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Your ref: 01576 – Environmental report

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Dear Infrastructure Investment Plan team

Draft Infrastructure Investment Plan and Environmental Report

Thank you for your consultation which we received on 24 September 2020 about the above plan and its Environmental Report (ER). We offer the following comments and recommendations on behalf of Historic Environment Scotland which is the lead public body set up to investigate, care for and promote Scotland's historic environment. We are responsible for leading and enabling the delivery of Scotland's historic environment strategy, Our Place in Time (2014) and our priorities are set out in our corporate plan, Heritage for All (2019). We have also uploaded this response to the Consultation Hub.

The preparation of all plans in Scotland should be considered through the policies and principles within the Historic Environment Policy for Scotland (HEPS). Of particular relevance to the Infrastructure Investment Plan is Policy HEP3 which states that "*Plans, programmes, policies and strategies, and the allocation of resources, should be approached in a way that protects and promotes the historic environment.*" Our following comments consider how the draft plan performs against this policy framework.

Key Recommendations

The historic environment makes up a significant proportion of Scotland's existing infrastructure. It ranges from the World Heritage Site of the Forth Bridge to the Loch Katrine Water Works, the canal network to the bridges of our transport system and our public buildings to our existing housing stock.

Our historic environment is a finite resource which makes a significant contribution to our shared story, our well-being, our economic prosperity and the quality of our places. As such it requires investment to sustain this value and to continue to deliver the multiple benefits we derive from it.

We therefore welcome the overarching message of the plan in prioritising investment of our existing infrastructure over the creation of the new. However, we consider that the plan would benefit from greater recognition and expression of the role played by the historic environment as part of our existing infrastructure. We therefore have the following recommendations for addressing this in finalising the plan as well as how the historic environment should be considered in decision making processes being put forward by the plan.

1. Infrastructure and the Historic Environment.

The role that the historic environment plays in providing our infrastructure should be made more explicit in the finalised Infrastructure Investment Plan. In its current form the plan makes no reference to cultural value of our infrastructure resource. Many existing infrastructure assets form part of our historic environment and have become culturally significant in their own right. In light of this, we believe the plan could do more to recognise this important aspect and factor considerations around the cultural significance of infrastructure assets into the decision making process. **We recommend that the plan makes clear how the cultural value of our historic environment assets is expected to be taken into account through the Common Investment Hierarchy.**

2. The Definition of Infrastructure

We welcome the wide definition of infrastructure proposed. However, in order to more clearly represent the multiple values that our infrastructure does and can deliver **we would recommend that the term *facilities* is replaced by *assets***. This will help recognise much of our infrastructure delivers multiple benefits and has intrinsic value beyond its primary or original use.

3. Maintenance, Reuse and Adaptation of Infrastructure Assets while safeguarding cultural significance

The global climate emergency has created a pressing requirement for the maintenance, re-use and adaptation of our existing buildings and places, recognising that the energy and carbon used in their manufacture and construction has already been spent.
In maintaining our existing infrastructure assets appropriate adaptation is, however, necessary to ensure that approaches which may harm the fabric or cultural significance of our historic buildings are avoided. HES has undertaken extensive and pioneering work on climate change adaptation. Our Climate Action Plan 2020-25 sets out how we plan to share knowledge, build resilience and support others in addressing the climate emergency. We have also issued guidance on Climate Change Impacts (HES, 2019) and the Use and Adaptation of Listed Buildings (HES, 2019) and technical information on Fabric Improvements for Energy Efficiency in Traditional Buildings (2013). **We recommend that this knowledge and experience is utilised in the development of asset management strategies.**

4. Impact Assessment and Prioritisation

The proposed method for considering investment priorities and outcomes outlined in the indicative dashboard does not offer indicators that will recognise the heritage value of infrastructure assets. This will aid in the identification of positive outcomes for our historic environment through investment. **We would recommend that an indicator for the historic environment is included in the common assessment framework to ensure that the cultural value of our existing infrastructure assets is taken into account in informing prioritisation and decision making as well as ensuring that potential positive outcomes are recognised.**

5. Asset Management

We consider that a sound and informed asset management strategy should lie at the heart of the decision making processes of any body that is responsible for multiple historic environment assets. We therefore strongly support the proposed introduction of new guidance on asset management. **We would welcome the opportunity to work closely with the Scottish Futures Trust in developing this guidance**.

6. The skills needed to maintain our existing infrastructure assets

To deliver on the aims of the plan of prioritising maintenance and reuse, investment in skills will be required. HES has undertaken extensive work in the development of policy, guidance and technical advice on the skills required to deliver projected levels of maintenance and repair to our existing built environment. This is highlighted in the Skills Investment Plan for Scotland's Historic Environment Sector and we also provide courses for the construction industry through various routes, including the Engine Shed – Scotland's dedicated building conservation centre. **We would welcome discussion on what HES can offer in terms of aligning skills and training with the infrastructure investment priorities.**

7. TAX and financial incentives for maintenance and repair

The current tax system encourages new build over the maintenance and repair of existing infrastructure assets through the imposition of Value Added Tax at 20% on the latter. As we recognise that the tax system is set at UK level the Scottish Government may also want to consider financial incentives for the use and adaptation of existing infrastructure assets to support climate action. **We recommend that tax structures are reviewed to provide parity for the use and adaptation of our existing infrastructure assets and that financial incentives for maintenance and repair are considered.**

Our detailed comments on the questions included in the consultation paper are included in the attached Annex.

We hope this is helpful. Should you wish to discuss our comments in more detail, please feel welcome to contact Andrew Stevenson on 0131 668 8960 or at andrew.stevenson2@hes.scot.

Yours sincerely

Barbara Cummins
Director of Heritage

Annex

Definition of Infrastructure

1a) Do you support the inclusion of natural infrastructure in our definition of infrastructure?

Yes

1b) Do you agree with the wording proposed for the revised definition?

No

1c) If you do not agree, please provide your suggested changes and additional material to support your answers:

In our response to the Infrastructure Commission call for evidence we welcomed the proposed definition but highlighted that greater recognition could be given to the role our historic environment plays as part of Scotland's existing infrastructure. The proposed definition includes a wide range of structures that can be heritage assets – including canals, communications equipment, railways, piers, bridges and civic buildings. For example, the Infrastructure Commission report notes that 44% of the Scottish Courts and Tribunal Services estate dates from before 1960 with 86% of these assets being historic, listed and pre-1900. Furthermore, much of our existing green and blue infrastructure is also of cultural significance, be they parks and gardens, designed landscapes, battlefields, hydro schemes or canals.

In light of this we continue to believe that greater recognition of the under pinning historic environment element of our infrastructure can be made throughout the plan. Furthermore, we consider that the current definition focusses on the service provision role played by these assets as opposed to the wider benefits accrued from our infrastructure resources, which can change over time.

We would therefore recommend that the word ***facilities*** is replaced by ***assets*** in order to recognise much of our infrastructure delivers multiple benefits and has intrinsic value beyond its primary or original use. This would also connect well with the focus on asset management within the plan and terminology used in land-use planning and related decisions.

A Common Investment Hierarchy

2a) Do you agree that the steps proposed in the common investment hierarchy are the right ones?

Yes

2b) If you think any adjustments are needed to the proposed investment hierarchy, please provide suggested changes (and evidence, where appropriate) to support your answers

Our historic environment has a key role to play as part of a circular economy and a green recovery. It offers multiple benefits including tackling the climate emergency, improving wellbeing, reducing inequalities and supporting inclusive growth. We therefore welcome the proposed investment hierarchy and its prioritisation of the enhancement and maintenance of existing assets.

It is also welcomed that the plan recognises that this hierarchy will require a substantial investment in maintenance and adaptation of our existing assets. This represents a significant shift in practice and will help ensure continued service delivery in a sustainable way over the long term.

In helping to implement this new hierarchy, we consider that the plan should provide greater clarity on how it is expected to be applied. For example, what particular considerations or questions should be posed at each stage and would enable progression. In particular, we would welcome clarity on the extent to which the cultural value of an existing infrastructure asset should be taken into account through this process.

Given the strong historic environment component of our infrastructure this investment approach should recognise the significant differences in maintenance, repair and upgrading of traditionally built assets and should also be supported by the development of skills in heritage and conservation. We know that skills shortages exist across the construction sector, particularly in relation to traditional building techniques. For example, there is an on-going requirement for stonemasonry and roofing skills for historic buildings, as well as skills shortages in traditional joinery, lime plastering, conservation architects and surveyors.

Finally, in terms of considering the above comments on the capacity of traditionally constructed infrastructure assets you may wish to consider replacing **Maximise** with **Optimise** in the wording of the hierarchy to reflect the type of decisions that are made when adapting and reusing such assets. This is because optimisation better recognises the various parameters that we need to work within in order to be environmentally sustainable, rather than maximising one particular outcome or benefit.

Assessing the Impact of Proposed Infrastructure

3a) Do you agree that a dashboard of indicators is the best approach to enable informed decisions to be taken about the long-term trade-offs and choices in our infrastructure investments? Please provide the reasons for your response.

Yes. We agree that a dashboard of indicators can be a useful tool in decision making. Such a process will also encourage alignment across a number of policy areas.

3b) What outcomes (and/or indicators) do you think should be included in developing a common assessment framework for prioritising infrastructure investment?

The historic environment is a cross-cutting theme for the majority of indicators and delivers against all three themes. However, there is currently no recognition of this within the dashboard and so it is unclear how this cultural element of our existing infrastructure would be considered as part of this process. It also unclear what is covered by the term "environmental sustainability" as it would appear from this section that this is predominantly a "natural environment" consideration.

The investment put forward in the plan towards the maintenance of assets can aid in the retrofit and energy efficiency of these assets, prolonging the lifespan of our housing stock and public buildings, as well as stimulating and supporting thousands of jobs as part of the Green Recovery. For example, the recently published State of the Nation Report 2020 from the Institute of Chartered Engineers recognises the benefits that can be unlocked through the adaptation and mitigation of our historic environment infrastructure assets and in turn, the jobs that can be created. This report has also produced a number of indicators for the benefits of climate ready infrastructure, some of which may have direct relevance to the proposed common assessment framework.

We believe it is important to take a holistic approach to the consideration of the environmental implications of investment decisions. We would note that, in carrying out the environmental assessment of the draft plan on the historic environment, the focus has been on the potential negative impacts of new infrastructure on historic environment assets. While new infrastructure can present a number of challenges, this Infrastructure Investment Plan has the potential to deliver significant positive outcomes for the historic environment and help deliver multiple benefits. In our view, the emphasis upon a whole life approach to asset management, and directing investment decisions towards maintenance, re-use, adaptation, decarbonisation and optimisation over new build will be very positive. We recognise there will always be strong cases for newly built infrastructure, but we believe more can be done to re-use existing assets and see this plan as playing a key role in making this happen.

3c) Are there existing tools or methodologies you are aware of which you think the Scottish Government could draw on or adopt in developing its framework?

Fundamental to the delivery of the aspirations of the Infrastructure Investment Plan will be improvement in current asset management practices. It is therefore welcomed that Scottish Futures Trust will be developing guidance to support this crucial area of work. Historic Environment Scotland has significant experience in this area, both in the preparation of our own Asset Management Plan, our publication of guidance on Asset

Management and through the advice we give to others on the management of historic environment assets in their care. We also have experience in the preparation of management agreements for large asset owners such as the Forth Bridge and Scottish Canals. In light of this we would welcome the opportunity to work with Scottish Futures Trust in developing guidance which recognises that many of our existing and historic infrastructure assets can continue to provide multiple benefits for generations to come.

As the plan and its assessment note, climate change is a key challenge to address as part of infrastructure investment decisions and on-going management. The Our Place in Time (OPiT) Climate Change working group is undertaking a series of activities to increase awareness of the importance of climate change to the historic environment, through improved communications and production of various outputs targeted to support decision making across specific sub-sectors. A key output of the OPIT Climate Change working group has been A Guide to Climate Change Impacts on Scotland's Historic Environment (October 2019). This guide identifies climate change risks and hazards facing Scotland's historic environment and provides a range of adaptation measures to enhance resilience to climate change. It provides a tool for assessing hazards and levels of risk that threaten different infrastructure types in Scotland's historic environment and as such will be an important resource in the preparation of asset management strategies.

Any plan that promotes maintenance over new build will be affected by our current tax system which incentivises new build over the retention, reuse and adaptation of existing infrastructure. The 20% tax rate imposed on these works through the UK Value Added Tax system presents an imbalance in comparison to VAT liability for new build – currently applied at 5%. We continue to advocate for a review of the tax system to provide parity for the use and adaptation of existing buildings. We believe that this will release wider benefits around reuse, retrofit and adaptation including social and economic benefits and resource efficiency and ensure that infrastructure policy can play its part in meeting the 2045 carbon targets. It may be that consideration could be given to aligning such tax reforms to key policy areas such as carbon reduction works as a first step towards addressing this issue. Further to this, introduction of new financial incentives around maintenance and repair of existing infrastructure assets that support climate action could be explored by the Scottish Government – as well as the promotion of any existing incentives in this area.

In response to the Infrastructure Commission Call for Evidence we also highlighted ongoing work being carried out by the Our Place in Time (OPIT) Working Group on the development of a new Built Heritage Plan for Scotland. This is at an advanced stage of its preparation and is expected to be finalised by Spring 2021. The purpose of the Built Heritage Plan is to deliver a strategic overview of our built heritage asset and identify measures to sustain it. As part of this we have been engaged in useful conversations with partners around developing a tool for helping to make investment decisions for heritage assets and would welcome the opportunity to share the emerging outputs from this with you. This draft Sustainable Investment Toolkit aims to help prioritise and clearly communicate decision-making by demonstrating the economic, cultural, environmental and social outcomes of potential investment in built heritage.

Another important tool in understanding the environmental implications of asset management strategies is environmental assessment under the Environment Assessment (Scotland) Act 2005. It would be helpful if the requirements and benefits of SEA are highlighted in the forthcoming guidance. We would be happy to provide further advice on this in due course.

Assessing the Greenhouse Gas Emissions Impact of Future Plans

4a) Do you support the planned approach to developing a new approach to assessing the contribution made by infrastructure investment to Scotland's emissions targets?
Yes

4b) Please explain and support your response with evidence.

We welcome the exploration of alternative approaches to the assessing the contribution made by infrastructure investment to Scotland's emissions targets as we agree with plan's comments in relation to limitations of the current taxonomy approach. We consider that a combination of the approaches put forward would be the best way forward and we would offer the following comments on areas HES considers could be taken into account in developing a new approach. In moving forward we would be happy to discuss any points raised here further.

We advocate a *whole life* approach to our existing infrastructure, including traditional buildings. This means the following:

- there needs to be a shift towards a culture of ongoing care and maintenance of existing buildings to reduce the demand for additional and often unsustainable resources for new buildings

- improvements to energy efficiency should be made whilst safeguarding the cultural significance of our traditional buildings

- sensitive reuse and appropriate adaptation of our existing buildings adds to the quality of Scotland's places whilst ensuring that resources are not wasted

- where demolition is necessary, salvage and reuse of sustainable materials should be a requirement

In addition to whole life costing, we would welcome carbon life cycle assessment being employed to reflect embodied carbon from demolition, materials, transport and maintenance, as well as the operational carbon associated with heat and power. Carbon life cycle models should calculate the whole life carbon for 2030 and 2045 carbon reduction target dates, as well as the industry standard of 60 years. This avoids longer-

term, potentially marginal, operational benefits at the expense of significant upfront carbon impacts within the most critical short-term timescales.

Carbon life cycle assessment can identify the largest assumptions in infrastructure projects, informing tender questions and enabling informed procurement decisions. We would also suggest that the plan advocates for sustainable procurement that accounts for the carbon footprint of materials and products (i.e. country of origin and transport requirements).

Consideration should be given to assessing the carbon benefit of prolonged lifespan arising from adequate maintenance, and would be a logical piece of work in follow-up to the Tenement Maintenance Report.

Assumptions on operational carbon should be based on in-use monitored energy consumption from recent buildings of that type. This addresses the performance gap between modelled and actual energy, and potential for early stage aspirations to be impacted by the procurement process, for example through value engineering.

We are also aware of one local authority that changed its schools procurement approach due to overheating issues and significant energy performance gaps in their new build schools. We suggest energy models should be stress tested using climate projections due to increasing temperatures, health impacts of overheating, and the high energy intensiveness of active cooling.

An approach to assessing carbon impacts associated with transport might be to apply the 20 minute city approach to existing neighbourhoods, and in assessing options consider whether they impact on access to essentials services within those areas.

The Environment Report

5a) What are your views on the accuracy and scope of the environmental baseline set out in the Environmental Report?

Environmental Baseline

We welcome the recognition of the Historic Environment Policy for Scotland (HEPS) as a being a key relevant document for this plan.

In our scoping response (dated 25 June 2020) for this assessment we emphasised the need to consider not just the impact of infrastructure development on the historic environment but the significant amount of infrastructure that in itself is considered to be of historic significance and the positive impact the plan would have on this. It is our view that a greater recognition of the contribution of the historic environment within the definition of infrastructure provided would have led to differing findings in the assessment. This is particularly felt when considering the findings of the assessment in

relation to the aims of the plan around maintenance, re-use and adaptation. We have provided further comments on this below.

Reasonable Alternatives

We note the commentary around the consideration of alternatives as part of this assessment. However, given that the common investment hierarchy is being presented as a new innovation we would have expected that a continuation of existing infrastructure decision-making and delivery would be considered a reasonable alternative.

5b) What are your views on the predicted environmental effects as set out in the Environmental Report?

Environmental Effects

As noted above, we consider that a narrow interpretation of the historic environment baseline has led to the assessment focusing on potential adverse effects of the plan and missed the opportunity to identify a number of positive effects. In light of this we would offer the following comments on the detailed assessments of the individual elements of the plan presented in Appendix D of the Environmental Report.

Summary Assessment Tables

We welcome that the summary assessment table for the Draft Common Investment Hierarchy considers the order of prioritisation in its findings. This is particularly important as the hierarchical process in itself has the potential for environmental effect as greater weight should be given to existing assets. However, we have a number of comments to make on the assessment of the four component steps of the Investment Hierarchy which we consider may have affected the overall findings.

Draft Common Investment Hierarchy

The assessment here breaks the investment hierarchy into its four component parts and offers an appraisal of the likely effect of each step. While such an approach gives an understanding of the environmental implications of each step it perhaps misses the cumulative environmental consequences of the hierarchy, in that the steps are prioritised meaning a greater emphasis on existing assets of new build. This order of prioritisation in itself has the potential for environmental effect as greater weight should be given to existing assets.

In relation to the assessment provided for *Maximise Use of Existing Assets* we note that no potential environmental effects have been identified for the historic environment. We would disagree with this assessment. Given the strong representation of the historic environment within the definition of infrastructure a focus on the maintenance, re-use and adaptation of existing assets has the potential for positive effects.

Again, no environmental effects have been identified in relation to *Repurpose and Co-locate* step of the investment hierarchy. We consider that there is the potential for both positive and negative effects for the historic environment here. For example, many of our historic environment assets can be supported through reuse and adaption to new uses. We have recently published guidance on the Use and Adaptation of Listed Buildings which speaks to this issue. As noted above, asset management is a key issue here. This is particularly in the case of the disposal of assets. When decisions are made in relation to co-location that lead to vacating existing assets it is important that these decisions are taken with consideration of the future of the vacated asset.

A combination of positive and negative effects are predicted here for the historic environment in relation to the replacement or new build of infrastructure. While we are content to agree with this conclusion, we note that no explanation has been put forward for the positive effect identified. It may be that issues around facilitating increased access opportunities to the historic environment is relevant here.

Enable the transition to net-zero emissions and environmental sustainability

We welcome the recognition of the positive effects that improving resilience and adaptation to the effects of climate change can have on our historic environment resource. The assessment points to the importance of adapting the historic environment to key pressures such as flooding and coastal erosion. Further to this is the plan's emphasis on maintenance as an important tool which will include the retrofitting and adaptation of our built infrastructure assets as part of addressing climate change, helping to ensure that such assets can withstand the its effects and helps us make best use of our existing resources.

Driving Inclusive Economic Growth

Investment in retrofit, adaptation and maintenance of our existing infrastructure assets will facilitate jobs and promote skills, particularly in the historic environment sector. This element of proposed investment has the potential for positive effects on the condition of our built environment.

Building Resilient and Sustainable Communities

We welcome the recognition here of the positive effects for the historic environment in relation to maintaining, restoring and repurposing such assets in order to support sustainable placemaking.

5c) What are your views on the proposals for mitigating, enhancing and monitoring the environmental effects set out in the Environmental Report?

Mitigation, Enhancement and Monitoring of environmental effects

As we have noted above, we consider that this assessment has not picked up a number of potential positive effects for the historic environment as a result of the plan. In this regard there is therefore are few enhancement opportunities identified for the effects discussed above. Given that part of this consultation is focussed on how to make informed decisions on investment and how to measure outcomes it is disappointing that the outputs of the environment assessment have been limited in this area.

Historic Environment Scotland
19 November 2020