter, drawing upon their expertise, should review a representative sample of individual projects to identify any variances where +/- 5% to cost or volume is exceeded. Where the variance is outside of this tolerance for an individual projects the reporter should seek to identify the specific causes of the variance including changes to scope; 5. The Independent Reporter shall assess and comment on whether completed CP6 projects met their expected outcomes and what measures of effectiveness are in place. Upon completion, the Independent Reporter will be expected to provide recommendations for improvement and point out areas of best practice.

3.2 Key deliverables	The required deliverables are: • monthly progress updates via conference call, with associated agenda/minutes • a presentation of draft findings to be discussed at a meeting with Network Rail and ORR • a draft report (for comment by ORR and Network Rail) covering the issues set out in the scope section above, to be provided by the 8th of January 2021; and • a final report by the end of January 2021 that addresses comments provided by ORR and Network Rail on the draft report.
3.3 Proposed approach	[Demonstrate and detail the proposed approach for the project, covering all areas of the projects scope and clearly state the requirement(s)] *[Insert at contract award stage]*
3.4 Schedule & timings	Contract Start Date: 07/09/2020 Contract End Date: 29/01/2021 *These are indicative dates and will be agreed once the contract has been awarded and the PO has been approved. [Insert details pertaining to the commission's intended start and end date, as well as a commission schedule e.g., a Gantt chart with tasks and attributive start/end dates]

4.0 KNOWLEDGE TRANSFER	
4.1 Knowledge Transfer	[Explain and detail how knowledge transfer is to be enabled throughout the commission and how the final output will be delivered and presented to Network Rail and ORR.] *[Insert at contract award stage]*

5.0 RESOURCE & COMMERCIAL DETAILS	
5.1 Supplier Resource	[Key personnel which will be engaged in the commission, along with their responsibilities. Details should include sub-contractors, if sub-contractors are being utilised for the delivery of this contract commission] *[Insert at contract award stage]* In the event of "key personnel" becoming unavailable the supplier agrees to provide a replacement of equal standard and status within 48 hours of notice.

5.2 Pricing Schedule	**This contract is based on a FIXED PRICE contract commission** *[Insert price schedule and cost breakdown at contract award stage]* All prices detailed are exclusive of VAT which will be charged at the prevailing rate.
5.3 Payment Milestones	This contract is being let on a fixed price contract commission, payable in two milestone payments as follows; **Milestone (time based)** / **Payment Amount (% or fixed fee)** Mid-way point (20/11/2020) — 50% Completion of project (29/01/2021) — 50%
5.4 Place of work	Due to the current COVID-19 situation most of Reporter's work will be conducted from their own office or on site at above address. If the situation is to change there is potential for work at: Network Rail, Elder Gate, Milton Keynes MK9 1EN.
5.5 Expenses	For the purpose of this contract, business travel expenses to Network Rail's Milton Keynes office [if this becomes necessary] may be claimed in accordance with Network Rail's Business Travel and Expenses policy.
5.6 Contract Variations	Variations to this Statement of Work contract may be permitted in accordance with Clause 88 of the Utilities Contract Regulations (modification of contracts during their term). All variations to this Statement of Work contract must be agreed in writing under a restated statement of works document, duly signed by all parties

6.0 INVOICING	
6.1 Invoice Details	Network Rail operates a strict "NO PO – NO PAYMENT" policy. Invoices are to be raised on completion of the contract or in accordance with the milestone payments [where applicable] set out in this SOW. Invoices should contain the following information as a minimum: • Purchase Order number • SOW number as detailed in Section 1.0 • Project Title and description Business expenses should be invoiced as a separate line and supported with receipts, as described in terms and conditions of the framework agreement and the Network Rail Business Expenses Policy. Please be aware that failure to provide the information above may potentially cause a delay in processing the invoice.

	Our preference wherever possible, is for invoices to be submitted via EDI. Alternatively, invoices may be submitted By email - invoices@networkrail.co.uk By post – Network Rail Accounts Payable, PO Box 4145, Manchester M60 7WZ

This Statement of Work will be executed as per the Terms and Conditions agreed in the Independent Reporter Services Framework Agreement.

[supplier name to be completed at contract award]

Signed:……..

Name (CAPS):……..

Position:……..

Date:……..

NETWORK RAIL

Signed:……..

Name (CAPS):……..

Position:……..

Date:……..

[This SOW does not require further contract signatures from the ORR]

Appendix B – Evidence Pack

ARUP

JOB TITLE	**#16354 - Review the progress of structures year one work bank delivery**
JOB NUMBER	274279-04
DATE	29/01/2021
Description	All Regions assessment and evidence pack

CONTENTS

#16354 - Review the progress of structures year one work bank delivery

Notes

(1) Purpose of document

The purpose of the document is to capture and present the findings of the review into the progress made by regions in the delivery of the structures year one work bank. It was produced by the Independent Reporter under the Independent Reporter Services Framework Agreement for CP6.

(2) Key Assumptions

Only documents provided by Network Rail Regions/Routes were included in this review. These are listed on the 'Documents Register' tab. Further evidence was collated during discussions with the Regions/Routes representatives, as appropriate.
The HS1/Network Rail High Speed route is out of the scope of this review

(3) Basis of assessment

The purpose of this review is to assist the ORR to assess the delivery of the year one structures work bank of Control Period 6 (CP6) (2019 – 2024). This assessment will support ORR's progressive assurance and investigate changes from the baseline programme, the robustness of the change control processes in place, justification as to why changes were accepted and the impact this has had on outcomes across the structures' portfolio at a Regional Level.
The geographical location of Network Rail's Regions is illustrated here:
https://www.networkrail.co.uk/running-the-railway/our-regions/

(4) Confidence Rating Key

The following confidence levels were used in the numerical assessment of the evidence collated against each assessment topic forming part of the evaluation. Evidence were collated either from the documentation listed below or from discussions with Regional representatives.

Confidence Rating	Description
4	Evidence largely complete / consistent explanations with sound rationale
3	Evidence reasonable but with some gaps / inconsistencies in a few areas
2	Partial evidence with some significant gaps / inconsistencies identified
1	Evidence incomplete / contradictory with major gaps identified
0	Insufficient information provided

(5) Abbreviations

AFC	Anticipated Final Cost
ATR	Asset Technical Review
BCMI	Bridge Condition Measuring Index
CAM	Civils Adjustment Mechanism
CARRS	Civils Asset Register and Reporting System
CP	Control Period
CRAM	Corporate Risk Assessment Matrix
DEAM	Director of Engineering and Asset Management
DRAM	Director Route Asset Management
ETY	Engineering Target Year
FD	Final Determination
GRIP	Governance for Railway Investment Projects
HCE	Hidden Critical Element
HETI	Headwinds, Efficiencies, Tailwinds and Inefficiencies
IMS	Integrated Management System
IP	Infrastructure Projects
KCL	Key Cost Line
KVL	Key Volume Line
NR	Network Rail
OP	Oracle Platform
ORR	Office of Rail and Road
PACE	Project Acceleration in a Controlled Environment
PoaP	Policy on a Page

RAM	Route Asset Manager
RF	Rolling Forecast
SBP	Strategic Business Plan
SoFA	Statement of Funds Available
SoW	Statement of Work
SWEPT	Structures Work bank, Efficiency, Policy and Targets
TA	Technical Authority

#16354 - Review the progress of structures year one work bank delivery

(6) Sources of evidence and related documents

No	Date Received	Region	Route	File Name	Description
1	22/09/2020	National	N/A	CP6 Policy Summary V2.1 (1).pdf	Summary outlining the policy objectives to mange the structures asset base. Summarising 14 Key asset/threat subjects with policy activities that should be achieved to move the business from Network Rail standards to Policy on a Page thresholds and intervention options to mange structures from a whole life perspective.
2	22/09/2020	National	N/A	CP6 Structures Asset Policy 2.1 (1).pdf	Full Structures Asset Policy document provides a framework to enable the Routes to consistently and fairly target investment in structures assets, following Asset Management best practice, whilst considering the financial and operational constraints within the business.
3	27/09/2020	Eastern	Anglia	2020.09.25 Workbank Information	DP19 Tab provides a summary of the work that Anglia outlined as part of their Delivery Plan across each year of CP6.
4	27/09/2020	Eastern	Anglia	2020.09.25 Workbank Information	Live Work bank Tab provides a summary of the work that has been undertaken by Anglia to date.
5	27/09/2020	Eastern	Anglia	Anglia Change Control Process	Flow chart that outlines the change management process for schemes.
6	27/09/2020	Eastern	Anglia	2020.09.25 Anglia Structures Deferred Renewals Master	The spreadsheet records the reasons for scheme deferral and the risks associated with that deferral. Additionally gives a summary of when the work will be undertaken following the deferral and the current status of the scheme.
7	28/09/2020	National	N/A	NR/L2/HAM/02201 ISSUE 5 - Management of Risk Arising from Deferred Renewals 2016.pdf	Document sets out the process required to mitigate the risks arising from a re-scheduled prioritised renewal or an incomplete delivery of the scope of a renewal. The standard is applicable to all infrastructure renewals, refurbishment and campaign changes across enhancement and maintenance schemes.
8	25/09/2020	Eastern	East Coast, East Midlands and North & East	20190128 CP6 Workbank.xlsm	Outlines the projected work bank for CP6, complex work book that summaries the work volume and costs associated with each project that should be undertaken across each year of the works period.
9	05/10/2020	Eastern	East Coast, East Midlands and North & East	20200925 Structures Capex Business Plan.xlsm	File not accessible
10	25/09/2020	Eastern	East Coast, East Midlands and North & East	1920 Delta Report.xlsx	Report outlines the capital expenditure difference between estimates and outturn prices. Need to understand the codes that are used to measure the difference. Outlines the impact on future years due to the project being delivered.
11	25/09/2020	Eastern	East Coast, East Midlands and North & East	Blank Change Log.xlsm	Is a blank change log form which is used to highlights changes to scope of a project that moves either money or work volume from one year to another. Guidance is provide to highlight what constitutes a change and the need for the form to be completed.
12	25/09/2020	Eastern	East Coast, East Midlands and North & East	BP vs OP Assurance Check.xlsx	Comparison between predicted work bank and actual work volumes for Year 1. Graphical comparison is available which are then used to update further dashboards.
13	25/09/2020	Eastern	East Coast, East Midlands and North & East	Change Control Training.ppsx	Recorded power point presentation that outlines the Change Control process. Is a formal training session by which client and delivery organisations communicate changes to planned capital investment works.
14	25/09/2020	Eastern	East Coast, East Midlands and North & East	Change Note Quality Check.xlsx	Documents the number of errors, timeliness and quality of the change requests that have been submitted.
15	25/09/2020	Eastern	East Coast, East Midlands and North & East	Civils Change Control Guidance.pdf	PDF of document 17, outlining the Change Control process.
16	25/09/2020	Eastern	East Coast, East Midlands and North & East	Completed Change Log Example 07-20.xlsm	Completed change log for a project. Outlines justification for changes to programmes and budget. Provides summary of the movement of volume of work and monies between Control Period years
17	25/09/2020	Eastern	East Coast, East Midlands and North & East	Consolidated Change Controls + Waterfalls.xlsx	Summary of the financial impacts of each change request that has been approved. For each project financial changes are demonstrated in a waterfall diagram to highlight the difference between planned costs and post Change Control.
18	25/09/2020	Eastern	East Coast, East Midlands and North & East	Terms of Reference RAM.pptx	Outlines the process undertaken at Structures RAM Change Panel to approve or reject changes to program based around the question "What are we doing to reduce change and increase certainty?"
19	25/09/2020	Eastern	East Coast, East Midlands and North & East	15.05.2020 NSS 86 DRRA v1.0.xlsx	
20	25/09/2020	Eastern	East Coast, East Midlands and North & East	20190830 MVN2-237 Deferral Risk Assessment V1.0.xlsx	

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(6) Sources of evidence and related documents

No	Date Received	Region	Route	File Name	Description
21	25/09/2020	Eastern	East Coast, East Midlands and North & East	20200114 LEN3-123 DRRA.xlsx	Completed examples of a Deferred Renewal Risk Assessment template for a structure that a deferred renewal is being proposed for. Details the reason for the deferral and recommendation for when the renewals should take place. Details the risk assessment of the undertaking the deferral and the risk posed by not. Descriptions of risk categories are outlined to allow interpretation of score.
22	25/09/2020	Eastern	East Coast, East Midlands and North & East	20200114 LEN3-123A DRRA.xlsx	
23	25/09/2020	Eastern	East Coast, East Midlands and North & East	20200114 MBW2-47 DRRA.xlsx	
24	25/09/2020	Eastern	East Coast, East Midlands and North & East	20200114 PEH-2 DRRA.xlsx	
25	25/09/2020	Eastern	East Coast, East Midlands and North & East	AGY 31 DRRA.xlsx	
26	25/09/2020	Eastern	East Coast, East Midlands and North & East	Deferral Risk Assessment Template.xlsx	Uncompleted Differed Renewal Risk Assessment form, demonstrates the risk grades and descriptions of each grade depending on the risk category.
27	25/09/2020	Eastern	East Coast, East Midlands and North & East	DOW 7 Scour DRRA AWB 14022020 V1.0.xlsx	Completed examples of a Deferred Renewal Risk Assessment template for a structure that a deferred renewal is being proposed for. Details the reason for the deferral and recommendation for when the renewals should take place. Details the risk assessment of the undertaking the deferral and the risk posed by not. Descriptions of risk categories are outlined to allow interpretation of score.
28	25/09/2020	Eastern	East Coast, East Midlands and North & East	DRRA PED5-54 30082019 v1.0.xlsx	
29	25/09/2020	Eastern	East Coast, East Midlands and North & East	DRRA Process Map.pdf	Flow chart that outlines the process undertaken to bring a project through the Deferred Renewals Risk Assessment process.
30	25/09/2020	Eastern	East Coast, East Midlands and North & East	ECM7-91 DRRA 30082019 v1.1.xlsx	Completed examples of a Deferred Renewal Risk Assessment template for a structure that a deferred renewal is being proposed for. Details the reason for the deferral and recommendation for when the renewals should take place. Details the risk assessment of the undertaking the deferral and the risk posed by not. Descriptions of risk categories are outlined to allow interpretation of score.
31	25/09/2020	Eastern	East Coast, East Midlands and North & East	GRD-6 DRRA 17062020 v1.1.xlsx	
32	25/09/2020	Eastern	East Coast, East Midlands and North & East	MVN2 238 DRRA 09072020.xlsx	
33	25/09/2020	Eastern	East Coast, East Midlands and North & East	NSS-40 DRRA 11.10.2019 v1.0.xlsx	
34	25/09/2020	Eastern	East Coast, East Midlands and North & East	TCC-7 DRRA 06.09.2019 V1.1.xlsx	
35	25/09/2020	Eastern	East Coast, East Midlands and North & East	WAG1 56 DRRA 20200911 v1.2.xlsx	
36	29/09/2020	Wales and Western	Western	Western CP6 Structures Workbank Nov2018.xlsx	Document summaries the planned work at a project level by cost and volume across each year of the Control Period.
37	29/09/2020	Wales and Western	Western	Copy of CP6 Structures Workbank Sept2020.xlsx	Current proposed work bank that outline the cost and volumes across the first year of the Control Period and the impact on future years from the base plan.
38	29/09/2020	Wales and Western	Western	Copy of DRAM Change Control Panel Summary 170420.xlsx	Summary of the Deferred Renewal Risk Assessment control panel meetings and the outcome for costs and works volume variances as the result of Change Control being undertaken. Summary is provided for all assets.
39	29/09/2020	Wales and Western	Western	WES Struct Deferred Renewal Register CP6 v1.xls	Summary of the cause of renewal deferrals across the network in the first year of CP6.
40	29/09/2020	Wales and Western	Western	Structure Volume 2021v3.xlsx	Comparison between actual and proposed volumes/ cost for the first two years of the Control Period.
41	30/09/2020	Wales and Western	Wales	18.06.2020 Wales Structures Deferred Renewals Register.xlsx	Summary of the defer renewals projects, the causes of the deferral and the risks associated with that deferral. Gives a summary of the projects that have been removed from the differed renewal risks.
42	30/09/2020	Wales and Western	Wales	Copy of CP6 Business Plan - BP20 Pd06.xlsm	The document summarises the CP6 Business Plan for the route. For each project cost and volumes are provided across the Control Period given the current work during first year of the Control Period.
43	30/09/2020	Wales and Western	Wales	CP6 Wales Workbank - DRAFT WORKING COPY - Nov 18.xlsx	Summaries the planned work bank for the route over the Control Period. Give the unit rates used to calculate cost for the volume required. A change log is supplied of projects that have moved out of the work bank during Business Planning.
44	01/10/2020	North West and Central	North West & Central	NW&C Structures Planned Workbank RF11 11-12-19.xlsx	Outlines the works planned for CP6 by cost and volume.
45	01/10/2020	North West and Central	North West & Central	NW&C Year 1 Actual Workbank End of Year 30-09-20.xlsx	Outlines the works current work that has been undertaken on the network and the volume of work and costs that have been experienced .

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(6) Sources of evidence and related documents

No	Date Received	Region	Route	File Name	Description
46	01/10/2020	North West and Central	North West & Central	NW&C Structures Change Control download Log 30-09-20.xlsx	Error found in the file and was not used.
47	01/10/2020	North West and Central	North West & Central	Renewals and Maintenance – CP6 Change Control Process V1.1 (1).pdf	Flow chart to demonstrate the process projects go through when going though the Change Control process.
48	01/10/2020	North West and Central	North West & Central	Tour ~ LNW Change Control.pptx	Outlines a approved agenda for running a Change Control meeting and the expected attendees. Gives detail of the process for a project undergoing Change Control.
49	01/10/2020	North West and Central	North West & Central	Renewals and Maintenance – CP6 Deferred Renewal Process V1.1 (1).pdf	Flow chart to demonstrate the CP6 Deferred Renewal Process for projects in the NWC region.
50	01/10/2020	North West and Central	North West & Central	NRL3LNW Deferred Renewals Guidance Note - v3 - April 2019.pdf	Guidance Note that outline the process for renewal projects that are being deferred during the Control Period.
51	01/10/2020	North West and Central	North West & Central	NW&C Structures Deferred Renewal log 30-09-20.xlsx	Appears to a be a log of all the project within the region with those entering deferral indicated.
52	01/10/2020	North West and Central	North West & Central	LNW Change Admin User Guide.pdf	User guide to outline how to approve and review a change request for a project.
53	01/10/2020	North West and Central	North West & Central	LNW Change Control User Guide.pdf	User guide to outline how to submit a project into the change request for process.
54	01/10/2020	North West and Central	North West & Central	NW&C CAPEX Business Planning Process.docx	This guidance note applies to all CAPEX funded renewals and refurbishment activity planned within LNW Region and This guidance note sets out the management process for capitally lead (CAPEX) Business Plans in LNW Region.
55	01/10/2020	North West and Central	North West & Central	NW&C Structures Change Log 2020.xlsx	Summaries any variance between planned workplan and actual delivery during CP6 Year 1.
56	01/10/2020	Scotland	Scotland	P11 18.19 to P14 19.20 change summary	Quick summary of the changes to volume and costs against the Business Plan.
57	01/10/2020	Scotland	Scotland	TLP Scotland Structures CP6 BP1819P11.xlsm	Business Plan baseline of the projects that will be undertaken over CP6. This will form the basis to review against.
58	01/10/2020	Scotland	Scotland	TLP Scotland Structures BP1920P14.xlsm	Actual work that has been undertaken over the Control Period to date.
59	01/10/2020	Scotland	Scotland	SCO Struct Deferred Renewal Register LIVE (2).xlsm	Summary of the deferred schemes and risk associated with the deferral being approved.
60	01/10/2020	Scotland	Scotland	Change Logs Folder	A document is provided for each Change Control meeting. For each meeting the new Change Control requests are outlined while a summary is provided for all the Change Control requests that have been approved. There is a report for each meeting on first review it appears that only the P14 Log requires in-depth review as it summarises all change requests and provides examples of how Change Control requests are processed.
61	01/10/2020	Southern	Kent and Sussex Routes	ToR - SE Change Control Meeting - Final V2	Outlines an approved agenda for Change Control meetings and the expected attendees. Gives detail of the process for a project undergoing Change Control.
62	01/10/2020	Southern	Kent and Sussex Routes	CP6 Change Control Process - Rev 3	Process map for Change Control process used in CP6 by South East Route
63	01/10/2020	Southern	Kent and Sussex Routes	Change Control 5.dox	South East Route Change Control process applied to the CP6 Capital Works Portfolio
64	01/10/2020	Southern	Kent and Sussex Routes	Southern Year 1 - Key variances.xlsx	Summary of the major changes to the programme that have occurred during Year 1 of the period.
65	01/10/2020	Southern	Kent and Sussex Routes	D30.2f CP6 SBP Structures v5.1 200920A.xlsx	Current SE Business Plan
66	01/10/2020	Southern	Kent and Sussex Routes	D30.2f CP6 SBP Structures v5.1 020419A.xlsx	SE Business Plan at the start of the CP6 Control Period
67	01/10/2020	Southern	Kent and Sussex Routes	Copy of Change Control History 280920.xlsb	Summary of all Change Control requests that have been submitted to Network Rail whether they have been approved or not.
68	05/10/2020	Southern	Wessex Route	CP6 Structures CAPEX Renewals Workbank RF11 18_19 - Issued to ARUP.xlsx	Contains the CP6 work bank which is an extract from the Business Plan outlining the work planned for the Control Period.
69	05/10/2020	Southern	Wessex Route	Structures Renewals CAPEX Business Plan 051020 - Issued to ARUP.xlsm	Appears to be the live work bank for CP6 however only forecast financials and volumes are shown, no actuals
70	05/10/2020	Southern	Wessex Route	Structures Renewals Change Log 051020 - Issued to ARUP.xlsx	Document captures changes to the Business Plan that relate to cost, volume, change in deliverer or delivery year and change authorisation.
71	12/10/2020	Southern	Wessex Route	Wessex Change Driver Definitions v1.0.pdf	Change driver definitions to support understanding of the change log
72	12/10/2020	Southern	Wessex Route	Wessex Structures Renewals Change Process.pdf	Renewals Business Plan change process and approvals matrix

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(6) Sources of evidence and related documents

No	Date Received	Region	Route	File Name	Description
73	02/11/2020	Southern	Wessex Route	Wessex Structures CP6 SBP - basis of estimate	Outlines how the unit costs were developed, the basis for the different unit costs used for each asset and the confidence in those estimates to provide accurate costings.
74	02/11/2020	Southern	Wessex Route	Wessex Structures CP6 SBP FR2 STE Route Assurance Pack 30_05_17	Outlines the approach taken by the Wessex Region to develop the work bank for CP6.
75	02/11/2020	Southern	Wessex Route	CV Handbook V 4.0	Demonstrates the process for how cost and volume were calculated for CP6 .
76	28/10/2020	Centre	N/A	Copy of KVL Process (002)	Document outlines the process
77	28/10/2020	Centre	N/A	RF4 Renewals Volume Review	Summary report of renewals volumes for Y2 Q1
78	28/10/2020	Centre	N/A	RF4 Renewals Volume Tables	Detailed summary of renewals volume for Y2 Q1
79	02/11/2020	ORR	N/A	RF11 CP6 Renewals Data Book (ORR Final) Valued (9)	Control Period baseline work banks that were submitted to the ORR prior to the start of the Control Period.
80	02/11/2020	North West and Central	North West & Central	NW&C Planned Workbank RF11 11-02-19 Sharpclould IMS Extract v1.1	Actual Work bank for region as an extract from IAMS to demonstrate out turn costs for Y1.
81	02/11/2020	Wales and Western	Western	AMP Handback Checklist Barnards Lock	Asset Management Plan CARRS compliance and hand back assurance - check form example for a specific structure. Used to ensure relevant files and process have been undertaken at handback.
82	02/11/2020	Wales and Western	Western	AMP001 Barnards Lock	Asset Management Handback Form AMP001 example.
83	02/11/2020	Wales and Western	Western	AMP003 Barnards Lock	Asset Management Handback Form AMP003 example.
84	02/11/2020	Wales and Western	Western	AMP008 Barnards Lock	Asset Management Handback Form AMP008 example.
85	02/11/2020	Wales and Western	Western	AMP009f Barnards Lock	Asset Management Handback Form AMP009 example.
86	02/11/2020	Wales and Western	Western	AMP010 Barnards Lock	Asset Management Handback Form AMP010 example.
87	02/11/2020	Wales and Western	Western	AMP011 Barnards Lock	Asset Management Handback Form AMP011 example.
88	02/11/2020	Wales and Western	Western	AMP012 Barnards Lock	Asset Management Handback Form AMP012 example.
89	02/11/2020	Wales and Western	Western	NR_L2_MTC_089_AMP016 - Barnards Lock copy	Outline the snagging required after project close out and completion of works to formalise handback of a structure.
90	02/11/2020	Wales and Western	Western	RAM Structure AMP	Outlines the Rout Asset Management Policy document and the associated forms that are used for structures project management.
91	03/11/2020	Southern	Kent and Sussex Routes	Copy of CAPP_DRR (active data feed) to Arup Nov 20.xlsx	Deferred Renewals Register. Ignore items in yellow as they are either closed or they have been superseded by a more up to date item in the register.
92	03/11/2020	Southern	Kent and Sussex Routes	RF11 Assurance Pack Template Structures 260220 .xlsm	
93	03/11/2020	Southern	Kent and Sussex Routes	Sanderstead Signed Form 1.pdf	a signed copy of the Form 1 for Sanderstead underbridge. The proposed work is set out in section 1.1 whereas the design criteria are detailed in section A.1.3.
94	12/11/2020	Centre	N/A	FY20 Renewals Volume Tables.xlsx	Year 1 Year End Volume Tables
95	12/11/2020	Centre	N/A	RF11 Renewals Volume Review.pdf	Y1 (RF11) Renewals Volume Review
96	12/11/2020	Centre	N/A	Year End Renewals Volume Overview.pdf	Year 1 Year End Volume Overview
97	12/11/2020	Scotland	Scotland	BCAM-TP-0199.pdf	copy of the Process for raising and managing structures renewal work items in CARRS
98	12/11/2020	Scotland	Scotland	170515bpmeetingminutes.xlsx	Tabulated notes of decisions at scheme planning meeting
99	12/11/2020	Scotland	Scotland	180123 Workbank Analysis - by asset type.pdf	Graphical analysis of plan by asset type
100	12/11/2020	Scotland	Scotland	180123 Workbank Analysis - by year.pdf	Graphical analysis of plan by year
101	12/11/2020	Scotland	Scotland	171130 SWEPT Culverts.pdf	Early analysis of plan for culvert work flagging policy compliance
102	12/11/2020	Scotland	Scotland	171130 SWEPT Underbridges.pdf	Early analysis of plan for underbridge work flagging policy compliance
103	12/11/2020	Scotland	Scotland	CP6 Policy Activity Scotland Route - ORR.xlsx	Summary of policy drivers for CP6 from 2017
104	12/11/2020	Scotland	Scotland	CP6 Update (2).ppt	National presentation providing an update on CP6 planning for structures
105	12/11/2020	Scotland	Scotland	2019-20 - Design Development - Remit Queries - Combined - 16-03-2018 Priority 1 2a V4.xlsx	Review of the development of schemes in the plan from March 2018
106	12/11/2020	Scotland	Scotland	1 180123 Workbank Analysis - by year.pdf	Graphical analysis of workbank by asset types across CP6
107	12/11/2020	Scotland	Scotland	2 CP6 WHL Piped culvert prioritisation.pdf	List of schemes prioritised on WHL
108	12/11/2020	Scotland	Scotland	3 UB Prioritisation CP6 Y1.pdf	Listing of underbridges in Year 1 plan with priority rating
109	12/11/2020	Scotland	Scotland	4 UB Prioritisation CP5 and CP6.pdf	Graphical analysis of prioritisation across CP5 and CP6 for underbridge works
110	12/11/2020	Scotland	Scotland	2017-05-31 ATR Notes FINAL.pdf	Sample notes from ATR meeting
111	12/11/2020	Scotland	Scotland	2017-06-28 ATR Notes FINAL.pdf	Sample notes from ATR meeting
112	12/11/2020	Scotland	Scotland	2017-08-23 ATR Notes FINAL.pdf	Sample notes from ATR meeting
113	12/11/2020	Scotland	Scotland	2017-10-18 ATR Notes FINAL.pdf	Sample notes from ATR meeting
114	12/11/2020	Scotland	Scotland	Structures ATR Minutes - 2020.06.03	Sample notes from ATR meeting
115	12/11/2020	Scotland	Scotland	Authority paper graphic.xls	Example of waterfall diagram showing changes in scheme cost
116	12/11/2020	Scotland	Scotland	SCO Deferred Renewals Process v0.1.docx	Copy of the Region's deferred renewal process

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(6) Sources of evidence and related documents

No	Date Received	Region	Route	File Name	Description
117	12/11/2020	Scotland	Scotland	SCO Struct Deferred Renewal Register - Reviews pre July 2019.xlsx	Snap shot of the deferred renewals register from July 2019
118	12/11/2020	Scotland	Scotland	SCO Structures Deferred Renewal Register LIVE.xlsx	Live DRR
119	12/11/2020	Scotland	Scotland	2020-21 Structures Deliverability Review 12-09-19.xlsx	Notes from meeting of deliverability review for year
120	12/11/2020	Scotland	Scotland	Copy of 2019-20 Scheme Deliverability Review - Rated.xlsx	Summary of deliverability review for 19/20
121	12/11/2020	Scotland	Scotland	RAM Structures CP6 CAPEX Efficiency Tracker - v1.1.xlsx	Example of report on efficiency tracking during the year
122	12/11/2020	Scotland	Scotland	RAM Structures CP6 CAPEX Headwind Tracker - v1.1.xlsx	Example of report on headwind effect tracking during the year
123	12/11/2020	Scotland	Scotland	Business Planning CC Devolution Guidance v1.1.docx	AM Buildings and Civils Guidance on Managing the Live Plans document
124	12/11/2020	Scotland	Scotland	Process for updating Business Plan with Change Controls.docx	Description of the mechanical process to update the Business Plan when change occurs
125	12/11/2020	Scotland	Scotland	RF6 Unit Rate Summary.xlsx	Explanation of how unit rates were built up
126	12/11/2020	Scotland	Scotland	D3 Rolling forecast tables.xlsx	Example of rolling forecasts by period
127	12/11/2020	Scotland	Scotland	P11 18.19 to P14 19.20 change summary (1).xlsx	Summary of cost and volume change throughout 19/20 linked to Change Control process meetings
128	12/11/2020	Scotland	Scotland	OB 058-083 Carman Rd - Advice of Works Replacement.pdf	Example of an Advice of Works form showing the completion of works and capability improvement
129	12/11/2020	Scotland	Scotland	UB 132-087 Cow Bridge - Advice of Works Removal.pdf	Example of an Advice of Works form showing the completion of works and capability improvement
130	12/11/2020	Scotland	Scotland	UB 133-274 Marykirk Viaduct - Advice of Works Scour.pdf	Example of an Advice of Works form showing the completion of works and capability improvement
131	12/11/2020	Scotland	Scotland	UB 176-020 Dellingburn Street - Advice of Works Strengthening.pdf	Example of an Advice of Works form showing the completion of works and capability improvement
132	12/11/2020	Scotland	Scotland	Supplementary Information Scotland's Railway Panel - 18th June 2020.pdf	Summary annual performance of structures renewals in Year 1
133	12/11/2020	North West & Central	North West & Central	CBC3-41_BU_19-20_WD_G1_v1.0_L&C_REMIT ISSUED.xlsx	A sample of the submission the peer review panel
134	12/11/2020	North West & Central	North West & Central	FHR4_28_LNW004684_DEF_V1.xlsx	An example of a deferred renewals risk assessment
135	12/11/2020	North West & Central	North West & Central	Forecast v Authority.png	Shows a comparison for each year of the Control Period: target, proposed plan, live plan, OP forecast and OP authority
136	12/11/2020	North West & Central	North West & Central	NW&C Asset Management Framework.jpg	Screen shot from the IMS system showing the overall asset management framework
137	12/11/2020	North West & Central	North West & Central	NW&C On-Going Changes.png	Screenshot from the IMS showing a dashboard of change split by driver and deliverer ad linked to individual schemes
138	12/11/2020	North West & Central	North West & Central	NW&C Renewals Change Log.png	Screenshot from the IMS showing the change log
139	12/11/2020	North West & Central	North West & Central	NW&C Renewals Dashboard.png	Screenshot from the IMS showing the renewals dashboard
140	12/11/2020	North West & Central	North West & Central	NWC Period Report 2019.20 Period 13.pdf	Screenshot from the IMS showing the report period 13
141	12/11/2020	North West & Central	North West & Central	Period 14 Outturn Slides.ppt	Period 14 reporting pack for all disciplines in the Region showing budget, forecast and actuals costs
142	12/11/2020	North West & Central	North West & Central	SRAM Review Renewals P05.ppt	Screenshot from the IMS showing the renewals p05
143	04/11/2020	North West & Central	North West & Central	NW&C Planned Workbank RF11 11-02-19 Sharpclould IMS Extract v1.1.xlsx	Screenshot from the IMS showing the extract v1.1
144	18/11/2020	North West & Central	North West & Central	IMS Screen Shot 1.png	Screenshot from the IMS showing asset management framework and linkage to policy
145	18/11/2020	North West & Central	North West & Central	IMS Screen Shot 2.png	Screenshot from the IMS showing the fit of the regional delivery plans
146	18/11/2020	North West & Central	North West & Central	IMS Screen Shot 3.png	Screenshot from the IMS showing the fit with the live renewals workbank
147	18/11/2020	North West & Central	North West & Central	IMS Screen Shot 4.png	Screenshot from the IMS showing the fit between regional delivery and the live plan
148	18/11/2020	North West & Central	North West & Central	IMS Screen Shot 5.png	Screenshot from the IMS showing the fit of assurance and a flag of an overdue engineering assurance review
149	07/12/2020	North West & Central	North West & Central	Summary of Business Plan Changes.msg	Graphical representation of the overall changes to the workbank during Year 1 in terms of cost and volume
150	07/12/2020	North West & Central	North West & Central	IP Central Sponsor Meeting CP6 Y1 Period 1 (Structures)_Final.ppt	A review of the delivery plan for CP6 from the perspective of IP Central highlighting the outstanding documentation from CP5 and the schemes in CP6
151	07/12/2020	North West & Central	North West & Central	NW&C Exec Update WK 43 V2.pdf	A copy of the weekly cross-discipline report by Works Delivery highlighting specific items which have been completed
152	30/11/2020	Eastern	East Coast, East Midlands and North & East	1920 Delta Report.xlsx	Report outlines the capital expenditure difference between estimates and outturn prices. Need to understand the codes that are used to measure the difference. Outlines the impact on future years due to the project being delivered.
153	30/11/2020	Eastern	East Coast, East Midlands and North & East	Change Control Briefing Doc V2 April 19.pdf	The supporting documentation to explain the Change Control process, used in briefing sessions.

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(6) Sources of evidence and related documents

No	Date Received	Region	Route	File Name	Description
154	30/11/2020	Eastern	East Coast, East Midlands and North & East	CP6 Prioritisation Tool.xls	A copy of the workbank item prioritisation tool used for CP6
155	08/12/2020	Eastern	East Coast, East Midlands and North & East	Scorecard P13 Eastern Final.pdf	Copy of a national scorecard showing measures which are not structures specific but wrap renewals volumes from several disciplines into one figure.
156	08/12/2020	Eastern	East Coast, East Midlands and North & East	LNER Scorecard_20190801_1407.pdf	Copy of a sample Regional scorecard showing measures including underbridge volumes delivered. This appears to be a period report produced by the TA.
157	08/12/2020	Eastern	East Coast, East Midlands and North & East	Y2 P7ORR_TARR Report Rev 01.xls	A national summary of risk sites associated with scour analysed by Region
158	03/12/2020	Southern	Wessex Route	Deferred Renewal Log Issued to ARUP.xlsx	Deferral Register for the Wessex route.
159	03/12/2020	Southern	Wessex Route	NR_L2_HAM_02201.pdf	Level 2 Business Process for management of risk arising from deferred renewals.
160	03/12/2020	Southern	Wessex Route	BML1 2_W121A Deferred Renewal v1.xlsx	An example of a deferred renewal risk form for a specific structure.
161	02//12/2020	Wales and Western	Western	WES Struct Deferred Renewal Register CP6 v1.xls	Updated Renewal Register being used in Year 2 of the Control Period.
162	01//12/2020	Wales and Western	Western	Change Control Terms of Reference v2 dtd 21 Jan 19	Change Control process and Terms of Reference used in Change Control.
163	01//12/2020	Wales and Western	Wales	20160113 Structures Work Bank Guidance V5.pdf	Outline the process for developing the workbank is a guidance document issues by the TA.
164	08//12/2021	Eastern	Anglia	Change Control CP6 Structures P06-21.xlsm	Example of a change log used by the route. Period 6 Y2.
165	08//12/2021	Eastern	Anglia	Anglia Renewals CP6 Y3 RRD - V2 - Complete - Signed	Route Requirements document for Y3 of the Control Period outlines process used to ensure projects benefits are stipulated
166	08//12/2021	Eastern	Anglia	BOK1 72 - TQ0112 Example.pdf	Technical Query document from a specific structure.
167	08//12/2021	Eastern	Anglia	164219 Volume Recognition Form CP6 Yr1.xlsm	Example of the Year 1 volume verification form used to record claimable volume.
168	08//12/2021	Eastern	Anglia	OfflineCP6Workbank.xlsx	Offline copy of the workbank that contain structures specific information that is not included in the live workbank.
169	08//12/2021	Eastern	Anglia	UnconstrainedStructuresWorkbank.xlsm	Baseline workbank that contains all schemes that have been identified across the region. Includes schemes both in and out of the CP6 delivery plan.

ARUP

JOB TITLE	**#16354 - Review the progress of structures year one work bank delivery**
JOB NUMBER	274279-04
DATE	07/01/2021
Description	Summary of Regional Performance

#16354 - Review the progress of structures year one work bank delivery

Review and Findings | All Regions Ratings

				Eastern		North West & Central	Scotland	Southern		Wales & Western									
	Topic	Ref	Question	Anglia Assessment (10 Dec 2020)	East Routes Assessment (08 Dec 2020)	NW&C Assessment (04 Dec 2020)	Scotland Assessment (02 Dec 2020)	South East Assessment (16 Nov 2020)	Wessex Assessment (25 Nov 2020)	Wales Assessment (07 Dec 2020)	Western Assessment (07 Dec 2020)	Ref	MAX	MIN	DELTA	Current Practice Observations	Regional Themes	Theme Description	Promote Theme to Recommendation?	Agreed Recommendation?
1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	3	4	4	4	3	4	3	3	A1	4	3	1	Each Region / Route articulated a robust process for the development of their workbank. Regions scoring '4' demonstrated this process through a report, document, or presentation.				
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	4	4	4	3	4	4	4	3	A2	4	3	1	Asset policy was applied consistently across all Regions / Routes on the network. Routes scoring '4' tracked, in their workbanks, the policy level/ target each scheme achieved.				
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	3	4	4	4	4	4	4	4	A3	4	3	1	Good capability was shown across Regions / Routes with clearly defined tools and methodologies in place. Types and timings of activities were based primarily on policy/standard compliance. Access planning and possession timing played a significant role in the planning of the workbank.				
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	3	3	3	4	3	4	3	3	A4	4	3	1	Delivery of work items was prioritised based on compliance to policy and standards by all Regions using their appropriate tools. Volumes were based on early stage scheme estimates which were subject to change as schemes developed. Regions / Routes had the opportunity to smooth volume delivery across their plans.				
5	A Workbank Changes	A5	What evidence is there of a consistent approach across Regions (e.g. are nationally consistent choices being made? Is there communication between Routes?)	2	2	4	4	2	2	3	3	A5	4	2	2	There was consistency in the principles used across the Regions for developing and prioritising work banks. However, within certain Regions there were inconsistencies in the approaches and tools used within their constituent Routes. There was some evidence to suggest that the way in which the reporting of core planning and the contingent over-planning items was handled, was one factor in this variance. It was however noted that the final structure of the five Regions was not in place during 2019/20. The evidence collated from the Regions, in the majority of cases, was that they were moving towards integrating their planning and change control approaches.	Consistency in Work Bank Development	Each Region should adopt a common framework to develop their structures' renewal annual plan to provide a consistent means of understanding the drivers of inclusion and support better decision making across the Region. This could include separate tracking of core and over-planning work items.	Yes	Yes
6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	4	4	3	2	2	2	2	4	A6	4	2	2	There was limited use of graphical analysis across the Regions to communicate the composition and movements in the workbank during delivery. Routes scoring '4' demonstrated use of visuals to track volume and cost movement. Regions / Routes scoring '2' did not use graphical analysis in any way to communicate or manage changes in their workbanks.	Consistency of Presentation	Regions should adopt a graphical means of monitoring the status of individual workbank items (e.g. on-site, delivered, deferred, accelerated, etc.) such that a visual overview of the annual plan can be produced to aid understanding of delivery progression and support decision making.	No	
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals be identified via analytical methods?	4	4	4	3	3	3	4	4	A7	4	3	1	In general, it was possible to review workbank changes through analytical methods. Regions scoring '3' had inconsistent primary keys for schemes which made analysis unnecessarily more complex. Opportunities exist in those Regions to introduce primary keys for schemes that remain unique between different spreadsheets / documents and systems.				
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for Year 1 differ from the planned renewals workbank for the same period?	4	4	3	2	2	3	3	3	A8	4	2	2	There was movement from the baseline plan across all Regions / Routes. Routes scoring '4' had been able to justify the changes and could present the movement visually. Scores of '3' showed consistency in the Year 1 reporting but lacked clarity around the cause of the change. Regions / Routes scoring '2' demonstrated a lack of consistency between the reported cost/volume for Year 1 and the baseline.				
9	A Workbank Changes	A9	To what extent have schemes been deferred?	3	4	3	3	4	4	4	4	A9	4	3	1	All Regions / Routes clearly demonstrated the extent that schemes were deferred during Year 1. Routes scoring '3' showed greater variances from the baseline than 5%.				
10	A Workbank Changes	A10	How were deferred schemes justified?	3	4	4	2	3	3	3	3	A10	4	2	2	Deferrals were generally well justified across the Regions / Routes. Opportunities existed to improve justification for deferrals in Routes scoring '3'. Routes scoring '2' showed a lack of clarity around justification of deferrals.				
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	4	4	4	4	4	4	4	4	A11	4	4	0	There were no cancelled scheme in the CP6 Year 1 workbank.				
12	A Workbank Changes	A12	How were cancelled schemes justified?	4	4	4	4	3	3	4	3	A12	4	3	1	When cancelled schemes arise, these would be justified as part of the Change Control and Deferral Renewal processes. The Change Control processes implemented across the network showed it was possible to record the appropriated level of justification needed for cancelled schemes.				
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated?	4	3	3	3	4	4	4	4	A13	4	3	1	Based on the documentation supplied and the workshops held there was a minimal acceleration of schemes across all the Regions / Routes.				
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	4	4	4	4	3	4	4	3	A14	4	3	1	Accelerated schemes were justified through the Change Control process which showed the appropriate level commentary across all Regions / Routes.				
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	3	4	2	2	3	3	3	3	A15	4	2	2	Across all the Regions / Routes there was movement from what the ORR understood as expected cost/volume for Year 1, and what Network Rail centrally forecasted at the start of the Control Period. It was clear that there was no baseline plan accepted by all parties to ensure there was one source of the truth.	Agreeing the Annual Baseline	Ensure that there is an agreed the baseline for the structures' renewal plan in terms of cost and volume for a core plan at the start of each year. Ensure the agreed Control Period Baseline is recorded. This will support the monitoring of delivery and act as a foundation from which change can be measured and justified.	Yes	Yes
16	A Workbank Changes	A16	What, if anything, was included in the Year 1 plan as items deferred or which had fallen out of the previous year's plan?	3	4	2	4	3	4	4	4	A16	4	2	2	It was clear that there was a spill over of schemes from CP5 into Year 1 of CP6. Routes scoring a '3' lacked sufficient evidence that these schemes had been completed based on the documentation provided. Routes scoring '2' demonstrated further slippage of CP5 schemes programmed for Year 1 into later years in the Control Period.				
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	2	4	4	4	4	4	4	2	B1	4	2	2	Across the Regions / Routes good processes were in place to manage risks arising from deferrals in line with the Deferred Renewals Standard. This included evidence demonstrating sound engineering judgment and analysis. Regions with scores of '4' clearly demonstrated good process, qualitative analysis and the use of CRAM to support quantitative analysis of deferral risks. Routes scoring '2' were not able to evidence through documentation the use of CRAM to support deferral risk assessment.				
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	3	3	3	4	4	4	4	2	B2	4	2	2	Across the business there appeared to be a lack of understanding with no single sustainability metric used in work bank development or quoted by Regions in the management of risk. There was also no evidence that the impact of the planned and delivered renewals work bank, from a sustainability perspective, had been evaluated. It was also noted that the CRAM process included a metric for Asset Management which had been used as a proxy for sustainability by some Routes. It was articulated that sustainability funding had been made available, but this had not been associated with changes to the plan.	Integration of Sustainability	An exercise to update the knowledge and understanding of current sustainability measures in the Regions is necessary. This will allow them to monitor the impact their delivery has on sustainability. Sustainability analysis should be considered during reforecasting of control period work banks to enable end of year validation of work bank outputs. This approach will provide a tracker of sustainability in terms of initial aims and then the impact of interventions, force a longer-term view of cost, and allow longer term trends to be observed.	Yes	Yes
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	2	4	4	4	4	4	4	2	B3	4	2	2	Across the Regions / Routes good processes were in place to manage risks arising from deferrals in line with the Deferred Renewals Standard. This included evidence demonstrating sound engineering judgment and analysis. Regions with scores of '4' clearly demonstrated good process, qualitative analysis and the use of CRAM to support quantitative analysis of deferral risks. Routes scoring '2' were not able to evidence through documentation the use of CRAM to support deferral risk assessment.				
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	2	4	4	4	4	4	4	2	B4	4	2	2	Across the Regions / Routes good processes were in place to manage risks arising from deferrals in line with the Deferred Renewals Standard. This included evidence demonstrating sound engineering judgment and analysis. Regions with scores of '4' clearly demonstrated good process, qualitative analysis and the use of CRAM to support quantitative analysis of deferral risks. Routes scoring '2' were not able to evidence through documentation the use of CRAM to support deferral risk assessment.				
21	C Regional Assurance	C1	What regional workbank Change Control process is adopted?	3	4	4	2	4	3	0	3	C1	4	0	4	The Change Control processes adopted by Regions / Routes were generally robust. One Route failed to provide evidence of a Change Control process leading to a score of '0'. Scores of '2' were given where the documentation provided did not provide sufficient clarity for the process to be understood. Regions scoring '3' had a process document but the Change Log lacked the expected level of detail.				
22	C Regional Assurance	C2	What evidence is there of a consistent Change Control approach across Regions?	2	2	3	1	2	2	2	2	C2	3	1	2	Within Regions where the Year 1 plan had been assembled in the constituent Routes there was no alignment of Change Control process. It was however noted that the final structure of the five Regions was not in place during 2019/20. The evidence collated from the Regions in the majority of cases was that they were moving towards integrating their planning and Change Control approaches.	Consistent Change Control	Each Region should adopt a common framework to capture and record changes to their structures' renewal plans. This will provide a consistent means of monitoring and tracking change such that better decision-making takes place across the individual Region.	Yes	Yes
23	C Regional Assurance	C3	To what extent do Regions individual projects remain aligned to policy requirements through the workbank Change Control process?	3	3	3	2	4	3	3	3	C3	4	2	2	Regions demonstrated that schemes were policy aligned through the use of their Change Control processes. Any change or deviation in policy would be documented in the Change Log. Opportunities exist for Regions/Routes to demonstrate any change to a scheme's policy objective over its life cycle.				
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the Change Control process?	3	3	3	3	2	2	3	3	C4	3	2	1	Change Control processes across Regions / Routes were noted as evolving with all the described processes having their own shortcomings. These included, but were not limited to, evolving integration of tools, reliance on individuals, not being a bespoke to structures, etc.				
25	C Regional Assurance	C5	To what extent has there been any cross-Route impact as a result of devolution? - e.g. a Route cancelled work which another Route was piggy-backing to do its own work.	4	4	4	4	4	4	4	4	C5	4	4	0	There had been no impact on scheme delivery in Year 1 as a result of impacts in other Regions. Regions had mitigations in place to limit this type of issue.				
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed?	4	4	2	3	3	4	3	4	D1	4	2	2	Regions / Routes were able to demonstrate robust processes to identify unit costs and the use of appropriate guidance to develop volumes. They developed their cost/volumes for schemes in the work banks along different stages of the GRIP process using different approaches to try to make them as accurate as possible. Costs were generally bespoke to Routes using evidence from CP5 outturn costs, modelling, and unit rates from the Technical Authority. There was however evidence from a number of the Regions to indicate that they would benefit from guidance in the application of overlays associated with scheme maturity and other activity factors.	Costing Methodology and Overlay Guidance	Regions should undertake their own review and assurance of their suite of structures costing methodologies. This will improve accuracy in scheme estimation and provide greater consistency of estimation to ensure a more accurate fit with the various work types. The development of guidance on cost overlays to address scheme maturity and environmental factors. Regions could consider a collaborative approach in sharing rates and guidance nationally between them to stimulate budgeting lesson learned exercises.	Yes	Yes
27	D Costs	D2	To what extent can the delta be between estimated vs actual renewal cost be identified via analytical methods?	4	4	4	3	3	3	4	3	D2	4	3	1	It was possible to review movement of cost/volume within the workbank using analytical methods. Regions scoring '3' had inconsistent primary keys for schemes which made the analysis more complex. Opportunities exist to introduce primary keys for schemes where these do not exist at present.				
28	D Costs	D3	To what extent does the estimated renewal costs for Year 1 differ from the actual renewal costs for the same period?	3	4	4	3	3	3	3	3	D3	4	3	1	There had been movement from the baseline across all Regions / Routes. There were several causes associated with over/under spend and over/under volume delivery most notable were the unreliability of unit costs and changes in workbank makeup from the baseline. Routes scoring '3' had movement from the baseline but the justification and recording of movement in cost/volume could be improved.	Costing Methodology and Overlay Guidance	see D1	No	
29	D Costs	D4	What is the potential impact on the Business Plan of the difference between the estimated vs actual renewal costs for Year 1?	3	4	3	3	4	4	3	4	D4	4	3	1	Movement from baseline to Live Plan had not impacted the ability for Regions / Routes to deliver future years of the workbank. Adoption of early contractor engagement principles were seen across a number of Routes, aimed at supporting scheme maturity and improving cost/volume accuracy. There was no clear trend observed for cost/volume movements across the entire Year 1 workbank.				
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	2	2	2	2	1	2	2	2	D5	2	1	1	On all Regions there was significant variance from the +/-5% threshold for cost, with less variation taking place in terms of volume changes. This appeared to be driven through the immaturity of scheme estimates at workbank development stage and unit costs being unreliable or not representative of the works actually being undertaken.	Costing Methodology and Overlay Guidance	see D1	Yes	Yes
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	2	3	4	4	4	3	4	4	D6	4	2	2	Justification of scheme cost changes was well recorded across most Regions and could generally be understood using analytical methods. Opportunities exist to record all movements and their causes for schemes in a single source to minimise the need for tacit knowledge when reviewing cost/volume variances.				
32	D Costs	D7	What was the operational impact (if any) of changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.	4	4	4	4	4	4	3	3	D7	4	3	1	There had been no TSRs or operational restrictions as a result of structure renewal changes during Year 1.				
33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	2	3	3	4	2	3	3	3	E1	4	2	2	Most Regions / Routes demonstrated that they had processes in place for recording hand back of completed projects to ensure outcomes had been achieved. There are opportunities to record that projects have been completed and goals achieved, but this was not recorded in the Live Plan.	Project Close Out	Regions should comply with the relevant project close out process. Regions should ensure that hand back requirements and close out of projects is captured in the Live Plan documentation. This will aid understanding of scheme status and support decision making regarding schemes where the expected outcomes were not delivered.	Yes	Yes
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region?	2	2	3	1	1	3	3	3	E2	3	1	2	Some Routes had introduced a process which allowed them to review their effectiveness in planning and delivery of schemes. This acted as a platform for developing best practice. There was very limited use of cross Region / Route sharing of lessons learned in evidence. Routes with a score of '1' did not demonstrate any process for measuring effectiveness and development of best practice.	Regional Effectiveness	Regions should adopt the relevant framework (e.g. PACE - Project Close) to report on their effectiveness against identified criteria. This will support understanding of what 'good' looks like in terms of planning and delivery to drive performance and identify areas of weakness	Yes	Yes

#16354 - Review the progress of structures year one work bank delivery
All Regions - Variations Summary

		Schemes			COSTS						VOLUME										OTHER VARIATIONS							ADDITIONAL VARIATIONS	
					BASELINE			YEAR 1 ACTUALS			BASELINE					YEAR 1 ACTUALS													Assurance Report	Approved Changes
Region	Route	Number of Schemes Planned for Year 1	Number of Schemes Delivered in Year 1	Delta Between Planned vs Delivered	RF11 2019/20 ORR Recorded Year 1 Baseline (£k)	Route Planned Year 1 Work bank Cost (£k)	Difference Between ORR and Regional Cost Baseline (£k)	Route Actual Year 1 Work bank Cost (£k)	Delta Between Route Planned vs Actual (£k)	Percentage Change Between Route Planned vs Actual	RF11 2019/20 ORR Recoreded Year 1 Volume Baseline	Centre FY20 Renewals Volume Report Year 1 Volume Baseline	Route Planned Year 1 Work bank Volume	Difference Between Regional and ORR Volume Baseline	Difference Between Centre and ORR Volume Baseline	Route Actual Year 1 Work bank Volume	Centre FY20 Renewals Volume Report Year 1 Volume Actual	Delta Between Route and Centre Actual Volume	Delta Between Route Planned vs Actual Volume	Percentage Change Between Route Planned vs Actual Volume	Number of Year 1 Deferred Schemes	Number of Year 1 Cancelled Scheme	Number of Year 1 Swapped Schemes	Number of Year 1 Accelerated Schemes	Number of CP5 Schemes Deferred to Year 1 of CP6	Number of Schemes Exceeding Cost Threshold of +-5%	Percentage Range of Cost Variation for Year 1 Schemes	Route Year 1 RF11 Assurance Pack Planned Volume	Route Year 1 RF11 Assurance Pack Actual Volume	Number of approved changes in change log for Year 1
Eastern	Anglia	28	95	67	£ 22,300	£ 25,023	£ 2,723	£ 21,705	-£ 3,318	-13.3%	1,083	1,069	1,629	546	-14	2,232	2,238	6	603	37%	5	0	0	0	3	22	-83% to + 87%	Not Requested / Provided	Not Requested / Provided	Not Requested / Provided
	East Routes	187	141	-46	£ 53,000	£ 61,100	£ 8,100	£ 53,240	-£ 7,860	-12.9%	10,933	11,313	11,153	220	380	10,384	14,934	4,550	-769	-7%	8	0	1	1	2	109	-98% to +3131%	Not Requested / Provided	Not Requested / Provided	Not Requested / Provided
North West & Central	NW&C	267	328	61	£ 83,000	£ 95,500	£ 12,500	£ 73,500	-£ 22,000	-23.0%	24,207	21,595	24,773	566	-2,612	19,666	19,647	-19	-5,107	-21%	32	0	0	0	62	272	-86% to +396%	Not Requested / Provided	Not Requested / Provided	Not Requested / Provided
Scotland	Scotland	132	280	148	£ 61,400	£ 70,177	£ 8,777	£ 70,621	£ 444	0.6%	17,613	18,309	22,776	5,163	696	15,893	15,775	-118	-6,883	-30%	23	0	0	0	13	241	-74% to +649%	Not Requested / Provided	Not Requested / Provided	Not Requested / Provided
Southern	South East	135	107	-28	£ 35,600	£ 32,266	-£ 3,334	£ 29,418	-£ 2,848	-8.8%	3,721	3,902	5,531	1,810	181	1,849	4,236	2,387	-3,682	-67%	10	0	1	2	2	58	-100% to +1961%	6,413	3,258	22
	Wessex	31	57	26	£ 16,300	£ 14,952	-£ 1,348	£ 12,487	-£ 2,465	-16.5%	2,961	2,941	2,921	-40	-20	3,394	3,102	-292	473	16%	0	2	0	1	3	18	-72% to +1115%	Not Requested / Provided	Not Requested / Provided	Not Requested / Provided
Wales & Western	Wales	138	251	113	£ 29,500	£ 36,900	£ 7,400	£ 28,260	-£ 8,640	-23.4%	6,254	4,961	5,788	-466	-1,293	27,340	27,340	0	21,552	372%	9	0	0	0	19	100	-390% to +2803%	Not Requested / Provided	Not Requested / Provided	Not Requested / Provided
	Western	30	69	39	£ 28,000	£ 34,800	£ 6,800	£ 39,433	£ 4,633	13.3%	5,099	5,072	8,976	3,877	-27	9,052	9,442	390	76	1%	14	0	0	0	0	13	-98% to +72%	Not Requested / Provided	Not Requested / Provided	Not Requested / Provided

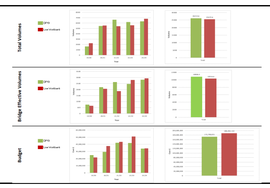
ARUP

JOB TITLE	**#16354 - Review the progress of structures year one work bank delivery**
JOB NUMBER	274279-04
DATE	07/01/2021
Description	Evidence from individual Regions and Routes

#16354 - Review the progress of structures year one work bank delivery

Review and Findings | Eastern | East Coast, East Midlands and North & East Routes

Return to All Regions Ratings

	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	Anglia Assessment (10 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	169	Unclear for the documentation how the workbank was developed.		What was the process you used to develop the workbank for CP6	The route describe a policy driven approach to developing the workbank from an unconstrained view to the baseline plan. A bottom up approach was taken to structures that were not policy compliant and required enhancement to meet policy standards and understand what assets were non compliant and ensure that structures requiring intervention were undertaken. Ensuring that the network capability was maintained inline with policy requirements was key to the workbank development.	A1	3	The route describes a policy based workbank development process that identifies structures that require intervention based on no policy compliance. The route moves from an unconstrained workbank though prioritising work based on policy levels the work will target. The route maintain all schemes that have been identified in the unconstrained workbank document which provides justification for why schemes have not been included in the delivery plan for CP6. The workbank was developed following the guidance developed by the centre.	Develop a process document that shows how the justification of moving form the unconstrained to delivery plan is achieved
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	169 168	It is unclear from the documentation how asset policy has been applied in the development of the workbank. There is no reference policy in the workbank documentation. The deferred renewals register makes reference to the policy level that a scheme was target at.		How did you map the schemes against policy in the development of the workbank. How do you prioritise assets by the levels 1,2,3 as dictated by policy.	Policy was the key consideration when developing the workbank though the live workbank and base line template are used across asset types so don't recorded structure specific information. The route describe how they keep an offline copy to maintain structures specific information.	A2	4	Policy is the main driver for development of the workbank is based predominantly on policy compliance and ensure safety compliance on the network. The route use a Anglia generic workbank which does not give the opportunity to recorded this data. The route maintains a offline copy of the workbank which clearly outlines the policy levels and standards that have been identified during development of the scheme.	
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?		Unclear from the documentation provided how the timings of interventions have been specified within the workbank.		How are intervention timings decided when developing the work bank.	Types and intervention timings are dictated by alignment of policy and engineering judgment. Independ workbank analysis was performed to review the robustness and deliverables over CP6 . Where appropriate optioneering is undertaken to confirm engineering judgement and analysis.	A3	3	Policy compliance dictates the initial types and timings of interventions in the workbank to ensure policy compliance. Following this the route worked with access planner to understand when possession were available to refine timings of schemes. Alongside this the route worked to smooth the plan to ensure complex projects are packed to close together.	The route explained the in-depth nature of the timing development process which is not clear form any documentation. Develop a process document. The route are in the process of developing a prioritisation ranking methodology.
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?		Unclear from the documentation provided how volumes have been prioritised.		How are intervention volumes prioritised within the workbank.	Volume are prioritised bases on standards and ensuring capability of the network is maintained.	A4	3	Volumes are prioritised based on policy compliance and the phasing of the workbank based on how timings of schemes have been developed. See A3 for further detail.	
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)		Unable to make a comparison at this time from the documentation provided.			The route is moving to a more aligned approach as the RAM is taking over East Midlands. Workbank development was based on a company wide distribution of a proforma so there is alignment there.	A5	2	Anglia is less developed in terms of prioritisation ranking methodologies used by other routes in the Region. There is alignment within the route as to how the workbank has been developed to meet policy and safety standards.	
6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	4	Volume and cost comparisons are presented visually in the live workbank across each year of the workbank. Cost and volume is not broken down to KVL though this is easily done as there is volume and cost summary tables.		Why do you not visually present the cost and volume data summary pages. How do you communicated end of year summaries in a visual way for monitoring and compliance.	Cost, volume and effective volume graphics are used understand and compare changes made to the workbank in year to the baseline. Using effective volume allows them to understand the benefit to the network from change in a visual way alongside standard cost and volume practices. Weighting used for effective volumes were developed by structures technical authority and adopted by the route.	A6	4	The route uses graphics to look at in year cost and volume movements. With graphics developed to look at each year of the control period to understand how deferrals impact on future years.	
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewal schemes be identified via analytical methods?	3 4	Summary No. New Schemes 82 No. of Schemes in Baseline 28 No. of Schemes in Liveplan 106 ew schemes that have come k there were 28 Schemes in	Summary No. New Schemes 74 No. of Schemes in Baseline 28 No. of Schemes in Liveplan 95	Are these numbers that you recognise and what was the reason for the large increase in schemes during the year. Are the larger number of schemes as a result of spend form minor/Major works cost lines.	The large increase in schemes is a result of a minor works culvert clearing programme. A culvert collapse in CP5 led to the clearing programme being undertaken an outcome of the clearing works is culverts are often relined to improve operation and condition and have a high volume associated with them. The works have been funded from the result of minor works funding (£5m) and the relining undertaken through culvert funding set out in the baseline. Has allowed for volume claimable work to be identified an recorded during the year that was not identified in the baseline.	A7	4	The route has maintained unique ids from the baseline document through to the live plan which allows for a baseline to be calculated using analytical methods. There is an increase of 74 schemes from the baseline to the live plan position. All new schemes have a cross reference to the change log.	
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for year 1 differs from the planned renewals workbank for the same period?	3 4	There is a large difference in the number of scheme that were delivered in year 1 of the control period. There was a decrease in spend in year one but an increase in both effective volume and actual volume delivered. There is a cost decrease of -£4m and a volume increase of 600 units (attributed mainly to culverts (480 units)			The additional culvert work undertaken in the year has a high volume associated with it due to how volume for culverts in calculated.	A8	4	The baseline from the documentation provided is £25.02m, Vol 1629 and Eff Vol 835. The live plan shows £21.7m, Vol 2232 and Eff Vol 1245.3. The ORR Baseline was £22.3 and Vol 1083. The Centre expected volume is reported as 1069 with final volume delivered for year one as 2238 with effective volume 1170. The output recorded by the centre is within 0.03% for volume. There is an increase in volume from the baseline position in the workbank of 37% which is due to the high volume work undertaken on structures. This is as a result of work undertaken in CP5 to review and assess culverts. With the underspend due to delay of underbridge projects.	

Row Labels		Sum of Year 1 DP19 £	Sum of Year 1 DP19 Vol	Sum of Year 1 DP19 Eff Vol
0	£	-	0	0
Structures - Coastal & Estuarial Defences	£	266,513.42	0	0
Structures - Culverts	£	533,026.85	20	20
Structures - Footbridges	£	533,026.85	30	30
Structures - Major Structures	£	270,031.40	0	0
Structures - Overbridges	£	959,448.32	100	20
Structures - Overbridges BG3	-£	417.67	0	0
Structures - Retaining Walls	£	426,421.48	20	20
Structures - Structures Other: Hazard Management	£	-	0	0
Structures - Tunnels	£	213,210.74	20	20
Structures - Underbridges	£	21,821,672.07	1439	725
Grand Total	**£**	**25,022,933.45**	**1629**	**835**

Row Labels		Sum of Year 1 Current £	Sum of Year 1 Current Vol	Sum of Year 1 Current Eff Vol
0	£	-	0	0
Structures - Coastal & Estuarial Defences	£	-	0	0
Structures - Culverts	£	738,040.58	508	508
Structures - Footbridges	£	488,570.45	-11	-11
Structures - Major Structures	£	1,520,985.53	0	0
Structures - Minor Works	£	-	0	0
Structures - Overbridges	£	752,090.85	147	29.4
Structures - Overbridges BG3	-£	179,855.15	0	0
Structures - Retaining Walls	£	400,386.30	104	104
Structures - Structures Other: Hazard Management	£	-	0	0
Structures - Tunnels	£	215,882.28	0	0
Structures - Underbridges	£	17,769,278.93	1484	614.9
Grand Total	**£**	**21,705,379.78**	**2232**	**1245.3**

#16354 - Review the progress of structures year one work bank delivery

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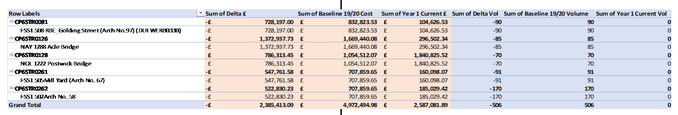
	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	Anglia Assessment (10 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	4 6	There are 5 schemes that have been differed from year one of cp6 to other years in the control period.	 Row Labels / Sum of Delta £ / Sum of Baseline 19/20 Cost / Sum of Year 1 Current £ / Sum of Delta Vol / Sum of Baseline 19/20 Volume / Sum of Year 1 Current Vol CP6STR0081: -£ 728,197.00 £ 832,823.53 £ 104,626.53 -90 90 0 HSS1 SRR RSC Golding Street (Arch No.97) (OLR WR RR9SRR): -£ 728,197.00 £ 832,823.53 £ 104,626.53 -90 90 0 CP6STR0236: -£ 1,372,937.73 £ 1,669,440.08 £ 296,502.34 -85 85 0 NAY 1285 Acle Bridge: -£ 1,372,937.73 £ 1,669,440.08 £ 296,502.34 -85 85 0 CP6STR0239: £ 786,313.45 £ 1,054,512.07 £ 1,840,825.52 -70 70 0 NGR 1222 Postwick Bridge: £ 786,313.45 £ 1,054,512.07 £ 1,840,825.52 -70 70 0 CP6STR0261: -£ 547,761.58 £ 707,859.65 £ 160,098.07 -91 91 0 HSS1 SECARS Yard (Arch No. 67): -£ 547,761.58 £ 707,859.65 £ 160,098.07 -91 91 0 CP6STR0262: -£ 522,830.23 £ 707,859.65 £ 185,029.42 -170 170 0 HSS1 SECArch No. 58: -£ 522,830.23 £ 707,859.65 £ 185,029.42 -170 170 0 Grand Total: -£ 2,385,413.09 £ 4,972,494.98 £ 2,587,081.89 -506 506 0	Is this your understanding?	Defined as any activity that was due to be undertaken in a specific year within a control period which is then not undertaken within that year. Were 5 schemes that have been deferred during the course of Year 1 of the workbank.	A9	3	The deferral log communicates a reduction in spend of -£2.3m with an associated volume spend of -506. Across the schemes in the workbank that can be tracked back through the deferral log. This accounts for 5% of total schemes or 17% of baseline schemes.	
10	A Workbank Changes	A10	How were deferred schemes justified?	6	The differed renewal register outlines the cause of the deferral with a short description. The register outlines the mitigation that has been put in place to mange the deferral of the scheme. There is no grouping of deferrals to allow grouping of structures based on cause of deferral to assess trends within the workbank.			The reason and cause of deferrals is recorded in the deferral register and this is the place where reason and records are kept. WB and ANG schemes are ones that have been deferred out form CP5. There are quite a lot of schemes in the deferred workbank but this is a function of movement of monies in CP5. these schemes may not have been undertaken as some are painting schemes which are not priority items over CP6 workbank this is reflective of the Policy Level attributed to them. Need to keep the records of job numbers UpToDate for works that are being undertaken in CP6 e.g. WB02382	A10	3	Justification of scheme deferral is recorded in the register. The justification is a short summary of the scheme specific reasons for the project being deferred. The route does not use a wrapper to analyse trends in the cause of deferrals.	Using a wrapper to group scheme deferrals would allow trends in cause of schemes to be understood.
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	4 6	From the documentation and following analysis there have been no cancelled schemes from the workbank. Schemes cancelled from Y1 have been moved to other years within the control period and our tracked through the deferred renewals register.		Is this your understanding?	No schemes in Year 1	A11	4	The documentation indicated that there were no scheme cancellations in year one a fact which the route confirmed.	
12	A Workbank Changes	A12	How were cancelled schemes justified?	6 164	No justification of cancelled schemes as scheme have not been cancelled. Justification would be tracked through the change control or deferred register where an appropriate level of justification is provided.			If we have decided that a scheme is no longer required. This is recorded in the workbank cut. The document provides is the full workbank and only items in the delivery plan had spend and volume against the. Hence the document contains schemes that have been removed but were not part of the delivery plan baseline.	A12	4	Any justification of cancelled schemes would be recorded in the change log and removed from the live workbank. The route then maintain the log of the cancelled scheme in the offline workbank.	
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	4 6	It is unclear from the documentation.			There have been no accelerated jobs since the creation of the workbank. At the time of creation a lot of work was undertaken to understand access (positions) for undertaking schemes to prioritise the workbank. Consequently acceleration of schemes has not been undertaken as due to access constraints. Deferred schemes from year one were late in the year so schemes could not be accelerated to fill the gap.	A13	4	The route stated that in Y1 there had not been any accelerated jobs. The schemes that were deferred to later years occurred at the end of the year (some due to Covid) and could not be replaced in year.	
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	164	It is unclear from the documentation.			Justification is provided through the change log.	A14	4	In the case of an accelerated scheme the change log would provide robust justification for the cause. The change log summaries the description of the change, change category and the responsible party to the change driver and a description of why the scheme has been moved.	
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	3	Unclear from the documentation provided.			Workbank baseline is a cut at RF11 (Delivery Plan) there were no major changes between then and the start of the year. Any Changes to the workbank during this period would be recorded in the change log.	A15	3	The baseline from the documentation provided is £25.02m, Vol 1629 and Eff Vol 835. The ORR Baseline was £22.3 and Vol 1083. The Centre expected volume is reported as 1069. The route articulated during the follow up meeting that some of the discrepancies in baseline is due to the result of some over plan in the workbank compared to what is provided to the Centre and ORR. This is because the Centre and ORR values are taken from OPI which outline what delivers provide are forecasting and not what the workbank is outlining.	One source of the truth for the baseline position should be defined by the Business and Regulator.
16	A Workbank Changes	A16	What, if anything, was included in the year 1 plan as items deferred or which had fallen out of the previous year's plan?	4 6	The deferrals register suggests that 30 projects were planned for renewal in CP5 that are due for completion in CP6. The following schemes were due for completion in 2020 but further analysis show they were to be undertaken in Year 2.	Count of Date Renewal Deferred / Column Labels Row Labels / 2020 CP6STR0044: 1 CP6STR0150: 1 CP6STR0152: 1 Grand Total: 3		Key point to note is that when a job has been completed it is removed from the Deferred Renewals Register as it is no longer a deferred scheme. Caroline and Davenport bridge reconstruction works were deferred from CP5 but these have been completed and removed from the deferred renewals register. Other schemes that have been deferred from CP5 were not due for completion in year 1.	A16	3	No schemes from CP5 that was not due for delivery in year 1 have not been completed. Though this is not evident from the documentation provided with prior knowledge of schemes being required. Of the 30 schemes in the deferral log the route outline (see response A10) why these have been pushed to later in CP6 or into CP7.	Close a scheme in the deferral register rather than deleting it to maintain assurance track and missing data.

#16354 - Review the progress of structures year one work bank delivery

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	Topic	Ref	Question	Doc. Ref	Evidence form Documents	Queries	Evidence form Regional Stakeholders	Ref	Anglia Assessment (10 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	6	The deferral register outlines the Risk Severity, Likelihood and Total Risk score as an outcome of the deferral being approved. With key risk arising from deferral. For each deferral a mitigation action is outlined to highlight how risks will be mitigated as a result of the deferral.		Likelihood and Severity are based of the CRAM score and the worst score from the outcome of this assessment gets placed into the Deferral Register.	B1	2	The route use the CRAM matrix to assess renewals that have been deferred from one year to another, with the highest scores being used in the severity and likelihood risk factors in the register. However, there is no formal assurance recorded of the outcome to CRAM. The mitigation and risks associated with a deferral process are recorded.	Outcomes of CRAM scores should be recorded in the deferral register to improve the assurance process for quantifying risk.
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	6	Unclear from the documentation.		Currently for deferred renewals this factor is not assessed. Safety is the predominate concern, as the workbank is mainly policy level 1 items, when using the CRAM based assessment which does not pick out the specific risks. Moving forward it is a factor that should be consider especially when looking at high importance renewal schemes. At the start of CP6 the business did not have the metrics to define sustainability. So we can't manage or understand the impact of a change regarding sustainability. ORR have commented on the fact that Network Rail have not considered sustainability strongly enough which led to ring fenced funding for sustainability targets. Which will be used on culverts in Y2-5 using sustainability funding which are protected against change.	B2	3	The route does not look at sustainability when assessing the impact of a deferred scheme. Though as part of the CRAM process it is noted that that risks associated with assets management are assessed which we have considered as a proxy for sustainability. The route have outlined that metrics to measure sustainability at the start of the control period were not in place but are being implemented for CP7.	
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	6	Unclear from the documentation.		The highest category is picked from the CRAM assessment and put into the Deferred Renewal Register, given the work being undertaken this is more than likely to be safety related. There will not be deferred based on a performance. There is no audit trail sitting behind to show the outcome of the CRAM and which risks have been selected to be used in the register moving forward.	B3	2	Performance of the network is considered as part of the CRAM process as an assessment topic but it is not noted that as the CRAM is not recorded In the deferral log there is not quantitively impact of performance risk.	Outcomes of CRAM scores should be recorded in the deferral register to improve the assurance process for quantifying risk.
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	6	Unclear from the documentation.		See comment in B3.	B4	2	The route outline that the nature of the workbank for CP6 is predominantly level one policy activities which relate to safety. Perception from the route is that the majority severity and likelihood scores would be safety related.	Outcomes of CRAM scores should be recorded in the deferral register to improve the assurance process for quantifying risk.
21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]	5 164	The route has adopted an auto populated change control process that runs of the frozen live plan. The change control template is then shared to stakeholder update with new figures and impact analysis that has been approved by the RAM, Sponsor and Finance at a minimum. The live plan is then updated to reflect the changes that have been approved through the CC process. The live plan is then updated and uploaded to the AMS SharePoint. This process is undertaken during the three week process.		Every period there is an opportunity to submit the change log document. Which is auto populated with current live data and then allows the user to select the scheme you need to make a change across. The user then inputs the cost/volume, schedule change that is required as an addition to the log against the scheme in question. This is supported through a justification form as to what the cause of the change. The form gets circulated to highlighted changes and when this is approved The process has been developed for use across all asset types within Anglia and has been developed by the region.	C1	3	The route use an automated change control process that updates the live plan at the end of each period. A cut is provided of the live plan and put into the change log. Following this any changes that are required can be made and justified using the forms attached within the document. he change control template is then shared to stakeholder update with new figures and impact analysis that has been approved by the RAM, Sponsor and Finance at a minimum. A financial overview of the change is available at the scheme level to allow uses to understand the impact. These feed into an overall structures view to show cost variance in year at KCL/KVL level and across the control period. There is no clear understanding of what changes have occurred against a scheme in the past to enable a view of why change has occurred from the baseline.	System should include all changes to schemes to highlight how schemes have changed over time.
22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]	5 164	Unclear at the moment in time.		see comment in C1.	C2	2	The route have developed their own bespoke change management process which is used across asset classes within the region. The system is managed and run by a specific team within the route.	Work should be undertaken between the structures regional representatives to determine which is the best change control process for the business to use.
23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	164	unclear from the documentation provided.		Within the workbank change control log any change to policy would be recorded but this would not recorded what the policy change has been from. All historical change control logs are stored in a Hub site for up to two years to allow comparison for audit purposes.	C3	3	The change log records if the scheme is compliant to policy and has a field for the Policy targeted and any alignment to POAP. The route outlined that these documents are stored for two years for insurance and would allow any change to policy to be traced.	Recommended to include a column within the change log to identify historic policy if change is undertaken.

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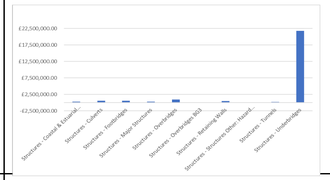
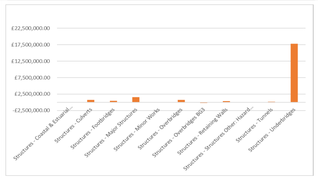
	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	Anglia Assessment (10 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	5 164 168	unclear from the documentation provided.			The biggest shortcoming is that as the log is not asset specific some information is not captured in the fields provided though there is space to add commentary. The offline copy that is kept allows additional structure specific information to be understood. However this does require additional resource to manage.	C4	3	The route has a robust change control process that summaries change at a scheme and workbank level. However they have stated that as the process is not asset specific data can be missing. To manage this the route use a offline workbank document.	Align the change control log to structures needs to avoid the need to mange both the change log and offline copy.
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.		unclear from the documentation provided			Challenges can be found around intersection bridges due to requiring two access planners to review and approve but this has not been an issue in year one delivery.	C5	4	There has been no impact as a result of devolution. The route have identified where these issues could arise but are managing appropriately.	
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	169 168	Unclear from the documentation provided as to how costs have been built up in the development of the workbank and how these cost can be monitored going forward with outturn costs coming in over the control period.		How did you establish unit costs for KVLs and plan to monitor them moving forward.	Unit rate work was undertaken by the centre which was issued as guidance. Within the route the delivery team provided unit rate data from CP5 works. A more detailed modelling exercise undertaken by PWC which looked at complexity of schemes alongside the costs. This work the outputted unit rate data which was then assistant in prioritisation of works to smooth the spend profile of the control period. Workbank is based on the PWC data for some structures as a whole with estimates used for scheme that were deferred and more mature in the GRIP process. Offline the unit cost have been recorded against the schemes. Within the change log it allows for the change of cost to be attributed against changing estimates due to maturity along GRIP.	D1	4	The offline unconstrained workbank has unit rates based on structure type and adjusted for volume depending on the specific work being undertaken. The route used a combination of outturn cost provided by the delivery teams and analysis of cost/volume based on project complexity. Volume were determined based on the bottom up needs assessment of the high risk assets and the intervention required. Modelled in line with the volumes provided by the Central team and the cost and volume handbook. The route employed an external consultant (Jacobs) to undertake a review of the workbank and look at the calculation of volume and outcomes to verify the outcomes.	
27	D Costs	D2	To what extent can the delta be between estimated vs actual renewal cost be identified via analytical methods?	3 4	The delta for projects in the baselines is easily compared in the live plan to establish a delta. For new projects it is often unclear as to if these new projects in the plan are part of pre allocated minor works spend or new schemes not identified when the work bank was developed.			The route comment that these values were as expected due to the under delivery on underbridges and over delivery on culverts as outlined earlier.	D2	4	A clear delta can be calculated based on the documentation provided the unique id numbers used to be route allow for a clear understanding of the movements using analytical methods.	
28	D Costs	D3	To what extent does the estimated renewals cost for year 1 differs from the actual renewals cost for the same period?	3 4	The delta for spend in Y1 for the baseline is -£3.3m (-13%) Volume has increased by 603units (37%) and effective volume by 410.3 (49%)			At the start of the year volume targets are set based on what was done in previous years and due the large number of culvert scheme that came to fruition this resulted in much large increase in volume delivered.	D3	3	There has been a decrease in spend by 13% (£3.3m) from the baseline this is due to underspend of £4m on underbridges. Though this is offset by additional spend on major projects and culverts. The deferral log communicates a reduction in spend of -£2.3m with an associated volume spend of -506. This accounts for 5% of total schemes or 17% of baseline schemes. All of these schemes are underbridge schemes. Volumes have increased by 603 units (37%) despite the deferred renewal movements. Large increase in volume seen in culverts (as described by the route) with increases also see in retaining walls and overbridges and underbridges. There is significant increase in the volume associated with an overall decrease in spend which highlights the change in the composition of the planned and delivered workbank.	
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for year 1?	3 4	The underspend in Y1 and increase in volumes appears to have no impact on future years of the road period upon comparison of the baseline to the live plan following deferrals and changes demonstrated.			Changes to schemes in later years are recorded which allows us to manage the entire workbank holistically to ensure that the workbank over the control period remains deliverable. Using the graphics developed for cost/volume and effective volume.	D4	3	The deferred renewals to later years has not put additional strain on the workbank from what the route have described and what the graphics show. There is significant change between the business plan and live plan due to the increase in culvert schemes and the associated volume. Decrease in spend for an increase in volume for underbridges indicates issues around unit cost and volume development. The route outline that moving forward understanding unit costs better will improve this. They are working for CP7 to have more granular costs to break out development and setup fees from activity rates.	

	Spend	Volume	Effective Volume
Baseline	£ 25,022,933.45	1629	835
Actual	£ 21,705,379.78	2232	1245.3
Delta	-£ 3,317,553.67	603	410.3
% Change	-13%	37%	49%





Row Labels	Sum of Year 1 Current £	Sum of Year 1 Current Vol	Sum of Year 1 Current Eff Vol	Sum of Delta £	Sum of Delta Vol
0	£ -	0	0	£ -	0
Structures - Coastal & Estuarial Defences	£ -	0	0	-£ 266,513.42	0
Structures - Culverts	£ 738,040.58	508	508	£ 205,013.74	488
Structures - Footbridges	£ 488,570.45	-11	-11	-£ 44,456.39	-41
Structures - Major Structures	£ 1,520,985.53	0	0	£ 1,250,954.13	0
Structures - Minor Works	£ -	0	0	£ -	0
Structures - Overbridges	£ 752,090.85	147	29.4	-£ 207,357.47	47
Structures - Overbridges BG3	£ 179,855.15	0	0	-£ 179,437.48	0
Structures - Retaining Walls	£ 400,386.30	104	104	-£ 26,035.17	84
Structures - Structures Other: Hazard Management	£ -	0	0	£ -	0
Structures - Tunnels	£ 215,882.28	0	0	£ 2,671.54	-20
Structures - Underbridges	£ 17,769,278.93	1484	614.9	-£ 4,052,393.14	45
Grand Total	**£ 21,705,379.78**	**2232**	**1245.3**	**-£ 3,317,553.67**	**603**

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	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	Anglia Assessment (10 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	3 4	There are ten schemes that have +5% variance from the baseline in the live plan and 12 that have a -5% variance from the baseline for cost. There are 3 schemes that have a +5% variance from the baseline in the live plan and 1 with -5% from the baseline for volume. Cost variances from +83% -87% and volume variances from 181% to -5.21% are seen.	Volume Summary No. Schemes +5%: 3 No. Schemes -5%: 1 Costs Summary No. Schemes +5%: 10 No. Schemes -5%: 12 Summary No. New Schemes: 74 No. of Schemes in Baseline: 28 No. of Schemes in Liveplan: 95	Are these figures that you recognise?	The fluctuations are seen due the change from initial unit rates and estimates to the cost seen in Y1 this is not a given the inaccuracy of the rates for structures. This is especially the case for schemes with a low volume output which can be hit quite hard as a result of set up costs and other costs that are required for a project.	D5	2	There were 28 schemes in the baseline with 22 experiencing change greater than +/-5%. 78% of schemes in the bassline have experienced variances greater than the threshold. Cost variances from +84% -87% and volume variances from 181% to -5.21% are seen across the region. For example the 181% increase in volume (84% Cost) occurred on CP6STR0020 which required underpinning but when developed used the strengthening unit rate which did not reflect the complexity of needs for a viaduct. Workbank at delivery plan stage would have been on average around GRIP Stage 3.	
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	3 4	Unclear from the documentation provided what the causes of the increases in cost and volume have arisen from.		How do you record the cause of increase/decrease in spend and volume	See comments in D5	D6	2	Unclear from documentation provided as to the justification of scheme movements seen through the analysis. The route described that it would expect these are from unit cost variants.	Understanding the historical variances associated with schemes across the workbank. Developing records of the change seen in workbank will improve the understanding of variance form the baseline.
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.		Unclear from the documentation provided.			The offline version of the workbank highlights what current mitigations and monitoring procedures are in place against a scheme. With restrictions, a network change may be put in place and this would be reviewed as part of the deferral process. When initially prioritising the workbank we looked at when restrictions would run out to ensure that a scheme would be undertaken around that time. Currently have an underbridge with a network change from RA8 to RA4 which is holding maintenance using the railhead treatment train but not for the TOC.	D7	4	There has been no operational impact as a result of the workbank changes.	
33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	165	Unclear from the documentation provided.			When works get scheduled a route requirements document is supplied which outlines' what will be undertaken as part of the project. As part of the GRIP process project delivery team will ensure that the requirements stipulated have been actioned. Any change to these requirements will be documented through Form 1's that have been signed off. Use of the Asset Management Planning process to ensure hand bank of works and undertaking of snagging.	E1	2	The route requirements document outlines the goals/benefits that each scheme should achieve. It is unclear how the route captures that benefits are realised when the scheme is complete. The route described how the route requirements document is used at the end of GRIP process for project close out along with the Asset Management Process documentation to record hand back of schemes. CARRS contains if the project has been completed within the health and safety file but the systems don't talk to each other. The workbank shows the status of a project up to Project Close Out with a separate column showing when project close out has occurred. However, it is unclear as to if a project has been completed and if benefits have been realised.	Route should develop a feedback loop to record the review of AMP files and Health and Safety Files. Streamline of the process to improve communication between systems though this is out of the route's hands.
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]	165 4	Unclear from the documentation provided.			Part 1 of the route requirements sates that there is a lesson learned session undertaken as part of the hand bank which are led by delivery teams with contractors. The outcomes of which is put into a report. This is undertaken as part of the route management process to feed into how scheme will be undertaken moving forward with the framework delivery partner. National we have the Business Planning Working group which is a good forum for sharing the lessons learned nationally.	E2	2	The Business Planning Working Group. Acting as a catalyst for looking at C/V more holistically, sustainability metrics, CP7 policy strategy and sharing of best practice across the network national and is run by the TA to improve communication. Documents produced on project basis that outline lessons learned from delivery partners and how these can be implemented. This process has been well undertaken and meetings useful. However, there is no formal record of these meetings in place and was not a formal requirement. This process has now been made a RRD for year 3 onwards. .	The route have developed in the Part 1 of the route's requirements document that a lesson learned reports and feedback is captured.

#16354 - Review the progress of structures year one work bank delivery

Review and Findings | Eastern | East Coast, East Midlands and North & East Routes

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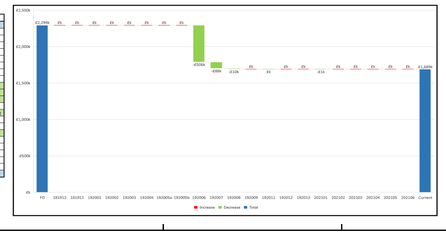
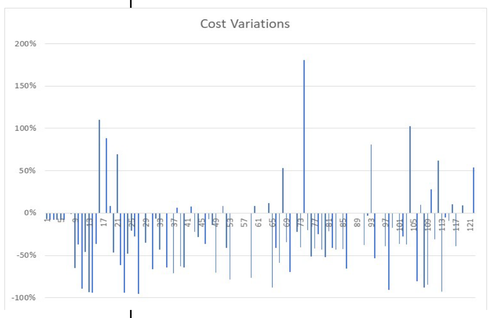
	Topic	Ref	Question	Doc. Ref	Evidence from Documents		Queries	Evidence from Regional Stakeholders	Ref	East Routes Assessment (08 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	8 12	Documentation has been supplied which shows the contents of the Year 1 workbank. It is not clear however what process was gone through to assemble the workbank which featured as the RF11 plan		We see the plan as put together but need to understand the process leading up to that point - can you please walk us through the developmental stages leading to that plan?	The Region had their unrefined and unconstrained workbank in their CARRS database. The TA then provided to the Region some indicative volume targets which were to be aligned to in the Business Plan. It had been a very iterative process over a number of years developing the workbank linking it to the volume targets (to provide an initial constraint) and linking it to policy. There was then a process of various cycles with the TA to provide assurance on the workbank on the contents and process. Whilst there were volume targets and then by using unit rate analysis in conjunction with their delivery partners the Region came to an initial view on budgets. They then tested various scenarios right up to the point where they reached FD. This was done in conjunction with the TA and within the Route taking a view across the various engineering disciplines. The Region used a prioritisation tool in the development of the workbank which takes a number of factors into account and outputs a score. By the Region's admission this tool was some ten years old and did not focus on policy and was more aligned to assessment, or condition failure. It also takes account of route criticality. The Region did not solely rely on this scoring to plan their work items and there was an engineering overlay applied. A copy of the documentation associated with the tool was requested. At RF8 they reached FD for the whole Control Period which set the baseline for the whole CP. At RF11 they set the baseline for Year 1. The Region commented that they had undertaken an exercise to learn from the development and delivery of the CP5 plan in the planning for CP6. This included the early development of jobs so that they were 'ready to go' early in the new Control Period. In the second meeting the linkage between policy and the assessment / examination was described and it was demonstrated that policy was a factor in the composition of the plan.	A1	4	The Region described the process from the unconstrained workbank to the point where they used a tool to prioritise items into Year 1. The prioritisation was more focused on assessment and condition failure but was also prioritised on Policy noting that examination and condition are Level 1 policy elements. In the development of the plan it was noted that an engineering overlay was applied to the development of the plan. Subsequent to the meeting a copy of the prioritisation tool was provided. The process that the Region described was clearly based on previous experience and included all of the elements which would be expected including the constraint of budgets, prioritisation and the engineering overlay to ensure the sense of the plan.	
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	8	The RF11 plan includes flags to show where the item fits in line with the three Levels of policy and there is the natural bias on L1 activities (275) compared to L2 (35) and L3 (1). Very few are not flagged to policy levels.		The items in the RF11 that are flagged to policy - can you take us through what role policy compliance has in the development of the workbank?	The Region commented that policy compliance was fundamental to the development of their plan from the unconstrained workbank with Levels 1, 2 and 3 being used to prioritise. Level 1 received top priority and they used a GAP analysis tool to identify Level 1 policy items which had failed to be included in the plan. They used other sources of information about their assets (e.g. scour database) to ensure that all of the Level 1 activities were included. This was followed by the identification of Level 2 policy sites which has scour issues where there were likely to be performance issues. This was described as a 'local' strategy. In the plan they have flagged schemes to policy levels and types with a only a very small number where there is no alignment. Going forward they have developed a new prioritisation tool which focuses on the new policy for the development of the CP7 workbank. They are going use this new tool to really imbed this prioritisation and this is linked to the new evaluation team and the assessment of structures which is in turn linked to the future renewal programme. This is seen as a means of developing a rolling prioritised workbank linked to policy. In summary the prioritisation tool focused on the evaluation of priority within the Levels of policy. With factors like the BCMI score, route criticality, removal of asbestos, HCE removal etc.	A2	4	The plan developed by the Region does clearly flag policy compliance with 88% flagged to Level 1 and only 1% not flagged to policy at all. It is noted that whilst their CP6 prioritisation tool doesn't take account of policy the Region used a gap analysis to ensure all Level 1 items were included in the plan. Based on this it is considered that policy alignment is integral to the plan.	
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	8	The type and timing of interventions is not clear from the baseline plan itself.		Please describe the process by which the type of intervention and its timing were used in the development of the RF11 plan	The Region confirmed that the timings in the Control Period were driven by policy. They focused on the Level 1 first and then used a prioritisation score which tries to distinguish between schemes. This was used in conjunction with a process of considering delivery efficiency such as aligning activities on neighbouring structures or by ELR or work type. has been taken a level further in early development of schemes.	A3	4	The Region cited the linkage between policy and the timing and intervention type. This is considered a valid approach.	
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	8 154	Whilst the volumes of activities that are expected to be delivered by schemes is included in the RF11 it is not clear if any kind of prioritisation has been applied in the development of the workbank		Please confirm if the volumes of work have influenced the development of the workbanks. Are volumes a driver of activities for certain asset types in the workbank?	It was agreed that this question had been covered in the earlier dialogue.	A4	3	The discussion regarding the development of the workbank and the use of the prioritisation tool was discussed in question A1. The model as shared contains appropriate parameters to rate schemes, noting the focus on assessment and critical condition. In conversation it was accepted by the Region that the CP6 prioritisation model was imperfect and could be improved.	It is suggested that the CP6 workbank prioritisation tool be updated to take account of a wider range of factors.
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)	8	Eastern is made up of a number of Routes and thus because the plan is developed centrally there would appear to be evidence that between the Routes at least there is co-ordination - however the role of Anglia in the Region is not clear. From the documentation supplied there is no direct evidence of consistency between Regions in the development of the workbanks.		Please confirm our view that the nature of the development of the plan in Eastern leads to consistency across EC, N&E and EM. Please explain how the Anglia input is managed in the Region Please confirm if there is any cross-Region shared learning taking place. In particular do the Business Planning Working Group Meetings provide such a forum and are there any other such meetings?	It was stated that when the Eastern workbank at FD was put together it was done as LNE and EM. Anglia at that time had been a totally separate Route with their own planning responsibility. They stated that other than sharing best practice with Anglia through the TA the responsibilities were entirely separate. When the workbanks were being prepared it was stated that the three 'mini routes' had their plans peer reviewed internally across the area teams to ensure they were aligned using the tools that were available to them. On the approach to FD there was a reorganisation which made the route more of a task-based structure. This created a single post responsible for renewals across the former LNE and EM instead of area organisations. As a result the Region is splitting the route engineering roles between N&E and ECML with one engineer an Anglia and EM with another. This transition will not occur until early 2021 and so was not in place for Year 1. The Region stated that there is a fortnightly regional Business Planning Working Group used for sharing best practice and is currently working on CP7 policy. They share best practice there with the aim of providing consistency. The Region believed that ultimately it would up to the TA to provide consistency across the Regions.	A5	2	Within the Region it was clear that there had not been consistency between the development of the plans for the former LNEEM routes and Anglia during the development of the Year 1 plan. There no evidence provided regarding the understanding of the principles or approach taken by Anglia and thus it is concluded that there was no consistency in the Region in this regard. It is however noted that the new Eastern Region is relatively immature and the relationship between the formed Routes will develop but was not in place for Year 1.	The Business Planning Working Group could become the forum and catalyst for sharing good practice in the approach to consistently developing work banks. In this forum Routes/Regions themselves could collectively consider whether adopting a universal approach may be more appropriate.

6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	8 17	The nature of the live plan in spreadsheet format clearly leads to the potential to undertake graphical or tabular analysis of delivery during the course of the year.		Whilst it is clear that it is easy to create a dashboard type analysis of the composition of the planned workbank does this take place and if so by whom and for what purpose?	The Region has developed a lot of new tools between the RF11 to the actual delivery. The Region stated that the reporting could be used by external stakeholders to help visualise cost and volume changes. The Region uses the outputs internally to manage day to day issues and to create glidepaths for forecasting. It is also used to track authorisation and manage emerging risks. The Region stated that the workbank is large and the visualisation of progress is a significant tool (particularly with regard to the PPF initiative). It was also stated that there is a requirement for the Region to report to the individual Routes and thus the ability to cut the data and present it is a straightforward manner is important. The Region confirmed that the reporting is also used to monitor delivery by the likes of Capital Delivery for their KPIs.	A6	4	The Region stated that they have developed a number of visual tools to support understanding of the delivery of the plan and this was evidenced in the barometer graphs provided in their earlier submission. The Region confirmed the use made of these charts both in the Region to understand delivery and also within the team to manage on a day-to-day basis.	
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals be identified via analytical methods?	8 9	Based on the availability of the two spreadsheets providing the RF11 and end of year actuals it is possible to undertake analysis of the change in position between planned and actual. A rough assessment of the numbers of schemes based on BPID numbers shows that 39% of the baseline plans were undertaken in the year, 56% of the baseline schemes had no spend and 5% of the schemes were undertaken in the year but had not been in the baseline. It is assumed that a degree of over planning accounts for the 56% figure and there may be schemes over spilling from CP5 into Year 1.		Can you provide a high level summary of the way the plan unfolded as the year progressed and the RF11 base had been established? Does the adjacent analysis of the delta of schemes accord with your view and if not please confirm your view of the position and explain the variance with our analysis.	The Region provided headline justification for the significant level of change in the activities which was associated specifically with their Tunnel Hidden-Shaft programme. This covered 160 shafts done in Year 1 and Year 2. In the BP they had 160 lines of items but then moved them into a single programme line with a tracker to monitor individual item delivery with the BP being used to manage spend. This change was stated as being the main reason why there was such a large number of items with no spend. This was wrapped up into BPUID856356. The Region confirmed that they included a 15% over planning in the RF11 which was built in to allow for slippage etc. There was also some 'emerging items' which had slipped from CP5 Year 5 into CP6.	A7	4	The management of the Business Plan on the spreadsheets and consistent use of ID numbers associated with the time means that it is relatively easy to establish the delta between planned and actual renewals.	
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for year 1 differ from the planned renewals workbank for the same period?	10 152	It is possible to identify the changes to the delivered workbank from the planned and actual spreadsheets. The Delta Report appears to provide a summary of the changes in the year but this needs to be explained a bit more.		The analysis of the before and after spreadsheets shows a number of scheme variations. Please provide a view on the changes that were made to the delivered schemes during the year - e.g. schemes were slipped from CP5 into Year 1 meaning that other planned schemes were pushed back or schemes were accelerated or swapped	There were two emergency schemes which emerged during the year identified through examinations. They also suffered slippage from Year 1 to Year 2 as a result of things like issues with land owner access etc. It was stated that any slippage was managed through the Deferred Renewals process. From the barometer graphs they showed that the Region had achieved a lot of the over planning schemes for underbridges but underspent for overbridges as a result of rescoring of their condition and in conjunction with local authorities covering a lot of the work under Minor New works leading to a drop in the spend on this asset type. The plan was £61m and they spent £53m but delivered an increased volume.	A8	4	The Region were able to account for the variations in the actuals from the original plan. The Region was able to demonstrate understanding of the changes that had taken place and the reasons for those changes. It was also noted that the graphical analysis undertaken by the Region supported the understanding of these changes.	
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	26	Based on the Consolidated Change Controls spreadsheet it is possible to see a number of schemes where there has been a change such that costs have come out and moved forward - an example being OP162638 LNEEM000193 CARRS 1544358		Please confirm that our understanding of the deferrals in Year 1 is correct. Do you have a Deferred Renewals Register (or other tracker) to validate deferred schemes? Check OP162638 as deferred through the DDRA process	During the conversation with the Region a particular scheme was identified which had slipped from CP5 into CP6 without a deferred risk assessment. The justification for this was that the scheme was on site but had slipped over the end of Period 13 into Period 1 of CP6 and thus the impact of the deferral was minimal. It was stated by the Region that their definition of 'deferred' was anything that results in a year change. The only exception to that would be if works were actively on site and thus the risk was deemed minimal. The Region showed that their live planning spreadsheet also acted as a deferred renewal log with columns to the right of the spreadsheet capturing the date of the change control meeting and the change reference. It is linked to the individual Deferred Renewal Risk Assessment document which will have been prepared capturing the engineering decision. Once it is signed off it is logged on the Live Plan including the identification of mitigation works which would be flagged. In addition, if the deferral is such that it would need a further risk assessment that would be manged through the Business Plan also.	A9	4	The process to manage deferred renewals was provided along with samples of the process in action. The integration of the deferred renewal register with the Business Plan is considered a very positive approach along with the linkage between the BP and deferred renewal risk decision points. It is considered that the Region has a good grasp of the deferred renewal process and its visibility. 8 Scheme have been deferred from Year 1 delivery to later years in the control period. All of the schemes were deferred from CP5 and are under ongoing monitoring programmes.	
10	A Workbank Changes	A10	How were deferred schemes justified?	19 20 21 22 23 24 25 27	It does not appear that the particular DRRA for the above scheme has been provided. Nevertheless the templates used for DDRA does include assessments against the CRAM matrix in some detail.		Check understanding based on A9.		A10	4	The process to agree deferrals incorporates an element of justification. The Region provided a high level view of the justifications and supported this with sample deferred renewal risk analysis which included the justification. It was considered that the understanding of the justification for a deferral was integral to the process.	
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	10 11 16 152	From the Consolidated Change Control spreadsheet schemes 165270 and 162794 appear to have been cancelled in 19/20 with no indication of them taking place in future years.		Please confirm that this understanding is correct	There were no schemes cancelled in Year 1. However, based on experience the Region advised that in terms of cancellations there were normally two key themes. The first is associated with scour where they undertake a Stage 1 (initial) assessment and then a Stage 2 assessment which was described as more refined and robust analysis. There have been incidents where the Stage 2 investigation revealed that an intervention was not required and therefore the job could be removed from the workbank. The second category was assessment failures where an assessment had shown that a structure is weak but when more detailed analysis is undertaken it has been established that the work is not required. With regard to the two schemes identified for deep dive these were confirmed as culvert lining activities which were costed as less than £100k and so had dropped into the Day to Day CAPEX pot. The work is still being done but funded outside the renewals business plan. The Region demonstrated the recording of a true cancellation in their Live Business Plan.	A11	4	There were no schemes cancelled in Year 1. The Region however shared examples of where schemes had been previously cancelled.	
12	A Workbank Changes	A12	How were cancelled schemes justified?	16 18	Need to check understanding of scheme changes - see A11		Where would such cancellation be justified - that is - in what documentation and as part of which process?		A12	4	There is a well established change control process including the justification for cancellation where required. This was evidenced at the meeting through examination of the Live Plan.	
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	10 152	Within the 1920 Delta Report there are items flagged as being 'accelerated' or 'emerged'. This is being taken as an indication of the only schemes to which this has happened		Please confirm that this understanding is correct	The Region confirmed that, on the Delta Report, the accelerated schemes had come in from Year 2, the emerging ones are, typically, those schemes which have had to be done during the year because they were an emergency item. Finally, the deferred items were indicative of slippage from CP5. The Region cited, as an example of an accelerated scheme, bridge ECM1-12 which was brought in because there was an access opportunity which they were able to utilise. The Region confirmed that there had been two schemes which emerged during the year, one accelerated and two were noted as being deferred. These last two had a substantial amount of work slipped to CP6 and it was noted that there were another couple which completed in CP6 but within the first few weeks. The Region confirmed that schemes that were slipped from Year 1 to Year 2 are identified in the Delta Report in the colour coding whereby black denotes no spend in Year 1, blue denotes some spend in Year 1 but substantial spend in later years.	A13	3	The use of the Delta Report was considered useful in summarising the changes that had been made. The summation of the changes were 17 schemes slipped with some spend in Year 1, 3 items slipped with no spend in Year 1, 2. Schemes spilled over from CP5 and 1 scheme was accelerated from later years in CP6. The Change Log supported the evidence in the Delta Report. There was however some confusion in the use of terminology in the Delta Report which made it unclear in some respects.	It is suggested that the terminology associated with deferrals and slippage (from CP5) be reviewed to improve clarity of meaning.
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	13 15 17 153	There is no evidence to come to a view on this justification		Please advise where the justification for the changes is recorded and what process this followed and where it is documented.		A14	4	The evidence from the Business Plan Change Control columns confirmed the references to the change control meetings. Evidence from the sample change submissions confirmed that such changes would require to include justification for any movement in the scheme.	

15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	8 14	The workbank was set at RF11 and there is evidence that the monitoring of the changes refers back to this plan.		Please confirm that RF11 is the baseline. Was this plan updated before the start of the Year - if so where is this documented and how were the changes tracked?	The Region confirmed that the RF11 was the baseline for Year 1. They stated that there were likely to be some minor changes before the start of the year but that these were change controlled against the RF11 baseline. In the second meeting the variances between plan figures were explored and it was noted that the 'core plan' aligned with the ORR figures at £53m and that the over planning element of the plan accounted for the increased sum in the RF11. This included £8m of over planning making a total of £61m. The justification for the inclusion of over planning in the RF11 was noted as providing a buffer should certain core schemes stall and thus the over planning were contingent schemes to allow substitution. It was stated by the Region that sole reliance on the core plan would lead to underspend when, for example, site access issues emerged on project.	A15	4	The Delivery Plan provided by ORR (Apr 2019) shows a post efficient Structures forecast for Y1 £53.0m, and total volume of 10933. These values are different to those contained in the baseline plan provided by the Route (Apr 2019) which shows a post efficient structures forecast for Year 1 at £61.1m, and a total volume of 15239. In an explanation for the variation it was clear that both figures were recognised by the Region and that the variation was totally accounted for in the over planning. This was checked through the use of filters in the plan to remove the over planning schemes. Based on this explanation the review was satisfied that there had been a single figure for the core plan.	It is suggested that the RF11 figures be broken down to core and non-core items to aid understanding of the annual base plan.
16	A Workbank Changes	A16	What, if anything, was included in the year 1 plan as items deferred or which had fallen out of the previous year's plan?	8	Based on information contained in the Delta Report (v2) it is noted that there were two deferred schemes during Year 1 - OP 156636 NOC/43 which was an underbridge repair and OP 156589 NEC2/61A which was a culvert replacement. The Region has confirmed that: NOC/43 – was planned to be fully delivered in 18/19. Due to gaining EA consent and additional repairs included to a 3rd party asset works partially slipped into 19/20 with some associated funding. NEC2/61A – works were planned for 18/19 – works delayed slightly due to contract award and access – works fully delivered and finalised early 19/20 with some associated funding.		Please confirm that this was the totality of the schemes slipping into Year 1 from CP5	See discussion at question A13	A16	4	Two schemes were indicated as deferred from CP5 into Year 1. Neither of these was found in the RF11 plan but it is accepted that CP5 deferrals were reviewed and approved by the Change Control process.	
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	26	The Region supplied their DRRA process mapping and a number of DRRA's associated with work undertaken in Year 1. This provides a good understanding of the quantification of the impact of deferrals. In addition a detailed introduction to the CC process has been provided.		Please confirm the definition of deferrals used by the Region Is the CC process described in a guidance note or similar document? If a scheme is accelerated how is the assessment of impact measured?	The Region had supplied their Deferred Renewal Risk Assessment listing and a number of examples of how this process worked in practice. The definition of a deferral was covered earlier. In terms of a Change Control process the Region had supplied a presentation which had been produced locally which shows all the timescales for when actions are required and shows the process. This they felt was the most comprehensive account of the process. It was agreed that the Region would check to see if there was something to support this at Regional level. They showed the ToR for the Change Control meetings and how it aligns with other meetings and the tracking of trends etc. In terms of the risk impact of accelerated schemes it was stated that the benefits would be delivered earlier and this would be recorded in the barometer.	B1	4	Subsequent to the meeting a copy of the change control briefing document was provided. Based on the evidence the process associated with the understanding of the impact of change was considered robust.	
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	26	In terms of the deferred renewal process it is seen that the Region undertakes a risk assessment based on CRAM. This is part of the DRA template. However, there is no mention of sustainability in the DRA template and CRAM. It is therefore not clear how sustainability is handled when there are changes to the workbank.		Please confirm how / if sustainability is taken into account when changes of whatever type are proposed to the workbank delivery plan.	The Region acknowledged that sustainability is not part of the templates they use for deferred renewal assessment or CRAM but pointed to the Route Strategic Plan where the prime focus is on Policy Level 1 activities the key risk long-term is that they may not be being sustainable. They recognise that this is a risk but are more focused on safety so if there is a deferral to take this into account they believe that the overall impact on sustainability needs to be taken into account over the Control Period. The Regional view is that sustainability risk is relatively low against the safety risk of activities.	B2	3	The Region uses a process to understand the level of risk which is appropriate but which does not include sustainability. The comments regarding the impact of sustainability are noted.	Consideration might be given to the inclusion of sustainability in some form in the risk assessment process, even if this is an annual or Control Period review of the impact, on the renewals to the portfolio. Based on the evidence provided sustainability appears to be missing.
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	26	It is noted that performance is part of the CRAM and as such is included in the RA undertaken in the case of proposed deferred renewals. It is not clear if it is integral to the Change Control process from the shared presentation.		Please confirm how performance is taken into account when changes are proposed to the delivery of the plan.	The Region described the process associated with the deferral of renewals uses their template and the CRAM to inform the decision making. Performance is part of the CRAM assessment and is thus demonstrably integral to the risk assessment process.	B3	4	Risks associated with safety and performance as well as sustainability are considered when the work bank is developed and when a decision is made as to whether a project should or should not be deferred. The corporate risk matrix is used to quantify risk in the deferred renewals register covering primary impact such as: Asset Management, Finance, Performance, Reputation and Safety.	
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	26	It is noted that safety is part of the CRAM and as such is included in the RA undertaken in the case of proposed deferred renewals. It is not clear if it is integral to the Change Control process from the shared presentation.		Please confirm how safety is taken into account when changes are proposed to the delivery of the plan.	The Region described the process associated with the deferral of renewals uses their template and the CRAM to inform the decision making. Safety is part of the CRAM assessment and is thus demonstrably integral to the risk assessment process. In addition, the earlier commentary on sustainability has emphasised their focus on safety in terms of the prioritisation of renewals as part of the Route Strategic Plan.	B4	4	as above	
21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]	13 15 26 153	The evidence that was provided by the Region consisted of three main documents - a Change Control Guidance note, a completed Change Control Log and a Consolidated Change Control and Waterfall spreadsheet. The relationship between the last two of these documents was not clear. However, the evidence as provided did appear to describe a well considered and appropriate system to manage change.		Does the Region produce a document describing the Change Control process apart from the Guidance slides? Please talk through what each of the two spreadsheets is showing and their purpose and relationship to each other.	The Region had previously provided their Consolidated Change Control process spreadsheet. They explained that each period each engineering discipline produces a Change Control Log which lists the changes during that period. This shows whether the change was approved and by whom. This is then wrapped into the Consolidated Change Log for the Region as a whole which provides a history of all of the changes which have been approved. A separate log consolidates the changes which were not approved. The Consolidated Log allows an individual scheme to be filtered which would then show the whole history of the changes made to that item. The learning of lessons from their change process is seen as a key feature. The meeting reviewed the waterfall diagrams which are produced showing initial budget estimates and then any changes by period. It was noted that they do not show the spend just the latest cost estimate for use in an overview of the entire Control Period.	C1	4	The Region's change control process was reviewed and found to be appropriate for the management of the changes to the workbank. The Region described their reporting process on changes which involved the assimilation of changes for all disciplines to region level. In addition the waterfall diagrams which were demonstrated and shared provided a very graphical means of understanding the change impacts.	
22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]	13 15 26 153	Within Eastern Region it appears that the plans and the Change control process associated with structures renewals is undertaken as a single exercise and is thus consistent. The relationship with the Anglia process is not clear. The spreadsheets used by the CC regime are bespoke to Eastern Region but similarities are noted with other Regional documents.		What plans are there to integrate the Change Control processes in Anglia the processes we are discussing today? Are there any forums whereby there is sharing of approach in this area between Regions?	The Region noted that in terms of the integration of Anglia there will be a move to share best practice to put in place a standardised business plan and change control process across the Region.	C2	2	As it stood for Year 1 the Anglia Route used a different Change Control process from the rest of what is now Eastern Region. As such there was a degree of inconsistency in the Region in terms of the process in use. It is noted that there is desire to move to a common Region-wide process.	It is suggested that a road map be prepared for the move to a single Change Control process within the Region.

23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	13 15 26 153	It was not possible to determine whether policy alignment was taken into account when changes to the plan are being considered. There was no reference to policy in the Completed Change Log or in the Consolidated Change Controls spreadsheet.		Please confirm how alignment with policy is maintained through the Change Control process.	The Region stated that Policy is a part of the development of the workbank. If there were to be changes to the Plan then, through the Deferred Renewals Risk Assessment the risk exposure from the change will be quantified. It was noted that if there were emerging works these would be introduced through Change Control and only taken forward if justified in terms of a priority. As part of the further discussion it was stated that the impact of a deferral on policy compliance would be tracked through that process. It was however recognised that the changing of the scope of a project (perhaps as a result of a reassessment of condition) leading to a Change would not necessarily track policy compliance.	C3	3	Statements made by the Region indicated that the alignment with policy is integral to the change process. The copy of the Live Plan shared for the review contained a complete account of items' policy activity, level and CARRS reference. However, reviewing the Change Control guidance and the Completed Change Log example there appeared to be no reference to a check on policy alignment of the change. In the further discussion on this point it was accepted that there is a gap in the process where a change of scope could occur to an item. However, it was recognised that for the majority of the cases the change would either be captured in the Deferred Renewals process or be a 'right side failure' in terms of the acceleration of an item. Given also the background of very strong policy alignment of the schemes this was considered a lesser omission.	It is suggested that a check on policy compliance should form part of the Change Control process.
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	13 15 26 153	The documentation supplied describing the CC process points to a regime which is properly managed. No documentation which describes the process, apart from the Guidance presentation, was made available. The Consolidated Change Controls spreadsheet was able to produce waterfall diagrams for individual schemes but it was not always clear what message these conveyed. The relationship between the Consolidated Change Log and the Consolidated Change Controls documents was not clear in terms of their purpose and who made use of them.		Can you walk through the documentation provided with regard to Change Control and explain their purpose and the use made of them. We would like to pick an example of a change in the year and track the recording of the change in the various spreadsheets.	The Region stated that the process that they have in place has been built up over six or seven years and that it gets updated from time to time where a need is identified. They do not believe that there are significant gaps in the process as they now operate it. In terms of advantages of their approach it was noted that they record all their headwinds and efficiency adjustments through their Change Control process which they did not believe was done elsewhere. They stated that if there was something in their system which needed to be changed it would get updated. In terms of resilience the Region admitted that there is no back-up resource to support the systems oversight. They did however state that they had some coverage but acknowledged that there was a risk here.	C4	3	The Change Control process as described appears to meet the requirements o the Region in terms of the management of the process noting that the system adopted is wider than structures and is applied to other engineering disciplines in the Region. This consistency of approach is considered beneficial. During the review it was noted that the day-to-day working of the process rested heavily on one individual. This was acknowledged by the Region as a risk.	It is suggested that wider involvement with the Change Control process within the team such that the reliance of one individual is reduced.
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.	8 9 10 152	Based on the available information from the baseline and delivered plans there appears to be no evidence of any cross-boundary impact on the delivery of the plan		Please confirm whether changes to delivery plans in adjacent Regions impacted on the Eastern Region delivery plan in Year 1 CP6.	The Region's view is that this is a very low risk. This would only really emerge as a result of disruptive possession planning. This was felt to be well controlled and well planned by the respective Regional planning teams. The most notable example provided by the Region was on the TransPennine upgrade where there is communication with NW&C to co-ordinate planning of enhancements. It was pointed out by the Region that there is little cross-Regional co-ordination necessary it is more aligned to domestic and enhancement co-ordination.	C5	4	The response by the Region indicated an understanding of the risk but their account of the co-ordination of the planning between Regions for the TransPennine route Upgrade corroborates the response from NW&C.	
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	8	Within the RF11 plan there is a tabulation of the 'Book of Rates'. These provide a comparison between the CP5 and CP6 rates for various activities associated the different asset types. This breakdown of the rates is also included in a table 'by Deliverer' which shows volumes and costs and a table of unit rates. The costings also include identification and analysis of costs taking account of HETI - Headwinds, Efficiencies, Tailwinds and Inefficiency. It is clear that a substantial amount of work has taken place with regard to the determination of rates which would benefit from an explanation at the meeting.		We note the analysis that is included in the 20190128 CP6 workbank document. Please provide an explanation of the process the Region followed in develop the rates used in he development of the RF11	The Region stated that the whole process was iterative which started out with unit rates. In the Structures team it was stated that unit rates aren't always applicable because of the variability of the environment. It was also noted that in the Works Delivery world where there are a lot of low value items being delivered then unit rates are more applicable whereas for Capital Delivery the projects tend to be higher value and more complex renewals. In recognition of this the Region engaged with KPMG to support the team putting the plan together. KPMG helped with the development of the Capital Delivery scheme costs in addition to benchmarking against comparable jobs in the past and then applied allowances if, for example, the structure was Listed. The cost estimates they worked out included using rates which moved away from the square meterage unit rate to, for example, costs per span for similar work. To develop rates for very specialised activities the Region approached other Routes to determine if they had undertaken similar work to identify if relevant costs could be obtained. At the end of the process they documented the approach to the costing. They track cost changes and their reason with the waterfall diagrams and in the Change Control logs and manage the change through their process and track it to the efficiencies and headwinds impacts. The Region confirmed that at FD they developed baseline costs which were pre-efficient and then as part of the CP6 planning they looked at the impact of initiatives (e.g. packaging) and made a assessment of the impact of costs of the initiatives. The HETI columns show the forecast impact of these initiatives. The HETI assessment was stated by the Region as being dynamic throughout the course of the project as impacts emerge to ensure the business knows the most current view of AFC. In further discussion it was stated that each workbank item comes from CARRS where volumes are held regarding the structure. They	D1	4	The Region provided a good account of an appropriate process to develop initial costs which featured the use of KPMG, and the adoption of a flexible unit approach - e.g. using spans instead of square meterage. It was also clear that the focus for the analysis of rates was on the more complex and high value items. This is considered appropriate. The on-going monitoring of the fit of the rates through the waterfall diagrams was also noted. The further account of the means by which volumes were evaluated for the plan and the alignment with CARRS provides confidence in the volumes.	
27	D Costs	D2	To what extent can the delta between estimated vs actual renewal cost be identified via analytical methods?	8 9 10 17 152	The delta between the forecast and actual costs can be derived from analysis of the plan and actual spreadsheets provided by the Region. A check of the differences confirmed that the Delta Report is picking these differences up by scheme. The examples checked were LNEEM00051, LNEEM00292 and LNEEM000107.	1479014 **MBW3/51 - River Esk, Thistle Grove** Change Period / AFC Change / Change Driver P0 / -£2.294k 181912 181913 182001 182002 182003 182004 1820054a 1820059a 182006 / -£500k / Tender Return in year - alignment of costs 182007 / -£88k / Tender Return in year - alignment of costs 182008 / -£12k / Cost Efficiency following deliverey or final accounts 182009 182011 / £k / Contractor Programme not available at budget setting 182012 182013 2018101 / -£1k / Tender Return in year - alignment of costs 202102 202103 202104 202105 202106 Current / £1.689k 		Covered previously	D2	4	The delta between estimated and actual costs can be tracked through the RF11 and then Live Plan from September 2020. The tracking of changes in the costs can also be tracked through individual schemes by means of the waterfall diagrams which highlight the changes with reasons and their timing.	

28	D Costs	D3	To what extent does the estimated renewals cost for year 1 differ from the actual renewals cost for the same period?	8 9 10 152	The analysis of the planned and actual BP spreadsheets shows that against a plan of £61.15m there was an actuals AFC of £53.24m making a delta of -£7.91m or an underspend of roundly 13%. This does not tally with the Delta Report summary variances. **Asset** / **RF11 PLAN** Budget / Volume; **19/20 ACTUALS** Cost / Volume; **VARIATION** Cost / Volume / Cost % / Volume % **Culverts** £4.63 668 £3.77 958 -£0.86 290 -19% 43% **Footbridges** £1.12 101 £1.09 26 -£0.03 -75 -3% -74% **Major Structures** £0.16 0 £0.17 0 £0.01 0 6% **Overbridges** £4.69 199 £4.42 90 -£0.27 -109 -6% -55% **BG3 Overbridges** £0.93 0 £0.66 0 -£0.27 0 -29% **Retaining Walls** £1.23 84 £2.00 84 £0.77 0 63% 0% **Structures Other** £2.77 0 £2.90 0 £0.13 0 5% **Tunnels** £13.96 0 £13.56 0 -£0.40 0 -3% **Underbridges** £31.66 10101 £24.67 9226 -£6.99 -875 -22% -9% **TOTALS** **£61.15** **11153** **£53.24** **10384** **-£7.91** **-769** **-13%** **-7%**		Based on the plan and actual BP spreadsheets we see a variance on £7.91m in the year however this does not tie into the figures in the summary on the Delta Report - what is the cause of this variation? It is noted that there is a 3% reduction applied to costs in the 20190128CP6 spreadsheet - is this any efficiency overlay? Please explain what the impact of the inclusion of over plan items in the baseline had on the overall year spend.	The Region confirmed that the analysis undertaken by the review was recognised as their figures for 19/20. In response to a question the Region confirmed that the 3% applied to cost as an inflation overlay. This made the actuals equivalent to the pricing of the baseline. The Region confirmed that the cost saving on culverts was due to the use of standard designs and the packaging of items. It was also noted that where the scheme comes in at less than £100k there is an opportunity to undertake the works through the reactive budget. The significant increase in culvert volumes was put down to the lumping in of these low level schemes (as CAPEX maintenance which are not forecast) which are driven by examinations which are not predictable. The reduction in volume in the footbridge category was as a result of one scheme at Sunnyside NSS was found to be unserviceable after they started grit blasting it has been deferred. The Region advised that they track variations in the cost and seek to learn lessons from these. With regard to the significant variation in underbridge spend and volumes the Region advised that the bulk of the over planning items were made up of underbridge items (as a proportion). The Region also had issues with permissions from the Environment Agency associated with in/out of water access. A further item at Wakefield had the road closure cancelled by the local authority leading to the cancellation of the job.	D3	4	The Region accepted that there had been a 13% underspend (-£7.9m) and 7% drop in volume (-769) compared to the RF11. In the discussion on the reasons behind these variances detail was provided with regard to culverts and footbridges. It was noted that there were specific aspects of underbridge schemes which were explained as being outside of Network Rail control. It was also noted that the largest element of over planning involved works to underbridges. It was considered that the Region had a good understanding of the differences.	
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for year 1?	8 9	The impact on the Business Plan of the variation in cost between forecast and actual is not clear from the evidence presented.		What if any impact on the Business Plan was there from the variations in cost between forecast and actual - for example did cost increases mean that less work could be delivered within budget constraints?	The Region commented that despite the overall reduction in spend and volume delivered in the year they believe that the overall outputs for the CP6 plan will be met. They noted that they had tried to deliver the over plan as well but due to third party issues some of these had slipped for the year. In further discussion the Region provided an explanation of the core and over planning structure and how this rolled forward and that these non-core schemes are treated in the same way as core schemes it terms of their delivery.	D4	4	The comments made by the Region regarding the impact on the Business Plan were based on the delivery of the core plan. This accords with the view of the Region's plan held by ORR. The planned delivery of the core plan was achieved during the year and the Region provided a coherent explanation of the management of the over plan in future years to lead the review to the conclusion that the impact on the overall plan was being managed effectively.	
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	8 9	The analysis of specific schemes and the variation in costs shows some significant variations in costs and volumes. Based on this analysis it is considered that the variation is widespread. 		Please comment on the view that cost variations beyond +/-5% are widespread - is this your view?	The Region accepted that there had been variations in the cost of items. This was attributed to the maturity of the schemes as they went into the plan. They stated that in CP5 they had been remitted to work on a design and build in one year basis - this was felt to be unsustainable. They have now moved to a rolling three year plan. They have made progress on this model. However, at the end of CP5 they were still undertaking design works for the Year 1 schemes thus the level of cost certainty at that time was potentially at +/-25% for GRIP 3, also at approval in principle it will only be at +/-15%. In further discussions it was noted that the Region's view is that unit rates have only a limited application given the variances of individual sites. It was noted that as a discipline Structures is undertaking a review with the TA to better develop unit rates and this includes consideration of the lessons from Year 1 and Year 2 of CP6.	D5	2	The Route acknowledged that there had been significant changes in the costs and volumes and this was clear from the analysis. There was an acknowledgement by the Region that cost variances were an area which could be improved.	It is suggested that a more detailed analysis of the individual variations in schemes be undertaken to foster improvements in the forecasting for future years.
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	8 9	It is clear that a lot of analysis of costs has been undertaken through the HETI considerations however it is not clear what conclusion there is regarding the causes of individual as well as portfolio variances in cost and volume.		Clearly in the crude analysis we have undertaken it is not possible to check whether the scope of works changed leading to cost variations - was this the cause of variations in a significant number of cases? Are there other systemic reasons for the variations in costs and volumes beyond 5%?	See discussion at question D5	D6	3	The Region was able to provide a good level of understanding of the causes of the variations including noting the level of maturity of schemes it a big factor. It is noted that there is work going on to try to improve understanding of the causes of the variations.	see D5
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.	n/a	There is no evidence to allow a view to be formed on this question.		Were there any operational impacts as a result of changes to the plan from RF11 baseline? If there were describe how these emerged and the actions taken by the Structures team to minimise the operational effects? If there were none then where in the process would operational impact be considered?	The Region stated that they didn't have any speed restrictions and if they do exist it would be as a result of an emergency scheme where the speed restriction was considered the mitigation. If there was a need to introduce a TSR that would be introduced into the Plan as an emergency item to remove that performance risk. It was stated that when they do have an operational impact it was at a low frequency but it would be likely to have a high impact. Such incidents would be turned around as soon as possible or a temporary repair carried out in the short term.	D7	4	There were no operational issues associated with the structures assets. The urgency of those items which could impact on performance was recognised as well as the potential level of disruption.	
33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	n/a	There is no evidence to form a view on this.		Please confirm how expected outcomes are back-checked once schemes are delivered - hand back documentation and review sessions?	The Region has developed a robust technical work scope and remit and these set out clearly the requirements of the scheme under consideration - for example if they were working on a weak structure this might be to raise it to RA10. The progression of the scheme based on the remit requires the item to go through a series of stage-gates which provides the opportunity to check that the expected outcomes are still on track. At the end of the project they use the AMP16 hand back form. They have also developed a Form Z which supplements the Form 5. Form 5 is produced on the night of the works to confirm that the railway is safe to hand back to traffic. The Form Z supplements this is a early notification of scheme completion and is the supplier stating that the bridge has achieved its expected outcomes to be used to inform the business.	E1	3	The review process described by the Region appears to be robust in terms of the formal documentation of the completion of the job and the sharing of information on any capability enhancement. The flagging of the completion and the delivery of the anticipated outcome in the Business Plan did not appear to take place.	It is suggested that there is inclusion in the Live Plan of columns which flag the completion of an item and also that an indication that the anticipated outcomes were achieved, partially achieved, or not achieved. This would benefit any oversight of the plan.

34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]	155 156 157	There is no evidence to form a view on this.		Please confirm what measures of effectiveness are in place including sharing best practice with other Region or comparisons of delivery KPIs between the Region.	The Region stated that on a scheme by scheme basis they monitor delivery at a portfolio level. This is captured in the barometer graphs showing how they performed. This would highlight any slippage. In terms of the Region by Region comparison this would come of the Region's scorecards which monitor performance against volume delivery, train accident risk reduction, and scour. It was stated that they are unable to undertake any comparison between Regions for effectiveness because they have no access to other Regional data. It was thought that this is something the TA could do. It was noted that a cross Regional comparison was considered possible looking at volumes in CARRS but this wouldn't cover budgets which are in the respective Business Plans.	E2	2	Whilst there appears to be a level of overall look back taking place and the barometers provide a means of visually appreciating the progression of the plan the lack of any comparative measure of effectiveness is considered a gap. Further information was provided in terms of various scorecards which showed the comparative Regional performance for a range of measures. The sole structures related measure was underbridge volume where this could clearly be tracked against other Regions. Whilst the scorecards did provide the means of comparing effectiveness these did not appear to be wide enough to allow a meaningful comparison to be made of effectiveness between the Regions.	It is suggested that a more formal means of sharing effectiveness of each Region be considered to identify best practice and foster improvement.

#16354 - Review the progress of structures year one work bank delivery

Review and Findings | North West and Central Region

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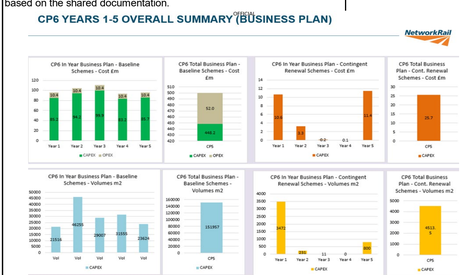
	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	NW&C Assessment (04 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	54 136 137 138 139 142 144 145 146 147 148	The LNW CAPEX Business Planning Process document provided by the Region gives a good account of the process leading to the creation of the workbank. It identifies the steps and the responsibilities of key posts. The process applies to all assets and not specifically to the Structures workbank. We will need to see evidence that it has been used to deliver the Year 1 plan.		The copy of the document provided was not signed - is this the finally signed off version? It is noted that the work items are selected "to deliver the business plan objectives and outputs' - where are these? What is the difference in the processes associated with 'significant change' as described in sections 6.2 and 6.3? The CAPEX Business planning process document covers all infrastructure assets - are there any particular aspects of the process that are more or less applicable to structures or areas in the process that are not directly applicable?	The Region advised that the Business Plan that was supplied to the review was developed through a number of iterations during earlier years. To populate the plan they identified which renewal were required in particular years. It was confirmed that the Year 1 baseline was the plan at RF11 18/19. The Region uses CARRS to managed the renewals. Schemes which the Region wishes to promote are consider through the peer review process. To support this all the available relevant information about a scheme is put into a Peer Review Pack to support the review session. The review is undertaken by the RAM, the area team asset engineers and can sometimes include the Region's delivery partners. The pack covers elements like alignment with PoaP, scheme justification, and access requirements / risk etc. At the Peer Review session the scheme is presented and at the end a decision is made on whether it is to be included in the plan or not. If it is agreed to be included in the plan then the Change Control process is used to move it into the plan. In some instances it may be that further information is required to support the scheme ad allow a decision to be made before it leaves the unconstrained workbank. The document supplied is a Region wide asset document but what has been described here is the local (structures) process. The structures team stated that they have very' local processes' to guide the development of structures schemes into the plan. The unsigned version of the process document submitted to us came from SP's archive but it was noted that within the Region they manage their processes through the Integrated Management System (IMS). This covers a range of levels of documentation. As part of the IMS they described the evolution of the plan as being a dynamic process.	A1	4	The documentary evidence provided by the Region and the description of the process to create the workbank created a high level of confidence in the Region's approach. This was supported by their use of an Integrated Management System (IMS) to link the various parts of the process into a single system. This approach was considered a positive move which did not appear in this form in other Regions.	
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	54	Policy is mentioned in the Planning process as being in the accountability of the DRAM to establish and maintain "a region-based policy and strategy to sustain each asset" and a "long-term business plan aligned to the policy and strategy". It is not clear if this means that the Region has developed its own policy with regard to Structures. Policy does not appear in any of the other documentation so it is not clear to what extent Policy is applied to the development of the workbank.		Noting that the DRAM is responsible for establishing and maintaining a region-based policy and strategy to sustain each asset - does this mean that the Region have bespoke policies in place for each asset type? How is Policy applied in this case?	The Region confirmed that they recognise and adhere to national policy and they have local guidance in place to ensure alignment with policy and PoaP. Policy alignment is part of the renewal promotional process. Where policy is considered not applicable this would emerge during the peer review process but it was considered by the Region that there was very little that was not compliant with policy. this was stated as being a result of the RAM involvement in the process. It was however noted that deviation from policy could come about if access was difficult or if resources were not available. The Region stated that it strives to ensure that the policy outcomes are achieved in the decision making process. As an example, a refurbishment once remitted may change to a renewal as a result of engineering consideration and come through the Change Control process. This is where it would be tested for policy compliance.	A2	4	There was strong evidence that policy compliance was an integral part of the process to develop the workbank. This was supported by the analysis of the Live Plan showing the actual delivery in 19/20 where there were clear flags for policy compliance with the vast majority being linked to Level 1 activities.	
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	54	The Business Planning process notes that the responsibility for the drafting of the activity remit lies with the RAM. However, the selection of the approach is not described. Again, the need to deliver the BP objectives may cover the definition of the scope of works but this is not clear either.		Please explain where in the process the decision about the intervention is taken and by whom.	The Region confirmed that the choice of timing and activities are integral to the process. It was stated that because CP6 was a cost constrained plan this limited the Region's actions to L1 policy driven activities only. It was stated that when the scheme is discussed at peer review this discussion would be based on the limited information available at this early stage of development - subsequently this is further developed into the remit which will ensure the solution and timing are appropriate.	A3	4	It was clear that the selection of activities and their timing was an integral part of the process described by the Region. This was also linked to the work bank's alignment with policy. The Region advised that the type of intervention could alter as the maturity of a scheme developed. It was however noted that the development of an item was addressed within their process to control change in both activity and timing.	It is clear from the process and timing of the assembly of the plan for Year 1 that schemes were at various stages of development and hence the best view had to be taken of the type of work to be undertaken. Whilst the developing maturity of the scheme during the year allowed a more considered view to be taken and where necessary the Change Control process was invoked if only schemes at GRIP stage 3 were included in the baseline plan then the level of change necessary would be reduced.
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	54	The process document describes the methodologies which can be applied to the item selection including examination reports, decision support tools, maintenance problem statements and deferred schemes. This is undertaken by the RAM. How this is done in practice is not clear. It is noted that the delivery team have a role in setting the workbank in that they review the deliverability of the remit and highlight concerns - feeding back to the RAM.		The principle of the volume selection is clear but how does this work in practice?	The SBP submission was based on the process described above. When the selected items are moved into the workbank then the assessment of volumes is applied. The delivery teams are part of the process to develop the plan to try to bake-in deliverability - this takes account of the volumes. The Region opinion is that if delivery partner involvement was left to GRIP Stage 3 then it would be too late to influence the delivery of the scheme and thereby import risk. Noted that Capital Delivery is a mature delivery team but Works Delivery is a newer delivery partner for renewals.	A4	3	It is accepted that the volumes linked to the items in the Plan are integral to the process of scheme prioritisation. The points made by the Region associated with the involvement of the delivery partner in the Plan's developmental process will de-risk delivery if done early enough but could also influence the activities and timing adversely. It was noted that the Region's view is that, whilst acknowledging that their drivers are different, the delivery partners are part of Network Rail and therefore should have the same focus.	Whilst the inclusion of the delivery partner in the prioritisation process is considered useful in selecting practical means of delivery there should be an overt recognition that the delivery teams have a different focus to that of the engineer's responsible for the structures' portfolio.
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)	n/a	NW&C is made up of three Routes and the evidence provided shows that the Region as a whole created the Plan for 19/20. The only evidence of inter-Regional cooperation is the attendance at the Business Planning Working Group meetings.		Please confirm any cross-Region shared learning and in particular the purpose and outcomes of the Business Planning Working Group meetings.	Within NW&C the plan is developed as a Regional team with the area teams contributing to the process. They are splitting their regional plan into the Routes and thus it is co-ordinated within the Region as a whole. The Region has split the focus in the structures team such that the Routes focus on the day-to-day delivery and the Region on the more strategic view. The nationally supported Business Planning Working Group provides the forum for the sharing of ideas and best practice across the country. It was also stated that the Region participates in the ATR meetings attended by Senior Asset Engineers and Asset Engineers to discuss current issues. These can be technical in nature but also consider high level policy matters.	A5	4	The workbank for NW&C had been developed by one team covering the three Routes in the Region. As such there was clear evidence of consistency in the way in which the Plan had been assembled.	
6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	45 46 140 141 150	The presentation of the planned renewal workbank in the form of a Live Excel Spreadsheet lends itself to graphic presentation. However, there is no direct evidence that graphic reporting is being used based on the shared documentation. 		Please confirm if dashboard type reporting is used to monitor progress in the delivery of the plan and if so can a sample report please be provided?	The Region undertakes Rolling Forecast reporting and through the IMS they monitor scheme progress. This feeds the data which can be graphically split by asset type and work types, costs, volumes etc. IMS has the functionality to drill down into specific schemes. It was noted that the Region's finance team produce reports on progress considering forecasts and delivery. In terms of their monitoring within the structures team it was stated that they produce their own charts for BP variances, authority statuses, deliverability, H&S files for the periodic sponsor meetings. They produce weekly progress reports on, for example outstanding remits / authorities.	A6	3	A copy of the 19/20 P13 report was submitted following the early meeting. This built on the description of the reporting described in the meeting and showed overall progress as well as reporting on the risk assessments associated with deferred renewals, H&S file delivery, scheme remit completion, authority papers, a summary of bridge capability, tracking of examinations, and progress on key initiatives like train accident reduction and scour. The reporting was considered to be particularly useful.	There was clearly a very significant amount of churn in the progression of the renewals plan for 2019/20. This involved schemes being deferred, schemes spilling over from CP%, schemes emerging during the year and those being accelerated from Year 2 and beyond. Against this background of change it is considered that it would be beneficial if some form of graphical interpretation was created to track the status of schemes during the year. It was noted that this Region has a particularly strong ability to produce graphical interpretations of the workbank delivery stages and so should be an easy addition to their portfolio of reporting.
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals be identified via analytical methods?	44 45 143	The use of the Live Plan from specific time periods provides an opportunity to undertake a snap-shot analysis of the plan at the start of the year and then the outcome. Two copies of the Live Plan were provided dated Feb 2019 (corrected from Dec 2019) and Sept 2020. It is possible to undertake a comparison with what was described in the planned spreadsheet as the 19/20 forecast, and the actuals in the post Year 1 spreadsheet. However, a comparison between the biggest schemes (>£500k) in both versions shows that there was no variance between the forecast and actual cost and volumes of these activities. There were however additional items in the 'actuals' spreadsheet covering Minor Works and OTL Staff Recoveries and Route Overheads. The forecast also had a number of negative items included. All items in the plan totalled £95.5m covering 492 items. The actuals for all items total £72.7m (excluding of OPEX costs) covering 818 items.		Please confirm the status of the Feb 2019 forecast when compared to the Sept 2020 actuals.	The supplied documentation did not show a variance in the costs and volumes for the schemes sampled in the review (looking at the spend in order of size). Noted that one item which was identified as being £2.25m in the plan as submitted was asserted by the Region as being £2.83m in RF11. The Region will provide a summary of the figures from Year 1 showing the relationship of Budget to RF11 to Actuals. [This was subsequently provided and showed figures of £82.98m, £74.50m and £73.72m respectively.]	A7	4	The Region provided planned and actual delivery Plans in Excel format which made the assessment of the changes in cost and volume of the Plan possible by analytical means.	

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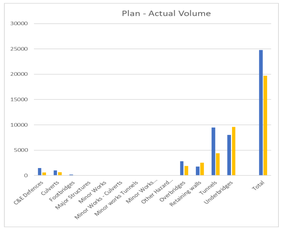
	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	NW&C Assessment (04 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for Year 1 differ from the planned renewals workbank for the same period?	44 45	The analysis of the two spreadsheets shows that there has been a significant change in the activities that have been undertaken between plan and actuals. This has largely centred on the Minor Works categories where an increase in cost of the order of 40% has occurred. There are no volume measures to compare with these activities. In addition, there have been delivered volume decreases in overbridges, tunnels, C&E defences and culverts and an increase in volumes associated with underbridges and retaining walls.		Please confirm the assessment shown and explain the rationale for the variance in KCL only items	The Region stated that variance in the number of activities is not a straightforward calculation. It was noted that there are a number of actions influencing the figures including a number of schemes rolling over from CP5, lines associated with accruals etc. It was stated that there is 'a lot of noise' in the figures making assessment difficult.	A8	3	Based on the analysis of schemes which cost in excess of £50k it would appear that 25% of the schemes in the actuals had not been included in the original Plan. This backs up the Region's assertion that there had been a considerable churn in the schemes. The reasons for this variation are not clear from the analysis undertaken however the Region did cite spillage from CP5 as one factor.	The variations in the plan have been highlighted in previous responses and the analysis that was undertaken showed that around 25% of the delivered items costing in excess of £50k had not been included in the baseline plan. The reasons for the changes came from several causes including the emergency of new schemes in the year, spillage from CP5 and acceleration of items. Whilst the oversight of individual schemes was well understood the portfolio level understanding of the plan was less clear. The suggested visual tracker of schemes noted above, it is believed, will aid this portfolio level understanding.
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	51	This is not clear. There is no flag in the actuals spreadsheet to highlight a deferred scheme however based on the plan and actuals and the forecast in future years it is possible to identify schemes which have moved but there are a significant number of -ve items in the base and actuals such that the position is not entirely clear. A comparison was made between the deferred log and the actuals. From this some questions regarding the interpretation of the Log have been generated.		Where there is a blank in the delivery year column what does this mean? Does the Log only contain items that have been subject to deferral? Where there is spend in the 19/20 actuals and the item is shown in the Deferral Log does this automatically mean that it has been deferred to 19/20 from a previous year? Where there is a small -ve sum in the actuals for Year 1 and the item is shown in the Log as delivery in later years does this indicate that some pre-work was planned but removed?	The Region stated that there had been slippage from CP5 into Year 1 leading to slippage in the plan on to Year 2 as the cause of deferrals. There were also schemes which went beyond the Engineering Target Year (described as true deferrals). The Region recorded that there are 32 schemes which moved out of Year 1 into future years equating to 7000 volume. This comprised of Underbridges 11 schemes 830 volume; Overbridges 2 schemes 55 volume; Tunnels 16 schemes 5870 volume; Culverts 3 schemes at 175 volume. The deferred renewal process is linked to IMS and the Change Control process. IMS will track the delivery year and if the Change Control process moves the scheme beyond the ETY then it automatically triggers a flag to indicated that a Deferred Renewal review needs to be undertaken; this will include a risk assessment. They have a risk assessment template that uses the CRAM which risk scores the deferral and identifies any mitigation. This is then uploaded to IMS and into the automated approval process. This involves the RAM and SAE in the sign-off process. It was noted that as well as the slippage of scheme delivery there is also slippage of design development of items for future years. The Region confirmed that they do flag in the plan schemes which are deemed to be deferred renewals. When a scheme goes beyond the ETY then it triggers a deferral. If there is slippage but it is still within its ETY then it wouldn't flag in the plan as a deferral. The Region shared their flow chart and deferred renewal process.	A9	3	Schemes have been deferred and these are clearly tracked by the Region and the process as described involving the IMS would appear to provide assurance that this is being adequately managed in terms of the risk associated with deferral decisions. The definition of a deferral, as taking the scheme beyond the ETY, is unusual in terms of the meaning adopted by other Regions. The movement of a scheme from one year to a later year not being necessarily classed as a deferral is inconsistent with the wider approach nevertheless whilst it is accepted that the approach adopted by the Region is logical it has been noted that this does not comply with the Standard in terms of the definition of a deferral.	The Region had a robust approach to the management of deferred schemes however their unique definition of deferral in terms of its relationship to the Engineering Target Year and not the financial year was noted and considered to be outside the requirements of the associated standards. Nevertheless, the logic of the approach taken by the Region was noted. However, it is considered that the adoption of the more generally accepted definition of deferral should be adopted by the Region.
10	A Workbank Changes	A10	How were deferred schemes justified?	46 51 133	There is no justification for deferral in the Log or in the Change Control Log.		Can we review a sample of the projects in the Change Control Log to confirm understanding?	the Region referred to the actions as described in A9	A10	4	The recording of justification of changes to the Plan in the form of deferrals was managed through the Region's IMS. Evidence of the process was taken in the form of tracking changes through the system. This included the reasons for the change request, the risk assessment and the identification of appropriate mitigation actions.	
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	45 51	Items in the Deferred Log are shown as 'cancelled' - example NBS/5 Darlaston Road / Fillybrook Lane ABPID LNW-004609 and LNW-004610. A comparison was made between the Deferred Log and the actuals. From this some questions regarding the interpretation of the Log have been generated.		Where there is a blank in the delivery year column does this mean that the scheme has been dropped completely or that it is not yet in the plan? What is the meaning of Engineering Target Year 9000.02? Would all cancelled schemes be so flagged in the Deferral Log?	The Region advised that there were no schemes cancelled during Year 1. During the discussion on the exemplar items chosen for deep dive the Region noted that item did not contain costs and volume in the plan at RF11 and thus had not been classified as cancelled. On checking the scheme at structure NBS/5 this was believed to have been re-assessed as not requiring action before the setting of RF11 and so in Feb 19 the cost was stated as zero. The Region confirmed that in the business plan were the target year is shown as 9000.02 this means that it is not applicable, and where it is 9000.01 this means the ETY has not yet been established.	A11	4	There had been no cancelled schemes in the Year 1 Plan.	
12	A Workbank Changes	A12	How were cancelled schemes justified?	46 51	There is no justification for deferral in the Log or in the Change Control Log.		Where is the justification for cancellation held?	This was covered in the response to question A11 and that where a scheme had been cancelled it would be justified in the Change Control Log. It would also be noted in CARRS that the renewals status was cancelled.	A12	4	The recording of justification of changes to the Plan in the form of cancellations was managed through the Region's IMS. Evidence of the process was taken in the form of tracking changes through the system. This included the reasons for the change request, the risk assessment and the identification of appropriate mitigation actions.	
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	44 45 55	This is not clear but there is evidence that some schemes may have been accelerated - e.g. LNW-004094 RBS2 - 12 & SSP Lines given that there is money in plan and actuals for 19/20 but with a delivery year of 20/21		Is the interpretation of the example correct? and when was the decision taken to deliver the scheme in Year 1?	It was stated that the live plan includes a degree of over-planning so that where there were schemes which came in from CP5 the Region was able to manipulate the plan using the over planning to manage overall delivery. It was confirmed that there were a significant number of schemes which rolled forward from CP5 as well as elements of over planning in CP5 which came into Year 1. There had also been the impact of under-delivery by the renewals contractor in CP5 to be taken into account. There were no schemes accelerated to delivery from Year 2 but some scheme design development work was brought forward to Year 1. There was no evidence of items having been descoped from enhancement or major project work entering the Year 1 plan.	A13	3	There is clear evidence and confirmation from the Region that there was a degree of churn in the delivery of the Plan. This is obvious from a comparison between the baseline and actuals. However the changes being made to the Plan are difficult to see at a high level to understand the current state of individual projects in the Plan leading to a clear picture of the changes.	As noted in the observations associated with question A6 it is considered that the adoption of a graphical tracker of the churn of schemes like those being accelerated or swapped should be considered to aid the understanding of the status of the portfolio as a whole. It is suggested that this could be driven by the Region's IMS.
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	46 51	There is no justification for deferral in the Log or in the Change Control Log.		Where is the justification for cancellation held?	This was covered in the response to question A13.	A14	4	The recording of justification of changes to the Plan in the form of accelerations and swaps was all managed through the Region's IMS. Evidence of the process was taken in the form of tracking changes through the system. This included the reasons for the change request, the risk assessment and the identification of appropriate mitigation actions.	
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	44	This is not clear. We have been supplied with downloads from the Live Plan in February 2019 and again in September 2020. However there is a large overlap in the forecast and actual figures for the schemes to the extent that when schemes are ordered in increasing cost the forecast and actual cost of the schemes is the same for at lease the top 20 items although new schemes are added in the actuals version.		Please confirm when the baseline plan for Year 1 was fixed? Were changes made to that plan ahead of the start of the Year?	It was stated that the baseline for the Plan was the 18/19 RF11. This included an element of over-planning and represented the schemes that were known about and agreed by the panel at the time. The plan took account of the target set as a Region which they then had to manage delivery into. There was no evidence provided that suggested that the baseline was modified before the start of Year 1.	A15	2	Figures were supplied to the review which were identified as the RF11 baseline. These showed a plan of £95.5m delivering a volume of 24773. It is noted that the ORR figures provided to the review show this Region's RF11 figures as £83m delivering 24207 volume. In addition the Network Rail Year End volume review shows an actual of 19,647 compared to budget of 21595.This could indicate a change to the plan from the RF11 submission to ORR. It is therefore not clear what the baseline figures were.	The common understanding of the baseline plan in terms of cost and volume was not apparent in the figures that were supplied by the Region, ORR and Network Rail centrally. This may be due to the presence of over-planning in the baseline plan. It is considered important that there is a consistent understanding of the baseline cost and volume from which delivery is measured. This may include the separate reporting of over-planning items.

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	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	NW&C Assessment (04 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
16	A Workbank Changes	A16	What, if anything, was included in the Year 1 plan as items deferred or which had fallen out of the previous year's plan?	51 150	This is not clear.			At the end of Year 1 the Region's Finance team undertook a reconciliation of what was actually delivered in the Year as recorded in OP. Some of the justification for the changes appears to have been over-written by Finance as "End of Year Reconciliation" during this process. This could include accruals from previous years which were included in the figures. This overwriting of the justification has clouded the identification of movements in the schemes.	A16	2	The process by which the tracking of the movement of schemes appears to have been corrupted by the over-writing of comments at the close out of the year. This is clearly unhelpful in tracing the history of schemes without further in-depth analysis. Thus, whilst there appears to be a sound process in operation its integrity can seemingly be undermined. The copy of the Year End report for the Sponsor Review didn't contain any information highlighting the schemes which spilled over from CP5 although a number of actions associated with outstanding documentation and close out were noted.	There was evidence that as part of the year end reconciliation of the plan that there had been over-writing of the justification for certain deferrals in the live plan. This was considered unhelpful in understanding the background to particular schemes. Whilst there was no suggestion that the justification was lacking it would be beneficial if such changes to the live plan could be made impossible to ensure that there is a visible trail particularly where a deferral is concerned.
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	49	Within the CP6 Deferred Renewal process there is a stage where the SAE must undertake a Risk Score Calculation to populate the Initial Risk Assessment. This then feeds to the RAM as part of the information to support any deferral. Information regarding the assessment of accelerated schemes has not been provided.		Please confirm understanding of risk assessments for deferred schemes and provide an example of the process. What is the process for making decisions on accelerated schemes?	The Region has the Change Control process as described in the supplied documentation. In describing the process it was noted that there are triggers in the process which require the CC Panel to review a change, they then consider the risk to the business at that time; for example if a scheme comes out then it would be discussed at the Panel and the associated risk considered. Deferred renewals are picked up in the CRAM assessment. The results of the risk analysis will then feed into the Region's IMS and be recorded in that system. It was pointed out that consideration of risk is not merely about the quantification but also agreeing what actions are going to be taken as a result of the emerging risk. The determination of those mitigations is the responsibility of the Senior Asset Engineer to determine based on the particulars of the item.	B1	4	The process as described, being an integral part of the IMS, appears to be appropriate to the required governance. The evidenced involvement of key senior engineers and the use of CRAM provides confidence in the Region's approach.	
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	50 134	LNW has provided a Deferred Renewals Risk Management process. From this there is a requirement on the RAM to undertake a risk assessment associated with the deferral of an item which should cover five elements. This does not explicitly include sustainability but could be covered in the term 'asset management risk' - tbc. Evidence of the use of the process would support the Region's response here.		With regard to the risk elements to be considered by the RAM in Section 8 is there any account taken of sustainability as part of the consideration? In Diagram 2 of the document it is assumed that the process starts with the RAM - also the decision box does not flag outcomes Can a copy of a typical risk assessment be provided? The document is flagged as LNW Route Guidance note - does this apply to all Routes in the Region?	It was stated by the Region that within the CRAM metrics sustainability is picked up under the finance category. Consideration of sustainability risk by the Region is considered at the portfolio level rather than individual schemes. In this regard it was noted that the renewals workbank contains a small number of items compared with the overall size of the structures portfolio so the overall impact on sustainability will be very low. It was stated that L1 safety risks were the key drivers so sustainability is "pretty low down the priority". The deferred renewal process is noted as being a Route document. Going forward Routes will be responsible for enacting the deferred renewal process but it will be the Region which owns the overall process.	B2	3	An example of a deferral request was provided following the meeting however, sustainability was not mentioned in the request and was not cited in the CRAM. Noting that sustainability is low on the Region's agenda links to the impact that an individual scheme could have on the portfolio's sustainability score. Thus, whilst this is not ideal it is considered a reasonable approach.	The Region relied heavily on the factors in the CRAM when undertaking an assessment of the risk level associated with changes to the plan. The use of CRAM is considered good practice. However, CRAM does not take account of sustainability. As such the Region was not able to demonstrate consideration of sustainability in its change control process. It is therefore suggested that the inclusion of some evaluation of the impact on sustainability is undertaken at year end or at the end of the Control Period as a minimum.
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	50	LNW has provided a Deferred Renewals Risk Management process. From this there is a requirement on the RAM to undertake a risk assessment associated with the deferral of an item which should cover five elements. This includes performance. Evidence of the use of the process would support the Region's response here.		Can a copy of a typical risk assessment be provided?	The discussion on the impact of performance was linked to the overall consideration of risk quantification noting that performance is an area of specific risk assessment in the CRAM. This includes in the original request for inclusion of the scheme in the plan and any change process particularly deferral.	B3	4	There was strong evidence that consideration of performance risks were intrinsically linked into the approval and change processes. The CRAM was evidenced by the Region as the means of evaluating the level of risk the results of which were included in the IMS. There was thus a high level of confidence that risk is being properly assessed and taken into account.	
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	50	LNW has provided a Deferred Renewals Risk Management process. From this there is a requirement on the RAM to undertake a risk assessment associated with the deferral of an item which should cover five elements. This includes safety. Evidence of the use of the process would support the Region's response here.		Can a copy of a typical risk assessment be provided?	The discussion on the impact of safety was linked to the overall consideration of risk quantification noting that safety is an area of specific risk assessment in the CRAM. This includes in the original request for inclusion of the scheme in the plan and any change process particularly deferral.	B4	4	There was strong evidence that consideration of safety risks were intrinsically linked into the approval and change processes. The CRAM was evidenced by the Region as the means of evaluating the level of risk the results of which were included in the IMS. There was thus a high level of confidence that risk is being properly assessed and taken into account.	
21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]	46 47 48 52 53	The Region has provided a suite of documents describing their Change Control process. This includes NW&C CP6 Change Control Process v1.1 Terms of Reference for Change Control Meetings LNW Change Admin Users Guide LNW Change Control User Guide Between all of these documents there appears to be a good process in place to manage change and identify accountabilities. the process links to the Deferred Renewal process at certain points where applicable. A download of the Change Control Log (from Sept 2020) has also been provided. This requires some interpretation.		Please confirm the Change Control applicable to OP Numbers 156987 and 157978 to walk through the process and documentation	In order to check the mechanics of the Change Control process a couple of schemes were identified by the review which the Region were asked to walk through to ensure the process was understood by the review team. In considering the two schemes the following was noted: OPID 156987 - there were three change justifications flagged to 'End of Year Reconciliation'. This appears to have overwritten the previous justification. It was stated that the version of the log provided to the review came from IMS; the Region believe that there are issues with the downloads from IMS. It as noted that for this item the changes that were made to the scheme happened before the start of the year and so no change value was flagged in the Year itself. It was stated that the reconciliation change, whilst not picking up any cost or volume change, may be associated with an activity type change although this was unclear from the documentation reviewed. It was stated that the original figure will have been built up from best available information at that time and further developed of the scheme had thus allowed the dropping the AFC for the start of the year. This explained the change from the AFC of £2.7m dropping to £1.3m without a flag in Column M which purports to list the Change Value. In the second example OPID 157987 the review's question was around the change in the forecast but not a similar delta in the change control column. It was stated that there were project efficiencies on the scheme which were not flagged on Column M (Total Forecast Change) and the scheme was 'tidied up' in a reconciliation.	C1	4	The Region's workbank change process documentation was provided to the review and it was clear that, in walking through two example items that it was a logical process with clear steps and outcomes. As a result, the review has high confidence in the process as a management tool. The issue identified with the over-writing of the Plan at Year End is considered unhelpful but not material to the operation of the Change Control process.	
22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]	52	Apart from the representation of NW&C at the Business Planning meetings there is no evidence of cross-Region sharing		Please explain any cross-Region sharing of best practice etc?	It was noted that since the Region has full control of all of the route plans then there is consistency across the Region as a whole. In terms of consistency of process nationally the Region pointed to the national Business Planning Working Group covering all Regions. The Regional representatives were unaware if other Regions use the type of IMS system NW&C has in place.	C2	3	Within the NW&C region there was very strong evidence that there was consistency between the Routes simply because of the way in which the process is managed centrally. Between Regions there was little evidence provided which gave any assurance of consistency of Change Control processes.	NW&C Region has a well-developed process to manage Change control through their IMS. As noted previously this regime is different to that adopted by other Regions. It is considered that at a national level the adoption of a standard process may be beneficial in terms of providing a consistent approach to management of workbanks going forward.
23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	46 47 48 52 53	This is not clear. There appears to be no reference to policy in the Change Control process		Please explain the role policy plays in the Change Control process.	The Region stated that reference to policy comes from the item justification (e.g. this is a Level 1 scheme) aligned to an activity in the relevant policy levels. Within the Change Control process it was noted that there is an integral recognition of policy compliance. Going forward the Region is recording primary policy levels in CARRS against the renewal. As part of this if there are any particular changes policy levels will be re-checked. The type of change will dictate the need to review policy compliance. The mechanism for the monitoring of policy compliance is baked into the processes surrounding CC ,and RF noting that such changes are discussed at the regional panel.	C3	3	There was little reference to policy in the Change Control documentation provided other than in the Change Register where in the justification column there appeared to be a check against policy compliance. It was noted that the Region had plans to amend their processes to record policy levels in CARRS with some further checks on compliance. This is considered beneficial. The practical policy alignment betterments from the use of CARRS was not explained but the centralisation of item data in this way was consider positive.	Whilst the Change Control process used by the Region was found to be sound in terms of understanding the justification for the change, the management of risk, and the approval process there was a complete lack of reference to policy in the decision-making process. As such it is suggested that specific reference is made in the Change Control documentation to clearly demonstrate the maintenance of policy alignment or the provision of justification for deviation.
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	46 47 48 52 53	The process that has been provided appears to meet the requirements of the system. However, the documentation associated with an actual change would bring greater clarity to the actual process and provide direct evidence of the process in action. The Deferred Renewals Log appeared to be lacking in detail with regard to the justification for changes.		What is the Region's view of the process as operated? Please provide an example of a change which could be used as a means of walking through the process Please respond on comments with regard to the Deferred Renewals Log	The representative's view was that their IMS is good and has brought in some good processes including making it easier to manage individual changes. The IMS is cross-discipline system (covering all engineering disciplines). The issue they have is that if there are a lot of changes it creates a lot of work going through each of them individually. It was also noted that since 2018 IMS has been an evolving system and that it takes time to keep on top of the changes taking place in the system. there was also some nervousness about whether individual scheme changes are processed in the system correctly. There needs to be a greater confidence in the system. Further comment was made that it is not always clear what impact a controlled change will have on a project as a whole because the system limits changes to individual KVLs rather than wrapped up to KCLs. Also, the system is not live and operates off-line with discrete updates so it can be difficult to trace back to when the original plan was created. It was also stated that the deliverers also struggle with the system because of the volume of work required to make changes. Finally, the representatives also see Structures as a 'outliers' in terms of the volume of work the system creates for them in making the necessary scheme change updates. Overall comment was made that it is "a good system in theory but the practicality of the system makes it difficult to operate".	C4	3	Based on the input from other Regions the IMS as operated by NW&C appeared to be more advanced than the approached adopted elsewhere. The shortcomings noted in the comments appeared to be perfectly valid but they did not recognise the advantages the systems gives NW&C over the position elsewhere. It was noted that the IMS was evolving and this had brought about a lack of confidence in the information provided (noting that earlier the system had been blamed for a particular evidential output).	As noted previously the Region has the most sophisticated system in place to manage their workbank development and changes. During the engagement with the Region, it was stated that IMS had several identified limitations however it was noted that these were being addressed on an on-going basis to further improve the system. This evolution of IMS is considered beneficial and should be continued.

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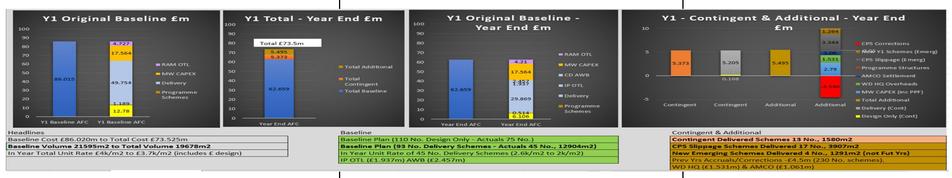
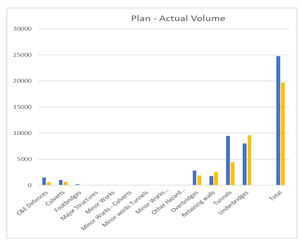
	Topic	Ref	Question	Doc. Ref	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	NW&C Assessment (04 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.	46	There is no evidence of this from the documentation provided.		Please confirm whether there has been any impact on the NW&C workbank delivery as a result of other regional changes	There was no evidence of any impact on the Region of any cross-border incident and vice versa. It was noted that there had been such issues in the past but nothing in Year 1. It was stated that enhancement works in the Region have an impact on their renewal programme where there is a shared track occupation planned. The Region noted that between Regions there is dialogue to discuss major schemes - example made of the TPE Upgrade where dialogue was required with Eastern Region.	C5	4	There was no evidence that the delivery of Year 1 was adversely impacted by cross-Regional activity. The Region was able to provide an example of an enhancement scheme where dialogue with Eastern Region was necessary to co-ordinate planning. (This was corroborated by Eastern in their review).	
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	44	It is not clear from the documentation provided how the schemes which have been included in the plan have been agreed.		Please confirm the process by which the baseline plan was agreed at the start of Year 1	The Region confirmed that the Business Plan was developed in advance of CP6. It was produced by both a top-down (unit rates) and a bottom up (based on peer review sessions) process. The unit rate costs that the Region got from the TA were believed to be based on the outturn costs from CP5. It was stated that when items get to the BP there will be a mixture of some with more refined scheme costs and some which have been built up from model volumes due to their early stage of development. To develop appropriate unit rates the Region compared the scheme to similar schemes using early GRIP estimates. In the peer review sessions the Region have in the past got an estimator from Capital Delivery involved although that resource wasn't available to them for the CP6 plan. Thus there was reliance on the peer review teams to get the cost assembled. It was noted that once the remit is issued the delivery teams are then required to get some real estimates into the plan. Because of the growth in the scale of the plan the Region were not able to have more robust costs for all schemes leading to a portion of top-down costing. There was therefore a variability in the costing of the schemes in the plan depending on their individual maturity.	D1	2	The process as described by the Region appeared to make best use of directly relevant and available information on costs to refine estimates initially and then refine this further as more development work took place. Initially there were a number of schemes in the Plan with low levels of development which meant they had to rely on unit rates. The rates used appear to have been based on those coming from the TA modified to make them bespoke to the individual scheme. The means of reaching the revised rates was not evidenced.	The Region was able to demonstrate that it had undertaken a considerable effort in the determination of rates for the workbank at the start of the year to try to ensure they were as accurate as possible. This involved the use of data from several sources. Whilst this process appears to have been thorough the tracking of the sources and thus the provenance of the rates adopted was not as comprehensive. It is suggested that a more formal means of recording the development of the unit rates used in the assembly of the baseline plan be adopted to help future understanding and improvement in rate development.
27	D Costs	D2	To what extent can the delta between estimated vs actual renewal cost be identified via analytical methods?	44 45	From an analysis of the top 200 costing schemes comparing the forecast with actuals there is only one scheme with any sort of variance in cost at all - LNW-005980 156987 LEC2/79 River Anker. All other forecasts and actuals are the same for both cost and volume.		Please confirm that the download from February 2019 is a true position of the forecast	The supply of the two spreadsheets by the Region provided a means of comparison between forecast and actual. The Region stated that because costs for Year 1 were still coming through they had been unable, as yet, to have a complete view of all of the scheme costs. It was stated that this would only become apparent after a few more years. It was noted that further changes had had to be made to the costs since the estimates provided by Capital Delivery had included their Project Management costs. This had subsequently had to be broken out and put into a separate line in the Business Plan. It was acknowledged that this all complicated the analysis of the schemes. The Region believes that the only way to check back on the quality of the unit rates used is to wait until the final costs of schemes have been obtained.	D2	4	It was clear from the form of the Live Plan that the delta between the baseline and actual costs for schemes could be identified in this way. It was also clear from the description of the variations to the Plan and the volatility of the schemes coming into and out of the original Plan that the delivery of the renewals was a highly dynamic process. The Region produces graphical information showing the forecast cost and volume by year split by work types. This also shows the delivery partner portions of the work. A further download from the system showed the on-going changes to the Plan and the associated drivers linked to the individual schemes.	
28	D Costs	D3	To what extent does the estimated renewals cost for Year 1 differ from the actual renewals cost for the same period?	44 45 149	Based on the information provided it is possible to undertake a review of the overall costs in the plan and actuals. 			During the discussion it was agreed that the full total of spend of £106m identified in the review's early analysis of the plan included baseline schemes, contingent schemes, minor works OPEX. The variation between the £106m and the figures used by the Region was driven by Minor New Works was £10.4m (OPEX) and the contingent schemes amounted to £9.5m. It was stated that the Region is not committed to delivering the contingent schemes - these are in effect over-planning. The end of year figures was £89.3m down to £73.5. This final figures included £62.7m baseline delivered, £5.5m contingent delivered, and £5.5m from schemes 'brought-in' made up of CP5 spillage and emerging schemes. The Region has also introduced the concept of 'baseline plus' which, at the end of CP6. will represent the schemes that they have delivered which are above the baseline for the Control Period. The Region considered that it was difficult to undertaken analysis of the variations because there is so much 'noise' in the year, for example the push to get more development work undertaken in the year with no volume, the settlement of the AMCO contracts and the inclusion of Works Delivery HQ overheads also with no volume. They delivered around £3m of Minor New Works. The Region also had a suppressed financial target of £83m which had to be worked to, and to which they had achieved. At the second meeting the review team were pointed towards the screen shots from the Region's system which provided a graphical view n the plan and the changes to the plan tracked in scheme numbers.	D3	4	A summary graphic showing the impacts of the changes throughout the year was also provided. This was considered to provide a good account of the changes in the Plan in terms of cost and volume. Based on the account provided by the Region and the available documentation there was good confidence that the extent of the variation in the costs was understood at a portfolio level.	Whilst the Region scored highly for this question it is considered that the creation of a scheme tracker which highlights the variations in the overall plan as it emerges during the year linked to cost and volume would foster a better understanding of the overall delivery and the help identify lessons for the future.
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for Year 1?	44 45	This is not clear from the available documentation 		What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for Year 1?	The Region's view is that this is difficult to measure given the variations which occurred and also because they don't have a final position for Year 1 meaning this cannot yet be judged. For the baseline schemes the unit rates which the Region used came down and this was evidenced by the release of contingency during the year. It was stated that it was a 'very mixed picture' given the impact of certain individual schemes on overall delivery. They delivered £5.5m of the £9.5m in over planning. The Region provided an overall comment to the effect that they came below their original financial target but that they had under-delivered in terms of volume. To compensate for this it was pointed out that they had undertaken a considerable amount of design development work in the year to support the production of robust estimates for future years. In the follow up session the question of impact was raised again and the Region stated that changes to the plan were being picked up through the DRP. They also stated that it was difficult to see an impact in a single year but that they are monitoring the delivery through a non-formal process as part of Business as Usual. More formally the key volumes are getting reported in the Region there is a belief that the TA track all volumes delivered and that if there was a concern then this would be raise with the Region.	D4	3	The response from the Region to the question did not provide an insight into the potential impact on the Business Plan of the variation in costs other than to note that the financial targets were met but there was a drop in the volumes delivered. The analysis undertaken based on the actuals spreadsheet showed a significant reduction in volumes associated with tunnels and proportionately C&E defences. In the Region's response it was noted that there is a tracking of the key volumes in the Region taking place and also the monitoring of volumes within the TA. As such it was believed that significant deviations from Plan would be getting highlighted at that level to the Region. As such the review was satisfied that there was monitoring taking place of the plan with the opportunity to change the Plan, but that this was unlikely to have an immediate impact in a single year.	The business plan delivery was clearly cost driven and this facilitated several changes throughout the year. However, the Region were not able to give a sound account of the potential impact of the changes on the delivery of the plan as set out at the start of the year. As an example, volumes associated with tunnels and proportionately coastal defences were significantly lower than had been planned. It is suggested that a more formal regime to monitor the impacts of changes to the delivery plan be instigated to allow corrective action, or at least to inform decision making, to take place.
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	44 45	From analysis of the top 200 costing schemes comparing the forecast with actuals there is only one scheme with any sort of variance in cost at all - LNW-005980 156987 LEC2/79 River Anker. All other forecasts and actuals are the same for both cost and volume.		Please confirm that the download from February 2019 is a true position of the forecast	In order to demonstrate the degree of variance and the causes two schemes were selected by the review team for a deep dive review: OP item 141044 was originally a replacement scheme but this was replaced by four lines in the plan hence the variations in the individual lines. It was stated by the Region that the picture did appear to be "somewhat confusing". OP item 158002 (St Bees Sea Walls) it was noted that there had been a saving in the costs but that the variation in the volumes was due to the scheme spilling over to Year 2 and hence no volume could be claimed in Year 1. It was noted that this scheme was not classed as deferral because it had not gone beyond the ETY. After checking it was seen that the change was flagged in the Change Log however no justification for the change had been recorded. It was agreed that the variations in the costs and volumes were widespread but accepted that the volatility of the plan delivery made meaningful comparison difficult even within single schemes.	D5	2	In terms of the reasons for the variations in individual schemes it was clear that these could be tracked in the system but there did not appear to be any systemic reason for the variation but rather a highly dynamic Plan which made the detailed analysis of the variations potentially meaningless. Whilst those managing the Plan on a day-to-day basis were able to drill down to explain the variations it was considered that the way in which data was presented made it difficult to understand the reasons for change (particularly where these had not been included in the spreadsheets).	In terms of the reasons for the variations in individual schemes it was clear that these could be tracked in the system but there did not appear to be any systemic reason for the variation but rather a highly dynamic plan which made the detailed analysis of the variations potentially meaningless. Whilst those managing the plan on a day-to-day basis were able to drill down to explain the variations it was considered that the way in which data was presented made it difficult to understand the reasons for change (particularly where these had not been included in the spreadsheets). Consideration should therefore be given to the presentation of data such that it is easier to follow the progression of individual schemes. It is also suggested that there is a tightening of the completion of the documentation to support the understanding of scheme status.

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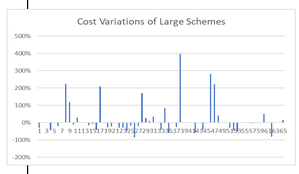
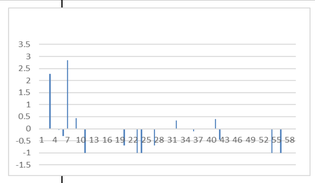
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	44 45	See comments to D5	 			D6	4	The following is linked to the Region's response to question D5. It was noted that despite the significant variations in the costs the Region were aware of the reasons behind this (for example the adoption into the Plan of schemes with relative immaturity, emerging works etc). Thus, the review was satisfied that despite the level of variation there was a clear understanding and associated management in the Region to support this.	
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.	47 48 49 50	The Deferred Renewals Risk Management process notes that it is the RAM's responsibility to include performance risk in the decision making process. However, the practicality of this process is not clear. No specific evidence was provided that demonstrated consideration of operational impact in the decision making process.		Please provide documentary evidence of the consideration of operational impact on the Change Control process associated with structures renewals	The structures examination regime operated by the Region is at the front line for the determination of any structural operational impact risk. This would be the first source of notification of a defect which could impact on performance. It was noted that the ETY is developed taking account of operational performance. If a scheme goes beyond ETY then the item risk assessment is reviewed and the Asset Engineer must take a view on any necessary interventions based on CRAM (which includes performance) to develop mitigations and timescales. The ETY is developed based on the resulting impacts; when a renewal goes beyond the ETY then there is a "hard look" at the scheme and the associated mitigations. It was confirmed that there were no items undertaken in Year 1 which led to a TSR or rail operational restriction in capability. However, there could have been some restrictions put on overbridges weight limits due to condition during the year.	D7	4	It was reported that there had been no operational impact caused by changes in the Plan during Year 1. The Region provided a coherent account of the process of identification of potential operational performance risks and this seemed entirely appropriate. It was also noted that the Change Control process which was founded on the CRAM included the assessment of performance risk.	
33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	n/a	This is not clear from the evidence provided.		Please explain if / how any review of expected outcomes is undertaken once schemes are completed.	It was stated that measures like BCMI rescoring and scour protection etc provide measures for the Region's delivery. Following the meeting the Region provided a copy of the NW&C Structures Period Report for P13 19/20. In terms of the monitoring of the delivery of renewals activities it was noted that the report tracked delivery of train accident risk reduction measures by period in Year 1 and similarly for the scour interventions. The report also tracks the number of structure high risk scores which have been tackled during the year. In the second meeting with the Region there was a further discussion on this point and the Region cited the issue of Handover Packs at the ned of projects which includes confirmation of completion of the works and the recording of any changes in the capability of the structure. This feeds into the appropriate systems within the Region including CARRS. Where necessary the rescoring of the BCMI of a bridge would be undertaken to validate the works and support the updating of the records.	E1	3	Whilst the earlier dialogue with the Region did not highlight any strong evidence to support the view that the Region does undertake back-checks on expected outcomes the matter was again discussed at the second session. The Region provided a description of the completion process for works which included the confirmation of completion recorded in CARRS and the documentation associated with the recording of any capability changes. Whilst this system appeared to meet this requirement it was noted that it did involve an element of manual input and that the recording systems were remote from the Plan itself.	The Region provided a description of the completion process for works which included the confirmation of completion recorded in CARRS, and the documentation associated with the recording of any capability changes. Whilst this system appeared to meet the requirement it was noted that it did involve an element of manual input and that the recording systems were remote from the plan itself. It is therefore suggested that consideration is given to the inclusion of columns in the Live Plan to flag completed delivery and the fulfilment of expected outcomes.
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]	151	This is not clear from the evidence provided.		Please explain the measures of effectiveness used by the Region.	The Region stated that the Renewals Working Group, is the forum for lessons learned with other Regions. From a structures portfolio level the TA track and monitor volumes and disseminated it back through the Directors of Engineering and Asset Management (DEAMs). At the level of the representatives at the meeting it was stated that they don't have access to that feedback. It was noted that there are KPIs produced between the Regions for CRI measures relating to OPEX and Minor Works; measuring delivery against targets for the year. At the second meeting the Region advised that they had requested packs from their delivery partners on their experience in the year. This would look at the schemes they delivered and was also aimed at trying to identify any lessons learned. The involvement in national meetings was also highlighted and the example of the NW&C Peer Review template which had been developed was shared at these sort of forums. A copy of the periodic report for the P1 Sponsor review was shared following the second meeting. The document provided a list of the outstanding actions required to close out CP5 but did not contain a review of effectiveness of the Region.	E2	3	The Region produce a range of charts to show how it performed. Evidence was provided of the sharing of information with other Regions based on experience in Year 1. The review meeting highlighted a number of mechanisms whereby the effectiveness or other measure of the Region appeared to be gathered however this information was not disseminated to those representing the Region at the meeting. It was therefore not clear what the precise content of such monitoring / reporting was, and what use was made of the measures. This was considered to be an omission and lost opportunity. The periodic sponsor review did not provide evidence of the Region's review of effectiveness.	The Region produce a range of charts to show how it performed. The encouragement of the Region to get their delivery partners to produce annual reports was highlighted and was considered positive. Evidence was provided of the sharing of information with other Regions based on experience in Year 1. The meeting highlighted several mechanisms whereby the effectiveness or other measure of the Region were gathered however this information was not widely disseminated. This was considered an omission and lost opportunity. If measures of the Regions' effectiveness are being compiled and shared, then it is suggested that this information is shared more widely to inform those at the 'sharp end' of delivery to support their decision making and identify weaknesses.

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	Topic	Ref	Question	Doc. Ref	Evidence from Documents	Queries	Evidence from Regional Stakeholders	Ref	Scotland Assessment (02 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	57 58 60 97 98 99 100	No documentation of the process to agree the baseline workbanks has been supplied thus it is not clear how these have been developed. A summary document has been provided showing the changes made to the original plan and there is good evidence here that there is a process in place to support the on-going development of the plan. A significant number of 'new' items have been shown to be added to the plan to support work planned for delivery in 20/21.	How was the workbank for Year 1 assembled?	The Region has a document which sets out the local process for the development of the Workbank. The process involves the team raising proposals primarily on the back of a condition assessment but also the capacity and capability of the structure developed through the assessment programme. These factors are reviewed and prioritised within the team and are then presented to all the SAE and the RAM. A sample copy of the notes of this type of meeting were submitted to the review. If these proposals are accepted then they are put into a year in the constrained workbank taking account of the available budgets. The approval of proposals will also take account of different asset types and match these to the plan for CP6 against specific initiatives - e.g. scour risk reduction. During the meeting the Region shared their planning approach documentation showing that it takes account of previous and future years' work. The document the Region use for this process is "Procedure for raising and managing structures renewal work items in CARRS". This was described by the Region as a mature process which had been developed in Scotland. A copy of the document was provided which showed that it had indeed been developed in Scotland in 2012. This process takes schemes from the unconstrained workbank to the constrained workbank, into the Business Plan, and then on to delivery. This process uses workbank analysis in tandem with workbank planning meetings to develop the plan. During the course of the review meeting the Region showed how the development of the workbank over time progressed; a copy of samples from this process were provided evidence showing the balancing of the spend across the portfolio. This planning culminated in the development of the RP11 version which was shown against the CP6 bid targets. Another notable feature of their planning process for CP6 was the jump in number of schemes. This was attributed to a reduction in quantum in CP5 because the team were focused on a significant number of multi-span structures; in CP6 there is significantly less of that type of activity. It was also stated that the Region had over-populated the number of schemes in the plan to give the delivery team a degree of flexibility in how they would deliver the workbank. This was partially driven by the relative immaturity of the scheme development in a number of areas. The result of this over-population and delivery flexibility led to a significant degree of change with schemes deferred however, it was stated that his was always part of the plan.	A1	4	The Region was able to provide a robust account of its processes to develop an unconstrained workbank and then through a well-trodden planning path develop the constrained workbank which formed the Plan for the Control Period and in particular Year 1. This process used workbank analysis in tandem with workbank planning meetings to develop the Plan. During the review meeting the Region showed graphically how the development of the workbank over time had progressed; this was considered to be very useful in understanding the status of the workbank development process.	
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	58 101 102 103 104	This is not clear. Of the items in the budget for 19/20 29% of them have been confirmed as being policy compliant, and a further 4% are noted as being partially policy compliant. 2% of the items are confirmed as not being compliant and the remainder are blank. Further columns show Policy Target impacts but this again is not consistent since some items not policy compliant have Policy Target impacts, and those that are compliant have no Policy Target impacts.	What is the relationship between Policy Compliance and Policy Target impact? Where there is no indication of Policy Compliance (i.e. the cell is blank) what does this signify?	It was stated that policy compliance is a factor in the process of the development of the Business Plan. The Region believed that their compliance with policy for items in the Plan was 76%. They were able to demonstrate items which were included in the Plan which were justified but were not part of the Policy. It was stated that some of these have now been taken on board nationally as further examples of policy compliance. The Region noted that their policy alignment was reviewed by the Technical Authority (TA). It was also stated that this aspect of the planning had been part of the ORR's deep dive review of CP6 planning. The Region uses 'off-line' versions of the Plan which tracks policy compliance and as a result the Business Plan as presented to the review was not up to date with these flags. This explained the variation in the assessment of policy compliance by the review team and that claimed by the Region.	A2	3	A number of documents were provided as additional evidence of policy compliance. These appear to have already been shared with the ORR in 2018 with the most useful document being a presentation which showed the policy compliance by Region for the CP6 plan as it existed in October 2017. This showed a good level of compliance with policy for Level 1 activities, a mixed picture for Level 2, and poor (assumed to be non-compliant) assessment for Level 3. This links with the focus of the Region on Level 1 activities. Copies of the SWEPT documents for culverts and underbridges were provided but these were also dated from November 2017 and whilst they showed a high level of policy compliance or partial compliance (especially for culverts) it was not clear how this linked into the workbank agreed for Year 1. It was clear that a degree of analysis was undertaken to demonstrate policy alignment and a focus on Level 1 activities but clarity on the portion in the delivered plan was not clear.	The evidence provided by the Region showed a detailed analysis of the schemes and their alignment to the various levels of policy. These documents were from 2017 when the CP6 workbank was being developed. However, it was not clear how that alignment had been translated into the finalised Business Plan and more specifically the workbank for Year 1. It is suggested therefore that a better integration of the Business Plan with clarity on policy compliance would make the assessment of overall compliance easier to determine particularly when the Plan becomes dynamic in its delivery.
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	105	This is not clear. There is no firm evidence of how decisions have been made.	Please confirm the process adopted by the Region in selecting intervention types and timings	It was noted that this is part of the process described above and the Region also has a range of other tools to prioritise between schemes for example underbridges / overbridge capability, condition, route criticality to ensure the items are planning in the most appropriate year in the Plan. Reference to these tools is made in the in the "Procedure for raising and managing structures renewal work items in CARRS" document. The post-workbank planning and design development meetings include representation from the delivery teams to get their input and also to use their expertise to get more clarity on the available delivery options. A copy of the summarised notes of design development remit queries was provided by the Region which demonstrated the process by which the remit is developed taking a broad range of inputs.	A3	4	The response by the Region in this area builds on the overall process outlined by them under question A1. Additional evidence was provided which demonstrates the development of the remit to take account of different inputs.	
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	106 107 108 109	This is not clear. There is no firm evidence of how appropriate prioritisation has been achieved.	Please confirm the process by which appropriate prioritisation of the workbank items has been achieved.	In the dialogue with the Region it was clear that this is an integral part of the overall process as set out in the "Procedure for raising and managing structures renewal work items in CARRS". As such the process is considered robust in this area by the Region. As additional evidence the Region pointed to the prioritisation of culvert works on the West Highland Line in CP6 and a sample summary of CP6 prioritisation for underbridges in CP5 and CP6 and in Year 1 of CP6.	A4	4	It was clear that analysis had been done to identify the prioritisation of the works based on the overall process. The spreadsheet showing the prioritisation for Year 1 clearly identified schemes in priority order for underbridges for example.	
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)	58 110 111 112 113 114	Scotland Region is based on a single Route. Thus, there is by definition consistency across the Region. There is however no evidence of inter-Region communication other than at the Business Planning Working Group meetings.	Please confirm any cross-Region shared learning and in particular the purpose and outcomes of the Business Planning Working Group meetings.	The review was advised that the Structures Asset Technical Review (ATR) meetings are held two weekly and attended by the RAM. It was noted that the Business Planning Working Group's ToR come from the ATR. In the renewals world the ATR is an attempt to bring a degree of consistency to specific issues. The forum is currently considering the approach to CP7. Personnel in Scotland Region were stated as having been instrumental in setting up the ATR. It was stated by the Region that the CP6 policy had been developed by in this forum. A set of five copies of the ATR minutes were submitted by the Region - these showed the range of topics covered by the Group and the attendees.	A5	4	The Region had been created out of one Route. The development of the workbank was thus undertaken by a single team who had experience of dealing with the Regional portfolio. The evidence provided by the Region was sufficient to demonstrate the potential for a good level of cross Region working and sharing of issues and lessons at the ATR; noting that the TA is also present at these meetings. The notes from the meetings provided evidence of the topics under discussion which were relevant to the process associated with the development of the workbanks.	

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6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	57 115	The presentation of the planned renewal workbank in the form of a Live Excel Spreadsheet lends itself to graphic presentation. However, there is no direct evidence that graphical reporting is being used based on the shared documentation.	Please confirm if dashboard type reporting is used to monitor progress in the delivery of the plan and if so can a sample report please be provided?	The Region confirmed that there is no internal reporting requirement for structures renewals. The Region produces a pack which the Structures team feed into for the Director of Engineering and Asset Management. Period by period they use Oracle Projects (OP) for reporting finance and volume but it is recognised that this is not very granular. The output from this is in tabular form and covers current and future years. Reports are typically by intervention type and key volume lines. In order to provide reports for the ORR the Region relies on OP to do the reporting to provide 'one version of the truth'. In terms of visual graphics the Region does produce waterfall diagrams which show progress in getting authority for schemes and this puts costs into categories covering revised rates, COVID impact, delivery inefficiency etc. These are live documents which track throughout the year. Subsequent to the meeting a sample copy of this waterfall diagram was provided to the review. This showed the development of the view on the AFC during the year taking account of various impacts as noted above and monitor the authorisation of schemes.	A6	2	It was noted that there was no requirement for reporting of individual schemes or Plan delivery within the Region and that external reporting was reliant on OP. It is agreed that OP provides one version of the truth however the discussion revealed limitations in OP's ability to provide a good level of detail. It was noted that the waterfall diagrams that were produced track AFC and authorisation alone.	It was noted that there was no requirement for the structures team to report on the delivery of its renewal programme within the Region. Any reporting that is done outside the Region is done mainly covering the financial aspects of the plan using OP. Whilst this is recognised as the 'one version of the truth' it is suggested that more use could be made of the potential of the Business Plan to allow the graphic reporting of progress on schemes and to track deferrals and advancement of schemes particularly when the plan is dynamic in its composition from period to period.
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals be identified via analytical methods?	57 58	The use of the Live Plan from specific time periods provides an opportunity to undertake a snap-shot analysis of the plan at the start of the year and then the outcome. There are variances between the documentation supplied as the initial plan (BP1819P11) and the actuals (BP1920P14) in terms of the sums described as 'baseline'. This is because the actuals document includes an account of the baseline budget and volumes which does not tally with the initial plan document. No check has yet been made on the variation of the items and the evidence of these changes in the change logs.	The baseline budget and volumes in BP1920P14 varies from the baseline in BP1819P11. When was the baseline used during CP6 Year 1 set? Please confirm that the 2019/20 Budget and Volumes in BP1920P14 represent the actuals for Year 1 of CP6.	The Region's submission was contained in the spreadsheet BP1819P11. This was an expression of the baseline for Year 1. The actuals for Year 1 were contained in the spreadsheet BP1920P14. The Region confirmed that 'baseline' columns for 19/20 in the BR1920P14 figures did not represent the plan at the start of Year 1. This was because the 'baseline' could have been rebased in P12 and P13 of the previous year. They recognise that this could cause confusion. The Region stated that the RF11 figures can be considered as the 'frozen' plan for Year 1. This took into account the agreed CP6 unit rates and so there would be variations in cost once schemes are further developed and contractors rates are obtained.	A7	3	Whilst it was possible to identify the variance in the Plan between the two spreadsheets the use of the term 'baseline' in the P14 'actuals' document was confusing. Subsequent to the meeting the Plan figures were compared to the ORR submission which showed a structures spend in Year 1 of £61.4m with the volume associated with underbridges put at 14,345. This was at variance to the RF11 which included a budget of £71.2m for 18537 of underbridge volume. However, it was explained that the SBP submission had been made at a time before a lot of the early scheme development had taken place and thus it was inevitable that there would be variations.	Whilst it was possible to identify the variance in the plan between the two spreadsheets the use of the term 'baseline' in the P14 'actuals' document was confusing. This represented the updated figures for schemes and was not representative necessarily of the RF11 base. It is suggested that the terminology 'baseline' be modified to avoid confusion between what the plan was at the start of the year and shared with ORR, and that which changed subsequently.
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for Year 1 differ from the planned renewals workbank for the same period?	58	Note: The BP1920P14 spreadsheet has been used for this view. The spreadsheet provides the opportunity for analysis of the changes that have taken place during the course of the year. The headline figures are shown in the evidence comments to question D3		See explanation on A7	A8	2	The formation of the Plan had a number of schemes built into it which were over-planning to allow the delivery partner to optimise scheme delivery and avoid issues associated with lack of access (for example) leading to underspend. In such an event there were thus alternative schemes to deliver. The evidence suggested that there was a considerable degree of change between the planned and actual Plans because of this approach to the overall workbank development. Whilst this approach to the planning of the workbank had merit in allowing choices for delivery it risked the most appropriate schemes not being delivered and could create challenges in terms of the management of the Plan. There was however a significant variation in the costs and volumes between those in the RF11 and the ORR submission figures. As an example the analysis showed planned volumes of 22776 against delivered of 15893. The ORR submission showed volumes of 17613, the stated baseline at RF11 was quoted as 19551 and the Year End Assurance Report stated it was 18309. It was therefore not clear what the baseline was.	The Year 1 plan had a number of schemes built into it which were over-planning. This was to provide some fallback in the event that a core scheme could not be progressed for whatever reason. This ability to change items during the year to allow delivery to continue meant that there was a significant degree of churn in the schemes. Whilst this approach provides a degree of flexibility in the spend during the year there is a danger that the core schemes can be delayed. This was evident through the achievement of budget spend but significant drop in volume delivery - see adjacent table. As a result, it is considered that the adoption of the schematic tracking of the delivery of the plan (as described in A6 above) would be beneficial particularly if the over planning items in the plan were separately tracked.
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	58 116 117 118	The plans show an amount of planned spend taken out of the budget and put into later years. This totals some £9.3 out of a total of £71.2m or 13%. The deferred items cover: - Overbridges - five schemes totalling £1.2m - Underbridges - eight schemes totalling £2.7m - Culverts - one scheme costing £0.1m - Structures Other - three elements covering vehicle incursion mitigation, parapet protection and remote condition monitoring totalling £2.5m - A Holding Provision of £2.8m for scheme development in later years		The Deferred Renewal Register template changed during the year so hence the version that was shared didn't cover all the items deferred. Subsequent to the meeting the pre July 2019 and the Live version of the Register were provided to the review. This showed that there was a greater level of change to the plan in terms of deferrals than had been apparent from the plan and actual spreadsheets. It identified that between the two sheets 31 items had been deferred during the year (16 underbridges, 5 overbridges, 5 retaining walls, 3 culverts and 2 coastal defence items). In response to a question it was confirmed that there is a separate Change Control process (to the Deferred Renewal process). Noted that the Change Control process is not Structures specific but used by all disciplines in the Region. A copy of the Change Control Process was requested but not shared. Instead a copy of the Deferred Renewals Process was shared. This document dated from October 2019 and was in draft form but clearly linked to the new 'live' register.	A9	3	The new Deferred Renewals Live File was a significant improvement on the previous version and provided more detail and was better aligned to similar documents seen elsewhere. The Deferred Renewal process document contains what was considered an appropriate procedure but it was noted that the document was now a year old but remained in draft.	The Region provided a copy of their deferred renewal process to the review. The process described in the document was considered by the review team to be appropriate however it was noted that the document was over twelve months old and was still in draft form. It is suggested that the draft process document should be agreed and signed-off as soon as practical.

	2019/20 Volume	2019/20 Budget
ORR submission	17613	£61.4m
Baseline P11 18.19	19551	£67.9m
P14 19.20	15923	£71.6m

Asset Type	Budget (£k)			Volumes		
	Baseline	Actual	Difference	Baseline	Actual	Difference
Coastal and Estuarial	£943	£468	-£475	100	0	-100
Culverts	£3,808	£5,451	£1,643	445	540	95
Footbridges	£1,143	£1,242	£99	42	181	139
Holding Provision	£2,805	£0	-£2,805	0	0	0
IUT Maintenance		£8,119	£8,119	0	0	0
Major Structures	£6,970	£7,291	£321	0	0	0
Overbridges	£8,541	£8,697	£156	1633	1083	-550
Retaining Walls	£4,004	£3,539	-£465	1904	1872	-32
Other Structures	£2,485	£379	-£2,106	-200	0	200
Tunnels	£411	£411	£0	315	315	0
Underbridges	£39,067	£35,024	-£4,043	18537	11902	-6,635
Total	£70,177	£70,621	£444	22776	15893	-6,883

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10	A Workbank Changes	A10	How were deferred schemes justified?	58 59	There is evidence of a number of schemes having been deferred but the Deferred Renewal Register covers only two underbridge works. Here a technical appraisal is made of the justification for the deferral using a risk based approach. There are other deferrals which appear not to be covered by this Register.	Please confirm the scope of works covered by the Deferred Renewals Register. For schemes not included in the Register what criteria is used to justify deferral and where is this documented?	Within the Live Plan a justification for deferral is provided in the majority of cases. This can be formed from responses to the set of generic question however in other cases simple statements like 'inability to agree land access' is provided. During the meeting with the Region the explanation for the blanks in the Plan was that this may be because the change was being driven by the delivery partner. It was stated that where the scheme is driven by the RAM team then there was a greater likelihood that the justification for the change would be flagged in the Register. It was acknowledged by the Region that was an area which required some tightening up. Because of the robust meeting structure they have around the deferrals they believe that the case for any deferral is known well in advance of the Change Control meeting and therefore there has been a degree of complacency when it comes to documenting the justification for the deferral.	A10	2	The new Deferred Renewals register was an improvement on the previous version and included more detail. The justification for deferrals was somewhat vague in a number of areas however and therefore it was not possible to determine whether stated justification was valid in each case.	The Region had recently updated its Deferred Renewal Register and it was considered by the review team that the new version was a significant improvement on the previous version. In examining the Register it was noted that a number of the descriptions of the justification for a deferral lacked any detail. This weakness was acknowledged by the Region. It is therefore suggested that a more rigorous approach to the documentation of the justification of any deferral in the Register be undertaken.
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	58	There is no evidence of schemes being cancelled in the plan.	Please confirm that our understanding is this case (noting the cancellation is defined as a scheme no longer being necessary as opposed to deferral)	There were no such schemes in the year. It was stated that if there had been the Region would go back to the workbank planning meeting who would discuss and agree any mitigation works necessary driven by the cancellation. It was noted again that the "Procedure for raising and managing structures renewal work items in CARRS" would cover the process of dealing with any changes to the plan.	A11	4	There had been no schemes cancelled during Year 1. However, the Region provided an appropriate description of the process they would follow should a cancellation occur. This provided good confidence of the management of the workbank in this circumstance.	
12	A Workbank Changes	A12	How were cancelled schemes justified?	n/a	Not applicable		As noted above no such schemes occurred during the year. However, the Region pointed to the Change Control process which would incorporate justification of the cancellation (as well as the identification of any necessary mitigation measures).	A12	4	This could not be tested in practice, but it was noted that the Change Control process required justification which would include the reasoning for the cancellation and the identification of any mitigation measures necessary as a result of the removal.	
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	58	There is evidence of schemes having been accelerated as a result of schemes coming into the plan which were not in the baseline. These include emergency recovery work associated with embankment slips and work associated with HAC concrete. An additional £7.5m split as follows: Underbridges 16 items - £4.5m Overbridges 2 items - £1.4m Culverts - £0.9m Footbridges - £0.3m Retaining Walls - £0.2m Other structures - £0.1m It was not possible to determine whether schemes from Enhancements or major projects dropped into the Plan.	Please confirm whether any Major Projects or Enhancements were de-scoped in the year and included in the Plan as renewals.	The bulk of the schemes coming into Year 1 came as a result of a roll-over from CP5. The Region stated that because of their constrained budget for Year 1 these roll-over schemes meant that schemes in the CP6 Year 1 plan had to be deferred. In addition, towards the end of the year the deliverer had schemes which had been developed and were considered ready to be taken to site and so these were brought forward into Year 1. This was only done where there was no associated delivery risk. It was also stated that the deliverer had a bit of a downturn towards the end of the year and thus identified opportunities for acceleration where this was feasible. This benefited delivery efficiency as well as volume delivery. It was confirmed that no enhancement or major project schemes were de-scoped to be included in the Year 1 plan.	A13	3	The evidence from the RF11 and actuals spreadsheets confirmed the view that there was a considerable number of schemes rolling over from CP5 as well as the acceleration of schemes from Year 2 towards the end of the Year 1. Based on the description by the Region there was a clear awareness of the movements in the Plan and their causes but it was not clear how the associated tracking was being managed.	As noted previously it was clear that there had been a considerable churn in the schemes during Year 1. This included the swapping and in some cases the acceleration of items from Year 2. However, the tracking of these schemes by the Regional team was not clear. It is suggested that there may be merit in creating a visual means of tracking the movement of schemes into and out of the plan to provide a ready understanding of the status of schemes and the overall delivery for the year in terms of progress.
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	60	There is some account of the individual schemes that have been moved around in the Change Control Logs but the detail behind the justification for the changes is not evident.	Please provide evidence of the justification for any swapped or accelerated schemes	The Region stated that again the oversight of the justification for swapping or acceleration was under the auspices of the Change Control process. It was also noted that there had been a significant amount of dialogue with the deliverer to ensure the deliverability of those schemes identified for acceleration in order to de-risk this action.	A14	4	The justification for the swapping or acceleration of items was managed through the Region's Change Control process. It was also noted that the views of the delivery partner concerning their ability to deliver any swapped or accelerated	
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	57 58	This is not clear. The spreadsheet supplied as the 'baseline' (BP1819P11) contained different figures to that shown in the 'actuals' spreadsheet (BP1920P14) as the baseline. There is therefore a question of when was the actual baseline used during 19/20 set.	The baseline and actuals spreadsheets show differing figures as the baseline budget for 19/20. When was the start of year baseline set?	The Region stated that RF11 of the previous year was the baseline for the Year 1 programme.	A15	2	Whilst the use of RF11 as the baseline accords with the way in which it would have been expected that the Year 1 Plan would be set there were clearly movements at the end of CP5 which modified the Plan. This was evidenced by the earlier confusion associated with the term 'baseline' in the 1920P14 spreadsheet. The Region noted that whilst the frozen Plan at RF11 was updated ahead of the start of the year nevertheless the RF11 was considered 'baseline'. It was noted that the ORR submission for Year 1 had a budget of £61.4m and volume of 17613. This is at variance with the budget calculable from the RF11 spreadsheet supplied. This lead to some concern regarding the setting of the base. It was noted that there was a desire by the Region for one version of the truth but it was not clear what the cause of these variances was exactly.	The Region agreed that the RF11 should be taken as the baseline plan for the year. However, it was clear that there had been updates to the 'baseline' ahead of the start of CP6. This combined with the variances in the figures submitted to ORR as the plan for Year 1 meant that there was some doubt about the true base. The ORR figures showed a budget of £61.4m with associated volume of 17613. This was at variance with the figures supplied by the Region at RF11 of £70.2m for a volume of 22776. It was therefore considered essential to the management of annual delivery plans that there be a 'single source of truth' regarding the baseline plan.
16	A Workbank Changes	A16	What, if anything, was included in the Year 1 plan as items deferred or which had fallen out of the previous year's plan?	58	There is a clear listing of items deferred from 18/19 included in the baseline plan for 19/20. This totals some £2.7m in the baseline £2.8m in the actuals. This is mainly focused on underbridges covering twelve schemes with only one minor culvert item included.	Does our assessment agree with the Region's position on this point?	The assessment of the deferred items was confirmed by the Region and, as noted earlier, there were a number of schemes which were deferred in CP5 for various reasons and therefore rolled forward into CP6 Year 1. Such reasons were stated to include lack of access to site, the findings of further investigation, and the expiry of a necessary SEPA licence.	A16	4	The Region had principally twelve underbridge items deferred from CP5 which were delivered in Year 1 of CP6. The Region was able to explain the reasons for the spillage into CP6 as being mainly associated with lack of access, reaction to further investigatory work and the expiry of SEPA licence. The Region's management of the spillage through the Change Control process was considered robust.	

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	Topic	Ref	Question	Doc. Ref	Evidence from Documents	Queries	Evidence from Regional Stakeholders	Ref	Scotland Assessment (02 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	119 120 121 122	This is not clear since no process documentation has been provided to the review. However, there is reference in the Change Control Logs to a 'Deferred Renewal Process' but this has not been shared.	Please provide copies of the regional processes associated with the quantification of the impact of undertaking / not undertaking schemes	Where the Region has deferred a scheme then they follow the process as described in the associated documentation. As part of this they follow the corporate risk matrix covering safety, financial, performance and reputation. They undertake a pre and post deferral risk assessment to ensure that any contemplated interventions are adequate. In terms of financial risk this will be done in conjunction with the Region's finance team and they will also undertake a deliverability review with their capital works team. An example of the deliverability risk assessment associated with items where changes are being considered was supplied and covers Programme, Scope, Budget and External Factor risks using RAG ratings to assess the degree of delivery risk of each scheme. In addition, a copy of a sample Headwind and Efficiency tracker was provided which evidenced a series of workstreams and key actions linked to the delivery risk of the plan.	B1	4	As well as reliance on the documented process associated with the setting up of the Business Plan, Deferred Renewal and Change Control processes the Region also evidenced risk assessments which were done at various stages and levels to understand the impact of changes to the Plan. As part of this they used the CRAM to undertake a pre and post deferral risk assessment to ensure that any contemplated interventions are adequate. In terms of financial risk this was done in conjunction with the Region's finance team and they also undertook a deliverability review with their capital works team. In addition, a copy of a sample Headwind and Efficiency tracker was provided which evidenced a series of workstreams and key actions linked to the delivery risk of the Plan.	
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	60	It is noted that the Change Control Log requires changes to the budget to answer the following questions:- -What is the activity change?: - What is the driver for the change? State why it is necessary now: - If the AFC has increased, state how this is being funded: - What is the impact on the overall programme in terms of output i.e. condition & volume, and efficiencies: - State key risks and benefits: In three of the Logs reviewed there is no mention anywhere of Sustainability. In the Deferred Renewal Register there is mention of two underbridge schemes in 19/20 which have been reviewed and agreed to be deferred with a technical assessment of the situation leading to the decision.	Please provide guidance (documentation) on how sustainability of the portfolio is taken into account in the decision making process regarding schemes.	The Region confirmed that Asset Management on the CRAM is not the same as Sustainability. The asset management criteria was described by the Region as covering the likes of scour which had an impact on the portfolio as a whole or the bridge collapse at Stewarton in relation to highlighting the issue of HCEs. If the Region was deferring an item from Year 1 to Year 2 then they consider it would have little or no impact on sustainability because this is considered to be a measure at portfolio and not scheme level. It was the Region's view that Sustainability wasn't an issue for Year 1 because of the relatively small volume of items changed in the plan, thus they don't believe the risks were material.	B2	4	As noted in B1 the Region adopted the CRAM to assess risk. However, this did not identify sustainability as a factor to be considered. The very limited impact an individual scheme would have on the measure of sustainability as expressed by the Region was understood by the review team. No evidence was provided to show that sustainability was considered at any stage in the process although it was stated that the impact of one year would be negligible and that a more meaningful measure would cover the entire Control Period. The impact from Year 1 of the changes was agreed to be very low.	The Region adopted the CRAM to calculate the level of risk associated with changes to its delivery plan. Sustainability is not a factor in the CRAM and thus there was no evidence of the assessment of the impact on sustainability in the change process. Whilst the Region were able to provide justification for the omission of sustainability in their risk process it is suggested that consideration of sustainability be factored into an assessment of the impact of changes at an appropriate frequency to make the results meaningful, but at no greater than the Control Period.
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	60	The Change Control Log requires changes to the budget to answer the following questions:- -What is the activity change?: - What is the driver for the change? State why it is necessary now: - If the AFC has increased, state how this is being funded: - What is the impact on the overall programme in terms of output i.e. condition & volume, and efficiencies: - State key risks and benefits: In three of the Logs reviewed there is no mention anywhere of Performance. In the Deferred Renewal Register there is mention of two underbridge schemes in 19/20 which have been reviewed and agreed to be deferred with a technical assessment of the situation leading to the decision.	Please provide guidance (documentation) on how performance is taken into account in the decision making process regarding schemes.	The Region confirmed that it uses the CRAM to assess the risks associated with changes to the Plan. The CRAM includes consideration of performance in the quantification of risk associated with any changes. The Change Control and the Deferred Renewals processes, as evidenced by the Region, include the risk assessment of changes to the Plan using CRAM.	B3	4	The Region assessed their risk associated with any changes to the workbank through the use of the CRAM which includes criteria associated with performance. This was integral to their processes.	
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	60	The Change Control Log requires changes to the budget to answer the following questions:- -What is the activity change?: - What is the driver for the change? State why it is necessary now: - If the AFC has increased, state how this is being funded: - What is the impact on the overall programme in terms of output i.e. condition & volume, and efficiencies: - State key risks and benefits: In three of the Logs reviewed there is no mention anywhere of Safety. In the Deferred Renewal Register there is mention of two underbridge schemes in 19/20 which have been reviewed and agreed to be deferred with a technical assessment of the situation leading to the decision.	Please provide guidance (documentation) on how safety is taken into account in the decision making process regarding schemes.	The Region confirmed that it uses the CRAM to assess the risks associated with changes to the Plan. The CRAM includes consideration of safety in the quantification of risk associated with any changes. The Change Control and the Deferred Renewals processes, as evidenced by the Region, include the risk assessment of changes to the Plan using CRAM.	B4	4	The Region assessed their risk associated with any changes to the workbank through the use of the CRAM which includes criteria associated with safety. This was integral to their processes.	
21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]	123 124	No documentary evidence has been provided to describe the Change Control process in the Region. However, copies of ten of the Change Control Logs have been provided. These show the changes that have been agreed to the budgets and volumes by individual scheme and provide an individual Change Reference. There is a Justification tab which requires the questions noted in B2 - B4 above to be answered. Finally there is a Change Driver / Variance Category Relationship chart. On the workbank summaries provided the change references are noted. A Change Control Register has also been provided which provides a more technical assessment of the justification for deferral in a limited number of cases.	Please provide copies of the Regional Change Control process	In the discussions with the Region it was agreed that they would provide a copy of their Change Control process. Following the meeting copies of documents associated with the mechanics of updating the Business Plan following a controlled change and guidance on managing the plan which included a section on change control were provided. A copy of the regional Change Control process was subsequently requested. The Region shared a copy of the "AM Buildings and Civils Guidance on managing the Live Plans". This document had sections on Change Control but noted that "local change control processes and timescales are to be managed locally". The document included a description of the purpose and overall procedures associated with Change Control as well as guidance on the structure and content of supporting spreadsheets. It also included a description of an automated change control log.	C1	2	The Region provided documentation relevant to Change Control but these focused on the mechanics of the process rather than the accountability and responsibilities for a step-by-step process.	The Region was able to provide a good account of its Change Control process and examples were reviewed of the process in action. In terms of the documentation of the process the evidence provided to the review focused on the mechanics of the change process, such as the inputting of data to the system. There was however no documentation which succinctly described the process, the roles and responsibilities of those involved in the decision-making process along with a timeline. It is suggested that a Regional Change Control process document is produced to identify the responsibilities in the process as well as timescales associated with the various steps.

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22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]	60	The Change Control Logs that have been provided demonstrate a consistent approach throughout the year but it is not possible to link this to the overall process without the process documentation.	Please provide copies of the Regional Change Control process	It was noted that the Route and Region are the same in Scotland so there were no issues with inconsistency between Route and Region in Scotland. The Region stated that the topic of consistency in Change Control between Regions was something that was covered in the ATR meetings highlighted above.	C2	1	It was found that none of the example notes from the ATR meetings considered the process associated with any changes to the Plan but were rather more focused on technical or practical issues. There was thus no evidence of any attempt to generate consistency across the Regions from the perspective of Change Control. In subsequent discussion with the TA it was stated that the processes were now owned by the Regions. This could imply that consistency was not relevant to the TA.	In considering the consistency of the various change control processes nationally the Region cited the ATR meetings as the forum for such dialogue. To support this, evidence was provided in the form of the minutes of a series of ATR meetings. However, none of these made any reference to the change control process and thus it was difficult to judge the validity of the Region's assertion. It is therefore suggested that at a national forum like the ATR a review should be undertaken of the various change Control processes to establish consistency.
23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	60	It is not possible to determine this from the available documentation.	Please confirm how alignment with policy is maintained through the change control process.	In discussion the Region confirmed that their Change Control process did not specifically take account of policy impacts. It was their view the driver of deferrals or acceleration was heavily influenced deliverability issues and they did not see policy having a strong influence on the change process.	C3	2	The strong focus on deliverability as the major factor in the Change Control process meant that the changes to the Plan would in all probability be delivered but this lost sight of the overall impact of the works which were being undertaken particularly in terms of policy impacts. It was accepted that there was a strong focus on Level 1 policy items in the original Plan and that thus it could be argued that there would be little impact on policy compliance if the vast majority of items fell into this category. However, the disregarding of policy in the change process was considered a potential shortcoming.	The Region exhibited a strong focus on delivery and their success in this regard could be seen from the delivery of budget spend in the year. Whilst it was acknowledged that the original plan had been largely policy compliant the continual alignment to policy was not part of their Change Control process. It is suggested that the policy implications of change, along with deliverability, are considered in the process in order to form a view on the overall impact of the Plan being delivered.
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	60	The only available evidence is that of the Change Control Logs themselves. Thus, the fit of these Logs to the overall process is not clear. However, there is a lack of reference to impacts associated with sustainability, performance, and safety from the justifications quoted. These appear to be more heavily focused on the financial implications of the change.		It was stated by the Region that currently when an item goes into the Plan it effectively becomes a 'live' job. Once in the Plan they need to be able to track the variations in the costs e.g. when they move from forecasts, to estimates, to the contractor's cost. To help this monitoring they are considering modifying the Change Control Log to track these variations. This was considered by the Region to be useful for a look back at the project and a means of lesson learning. It was stated that in NW&C Region they have a different cross discipline Business Plan which can schedule Change Control without the need to go to meetings. By this means a proposal would generate e-mails to key individuals seeking approval thus making the whole process more efficient and less time consuming. It was stated that Scotland Region has an aspiration to move towards an integrated Business Planning and Change Control process similar to NW&C Region.	C4	3	It was clear that there were some shortcomings in the Year 1 processes but the evidence showed that the system was effective and that renewals planning was managed appropriately (noting the comments on policy impacts above).	The Region acknowledged the weaknesses in their processes, but it was also clear from the evidence provided that their approach was effective in managing the renewals workbank. It was noted that the Region had considered the adoption of the systems used by NW&C Region. The wider understanding of the variety of processes in use (see C3) was considered beneficial to the adoption of best practice.
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.	n/a	Based on the available information in the Change Control Logs and BP1920P14 spreadsheet there is no record of any instances of cross-regional impacts.	Please confirm whether changes to delivery plans in adjacent Regions impacted on the Scotland Region delivery plan in Year 1 CP6.	It was confirmed that during Year 1 there had not been any such cross-boundary impacts. However, when the Region was planning their renewals it tried to de-conflict items by making sure they were more robust in their planning and delivery and avoided a reliance on other Regions. Equally, there was no evidence of Scotland Region having a negative impact on NW&C or Eastern items.	C5	4	The Region confirmed that their delivery plans had not been impacted by the actions of a neighbouring Region. It stated that when they were planning their renewals they specifically de-risked their plan by making sure that it was independent of other Regions' work items.	
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	57 58 125	The plans, both planned and actual, have line items for each scheme with both budget costs and volumes quoted. The methodology to derive costs and volumes has not been shared.	Please confirm how the budgeted costs and volumes for individual schemes have been derived	A lot of the analysis made available by the TA to the Region was based on a national rate at KVL level. Unfortunately that had, by necessity, to cover a huge range of activities. The Region recognised, particularly with scour, that the actions they had planned were further developed and as such their view of costs would be more accurate. Thus, the central rate for underbridge works wouldn't be appropriate so the Region inflated the scour element to reflect the planned activities. They also identified certain asset types where the rate was more risky but these were associated with small volumes. There was also a recognition that the portfolio of activities was different between CP5 and CP6 with regard to underbridges and that this needed to be factored in to any revised rates. It was considered that this could increase rates by up to 30%. Once the Region had completed their assessment the TA estimating team reviewed the Region's assessment of appropriate rates. Following the review meeting the Region provided a breakdown of the rates they had adopted comparing National average unit rates with Scotland average rates and IP SNE local analysis and the RF06 unit rate. This was complemented by a commentary on the adopted rates. In this comparison it was also noted that the national rates were higher than those applicable in Scotland for some activities.	D1	3	The Region shared a process for the development of rates for the various activities which was grounded in the TA's shared rates and then overlaid with local experience and an allowance for the nature of the work being undertaken - for example the work done to the culverts on the WHL and the one-off nature of works in Anderston Tunnel. This together with the revision to the rates associated with scour protection, where better costing information was already available to the Region, meant that they were able to adjust rates with some degree of confidence.	The Region adopted the national unit rates at Key Volume Line level and then adjusted these to make them a better fit with the particular scheme. Where significant development had taken place on a scheme the cost and volume estimates were more accurate, but it was accepted that this was highly variable in terms of the level of maturity of individual scheme development. It is suggested that a greater degree of granularity may be applied to the national unit rates to form the basis of the core work and then be capable of being overlaid with allowances for access, project management, preliminaries etc.

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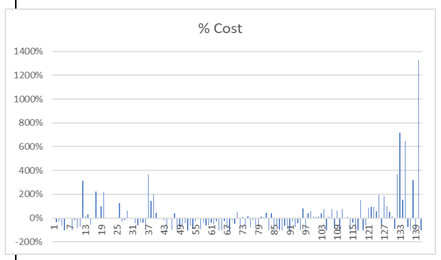
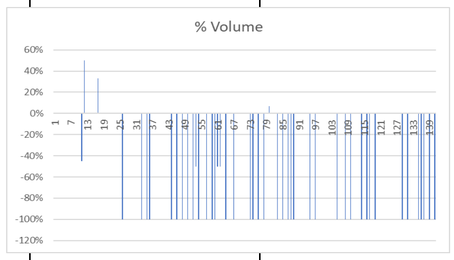
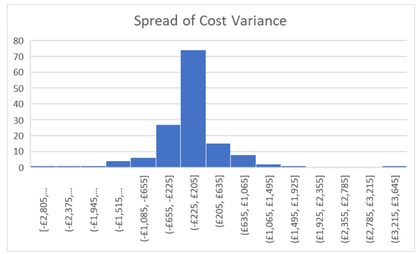
	Topic	Ref	Question	Doc. Ref	Evidence from Documents	Queries	Evidence from Regional Stakeholders	Ref	Scotland Assessment (02 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
27	D Costs	D2	To what extent can the delta between estimated vs actual renewal cost be identified via analytical methods?	58	The BP1920P14 plan provides a comparison between the baseline cost which has been taken as the estimated cost, and the actual cost (described as budget). Given the nature of the spreadsheet this supports the analysis of the delta by, for example, structure type etc.   	Please confirm that the 'budget 19/20' in BP1920P14 is representative of the actuals.	Based on the plan and actual cost of some spreadsheets it is possible to come to a view based on the level of development of the schemes (GRIP stage) to come to a view on the variation between estimated and actual costs can be identified.	D2	3	Analysis of the baseline and actual of the schemes in the Plan provided a graphical picture of the level of variation in the costs and volumes. The degree of over-planning included in the Plan was also evident from the analysis. Given the volatility of the Plan it was considered that the accuracy of the estimate compared to the actual cost of the scheme could present a distorted picture from the perspective of the progression of the development of the scheme and changes in scope. Nevertheless the cost of delivery increased whilst the volume achieved reduced meaning that, on average, each unit of volume cost approximately 23% more to deliver than had been estimated. However, the planning put in place by the Region was able to track these changes.	
28	D Costs	D3	To what extent does the estimated renewals cost for Year 1 differ from the actual renewals cost for the same period?	56 58 126	As well as BR1920P14 a summary of the changes between the baseline and actuals has been provided. The breakdown is A sample of individual schemes shows costs variation on Underbridge projects	Please confirm the assessment we have made of the delta in costs, and provide any appropriate justification for the variance.	The analysis generated by the review team was generally agreed by the Region as providing a statement of the overall picture of plan versus actuals. Within the review analysis the Region noted that the IUT Maintenance item should be read as Minor Works; and it was confirmed that this element was all CAPEX. The Region explained that the Year 1 plan had been deliberately over-planned, there was also the roll over of CP5 schemes to take into account, and the acceleration of Year 2 items which makes the figures as shown not directly related. The Region also commented that the budget at the start of Year 1 should have been £78m rather than £70m to take account of IUT Maintenance. If this had been included in the original RF11 plan the Region would have out turned a 11% reduction against budget. The reason for the omission of the IUT Maintenance item was not provided. The Regional Finance team provided a copy of their rolling forecast documentation to demonstrate the monitoring of the delivery of the plan by period against the forecast.	D3	3	It was agreed that there had been a significant number of changes to the Plan during the course of the year which made a direct comparison difficult. The Region did appear to have a monitoring regime in place which was described as being the tool used to influence the prioritisation to meet budget in future year's forecasts. This took account of overspends in the years they occur. Variations in the baseline budget and volume between various sources was a cause of concern.	The volatility of the plan during the year linked to the uncertainty over the baseline plan budget and volume, and the level of over planning made it difficult to quantify the differences between planned and actual at a portfolio level for the year. It is therefore suggested that as noted previously there should be agreement by all parties on the baseline cost and volume; over-planning should be kept in the plan but flagged accordingly; and graphical tracking of schemes should be undertaken throughout the year.
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for Year 1?	58	A high level assessment of the variations shows that with the exception of the underbridge budget (which accounts for broadly half the budget) there are a number of 'pots' which contain funding (namely Holding Provision for scheme development and Other Structures which covers campaign activities like parapet protection and vehicle incursion protection). In the case of underbridges a 10% reduction in budget appears to have created a drop of around 30% of the baseline volumes. With the exception of these general observations it is not possible to identify the impact (in sustainability, performance or safety terms) of the variations.	Is it possible to provide an understanding of the potential impact on the Business Plan of the differences that occurred during the year?	In terms of the overall pattern of delivery in Year 1 the Region commented that it had spent less on underbridges and had significantly under-delivered on volume as a result. The loss of this volume has led to discussions regarding the planning of the Year 2 workbank. Following the review meeting the Region provided the tabulated analysis of the variations in the asset type spend.	D4	3	The additional evidence provided following the meeting confirmed the under-spend on underbridges and showed the scale of the associated volume under-delivery. The analysis showed where other variations occurred but in terms of volume the big loser seems to have been Coastal Works with sizable increases in volume delivery for culverts, footbridges and overbridges. Whilst it was acknowledged that the Region was tracking these changes the impact of these variations was not clear in terms of future year works in CP6, policy compliance and sustainability.	Analysis was undertaken of the differences across the asset types within structures. The analysis clearly confirms the level of variances in the delivery of the plan but there was no evidence provided by the Region to suggest that the overall impact of these changes on the plan for CP6 had been considered. It is suggested that consideration be given to undertaking a review of the impact on the changes to the annual plan from the perspective of the Business plan for the entire Control Period.

Asset Type

Asset Type	Budget (£k) Baseline	Budget (£k) Actual	Budget (£k) Difference	Volumes Baseline	Volumes Actual	Volumes Difference
Coastal and Estuarial	£943	£468	-£475	100	0	-100
Culverts	£3,808	£5,451	£1,643	445	540	95
Footbridges	£1,143	£1,242	£99	42	181	139
Holding Provision	£2,805	£0	-£2,805	0	0	0
IUT Maintenance		£8,119	£8,119	0	0	0
Major Structures	£6,970	£7,291	£321	0	0	0
Overbridges	£8,541	£8,697	£156	1633	1083	-550
Retaining Walls	£4,004	£3,539	-£465	1904	1872	-32
Other Structures	£2,485	£379	-£2,106	-200	0	200
Tunnels	£411	£411	£0	315	315	0
Underbridges	£39,067	£35,024	-£4,043	18537	11902	-6,635
Total	£70,177	£70,621	£444	22776	15893	-6,883

Rolling forecast documentation

	2019/20 Volume	2019/20 Budget
ORR submission	17613	£61.4m
Baseline P11 18.19	19551	£67.9m
P14 19.20	15923	£71.6m

Asset Type variations

Asset Type	Budget Baseline (P11 18/19)	Budget Actual (P14 19.20)	Budget Variance	Budget Variance %	Volume Baseline (P11 18/19)	Volume Actual (P14 19.20)	Volume Variance	Volume Variance %	
Coastal & Estuarial Defences	582	468	-114	-20%	100		-100	-100%	Deferral of scheme and inclusion of Minor works C&E schemes
Culverts	3,731	5,451	1,720	46%	459	540	81	18%	Deferral of schemes and increased costs vs unit rate. Some schemes where outliers due to needing a deeper dig and track works not included for in unit rate and also the new framework supplier being less efficient than the out going CP5 supplier.
Footbridges	836	1,242	406	49%	139	181	42	30%	Additional scheme added to plan from Yr2. Supplier capability following period of high outturn, enabled continuity of workforce and generated efficiency
Holding Provision	5,056	0	-5,056	-100%	0	0	0	#DIV/0!	Allocated to schemes for future years development and MW items. Provision fully realised
IUT Maintenance		8,119	8,119	#DIV/0!	0	0	0	#DIV/0!	CAPEX minor works provision
Major Structures	8,385	7,291	-1,094	-13%	0	0	0	#DIV/0!	rephasing of spend into future years based on contract progress
Overbridges	8,630	8,697	67		916	1,083	167	18%	Additional minor works scheme added (OB 240/162) and additional volume associated with planned renewal becoming repair and paint
Retaining Walls	2,480	3,539	1,059	43%	1,904	1,872	-32	-2%	Scheme deferral and increased costs vs unit rate. Repairs more extensive than unit rate allowed
Other Structures	2,485	379	-2,106	-85%	0	0	0	#DIV/0!	Allowances for contribution items rationalised
Tunnels	340	1,425	1,085		0	345	345	#DIV/0!	MW schemes added from holding provision
Underbridges	35,422	35,024	-398	-1%	16,033	11,902	-4,131	-26%	Significant movement in workbank due to rollover of incomplete CP5 schemes, CP6 Yr 1 deferrals due to delivery issues such as third party consents and land. Increase seen in unit rate due to workbank composition on schemes completed.
TOTAL	**67,947**	**71,635**	**3,688**	5%	**19,551**	**15,923**	**-3,628**	-19%	

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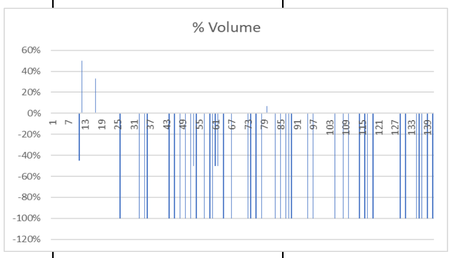
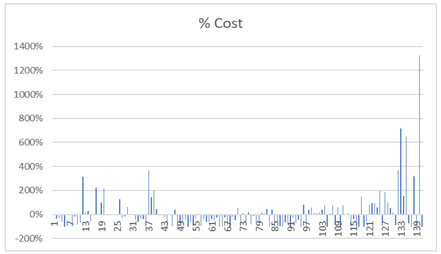
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	58 127	Based on the analysis above for underbridges the variation at a 5% level is exceeded in the majority of cases. It is worth delving into this in more detail during discussions to determine the causes of this and if the planned and actual activities had the same scope and thus the budget reflects a true comparison of variation in cost. It is noted that there were no variations in the budget for works on tunnels.	We see a significant range of cost variations in the comparison between baseline and actuals in the plan. Why is this and are the figures giving a true picture of cost variations or are there other factors at work here?	In response to the questions from the review it was agreed that Regional team would undertake some analysis of the scheme variations and submit these to the review. Whilst analysis by asset type was supplied following the meeting analysis of the scheme cost and volume variations was not submitted to the review.	D5	2	The promised for analysis of the variations by scheme was not submitted and thus the assessment was based on the analysis which was undertaken based on the original submission. As noted previously, the volatility of the Plan meant that it was difficult to tease out the reasons for variations however, individual scheme variation assessment was possible. Thus, the analysis looked at the cost and volumes of schemes which appeared in the baseline and actuals as having spend.	Analysis was undertaken of the variances in the schemes in the plan at the start of the year. This revealed that around 2% of the schemes were within the forecast price by +/-5% and 45% within that tolerance for volume delivery. The reasons for the variation centred on the level of development of the schemes when they were included in the plan. Whilst it was not clear what analysis was undertaken by the Region to understand that variations in cost and volume it is suggested that the creation of such a report may be useful in the proactive refinement of rates.
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	60	Variations in the budget / volumes are described at a high level in the Change Control Log. The specific causes of the change are not generally quantified in terms of the impact on the variation in these documents and a number of changes are being justified as "within RAM budget provision".	Is any analysis available to explain the causes of variations in budget or volume of +/-5%?	This point was discussed as part of the dialogue on question D5	D6	4	Whilst it was acknowledged that there had been a significant level of variations in the costs and volumes in the Plan the Region had undertaken analysis of the variance of cost between the forecast and actual. This looked at various aspects of the workbank in terms of the influencing factors but focused primarily on underbridges which were the largest single element in the plan. As well as providing evidence to understand the variances it also contained suggested improvements for the next round of Plan development. This was considered to be strong evidence of an understanding of the variations and a pro-active means of managing the scale of change going forward.	
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.	60	There is no reference to operational impact of any of the changes proposed in the sample Change Control Logs examined	Please confirm if and where operational performance impacts of changes to delivery plans are taken into account	The Region confirmed that operational performance impact was a factor in the deferred renewals process particularly if a TSR needed to be put on. It was stated that if a TSR was applied as a result of a weak structure then it does not financially affect the scheme but the associated performance costs would be held centrally by the Region. It was confirmed that there were no deferrals which led to TSRs being applied in Year 1.	D7	4	It was noted that no performance impacts in terms of TSRs had had to have been imposed as a result of deferrals during Year 1. The Region stated that the operational impact of any changes to the Plan, like deferrals, would be assessed as part of the process using the CRAM.	
33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	128 129 131	There is no evidence to form a view on this.	Please confirm how expected outcomes are back-checked once schemes are delivered - for example in hand back documentation	It was confirmed that no significant review of the Region's structures delivery in Year 1 was undertaken. Instead, it was noted that the emphasis was on the on-going monitoring of the scheme activities throughout the year. This continual assessment process of the actions and outcomes as schemes were being delivered takes place in conjunction with the delivery team. As part of this, scheme project managers meet periodically to review forecasts and emerging issues. This approach was said to generate a culture whereby there should be nothing which comes as a surprise to the team because of the way in which the Change Control process teases out issues and has wider team involvement. In terms of capitalising on the outcomes of works particularly where there is a change in the capacity / capability of a structure this is notified in an 'Advice of Works' form. This is shared with the Assessment and Area Teams which can in turn promote the updating of records to notify, for example, a change in a structures Route Availability. Samples of Advice of Works forms were supplied following the meeting. The Region stated that end product assurance on site was not happening just now due to resource constraints. This was recognised as a gap.	E1	4	Rather than undertake a 'post-mortem' of the way in which the year had panned-out in terms of the delivery of expected outcomes the Region relied on the current delivery process and the wide involvement of the team to monitor delivery in real time. This was believed by them to negate the need for the formal look-back. It was noted that as part of their processes Advice of Works forms were completed on site at the end of a job to confirm completion of the works and to advise on any capability changes to the structure.	The Region presented a detailed account of their processes in terms of a rolling review of delivery. Nevertheless, it is suggested that a high-level review of the delivery of the plan at year end would be beneficial in the identification of any potential systemic issues and gaining an understanding of wider lessons for future years.
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]	n/a	There is no evidence to form a view on this.	Please confirm what measures of effectiveness are in place.	No evidence was provided to demonstrate that the Region shared their effectiveness of structures delivery.	E2	1	There are forums for the sharing of the effectiveness of each Region whilst recognising that it was not a competition between Regions. It was considered that there was an opportunity to share best practice whilst recognising that the Regional portfolios were very different.	The Region presented no evidence of any form of measure of its effectiveness which could then be compared to other Regions in the development of better delivery. It is suggested that the development of a set of effectiveness measures is undertaken to allow a meaningful comparison between Regions with the aim of promoting best practice.

	Base Budget	Budget Change	Actual Budget	% Change
Superstructure renewal and substructure repairs	817	-172	645	-21%
Steelwork repairs to superstructure and replaceme	184	46	230	25%
Repainting (in conjunction with repairs)	184	116	300	63%
Steelwork repairs to main girders and trough ends	215	103	318	48%
Repainting (in conjunction with repairs)	285	257	542	90%
Timber deck renewal and waterproofing.	255	13	268	5%
Strengthening of main girders and steelwork repai	153	48	201	31%
Repainting	153	-6	147	-4%
Scour risk reduction programme.	100	-57	43	-57%
Replace existing structure. Structure requires perm	68	-24	44	-35%
Steelwork strengthening with associated minor ste	63	0	63	0%
Superstructure and substructure repairs	149	0	149	0%
Blast clean and repaint.	456	0	456	0%
WHL Viaduct Strategy. Renew timber deck and wat	1351	-83	1268	-6%
Repaint steelwork and install drainage system	68	-46	22	-68%
Installation of scour protection	1200	-348	852	-29%
Develop options for strengthening truss diagonals	306	112	418	37%
Options for arresting crack propogation.	577	-368	209	-64%
Scour risk reduction programme. Provide scour prc	766	-86	680	-11%
Masonry repairs throughout	459	-207	252	-45%
Repoint throughout and repaint all exposed steelv	459	-202	257	-44%
Scour risk reduction programme. Provide scour prc	664	-495	169	-75%





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	Topic	Ref	Question	Doc. Ref.	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	South East Assessment (16 Nov 2020)	Evidence Assessment Summary	Opportunity for Network Rail
1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	#61 #62 #63 #64 #65 #66 #67 #79 #94	There was no documentation provided to indicate the process followed so it is unclear how the work bank was developed / agreed. The baseline plan shared is dated 02 04 2019		Please explain how the work banks were developed / agreed. Which of the BP / work bank was actually agreed?	The baseline plan shared, dated 02 04 2019 is what was agreed with ORR at the start of the control period and reflects SE route's agreed budget. This plan was also agreed with the delivery partner for work to be delivered in Y1. Within a business plan there are number of items that goes in every time you develop up a business plan, such as some of the minor works programs, the tunnel maintenance program, the culvert programme. Those go in every single business plan almost every time because they are the work that we do on a program by program basis from control period to control period. On top of that the senior asset engineer, and we got 3 of them, looking at Kent and Sussex as part of the review of examination, they identify potential work that they want doing in either the next control period or the control period after so when we asked them to come up with their candidate activities or what they like to be included in the next control period. That's where we get all the jobs that comes in through CARRS and they pick out the ones that are most critical to them whether from a capacity or condition point of view. So they are the ones that provide the base for building up the base plan, and that's where we originally come up with £500m (unconstrained). Then it is an evolution process, once we understood the likely budget that we will be given, we look at the priority of doing the job and also deliverability. There isn't a documented process for the development of the BP.	A1	3	SE Route develops their plan bottom up, prioritising work based on asset condition or capability. An unconstrained work bank is initially developed which then gets adjusted based on evolving budget constraints. The Delivery Plan provided by ORR (Apr 2019) shows a post efficient Structures forecast for Y1 £35.6m, and total Vol. 3,721 These values are different to those contained in the baseline plan provided by the SE route (Apr 2019) which shows a post efficient Structures forecast for Y1 £32.3m, and total Vol. 5,531 Both documents were stated as being 'agreed' The end of Y1 assurance report includes a volume forecast of 3,902 and delivered volume of 4,236 Also see A8 for specific volume discrepancies	Document the process for developing and agreeing the work banks. This should provide a structured approach that enables consistency during development within different control periods and avoid discrepancies in costs / volumes for the agreed work bank.
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	#1 #65 #66	It is unclear how the asset policy has been applied in developing work banks 84% of the expenditure in Y1 (2019/20) is shown against items stated to be 'policy compliant'. This covers 63 lines/schemes in Y1. Overall there are 235 items stated to be compliant out of a total of 390. Policy targets are included in columns CT - DG of the business plan. The highest count is against 'No. PLBEs that will be lifted above BSL' (112) the majority of which is against 'Underbridges' (70)	Live BP Policy Compliant / Sum of 2019/20 Budget £K Post-Efficient Profile (Capex) n/a £0 No £0 NoYES £488 Yes £24,828 (blank) £4,102 Grand Total £29,418	What does it mean if a work item has/has not been stated to be policy compliant? How has this indicator been selected? How are the policy targets used when developing the work banks?	Policy priority / level one, two, and three that came from the centre. We used the policy for CP6 to help us to make some of the decisions. To refine the base line back to the constrained plan, there was essentially a normal meeting with both the RAM and the senior engineer who knows those structures very well to go through the number of jobs and decide which one we think can be taken off on the base plan. Where there are no compliant items with policy, this is because the policy is 'unreasonable', e.g. policy requires reconstruction at Victoria but we are repairing and refurbishing as we consider this is a better WLC, most economic less disruptive solution. We refer to policy but don't use it blindly. Also refer to policy on a page has a lot of trigger levels. Engineering judgement is also applied alongside policy.	A2	4	There is evidence that the SE route uses the policy as the majority of spend in Y1 is for policy compliant work. In a small number of cases where this is not the case policy was still referred to as guidance but choose to deviate from it if to ensure most economic / less disruptive solutions are adopted.	
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	#65 #66	Not clear based on the documentation provided hoe the SE route decides on intervention types and timings		Please explain how intervention types and timings are selected Is there a national approach that the route adopts?	We go through the examination report, with senior asset engineer, and identify a job that they want to be included in the next control period. Then we look at the structure and the defects and then decided what elements are to be included in the overall project. So we focus on the preventive (primarily painting), repair, strengthening, i.e. deals with capacity issue where a structure needs the capacity to be improved to bring it back to the minimum capacity required to allow the RA rating be adhered to. Waterproofing replacement for overbridges. So we look at the defect highlighted by examination and then we decide what element of the work we want to be included. Work packaging used to gain efficiency - e.g. combining painting that is not too poor with strengthening at the same location as this is more cost effective that doing the activities in separate years.	A3	4	Interventions are identified bottom up though interrogating asset needs. No national approach mentioned here specifically but the policy on a page mentioned above was assumed to be used to trigger levels of interventions.	
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	#65 #66	Prioritisation ranking is included in the Live BP, but its is unclear how this is used	Live BP Prioritisation Ranking / Sum of 2019/20 Budget £K Post-Efficient Profile (Capex) High £16,097 LOW £1,136 LOW - CONTRACT AWARDED £7 Medium £6,188 Medium - job done £1 (blank) £5,989 Grand Total £29,418	Please explain how priorities are assigned/used in developing the work bank	Prioritisation is through evolution of the unconstraint plan and the constrained plan by using engineering judgement. There is no formal / documented process. No clear or limited evidence of documenting prioritisation decisions beyond the inclusion of schemes in the workbank.	A4	3	Work / Volume prioritisation is conducted by engineering judgement without the use of a formal process.	Develop / adopt a formal works / volume prioritisation approach or an approach for documenting decisions.
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)	#1 #61 #62 #63 #67	The Asset Policy is available, but it is unclear how this is applied in the development of the work bank It appears that slightly different change processes, and the application of, takes place within the Southern Region (i.e. SE vs Wessex)		How does the route ensure that a consistent approach across regions is used to develop work banks? How do you ensure that the policy is applied at route level? What cross region dialogue takes place, e.g. in the Business Planning Working Group Meetings or similar forum?	The only communication across regions is through the Business Planning Working Group. Asset managers meeting, once a month. Various issues including then the policies are discussed. Discrepancies with the policy can be discussed here to propose amendments We don't have a formal dialogue between all the regions, not even between us and Wessex. We're very much our own.	A5	2	Routes / Regions use similar principles, i.e. identify defects / deficiencies and refer to the central policy for developing the work banks. The local processes and templates used are different and the prioritisation approach is not universal. This is not surprising given the devolution model. The use of engineering judgement is always necessary and should not be underestimated but also brings challenges if not being consistently applied	The Business Planning Working Group could become the forum and catalyst for sharing good practice in the approach to consistently developing work banks. In this forum Routes/Regions themselves could collectively consider whether adopting a universal approach if considered more appropriate.
6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	#65 #66 #94 #95 #96	The two tabs '1. Base Plan PRE' and '1. Base Plan POST' include summary tables for costs and volumes against structure types, these are in tabular format, no visual charts or similar aids are included		Is there any other dashboard that the route uses to easily communicate the work bank composition and any changes to it?	Maybe other departments summarise the work, e.g. finance department Can use the plan to draw messages but nothing readily available	A6	2	There is no reporting that is done at engineering level within the route and so no standard dashboards were created. Centrally reporting of actual / forecast volumes and effective volumes is produced regularly via assurance reports. For Y1 the live plan states actual volume 1,849 while the end of Y1 assurance report includes a delivered volume of 4,236	Consider use of a single reporting dashboard
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals (activities/schemes) be identified via analytical methods?	#65 #66	It is unclear which values are actuals and which are planned There are 135 lines/activities in Y1 that contain budget in the base line plan with 107 lines/activities in Y1 that contain budget in the live BP there are 75 approved changes in the change log, 22 have Y1 budget	discipline / Structures Title / approved Row Labels / Count of Title 3rd Party (PAYGO) DfT 1 Coastal & Estuarine Defences 2 Culverts 1 Footbridges 8 Major Structures 1 Overbridges 5 Retaining Walls 2 Struc-Minor Works 11 Tunnels 2 Underbridges 42 Grand Total 75	Both base and the live work bank contain 'budget' values. How can we identify actuals? How could we determine the 'status' of specific activities? What does the 'status' column (FC) mean in the live work bank? It contains 'completed' items that have expenditure in future years. If the deltas are using the correct costs to calculate then focus on one or two example schemes. How do they vary in cost / volume and why? How can we link the base/live BP to the change log entries?	There is no 'status' for each line in the business plan. Column L (authority) gives an indication of the GRIP stage but this may be out of date Annualised spend - i.e. cannot move funding between financial years try using 'project number' to connect entries, PMN: this doesn't work either change log only includes the latest change by project, history held elsewhere	A7	3	It is possible to identify the lines / activities that contain budget in both the baseline plan (134) and the live plan (107) for Y1. There is no clear / accurate 'status' in the live plan identifying what schemes are complete.	Consider adding 'status' in the live plan for clearly identifying what schemes are complete. Consider better connectivity between base and live plan.

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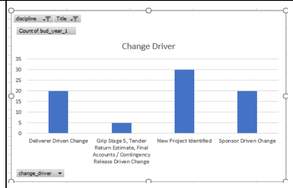
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for year 1 differs from the planned renewals workbank for the same period?	#65 #66 #79 #92 #94 #95 #96	as above is unclear which values are actuals and which are planned. Live BP CP6 Work Type / Sum of 2019/20 Budget £K Post-Efficient Profile (Capex) / Sum of 2019/20 Volume Post-Efficient Profile (Capex) Footbridge £19 0 Hazard Management £550 0 Major Works £715 0 Minor work £0 0 Minor Work £93 0 Minor Works £9,030 0 Minor Works £1,350 0 Not Applicable £800 0 Preventative £2,112 458 Preventative £248 133 Repair £2,366 880 Repairs £0 0 Replace £5,623 181 Replace £1,668 0 Replace Repair £0 0 Strengthen £1,499 133 Structures Devegetation £3,300 0 Waterproofing £45 64 (blank) Grand Total £29,418 1,849 Base BP Row Labels / Sum of 2019/20 Budget £K Post-Efficient Profile (Capex) / Sum of 2019/20 Volume Post-Efficient Profile (Capex) Footbridge £50 Hazard Management £1,100 0 Major Works £1,000 Minor work £0 Minor Work £250 Minor Works £8,830 0 Minor Works £1,350 0 Not Applicable £800 0 Preventative £4,103 2,399 Preventative £1,396 Repair £3,727 2,761 Repairs £0 Replace £4,992 102 Replace £500 0 Replace Repair Strengthen £775 205 Structures Devegetation £3,300 0 Waterproofing £94 64 (blank) Grand Total £32,266 5,531	Please explain large volume difference 1,849 in the live plan compared to 5,531 in the base plan	no volume for minor works Biggest variance in underbridges preventative and repair Ouse Valley viaduct moved to Y3 from Y1 - Vol. 2,400 Ouse Valley originally in Y1 now in Y3; listed as key change but not on the change log in the Live Plan, for Y1 the cost and volume is actually what was delivered. if project spans two years the volume would only appear in the year the project was delivered	A8	2	The delivered volume (1,849) held in the live BP at route level differs to that in the end of Y1 assurance report, which includes a volume forecast of 3,902 and delivered volume of 4,236 The RF11 Assurance pack provided by the route includes a volume forecast of 6,413 and delivered volume of 3,258. The latter report may be at region level, but this is unclear. RF11 CP6 Renewals Data Book (ORR Final) has a forecast volume of 3,721 for Y1	Single source of truth' needed for actual renewals delivered.
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	#61 #62 #63 #64 #65 #66 #67 #91	In the live BP there are 9 schemes that are marked as 'Deferred Renewals undertaken' however all are shown to have budget / expenditure in Y1. One is also marked as a 'new' scheme. Other than 'Change Driver' there is no clear classification of deferred schemes in the change log and it was not possible to link these to the base/live BP.		What does 'Deferred Renewals undertaken' mean? How can scheme changes be easily identified through classification (e.g. defer, cancel, etc.), in the change log? How can entries in the change log be linked to the base/live BP? None of the BP ID match. How many schemes were actually deferred in total from Y1 to a future year? Seems 10 on 'Key variances"?	Deferred Renewals undertaken refers to projects that have been deferred and reviewed as part of the Deferred Renewals Register process to ensure mitigations, where required are implemented to address any safety risk arising from the deferral. Please note that the comment was made at a particular moment in time and the status will change through the project cycle, as Deferred Renewals are being reviewed as and when required. As part of updating the deferred renewals register, the reason which resulted in the project being deferred needs to be clearly identified. However, there is no common factors such as work job cancelled or lack of suitable possessions, etc. that we can select to identify the primary reason for the deferral. The BP was populated before the start of the control period. Since then the plan has been transferred into a share drive so that it can be used and managed by the PfMo team. As a result of the transfer, all BP ID has been updated. Unfortunately, the original BP has not be updated with the correct BP ID. There are 10 deferred schemes as per the 'key variances' document. Some of these schemes can be linked to the change log and others not. This is because the latest / current version of the log was provided and not every single line with all the changes	A9	4	Deferred renewals (from Y1 into a future year) can be identified / traced in the live BP, the change log, and the Deferred Renewals register. A summary of the key variances was provided, which lists 10 deferred schemes. Many of these were identified in the Deferred Renewals register, subsequently provided, with additional information on their risk assessment and mitigated risks.	
10	A Workbank Changes	A10	How were deferred schemes justified?	#61 #62 #63 #64 #65 #66 #67 #91	There is a well documented and clear change process within SE. It seems that some of the outputs from this process - checking, approval, justification - are captured in the change log provided. The change log includes justification items/columns but it is difficult to identify specific schemes that were deferred and follow through their justification and from that what happened to them as they move on to the BP / Work bank or scheduled for future years.		Please indicate which specific schemes listed in the change log were deferred (i.e. needed to be moved from Y1 in the base BP to a future year), if any. Select one or two example schemes that were deferred and explore / understand the change, its justification and how these then move on to be included in the BP / Work bank Selsdon appears to be a swapped scheme. Where is the justification documented? These two example schemes appear on the 'Key variances' but not in the 'SE Change Control History'. Are these logs mutually exclusive?	The key project that was deferred to Y2 is Selsdon Road underbridge and this was due to the fact that additional design needed to be undertaken to allow new abutments to be provided as part of the project. The abutments were not originally envisaged and the need to undertake SI/borehole etch to enable the foundation to be designed has delayed the overall programme. Woldingham Viaduct was originally selected for delivery in Y1 as It was envisaged that general brickwork repairs will require limited design before the project is tendered. Unfortunately, conflict with urgent gas work by Southern Gas Network resulted traffic management conflict in the vicinity of the bridge. This has resulted in the work being delayed to Nov. 2019. Exceptional; wet weather couple with lack of mortar between some of the brickwork also resulted in the work being put on hold until May 2020. The cumulative delays have resulted in significant programme slippage and cost escalation. Key variance provided by the route for clarity, developed as part of this review. Change log is a live document that forms part of the change control process; the extract provided may not include the entire change history. Route is currently transitioning to shared document/system covering all asset types.	A10	3	Scheme deferral is subject to a well established change process including the relevant justification and approvals through appropriate channels There are at least two documents for recording changes and their associated justification - (i) change control history and (ii) deferred renewals register but these appear to be somewhat misaligned. Also to help identify deferrals, the route provided a 'key variances' summary document. Taking the example of the Woldingham Viaduct, this is included, with justification, in the deferred renewals register and the key variances document but does not appear in the extracted Change Control History	Consider updating / consolidating sources of information relating to change to support ease of traceability of changes and associated justification
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	#61 #62 #63 #64 #65 #66 #67	Other than 'Change Driver' there is no clear classification of cancelled schemes and it was not possible to link these to the base/live BP.		How can scheme changes be easily identified through classification (e.g. defer, cancel, etc.), in the change log? How can entries in the change log be linked to the base/live BP? None of the BP ID match. Could not identify any cancelled schemes from the documentation provided. How many schemes, if any, were cancelled all together from Y1 and not included in future years?	See explanation above. The BP ID on the Change Log links back to the live BP in the Share drive - see extract from the live CP6 business plan. There were no cancelled schemes from Y1. Some from Y2 and Y3 were taken out, e.g. Cold Harbour Lane Underbridge Replacement North, Shakespeare Underbridge Replacement. These were taken out after we started the CP. New assessment (level 2) confirmed strength not an issue / RA rating passed.	A11	4	There were no cancelled schemes from Y1 and a small number cancelled from future years as considered that they were no longer required	
12	A Workbank Changes	A12	How were cancelled schemes justified?	#61 #62 #63 #64 #65 #66 #67	There is a well documented and clear change process within SE. It seems that some of the outputs from this process - checking, approval, justification are captured in the change log provided The change log includes justification items/columns but it is difficult to identify specific schemes that were cancelled and follow through their justification and from that their removal from the BP / Work bank.		Please indicate which specific schemes listed in the change log were cancelled (i.e. needed to be removed from Y1), if any. Select one or two example schemes that were cancelled and explore / understand the change and its justification Which schemes, if any, were cancelled all together from Y1 and where is the justification documented?	The two Y2/Y3 schemes mentioned above were not found in the Change Control History extract but the live BP includes a note to indicate that the schemes were removed due to the reassessment stating that they are no longer needed. LA SPEZIA RESTAURANT (line 1064 in change log) was initially included in Y1 of CP6 but was delivered in CP5 so was taken out as it no longer need to be completed in CP6. Similarly Birdhurst Footbridge (lines 1066 and 1067 in the change log). The justification for this is recorded in the change log.	A12	3	There is a well established change process including the relevant justification and approvals through appropriate channels. For cancelled schemes there is evidence that the justification is recorded in either of two separate documents (live BP or the Change Control History). This may be due to a time lag in updating the Change Control History or the way in the report was extracted.	Examine consistency in recording the change justification for cancelled schemes

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13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	#61 #62 #63 #64 #65 #66 #67	Other than 'Change Driver' there is no clear classification of swapped / accelerated schemes and it was not possible to link these to the base/live BP.		How can scheme changes be easily identified through classification (e.g. defer, cancel, etc.), in the change log? Apart from Selsdon Road where there any other schemes swapped? if yes, how many? Based on the 'Key variances' there are 2 Footbridge schemes that were accelerated, Mount Pleasant Footbridge and Cobham Footbridge due to efficient delivery. Have any other schemes been accelerated? How many?	Also see comments above. Selsdon Road was the only scheme swapped. There was only two other accelerated schemes, as highlighted in the key variances document. Cobham Footbridge and Mount Pleasant Footbridge, benefited from early completion of development which has enabled these projects to be delivered in Y1.	A13	4	Selsdon Road was the only scheme swapped. Two accelerated schemes are listed in the key variances document and can be identified / traced in the base and live BP.	
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	#61 #62 #63 #64 #65 #66 #67	There is a well documented and clear change process within SE. It seems that some of the outputs from this process - checking, approval, justification are captured in the change log provided The change log includes justification items/columns but it is difficult to identify specific schemes that were swapped / accelerated and follow through their justification and from that their forward treatment in the BP / Work bank.		Please indicate which specific schemes listed in the change log were swapped / accelerated (i.e. from/to Y1 in the base BP to a future year), if any. Select one or two example schemes that were swapped / accelerated and explore / understand the change, justification and how these then move on to be included in the BP / Work bank in different years than initially planned This question is more about the justification process and where the results of it are documented. One of the examples provided (LA SPEZIA RESTAURANT) was found in the Change Control History document.	The CP6 BP was agreed in in Year 5 of CP5. Subsequently, some of the CP6 projects in Year 1 were accelerated to take advantage of additional budget that was made available from other routes. Consequently, there projects were removed from the final CP6 BP. Examples of these include refurbishment of AARDVARK STAFF AGENCY and LA SPEZIA RESTAURANT underbridges, refurbishment of Plumpton Racecourse footbridge.	A14	3	There is a well established change process including the relevant justification and approvals through appropriate channels. For swapped / accelerated schemes there is evidence that the justification is recorded in the key variances document but not all of them were found in the Change Control History extract.	Examine consistency in recording the change justification for swapped / accelerated schemes
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	#65 #66 #79	the baseline BP/work bank is dated 02 April 2019 the current work bank is dated 20 Sept 2020		Was the baseline BP/work bank dated 02 April 2019 the agreed work bank? What does the tab named 'Base Work bank SBP Jan' represents?	The 2nd April version is the agreed plan at the start of CP6. The SBP Jan represents the plan that made up the budget that was agreed with the Centre. It included an additional budget of £20m for work on underbridges between London Bridge and Charing X Station to improve sustainability. The 2nd April Plan identifies the Various structures that are to be addressed under the £20m budget as well as other agreed changes.	A15	3	The Delivery Plan provided by ORR (Apr 2019) shows a post efficient Structures forecast for Y1 £35.6m, and total Vol. 3,721 These values are different to those contained in the baseline plan provided by the SE route (Apr 2019) which shows a post efficient Structures forecast for Y1 £32.3m, and total Vol. 5,531	Anticipated that the parties would have an agreed baseline plan at a point in time that has the same cost / volume values Also see opportunity in A8 above
16	A Workbank Changes	A16	What, if anything, was included in the year 1 plan as items deferred or which had fallen out of the previous year's plan?	#65 #66 #67	Could only identify one scheme in the change log that was deferred to Y1 of CP6, previously on Y5 of CP5 - LSEST065898. However, this ID (and scheme name) does not appear in the live BP In the live BP there are 11 lines marked as 'Deferred from CP5' with delivery indicated in Y1. Unclear how these were captured through the change process, onto the change log and then the BP. Difficult to link without unique IDs.		Please confirm/explain how CP5 deferrals are approved / justified.	For instance we had Christ Hospital Subway was in CP 5 but slipped into CP6 because of high winds. Deferring the possession. Littlehampton Station was in our CAM submission but we didn't get the funding for the additional money in for years 3, 4 and 5 of CP5. Therefore it slipped into this control period. CP5 deferrals were reviewed and approved by the Change Board as part of the agreed Change process.	A16	3	Two schemes were indicated as deferred from CP5 into Y1 of CP6. Neither is found in the live BP but accept that CP5 deferrals were reviewed and approved by the Change Board as part of the agreed change process. Expect these schemes would have formed part of the agreed baseline plan.	
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	#7 #65 #66 #67 #91	Could not identify consideration of impact/risk and its quantification, including sustainability, performance or safety in the documentation provided, due to undertaking and/or not undertaking interventions		Check if there is a risk/impact quantification mechanism for undertaking, not undertaking interventions Is the corporate risk assessment or equivalent used in any way to quantify these impacts?	Projects included in the final CP6 plan were reviewed with the Structures RAM as well as the Senior Asset Engineers responsible for the Kent and Sussex routes. Whether the work should be included was based on safety as well as performance risk. The CP6 Structures' Policy was also used to determine the projects that should be included within the constrained work bank. Unfortunately, these meetings were not recorded apart from the BP being updated to reflect changes that have been agreed at these meetings. The corporate risk matrix is used to quantify risk and mitigated risk and recorded in the deferred renewals register. This includes all asset types and is used to record risk assessments. for each item the primary impact is captured covering: Asset Management, Finance, Performance, Reputation and Safety.	B1	4	Engineering review was conducted to identify schemes that should be included in the CP6 BP based on safety and performance. The structures policy was also referred to identify schemes that should be included. The corporate risk matrix is used to quantify risk in the deferred renewals register covering primary impact such as: Asset Management, Finance, Performance, Reputation and Safety. This is in accordance with NR/L2/HAM/02201 ISSUE 5 - Management of Risk Arising from Deferred Renewals.	
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	#65 #66 #67 #91			as above	The impact on sustainability when a decision is made as to whether a job should or should not go ahead is considered but not documented. Sustainability is particular acute when considering metallic underbridges as the majority of the stock in the SE is over 100 years old. A lack of investment over time has resulted in the condition of metallic overbridges deteriorated to a poor condition and this often required urgent repairs to ensure they remain in an acceptable condition and RA rating of the line is not affected, as this will result in significant train disruption. This was recognised when the final CP6 determination was made when an extra £20m was included to improve underbridge sustainability between Charing Cross and London Bridge.	B2	4	With the exception of major structures, sustainability activities (including preventative works) are Level 3 in the structures policy and hence typically of lower priority. The route is applying the policy appropriately in this respect but recognise that this has the potential and does lead to underinvestment. The live BP has 23 sustainability schemes in CP6, 7 of which are in Y1.	
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	#65 #66 #67 #91			as above	Risks associated with safety and performance as well as sustainability are considered when the work bank is put together and when a decision is made as to whether a project should or should not be deferred. A good example of this is the deferral of Creek River underbridge which was originally planned to be delivered in May this year. However, the additional restrictions resulted from COVID resulted in the project having to be deferred as the contractor needed longer possessions to enable the proposed work to be carried out. The deferral of this project would have resulted in a TSR being imposed to protect this structure from a safety point of view but we decided to undertake interim repairs to the structure in order to avoid the TSR and potential impact it would have on train performance. Safety of the line will always be considered first and the work planned accordingly.	B3	4	Risks associated with safety and performance as well as sustainability are considered when the work bank is developed and when a decision is made as to whether a project should or should not be deferred. The corporate risk matrix is used to quantify risk in the deferred renewals register covering primary impact such as: Asset Management, Finance, Performance, Reputation and Safety.	
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	#65 #66 #67 #91			as above	See above.	B4	4	as above	

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21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]	#61 #62 #63 #64 #65 #66 #67 #91	There is a well documented and clear change process within SE. It seems that some of the outputs from this process - checking, approval, justification are captured in the change log provided. However, the records, in the documents provided are not fully aligned to be able to follow the thread through the trail from instigation of change, to approval, to change log record and eventually BP amendment.		could try to clarify trail through a specific scheme if not covered in preceding discussion	Luton Arch Underbridge is an example of a Year 1 project being deferred to Year 2 due to delays in completing the development work. The project has suffered further delays in Year 2 due to COVID restrictions which resulted in planned traffic management being refused by the local authority.	C1	4	There is a well established change process including the relevant justification and approvals through appropriate channels. There are multiple documents recording change and justification / impact, including the Change Control History, the key variances, the deferred renewals register and the live BP. These are not always aligned, may be due to a time lag in updating or they way in the data was extracted. In the case of Luton Arch used as an example all records were consistent. Previous opportunities were suggested for examining the consistency in recording changes / justification	
22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]	#1 #61 #62 #63 #64 #65 #66 #67 #91	Currently this does not appear to be consistent. SE route change documentation is different to what was provided for Wessex route, for example, although there are some similarities in the authorisation matrix hierarchy.		What is SE route view in terms of change control process consistency? Is there any knowledge sharing of good practice or a plan to move to a single process in the Southern Region?	Not surprisingly there are two different systems in SE route and Wessex but the region is currently considering bringing them together. This is beyond structures, across all assets.	C2	2	There are two different approaches / systems in the Southern region for change control	Consider moving to a single change control process / system within the Region
23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	#1 #61 #62 #63 #64 #65 #66 #67 #91	It is unclear how the asset policy has been applied in tracking progress against the work banks 84% of the expenditure in Y1 (2019/20) is shown against items stated to be 'policy compliant'. This covers 63 lines/schemes in Y1. Overall there are 235 items stated to be compliant out of a total of 390 in CP6. Policy targets are included in columns CT - DG of the business plan. The highest count is against 'No. PLBEs that will be lifted above BSL' (112) the majority of which is against 'Underbridges' (70)		What does it mean if a work item has/has not been stated to be policy compliant? How has this indicator been selected? How are the policy targets used when tracking progress against the work bank?	The column was used purely to record whether or not inclusion of the job in the initial plan comply with policy or not. The policy targets were use to determine whether a project should or should not be included in the final plan but it is not used to track progress against the work bank. The process to manage that is the deferred renewals register. This is not to say changes will always be policy compliant but we will risk assess it and take the measures necessary. Arguably Seldon and Sanderstead are not compliant with NR/L2/CIV/035 - Management of Structures but remain compliant to policy. Moving a scheme for a year doesn't have an impact on policy compliance. This example scheme could not be delivered in Y1 so timing had to be changed and consequences managed through the deferred renewals register. Cold Harbour Lane - was cancelled as it is not necessary to strengthen a bridge that does not require strengthening. This is policy compliant. Reviewed as part of a normal assessment review. Most of descoping reductions are due to better structural assessments performed, which is policy compliant.	C3	4	Each change in a scheme (e.g. timing or scope) is considered on a scheme by scheme basis in terms of compliance both with standards and with policy. Changes are risk assessed for impact on: Asset Management, Finance, Performance, Reputation and Safety and recorded in the deferred renewals register.	
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	#61 #62 #63 #64 #65 #66 #67 #91	There is a well documented and clear change process within SE. It seems that some of the outputs from this process - checking, approval, justification are captured in the change log provided. However, the records, in the documents provided are not fully aligned to be able to follow the thread through the trail from instigation of change, to approval, to change log record and eventually BP amendment			See example of Change associated with Work at Woldingham Viaduct. This project was originally down for completion in Year 1 but agreement of traffic management with the local council coupled with exception wet condition and additional brickwork defects have resulted in the work being delayed to year 2. The project has now been substantially completed - see BPIP LSEST061993 on Structures' deferral summary.	C4	2	There is a well established change process including the relevant justification and approvals through appropriate channels within the SE route. The key shortcoming is that there are two different approaches / systems in the Southern region for change control.	Consider moving to a single change control process / system
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.				ask route representative to explain / provide their view	As far as I am aware, there has been no project being affected as a result of devolution.	C5	4	No indication identified of a cross-route impact as a result of devolution	
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	#61 #62 #63 #64 #65 #66 #67	Not able to determine how volumes of work were identified and costed, though these do exist as input values in the baseline and live work bank provided		Please explain how have volumes of work been identified and costed	The volume of work on a particular project is assessed in line with the Cost and Volume handbook which provides guidelines as to how volume should be measured. Depending on the work scope of a project can deliver a multitude of volumes. For general underbridge refurbishment jobs, underbridge Preventative and Repairs volumes are normally delivered. On a bridge reconstruction job, underbridge Replace volume will be delivered. The budget associated with the various KVL that make up a project is determined using historical rates / average unit rates from the centre as well as estimates from estimators. Ideally unit rates would be provided by the centre that every region could apply, but this did not happen. SE route looked at historical rates of similar jobs that were previously delivered, used estimates provided by out delivery partners, and standard unit rates we have from other areas to try to build the base BP. We cannot use unit rates in isolation as the unit rates give standard work costs but we include for additional factors, e.g. possessions, access, etc. The delivery partner estimator reviewed the delivery plan to make sure we are in agreement. Unit rates are the biggest issue for structures. For CP5 CAM submissions, we were unsuccessful in securing additional funds for Y3-5 due to NR's low confidence in the unit rates. CP6 planning had similar shortcomings, i.e. no reliable national unit rates. For example the national unit rate for standard overbridge reconstruction (£220k-£250k) was considerably low. We have a library of cost from previous jobs that we were able to refer to and we had discussions with IP and verified what we put forward. Did analysis with a mixture of project costs, some historic and some taking a view to develop rates that were more representative to the route and its specific projects. Rates were shared with the centre but they were endorsed locally, not centrally. The centre had no objections. The rates also need to take into account the procurement route (this had an impact on us) and the market conditions at the time.	D1	3	The route identified volumes based on the Cost and Volume handbook which provides guidelines as to how volume should be measured. The route makes significant strides in developing unit rates that are relevant to the route and the specific / bespoke structures projects. These unit rates are derived from a mixture of project costs, some historic and some taking a view based on experience. Rates developed were shared with the centre; there was no objection but no endorsement either centrally. Unlikely that national unit rates will become available but may benefit from a structured approach across the regions in determining unit rates to ensure consistency.	Unlikely that national unit rates will become available but need a better way of determining unit rates to ensure consistency of approach across regions. Consider possibility of sharing unit rate libraries across the regions to expand coverage of rates. Consider splitting out of unit rate cost components that may also be beneficial, e.g. works separate to add-ons like access, traffic management, preliminaries, project management, etc.

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27	D Costs	D2	To what extent can the delta be identified between estimated vs actual renewal cost be identified via analytical methods?	#61 #62 #63 #64 #65 #66 #67	The delta (for Y1 only) was calculated between the base and live BP. Out of 390 items in the BP 107 have expenditure in Y1; of these 58 have an indicated change when determining deltas. The percentage range of cost reduction is 7%-100% and the percentage range of cost increase is 10% - 1961%. The tables below suggest a £2.8m reduction of actual cost in Y1 compared to the estimated cost. It was not possible to connect the entries of the change log to the base/live BP. The BP IDs in the change log do not appear to be contained in the base/live BP.			2000% increase relates to a project (Sanderstead Road) that was brought forward from Y2 to Y1. Swapped with Selsdon underbridge project, to avoid cancelling the possession, as projects were close to each other. The afc for the reconstruction of Sanderstead Road underbridge in Year 1 has increased from £1.813m (Post eff) or £2.003m (pre-efficiency) to £3.100m, increase of £1.287m or 71% of the original BP budget. This has partly been caused by the work having to be carried out over Christmas to minimise train disruption on the Victoria to Brighton Line. Cost increases have also resulted in the work being undertaken in 2x52hrs possession instead of a single 52hrs to ensure two lines are kept opened at all time. Furthermore, quotations for key components of the work such as p way and bridge deck fabrication were also much higher than CP5 prices of similar work.	D2	3	It is possible to calculate the delta between estimated vs actual renewal cost via analytical methods. Note, this analysis was carried out using the information provided by the route only. No central cost report was provided for Y1. The delta for individual schemes varies significantly, beyond +/- 5%. In some instances this is due to the timing (festive season) and the type of possession adopted to deliver work in a way that minimises disruption. Also prices/quotations for key work components have increased in CP6 compared to similar work in CP5. Overall there is a £2.8m reduction of actual cost in Y1 compared to the estimated cost. This is equivalent to 8.8%.	Consider investigating if/how increased cost certainty can be achieved
28	D Costs	D3	To what extent does the estimated renewals cost for year 1 differs from the actual renewals cost for the same period?	#61 #62 #63 #64 #65 #66 #67	Calculated as below but unsure if budget means actuals in Live BP	8.83%	confirm with route representative what the actuals are	Also see comments to D6 below. The final afc on a project is directly affected by the scope of work being carried out on a structure. For year 1, the scope of work on a number of jobs has increased significantly following development and intrusive surveys which concluded defects, in particular corrosion on metallic structures is more extensive than originally anticipated. Unfortunately, in many cases, the true extent of corrosion repairs cannot be determined until access scaffolding is available to allow tactile survey to be carried out and after the structure has been grit blasted back to sound metal. A good example of this problem is Minnis Road underbridge which was originally planned to be repaired and refurbished. Unfortunately, significant corrosion defects were identified below the ballast level during the development phase, and this has necessitated the intervention being changed to reconstruction and the project deferred to Year 2. Changing the intervention from repairs to replaced resulted in circa £1m increase in the project afc.	D3	3	The delta for individual schemes varies significantly, beyond +/- 5%. As mentioned above, there are many reasons for these variances, including change to the type of intervention, i.e. reconstruction rather than repairs necessitated from the results of intrusive investigation. Overall there is a £2.8m reduction of actual cost in Y1 compared to the estimated cost. This is equivalent to 8.8% reduction in the actual spend in Y1 compared to the estimate. Note, this analysis was carried out using the information provided by the route only. No central cost report was provided for Y1. Nevertheless this suggests that the route is managing individual variances such that the overall expenditure remains within the available budget.	as above
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for year 1?	#61 #62 #63 #64 #65 #66 #67	as above		confirm with route representative what the actuals are if above costs are correct, what is the impact of cost reduction to the work volume delivered? Note: many items in the BP have costs but not volume. What is the process for monitoring / reporting expenditure? Frequency?	The actual cost of jobs in Y1 exceeding the agreed budget has little impact on the rest of the projects in the BP, for now, as a level of over planning is necessary in the control period to ensure the agreed budget is delivered. However, the level of over budget will be monitored, as part of the RF process and projects or expenditure on other Minor Work programmes may need to be deferred or reduced in order to make sure we don't overspend at the end of the Control period. We report year end volumes and year end volume forecast, quarterly, RF4 and RF8. There is real time reporting via Oracle - includes expected volume that you are going to claim. When we do an RF review, we are asked to comment on the base line volume that we agreed at the start of the year against what we are currently forecasting. Discrepancies are required to be explained.	D4	4	The route takes the necessary actions to manage individual schemes and adjusts activities accordingly to ensure that the available budget is not exceeded in year and across the CP.	
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	#65 #66 #79 #92 #94 #95 #96	currently seems high, most variances are significantly beyond +/- 5%; but not sure about the validity of the data provided		please comment on the volume difference 5,532 vs 1,849	As a result of some of the jobs we deferred to Y2 from Y1. For example there was Repair at that time that we drop from 2,761 to 880 that was down to the deferral of Woldingham Viaduct, which has a volume of 450 and also a volume of 800 that related to Ouse Valley viaduct. Some of the other volumes that we have claimed as a result of urgent repairs plus minor works that exceeded the £50k trigger threshold are not shown here. We only claim volume for minor works if the work cost is over £50k. this is not reflected in the analysis above	D5	1	The delivered volume (1,849) held in the live BP at route level differs to that in the end of Y1 assurance report, which includes a volume forecast of 3,902 and delivered volume of 4,236 The RF11 Assurance pack provided by the route includes a volume forecast of 6,413 and delivered volume of 3,258. The latter report may be at region level, but this is unclear. RF11 CP6 Renewals Data Book (ORR Final) has a forecast volume of 3,721 for Y1	Single source of truth' needed for actual renewals delivered.
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	#61 #62 #63 #64 #65 #66 #67	The delta (for Y1 only) was calculated between the base and live BP. Out of 390 items in the BP 107 have expenditure in Y1; of these 58 have an indicated change when determining deltas. The percentage range of cost reduction is 7%-100% and the percentage range of cost increase is 10% - 1961%. These deltas we calculated based on cost changes in year 1 but it was not possible to connect the entries of the change log to the base/live BP. The BP IDs in the change log do not appear to be contained in the base/live BP. As such it is difficult to track the causes of variances. Also many entries have costs but no volumes.		LSEST02674 has the biggest variation, please can we explore reasons for this as an example?	The actual cost on most of the Y1 jobs exceeded the agreed budget by more than +/- 5%. This is not surprising as budgets in the BP was put together well before a detailed scope of work required has been put together. In many cases, the scope of work can only be determined after a development phase has been carried out and in some cases, this has resulted in the original scope or the quantum of work required being changed, even though the overall volume delivered is not increased. A good example of this is the work at Woldingham Viaduct. The brickwork repairs were much more significant than originally envisaged. In some cases, several layers of defective bricks had to be cut out and replaced which increased the cost of the work significantly. Unfortunately, this has no bearing on the overall volume delivered as it is measured on the plan area of the viaduct only and not by the quantity of brickwork repairs carried out	D6	4	There are many reasons for these variances including: - work timing (e.g. carrying out work over Christmas) or using alternative patterns of possessions to minimise disruption but at increased cost - prices/quotations for key work components having increased in CP6 compared to similar work done in CP5 - changes to the type of intervention, i.e. reconstruction rather than repairs necessitated from the results of further more intrusive investigation - BP developed while many schemes were at early GRIP stages, i.e. prior to developing a full / detailed work scope or quantum of work	
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these factored into the selection equation, e.g. TSRs as a result of the change in plans.				ask route representative to explain the process	Projects are planned to minimise potential operational impact such as the need for a TSR to be in place until a bridge is replaced or strengthened. In the event of a project being deferred the deferred renewals process captures the need for interim measures to ensure safety of the line is not compromised. In some cases, this will require TSR or load restrictions being imposed until the work is carried out. In some cases, this has resulted in interim repairs being implemented to ensure the RA rating of the line is not reduced. For example, Creek River Bridge - BPID LSEST061870 was planned to be replaced in May 2020. The work was deferred due to COVID restrictions and this resulted in interim repairs being carried out prior to the bridge being replaced in Year 3 - subject to COVID restrictions being reduced.	D7	4	Projects are planned to minimise potential operational impact. Deferred projects are subject to the risk assessment in the deferred renewals process where relevant mitigation measures are identified and applied, as needed.	

Live BP

CP6 Work Type	Sum of 2019/20 Budget £K Post-Efficient Profile (Capex)	Sum of 2019/20 Volume Post-Efficient Profile (Capex)
Footbridge	£19	0
Hazard Management	£550	0
Major Works	£715	0
Minor work	£0	0
Minor Work	£93	0
Minor Works	£9,030	0
Minor Works	£1,350	0
Not Applicable	£800	0
Preventative	£2,112	458
Preventative	£248	133
Repair	£2,366	880
Repairs	£0	0
Replace	£5,623	181
Replace	£1,668	0
Replace Repair	£0	0
Strengthen	£1,499	133
Structures Devegetation	£3,300	0
Waterproofing	£45	64
(blank)		
Grand Total	£29,418	1,849

Base BP

Row Labels	Sum of 2019/20 Budget £K Post-Efficient Profile (Capex)	Sum of 2019/20 Volume Post-Efficient Profile (Capex)
Footbridge	£50	
Hazard Management	£1,100	0
Major Works	£1,000	
Minor work	£0	
Minor Work	£250	
Minor Works	£8,830	0
Minor Works	£1,350	0
Not Applicable	£800	0
Preventative	£4,103	2,399
Preventative	£1,396	
Repair	£3,727	2,761
Repairs	£0	
Replace	£4,992	102
Replace	£500	0
Replace Repair		
Strengthen	£775	205
Structures Devegetation	£3,300	0
Waterproofing	£94	64
(blank)		
Grand Total	£32,266	5,531

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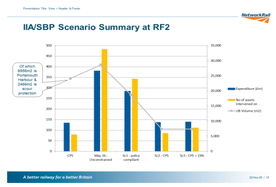
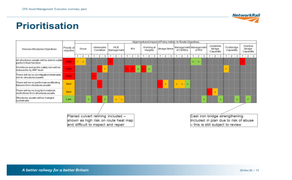
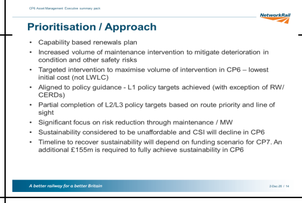
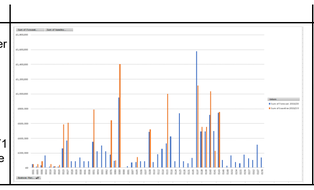
	Topic	Ref	Question	Doc. Ref.	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	South East Assessment (16 Nov 2020)	Evidence Assessment Summary	Opportunity for Network Rail
33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	#93	cannot identify completed schemes		ask route representative to explain how to identify completed schemes and explain how outcomes are assessed How many of the Y1 schemes completed have met their outcomes? All of them? Please provide a Form 1 example for a scheme that improved the load carrying capacity of a structure.	Form 1 which details the scope of work to be carried out on a project is prepared and signed off by the Structures' RAM for all renewal projects being delivered in CP6. Contracts are awarded to contractors based on the agreed Form 1 and completion of the work in line with the Form 1 delivers the agreed outcome, whether this is to improve the overall condition of the bridge and the BCMI score or improving the load carrying capacity of the structure. All the jobs we delivered in Y1 have met their outcomes. Most of the outcomes we expect are detailed and agreed on Form 1, which is a formal document we use to agree the scope of work. The signed Form 1 is then issued to our delivery partner who then tender the work based on the Form 1. The project team ensures that the work delivered is in accordance with the content of Form 1. RA ratings are re-checked for strengthening jobs once work is completed; for refurbishment jobs is less precise; we check that condition has improved as a result of the work.	E1	2	The route believes that all projects completed in Y1 have met their outcomes. Form 1 is used to agree the scope and monitor the work in accordance with the scope and perhaps anticipated outcomes there in. Could not see clear objectives/outcomes in the example Form 1, scope was clear. Although the consequence of doing work is normally improved carrying capacity and/or improved BCMI scores, usually these are calculated following the work; no other record was provided clearly stating that a specific project has met its stated outcomes. At the feedback session the route also suggested that the assessment database holds capacity information and completed projects follow through with H&S file and hand back documentation that allows restrictions to be lifted.	Suggest introduce specific data / record to provide a clear statement of anticipated outcomes and a layer of confirmation for outcomes met / not met. This should be able to be easily accessed.
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]				ask route representative to explain the process	Although lessons learned is a deliverable of the GRIP process, lessons learned has only been carried out on a limited number of projects. The use of a Framework contractor to undertake Structures' renewal projects for the entire control period means that any lessons learned are captured by the same team that are responsible for delivering the work bank, aided by the same NR project management team that are managing the Framework. It is recognised that more formal lessons learned should be carried out to ensure all key lessons are captured and shared among other routes as well as other aspects such as difficulties in gaining access across third party land on some projects.	E2	1	Though a process exists via GRIP requirements there seems to be limited application of the process for systematically capturing of lessons learned. No mention of a hand back process.	Ensure formal lessons learned are systematically captured, recorded and shared both between regions and amongst asset classes. For example, this could be part of an existing hand back process.

#16354 - Review the progress of structures year one work bank delivery

Review and Findings | Southern Region | Wessex Route

Return to All Regions Ratings

	Topic	Ref	Question	Doc. Ref.	Evidence form Documents		Queries	Evidence form Regional Stakeholders	Ref	Wessex Assessment (25 Nov 2020)	Evidence Assessment Summary	Opportunity for Network Rail
1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	68 69 74	The baseline work bank has a different layout to live work bank; as new BP template was issued for CP6 early on in the control period within Wessex so the columns in particular don't match. The initial process was to assess the need of the network form an unconstrained position based on the requires from route engineers managing the assets that would ensure that the all objectives were met. This was then compared against a scenario were all policy levels were acted upon (policy compliant) the to CP5 SOFA and CP5 SOFA +15% scenarios. This demonstrated the Expenditure, Volume and Assets Intervened On Compared against CP5.			At the workshop the route described how the workbank had been built based on a capability driven approach to deliver the objectives the route had set itself at the end of CP5 and policy guidance from the Centre. A line of sight activity was undertaken to ensure that the objectives for structures were aligned across the route. The route provided additional documents to outline the process they developed to move from the unconstrained position to the business plan. The capability approach looked at understanding the strengths and weakness of assets to determine needs and intervention. With maintain volume being increased to mitigate deterioration in condition and other safety risks. Projects are based on a lowest initial cost not a lowest whole life cost.	A1	4	The workbank has been developed using an asset related capability approach. The route have defined this as maintaining the network to meet performance standards and the route's ability to undertake this. The process is documented in the assurance report provided which steps through how the workbank was developed and how policy was applied.	
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	68 69 74	The baseline work bank includes columns for policy considerations, e.g. Policy Compliant, Comment on Non-compliance with Policy, CP6 Primary Driver, CP6 Secondary Driver, and Policy Targets. In the baseline work bank there is approx. £4m forecast spend not classified as policy compliant The live work bank does not include any references to policy. The live work bank includes only Primary Driver and Secondary Driver. It is unclear if/how these and any other parameters (e.g. risk) were used to identify and prioritise activities The workbank development assurance pack describes how the Regional Objectives and Policy Requirements have been aligned in the development of the workbank. The matrix developed highlights how the goals of the region align to specific asset types and the policy level objectives set by the CP6 standard. The assurance document highlights the spend profile of the workbank against the priority levels to give a breakdown the workbank by policy intervention type.	 	Please explain how the asset policy and associated parameters are used to determine and/or prioritise activities.	The new business plan template is one that is used across the route's different asset groups and so it is not structures specific. This resulted in the policy object columns not being included as these are not applicable to other asset classes. The baseline plan is held now as a point of reference to track any project that enters change control for a policy change to ensure the change in policy criteria is represented. Policy was a very important consideration in the development of the workbank and the alignment of route objectives against these a key component of determining interventions.	A2	4	Policy was considered heavily in the development of the workbank. The baseline and assurance documentation provided clearly outline how the route objectives/schemes were aligned to CP6 Policy. The baseline workbank demonstrates how each structures activity has been associated to a policy standard and the appropriate intervention type. The link between policy and schemes has been lost in the live workbank due to the change to the new universal workbank template. The route maintain an offline copy to ensure robustness.	Maintain the link to policy level and target within the live workbank.
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	68 69 74	Not clear based on the documentation initially provided how the Wessex route decides on intervention types and timings		Please explain how intervention types and timings are selected Is there a national approach that the route adopts?	The capability based plan determined what interventions were required on the network to meet network obligation with the CP. For instance there is a two year requirement to undertake critical scour work once identified. CIV035 standard sets out the timings that are required to the respond to overstressed of the bridges to ensure compliance. Once compliance timings were understood the work plan can be smoothed to ensure the right cost profile, deliverability and to factor in other influence such as possessions. To do this where appropriate (31%) projects with GRIP Stage Three reports were used to determine intervention types and costs/volume for the plan.	A3	4	The route described a robust process to develop the work bank based on the requirements of the network and the route'/s ability to deliver these needs within the funding constraints. Both deliverability of the workbank and compliance to policy/standards were key considerations in the development. This process is implied by the documentation provided but was not fully identifiable without the workshop.	
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	68 69 74	Prioritisation / ranking is not included in the baseline or live BP, so it is unclear how this may be used		Please explain how priorities are assigned/used in developing the work bank	See above Question A3.	A4	4	Volumes are established from the GRIP Stage 3 reports and develop as schemes move along the process. Work has been prioritised based on assets capability approach (network need and deliverability) and compliance to standards and policy.	
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)	68 69 74	The workbank format is different to that used by the South East route but aligns to that used by other Routes/Regions, i.e. Anglia, North West and Central. It appears that the change control process is slightly different as it records deferrals as well as changes and the application of, takes place within the Southern Region (i.e. SE vs Wessex).			The route stated that there are differences between the approaches used at this moment in time to develop the workbank. The strengths of the two processes will be reviewed to develop a new process, as appropriate, which will improve regional planning for CP7.	A5	2	The approach taken by the routes within the region is different but followed the same principles as directed by the TA. Wessex route use a workbank template/format that is consistent with by other routes/regions comparable to other routes/regions approach.	The Business Planning Working Group could become the forum and catalyst for sharing good practice in the approach to consistently developing work banks. In this forum Routes/Regions themselves could collectively consider whether adopting a universal approach if considered more appropriate.
6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?		Other than a summary of expenditure per year, per deliverer, no other dashboards were provided by the Wessex route. Some of these can be drawn based on the baseline and live work bank, however there is no unique reference for each line in the baseline plan making it difficult to link and track each and every activity to the live work bank.		How does the route visually communicate and track progress of planned work? Is there a mechanism for regularly reporting/monitoring progress? If, so by who?	Rolling forecast provides a view of the where the route sits against its programme. This allows for each KVL to be looked at in detail to look at cost/volume against the baselining. The report is produced at a minimum for each significant RF period through the year (4,8,11). The key scored card measure is the Effective Volume measure which is tracked and measure through the Wessex PBR which is run once a period to feed into the regional and national. Numbers are generated directly from Oracle and the commentary is supplied by the RAM.	A6	2	There is a process in place to report effective volume which is reported in a regular manner to feed into the Route and National perspective of the business position at a RF period. No documentation was received that demonstrates workbank composition in a visual manner, and which could readily support the tracking and communication of changes the composition of the workbank.	Consider use of a single reporting dashboard that communicates cost and volume breakdown of the workbank.

7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals (activities/schemes) be identified via analytical methods?	68 69 70	To some extent: In the baseline plan, there are 31 lines / activities with budget against Y1 In the live plan there are 57 lines / activities with forecast against Y1 Of the 57 activities in the live plan 21 activities cannot be linked between the baseline plan and the live plan (i.e. due to unique reference missing). From the cost deltas it appears that at least 15 activities were added to the live plan.	The acceleration of over plan works that have been planned. Combination of development schemes that have been accelerated for year one 2019/20 Budget £K (Multiple Items) Baseline Count of 2019/20 Budget £K: 31 Forecast 2019/20 (Multiple Items) Live Plan Count of Forecast 2019/20: 57	Are forecasts for Y1 in the live plan actuals?	The movement from the old to the new business plan led to the loss of the unique IDs with new OP numbers being used instead that are used within the overall system. Five schemes have been brought in as part of over plan volume contingency. Some lines are monies that have been returned form CP5 as cost were target and not actual, for schemes for additional delivery in CP6 and are recorded as part of the live plan for budgeting. One scheme has been brought in as a result of emergency works (Rocklay Sand Viaduct.) The remaining 9 Schemes are early phase development acceleration on projects that will deliver in later years.	A7	3	Analysis is possible though there were issues with the unique IDs used in the baseline plan and live plan due to the change in system. Project Chainage, Location and Description columns were used to align and compare the two workbanks to allow analysis to be undertaken. There is a difference of +26 projects with spend against them in the live plan compared to the baseline. The additional spending line is as a result of five accelerated schemes as part of over plan and accelerated early development schemes.	When planning the CP7 business plan unique IDs could be better maintained between the baseline and live plan.
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for year 1 differs from the planned renewals workbank for the same period?	68 69 70	In the baseline plan, there are 31 lines / activities with budget against Y1 In the live plan there are 57 lines / activities with forecast against Y1 The 57 Y1 activities in the live plan have project status set as illustrated: Forecast 2019/20 (Multiple Items) Project Status / Count of Business Plan ID: 0: 2 Authorised: 12 Complete: 3 In Development: 11 (blank): 29 Grand Total: 57	The 15 unaccounted for costs are a result of the following Works Projects Included are Minor Works spend that are for specific activities that have been collated together i.e. footbridge. Row Labels / Count of Project Description: CP5 Project Final Accounting Returns: 1 CP5 VS UB Volume: 1 EMSWORTH ROAD: 1 Footbridge deck replacement (19no.) Year 1 NGL 15/1D, 15/1C. Year 2 RDG1 4/4C, 4/7, 3/23C, 3/35B: 1 Hidden shaft remediation (Guildford Chalk, Fisherton Tunnel, Fareham No. 2): 1 Lyne Bridge: 1 MILLER'S POND No 2 (PORTSMOUTH ROAD): 1 New Barn: 1 Overline bridge parapets: 1 Overplan - Chilworth culvert reline: 1 RAM Staff Costs: 1 River Avon litigation: 1 Rockley Sand Viaduct: 1 RVI mitigation (61no. Sites): 1 Underbridge Overplan: 4 Underbridge timber deck replacement: 1 Upper Kennington Lane: 1 Grand Total: 18	Please can you provide the total number of activities completed in Y1? Does this number include the 31 activities from the baseline plan?	Within Oracle a project will be recorded when the total volume has been established along with the associated cost. The population of the project status in the live plan is a manual task. Four or Five schemes have been brought in as part of over plan volume contingency. Some lines are monies that have been returned form CP5 as cost were target and not actual; for schemes for additional delivery in CP6 and are recorded as part of the live plan for budgeting. One scheme has been brought in as a result of emergency works (Rocklay Sand Viaduct.) The remaining 9 Schemes are early phase development acceleration on projects that will deliver in later years.	A8	3	The difference between the baseline and live plan is primarily due to over plan projects being undertaken to utilise additional volume capacity. Minor works programs that were not identified in the baseline work bank are included in the live plan hence the additional programme lines. The evidence shows the adoption of early contractor involvement on schemes to drive efficiencies though early scheme development. The baseline plan forecast is £14.9m and 2395 volume units with the live plan showing £12.8m and 3394 volume units. Volume difference +998.1 and Cost -£2.49m. The Centre C&V Team reported estimated 2941 volume and delivered 3102. There is a discrepancy between the delivered volume reported by the Centre and the Region (292 units)	Ensure alignment between the volume reported by C&V team and shown in the region plan.
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	70	No deferrals were identified There seems to be 5 Schemes that were cancelled (classified as: Deferral – not required or Deferral – funding constraint) in the change log 2 of which in Y1.		Is 'no Y1 deferrals' correct for Wessex? To be confirmed with route representative	As the schemes were cancelled that is no spend forecast in Y1 or other years as they have been removed from the business plan. There were no Y1 deferrals as demonstrated in the documentation.	A9	4	The live workbank accurately reflects the deferrals register. The route has not had to defer any schemes from Y1 to later years in the control period. The 5 schemes that have been cancelled from the program due to Funding Constrains or the Scheme being no longer required.	
10	A Workbank Changes	A10	How were deferred schemes justified?	70	The 2 deferrals (cancellations) form year 1 were originally planned as over plan within the workbank so were not part of the original baseline workbank. These schemes have been cancelled and classified as 'Deferral - Not Required'.		Is 'no Y1 deferrals' correct for Wessex? To be confirmed with route representative	A slide pack was produced for the Periodic Change Panel which articulated movement across the entire route portfolio. For each change commentary is provided to outline why a change is required. This is attended by the RAM.	A10	3	The change log indicates changes and why they occurred though this is provided at a high level with minimal detail in the documentation. For instance, it is not clear from the documentation provided why a scheme is no longer required as in the justification for the two schemes in Y1 that have been cancelled/deferred	A link between the Period Change Panel slide deck commentary and the change log would provide clarity on the justification of scheme changes, where appropriate.
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	70	There are 5 projects that were cancelled (classified as: Deferral – not required or Deferral – funding constraint) in the change log. Two of which are from Year 1 of the workbank. These schemes are classified as either being not required or have been removed from the plan due to funding constraints.		Is '2 no Y1 cancellations' correct for Wessex? To be confirmed with route representative	Not required deferrals are due to further investigation into the structure and the renewals not being required. Funding constraint indicated that work has not been accepted as part of over planning at change control.	A11	4	The documentation provides an accurate description of why schemes have been cancelled from the live workbank. Individual descriptions for specific schemes are provided with generic grouping for cause applied.	
12	A Workbank Changes	A12	How were cancelled schemes justified?	70	Y1 cancelled scheme justification is included in the change log CHANGE SUMMARY / CHANGE JUSTIFICATION: STR-000105 0158 Existing Yes -£100,000 -£ 400,000 Deferral – not required — Overplan not included at RF8 as specified. Reduced to zero in year 1 and £100k allowance in year 2 — 09/01/2019 SAE STR-000177 0158 Existing Yes -£ 150,000 Deferral – funding constraint — Removal of overplan for installation of bridge strike mitigation on high risk bridge strike locations. Not agreed by Route Exec as Y2 overplan at RF4 — 30/09/2020 SAE STR-000106 0159 Existing Yes -£100,000 -£ 400,000 Deferral – not required — Overplan not included at RF8 as specified. Reduced to zero in year 1 and £100k allowance in year 2 — 09/01/2019 Medium SAE STR-000178 0159 Existing Yes -£ 100,000 Deferral – not required — Overplan not agreed at RF4 Y2. reduced to 0 — 30/09/2020 Medium SAE		ask route representative for clarification if there is anything else developed / documented for justification beyond the change log	A slide pack was produced for the Periodic Change Panel which articulated movement across the entire route portfolio. For each change commentary is provided to outline why a change is required. This is attended by the RAM.	A12	3	The change log indicates changes and why they occurred though this is provided at a high level with minimal detail in the documentation. For instance, it is not clear from the documentation provided why a scheme is no longer required as in the justification for the two schemes in Y1 that have been cancelled/deferred	A link between the Period Change Panel slide deck commentary and the change log would provide clarity on the justification of scheme changes, where appropriate.
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	70	There are a number of projects that moved into Y1, 15 projects have undergone accelerated development. Monies have been moved from later years in the control period to undertake early scheme development initiatives, these schemes don't deliver volume in year one. Five Schemes have been introduced to the programme as part of over planning for the Year. The blue bars in the chart indicated those schemes that were added to Y1 and the ones that could not be matched using ID numbers to the baseline workbank.		worth exploring a couple of these projects that are seemingly accelerated in Y1 with a route representative to confirm validity and justification 0028 and 0030 were accelerated and 0149 is a new project	see above question A7	A13	4	The live workbank and the change log complement each other highlighting the acceleration of spend on schemes over Y1. The documentation evidence commentary by the route that they have accelerated early GRIP development of schemes to improve delivery.	

14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	68 69 70	The change log records the justification for acceleration of schemes.		ask route representative for clarification if there is anything else developed / documented for justification beyond the change log	Change control log defines why schemes have been accelerated for future years. For over plan accelerations schemes are weighed up against policy level and if they could be delivered within year with accelerated development. Efficiencies strategy in part aligns with early development of schemes with early engagement with delivery and contractors. In addition to developing a stable workbank which is assisted through this process by ensuing possession dates are maintained.	A14	4	The change log provides justification of scheme accelerations and the desired outcome/goal of undertaking the change. There is no evidence of schemes being swapped between year groups a fact that was confirmed by the Route.	
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	68 69	The date on the file is 2018/19.		ask route representative to confirm if this is the agreed work bank	Difficulty in that the workbank was developed prior to the Wessex route colleagues being in post. The workbank provided is the baseline that the Route use. Following the change control process through is the one that is perceived to have been submitted to the ORR and hence has been supplied for this review. The document is the baseline plan for RF11 (2019) and was used as the baseline for change control.	A15	3	The document is identifiable as the baseline prepared submitted to the ORR with the region stating that it was the baseline provided at RF11 2019. The Baseline cost and volume were £10.34m and 2920 volume units. The baseline provided by the ORR states cost and volume were £16.3m and 2961 volume units. The centre expected volume is 2941. This indicates that there are various versions of baseline work bank held at different levels and by different stakeholders, which can cause both inconsistency and lack of clarity.	Alignment between the Baseline Plan and the Baseline the ORR are expecting to see and what is reported to ORR to ensure one source of truth.
16	A Workbank Changes	A16	What, if anything, was included in the year 1 plan as items deferred or which had fallen out of the previous year's plan?	69 70	three schemes identified as deferred from CP5 0146, 0147 and 0148 total cost in change log and live business plan for these three is -£81,877. 0147 is a Gain share payment of £215k from CP5 works.		ask route representative to confirm 3 schemes is correct. What is a Gain share payment of £215k from CP5 works	0148 Intrusive works on a bridge over the M25 that was unprecedented at the time and resulted in additional spend in the Y1 compared to baseline. 0146 Overline bridge strengthen that required additional access due to complexity of inhalation with the next available access in Y1 CP6. 0147 Target cost was more that delivery cost then 50% of the monies is returned to the route for reinvestment.	A16	4	The change control log highlights the projects that have spilled over from CP5 into CP6. Demonstrates when they were completed and the reasons for the deferral into CP6.	
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	158 160	the change log notes changes to time cost and volume but there is no risk quantification, including sustainability, performance or safety		check if there is a risk quantification mechanism for undertaking, not undertaking interventions	Risk is taken into account as part of the deferred renewals mechanism. Each scheme being deferred is subject to a risk assessment as part of this detailed process. This takes account of the previous evaluations and looks at whether the deferral will change the risk levels identified at that time. The risk is re-scored when deferred. The CRAM matrix is used to align risk across disciplines taking account of a number of criteria. The Region will supply a copy of the deferred renewals process. Also, as part of the CC and RF processes they are required to flag any financial risks.	B1	4	Wessex provided a description of the process used to quantify the risks associated with scheme deferral using the CRAM process. The Deferred Renewals Log and an example of a Deferred Renewal Form demonstrate the use of CRAM scores both before and after mitigation. The Deferred Renewal Log summarises the key CRAM score and the category. The Deferral Form outlines any risks across the CRAM that are associated with the deferral both before and after mitigation or risk.	
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	158 160	the change log notes changes to time cost and volume but there is no risk quantification, including sustainability, performance or safety		as above	Sustainability is a factor in the Corporate Risk Matrix and therefore it would be scored as part of the DR process. As far as sustainability is concerned this is considered at a population level and so the impact of a single deferral would be small in terms of the overall effect on sustainability. In Year 1 more volume was delivered so the likelihood is that there would be a positive effect on sustainability. For acceleration, they would assess the risk of delivery. This would be considered in a different way in the Change Control Log - being categorised as opportunity and the associated level of opportunity. This would be very much more high level than for a deferral because subsequent actions may be generated by that decision.	B2	4	The Wessex Route view that sustainability is only material at the population level is considered to be reasonable. It was also noted that whilst the impact on sustainability had not been quantified for Year 1, the Route had delivered a greater volume during Year 1 than was planned.	Whilst the tracking of the impact on sustainability of delivered schemes would be difficult to measure it is suggested that a Control Period level assessment of the measure could be adopted.
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	158 160	the change log notes changes to time cost and volume but there is no risk quantification, including sustainability, performance or safety		as above	Performance is also a factor in the Corporate Risk Matrix and therefore it would be scored as part of the DR process. For accelerations the risk of delivery is assessed. This would be considered in a different way in the Change Control Log - being categorised as opportunity and the associated level of opportunity. This would be very much more high level than for a deferral because subsequent actions may be generated by that decision.	B3	4	The Route uses the CRAM as a means of assessing the impact of change to the delivery programme with particular emphasis on any deferral. This matrix includes the quantification of the risk associated with performance and safety. Consideration of these factors would also be taken into account in any acceleration of scheme delivery but this would involve a more high level assessment.	
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	158 160	the change log notes changes to time cost and volume but there is no risk quantification, including sustainability, performance or safety		as above	Safety is also a factor in the Corporate Risk Matrix and therefore it would be scored as part of the DR process. For accelerations the risk of delivery is assessed. This would be considered in a different way in the Change Control Log - being categorised as opportunity and the associated level of opportunity. This would be very much more high level than for a deferral because subsequent actions may be generated by that decision.	B4	4	as above	
21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]	70 71 72	There is a documented change process for Wessex. It seems that some of the outputs from this process - checking, approval, justification are captured in the change log provided.		ask route representative to provide any further details on the change process, as appropriate	Walking through the Change Control process: the Senior Route Engineer would prepare a proposal - this will be analysed under the escalation evaluation procedures - if an item crosses the required threshold then it would go to the Change Control panel; this involves the DRAM and takes a global view Region-wide There are further documents available concerning the terms of reference for the Panel, etc. These will be shared.	C1	3	There is clearly a process in place to manage change control. The explanation of the steps through the process highlighted that the Change Control Log describes the variation and the justification for it - but the Log appears to be somewhat superficial and lacking in detail regarding the change although it is noted that the technical justification for the change is recorded in the change proposal.	See A10 and C2 comments

22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]	1 70 71 72	Currently this does not appear to be consistent. SE route change documentation is different to what was provided for Wessex route, for example, although there are some similarities in the authorisation matrix hierarchy.		Is the change documentation provided by Wessex complete? Seems different less comprehensive to that provided by SE route.	There are plans to move to a single Southern Change Control process under the new overall RAM. However, the RAM was only appointed in July and the Route Director in September. Thus it is early days in terms of the formation of the Region. Agreed that there is a need to move to a single change control process for the Region. In terms of cross Region collaboration there is a working group which meets fortnightly where the SRE come together and this topic has been raised. The RASIM in SE has produced a 'whizzy' App to manage Change Control and this may be shared across Regions. The Working Group described will have representation from the Technical Authority but it will be up to the Regions to decide how the process is run. It is recognised that reporting needs to flow up through the central systems to bring together national reporting externally.	C2	2	It was noted that the integration of Wessex Route with the rest of Southern Region is at an early stage. The Change Control process adopted by Wessex is different to that in the rest of the Southern region but it was clear that there is an aspiration to move to a single process, in time. Within the Region at present there is still some lack of consistency. There was evidence of cross-regional dialogue through the national working group where best practice could be shared but the Regions have autonomy in deciding the processes they wish to adopt.	It is suggested that a road map for the integration of processes across Southern Region is drafted.
23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	1 68 69 70 71 72	The majority of the forecast spend in Y1 of the baseline plan is stated to be policy compliant, approximately £10m (including partial). Just over £4m is not classified in this way. There is no mention of policy compliance in the live business plan or the change log provided	**Policy Compliant** / **Sum of 2019/20 Budget £K** Partial £1,257 Proactive replacement of footbridge decking £400 Yes £9,005 (blank) £4,290 **Grand Total £14,952**	ask route representative to explain if this is done outside the live business plan. What is the compliance concerning too, Intervention type or end goal?	There are flags in the baseline but not in the live plan because of the change in the template. Where there is a flag on compliance or partial compliance this means that the activity on the asset is policy compliant. Policy compliance is recorded off-line but is tracked to the delivery of the plan. End of year reporting includes a policy compliance statement.	C3	3	There is evidence that the initial plan takes account of policy but this is not a feature in the live plan. It was noted that policy compliance is tracked outside the plan and reported as a policy compliance statement at year end. The separation of the live plan from policy alignment is considered weakness whereby any focus on compliance may be lost.	It is suggested that the Live Plan includes reference to policy compliance which is updated in line with changes to the plan.
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	1 68 69 70 71 72	TBD once evidence collation is complete Consider rigour compared to the other routes / regions		how involved is the route representative with the end to end change process?	The current change control process works for the structures team. Whereas in Track any change in the length of renewal needs a change control. The fact that Structures is discrete suits more.	C4	2	There was very little evidence shared on this subject other than an assertion that the process works well for the structures team. From earlier evidence it is clear that there is an aspiration that the change control process will need to be aligned with that of the rest of Southern Region and some comments led to the understanding that the current Wessex process will be subsumed by that of the Region.	It is suggested that better alignment is required between the plans and processes across the Region.
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.				ask route representative to explain / provide their view	There have not been any cross-Regional boundary issues in the delivery of the Year 1 plan. However, they noted that there will be a need in Year 4 to undertake collaboration between Regions where they have a particular intersection structure renewal. They also flagged an issue with Year 2 where a TOC was concerned about the impact of disruption in two Regions on one of its services. There was therefore dialogue between the Regions to resolve the issue to the TOC's satisfaction. The forum for the dialogue is through the Long Term Access Planner who liaises with other similar Regional representatives.	C5	4	Whilst it was stated that there had not been any cross Regional boundary issues an account was provided of examples from other years which gave confidence in the approach taken.	
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	1 68 69 70 71 72 73 75	Not able to determine how volumes of work were identified and costed, though these do exist in the baseline and live work bank provided. No unit rates included in either the base line or the live plans.		ask route representative to explain the process	Guidance was shared by the Region in a document on how the prices of schemes were derived. This was an in-depth assessment of the methods used to derive costings based on a priority listing of sources and the associated level of confidence. At year end an assessment is made of the 'fitness' of these costs from the tracking of the annual budget spend.	D1	4	The Route was able to present a detailed assessment of the way in which the forecast costs of the plan items had been built up. This took a view on the best available information to build up the costs across the workbank. The feedback loop at year end was also noted to improve future year costs.	
27	D Costs	D2	To what extent can the delta be identified between estimated vs actual renewal cost be identified via analytical methods?	68 69 70	It is unclear if actuals have been provided Budget and forecast values are indicated in the baseline and live plans, as illustrated. The difference between budget and forecast values is £2.47m Deltas were calculated for the 57 line items / activities in Y1 of the live BP compared to the base line BP. 15 activities appear to be new, totalling to £1.33m 21 activities had a percentage cost change that varied between -72% and 115% 21 activities could not be matched between the base line and the live BP due to missing unique identifiers	Baseline BP **CP6 Key Cost Line** / **Sum of 2019/20 Budget £K** Coastal & Estuarine Defe £50 Culvert £356 Footbridge £1,595 Overbridge £2,560 Overbridge BG3 £0 Retaining Wall £644 Tunnel £1,950 Underbridge £7,797 **Grand Total £14,952** Live BP **KCL** / **Sum of Forecast 2019/20** Struc-C&E Defences (C) £51,000 Struc-Culverts (C) £370,500 Struc-Footbridges (C) £1,128,463 Struc-Overbridges (C) £1,929,730 Struc-Retaining Walls (C) £179,149 Struc-Tunnels (C) £1,145,841 Struc-Underbridges (C) £7,679,414 **Grand Total £12,484,097**	The live work bank contains only forecast values. Are these actuals for Y1?	The Region confirmed that the forecast for 19/20 is the actuals representing the delivery contract values. Based on the figures we shared they agreed that they were the right basis for the assessment. This showed an efficiency of £2m which the route confirmed is correct.	D2	3	It is possible to calculate the delta between forecast and actual renewal costs by analytical means, to some degree. This was undertaken on the basis of the data provided by Wessex - see adjacent tables. This analysis could also be undertaken at KCL level showing where there had been variations in spend on individual asset types. The structure of the plan also supported the analysis of cost changes at individual scheme level. There was however difficulty in undertaking a variation analysis across individual items because of the lack of unique IDs for jobs.	It is suggested that a system of unique identifiers is put in place to facilitate the tracking of items from the original plan to the year end actual results.
28	D Costs	D3	To what extent does the estimated renewals cost for year 1 differs from the actual renewals cost for the same period?	68 69 70	not sure if actuals were provided The difference between budget and forecast values is £2.47m this is equivalent to reduction of 17%	Baseline BP **CP6 Key Cost Line** / **Sum of 2019/20 Volume** Coastal & Estuarine Defences Culvert 75 Footbridge 328 Overbridge 415 Overbridge BG3 0 Retaining Wall 220 Tunnel 900 Underbridge 983 **Grand Total 2,921** Live BP **KCL** / **Sum of Volume 2019/20** Struc-C&E Defences (C) 0 Struc-Culverts (C) 210 Struc-Footbridges (C) 328 Struc-Overbridges (C) 416 Struc-Retaining Walls (C) 220 Struc-Tunnels (C) 900 Struc-Underbridges (C) 1,320 **Grand Total 3,394**	confirm with route representative the driver for this cost reduction	The drivers of the saving came from principally the delivery mechanism which they were growing the capability of in Works Delivery where they worked on a package of three underbridge strengthening and refurbishment items. There was £1.1m saved in these three schemes. This work was undertaken at Christmas in the year so there was little opportunity to bring in new works to use the funding elsewhere. However, the saving was shared with other disciplines within the Route. Noted that £0.5m of over planning schemes were included earlier in the year.	D3	3	Wessex implemented a number of delivery changes and efficiencies which resulted in cost savings during the year. These savings were particularly attributed to the packaging of works delivered through their Works Delivery team. The team were also able to deliver £0.5m of over planning during the year indicating a potential over-estimation of the cost base going into the year. The cost savings have been used across the route's different asset class. The route described how there is on going debate on how best utilise efficiency savings in year. The difference between budget and forecast values is £2.47m this is equivalent to reduction of 17% with an increase in volume of 16%.	See comment in D2 above Could consider the effectiveness of the process of determining the utilisation of efficiency savings.
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for year 1?	68 69 70	Cost reduction by £2.47m (17%), volume increase of 473 (16%)		confirm with route representative their view on the impact of these changes to the business plan	The Plan was considered to have been delivered at the reduced cost. This was communicated to the Region through reporting of efficiency in the rolling forecast and change control processes.	D4	4	The evidence from the analysis of the planned and delivered volumes shows a high degree of correlation with all areas delivering close to plan with the exception of underbridges which exceeded the planned volumes. This analysis supports the view from Wessex that the plan had been delivered. In terms of the overall figures the baseline across RF11, ORR and NR Year report vary by about 1%. In terms of the delivered volumes the variance between Region and Central is less than 10%.	

30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	68 69 70	also see evidence against D2 of the 21 activities that had percentage cost change calculated only were 3 within +/- 5% of the 57 line items/ activities for Y1 in the live BP, 26 have a volume value. There are percentage volume changes that can be calculated in 8 of them with only 2 items having a change greater than -70% and one item at 100%		What projects don't you record volume against? E.g. Under £50k and Major Projects like other regions.	The selection of items that have volumes captured are defined in the Cost and Volumes Handbook. The route tracks the variances in the costs of items being delivery through the opportunities and risk assessment. With a lot of schemes being delivered towards the end of the year this has led to the emerging variances in the costs.	D5	2	The Route confirmed that their identification of volumes associated with items is linked to the rules in the Cost and Volume Handbook. The lack of consistent IDs between the baseline and live plan means that tracking at scheme level to determine +-5% variance is complex. Analysis shows that of the schemes with spend in the baseline there has been reduction in spend in 20 of 23 schemes. There are 15 schemes in the live plan that were part of the baseline that had no spend in the baseline but have been accelerated hence a variance of 100%. It is not possible to fully determine the extent of variances using analytical methods.	As stated maintaining unique IDs between the two plans would allow variance to be better understood and tracked.
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	68 69 70	There are 130 changes recorded in the change log against 70 projects in Y1. Change drivers as illustrated	Forecast Change 2019/20 (Multiple Items) Change Driver / Count of Change Driver Re-Phased - Planned 46 Reduced Cost 20 Accelerated Schedule 15 Re-Phased - Unplanned 10 Over Plan - New Project 10 Released Project Risk 9 Additional Cost 8 Reduced Scope 3 Additional Scope 2 Admin Change 2 Change of Work Type 2 Deferral – not required 2 Change of Deliverer 1 Grand Total 130	confirm with route representative their view on the causes of these changes	The route agreed the analysis. To understand the key items we were advised that *Re-Phased - Planned* covers schemes which span years and reflects where they are in terms of spend, e.g. development accelerated to an earlier year and then as they go through the periods this can shift as the scheme is progressed. Deferrals are not considered as re-phased - planned. The 46 planned changes are representative of pro-active spend decisions by the team. Unplanned is where there has been an external influence to delivery. Re-phasing within the year is not captured it is only where the year of delivery changed.	D6	3	The change control documentation highlights all the changes that have been recorded against a scheme and any justification of that change. Within the workbank it is not always possible to identify changes from the baseline and their causes. By stepping though a structure in the change log it is possible to determine the cause of variances. STR 0062 reports four changes in the control log which outline how the scheme was accelerated from Y2 into Y1 with subsequent change to the spend profile in Y1 due to efficiencies and challenges on target AFC. Justification of variances can be tracked through from the change log into schemes but not through analytical means.	As stated maintaining unique IDs between the two plans would allow variance to be better understood and tracked.
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.				ask route representative to explain the process	There were no examples in Year 1 of changes which impacted on operational performance. It was however noted that the planning of works takes account of the need for TSRs during the works. The route advised that the delivered works in Year 1 allowed the removal of operational restrictions as part of two schemes.	D7	4	The Route confirmed that there had been no operational impacts of changes to the plan. On the contrary the delivery of schemes allowed the removal of two operational restrictions on structures.	
33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	68	could only identify 3 schemes that are identified as completed in Y1 unsure where and how outcomes are captured		ask route representative to explain how to identify completed schemes and explain how outcomes are assessed	There is a formal review undertaken at Route and Regional level. This covers the delivery of volumes, costs efficiencies, restrictions removed, hand back process compliance (all documentation, etc). The formal reporting is done through the Scorecard for the Route covering train accident risk reduction, scour mitigation, etc. Updates of capability improvement would be in the assessment database when the scheme is logged as complete. The resulting hand back documentation (Health and Safety file) would demonstrate any strengthening improvement that have occurred. The Rev is then updated and would result in the lifting of restrictions that were in place. This benefit is primary captured in the Risk Management Process rather than the workbank. The process is documented in the standards which outline how to managed asset capability. Condition marking is undertaken prior to works with works improving condition but this can be subjective depending on the activity. This takes time to come through on records a full cycle of inspection is required to have occurred.	E1	3	For individual schemes reference was made by the Region to the GRIP process as a means of measuring the outcomes from the individual items. The route described how both condition and capability improvements to structures are captured over a project lifecycle. For each scheme the status of the scheme is partially filled out to demonstrate progress this is not a automated column.	There is scope to more clearly record if a scheme has met its desired outcome either condition based or structural improvement
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]				ask route representative to explain the process	This is part of the lessons learned process built into GRIP. Knowledge sharing from previous projects is used to guide the team. In terms of efficiency the team has to present to the Regional management team and key suppliers how they plan to deliver efficiencies going forward. In terms of wider engagement the Renewals Engineers Working Group is the forum between Regions looking at the delivery metrics to see if there are wider lessons to be learnt. The current focus of the group is the planning of CP7.	E2	3	The Route undertakes a formal review of their delivery during the year which feeds into the Regional reporting packs. This covers the delivery of volumes, cost efficiencies and improvements in structure capability. This reporting process provides an opportunity for learning lessons from the previous year. Reference was made to the Working Group which provides an opportunity to share performance between Regions although it was noted that the current focus is on CP7 planning.	It is suggested that a more formal means of sharing effectiveness of each Region be considered to identify best practice and foster wider improvements, as appropriate.

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1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	43 163	The agreed workbank was provided for the route dated November 18 which we understand to have been submitted and approved by the ORR. The work bank outlines predicted volumes and budgets for individual activity across route. There is no information on how this workbank was developed.		What evidence can you provide that outlines the process you used to move from an initial workbank to the final approved workbank you have provided.	The Workbank was developed through a combination of engineering judgment and analysis, policy guidance and regional capability. The driving factor in the generation of the workbank was the regions capability to ensure that the network performed as required and the ability of the region to deliver the work. This was based on the GRIP stage at the time the workbank was develop to ensure that sufficient time was available to understand the need and design the solution. The route used a combination of Optioneering and Engineering judgment to develop scheme types. With the capability approach supported by engineering analysis (understanding of BCMI scores) to priorities was used to develop the business plan to asset in the prioritisation of schemes. No documentation is available that outlines this process.	A1	3	The route describes a pragmatic development process to ensure that the business plan reflects the needs and condition of the network. A capability approach to the development the programme has been applied using sound engineering judgment. The route shared the Structures Workbank Template – Version 5 Guidance Document which outlines the key principles the Technical Authority require to see in the development of the workbank. The region developed their approach based on the principles set forward in the document. The below shows the discrepancies in the cost and volume for the baseline shown in the documentation and the ORR and Central Reporting. Baseline Live Plan - Cost £36.9 Volume 5,788 ORR Expected - Cost £29.5 Volume 6,254 Centre Report Budget Volume 4,961	Development of a process map/document to highlight how the plan was moved from a wish list to the business plan specific to the route.
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	43 163	It is unclear how Asset Policy has been applied to develop the work from the documentation. . The baseline workbank outlines the Policy objective and Policy level that a scheme is set out to achieve. The region states for each project line the Policy Target that is being met and the level within a target that is being achieved. This reflects the policy standard that was provided by the central team. This information is not recorded in the live plan.	Row Labels / Sum of 2019/20 Budget £K Bridge Strike to Underline Bridges £ 200.00 Footbridge Capability £ 500.00 Footbridge Condition £ 12,112.05 Intolerable Condition £ 250.00 Intolerable ConditionUnderline Capability £ 1,267.00 Management of Retaining Walls £ 650.00 Overline Bridge Capability £ 4,371.00 Sosur £ 7,372.00 TBC £ 2,738.00 Tunnels £ 11,573.00 Underline Capability £ 383.48 Underline Capability Int Condition £ 3,459.50 Underline Capacity Intolerable Condition £ 2,128.00 (blank) £ 47,004.03 Grand Total £	Row Labels / Sum of 2019/20 Budget £K Level 1 £ 20,586.98 Level 1_2 Level 1_2 Level 1_3 Level 1 (c) £ 769.00 Level 1 (g) £ 100.00 Level 1(d) £ 214.29 Level 1* £ 1,020.00 Level 2 £ 5,322.46 Level 2(a) £ 142.86 Level 3 £ 4,253.45 Level 3 £ 1,500.00 Level1 TBC £ 7,372.00 (blank) £ 5,723.00 Grand Total £ 47,004.03		The move to the new route wide workbank tracker and live plan means that the policy objectives for schemes are not recorded as policy is not applicable to all asset classes.	A2	4	The route has applied the CP6 policy objectives and targets and mapped these against the baseline in an effective manner. Though circa £13m has not been attribute to a policy level.	Maintain the ability to track schemes against the policy objectives set out in the baseline.
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	163	Unclear from the documents how interventions have been determined	Grip Stage Passed / Baseline Row Labels / Sum of 2019/20 Budget £K 0 £ 6,753.00 1 £ 4,857.00 2 £ 3,790.00 3 £ 4,500.00 4 £ 6,523.00 5 £ 730.00 (blank) £ 19,851.03 Grand Total £ 47,004.03	How do regions decide intervention types and timings	Intervention type and timings are defined through the development of the work bank and the regional capability to deliver the project. Any changes to timings are monitored through the Deferrals Register and changes to intervention type though the change log.	A3	4	The process that the route described for developing the workbank clearly demonstrates a mature process for developing types and timing of the interventions aligned to the GRIP process used across the business.	Outlining the process for the workbank development would ensure that the intervention types or timing decision would be demonstrated.
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	163	It is unclear from the documents provided how work volumes have been prioritised.		How are works prioritised between one project and another during a year what is the methodology used to mitigate risk and safety and ensure operational performance.	The volume of work stated in the workbank is dependent on the scope of works outlined when the plan was submitted, as project move through GRIP volumes may change. Any changes to timings are monitored through the Deferrals Register and changes to intervention type though the change log. Work volumes are defined at different Grip stage that scheme sits at during development. It should be noted that volumes on projects under 50k or as part of Major Projects are not captured.	A4	3	Work volumes are defined depending on the GRIP Stage that a project sits at during the development of the baseline plan. With schemes prioritised based on capability and deliverability this forms the base for volume prioritisation. Qualitative analysis supported by Engineer judgement is used to assess risk and network performance to prioritise one scheme over another.	Opportunity to consider the quantitively means of prioritisation/performance and risk.
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)		Unclear for documents provided across regions			The approach is similar to that deployed by Western but does not utilise the regional One Plan. Moving forward the One Plan will be used.	A5	3	The approach between the two routes within the Region are similar with the same tools and process used. The key difference being Westerns utilisation of the One Plan to support planning and timing of interventions which Wales is looking to adopt.	Continued alignment of the Routes through use of the one plan will ensure even grater consistency.
6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	42 43	The live plan effectively demonstrates through tabula form the changes to volume and cost between the baseline and the current position. Though no visual dashboard is provided in the live plan to show the breakdown of schemes the data is sufficiently tabulated to make this step. The business plan is much more sophisticated than other regions and provides and uses pivot tables which allows for comparison between the baseline and current status.		Do you use visual monitoring methods to demonstrate cost and volumes during a control period for reporting purposes.	Unclear as to the extent that visual reporting is undertaken as structures area mangers don't perform this task.	A6	2	Route described that there are no visualisation tools that they currently use to monitor the work bank movements. The change to the new business plan tracker (which is run by finance) which The updated business plan summaries data in a concise manner which would allow visuals to be created if desired.	Using visual trackers would enable the asset mangers to effectively communicate changes to workbank makeup to third parties and improve reporting with the business. The tacit knowledge held by Structure Route Mangers in significant and communicating this data visually would support them going forward.
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals (activities/schemes) be identified via analytical methods?	42 43	There is a delta of 113 projects from the baseline to the live plan. Across the KCL there is an increase in project numbers which could be identified through analytical methods.	Row Labels / Count of Cash Prices Struc-C&E Defences (C) 8 Struc-Culverts (C) 9 Struc-Footbridges (C) 5 Struc-Major Structures (C) 6 Struc-Minor Works (C) 14 Struc-Overbridges (C) 8 Struc-Retaining Walls (C) 10 Struc-Tunnels (C) 8 Struc-Underbridges (C) 70 Grand Total 138 Consolidated - Live Plan Row Labels / Count of 19-20 Struc-Underbridges (C) 86 Struc-Major Structures (C) 9 Struc-Overbridges (C) 22 Struc-Minor Works (C) 32 Struc-Footbridges (C) 21 Struc-Culverts (C) 16 Struc-Tunnels (C) 21 Struc-C&E Defences (C) 19 Struc-Retaining Walls (C) 16 --KVL only-- 7 Struc MW-Underbridges (C) 1 S&C Remodel (Tr) 1 Grand Total 251 Consolidated-Live Row Labels / Sum of Cash Prices --KVL only-- S&C Remodel (Tr) Struc MW-Underbridges (C) £ - Struc-C&E Defences (C) £ 1,591.13 Struc-Culverts (C) £ 656.89 Struc-Footbridges (C) £ 783.96 Struc-Major Structures (C) £ 1,024.80 Struc-Minor Works (C) £ 9,259.31 Struc-Overbridges (C) £ 57.00 Struc-Retaining Walls (C) £ 571.21 Struc-Tunnels (C) £ 3,335.99 Struc-Underbridges (C) £ 10,982.40 #N/A £ - Grand Total £ 28,262.69 Consolidated-Baseline Row Labels / Sum of Cash Prices CERDs £ 2,126.00 Culverts £ 877.00 Footbridges £ 743.00 Major Structures £ 1,210.00 Minor Works/OH/Eff £ 7,347.00 Other Programmes £ 1,540.00 Overbridges £ 742.00 Retaining Walls £ 1,345.00 Tunnels £ 3,791.00 Underbridges £ 17,260.00 Grand Total £ 36,981.00			A7	4	A delta between the baseline position can be easily understood and analysed. Each line within the business plan is recorded at different RF periods or the Baseline to enable quick and simple comparison across the period and understand changes that have taken place. The business plan has a checking processing place to ensure that business plan and OPI systems are aligned.	

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8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for year 1 differs from the planned renewals workbank for the same period?	42 43	There appears to be no change in volume of between the current live plan from the baseline provided. There is a significant increase in the volume from the baseline to the live plan, this increase in volume is attributed to the Structures line in the current plan it is unclear from the documentation provided what this line is for. It has -£8.892 attributed to the line but +21,513 volume units.	Source / Volume / Delta from Basel / Percentage Change Consolidated-Baseline 5,788.00 N/A N/A Consolidated-Current 27,301.11 21,513.11 79% Actual 27,340.11 21,552.11 79% Source / Cost / Delta from Baseline / Percentage Change Consolidated-Baselin £ 36,981.00 N/A N/A Consolidated-Current £ 28,262.69 -£8,718.31 -24% Actual £ 28,259.56 -£8,721.44 -24%	what is the difference between the baseline plane and the consolidated and column check tabs in the live plan	Region have stated that the baseline that should be used for comparison is the one contained in the live plan document. Stating that the baseline document provided was updated prior to the start of the CP6.	A8	3	There is an -£8m difference from the baseline to the live position and a +21k difference in the volume. Comparing against the additional documents provided to triangulate the changes to the workbank the following differences are apparent. Baseline Live Plan - Cost £36.9 Volume 5,788 ORR Expected - Cost £29.5 Volume 6,254 Centre Report Budget Volume 4,961, Actual Volume 27340.	
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	41	There are nine schemes that have been deferred in year one of the work bank and have been pushed back to years two and three.	Proposed Year when "Accepted into BP" 2019/20 Count of BP UID / Column Labels Row Labels / 2020/21 / 2021/22 / Grand Total STR/0043 1 1 STR/0045 1 1 STR/0046 1 1 STR/0048 1 1 STR/0049 1 1 STR/0051 1 1 STR/0055 1 1 STR/0057 1 1 STR/0531 1 1 Grand Total 6 3 9	Confirm this assumption? From review of one activity STR/0039/CVL that the entire scheme is cancelled (looking at costs in Y2-Y5) the change control document does not stipulate this. Could you outline what is happening.	Schemes has not been cancelled but deferred to 2021/22 with no spend forecast updated in the workbank plan.	A9	4	The workbank has largely been maintained with only 9 schemes have been deferred from Y1 with 6 moving to Y2 and Y3 for delivery. The deferred Risk Register and workbank align with each other to clearly communicate the changes made and cause of changes from the Deferred Risk Register.	
10	A Workbank Changes	A10	How were deferred schemes justified?	41	Each scheme that is deferred has broad justification description for why delivery has slipped. With the risk associated with the deferral of the project clearly defined and summarised. There is a lack of detail around why a scheme may have slipped from the descriptions provided.	Slippage in delivery programme Revised CP5 Budget Extended scheme development works (OSR) to find most appropriate solution. Continued deterioration of structure condition Potential risk of failure of asset Negative impact on operational railway Negative impact on TOC relations Delayed development due to embargos etc. Assessment review found IT to pass. New assessment due in year 2, expected to pass and drop out of Business Plan. Development and design to be phased over 2 years due to the complexity of the scheme. Deferred to year 4 delivery to allow sufficient time for development and design. Delayed programme due to COVID-19.	Is there a documentation that outlines in detail the justification of a scheme being deferred.		A10	3	Justification of scheme deferral is provided in the Deferred Register and this information is translated in the workbank to act as one source of truth. Descriptions are broad allowing for grouping of deferral but don't communicate detail of deferrals.	Additional column to summarise detail of deferral within the register the information does not need translation into the main workbank document.
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	41 42 43	After review of documents it appears that no schemes have been cancelled over the first year of CP6		Confirm this assumption	No Cancelled Schemes	A11	4	The documentation accurately allows for any cancelled schemes to be identified within the workbank.	
12	A Workbank Changes	A12	How were cancelled schemes justified?	41 42 43	Justification of the cancellation of schemes is undertaken through the change management log.		What is the justification process for defining a scheme cancellation.		A12	4	The workbank highlights the changes to schemes with new lines added which identify the Reasons for Change with additional commentary to describe why the decision has been made. Cancellations would be recorded in this manner.	
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	42 43	From the documentation provided there are several schemes that have been accelerated into year one of the workbank, as shown, from the original baseline. The live plan consolidated and MFMA costs reflect the changes to Y2/Y3 and the increase in spend in Y1. There is some additional spend in the minor works which has been accounted for in Y2 rebase.	Goddards River Ely Bridge: Development and design accelerated to year 1 to de-risk project delivery in year 2. Llangadog Viaduct: Development and design funds required in Y1 and Y2 to enable Y3 delivery. There is the potential to accelerate Severn and Camo Rivers Viaduct: Delivery of scheme accelerated into Y4 due to access availability.Development and design to be phased over STATION ROAD - A4054 over. C.I. parapets. For reconstruction (by CCC): Development and design funds allocated to Y1 and Y2 to enable Y3 delivery. Structure has a 3T assessed capacity therefore fits in to assessment category E - weight restriction in place. Level 1 policy scheme, therefore it is preferable to deliver as soon as possible. Footbridge No. 9 FB: NRDD Form001 quote higher than BP phasing CAPWAL 23/24 HENGOED FOOTBRIDG: Commencing development work for schemes at the end of CP6 to allow works to accelerated should an CAPWAL 23/24 SPITEFUL ROW FOOT: Commencing development work for schemes at the end of CP6 to allow works to accelerated should an	How do you map accelerations to schemes due to deferral of other schemes or additional work that comes into the programme during a year.	Any accelerated or swapped schemes would appear in the change log. During year one we did not undertake any acceleration of schemes due to deferrals of other schemes.	A13	4	Dovey Junction Phase 1 project was accelerated into year 1 due to further investigation noting the deterioration of the asset and requirement to intervene on the structure to maintain network performance. However the scheme was then deferred back due to Covid. There are no other scheme accelerations that would have resulted in delivery. Other accelerations are early phase development work as part of early contractor involvement initiatives	
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	42 43	There is no evidenced in the documentation provided how justification was reached. The change control process outlines justification at a high level as to why a scheme would have been changed.	Cefn Viaduct Repairs: Opportunity for early deliverer, following successful trial span repair/preventative work Metallic Preventative Strategy: Opportunity for early delivery of circa 6 schemes in Year 1 River Cynon Underbridge: Development reverted back to original plan of commencing in Year 1	How were swapped / accelerated schemes justified?		A14	4	The workbank change columns define the movement of schemes from different years and the cause of changes. Schemes are defined as accelerated with project specific comments supplied to support overarching change.	
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	43	The baseline workbank is dated November 2018 which is prior to the start of CP6 year 1. The live plan is dated September 2020 though there appear to be differences between baseline plan and the baseline stipulated in the live plan assumed to be the Consolidated Data Tab and CP6 Targets tab. It appears there were significant change between the baseline and the live plan baseline.		Could you explain the differences.		A15	3	If the live plan baseline is a updated version of the 2018 baseline document then there were significant change between when the plan was submitted to the ORR and the start of the control period. The region confirmed that he baseline underwent changes between submission to the ORR and the start of the control period. These changes are apparent in the triangulation of baseline cost and the documents provided by the ORR and Central C&V Team. Baseline Live Plan - Cost £36.9 Volume 5,788 ORR Expected - Cost £29.5 Volume 6,254 Centre Report Budget Volume 4,961	There should be one source of truth on what the ORR , Centre and Route are expecting to deliver. The changes between the baseline and live plan should be documented and explained this is where visual supports would be beneficial.

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16	A Workbank Changes	A16	What, if anything, was included in the year 1 plan as items deferred or which had fallen out of the previous year's plan?	41 42 43	There are no projects that were deferred from CP5 into Y1 of CP6 that have been deferral again.		Is this statement true?	Statement is correct	A16	4	The deferral register accurately shows that any deferral from CP5 has been completed and not further delayed in CP6.	
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	41	As part of undertaking a deferral the a scheme is put through the Corporate Risk Assessment Matrix to asses the risks associated with the scheme being deferred. Risks scores are developed for Safety, Performance, Finance, Asset Management, Satisfaction & Reputation and the likelihood of risk realisation.		Can you provide change control process documentation	Use of the CRAM alongside the standard risk assessment process for a scheme. The CRAM allows for a high level consistent view to be applied to deferrals,	B1	4	The routes uses the Corporate Risk Assurance Matrix to evaluate the impact of a deferral across four key categories; Safety, Performance, Finance and Asset Management. An overall risk score is then derived with the results of the CRAM being recorded in the deferral register.	
18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	41	We have review the Asset Management Risk score is interchangeable with the Sustainability factor. The Deferral Register shows that a risk score for Asset Management is determined for each scheme being defer.			Use of the CRAM alongside the standard risk assessment process for a scheme. The CRAM allows for a high level consistent view to be applied to deferrals.	B2	4	The routes uses the Corporate Risk Assurance Matrix to evaluate the impact of a deferral across four key categories; Safety, Performance, Finance and Asset Management. An overall risk score is then derived with the results of the CRAM being recorded in the deferral register.	
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	41	As part of the deferral process the region uses the Corporate Risk Assessment Matrix (CRAM) to assess the impact on performance of a scheme being deferred. Risk are quantified over five levels.			Use of the CRAM alongside the standard risk assessment process for a scheme. The CRAM allows for a high level consistent view to be applied to deferrals.	B3	4	The routes uses the Corporate Risk Assurance Matrix to evaluate the impact of a deferral across four key categories; Safety, Performance, Finance and Asset Management. An overall risk score is then derived with the results of the CRAM being recorded in the deferral register.	
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	41	As part of the deferral process the region uses the Corporate Risk Assessment Matrix (CRAM) to assess the impact on safety of a scheme being deferred. Risk are quantified over five levels.		How is the impact on safety quantified when deferring a project.	Use of the CRAM alongside the standard risk assessment process for a scheme. The CRAM allows for a high level consistent view to be applied to deferrals.	B4	4	The routes uses the Corporate Risk Assurance Matrix to evaluate the impact of a deferral across four key categories; Safety, Performance, Finance and Asset Management. An overall risk score is then derived with the results of the CRAM being recorded in the deferral register.	
21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]		no workbank change control process documentation has been provided.		Can you provide the change control process for the region.	Wales team to provide Change Control Process information.	C1	0	The route has not been able to supply the change control process documents at this time as they are in the process of moving to a new system and the documentation for the new process has not been approved for release for review.	
22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]		Unclear at this point in time, further review required across the region.		How did you develop the change control process.	Wales team to provide Change Control Process information.	C2	2	During Year 1 the processes used by Wales and Western were not aligned. With the Wales process providing significantly more detail than the Western process.	For Year two the process used by Wales has been adopted by the Region as a whole.
23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	41 42	No consideration of how policy is taken in the Change Control Process or live workbank.		How do you assess the impact of change control and project deferral on policy objectives.	Wales team to provide Change Control Process information.	C3	3	The route described how projects are maintained to the policy throughout the change process and that any change to policy direction would be captured in the change log within the live workbank. Though policy alignment has been lost in the live work due to the change in documentation the policy goal is maintained in the scheme documentation.	
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	42	Unclear from the documentation provided.		Require documentation to review.	Wales team to provide Change Control Process information.	C4	3	The process has been further developed but focuses mainly on impact on structures assets changes. A wider perspective of changes and its impact on other assets and the one plan will be required as the route adopts the one plan going forward.	
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.	42	Unclear form the documentation provided.		Are there any instances of projects interacting with other Regions.	Impact of the reorganisation has not directly affected any projects.	C5	4	The route described how there has been no impact on projects as a result of devolution. The documentation did not indicate any impact on projects as a result of devolution.	

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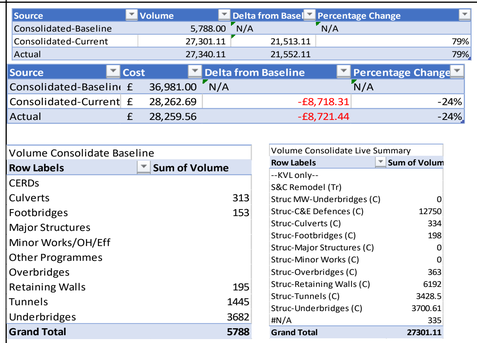
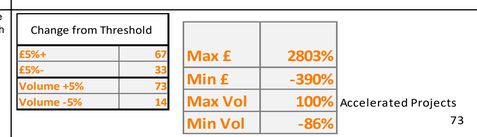
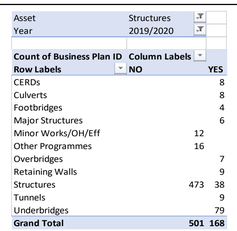
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	42	Unit costs were provided by the Centre and were then compared against the outturn costs seen by the route over CP5 to develop unit rates to build the baseline costs of the workbank. The units costs and variances are recorded in the workbank which maintains the recorded of what was used in the baseline.		What is the process used to develop the costs and unit costs projects.		D1	3	The documentation provided highlights the unit costs that were used to develop the workbank. The route has compared its own unit rates against the one developed by the centre. It is unclear as to which unit rate was used for the different asset types within the workbank. Unit costs were developed for the region by IP.	Addition of the unit rates used for a specific project would improve the ability of the region to hone there base estimate for unit costs. This would then allow for sharing of rates with other Routes and Regions.
27	D Costs	D2	To what extent can the delta be between estimated vs actual renewal cost be identified via analytical methods?	42 43	The detail between the baseline and current live plan is easily calculated with projects having unique id numbers. Which have been maintained despite the changes to the workbank methodology. When comparing the live plan to the baseline plan the changes and additional made a RF04 Y2 have been included as these include accounting changes to reflect the close out of projects in Y1.		could you provided estimate unit costs and perceived outturn costs.		D2	4	A delta can be easily generated between the baseline position and the live plan. The live workbank documentation provides and interactive tab to compare between the current status and the baseline position in the live plan. This allows for quick comparisons to be made and understood.	
28	D Costs	D3	To what extent does the estimated renewals cost for year 1 differs from the actual renewals cost for the same period?	42 43	When excluding the volume indicated by the Structures Asset 2 line in the live plan current status there is no difference in volume for year one but a £10.0m cost differential (10%). When the structures line is included there is a +138% difference between the two positions. When the baseline 2018 plan is compared to the live workbank there is a £18.7m and 15.8k in volume units . This needs further clarification as to which baseline should be used.		How do you view delta between cost s and volumes over year one and why is there a difference between the baseline and live plan.	Wales region to review analysis and double check there end of year position.	D3	3	The live plan actual and baseline are aligned with the volume reported by the centre 27,340 and 27,301 (live plan). There is a significant increase in volume undertaken by the route over year 1 (21k units). These changes are apparent in the triangulation of baseline positions and the documents provided by the ORR and Central C&V Team. Baseline Live Plan - Cost £36.9 Volume 5,788 ORR Expected - Cost £29.5 Volume 6,254 Centre Report Budget Volume 4,961 actual delivered 27,340 The large increases in sea defence volume is responsible for 127750 units of volume and increase in Retaining Wall volume of 6000 are the biggest increase in volume across the portfolio.	
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for year 1?	42 43	There appears to be a slight decrease in the forecast of spend in Y2 and Y3 of the programme with an increase in Y4 when compared to the baseline position.. Though it is not possible to attribute this to the changes observed in Y1 apart from the deferral's to future years. Spend has been brought forward from form Y2 & Y3 on early development of schemes.		]		D4	3	There is no impact that can be attributed to the changes in year 1 to the remaining years of the control period from the documentation provided.	Use of visualisation tools would quickly and accurate highlight any changes to later years in the control period.
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	42 43	The analysis shows that there are a significant number of projects that are significantly have a difference of greater than +/-5% from baseline for both Cost and Volume. There is a large variance in project cost from -390% to 2803% There are a significant number of projects 73 that did not have volume in the baseline but have in the live plan. 14 Project have volume reduction between -5% and -86%				D5	2	It is possible to create a comparison between the baseline projects using the unique ids in the live plan and baseline. Comparing the RF status allows for both the cost and volume values to be determined. There is a large variance in project cost from -390% to 2803% There are a significant number of projects 73 that did not have volume in the baseline but have in the live plan. 14 Project have volume reduction between -5% and -86%	
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	42 43	The workbank summarises changes made against each cost line where appropriate with justification recorded for each variance that has become apparent during Y1. Example of some scheme variance below. STR030 (+413% increase) is an accelerated scheme. STR009 has undergone a change to the scheme and should not be recorded as +25% as it is now part of a package of works. STR/0010b -62% has undergone changes due to contractor poor performance which resulted in the scheme being move to later in the CP scheme is a major project so hence no volume is recorded. STR/0113d -81% cost decrease from baseline due to GRIP stages 4 and 5 being moved out to Y2 and Y3 delivery not plan as per baseline for Y4.		Can you identify the why changes have occurred as they don't appear linked to the change log.		D6	4	Justification of variances is recorded against a scheme in the workbank when they have arisen. It is therefore possible to understand why +/-5% cost and volume variances have occurred during the first year of the control period.	
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.	42 43	unclear from the documentation		What are the operational impact to the new project coming into the workbank and how do you track these changes.	No operational impacts have occurred due to the changes or deferrals of the workbank baseline.	D7	3	The route described that there have been no operational impacts due to the changes or deferrals in the workbank. Identification of operational impacts is shown by exception.	Record at a workbank level if there have been no operational impacts and if there have been highlight the schemes.

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33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	90	It is unclear if the a scheme has met its outcomes given that no post completion review is available. Workbanks only highlight the objective of a scheme and if it compliant to policy not it the outcomes have been achieved.	The Assets Management Plan outlines the procedures and steps to ensure that a scheme has met the expected outcomes. AMP forms 1-3,8,10,12,14-16 are used for the management of structures and communicate the required outcomes of a scheme at the start of the project, any changes to the scheme during construction and review of the project at hand back to ensure objectives of the project have been achieved. There is no record of a project meeting the outcomes within the workbank but the assurance process in place would ensure that any completed project has done so. It is implied that the projects that are completed are there compliant to the desired outcomes.	How do you asses completed projects have met their objectives.	On the completion of a scheme the assets BCMI is recalculated to demonstrate any improvement in the condition of the asset. Any implement in the network that was desired.	E1	3	The Asset Management Plan outlines the procedures and steps to ensure that a scheme has met the expected outcomes. AMP forms 1-3,8,10,12,14-16 are used for the management of structures and to communicate the required outcomes of a scheme at the start of the project, any changes to the scheme during construction and review of the project at hand back to ensure objectives of the project have been achieved. There is no record of a project meeting the outcomes within the workbank but the assurance process in place would ensure that any completed project has done so. It is implied that the projects that are completed are therefore compliant to the desired outcomes. The documentation provides summaries the assurance process developed as part of the Asset Management Plan for the route to ensure that completed projects have met the desired outcomes. Scheme goals are stipulated at the start of the project and are monitored throughout to ensure that at hand back the initial goals and any changes have been achieved.	Record in the workbank if a scheme has met the objectives set at the start of project and any additional improvements.
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]	90	It is unclear if the a scheme has met its outcomes given that no post completion review is available. Workbanks only highlight the objective of a scheme and if it compliant to policy not it the outcomes have been achieved.	The hand back checklists stipulates the steps that are required when closing out a scheme this includes but is not limited to; a recalculation of BCMI, asset changes due to scheme implementation, update of CARRS with BCMI, Mileage of asset reviewed, removal of operational restriction, health and safety files, etc. The process is undertaken with assurance from a RAM to ensure the project has been completed to desired standard and project goals have been met.	How to you asses the effectiveness of a completed project.	On the completion of a scheme the assets BCMI is recalculated to demonstrate any improvement in the condition of the asset. Any implement in the network that was desired.	E2	3	The hand back checklists stipulates the steps that are required when closing out a scheme this includes but is not limited to; a recalculation of BCMI, asset changes due to scheme implementation, update of CARRS with BCMI, Mileage of asset reviewed, removal of operational restriction, health and safety files, etc. The process is undertaken with assurance from a RAM to ensure the project has been completed to desired standard and project goals have been met. The hand back checklists ensure that on the hand back of the scheme to network rail the information is transplanted in the management systems. Ensuring the management systems reflect the changes made to any assets as a result of the scheme.	Formalise the process for recording and sharing learning outcomes.

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1	A Workbank Changes	A1	How have Regions developed / agreed workbanks?	36	An agreed workbank was developed for the Western Route. This was submitted to the ORR at the start of CP6. The work bank outlines predicted volumes and budgets for individual activities across route. From the documents provided it is unclear how this document was developed.		Was this the final workbank used in the business plan. How did you develop the final workbank from you initial unconstrainted need.	The Workbank was developed through a five step process that used engineering judgment and analysis, policy guidance, regional capability and work plan integration. BCMI analysis was conducted to understand the condition of the asset stock allowing the region to form a prioritised baseline of work. This baseline of work to policy requirements to ensure that network standards would be maintained. With an early phase workbank developed the region assessed its capability to deliver the programme the programme of works based on the Grip stage of the project at the time of workbank planning to dictate when during CP6 a project could be undertaken. The workbank was then compared against the regional One Plan to understand where other work i.e. track work, signalling etc is taking place to reduce possession requirements to align asset interventions across the Route. This also supported in the develop The process is documented in a spreadsheet that shows the phases but there is no formal documentation that outlines how the workbank was developed.	A1	3	No documentation was provided to demonstrate how the workbank was developed. Through the workshop the Route demonstrated a robust process to move from a unconstrained workbank to a deliverable workbank for CP6. The lack of process is highlighted through the verification of the baseline numbers that have been provided in the documentation as one single reference appears to not be used across the Route, Central NR and the ORR. Route Baseline £34.8m 8976 units. ORR RF11 (March 2019) £28.0m 5099 units. Centre Budget 5072	Opportunity to develop a process map or flow chart to highlight how the workbank is developed to ensure robust procedure moving forward. A single source of reference for the baseline should be made available to provide a consistent picture.
2	A Workbank Changes	A2	How has Asset Policy been applied in developing workbanks?	36 37	Within the workbank the policy compliant column highlights if the intervention that has been designed and approved is compliant to policy or not. Interventions may not be compliant because engineering judgment and the design of the most suitable engineering solution differs to policy intervention recommended. However, this information is not stimulated in the documentation. There is no reference to the policy standard Levels.		For many activities policy objects have not been identified why is this? For some activities the if the activity is policy compliant is left blank? How do you identify projects to policy.	All interventions are compliant to policy to deliver the needs of the network. The workbank highlights compliance to the Policy on a Page document outlining primary and secondary drivers and if the intervention type is complaint to policy.	A2	3	Intervention types and goals are compliant to policy and the workbank links the intervention to the policy on a page documentation. However there's is no link to the CP6 policy standard that has been provided. It is unclear how this was considered in the development of the workbank. The use BCMI scores to ensure that all structures are above the thresholds prescribed by policy.	Effort should be made to highlight how policy targets and levels have been used in the development of the workbank. This process is being undertaken as part of preparation for CP7.
3	A Workbank Changes	A3	How are Regions deciding selection of intervention types and timings?	36 37	Unclear from the documents how interventions are determined.		How do regions decide intervention types and timings	Intervention types and timings are defined through the process outlined in the development of the workbank. Projects timings are dictated by asset need, regional capability and alignment to the routes One Plan. Types of interventions are determined through Engineering Judgment and Experience and where required optioneering is undertaken.	A3	4	No documentation was provided to demonstrate how the workbank was developed. Though through the workshop the Route demonstrated a robust process to determine intervention types and timings. As the workbank is policy compliant it is assumed timing are aligned to policy compliance	
4	A Workbank Changes	A4	How have volumes of work been prioritised in the workbanks?	36 37	It is unclear from the documents provided how work volumes have been determined. Activities that have undergone change control or deferrals have volume and costs moved across years depending on the outcome of the review, though neither the deferrals or change control documents provided why projects were altered.		How are works prioritised between one project and another during a year.	Work volumes have been defined through the process outlined in the development of the workbank and the understanding of the volumes required by schemes at the GRIP stage during development. Change in volumes is expected as interventions move along the GRIP schedule and when access can be secured.	A4	3	No documentation provided but the regions demonstrated in the workshop how volumes were prioritised. The work volumes were prioritised based maturity of the project and One Plan. Consideration of route prioritisation/performance and risk scores.	Opportunity to consider the quantitively means of prioritisation/performance and risk.
5	A Workbank Changes	A5	What evidence there is of a consistent approach across regions (e.g. nationally consistent choices being made? Communication between Routes ?)	36 37	Unclear from documents provided across regions at this time. The workbank development process appears further advanced compared to the other regions that have been interviewed at this time.		What does your region do to select the correct intervention.	The process that was used by Western is similar to that used by Wales. The difference between the approaches is that Wales place more onerous on Optioneering than Western who rely more on Engineering Judgement. The Route described why the they don't rely on optioneering as through experience they understand the best approach for the majority of schemes where this is not the case the use optioneering. This allows for the design phase of the GRIP to be completed with the need for extensive/expensive optioning on simple schemas.	A5	3	Through the workshop the route demonstrated why they relied on engineering judgement and experience rather than optioneering for simple intervention schemes. No documentation exists to outline the development of the workbanks for each route.	Opportunity to align how the workbanks of the two routes are developed for CP6. Process maps will support this alignment activity.
6	A Workbank Changes	A6	To what extent can the composition of the planned renewals workbank be presented visually (i.e. dashboard style volume / cost by structure type, location, etc.)?	36 37 38 39	A summary of cost and volume was supplied to summarise the end of year position for the region. No dashboard is provided in the documents that outlines work against structures type, policy requirements or status of work. Though these are easily generated to allow comparison between baseline and 2020 workbanks.		How do you visually monitor cost and volumes during a control period for reporting purposes. Is another department producing reporting summary for you for reporting purposes?	The reported volume visual is used as part of the end of year reporting to demonstrate actual volume delivered against the baseline. Additional reporting is undertaken by the financial team and the centre.	A6	4	The volume report quickly demonstrates effectively the comparison between baseline and actual deliver volumes. The report is used by the route to monitor volume for end of year reporting.	
7	A Workbank Changes	A7	To what extent can the delta between planned vs actual renewals (activities/schemes) be identified via analytical methods?	36 37 38 39	A delta of the number of structures that are being interviewed on across CP6 Y1 is identifiable but not for individual projects as no unique ids are used. The workbank shows activities at a primary, secondary and tertiary work types for specific work. It is not possible to compare at this level as ID numbers are used for a structure and not work types. All comparisons are therefore made at the KVL and Structures Line.			Why does each activity not have a unique ID number line a separate active but part of a wider programme of works. What has lead to the increase in Projects over Y1.	A7	4	Reporting at Asset level and KVL is understood and clear comparisons can be made between the baseline and the live workbank. However there is a lack of clarity at the activity level due to individual work lines not having unique id numbers.	
8	A Workbank Changes	A8	To what extent does the actual delivered renewals workbank for year 1 differs from the planned renewals workbank for the same period?	36 37 38 39	There is a 13% cost increase and a 1% volume increase between the baseline and current actuals.				A8	3	In the workbank baseline to live plan there is an increase in volume (1%) and Structures Intervened on (39) this is accompanied by a 13% increase in the costs anticipated in year 1. Comparing, the actuals compared to the ORR expected costs there is a difference of 11.43 (41%) and volume difference of 3,953 (77%). Centre Budget 5072 Actual delivered 9442. Comparing to the live plan 9052 there is alignment between the centre report. Cost increase are associated with static volume delivery which could indicate unit cost uncertainty.	

	Activities	Structures
Baseline	91	30
Current	147	69
Delta	56	39
% Change	62%	130%

KVL	Sum of 2019/20 Budget £K	Count of Activities	Sum of 2019/20 Volume
Baseline	**34799**	**91**	**8976**
Hazard Management	1500	4	
Other Costs	1000	1	
Preventative	9495	27	3475
Repair	10341	35	2650
Replace	9256	14	963
Strengthen	797	2	218
Waterproofing	2410	8	1670
Current Workbank	**39433**	**147**	**9052**
Hazard Management	1500	4	
Other Costs	1550	1	
Preventative	7434	38	2617
Repair	13260	61	2656
Replace	11208	25	1207
Strengthen	908	7	218
Waterproofing	3573	11	2354

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	Topic	Ref	Question	Doc. Ref	Evidence form Documents	Queries	Evidence form Regional Stakeholders	Ref	Western Assessment (07 Dec 2020)	Evidence Assessment Summary	Opportunity for Network Rail
9	A Workbank Changes	A9	To what extent have schemes been deferred? [**Inception Note**: Deferred renewal is largely carried out asset by asset. What is the cumulative effect, and is this cumulative view considered at a structure type/stock level? Important this is captured at individual structure level, but also at portfolio level.]	39	14 Projects have been deferred that were in the original baseline of the workbank these deferrals account for circa £4.6m in spend. There are two projects which don't appear in the baseline but in the live plan that were pushed back to year two (Mill Stream and Minety Road). **Deferred Cause** / **Sum of 2019/20 Budget £K** / **Count of 2019/20 Budget £K2** Site works commenced, issues with piling. Deck replacement delayed to year 2 — £ 540.00 — 2 Unable to negotiate land access and purchase of liabilities — £ 1,040.00 — 4 Water levels too high, deck replacement delayed — £ 1,696.00 — 4 Works delayed due to COVID 19 restrictions. Likely to be early year 3 delivery - access dependant — £ 1,380.00 — 4 **Grand Total** — **£ 4,656.00** — **14**			A9	4	Documentation provided provides an accurate demonstration of scheme deferrals. 14 Schemes have been deferred into later years in the control period.	
10	A Workbank Changes	A10	How were deferred schemes justified?	39	Justification of a deferral is highlighted using the above descriptions which outline the cause and need for the deferral. No detailed justification is provided that outline why the cause has arisen. Change control does not provide any more clarity.		No further justification for the deferral of a scheme is stipulated.	A10	3	Justification of schemes is given in the deferral register and provides sufficient information to determine why a scheme is being deferred.	The justifications provided are not bespoke to a project it would be prudent for the deferral register to record project specific deferrals.
11	A Workbank Changes	A11	To what extent have schemes been cancelled?	38 39	After review of documents it appears that no schemes have been cancelled over the first year of CP6	Confirm this assumption	There were no cancelled schemes only deferrals to later years.	A11	4	The change control documentation provided accurately demonstrates and records the cancelation of schemes.	
12	A Workbank Changes	A12	How were cancelled schemes justified?	38 39	No Schemes were cancelled in year 1.	What is the justification process for defining a scheme cancellation.	Cancelled schemes would appear in the Deferrals and Change Control Register with the justification being outlined there.	A12	3	Cancelled schemes would be recorded in the change control documentation if the scheme was no longer required. If the scheme was cancelled from CP6 to a later control period it would be recorded in the deferrals register. There have been no cancelled schemes for Y1 of CP6 so content of justifications is not possible to comment on the justification.	The justifications provided are not bespoke to a project it would be prudent for cancelled schemes to have project specific comments in the change control log.
13	A Workbank Changes	A13	To what extent have schemes been swapped / accelerated? [**Inception Note**: Also consider enhancements, Major Projects which have been descoped and re-established as renewals.]	36 37 38 39	Comparing WE1 & WE2 it is possible to determine accelerated schemes by assessing volume and cost reduction in years 2-5 of the control period. T Change control documentation and renewal documentation does not provide clarity on any work scheme that has been accelerated. There is no evidence to outline if schemes have been swapped.	How do you track changes to scheme volumes thought a year or is this thought the change control process and scheme deferral.	No scheme swaps or accelerations in year one of the workbank.	A13	4	The route highlighted that any instances would be recorded in the change control documentation provided. With the documentation provided not demonstrating any scheme acceleration or swaps.	
14	A Workbank Changes	A14	How were swapped / accelerated schemes justified?	38 39	No schemes are highlighted as having been accelerated in the change control log where they would be reported if this was the case.	How were swapped / accelerated schemes justified?	Justification of an accelerated/swapped schemes would take the same format as any scheme change and recorded in the change control document.	A14	3	The route demonstrated in the workshop that any accelerated or swapped scheme would be highlighted in the change control documentation. Justification of this undertaking would be stipulated in the same format as currently used. Note: Western is moving to the Wales Route change control process in Year 2.	Demonstrate the relationship between any swapped or accelerated schemes.
15	A Workbank Changes	A15	When was the workbank agreed and was it updated before the start of the year?	36 37	The baseline workbank document is dated November 2018 which is the end of RF8. The workbank may have undergone minor adjustments between October 2018 and April 2019.. The current workbank is dated September 2020 and reflects the current position at the mid point of year 2 in CP6.		Minimal changes between November18 & April19 may have taken place but any changes would have been documented In the change log.	A15	3	It is not clear from the documentation provided that the workback was stable between submission of the delivery plan and the start of CP6 Y1. The route confirmed that any changes made to the workbank baseline prior to the start of CP6 were recorded in the change control documentation and were made to reflect changes to scheme estimates. Route Baseline £34.8m 8976 units. ORR RF11 (March 2019) £28.0m 5099 units. Centre 5072 There appears to be changes from the baseline expected by the ORR and what the route defines as its baseline	It is important to ensure one source of truth across all parties this will ensure expectations are met.
16	A Workbank Changes	A16	What, if anything, was included in the year 1 plan as items deferred or which had fallen out of the previous year's plan?	36. 37	The Change Log and Deferral Register does not contain any projects which have slipped from delivery in CP5 to Year 1 CP6 and been further delayed in CP6.		No projects were further delayed from CP5 to later years in CP6	A16	4	The deferred risk register clearly shows that all CP5 projects that were deferred to Y1 CP6 have been completed.	
17	B Risk Quantification	B1	What is the regional process for quantifying the impact of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions?	39 162	No evidence outlined in the documentation provided that any quantification of the risk of undertaking accelerated work has been identified. Deferred schemes undergo a risk assessment with a qualitative result of the risk assessment being recorded in the Deferred Scheme Register.	Can you provide change control process documentation	Any deferral undergoes a Risk Assessment Process to ensure that the impact of the deferral has been appropriately captured. We currently don't use the CRAM as used within Wales but provide comment on the risk and mitigation.	B1	2	Qualitative risks and mitigation of the risk are demonstrated in the documentation provided. There is no justification or qualitative assessment of risk in the documentation provided.	The route have provided evidence of the use of CRAM for year 2.

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18	B Risk Quantification	B2	To what extent has the impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	39 162	Unclear from the documentation provided. The deferral register states the outcome of the risk assessment that was undertaken to enable the deferral to be undertaken.		How to you factor in impact on sustainability of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified? Consider the impact against the wider program	Currently no system is place but the merger with Wales will instigate the adoption of the Corporate Risk Assessment Matrix that Wales uses to summarise the risks of the deferral.	B2	2	The documentation does not reference the sustainability risk in the assessment of deferred renewals. The region has demonstrated knowledge of this gap and are in the process of adopting the CRAM process used by Wales Route.	The route have provided evidence of the use of CRAM for year 2.
19	B Risk Quantification	B3	To what extent has the impact on performance of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	39 162	Unclear from the documentation provided. The deferral register states the outcome of the risk assessment that was undertaken to enable the deferral to be undertaken. No mention of a deferral being assessed for the impact on performance.			The route described that they would try to avoid any deferral that would result in adverse impact on network performance and that this was considered when assessing for a deferral.	B3	2	There is not mention on the assessment of operational impact in the documentation provided. Though this process was described by the route as a consideration when undertaking assessment of a project deferral.	The route have provided evidence of the use of CRAM for year 2.
20	B Risk Quantification	B4	To what extent has the impact on safety of undertaking (actual / accelerated timeframe) and / or not undertaking (deferred / cancelled) renewal interventions been quantified?	39 162	Unclear from the documentation provided. The deferral register states the outcome of the risk assessment that was undertaken to enable the deferral to be undertaken.		How is the impact on safety quantified when deferring a project.	Currently no system is place but the merger with Wales will instigate the adoption of the Corporate Risk Assessment Matrix that Wales uses to summarise the risks of the deferral. Standard Risk Assessment Process has been undertaken.	B4	2	The region has demonstrated knowledge of this gap and are in the process of adopting the CRAM process used by Wales Route.	The route have provided evidence of the use of CRAM for year 2.
21	C Regional Assurance	C1	What regional workbank change control process is adopted? [**Inception Note**: When speaking to the regions, seek additional justification documents / documented processes for change control.]	38 162	no workbank change control process documentation has been provided.		Can you provide the change control process for the region.	New process adopted as part of merger with Wales, to be provided. The route have provided the change control terms of reference document used in Year 1.	C1	3	The documentation provided by the route outlines a robust process that considers the changes that could occur to schemes from the key routes the RAM, Regional One Plan and Finance teams. Meeting Minutes outline consideration/impact of changes to schemes and how scheme changes could impact the One plan and hence other asset classes.	
22	C Regional Assurance	C2	What evidence is there of a consistent change control approach across regions? [**Inception Note**: Consider change control at route level – i.e. does the change control process change within each region?]	38 162	Not possible to determine this from the documentation provided.		How did you develop the change control process.	New process adopted as part of merger with Wales, to be provided.	C2	2	The change control process documentation has not been provided as the new process has only just been implemented and has not been approved for issue by relative parties.	The route has aligned with Wales to introduce a new change control process aligned across the region.
23	C Regional Assurance	C3	To what extent do regions individual projects remain aligned to policy requirements through the workbank change control process?	162 38	There is no evidence in the documentation that outlines the impact of a project being deferred on policy requirements. However, it is possible to map the projects that have been deferred to the workbank and the policy objects they were going to meet.		How do you assess the impact of change control and project deferral on policy objectives.	As projects are designed to meet the policy requirements any intervention will meet the requirements that policy has stipulated to maintain the standards of the network. Projects that undergo change to policy target level would be changed early on in GRIP so for year one this may not be apparent.	C3	3	The route described that changes to an intervention trigger would be highlighted in the workbank and would be undertaken early in the Grip process. There is no mention of policy in the change log documentation provided. While policy targets in the workbank only refer to Policy on a Page and not to the CP6 Policy level targets as expected.	If the change to a project is regarding policy this should be document in the change control register. The change control documentation should have the ability to record this information.
24	C Regional Assurance	C4	To what extent are there any notable shortcomings in the change control process?	38 162	Unclear from the documentation provided. There is no justification of why project should have undergone change control stipulated in the change log. Operational numbers are the same between the Change Log and the Workbank. The change log records Volume/Cost change across the year in question and for the control period.		Further review of the change control process is required.	New process adopted as part of merger with Wales, to be provided. Shortcoming have been noted and the change to the new process is aimed to address these issues.	C4	3	The current change control process is well understood and consider impact of a changes across the wider portfolio not just structures. The change to the new system will improve alignment across the region and integrate with the workbank.	Movement to the new process should address issues in the change control process. It is not possible to provided a recommendation as the new process and old process has not been provided.
25	C Regional Assurance	C5	To what extent has there been any cross-route impact as a result of devolution? - e.g. a route cancelled work which another route was piggy-backing to do its own work.		Unclear from the documentation provided.		Are there any instances of project interacting with other Regions.	The implementation of the Regional One plan ensured that any works that had cross route delivery were pre planned and hence the impact of devolution had no impact on the delivery of the workbank.	C5	4	The route described during the workshop that the use of the One Plan to plan interventions to align to network access removed any access issues as a result devolution.	Moving forward there will be more cross route funding opportunities understating as we align the routes further.
26	D Costs	D1	To what extent (and how) have volumes of work been identified and costed? [**Inception Note:** Expected costs were based on unit rates prepared ahead of CP6. Work is ongoing to review/refine unit rates for CP7. Unit rates were provided as guidance to all routes, ultimately the individual routes are responsible for the unit rates used to build the year one work structures workbank.]	36 37	Unit cost data is provided in the Hyperion in the baseline and current workbanks. Unit costs appear to be the same between the base line and current forecast.		What is the process used to develop the costs for projects. Do you updated these costs with outturn costs as you progress through the control period?	Unit costs were provided to the region by the finance and delivery teams and based on outturn capital costs from CP5. Works are costed at different stages of design as a project moves through GRIP stages. Overall costs and volumes are updated as a project moves from one stage to another in the workbank.	D1	4	Unit cost information is provided through the financial system and monitored against KVL in the Hyperion. There is no recorded In the documentation of the which unit costs were used for which intervention. Costs were developed using Cost Curves form CP5 from the delivery teams based on outturn costs. There is a slight disconnect where spend is not reported out by different activities and preliminaries and start up costs.	

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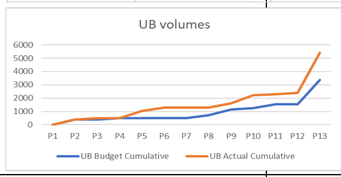
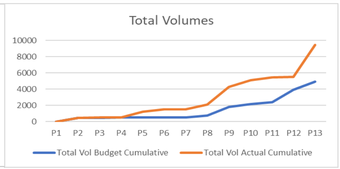
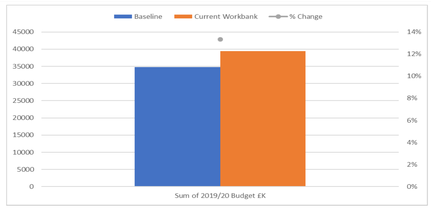
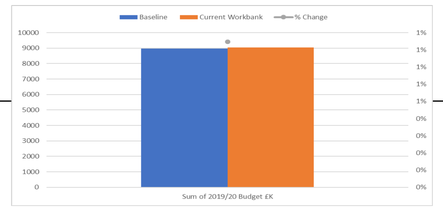
27	D Costs	D2	To what extent can the delta be between estimated vs actual renewal cost be identified via analytical methods?	36 37 40	A delta can be calculated against the cost and volume for the entire years programme and at a structures level. At a programme level there is circa £5m difference from the baseline to the live plan. Baseline / Current Workbank / Delta / % Change Cout of CARRS Work IDs: 30 / 69 / 39 / 130% Unclear Work ID: 30 / 34 / 4 / 13% Count of Activities: 91 / 147 / 56 / 62% Cost of Works (k): £ 34,799.0 / £ 39,433.0 / £ 4,634.0 / 13% Volume of Work: 8976 / 9052 / 76 / 1%  	It would be helpful to understand when a project is closed to compare between baseline estimate and actuals. How to show when a project has been completed?	The large increase in the volume of work at the end of Y1 is due to insurance work on a asset being undertaken for a second time, no cost was accounted to network rail for the work.	D2	3	A delta between the actual cost and baseline cost can be established through the documentation provided. The volume graph provided gives a accurate summery of the volume delivered in the year compared to the baseline though no commentary is provided on the reasons for the change.	Using unique ID numbers in the baseline and live plan would allow for comparison of work between the two. Using CARRS IDs to do so at this time does not allow for clear comparisons to activities being undertaken only against the individual structures which limits the analysis.
28	D Costs	D3	To what extent does the estimated renewals cost for year 1 differs from the actual renewals cost for the same period?	36 37 40	According to the summery sheets a circa £4.6m delta is observed. But given the apparent increase in projects this understandable. There is an over delivery of volume by 76 units from the live plan to the baseline. The baseline plan gives an expected cost of £34.79m with associated volume of 8976. The live plan reports costs of £39.43m with associated volume of 9052. The ORR expectation is cost of £28m and associated volume of 5099. The Centre Y1 reported volume budget of 5,072 and actual delivery of 9442.	 	Can you outline the actual spend for Y1?		D3	3	From the documentation provided it is possible to create a comparison between the live plan and the baseline. The comparison shown a minimal change in the overall cost and volume deliver over Y1. There is an increase of 13% cost and 1% in volume from the baseline to the actual plan. The are discrepancies between what is shown in the Live plan for Y1 in the reported values from the centre difference in Volume 4.3% . There are also discrepancies between the expected ORR costs and those shown in both the baseline and the live plan. Additional spend in the live plan is expected but it is unclear as to why there are difference between the baseline and expected ORR values. There are three estimates for year 1 volume all of which show discrepancies from each other. Baseline 8976, ORR Expected 5099 and Centre 5072. The estimated volumes from the Centre and ORR are within 0.5% of each other.	There should be alignment between the baseline plan, ORR expected values and the estimates provided by the Centre for volumes. There should be one value that should be reported by all areas of the business.
29	D Costs	D4	What is the potential impact on the business plan of the difference between the estimated vs actual renewals cost for year 1?	36 37	The analysis shows that there are cost and volume increases across the control period but its is not clear as to if these cost increase are related to Y1.	How have you mapped the changes in year one and the impact to later years in the control prospect.	Any impact from year one on the remaining years of the workbank is documented in the deferral register. The impact on cost and volumes in later years is only as a result of the deferrals from year 1 .	D4	4	The deferrals register shows the movement of £1.3m from projects that were suppose to deliver volume in year one to deliver in year two. There are several projects that have spend in later years that have moved right to access rights in Year 1.	
30	D Costs	D5	How widespread are variances where +/- 5% to cost or volume is exceeded?	36 37	The analysis shows that there are a significant number of projects that are significantly have a difference of greater than +/-5% from baseline for both Cost and Volume. There was minimal upward cost movements but several schemes saw a decrees in spend over the year one with no volume change. There were only 3 schemes with above threshold volume movements where grater movement that -5% was seen these schemes had underspend and no claimable volume for Year 1.	Schemes in Baseline: 30 Schemes in Live Plan: 69 Cost +5%: 2 Cost -5%: 11 Volume +5%: 2 Volume -5%: 3 Max £%: 72% Min £%: -98% Max Vol%: 117% Min Vol%: -100% No Volume Claim	We have accelerated schemes within year as part of early scheme development and contractor involvements hence the increase schemes.	D5	2	The documentation provided allows for a comparison against cost to be made and shows that over the workbank there is limited cost increase. Early scheme spend has been brought forward from future years hence the increase in the projects. There are number of projects which were not in the baseline plan that have been undertaken. The baseline consisted of 30 Schemes of which 13 (43% of baseline workbank) saw cost movement with four of these undergoing volume movement above the threshold as well. Both schemes with positive volume increase are associated with schemes with cost movement. For the schemes with under volume delivery these have been deferred to later years.	The workbank was developed using early stage GRIP estimates, using more advanced GRIP stage estimates will improve cost clarity.
31	D Costs	D6	What are the specific causes for cost/volume variances of greater than +/- 5% (e.g. changes to scope, etc)?	36 37	There is no evidence in the workbank that outlines the change in cost variance. The change log summaries some of the variances from the baseline plan. Projects 161165 (Adjust to forecast) and 161186 (Lower AFC tendered cost) variances can be tracked from change control in to the workbank but 161166 cannot be tracked through. The majority of scheme variances can be tracked through.			D6	4	The variances seen in the workbank can be traced back to the change control log and deferral register establish why the variance has occurred. Schemes can be traced back to the baseline to see original starting position using unique IDs	
32	D Costs	D7	What was the operational impact (if any) of the changes and how were these were factored into the selection equation, e.g. TSRs as a result of the change in plans.		Unclear from the documentation provided	What are the operation impact to the new project coming into the workbank and how do you track these changes.	Due to the use of the One Plan in the development of the workbank schedule there was no additional impact to the operation of the network. It has also allowed for interventions to act as upgrades to asset and improve the operation of the network. There are currently not TSR on the network.	D7	3	It is unclear from the documentation provided as to the impact on changes that impact operations. The route described during the workshop that there have not been any operation impacts resulting for the deferrals and that operation improvements have been made as a result of schemes being completed.	Opportunity to recorded if a deferral has a positive or negative impact on the operational performance.

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33	E Completed CP6 Projects	E1	To what extent have completed schemes met their expected outcomes?	90	The Assets Management Plan outlines the procedures and steps to ensure that a scheme has met the expected outcomes. AMP forms 1-3,8,10,12,14-16 are used for the management of structures and communicate the required outcomes of a scheme at the start of the project, any changes to the scheme during construction and review of the project at hand back to ensure objectives of the project have been achieved. There is no record of a project meeting the outcomes within the workbank but the assurance process in place would ensure that any completed project has done so. It is implied that the projects that are completed are there compliant to the desired outcomes.				E1	3	The documentation provides summaries the assurance process developed as part of the Asset Management Plan for the route to ensure that completed projects have met the desired outcomes. Scheme goals are stipulated at the start of the project and are monitored throughout to ensure that at hand back the initial goals and any changes have been achieved.	Record in the workbank if a scheme has met the objectives set at the start of project and any additional improvements. It is noted that the route described how some works have improved operational capability of the network, these outcomes should be captured systematically.
34	E Completed CP6 Projects	E2	What measures of effectiveness are in place for each Region? [**Inception Note:** To encourage sharing of lessons learned, identify best practice between the regions. E.g. what formal lessons learned process is in place? Efficiencies also to be included.]	81 89 90	The hand back checklists stipulates the steps that are required when closing out a scheme this includes but is not limited to; a recalculation of BCMI, asset changes due to scheme implementation, update of CARRS with BCMI, Mileage of asset reviewed, removal of operational restriction, health and safety files, etc. The process is undertaken with assurance from a RAM to ensure the project has been completed to desired standard and project goals have been met.	Snagging identification and completion document provided which stipulates the final assurance of the project to ensure that the project has been completed to the desired standards.		On the completion of a scheme the assets BCMI is re calculated to demonstrate any improvement in the condition of the asset. Any implement in the network that was desired. This is not documented in the workbank.	E2	3	The hand back checklists ensure that on the hand back of the scheme to network rail the appropriate information is translated in the management systems. Ensuring the management systems reflect the changes made to any assets as a result of the scheme.	Formalise the process for recording and sharing learning outcomes.