HIGHWAYS ENGLAND BOARD

NAME OF REPORT: Historical Railways Estate Performance Review and Draft Strategic Plan
SUB-TITLE: *6 Months Performance Review from September 2015 to March 2016*

Meeting Date:	**27 April 2016**	Lead Author:	[redacted]
Contact Details:			
Status:	Approval		

PURPOSE

The purpose of this paper is to inform the Board about the latest level of performance in respect of the HRE Protocol. Also, to approve the draft HRE Strategic Plan, which seeks to establish a dialogue with DfT in order to change the adopted reactive Do-Minimum approach for managing the HRE to one which is more intervention based.

RECOMMENDATIONS | DECISION

The Board is asked to:

- note the performance of the HRE team, the key risks managed by them, and the actions in hand to mitigate them;
- approve the draft Strategic Plan for consideration by the Board as the basis of a dialogue with DfT about the future management of the HRE.

STRATEGIC OBJECTIVES AND SUMMARY

Performance 2015/16

Highways England is required to deliver certain functions and responsibilities on behalf of DfT during the period of RIS1, as defined within the HRE Protocol Agreement. The HRE includes former railway structures and land in Scotland and Wales as well as England. Highways England manages the HRE on behalf of the Secretary of State, who remains owner. As matters stand, there is no indication that the DfT will not ask the HE to continue to deliver these functions during future RIS periods.

This work delivers against section 10.3 of the Delivery Plan - Other Services Provided by the Company, and fulfils action 64, page 32 of the HE 5 Year H&S Plan. In delivering these functions, the Highways England HRE team provide half-yearly reports to the Board in respect of their performance against a number of KPIs and to identify the key risks and liabilities being managed.

This paper provides the Board with the updated performance report for the period up to 31st March 2016 as set out below.

HRE Targets – 2015/16	**2015/16**	**2014/15**
Review 99% of received examinations within 30 calendar days	98.7%	99.2%
Undertake 156 structural audits (5% of the Estate)	162	173
Complete 18 Major Schemes	17	19
Accrued Spend Compared to Budget	100.003%	100.06%

As in previous years the HRE team has placed its primary focus on delivering the above KPIs with positive results. The target for Reviews was not met due to ICT issues for our homeworker in South Wales in April and May 2015. With the one exception of a major scheme that could not be completed due to unforeseen issues with the disposal of contaminated water all KPIs have been met. This is particularly worth noting as the small team has had to manage the re-tendering of its three key contracts during 2015/16.

Protocol Performance Indicators	2015/16	2014/15
1. No. of Reportable Incidents (RIDDORs)	0	0
2. No. of Non-Reportable Incidents	1	0
3. No. of Structures Transferred to Local Authorities	2	6
4. No. of Design Instructions to Consultants	28	33
5. No. of Minor Works Tasks Instructed	215	242
6. No. of Visual Examinations Received	2611	3084
7. No. of Detailed Examinations Received	446	465
8. No. of Legal Claims against the HRE Received	3	0
9. No. of Reported Cases of Vandalism Requiring Action	23	15
10. No. of Reported Bridge Strikes Requiring Action	5	9

The above indicators reflect that the HRE continues to be managed in a way that keeps both the supply chain and the public safe. There has not been a RIDDOR since 2011/12. This is a very strong level of performance given the condition and challenging locations associated with a significant number of structures. The one minor incident came about when an operative was carrying a thin steel rod which whipped up and cut his cheek. Although a lower volume of minor work task orders have been placed the value of each has increased to reflect more works being undertaken whilst on site. It is also notable that such an historic and widespread estate has a minimal negative impact upon the wider public when looking at the low volumes in items 8, 9 and 10. Although item 9 shows a marked increase we have a small number of sites which are repeatedly subject to regular vandalism.

Proposed Strategic Plan

When the Board discussed the previous bi-annual HRE report in November 2015 it was agreed that a long term HRE Strategic Plan (the Plan) should be proposed in order to start a dialogue with DfT as how to address the key issues and concerns identified by that report. Managed deterioration is not sustainable in the longer term and an inspection based approach cannot continue to be 100% successful. Section 5.4 of the HRE Protocol states that in managing the HRE "will include meeting from existing funding all costs associated ... including all claims, charges and damages arising..". The increasing level of potential liability and the associated reputational risk to the HE now requires discussion with DfT.

The draft Plan (see Appendix A) seeks to identify how the current inspection based and reactive approach should be transformed to one that is more intervention based. By delivering the Plan, those key issues and concerns, related to managing an estate which has been in a state of gradual deterioration for more than thirty years, could be largely mitigated.

The aim of the Plan is to significantly reduce the level of liability and risk to the HE and DfT by delivering at least 25 years of future life for each structure, although interventions such as infilling will provide at least 60 years. The Plan would also reduce the actual number of structures in the HRE (estimated to be between 10 and 15%) through demolitions. As a result both the number and frequency of future inspections would be significantly reduced. Actual cost savings of at least 50% in respect of future maintenance, inspections and loading assessments (currently £8m per annum) would be realised longer-term. The estate would also be in a condition which facilitates future potential transfer to other statutory bodies.

The Plan would need the approval and support of DfT as the owner of the HRE. Moving away from the long-adopted reactive approach will take time and resources and requires significant additional funding of unprecedented levels. It is expected that discussions around the principles of the Plan, funding levels and any role for HE in future delivery of the HRE functions beyond RIS1 will take some time. A period of transition would also be required. As a result the Plan seeks to break delivery into two phases so as to enable some shift towards a more intervention based approach during RIS1.

Phase 1 of the Plan covers the remainder of RIS1 and is based upon current resource and funding levels, with the exception of the potential for funding uplifts in respect of a small number of currently unaffordable schemes. Additional known funding in this period will be initially targeted at improving our knowledge in respect of the highest risk structures. These are predominantly public road over and under bridges, where matters are complicated further by a duality of responsibility between the HRE team and the highway authority, and where a more contemporary loading assessment would be of huge benefit. A number of private road bridges will also be assessed during this phase for the first time.

This aspect will markedly increase the HRE team's knowledge in respect of the current condition of these structures and their load-bearing capacity. That increased knowledge is fundamentally vital in identifying, scoping and prioritising future interventions in respect of bridges which carry a public road. Equally a contemporary loading assessment is a strong basis for dialogue with the relevant local highway authority.

One related action in this phase is to work closely with DfT to target cooperation from those highway authorities that appear to be disregarding their obligations in respect of loadings on a number of public road bridges. These are circa 130 cases currently where no strengthening works or weight restrictions have been implemented or agreed by the highway authority in order to address apparent failures at their higher level of loading assessment and obligations.

Phase 1 would also see a continued increasing focus on developing and delivering more holistic interventions when minor works are undertaken (i.e. what else can we do whilst we're there?). This has already begun and is evidenced by a reduction in the volume of minor works authorised during 2015/16, when compared to 2014/15, whilst the level of spend on minor works has increased.
In addition, during Phase 1 a fully costed and prioritised ten year programme of major schemes will be finalised. This programme includes circa 3,500 structures for which the

Secretary of State currently has a statutory responsibility. This programme will identify the optimum single intervention for each structure (e.g. demolition, infilling, major repairs, etc.), which will be costed using actual data from similar recent schemes. The work will be programmed over a ten year period (2020/21 to 2029/30) and prioritised using the current condition ranking for each structure. The overall costings would form the basis of any discussions with DfT about the management of the HRE during RIS2 and RIS3. The 10 year programme has been initially completed on a set of broad categories which now require some detailed refinement to identify a more accurate cost base. The current range of costs is between £370m and £560m and this should be further refined in advance of the Board meeting scheduled for 27th April 2016.

Whilst the programme has an option and costing for the transfer of a significant number of structures to another statutory body (e.g. Welsh and Scottish Governments, local authorities, etc.) it is currently assumed that this will not prove achievable. Whilst this remains an open ambition for DfT, various attempts to achieve this over the past thirty years have all failed. It is also anticipated that primary legislation would be required to enable such a volume of transfers.

All of the actions proposed during Phase 1 can be delivered within both the HE's remit under the Protocol and known resource and funding levels during the remainder of RIS1. None of the proposed actions during Phase 1 would be abortive should there be no requirement for the HE to be involved in the management of the HRE beyond RIS1. All of the Phase 1 actions and outputs would help to mitigate some of the key issues and concerns for the HE and be the basis for whichever organisation manages the HRE after RIS1. The benefits realised by the end of Phase 1 would be limited as the real longer-term benefits require mutual acceptance of a longer-term strategy for the HRE by both HE and DfT.

Phase 2 would need to commence during 2018/19 and would only be progressed if there was a firm commitment from DfT to the Plan and the associated 10 year programme before April 2018. Any agreed long-term programme will require certain decisions and actions being taken at least 18 months before the programme starts being delivered. These would involve issues such as resourcing levels, procuring advanced design work and ensuring the correct size and types of delivery mechanisms and associated contracts are in place.

RISKS

These remain the same as when the Board considered the previous HRE paper:

1. The increasing financial and reputational risk to HE and DfT of a structural failure
2. Lack of engagement with DfT as owner of the HRE
3. Highway Authorities failing to meet their statutory obligations on public road bridges
4. Increasing volume and value claims against the estate
5. Ensuring future HRE team resilience and sustainability

To a greater extent, risks 2 and 3 above will be mitigated during Phase 1 of the Plan. It is likely that risks 1 and 4 will actually increase in that same period. Risk 5 will need to be tolerated until a longer term position and structure for the HRE team is known.

BUDGETARY CONSIDERATIONS

HRE assets are held by the Secretary of State and do not appear on Highways England's Statement of Financial Position. Funding for the HRE is from a ring fenced budget of £7.802m in 2015/16. This is set to rise by inflation during the remainder of RIS1 as follows:

2016/17	£8,044m
2017/18	£8,309m
2018/19	£8,517m
2019/20	£8,730m

As the Protocol only covers the period of RIS1 then there are no immediate budgetary considerations. Should discussions around the Plan result in a role for HE in managing the HRE in RIS2 and RIS3 this would see a need for funding during 2019/20 to be increased in order to commence the development and design of a significant number of major schemes during that year. Decisions around future resource levels within the HRE team would also be required during 2019/20 but these would be based upon any changes in the contractual delivery mechanisms required during RIS2 and RIS3. It is anticipated that actions required 2019/20 can be delivered within existing team resource levels. Specific support from colleagues in Financial Services and Procurement will be required during 2018/19 and 2019/20 to put in place any new contractual delivery mechanisms.

STAKEHOLDER ISSUES

Since the previous performance update provided to the Board in November 2015, the first strategic dialogue between the HRE team and the relevant DfT client team has now taken place. It is envisaged that these will continue to take place on a quarterly basis from April 2016 onwards. It is also likely that these will be three-way meetings once an agent has formally been appointed by DfT as allowed for under the Protocol. This increased engagement with the HRE team will be a base from which any discussions with DfT about the Plan can be progressed although those discussions are also likely to involve the HE Client Relationship Team.

NEXT STEPS

See attached Appendix for **Future long Term Plan** (draft).

HISTORICAL RAILWAYS ESTATE
Appendix: Future Long Term Plan (draft)

1. Purpose

1.1 To develop a long term Strategic Plan (the Plan) which seeks to address the key issues and concerns identified in the HE continuing to manage the Historical Railways Estate (HRE) on behalf of the Secretary of State.

2. Background

2.1 The HRE consists of 3200 disused former railway structures in England, Scotland and Wales. The vast majority of these structures were constructed in the Victorian era and are nearly all over 120 years old and all have been disused for at least the last 40 years. The disused nature of the structures allied to continued uncertainty about their future ownership and purpose over the last thirty years has resulted in the long-term adoption of a Do-Minimum approach in respect of their maintenance. This regime of delivering high volumes of low cost reactive maintenance interventions has seen the HRE fall into an overall state of gradual deterioration. This approach is not sustainable in the longer term.

2.2 Until September 2013 these structures were the responsibility of the former British Railways Board (Residuary) Limited. Since that date the statutory responsibilities associated with the safe and effective maintenance of the HRE has rested with the Secretary of State for Transport. The related functions have been discharged on behalf of the SoS by HE under the terms of the HRE Protocol. In delivering these functions HE receives a specific level of Resource funding from DfT for the inspection and maintenance of the HRE. The Protocol and all associated funding only cover the period of RIS1.

2.3 The level of funding provided by the DfT under the Protocol both reflects and reinforces the long-term Do-Minimum approach. Whilst there is some uplift in funding during RIS1 to reflect inflationary pressures (i.e. from £7.802m in 2015/16 to £8.730m in 2019/20) there is no realistic prospect of improving the overall condition of the HRE in that period. The clear consequence is that the overall condition of the HRE will continue to gradually deteriorate.

2.4 Section 5.3 of the Protocol states that HE should act ".. as if they were the owner of the HRE". Contrastingly, such a long-term position of managed deterioration exposes the HE to increasing levels of both reputational and financial risk through its delivery of the HRE Protocol. This position will only get worse for both the DfT and whoever delivers the statutory functions on their behalf in future without a transformational change in the overall approach and a significant increase in funding.

2.5 To change this position will require a fundamental shift from current sub-optimal inspection based approach (i.e. high volume of reactive and low cost interventions) to one that is increasingly intervention based (i.e. low volume of planned and best value

interventions). However, the challenge of making such a shift requires significant ambition which needs to be matched by the appropriate level of investment over a defined period.

2.6 Adoption of intervention based approaches to the management of infrastructure is one increasingly being adopted by clients and providers and has clear benefits in respect of reducing risks and liabilities and can actually save money in the longer term. It must be recognised that the proposed ten year period to bring about such a dramatic improvement in the overall condition of the HRE is relatively short period when compared to the length of time under which it has been subject to managed deterioration. With the vast majority of the 3500 structures in the HRE ideally requiring some level of similar significant intervention, the scale of the challenge can be fully appreciated.

2.7 Should the HE be asked to manage the HRE after RIS1 then there needs to be clear and reasonably quick agreement between HE and DfT as to the terms under which that future arrangement would be delivered. Within a small team such as the HRE (7.6 FTE) the level of effort required to ramp up to deliver a long term programme is in itself a significant task and would require a minimum mobilisation period of 18 months.

2.9 The end of 2017/18 is the critical point by which the HE would require a clear decision about whether they will continue to manage the HRE during RIS2 and RIS3.

3. The Proposal

3.1 Detailed and contemporary knowledge of the condition of the HRE, particularly where there is a public interface, will always be essential to its safe effective management. The HRE team will continue with its existing effective practices of regular inspection, review and prioritisation of all interventions. There is no case to change this.

3.2 A commitment to the proposed change in approach by both DfT and HE is required before any major actions should be undertaken. Without that commitment there is no compelling case to increase resource levels within the HRE team. Although some uplift in funding for a very small number of significant but currently unaffordable schemes may be required during RIS1. This is manageable with current staff resource levels.

3.3 There are steps that can be taken in the short term that will partially shift the current approach and which would start to mitigate the level of risk and liability to which the HE is currently exposed. These actions would also help to prepare for a more significant shift in the future. These actions are proposed as Phase 1 of the Plan and are based upon current funding and resource levels and are within the terms of the current HRE Protocol. These proposed actions are also non-abortive should there be no commitment or request for HE to deliver the HRE functions after RIS1.

3.4 No approvals or additional annual funding, other than potential uplifts for a small number of currently unaffordable schemes, are required from DfT but it would be helpful if

the proposed actions within Phase 1 are formally acknowledged by both DfT and the Board. Phase 2 would only be delivered if DfT appoint HE to manage HRE during RIS2 and RIS3.

3.5 The proposed actions in each phase and the expected benefits are as follows.
Phase 1 (April 2016 to end of RIS1)

Action 1 - Utilise the small increases in HRE annual budget levels during the remainder of RIS1 to:

- Double the number of planned loading assessments of public road overbridges to gain improved knowledge of the current condition of these high risk structures, especially where the previous assessment requires updating within relevant guidance. This would also involve, for the first time, undertaking similar assessments on bridges which carry or cross private roads. As a category, these road bridges collectively represent the biggest financial and reputational risk to the HE in respect of the HRE as these carry or cross live traffic. It is of increasing necessity that the HRE team has as much knowledge of their current condition and capacity as can be obtained in order to ensure effective prioritisation of works.

- Deliver an additional 2-3 major schemes in each of 2017/18, 2018/19 and 2019/20. These additional schemes will deliver, as with all major schemes, a significant reduction in terms of risk and liability and be based on best value rather than lowest cost.

Action 2 - Develop a positive dialogue with the HRE client team in DfT in respect of the management and policy issues in respect of the HRE. This dialogue has begun and will see quarterly meetings taking place from April 2016. This dialogue provides the benefit of increasing the knowledge and awareness of broader HRE issues within the actual client team. This aspect has been missing until recently.

Action 3 - Work in partnership with DfT to ensure cooperation from those highway authorities that appear to be disregarding their obligations in respect of loadings on public road overbridges managed by the HRE team. All public road overbridges have a duality of responsibility between the HRE team and the highway authority. Loading assessments in some cases reveal that a structure may pass the obligation of the SoS (up to 28 tonnes) but fails the higher obligation placed on the highway authority, which is from 28 tonnes and up to 42 tonnes. Mostly, the highway authorities will cooperate with the HRE team to deliver the necessary strengthening works, preferably infilling, or put in place appropriate weight restrictions. In approximately 130 current cases there has been no cooperation from the relevant highway authority and the HRE team have exhausted all options open to them. Escalation to the SoS, as the bridge owner, is now required. This is an area of high reputational risk for the HE and DfT.

Action 4 - Approach DfT for additional funding to deliver a small number of major schemes which are unaffordable within budget levels during RIS1. These are often very large structures (i.e. long tunnels or viaducts) and the cost of preliminary or enabling works, such

as scaffolding, makes the delivery of the required maintenance unaffordable in one phase whilst also making the adoption of a piecemeal approach to the works required fail to represent value for money. If these schemes were funded from current budgets then only a very limited number of other priority major schemes could be delivered over the same period. As a result, whilst the condition of one or two significant structures would be improved the overall condition of the HRE actually deteriorates. Securing additional funding to deliver these schemes has recently been broached with DfT and they have asked for individual business cases to be submitted for consideration and they appear receptive to the idea. Securing such an uplift of funding in each case ensures delivery of the targeted programme of major schemes between 2016/17 and 2019/20.

Action 5 - Develop and maintain a costed and prioritised 10 year programme of major schemes covering RIS2 and RIS3 which, if delivered, would deliver optimal interventions in respect of, at least, all of the highest liability structures. The 10 year outline programme should be used as a basis for discussion with DfT about the management of HRE after RIS1. In terms of a tool to inform the future management of the HRE the programme will be of clear benefit to whoever carries the responsibility for maintaining the HRE after RIS1.

Phase 2 (April 2018 to end of RIS3)

Action 6 – During years 2017/18 and 2018/19 clear decisions would need to be taken in respect of the resource levels and delivery mechanisms (e.g. outsource the programme management or recruit additional staff) including a decision about the long-term role, structure and location for the HRE team. It is almost certain that different contractual arrangements will be required which reflect the significant increase in the number of major schemes to be delivered.

Action 7 – By the end of 2018/19 the programme would need to be 'fixed' for years one and two in order to deliver the required level of scheme design and preparation by the end of 2019/20. This would represent a significant increase in the volume of design and preparation work during this year which would be in addition to 'business as usual'.

Action 8 – By the end of 2019/20 put in place all required contractual delivery mechanisms and recruit any agreed additional resources within the HRE team. It is not certain that additional resources would be required as that will be dependant upon the agreed delivery model, e.g. a contracted programme management service.

Action 9 - Year 2020/21 onwards would see the delivery of the funded elements of the 10 year programme in addition to the delivery and review of annual inspections. The programme would need to be regularly reviewed with changes reported to the Exec as part of the bi-annual reports on performance against the HRE Protocol.

4. The Ten Year Programme

4.1 This includes all of the structures for which the Secretary of State retains the statutory responsibility for inspection and maintenance. This is a total of circa 3500 different types of disused former railway structures (e.g. overbridges, underbridges, viaducts, tunnels, abutments, culverts, etc.) and includes 250 structures leased to Railway Paths Limited or Sustrans for which the SoS retains statutory responsibility.

4.2 Based upon the current ranking of each structure, which takes account of such factors as condition, level of public interface, location, etc., the following decisions have been made:

1. What is the optimal intervention for each structure (e.g. transfer, infilling, demolition, repairs, etc.)?

2. When should the optimal intervention take place within the proposed ten year programme between 2020/21 to 2029/30?

3. How much would the optimal and other sub-optimal options cost?

4.3 The optimal option always removes or mostly reduces all future liabilities and mitigates the risk of reputational or financial harm to the HE in each case. This option must buy a minimum of 25 years of future life without the need for further significant maintenance. For each structure there is always an optimal option and at least one further less optimal option.

4.4 At this stage, average costings for each category of intervention for differing types of structure have been utilised. This work will require a level of refinement for each structure which will take several months to undertake given the volume of structures. Equally these average costings can be changed within the programme as these costings are refined over time and the effect on any change in respect of the overall cost of the remaining programme can be quickly estimated.

4.5 For 1700 public road over and under bridges and certain other structures, the optimal option is to seek to transfer ownership and all liabilities to another statutory body (e.g. local highway authority). An estimated dowry has been used to cost the transfer option. Based upon historical rates, these are often significantly less than the cost of the optimal works intervention.

4.6 There have been long held ambitions within DfT to transfer the freehold and statutory responsibilities related to all of the structures in the HRE to other statutory bodies (e.g. local authorities, Network Rail, devolved administrations in Scotland and Wales). These ambitions have continued to prove to be unachievable. Even when this ambition has been scaled down to only cover those bridges with a significant degree of public interface, and thus the highest risk, there is no current wholesale appetite amongst local authorities to take on such structures, even with a dowry, in the current economic environment. In addition, such a volume of transfers would be likely to require the introduction of primary legislation.

However, in many cases transfer remains the optimal option as it transfers ownership to those who gain the highest benefit from the structure.

4.7 The HRE team will continue to update the programme as inspection reports or loading assessments are undertaken and reviewed for any of the structures included in the programme. This will ensure that changes in structure rankings are taken into account to ensure regular reprioritisation and reviewing of the programme.

5. Benefits

5.1 By the nature of the HRE, it is difficult to quantify the actual cost benefits of the proposed approach. Each structure is also unique based upon construction type, location, level of public interface. However, the structure ranking system used by the HRE team will be key in ensuring that each intervention is based upon best value and improving the ranking significantly (i.e. buying a minimum of 25 years of life or removing or reducing the risk to public safety). Historically, the higher the value of any intervention produces a proportionate level of improvement in the structure ranking in all cases.

5.2. One example based on a typical infilling proposal using historical average costings and frequency of likely interventions can be found below.

Intervention	Years 01-10	Years 10-20	Years 20-30	Years 30-40	Years 40-50	Years 50-60
Infilling	£120,000	£0	£0	£0	£0	£0
Intermittent Repairs (£20k) and Loading Assessments (£5k)	£25,000	£25,000	£25,000	£25,000	£25,000	£25,000

5.3 This example attempts to illustrate the likely cost effects when comparing the optimal cost of a one-off infilling scheme, which it is assumed will buy at least a 60 year design life, when compared to repeat sub-optimal interventions which on average buy no more than 10 years of design life. Each sub-optimal intervention would also attract design and supervision costs in each case which are proportionally and cumulatively higher than the same costs for a single optimal intervention.

5.4 In addition, the sub-optimal approach does not remove or significantly reduce the level of liability and risk represented by a potential structural failure at any point. The optimal intervention removes or significantly reduces all future risks and liabilities associated with a structural failure for at least 60 years.

5.5. The aim of the Plan is to significantly reduce the level of liability and risk to the HE and DfT by delivering at least 25 years of future life for each structure, although interventions

such as infilling will provide at least 60 years. The Plan would also reduce the actual number of structures in the HRE (estimated to be between 10 and 15%) through demolitions. As a result both the number and frequency of future inspections would be significantly reduced. Actual cost savings of at least 50% in respect of future maintenance, inspections and loading assessments (currently £8m per annum) would be realised longer-term.

5.6 The significant improvement in the overall condition of the HRE following delivery of such a programme would also make the potential transfer of the structures to other statutory bodies more attractive as in all cases they would transfer with a much reduced level of liability for future maintenance than would be achieved under the continued Do-Minimum approach.

6. Estimated Costs

6.1 The proposed ten year programme can be adjusted to produce a number of costed scenarios. These could be based upon the number of structures to be included or by adopting a mixture of optimal or sub-optimal interventions based upon the category or type of structure.

6.2 Based upon the initial automatic allocation of each structure to a category and using standard costings for each type of intervention the initial range of estimated costs is between £370m and £560m. These figures are over and above the average annual figure of £8-9m.