A30 Chiverton to Carland Cross
TR010026

6.2 ENVIRONMENTAL STATEMENT CHAPTER 4 APPROACH TO ENVIRONMENTAL IMPACT ASSESSMENT

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APFP Regulation 5(2)(a)
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A30 Chiverton to Carland Cross
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6.2 ENVIRONMENTAL STATEMENT

CHAPTER 4 APPROACH TO ENVIRONMENTAL IMPACT ASSESSMENT

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4 Approach to Environmental Impact Assessment

4.1.1 This chapter of the ES details the approach taken to undertake the Environmental Impact Assessment (EIA) of the scheme. The chapter introduces the requirements of the Design Manual for Roads and Bridges (DMRB) and sets out the overall approach to the assessment of the likely effects of the scheme. It also includes details of the consultation undertaken to date and general assumptions and limitations.

4.1.2 The adopted scope, approach and method of assessment for each topic are outlined in the topic specific chapters (Chapters 5-14), with further details such as survey methods provided.

4.1 Environmental Scoping

Scope of assessment

4.1.1 DMRB Volume 11, Section 1, Part 1, supplemented by IAN 125/15[1] 'Supplementary guidance for users of DMRB Volume 11 Environmental Assessment Update' advises that the environmental assessment should consider the following environmental topics:

- Air Quality;
- Noise and Vibration;
- Nature Conservation;
- Cultural Heritage;
- Geology and Soils;
- Materials (including waste);
- People and Communities (including health);
- Road Drainage and the Water Environment; and
- Combined and Cumulative Effects.

4.1.2 In addition to these, the Infrastructure Planning (EIA) Regulations 2017 have introduced the requirement for the following to be assessed:

- the risks to human health;
- the impact of the project on climate and the vulnerability of the project to climate change;
- the vulnerability of the proposed development to major accidents or disasters that are relevant to that development.

4.1.3 Consequently, the ES has also considered Health (as part of the People and Communities chapter) and Climate Change and Resilience. There is currently no guidance in DMRB on the assessment of health or climate change, however, it is assumed that the scheme will have the potential to impact on health and on the causes of climate change and therefore they are scoped in to the EIA.

Scoping Report Consultation

4.1.4 A Scoping Report[2] was prepared for the scheme to inform the request for a Scoping Opinion from the Planning Inspectorate (PINS). The Scoping Report sets

[1] http://www.standardsforhighways.co.uk/ha/standards/ians/pdfs/ian125r2.pdf
[2] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010026/TR010026-000004-Scoping%20Report.pdf

out the proposed scope of work and methods to be applied in carrying out the EIA, and the proposed structure of the ES. The Scoping Report was formally submitted to PINS on 10 August 2017 (Volume 6 Document Ref 6.4 Appendix 4.1).

4.1.5 The Scoping Report was issued to 22 bodies including Local Authorities, relevant statutory undertakers, Statutory Environmental Bodies (SEB), Parish Councils and health bodies. Nine consultees replied by the statutory deadline. A full list of the consultees and respondents are outlined within the Scoping Opinion3, which was received from PINS on 20 September 2017. The Scoping Report and Scoping Opinion are available at the following link:

https://infrastructure.planninginspectorate.gov.uk/projects/south-west/a30-chiverton-to-carland-cross-scheme/?ipcsection=docs

4.1.6 Topic specialists have addressed issues identified in the Scoping Opinion relating to their disciplines. Volume 6 Document Reference 6.4 Appendix 4.2 Responses to Scoping Opinion, provides details of how each issue has been addressed.

4.1.7 As part of Scoping, a high level screening exercise was undertaken to determine the vulnerability of the proposed development to major accidents or disasters. The independent assessment scoped out this topic of the EIA. This is because major accidents and disasters will be sufficiently addressed within the scheme design and relevant discipline chapters. Further details for scoping out major accidents and/or natural disaster is provided within the Scoping Report (Volume 6 Document Ref 6.4 ES Appendix 4.1)

4.1.8 In response to the Scoping Report, Public Health England (PHE) requested that the possible health impacts of Electric and Magnetic Fields (EMF) should be considered. The Inspectorate noted the comments made by PHE in paragraph 3.3.12 of the Scoping Opinion[4], and stated that "*Although the Scoping Report does not deal with this in detail, the Inspectorate does not anticipate the Proposed Development would give rise to significant effects of this sort. Therefore the Inspectorate, based on the information provided, does not request an assessment of EMF to be carried out*." EMP have subsequently been scoped out of the assessment.

4.1.9 The Infrastructure Planning (EIA) Regulations 2017 have also introduced the requirement for the emission of heat and radiation to be considered. The scheme does not introduce any sources of heat and radiation and there are no sensitive receptors (for example, hospitals or schools) within the route corridor. Hence the topic of Heat and Radiation has been scoped out based on negligible risk.

4.2 Surveys and Predictive Techniques and Methods

Requirements of DMRB

4.2.1 All aspects of the development and design of major highway projects are governed by guidance set out in the volumes of the DMRB. Guidance on EIA for highway projects is given in Volume 11[5], with guidance on environmental design

[3] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010026/TR010026-000033-Scoping%20Opinion.pdf
[4] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010026/TR010026-000033-Scoping%20Opinion.pdf
[5] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/index.htm

in Volume 10[6]. DMRB is constantly being amended and additional supplementary guidance is provided by Interim Advice Notes (IANs)[7].

4.2.2 All EIA work and environmental reporting on the scheme has been undertaken in accordance with guidance set out in DMRB and the relevant IANs.

4.2.3 DMRB guidance on EIA sets out three 'levels' of EIA assessment and reporting: 'scoping', 'simple' and 'detailed'. These levels are not intended to be sequential (i.e. applied one after another in order), but 'consequential', in that the level to be applied at any stage of environmental reporting is determined on a topic-by-topic basis according to the following factors:

- The results of any previous assessment work (especially the Scoping Report);
- The likely scale or significance of impact (not the scale of development);
- The nature of the decision-making process to which the report relates; and
- The degree of uncertainty about the potential impact of the Scheme.

4.2.4 Guidance published in DMRB or in Highways England's IANs for most topics defines topic specific requirements for each level of assessment and reporting. The levels of assessment to be applied to the various topics in this scoping report are given in each of the specialist topic chapters (Chapters 5 -14)

Study area

4.2.5 Study areas have been defined individually for each environmental topic, taking account of guidance published in DMRB, new emerging guidance, the geographic scope of the potential impacts relevant to that topic or of the information required to assess those impacts. The study areas are described within each relevant chapter of this report. The study area for environmental impact assessment for each environmental topic incorporates the entire DCO boundary as a minimum for the scheme.

Identification of baseline conditions

4.2.6 It is essential for an EIA that sufficient data is obtained to form the basis of the assessment. Each topic chapter will include a description of the current (baseline) environmental conditions. This is based on the study area identified for each topic chapter.

4.2.7 The following baseline scenarios have been considered (without the scheme), where relevant, for comparison against the situation with the scheme in place.

- The baseline year for the assessment is topic specific and is dependent on the availability of existing data and new surveys. It is either 2015 or 2016.
- The start of construction is March 2020
- The dual carriageway element of the scheme is "open for traffic" in December 2022, however the scheme construction does not finish until 2023.
- The whole scheme is operational from 2023.
- The design year, 15 years after opening is 2038

4.2.8 Baseline data has been obtained from desk study sources and previous surveys undertaken at PCF stage 2, and from surveys commissioned specifically for the scheme. The identification of existing baseline conditions has been informed by

[6] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol10/index.htm
[7] http://www.standardsforhighways.co.uk/ha/standards/ians/

data from these sources. Future baseline scenarios have been informed by extrapolation of the currently available data by reference to, for example, Government policy, other planning applications, climate change and expert judgement of the individual topic specialists. Clearly, the more distant a future baseline is, the greater the uncertainty is in relation to the conditions that would pertain at that time.

4.2.9 Each topic chapter identifies the limitations of the assessment and whether there were any difficulties encountered in compiling the information that is presented in this ES.

Combined and Cumulative Effects

4.2.10 Combined and cumulative effects result from multiple actions on receptors over time and are generally additive or interactive (synergistic) in nature. They can also be considered as effects resulting from incremental changes caused by other past, present or reasonably foreseeable actions together with the project, identified as:

- Combined effects from a single project (the interrelationship between different environmental factors); and
- Cumulative effects from different projects (with the project being assessed).

4.2.11 The combined and cumulative effects of the scheme in conjunction with other proposed developments have been assessed and the findings are presented within Chapter 15 of this ES.

4.3 General Assessment Assumptions and Limitations

Dealing with uncertainty

4.3.1 In assessing the effects of the scheme from an environmental perspective, the principle of the 'Rochdale Envelope' has been applied, in accordance with PINs Advice note nine: Rochdale Envelope[8].

4.3.2 At the current stage in the design process, absolute certainty about construction timing, phasing and methodology is not possible. To address this uncertainty a set of informed assumptions set out in Chapter 2, Section 2.7, has been used for the assessment of construction impacts.

Limits of Deviation

4.3.3 Under the proposed Development Consent Order ("DCO"), limits of deviation (LOD) are defined in Article 8.

4.3.4 The LOD are the limits within which the DCO authorises the A30 to be constructed. The LOD allows limited flexibility in the positioning of the highway in order that it can positioned optimally reflecting factors identified during the detailed design of the scheme or even during construction. Changes to the indicative route may occur typically as a result of ground conditions or environmental factors which it may not be possible to identify in the period prior to DCO submission. The LOD allow for a small tolerance with respect to any distances and points shown on the plans accompanying the application, although

[8] https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf

all works will take place within the LOD, the extent of which have been subject to full consideration as part of the Environmental Impact Assessment (EIA) for the scheme.

4.3.5 The DCO allows for the scheme to be constructed within the LOD. This includes a vertical deviation, up to a maximum of 0.5 metres (note para 4.3.7) upwards or downwards and a lateral deviation up to a maximum of 0.5 metres, which have a maximum lateral deviation of 1.75 metres. All of the LOD are by reference to the lines, situations and levels of the authorised development shown on the Works Plans (lateral) and the General Arrangement and Section Plans (vertical) in Volume 2 Document Ref 2.4. As a result, there is some necessary flexibility as to the exact scheme detail taken through to construction.

4.3.6 The draft DCO restricts the vertical deviation to a maximum of 0.5 metres downwards only in 3 locations. This means that at these locations the scheme cannot go up from the levels shown on the General Arrangement and Section Plans. The reason for preventing upwards deviation in these locations is that a deviation in excess of the proposed vertical alignment would potentially give rise to new or worse adverse environmental effects, without mitigation.

4.3.7 The 3 locations where the vertical deviation is restricted so that it cannot go up are:

- Chiverton Cross at approximate Chainage 1+000 to 2+000
- Carland Cross at approximate Chainage 13+100 to 13+700
- Marzanvose/NFH area at approximate Chainage Ch7+000 to 7+500

4.3.8 The LOD, contained in the draft DCO, have been considered within the topic-specific chapters of the ES by those undertaking assessments, having regard to the scope for change from the highway alignment illustrated on the Works Plans and the General Arrangement and Section Plans in Volume 2 Document Ref 2.4.

4.4 Significance Criteria

Environmental Assessment Methodology

Relevant EIA Guidance

4.4.1 The EIA process has taken into account relevant guidance, including the following.

- Design Manual for Roads and Bridges (DMRB) Volume 11, Section 1 Aims and Objectives of Environmental Assessment HA 200/08[9].
- DMRB Volume 11, Section 2 General Principles of Environmental Assessment, including HA 201/08[10], HA 202/08[11], HA 204/08[12], HA 205/08[13] and HD 48/08[14]
- Interim Advice Note 125/09(W) Supplementary Guidance for Users of DMRB Volume 11 'Environmental Assessment'

[9] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section1/ha20008.pdf
[10] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20108.pdf
[11] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20208.pdf
[12] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20408.pdf
[13] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20508.pdf
[14] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/hd4808.pdf

4.4.2 Other topic specific legislation and good practice guidance has been considered and details of these can be found in the topic chapters within this ES.

Key elements of the general approach

4.4.3 The assessment of each environmental topic forms a separate chapter of this ES. For each environmental topic chapter within this ES, the following has been addressed in conformity to the Highways England Project Control Framework (PCF), DMRB and EIA Regulations.

- Legislative and policy framework.
- Definition of the study area.
- Identification of potential impacts (including effects arising during the construction and operational phases).
- Assessment methodology.
- Description of the baseline environmental conditions.
- Details of any consultation.
- Assessment Assumptions and limitations (include the gaps and uncertainties for the purpose of ES)
- Identification of design, mitigation and enhancement measures, where appropriate.
- An assessment of the effects of the scheme
- Details of any monitoring requirements.

4.4.4 Each topic chapter provides details of the methodology for baseline data collection and evaluation of effects based on EIA good practice guidance documents, new emerging guidance and relevant topic specific guidance where available.

4.4.5 Cumulative effects with other proposed developments are assessed within this ES in Volume 6 Document 6.2 ES Chapter 15 Consideration of cumulative effects.

Assessment of Effects

4.4.6 The EIA process requires the identification of the likely significant environmental effects of the scheme. This includes consideration of the likely effects during the construction and operational phases of the scheme.

4.4.7 Volume 11, Section 2 of the DMRB (HA 205/08[15]) provides guidance on the determination of significance of environmental effects for highway schemes. This includes consideration of the following.

- Environmental value (or sensitivity) of a resource or receptor;
- The level of impact; and
- The level of significance of an effect.

Value or Sensitivity of Receptors

4.4.8 Receptors are defined as individual environmental features that have the potential to be affected by a scheme. For each topic, baseline studies have informed the identification of potential environmental receptors. Some receptors will be more sensitive to certain environmental effects than others. The sensitivity or value of a

[15] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20508.pdf

receptor may depend, for example, on its frequency, extent of occurrence or conservation status at an international, national, regional or local level.

4.4.9 Sensitivity is defined within each ES topic chapter and takes into account factors including the following:

- Vulnerability of the receptor to change;
- Recoverability of the receptor (ability of recover from a temporary impact); and
- Importance of the receptor.

4.4.10 As a general guide, the definitions set out in Table 2.1 of HA205/08 have been taken into account (except where topic guidance requires otherwise). This includes a five-point scale for assigning environmental value or sensitivity as shown in Table 4-1.

Table 4-1 Criteria and DMRB definitions of Sensitivity (or Value)

Value/sensitivity	Typical descriptions
Very High	Very high importance and rarity, international scale and very limited potential for substitution.
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	High or medium importance and rarity, regional scale, limited potential for substitution.
Low (or lower)	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

Based on Table 2.1 of HA205/08

Magnitude of impact

4.4.11 In DMRB, Volume 11 Section 2 Part 7 HA218/08[16] defines an 'impact' as:

'Change that is caused by an action; for example, land clearing (action) during construction which results in habitat loss (impact)'.

4.4.12 For each topic, the likely environmental impacts have been identified. The likely environmental change arising from the scheme has been identified and compared with the baseline (the situation without the scheme). Impacts are divided into those occurring during the construction and operation phases.

4.4.13 The categorisation of the magnitude of impact is topic specific but generally takes into account factors such as the following:

- Extent;
- Duration;
- Frequency; and
- Reversibility.

4.4.14 When undertaking an EIA, environmental impacts are classified as either permanent or temporary, as appropriate. Permanent changes are those which are irreversible (e.g. permanent land take) or will last for the foreseeable future (e.g. noise from generated road traffic). With respect to temporary impacts, the

[16] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha21808.pdf

following has been used as a guide within this assessment, unless defined separately within the topic assessments:

- Short-term: one to three years;
- Medium-term: four to nine years; and
- Long-term: greater than nine years.

4.4.15 Where environmental impacts are episodic, the frequency of the events has been predicted as far as possible.

4.4.16 Impacts are also defined as either adverse or beneficial. Depending on discipline, they may also be described as follows.

- Direct: Arise from activities associated with the scheme. These tend to be either spatially or temporally concurrent.
- Indirect: Impacts on the environment that are not a direct result of the scheme, often produced away from the scheme or as a result of a complex pathway.

4.4.17 As a general guide, the definitions set out in Table 2.2 of HA205/08 have been taken into account (except where topic guidance requires otherwise). This includes a five-point scale for assigning impact magnitude as shown in Table 4-2.

Table 4-2 Criteria and DMRB Definitions of Impact Magnitude

Magnitude of Impact	Typical criteria descriptions
Major	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements (Adverse).
	Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality (Beneficial).
Moderate	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements (Adverse).
	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (Beneficial).
Minor	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements (Adverse).
	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring (Beneficial).
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements (Adverse).
	Very minor benefit to or positive addition of one or more characteristics, features or elements (Beneficial).
No change	No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Based on Table 2.2 of HA205/08

Significance of Effects

4.4.18 In DMRB, Volume 11 Section 2 Part 7 HA218/08[17], 'effect' is defined as:

[17] http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha21808.pdf

'Term used to express the consequence of an impact (expressed as 'significance of effect'), which is determined by correlating the magnitude of the impact to the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria. For example, land clearing during construction results in habitat loss (impact), the effect of which is the significance of the habitat loss on the ecological resource'.

4.4.19 The term 'effect' is therefore used to express the consequence of an impact (expressed as the 'significance of effect'). This is identified by considering the magnitude of the impact and the sensitivity or value of the receptor.

4.4.20 The magnitude of an impact does not directly translate into the significance of effect. For example, a significant effect may arise as a result of a relatively modest impact on a resource of national value/sensitivity, or a large impact on a resource of local value/sensitivity. In broad terms, therefore, the significance of the effect can depend on both the impact magnitude and the value or sensitivity or importance of the receptor.

4.4.21 Each chapter defines the approach taken to the assessment of significance. Where appropriate, topic chapters have adopted the general approach set out in DMRB HA 205/08 (see Table 4-3). The evaluation of significance takes into account industry and professional guidance; codes of practice; policy objectives regulations or standards; advice from statutory consultees and other stakeholders, as well as expert judgement of the EIA practitioners, based on specialist experience. For some topics, a simplified or quantitative approach is considered appropriate.

Table 4-3 Approach to Evaluating Significance of Effect

		Magnitude of change				
Environmental Value (Sensitivity)		No change	Negligible	Minor	Moderate	Major
	Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight
	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Medium	Neutral	Neutral or slight	Slight	Moderate	Moderate or Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large

Based on Table 2.4 of HA205/08

4.4.22 Where more than one significance level is provided, professional judgement has been used to determine the significance of effect. Slight, moderate, large or very large effects may be beneficial or adverse.

4.4.23 Except where guidance requires otherwise, the significance of effect is described using the terms very large, large, moderate, slight and neutral. The broad definitions of these terms are provided in Table 4-4.

Table 4-4 DMRB Descriptors of Significance of Effect Categories

Significance Category	Significance Category
Very Large	Only adverse effects are normally assigned this level of significance. They represent key factors in the decision making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of local importance may also enter this category.
Large	These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process.
Moderate	These beneficial or adverse effects may be important, but are not likely to be key decision-making factors. The cumulative effects of such factors may influence decision making if they lead to an increase in the overall adverse effect on a particular resource or receptor.
Slight	These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision making process, but are important in enhancing the subsequent design of the project.
Neutral	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Based on Table 2.3 of HA205/08

4.4.24 In terms of the EIA Regulations, ‘significant’ effects are generally those where the significance of the effect is 'moderate' or greater. Those effects that fall within the significance categories of slight or neutral are ‘non-significant’.

4.5 Design, Mitigation and Enhancement Measures

4.5.1 One of the key requirements of an EIA is that measures are taken to avoid, reduce and, if possible, remedy significant adverse environmental effects. These are termed mitigation measures and their development is part of an iterative EIA process. Mitigation is a measure intended to avoid, reduce and, where possible, remedy significant adverse environmental effects. Mitigation measures have been developed in response to the findings of surveys, initial assessments and consultation. These mitigation measures are designed principally to address impacts whose occurrence, timing and location can be predicted in advance and are intrinsic to the design of the scheme.

Mitigation through engineering design

4.5.2 The first preference in mitigating any impact is to seek engineering design measures to entirely avoid or eliminate the impact. Where this is not possible, the mitigation should seek to reduce the magnitude of the impact. Impacts can be avoided or reduced, for instance, through changes to the horizontal or vertical alignment of the scheme, junction strategy or other aspects of the scheme layout; or through changes in the methods and / or materials to be used in construction.

4.5.3 The scheme assessed within this ES includes a number of engineering design measures that have been designed to avoid or reduce significant adverse environmental effects arising, where practicable.

4.5.4 Those measures forming part of the scheme design are summarised within Chapter 2. Such measures are therefore not proposed or reported in this ES as mitigation.

Other forms of mitigation

4.5.5 Where avoidance of an impact through engineering design measures is not possible, or is only partly effective, further mitigation measures may be required. Such measures fall into three broad categories:

- Measures that do not remove an impact but make it less significant. A typical example on the scheme includes planting trees to screen views of the road where it is visually intrusive.
- The like-for-like replacement of a feature that would be lost. For example, this includes the creation of Cornish hedgerows on the scheme alignment to replace those that cannot be avoided.
- The provision of a beneficial effect that is related to the impact, but is not a like-for-like replacement of the feature to be lost. A typical example would be the construction of a bridge to replace an existing culvert, allowing associated watercourse renaturalisation and improving the wildlife corridor function.

4.5.6 Measures identified during the EIA process to further prevent, reduce and, where possible, offset any adverse effects on the environment are shown on Volume 6 Document Ref 6.3 Figure 7.6 Environmental Master Plans.

4.5.7 The mitigation measures identified in the topic assessments in this ES are summarised in the Register of Environmental Actions and Commitments (REAC) in Volume 6 Document Ref 6.4 Appendix 16.1, included in the Environmental Masterplans and described in the relevant topic chapters.

4.5.8 Where required, mitigation measures have been identified within each topic chapter, together with an assessment of the effects with the mitigation measures in place.

Construction mitigation

4.5.9 There are potential impacts to the environment that could occur as a result of the construction process including accidental occurrences during construction. The timing and location of these impacts cannot be accurately predicted at this stage. An example would include accidental spillages of fuels, oils or other chemicals.

4.5.10 As the occurrence of such impacts is not certain at this stage, they are better described as ‘risks’ rather than ‘impacts’. The likelihood of occurrence and the severity of any such incidents can be reduced through good construction site management practices. To help ensure adequate consideration of risks identified during the EIA which would relate to the construction period, an outline Construction Environmental Management Plan (CEMP) has been prepared. This sets out how construction stage mitigation measures would be implemented to manage those risks and certain requirements for the contractors.

4.5.11 The outline CEMP details the roles and responsibilities, control measures, training and briefing procedures, risk assessments and monitoring systems to be employed during planning and construction for all relevant environmental topic areas.

4.5.12 Each ES topic chapter describes measures to be adopted during construction to avoid and minimise environmental effects, such as pollution control measures.

Implementation and enforcement of mitigation

4.5.13 Mitigation will be secured by way of requirements in the DCO that the scheme is undertaken in accordance with:

- the Outline CEMP (which includes outline provision on mitigation of construction impacts);
- specific mitigation obligations in key topic areas such as landscaping, drainage and contaminated land; and
- the scheme design shown on the plans submitted with the DCO.

4.5.14 Parallel with this, Highways England will place a contractual responsibility on contractors to comply with the DCO requirements.

4.5.15 Highways England will also place a more detailed contractual responsibility on detailed design and construction contractors to design and construct the project providing the same level of mitigation as the environmental design in the Environmental Masterplans (Volume 6 Document Ref 6.3 Figure 7.6) and the REAC (Volume 6 Document Ref 6.4 Appendix 16.1).

4.5.16 As part of the DCO, a Mitigation Route Map ((Volume 7 Document Ref 7.3). has been prepared to demonstrate that all necessary controls and mitigation for the project have been identified and secured. It provides an audit trail of the controls and mitigation measures and sets out the way in which they will be translated into clear and enforceable controls

Enhancement

4.5.17 Enhancement is a measure that is over and above what is required to mitigate the adverse effects of a scheme. Where possible, enhancement measures have been identified within each topic chapter. Further environmental enhancements may be provided as part of the detailed design where practicable.

4.6 Transboundary effects

4.6.1 Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the consideration of any likely significant effects on the environment of another European Economic Area (EEA) State.

4.6.2 Guidance on the consideration of transboundary effects is provided in Planning Inspectorate's Advice Note Twelve: Development with significant transboundary impacts consultation[18].

4.6.3 On the 23rd May 2018, the Planning Inspectorate confirmed on behalf of the Secretary of State, they have undertaken a transboundary screening of the proposed A30 Chiverton to Carland Cross scheme. This concluded that the scheme is unlikely to have a significant effect either alone or cumulatively on the environment in another European Economic Area State.

[18] Planning Inspectorate's Advice Note Twelve: Development with significant transboundary impacts consultation, version 5 (March 2018) available at https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/04/Advice-note-12v2.pdf

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