

M25 junction 10/A3 Wisley interchange

TR010030

9.164 Applicant's response to Secretary of State's consultation - 22 December 2021

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010

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The Infrastructure Planning (Examination Procedure) Rules 2010

M25 junction 10/A3 Wisley interchange

Development Consent Order 202[x]

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1. Introduction

- 1.1.1 This document sets out National Highways' response to the Department for Transport's requests for additional information contained in its letter dated 22 December 2021.

2. Secretary of State's request 1. Request for comments from the Applicant on replacement land:

- 2.1.1 *"The Secretary of State refers to the Applicant's response of 3 February 2021 to the Secretary of State's consultation letter of 20 January 2021. The Secretary of State's consultation letter proposed an overall area of replacement land ("the January replacement land proposal") of 16.40ha. However, the Applicant's understanding (see paragraph 2.1.7 of its response) of the Secretary of State's position is that the proposed overall area of replacement land would instead be 16.52ha. The Secretary of State notes that this is a discrepancy of 0.12ha.*
- 2.1.2 *The Secretary of State proposed the figure of 16.40ha to provide a 1:1 ratio of replacement land to special category land to be lost to the proposed development, and that remains the proposal. The Secretary of State proposed that the 16.40ha should comprise the whole of the areas referred to as PBF1 and PBF2, with the balance being made up from PBF3 and plot 28/2 (the latter of which has an area of 0.0495ha). As the Applicant points out in paragraph 2.17 of its response, the total area of PBF1 and PBF2, according to the Book of Reference, is 135,692 sqm (circa 13.57ha). The Secretary of State is minded to agree those figures as the correct ones from which to calculate the required amount of replacement land to be drawn from PBF3. As the Applicant points out, land parcel 28/2 is already common land, and should not therefore form part of the replacement land.*
- 2.1.3 *The Secretary of State is therefore clarifying his position and is minded to propose that the area of PBF3 to be used for replacement land should be 2.83ha rather than 2.95ha.*
- 2.1.4 *In summary, the updated replacement land proposal is that it should amount to 16.40ha in total (as previously proposed), to comprise the whole of the sites identified by the Applicant as PBF1 and PBF2 on Figure B.1 in REP12-004 (together 13.57ha) and 2.83ha drawn from the southern part of PBF3, namely all of land plots 11/17i and 11/17j and part of the southern end of land plot 11/17h shown in REP8-006.*
- 2.1.5 *Please would the Applicant provide information, to supplement the information provided in its responses of 19 November 2020 and 3 February 2020, to reflect the updated replacement land proposal, as set out above. The additional information should include the Applicant's consideration of whether any new or different significant environmental effects of any nature would be likely as a*

consequence of the updated replacement land proposal described above, when compared with those identified in the environmental statement.”

2.2 National Highways’ response

- 2.2.1 The Applicant’s competent environmental experts have considered whether the Secretary of State’s revised replacement land proposal set out in his letter of 22 December 2021 would give rise to any new or different significant environmental effects compared with those identified in the environmental statement.
- 2.2.2 As the Secretary of State notes in his letter, the Applicant has previously provided, in the form of document reference 9.155 ‘Other information in respect of environmental effects requested by the Secretary of State in relation to his Replacement Land proposals’, information on any likely significant environmental effects of the Secretary of State’s previous replacement land proposal. Document 9.155 concluded that the Secretary of State’s previous replacement land proposal, which was consulted on by way of the letter of 20 January 2021, would not give rise to any new or different significant environmental effects of any nature in comparison to those reported in the environmental statement.
- 2.2.3 The Applicant confirms that, given the very small area of land in question (a difference of some 0.13ha in comparison to the Secretary of State’s previous proposal), the Secretary of State’s revised proposal as set out in his letter of 22 December 2021 would not give rise to any new or different significant environmental effects in comparison to those set out in document 9.155 or reported in the environmental statement.

3. Secretary of State’s request 2. Request for updated documents from the Applicant:

- 3.1.1 *“In his consultation letter of 15 February 2021, the Secretary of State requested updated documents from the Applicant to account for the January replacement land proposal.*
- 3.1.2 *In light of the changes to the area of replacement land proposed above, please would the Applicant provide draft amended documents with any amendments necessary to account for the updated replacement land proposal. These documents should include replacement land plans, works plans and book of reference, and a track changed version of the proposed development consent order.”*

3.2 National Highways’ response

- 3.2.1 The Applicant confirms that it is not necessary on account of the Secretary of State’s revised proposal for replacement land to update Schedule 10 (Special Category Land) of the draft development consent order (dDCO) provided in response to the Secretary of State’s consultation letter dated 15 February 2021. This is on the basis that the Secretary of State’s revised proposal affects only the

size of plot 11/17h, and does not affect the provisions of article 39 or Schedule 10 which deal with special category land and replacement land.

- 3.2.2 The Applicant would however like to draw the Secretary of State's attention to a further matter concerning his revised proposal for replacement land. The Applicant understands from the Secretary of State's letter of 20 January 2021 that the Secretary of State is minded to include approximately 2.63ha of land as replacement land to compensate for the acquisition of rights over special category land.
- 3.2.3 Part 2 of Schedule 10 to the dDCO identifies the special category (rights) land parcels which the Applicant considers ought to be replaced by replacement land in order to meet the exception set out in section 132(4) of the Planning Act 2008 to the application of special parliamentary procedure.
- 3.2.4 Part 3 of Schedule 10 identifies the special category (rights) land parcels which the Applicant considers will, when burdened by the rights authorised by the Order to be created over them, be no less advantageous than they were before and which therefore benefit from the exception to special parliamentary procedure set out in section 132(3) of the Planning Act 2008 such that no replacement land is required to be provided in respect of the acquisition of rights over the relevant land parcels.
- 3.2.5 If the Secretary of State is not minded to agree with the Applicant's categorisation of the special category land (rights) parcels in Part 2 and Part 3 of Schedule 10 to the dDCO respectively, these tables will need to be updated accordingly so that they are consistent with the Secretary of State's conclusions on replacement land and the statements to be given by the Secretary of State on the face of the dDCO as to compliance with the relevant provisions of section 132 of the Planning Act 2008.

Change of Applicant name

- 3.2.6 As the Secretary of State will be aware, in August 2021 Highways England became National Highways. As the latest version of the dDCO was provided prior to the change of name, it does not reflect the new name of National Highways. Accordingly, the definition of "undertaker" in article 2(1) of the dDCO has been adjusted in the version of the dDCO provided with this response to read as follows:

"undertaker" means National Highways Limited, company number 09346363, whose registered office is at Bridge House, 1 Walnut Tree Close, Guildford, Surrey, GU1 4LZ;"

- 3.2.7 An equivalent change has been made to the references to Highways England in the Explanatory Note.

Updated documents

- 3.2.8 The following documents have been updated as requested by the Secretary of State and this is reflected in Schedule 11 (Documents to be certified) of the version of the dDCO provided with this response:

Document	Document Reference	Revision
Book of Reference – Regulation 5(2)(d)	TR010030/APP/4.3	5
Location Plan – Regulation 5(2)(o)	TR010030/APP/2.1	3
Land Plans – Regulation 5(2)(i)	TR010030/APP/2.2	5
Works Plans – Regulation 5(2)(j)	TR010030/APP/2.3	4
Streets, Rights of Way and Access Plans – Regulation 5(2)(k)	TR010030/APP/2.4	3
Special Category Land Plans – Regulation 5(2)(i)(iv)	TR010030/APP/2.5	4
Speed Limits and Traffic Regulations Plans – Regulation 5(2)(o)	TR010030/APP/2.7	3
Scheme Layout Plans – Regulation 5(2)(o) Sheets 11 – 31 of 31	TR010030/APP/2.8	5
Temporary Works Plans – Regulation 5(2)(o)	TR010030/APP/2.10	3

4. Secretary of State’s request 3. Request for a response from the Applicant on Natural England’s comments on ancient woodland:

- 4.1.1 *“The Secretary of State notes Natural England’s comments in its response of 23 February 2021 to the Secretary of State’s consultation letter of 15 February 2021 that the removal of replacement land in January replacement land proposal (when compared to the Applicant’s original proposal) “makes it less clear how the scheme meets the published guidance on compensating for unavoidable loss of Ancient Woodland”.*
- 4.1.2 *Please would the Applicant provide a response to Natural England’s comments on ancient woodland compensation, explaining whether it considers that the Proposed Development (as modified by the updated replacement land proposal described above) meets any published guidance on this matter which the Applicant considers may be relevant.”*

4.2 National Highways' response

- 4.2.1 As set out in Section 3 of the applicant's response to the Secretary of State's consultation of 20 January 2021 [9.155 Other information in respect of environmental effects requested by the Secretary of State in relation to his Replacement Land proposals] the full amount of replacement land (i.e., PBF1-3, CF1-4, HE1 and HE2) was included as embedded mitigation for the Scheme in the Environmental Statement [REP4-023], and therefore was included when identifying the residual impacts of the Scheme on ancient woodland.
- 4.2.2 Ancient woodland is an irreplaceable habitat and throughout the Scheme design process, efforts were made to minimise the loss of ancient woodland as far as practicable. Overall the Environmental Statement [REP4-023] has identified an overall loss of 0.4 ha of ancient woodland.
- 4.2.3 The impact of the Scheme on ancient woodland was considered to be a moderate permanent negative impact, and as set out on page 13 of the applicant's response to the Secretary of State's consultation of 20 January 2021 [9.155] this impact assessment does not change as a result of the proposed reduction in replacement land.
- 4.2.4 Although efforts were made to minimise the loss of ancient woodland, nevertheless a loss of 0.4ha of ancient woodland is unavoidable. A number of compensatory and enhancement measures were identified for the loss of woodland, including the loss of 0.4 ha of ancient woodland. As set out on page 13 of the applicant's response to the Secretary of State's consultation of 20 January 2021 [9.155], even with the proposed reduction in replacement land, the remaining compensatory and enhancement measures in place for the loss of woodland include 8.6 ha of woodland planting and improved woodland linkages, soil translocation from the lost ancient woodland to provide seed bank for ancient woodland ground flora to establish in newly created areas, and enhancement of ancient woodland at Elm Corner.
- 4.2.5 The guidance that Natural England is referring to in its response of 23 February 2021 is the Forestry Commission and Natural England guidance document 'Ancient woodland, ancient trees and veteran trees: protecting them from development' (<https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>).
- 4.2.6 This guidance states that:
- Compensation measures should be appropriate for the site and for the scale and nature of the impacts on it. A compensation strategy could include the following package of measures:*
- *planting new native woodland or wood pasture;*
 - *restoring or managing other ancient woodland, including plantations on ancient woodland sites, and wood pasture;*
 - *connecting woodland and ancient and veteran trees separated by development with green bridges, tunnels or hedgerows;*

- *long-term management plans for new woodland and ancient woodland;*
- *managing ancient and veteran trees;*
- *planting individual trees that could become veteran and ancient trees in future; and,*
- *monitoring the ecology of the site over an agreed period.*

4.2.7 Taking the reductions in replacement land into account, the remaining compensatory and enhancement measures in place for the loss of woodland, including the ancient woodland are:

- Planting 8.6 ha of woodland, which will include improving woodland links within existing woodland (Buxton Wood) at PBF2;
- Soil translocation from the 0.4 ha of ancient woodland to be lost; and,
- Enhancing 7.3 ha of Elm Corner Woods SNCI, which includes approximately 1.1 ha of ancient woodland.

4.2.8 The Landscape and Ecology Management and Monitoring Plan [REP4-032] includes management and monitoring plans for woodland creation (Section 7.3), soil translocation (Section 7.4) and ancient woodland enhancement (Section 7.5.2.6).

4.2.9 The specific examples of the suggested compensation measures listed in the guidance are included in the remaining compensatory and enhancement measures in place. The woodland creation area is unchanged, and only the area to be enhanced has been reduced.

4.2.10 The applicant agrees with Natural England that the inclusion of CF1-4 of replacement land would have been of further benefit for woodland enhancement measures. However, as set out above, the scale and nature of the impacts on ancient woodland are confined to the loss of 0.4 ha of ancient woodland. As set out in Section 3.4.6 of [REP7-016] (Report on Proposed Scheme Changes 7 to 9), the proposed Change 7 at Heyswood Campsite, would increase the loss of ancient woodland from 0.4 ha to 0.5 ha. This change was put forward as an alternative option at deadline 7 of the examination so the increased loss would only be relevant were the Secretary of State to decide to adopt this option in making the DCO.

4.2.11 Therefore, the applicant considers the remaining compensatory and enhancement measures in place for the loss of woodland to still be 'appropriate for the site and for the scale and nature of the impacts on it' with regards to the loss woodland, including of 0.4 ha (or 0.5 ha under Change 7) of ancient woodland, as set out in the guidance that Natural England refers to in its response of 23 February 2021.

5. Secretary of State's request 4. Request for additional information from the Applicant on the cumulative assessment of climate impacts:

- 5.1.1 *The Secretary of State invites the Applicant to update its response of 9 August 2021 to the Secretary of State's consultation letter of 26 July to provide (or, to the extent that it has already been provided, identify) its assessment of the cumulative effects of Greenhouse Gas emissions from the scheme with other existing and/or approved projects on a local, regional and national level on a consistent geographical scale (for example an assessment of the cumulative effects of the Road Investment Strategy ('RIS') 1 and RIS 2 at a national level).*
- 5.1.2 *This should: take account of both construction and operational effects; identify the baseline used at each local, regional and national level; and identify any relevant local, regional or national targets and/or budgets where they exist (including the carbon budgets, the 2050 net zero target under the Climate Change Act 2008, and the UK's Nationally Determined Contribution under the Paris Agreement). It should be accompanied by reasoning to explain the methodology adopted, any likely significant effects identified, any difficulties encountered in compiling the information, and how the assessment complies with the Environmental Impact Assessment Regulations.*
- 5.1.3 *The Secretary of State would also welcome confirmation that the response to all parts of this question has been prepared by a competent expert. Please can links be provided to any documents referenced and their relevance fully explained.*

5.2 National Highways' response

- 5.2.1 National Highways has responded to this request by breaking it down into various constituent parts as follows:
- National Highways' assessment (*or updated assessment*) of the cumulative effects of greenhouse gas emissions from the M25 junction 10/A3 Wisley interchange (the Scheme) with other existing and/or approved projects;
 - For the assessment (*or updated assessment*) to be on a consistent geographical scale at a national, regional and local scale accounting for construction and operational contributions;
 - How the assessment (*or updated assessment*) which identifies the baseline used at each local, regional and national level compares against any identified relevant local, regional or national carbon targets and/or budgets (including the carbon budgets, the 2050 net zero target under the Climate Change Act 2008 and the UK's Nationally Determined Contribution under the Paris Agreement);
 - How an assessment was undertaken to evaluate the likely significant effects of the Scheme and any difficulties encountered in compiling the information;

- How the assessment presented for the Scheme complies with the Environmental Impact Assessment Regulations;
- A confirmation that this response has been prepared by a competent expert.

5.2.2 To assist the Secretary of State, National Highways has set out its response for each of the matters raised in turn.

Assessment of cumulative effects of greenhouse gas emissions from the Scheme with other existing and/or approved projects

- 5.2.3 National Highways follows the advice set out in the Design Manual for Roads and Bridges (DMRB) for the design and evaluation of the impact of any of its road schemes. This ensures consistency in how any scheme is progressed and how the outcomes are evaluated.
- 5.2.4 The environmental assessment work was completed before updates to the DMRB were made (i.e. Cumulative effects covered in DMRB LA 104 and LA 114 for Climate). However, the methodology used for the climate assessment in Chapter 15 of the environmental statement (APP-060) is consistent with the EIA Regulations and substantially follows that set out in LA 114 and so National Highways does not consider that the results of the assessment would be materially different if it were undertaken using the LA 114 methodology. The LA 114 methodology is based on the legal requirements outlined in the Climate Change Act 2008 and uses the principles of PAS 2080:2016 – ‘Carbon Management in Infrastructure’ and therefore, the assessment is in line with LA 114.
- 5.2.5 In respect of the cumulative assessment for the Scheme, guidance provided in DMRB Volume 11, Section 2, Part 5: Assessment and Management of Environmental Effects’ and the Planning Inspectorate ‘Advice Note Seventeen: Cumulative Effects Assessment’ (August 2019) was followed as these documents were considered to represent best practice for cumulative effects assessments at the time the scheme assessment was undertaken. The assessment is set out in Chapter 16 (APP-061) of the environmental statement.
- 5.2.6 For the climate assessment, construction related CO₂e emissions were quantified following PAS 2080:2016 – ‘Carbon Management in Infrastructure’ principles using Highways England Carbon Tool (APP-130). DMRB, Volume 11, Section 3, Part 1 Air Quality: HA 207/07 was used to quantify the CO₂e operational emissions. This approach is set out in Chapter 15 (APP-060) of the environmental statement.
- 5.2.7 Updated DMRB guidance, LA 104, Environmental assessment and monitoring¹, which was also followed in Chapter 15 (APP-061) provides the following overarching advice on the assessment and evaluation of cumulative impacts on pages 17-18:

¹ <https://www.standardsforhighways.co.uk/prod/attachments/0f6e0b6a-d08e-4673-8691-cab564d4a60a?inline=true>

“Paragraph 3.21 Environmental assessments shall assess cumulative effects which include those from:

- 1) a single project (e.g. numerous different effects impacting a single receptor); and*
- 2) different projects (together with the project being assessed).*

Paragraph 3.21.2 The assessment of cumulative effects should report on:

- 1) roads projects which have been confirmed for delivery over a similar timeframe;*
- 2) other development projects with valid planning permissions or consent orders, and for which EIA is a requirement; and*
- 3) proposals in adopted development plans with a clear identified programme for delivery.*

Paragraph 3.22 The assessment of cumulative effects shall:

- 1) establish the zone of influence of the project together with other projects;*
- 2) establish a list of projects which have the potential to result in cumulative impacts; and*
- 3) obtain further information and detail on the list of identified projects to support further assessment.”*

5.2.8 The assessment of carbon dioxide (CO₂) undertaken to support schemes has assessed the construction and operational effects:

- Construction – the materials and energy required to construct the Scheme;
- Operational – emissions produced by vehicles using the completed Scheme and associated journeys from the wider road network that incorporate or have a change in their journey following opening of the Scheme; emissions produced by maintenance activities over its design life (i.e. 60 years).

5.2.9 The traffic modelling for the Scheme has been undertaken in line with Transport Appraisal Guidance published² by the Department for Transport (DfT). The Transport Assessment Report (APP-136) for the Scheme have been submitted to the DCO examination³. The traffic model used for the Scheme has been developed in line with DfT requirements and is **inherently cumulative**. This is

² <https://www.gov.uk/guidance/transport-analysis-guidance-tag>

³ https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010030/TR010030-000232-TR010030_7.4_traffic_assessment.pdf

because, in brief, traffic models used to support scheme assessment contain data about the following:

1. The proposed scheme and adjoining Strategic Road Network and local road network;
2. Other schemes promoted by National Highways in the near vicinity of the proposed scheme with high certainty that they are to be progressed i.e. progressed beyond preferred route announcement stage;
3. Foreseeable developments promoted by third parties that are likely (based on discussions with the relevant local planning authorities) to be developed in a similar timeline to the proposed National Highways' scheme. Knowing where the proposed third party development is to be sited, the extents and types of development, and the timescales of when it is to be completed are requirements to ensure that the third party developments can be reasonably described in the traffic model; and
4. National government regional growth rates which include a representation of likely growth rates excluding known planning developments already included in the traffic model. This is represented by DfT's NTEM/TEMPRO⁴ growth factors for car usage, and growth in freight is derived from DfT's National Transport Model⁵.

5.2.10 In terms of operational carbon, when National Highways evaluates the changes in CO_{2e} emissions of their proposed schemes they do so by comparing changes in the road traffic on the Strategic Road Network and local road network between the 'without scheme scenario' and the 'with scheme scenario'. This takes into account the assessment of the proposed scheme and all other developments likely to have an influence on the proposed road scheme and on the area the proposed road scheme is likely to influence.

5.2.11 In essence, as both with and without scheme scenarios already include all likely developments and traffic growth factors, the assessment is inherently cumulative as regards operational carbon emissions. This is a state of affairs recognised in general terms in paragraph 3.4.4 of the Planning Inspectorate's Advice Note 17 ("Cumulative effects assessment relevant to nationally significant infrastructure projects"), the first two sentences of which state that:

"Certain assessments, such as transport and associated operational assessments of vehicular emissions (including air and noise) may inherently be cumulative assessments. This is because they may incorporate modelled traffic data growth for future traffic flows. Where these assessments are comprehensive and include a worst case within the defined assessment parameters, no additional cumulative assessment of these aspects is required (separate consideration may be required of the accumulation or inter-relationship of these effects on

⁴ <https://www.gov.uk/government/publications/tempo-downloads>

⁵ <https://www.gov.uk/government/publications/national-transport-model-ntmv2r-overview-of-model-structure-and-update>

an individual set of receptors e.g. as part of a socio economic assessment).”

The appropriate geographical scale of assessment of greenhouse gas emissions

5.2.12 In line with the requirements set out in Climate Change Act 2008⁶ (CCA 2008), Part 1, Section 4 (see below) parliament has set carbon budgets⁷ at the national scale.

“Carbon budgets

1) *It is the duty of the Secretary of State—*

(a) to set for each succeeding period of five years beginning with the period 2008-2012 (“budgetary periods”) an amount for the net UK carbon account (the “carbon budget”), and

*(b) to ensure that the **net UK carbon** account for a budgetary period does not exceed the carbon budget” [our emphasis].*

5.2.13 Carbon budgets cover the following 11 sectors:

1. Surface Transport
2. Buildings
3. Manufacture and Construction
4. Electricity Generation
5. Fuel Supply
6. Agriculture and land use, land use change and forestry
7. Aviation
8. Shipping
9. Waste
10. Fluorinated gases (F-gases)
11. Greenhouse gas removals

5.2.14 The national carbon budgets are themselves cumulative i.e. the sum of carbon emissions from a range of sectors between now and the end of the 6th carbon budget (2037).

5.2.15 The CCA 2008 does not impose a legal duty to set carbon budgets at a smaller scale than national i.e. regional or local. Specifically:

⁶ https://www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga_20080027_en.pdf

⁷ <https://www.gov.uk/guidance/carbon-budgets>

- a. In setting carbon budgets Parliament has not imposed any legal duty upon local authorities to attain any particular targets whether carbon budgets or for net zero 2050. i.e. there are no legal duties which require particular geographical areas within the UK to achieve particular reductions in carbon emissions by particular dates.
- b. Neither Parliament nor Government has identified any sectoral targets for carbon reductions related to transport, or any other sector. There is no requirement in the CCA 2008, or in government policy, for carbon emissions for all road transport to become net zero. This was explained in the ***R(Transport Action Network) v Secretary of State for Transport*** [2021] EWHC 2095 (Admin) (“the TAN case”) in which Holgate J held that:

“...there is no sectoral target for transport, or any other sector, and that emissions in one sector, or in part of one sector, may be balanced against better performance in others. A net increase in emissions from a particular policy or project is managed within the government's overall strategy for meeting carbon budgets and the net zero target as part of “an economy-wide transition.”

- c. A net increase in emissions from a particular policy or project is thus managed within the government's overall strategy for meeting carbon budgets and the net zero target as part of an economy-wide transition.

5.2.16 Therefore, there is no legal requirement to assess the impact of an individual against the total carbon emissions from RIS 1 and RIS 2.

5.2.17 To conduct an impact assessment at a local or regional scale some form of baseline would need to be identified, and that baseline would need to comprise:

- a. A forecast of carbon emissions from all cumulative sources relevant to the geographic / sectoral scale being adopted;
- b. A forecast which addresses the time frame relevant to the proposed road scheme;
- c. A forecast which reflects existing government policy to attain the 6th carbon budget and net zero 2050; and
- d. A forecast which does not include carbon emissions from the proposed road scheme (to avoid double counting).

5.2.18 The Government has not made public any forecasts of carbon emissions from all relevant cumulative sources at a scale less than the national level, over a time frame relevant to the assessment of a particular proposed road scheme, which reflects existing government policy to attain the 6th carbon budget and net zero 2050 and which does not include carbon emissions from the proposed road scheme.

5.2.19 National Highways is unable itself to produce a baseline at a local or regional scale. Such a baseline would have to be consistent with the Government’s understanding of the likely implications of its policies over time in a particular geographic area. In relation to carbon reductions, those policies are myriad and

extend to matters beyond the planning system and into issues relating to the use of fiscal incentives / disincentives to manage carbon emissions across the country as a whole.

- 5.2.20 Relevant to this request for information is that an environmental statement is required to include such information as is reasonably required to assess the environmental effects of the development and which the applicant can reasonably be required to compile having regard to current knowledge (see *R. (Khan) v London Borough of Sutton* [2014] EWHC 3663 (Admin) and *Preston New Road Action Group v Secretary of State for Communities and Local Government* [2018] Env. L.R. 18).
- 5.2.21 There is no reasonable basis upon which National Highways can assess the carbon emissions impact of the Scheme at a local or regional level and it is not required to do by law or the NPS NN.
- 5.2.22 Accordingly, National Highways is not in a position to provide an assessment of the cumulative effects of the greenhouse gas emissions for the scheme for anything other than at the national level carbon budgets.

How the assessment complies with various carbon budgets and wider carbon policies

- 5.2.23 Overall compliance with, or attainment of, ‘carbon budgets’, ‘the 2050 zero target’ under the Climate Change Act 2008, and the ‘UK’s Nationally Determined Contribution’ under the Paris Agreement are the responsibility of Government to manage as they are matters of national policy and not policies set at an individual scheme level.
- 5.2.24 The National Policy Statement for National Networks (NPS NN)⁸ sets the national policy framework against which decision makers can evaluate the outcomes of proposed road infrastructure project. The NPS NN sets policy advice across a range of topics such as air quality, noise, biodiversity and carbon (see paragraphs 5.16 to 5.29 pages 49 and 50).
- 5.2.25 The specific advice on the evaluation of carbon impacts from a proposed scheme and decision making considerations is set out in paragraphs 5.17 and 5.18 respectively.

“Applicant’s assessment

*5.17 Carbon impacts will be considered as part of the appraisal of scheme options (in the business case), prior to the submission of an application for DCO. Where the development is subject to EIA, any Environmental Statement will need to describe an assessment of any likely significant climate factors in accordance with the requirements in the EIA Directive. It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets. However, **for road projects applicants***

⁸ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/387223/npsnn-web.pdf

should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets. [our emphasis].

“Decision making

5.18 The Government has an overarching national carbon reduction strategy (as set out in the Carbon Plan 2011) which is a credible plan for meeting carbon budgets. It includes a range of non-planning policies which will, subject to the occurrence of the very unlikely event described above, ensure that any carbon increases from road development do not compromise its overall carbon reduction commitments. The Government is legally required to meet this plan. Therefore, any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets.” [our emphasis].

- 5.2.26 NPS NN requires assessment against the Government's climate reduction targets i.e. the carbon budgets which are set at a national geographical scale. It does not require assessment against any local or regional targets. This is because the Government has not identified or adopted any carbon reduction targets at a scale smaller than the UK as a whole i.e. national carbon budgets.

How an assessment was undertaken to evaluate the impacts of the Scheme including consideration of likely significance effects

- 5.2.27 National Highways' approach to assessing and evaluating the CO_{2e} impacts associated with the Scheme is set out in Section 15.1.5 of Chapter 15 of the ES (APP-060) which notes that construction related CO_{2e} emissions were quantified following PAS 2080:2016 – 'Carbon Management in Infrastructure' principles using Highways England Carbon Tool (APP-130). DMRB, Volume 11, Section 3, Part 1 Air Quality: HA 207/07 was used to quantify the CO_{2e} operational emissions.
- 5.2.28 The environmental assessment work was completed before updates to DMRB LA 114 Climate were made. However, the methodology used for the climate assessment in Chapter 15 of the ES (APP-060) substantially follows that set out in LA 114 and so National Highways does not consider that the results of the assessment would be materially different if it were undertaken using the LA 114 methodology. The LA 114 methodology is based on the legal requirements outlined in the Climate Change Act 2008 and uses the principles of PAS 2080:2016 – 'Carbon Management in Infrastructure' and therefore, the assessment is in line with LA 114.
- 5.2.29 Section 3 (Methodology) of DMRB LA 114, paragraphs 3.18 to 3.20 defines the reporting requirements for comparison against the relevant carbon budgets (*in*

existence at the time of the assessment) and the evaluation criteria for significance, which is consistent with the decision making requirements set out in paragraphs 5.17 and 5.18 of the NPS NN.

- 5.2.30 Chapter 15 (APP-060) of the environmental statement for the Scheme sets out the climate assessment completed for this Scheme. Chapter 15 presents projected emissions from the Scheme in the context of the 3rd carbon budget (as shown in paragraph 15.1.10.11). The projected emissions compared to all current and future legislated carbon budget periods, including the 3rd, 4th, 5th and 6th carbon budgets is presented in National Highways' response to the Secretary of State's consultation letter of 26 July 2021. The response concluded that the Scheme does not cause a significant effect for changes in CO_{2e} emissions when compared to carbon budgets. However, since the submission of the environment statement, and the DCO examination, the Department for Environment, Food and Rural Affairs (Defra) has released (on the 19th November 2021) a new version of the Emission Factor Toolkit (EFT) (version 11) (EFT v11). This update is notable because, for the first time, the EFT now includes data relating to the UK vehicle fleet and associated emissions for the period between 2031 and 2050 inclusive. EFT v11 also now includes a greater uptake rates of electric vehicles, aligned to electric vehicle penetration rates described in worksheet labelled 'A1.3.9' of DfT's Databook⁹ for all road types (motorways, urban and rural) listed in EFT.
- 5.2.31 Previous versions of EFT, including EFT v8 which was used to calculate CO_{2e} emissions from road traffic for the Scheme, stopped at 2030. In the absence of CO_{2e} emission factors after 2030 in earlier versions of the EFT, 2030 emissions were used as the last available set of factors to represent CO_{2e} emissions into the future. This clearly over estimated the CO_{2e} emissions in future years because it did not take into account the higher uptake rates of electric vehicles post 2030 as described by the DfT Databook.
- 5.2.32 The DfT published their Transport Decarbonisation Plan (TDP)¹⁰ on the 14th July 2021, which sets out the Government's aspirations to decarbonise transport to support the wider approach to achieving Net Zero by 2050. The TDP represents a series of policy and measures Government is considering to decarbonise transport. "Figure 2: Decarbonising Transport domestic transport GHG emission projections, versus the baseline", page 45 of the TDP, illustrates the anticipated reduction in CO_{2e} emissions from transport, including road traffic between 2020 and 2050.
- 5.2.33 The DfT have advised National Highways that a sensitivity test based on the impact of the policy measures set out in TDP can now be undertaken for schemes. The DfT have approved a sensitivity test based on the rate of improvement shown in Figure 5.1 of the TDP which can be applied to CO_{2e} emissions calculated for the Scheme assessment.
- 5.2.34 Table 5.1 presents the change in CO_{2e} emissions between the 'with scheme scenario' (also referred to as *the Do-something scenario*) and 'without scheme

⁹ <https://www.gov.uk/government/publications/tag-data-book>

¹⁰ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1009448/decarbonising-transport-a-better-greener-britain.pdf

scenario' (also referred to as the **Do-minimum scenario**), split by carbon budgets, for the CO_{2e} emissions previously reported in the environmental statement, the updated CO_{2e} emissions based on EFTv11 and TDP sensitivity test (upper and lower bounds).

5.2.35 As set out in Table 5.1 the updated CO_{2e} emissions calculated using the latest version of EFT (v11) and the sensitivity test based on the policies described by TDP lead to lower changes in emissions for each carbon budget period. Over the 60 year appraisal period operational emissions for the Scheme calculated using EFTv11 would be 21Mt lower than those calculated using EFTv8.

Table 5.1: Change in CO_{2e} Emissions (With Scheme Scenario – Without Scheme Scenario)

Carbon Budget Period	CO _{2e} (Million tonnes)			
	3 (2018-2022)	4 (2023-2027)	5 (2028-2032)	6 (2033-2037)
Carbon Budget	2,544	1,950	1,725	965
Previously Reported in the Response to the SoS Letter – 26 July 2021				
Construction (a)	0.0924			
Operation (b) (e)	0.0034	0.0172	0.0173	0.0174
Total	0.0958	0.0172	0.0173	0.0174
Updated Government Guidance Since the Publication of the Environmental Statement* **				
Construction (c)	0.0830			
Operation (d) (e)	0.0040	0.0189	0.0163	0.0138
Total	0.0870	0.0189	0.0163	0.0138
Sensitivity Test for Operational Emissions				
TDP (upper bound)	0.0041	0.0182	0.0130	0.0075
TDP (lower bound)	0.0040	0.0145	0.0076	0.0035

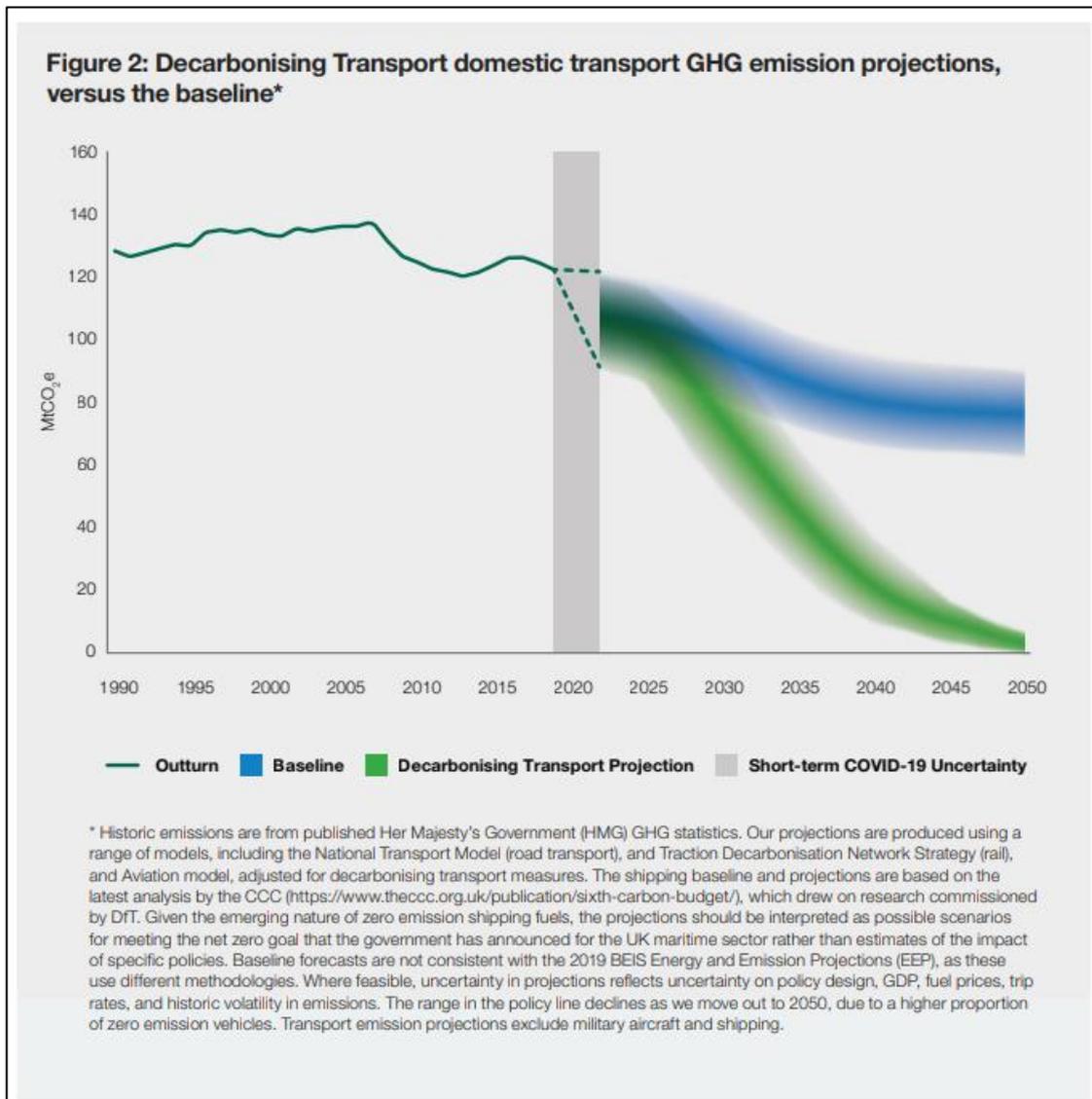
Notes:

- a) National Highways Carbon Emissions Calculation Tool v1.03
- b) Emission Factor Toolkit v8
- c) National Highways Carbon Emissions Calculation Tool v2.4 (2021)
- d) Emission Factor Toolkit v11
- e) A conservative factor of 0.29 % has been applied to account for operational maintenance and energy use

* Also aligned to the reporting timeframes in the SoS Letter – 26 July 2021.

** This assumes that all construction is undertaken in the 3rd carbon budget for comparison purposes. However, in reality the construction period will extend into the 4th carbon budget.

Figure 5.1: Figure copied verbatim from Transport Decarbonisation Plan



How the assessment presented for the Scheme complies with the Environmental Impact Assessment regulations

- 5.2.36 An environmental statement is required to describe the likely significant effects of a proposed development on the environment (Regulation 14 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017¹¹. This includes a description of the likely significant effects on the environment from, inter alia, the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. An environmental statement is also required to describe the likely significant cumulative impacts of the development proposed together with those from other “existing and/or approved projects” (see paragraph 5 (e) of Schedule 4 to the 2017 Regulations).
- 5.2.37 To undertake this work and come to an informed judgement an environmental statement is required to include such information as is reasonably required to describe the environmental effects of the development and which the applicant can **reasonably be required to compile having regard to current knowledge**¹². In the context of assessing cumulative carbon impacts, the only assessment National Highways can be reasonably required to undertake is one having regard to current knowledge.
- 5.2.38 Accordingly, the environmental statement produced for the Scheme complies with the 2017 Regulations.
- 5.2.39 As regards the additional material now requested by the Secretary of State, this amounts to a request by the Secretary of State for “any other information” within the meaning of regulation 3(1) of the 2017 Regulations.
- 5.2.40 However, there is no reasonable basis upon which National Highways can assess the carbon emissions impact of the Scheme at a local or regional level and it is not required to do so by law or pursuant to the NPS NN.
- 5.2.41 National Highways can only assess the change in CO₂e emissions from the Scheme in absolute terms and against the national carbon budgets.
- 5.2.42 The procedures and evaluation criteria set out in DMRB LA 114 Climate, are appropriate and sufficient to ensure that the cumulative effects of proposed road schemes upon climate change are assessed in accordance with the 2017 Regulations and to provide sufficient evidence for the decision making requirements set out in paragraph 5.18 of the NPS NN.

¹¹ <https://www.legislation.gov.uk/uksi/2017/572/contents/made>

¹² (see R. (Khan) v London Borough of Sutton [2014] EWHC 3663 (Admin) and Preston New Road Action Group v Secretary of State for Communities and Local Government [2018] Env. L.R. 18)

The assessment was prepared by a competent expert

- 5.2.43 This response to the requests for information raised by the Secretary of State on climate have been prepared by competent experts with relevant and appropriate experience.
- 5.2.44 The technical lead for air quality and vehicle emissions is the Principal Air Quality Advisor for National Highways with more than 25 years of relevant experience with appropriate professional qualifications. The technical lead for carbon from construction activities is the Senior Technical Advisor for Sustainable Development and Climate Change for National Highways with more than 16 years of relevant experience with appropriate professional qualifications.
- 5.2.45 National Highways confirm that the assessment work set out in Table 5.1 has been carried out by suitably competent experts from Atkins. The air quality assessment was undertaken by a Chartered Scientist (BSc, CSci) who holds full professional membership with the Institution of Environmental Sciences and Institute of Air Quality Management. The relevant individual has over 25 years of knowledge and experience in air quality assessment and used that knowledge and professional judgement to undertake this assessment. The assessment in the climate effects chapter was undertaken by a qualified Principal Environmental Consultant (BA (Hons) Environmental Studies, BSc Environmental Resources) who holds a professional membership with the Institution of Environmental Sciences. They have over 18 years of knowledge and experience in infrastructure sustainable design and carbon management and have used their knowledge and professional judgement to undertake the assessment]. Subsequent responses to the Secretary of State have been undertaken by a qualified Sustainability Consultant (BSc Geology, MSc Climate Science) with over 3 years' postgraduate experience in environmental and sustainability consultancy, including carrying out detailed carbon footprint calculations for major infrastructure projects.

6. Secretary of State's request 5. Request for clarification from the Applicant on the impact of the Proposed Development on the carbon budgets:

- 6.1.1 *"The Secretary of State notes that the figures set out in Table 15.17 of Environmental Statement Chapter 15 [APP-059] regarding the impact of the Proposed Development on the carbon budgets are different to the figures set out in Table 2-2 of the Applicant's response of 9 August 2021 to the Secretary of State's consultation letter of 26 July 2021.*
- 6.1.2 *Please would the Applicant provide an explanation for this difference in the figures, including which set of figures it considers the Secretary of State should consider in making his decision on the scheme."*

6.2 National Highways' response

6.2.1 The difference in figures is as a result of the different study areas used in the assessment. The information in Table 15.17 of Chapter 15 of the Environmental Statement [APP-059] was derived from the local air quality study area only, while the information provided in Table 2.2 of the Applicant's response of 9 August 2021 was derived from all road links in the traffic model provided for the air quality assessment. The Secretary of State should use the latest information provided in the Applicant's response of 9 August 2021, as this is considered to give the most comprehensive dataset, and is also consistent with the information used in the Department for Transport's Transport Analysis Guidance (TAG) appraisal.

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