

M60/M62/M66 Simister Island Interchange

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ENVIRONMENTAL STATEMENT CHAPTER 15 ASSESSMENT OF CUMULATIVE EFFECTS

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ENVIRONMENTAL STATEMENT CHAPTER 15 ASSESSMENT OF CUMULATIVE EFFECTS

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15 Assessment of cumulative effects

15.1 Introduction

- 15.1.1 This chapter presents the information required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 to be provided in the Environmental Statement for the M60/M62/M66 Simister Island Interchange (the 'Scheme') in respect of cumulative effects assessment (CEA). The CEA has been undertaken following the guidance outlined in the Planning Inspectorate's Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects (Planning Inspectorate, 2019) and the environmental assessment requirements and advice outlined in Design Manual for Roads and Bridges (DMRB) LA 104: Environmental Assessment and Monitoring (Highways England, 2020a).
- 15.1.2 Cumulative effects, as reported in this chapter, result from incremental environmental impacts caused by other developments together with the Scheme. Cumulative effects can be additive or interactive (synergistic) in nature. Cumulative effects can occur during both construction and operation of a development.
- 15.1.3 Combined effects are not reported in this chapter. Combined effects (also referred to as '*interrelationships between topics*' in Advice Note Seventeen (Planning Inspectorate, 2019)) can arise from interrelationships between environmental aspects (for example between ecology and the water environment, population and human health), affecting a single resource or receptor. Combined effects have been reported within the relevant aspect chapters of this Environmental Statement (TR010064/APP/6.1).
- 15.1.4 The CEA identifies other reasonably foreseeable developments that could contribute to cumulative effects with the Scheme. To aid this process, local planning authorities (LPA) were consulted to assist with the identification of other reasonably foreseeable development as part of the statutory consultation following the submission of the Environmental Scoping Report (TR010064/APP/6.6) to the Planning Inspectorate in July 2021.
- 15.1.5 This chapter is supported by Figure 15.1: Shortlisted Other Developments for Inter-project CEA of the Environmental Statement Figures (TR010064/APP/6.2) and Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3).

15.2 Competent expert evidence

- 15.2.1 The assessment has been undertaken and reported by a team of competent aspect specialists. The competent expert responsible for the assessment is a Senior Associate Director at Jacobs with a postgraduate degree in Environmental Technology and is a full member of the Institution of Environmental Sciences (IES). The competent expert has over 30 years' experience including coordination of environmental impact assessments (EIAs) for major highways infrastructure schemes.

15.3 Legislative and policy framework

Legislation

- 15.3.1 The requirements for the assessment of cumulative effects in relation to Nationally Significant Infrastructure Projects (NSIPs) under the Planning Act 2008 (as amended) are set out in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations').
- 15.3.2 In the EIA Regulations, Schedule 3 paragraph 1(b) refers to the selection criteria for screening Schedule 2 development, and states that *'The characteristics of development must be considered with particular regard to... (b) cumulation with other existing development and/or approved development'*. Schedule 3 paragraph 3(g), which relates to the types and characteristics of the potential impact, also requires *'(g) the cumulation of the impact with the impact of other existing and/or approved development'* to be taken into account.
- 15.3.3 In relation to the information for inclusion in an Environmental Statement, Schedule 4, paragraph 5 of the EIA Regulations requires:
'A description of the likely significant effects of the development on the environment resulting from, inter alia: 1 the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources' and 'The description of the likely significant effects on the factors specified in regulation 5(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development.'

Policy

- 15.3.1 The need to consider cumulative effects in planning and decision making is also set out in planning policy, in particular the National Policy Statement for National Networks (NPS NN) (Department for Transport (DfT), 2014). The NPS NN sets out the Government's policies relating to the development of NSIPs on the national road and rail networks in England. The Secretary of State uses the NPS NN as the primary basis for making decisions on Development Consent Order (DCO) applications.
- 15.3.2 Table 15.1 summarises the policy requirements from the NPS NN relevant to the CEA and how these requirements have been addressed in the CEA. See also the NPS NN Accordance Tables (TR010064/APP/7.2) for an assessment of the Scheme's compliance with the NPS NN.

Table 15.1 NPS NN requirements for CEA

NPS NN paragraph reference	Requirement	How this requirement is addressed in the assessment
4.3	<p><i>‘In considering any proposed development, and in particular, when weighing its adverse impacts against its benefits, the Examining Authority and the Secretary of State should take into account:...</i></p> <ul style="list-style-type: none"> - <i>its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.’</i> 	<p>This chapter sets out the likely significant effects of the Scheme in combination with the effects of other reasonably foreseeable developments.</p> <p>As stated in paragraph 15.1.3, within Scheme combined effects have been reported within the relevant aspect chapters of this Environmental Statement (TR010064/APP/6.1).</p>
4.16	<p><i>‘When considering significant cumulative effects, any environmental statement should provide information on how the effects of the applicant’s proposal would combine and interact with the effects of other development (including projects for which consent has been granted, as well as those already in existence)...’</i></p>	
4.17	<p><i>‘The Examining Authority should consider how significant cumulative effects and the interrelationship between effects might as a whole affect the environment, even though they may be acceptable when considered on an individual basis with mitigation measures in place’.</i></p>	
4.55	<p><i>‘The Secretary of State should be satisfied that development consent can be granted taking full account of environmental impacts. This will require close cooperation with the Environment Agency and/or the pollution control authority, and other relevant bodies, such as the MMO, Natural England, Drainage Boards, and water and sewerage undertakers, to ensure that in the case of potentially polluting developments:...</i></p> <ul style="list-style-type: none"> - <i>the effects of existing sources of pollution in and around the project are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable, particularly in relation to statutory environmental quality limits’.</i> 	<p>The combined effects of pollution resulting from construction and/or operation of the Scheme on environmental receptors are considered within the aspect chapters of this Environmental Statement (TR010064/APP/6.1). The potential cumulative effects of pollution occurring from the Scheme in combination with other existing and/or reasonably foreseeable development is considered in this chapter and in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3).</p>

15.3.3 The Government has published a draft of the NPS NN in March 2023 (DfT, 2023). The consultation closed in June 2023 and the draft NPS NN has not yet been designated. However, it is potentially capable of being an important and relevant consideration in the decision-making process. The Environmental Statement continues to reference the 2014 NPS NN though, as it remains the relevant Government policy. Notwithstanding that position, Table 15.2 summarises the policy requirements from the draft NPS NN relevant to this aspect and how these requirements have been addressed in the aspect assessment. See also the Draft NPS NN Accordance Tables (TR010064/APP/7.3) for an assessment of the Scheme’s compliance with the draft NPS NN.

Table 15.2 Draft NPS NN requirements for CEA

Draft NPS NN paragraph reference	Requirement	How this requirement is addressed in the assessment
4.3	<p><i>‘In considering any proposed development, and in particular, when weighing its adverse impacts against its benefits, the Examining Authority and the Secretary of State should take into account:...</i></p> <ul style="list-style-type: none"> - <i>its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts.’</i> 	<p>This chapter sets out the likely significant cumulative effects of the Scheme in combination with the effects of other reasonably foreseeable developments.</p>
4.11	<p><i>‘A key part of environmental assessment is the consideration of cumulative effects. The applicant should provide information on how the effects of the proposal would combine and interact with the effects of other development, where relevant. For most practical purposes this means that the applicant should consider the impact of other existing and committed developments within an appropriate geographical area and assess the additional impact of their own development. Other evidence for example, from a Transport Business Case, appraisals of sustainability of relevant NPSs or strategic environmental assessment of development plans, may assist the Secretary of State in reaching decisions on proposals and on mitigation measures that may be required. The Secretary of State should consider how the accumulation of, and interrelationship</i></p>	

Draft NPS NN paragraph reference	Requirement	How this requirement is addressed in the assessment
	<p><i>between, effects identified in the environmental assessment might affect the environment, economy, or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place.'</i></p>	
4.49	<p><i>'The Secretary of State should be satisfied that development consent can be granted taking full account of environmental impacts. Working in close cooperation with the Environment Agency and/or the pollution control authority, and other relevant bodies, such as the Marine Management Organisation, the Statutory Nature Conservation Bodies, Drainage Boards, and water and sewerage undertakers, the Secretary of State should be satisfied early in the process and through parallel tracking of the Development Consent Order and Environmental Permits, before consenting any potentially polluting developments, that:...</i></p> <ul style="list-style-type: none"> - <i>the effects of existing sources of pollution in and around the site are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable, particularly in relation to statutory environmental quality limits'.</i> 	<p>The combined effects of pollution resulting from construction and/or operation of the Scheme on environmental receptors are considered within the aspect chapters of this Environmental Statement (TR010064/APP/6.1). The potential cumulative effects of pollution occurring from the Scheme in combination with other existing and/or reasonably foreseeable development is considered in this chapter and in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3).</p>
5.236	<p><i>This assessment should consider all relevant socio-economic impacts, which may include:...</i></p> <ul style="list-style-type: none"> - <i>cumulative effects - if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region'.</i> 	<p>Socio-economic impacts have been addressed in Sections 12.16 and 12.18 of Chapter 12: Population and Human Health of this Environmental Statement (TR010064/APP/6.1) where relevant.</p> <p>A detailed regional cumulative socio-economic impact assessment has not been undertaken. At time of writing, there are no other committed NSIP highway schemes within Greater Manchester or the North West of England on the Planning</p>

Draft NPS NN paragraph reference	Requirement	How this requirement is addressed in the assessment
		<p>Inspectorate’s Programme of Projects that have been granted development consent and would be under construction at the same time as the Scheme. The nearest NSIP road scheme is the A57 Link Roads (approximately 17.7km from the Scheme), however this scheme is awaiting the outcome of a judicial review, and the outcome and timeline for construction are currently uncertain. In addition, as stated in Chapter 2: The Scheme of this Environmental Statement (TR010064/APP/6.1), during peak construction periods (Q1 and Q2 2027) there would be approximately 230 personnel working on the Scheme, which is considered to be a relatively small number of staff compared with other NSIP such that it would not result in a shortage of construction workers in other industries.</p>

15.4 Assessment methodology

Assessment scope

Combined effects

- 15.4.1 The Environmental Statement considers the interrelationships between environmental effects (combined effects). This is defined as the effects of multiple residual effects from the Scheme on a receptor (i.e. ‘within scheme’ effects associated with combined impacts across more than one environmental aspect).
- 15.4.2 These interrelationships can generally be grouped into four broad categories: the effects on residential receptors and communities; effects on the historic environment; effects on biodiversity; and effects on the water environment. These categories of interrelationships are covered in the following aspect chapters of the Environmental Statement (TR010064/APP/6.1):
- Effects on residential receptors and communities – the combined effects on residential receptors and communities from air quality, noise, contamination, severance and changes to views and setting are covered under the human health aspect of Chapter 12: Population and Human Health.

- Effects on the historic environment – the combined effects on the historic environment from noise, vibration, dust deposition, land use change, dewatering and changes in setting are covered under Chapter 6: Cultural Heritage.
- Effects on biodiversity – the combined effects on biodiversity from changes to air quality, noise, light, habitat loss and fragmentation are covered under Chapter 8: Biodiversity.
- Effects on the water environment – the combined effects on the water environment, such as effects on water quality from physical works, road runoff, accidental spillage and contaminated land, are covered under Chapter 13: Road Drainage and the Water Environment.

15.4.3 The four chapters above represent the aspects with receptors likely to experience combined effects. Impacts from other aspects, such as air quality, landscape, geology and soils, and noise and vibration, have the potential to interact with other impacts to result in combined effects. However, using a receptor-based approach, these effects are best reported in the four aspect chapters above.

Inter-project cumulative effects

15.4.4 Certain aspect chapters of the Environmental Statement, namely air quality and noise, as well as elements of the water quality assessment, which assess effects of operational vehicular emissions, are inherently cumulative assessments. This is because those aspects depend on traffic forecasts that consider the impacts of other developments and other highway schemes. Future growth figures in the traffic model have made allowances for any developments that are already committed and so are cumulative (see Section 2.6 of the Transport Assessment (TR010064/APP/7.4) for further details regarding the traffic model). The other developments which have been taken into account in the traffic model and are therefore not considered further in this chapter in relation to effects arising from operational traffic are listed in Table 15.3 (see Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3) for further details regarding these other developments in the longlist of other developments). Therefore, in order to avoid double counting of effects, this CEA does not include effects arising from operational traffic from other developments, except where other developments have not been taken into account in the traffic model.

Table 15.3 Other developments taken into account in the traffic model

Planning ID	Planning application reference	Description of other development
RBC-APP-022	16/01399/HYBR	Part full/part outline planning application for the development of land at South Heywood, including the demolition of a number of existing on-site buildings and structures. Full consent sought for the construction of a new link road between Junction 19 of the M62 and Pilsworth Road and the widening of part of Pilsworth Road, together with associated works. Outline consent (all matters reserved for except access) for a major mixed-use development comprising up to 1000 dwellings; employment uses (Classes B2/B8); a new primary school; employment land; associated landscaping, open space and sports pitches, drainage, ecological enhancements, cycleway and footpath linkages, infrastructure and other ancillary works.
RBC-APP-028	14/00547/FUL	Residential development - 202 dwellings including associated infrastructure.
RBC-APP-029	15/00794/VRCON	Variation of condition no 2 to amend siting of plot nos. 140 - 145 of planning permission 14/00547/FUL.

15.4.5 Aspects that have been scoped out of the inter-project CEA are as follows:

- Material assets and waste – the assessment reported in Chapter 10: Material Assets and Waste of this Environmental Statement (TR010064/APP/6.1) has considered the influence of constructing the Scheme on national material recovery targets, regional recycled aggregate targets, sub-regional minerals sterilisation and regional landfill capacity. Therefore, this aspect does not require further assessment in this CEA. The Planning Inspectorate, on behalf of the Secretary of State, agreed with this scoping conclusion through the Scoping Opinion (TR010064/APP/6.7) (see Table 15.5 for further details).

- Climate – the assessment reported in Chapter 14: Climate of this Environmental Statement (TR010060/APP/6.1) has considered the Scheme’s potential to affect the global climate and the ability of the Government to meet its carbon reduction targets at a national level (as a result of changes in greenhouse gas emissions) and the effect of changes in climate on the Scheme itself. Therefore, this aspect does not require further assessment in this CEA. Furthermore, the Institute of Environmental Management and Assessment (IEMA) Environmental Impact Assessment Guide to: Climate Change Resilience & Adaptation (IEMA, 2020) advises that the extent to which climate exacerbates or ameliorates the effects of a scheme on the environment, referred to as ‘in-combination’ effects, should be considered. The IEMA guidance advises that the ‘in-combination assessment’ (where climate could exacerbate or conversely diminish the effect of an existing impact of a scheme) is best analysed in the existing environmental aspect chapters of an Environmental Statement and is suited to using traditional significance criteria from the respective aspect chapters. The Planning Inspectorate, on behalf of the Secretary of State, agreed with this scoping conclusion through the Scoping Opinion (TR010064/APP/6.7) (see Table 15.5 for further details).

15.4.6 The other developments which were under construction at the time of the CEA and are assumed to have completed construction and be operational prior to the start of construction of the Scheme have been considered as part of the future baseline of the technical chapters of this Environmental Statement. The other developments considered as part of the future baseline are listed in Table 15.4 (see Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3) for further details regarding these other developments in the longlist of other developments).

Table 15.4 Other developments considered as part of the future baseline

Planning ID	Planning application reference	Description of other development
BMBC-APP-004	65379	Demolition of existing building and construction of a three-storey block of apartments consisting of 27 units.
RBC-APP-009	18/01041/REM	Application for approval of reserved matters (appearance, landscaping, layout and scale) pursuant to outline planning permission 18/01035/VRCON for the erection of 67 residential units with internal road configuration and associated infrastructure and ancillary facilities.

15.4.7 Other developments which were operational prior to the CEA are considered as part of the baseline of the technical chapters of this Environmental Statement – where this is the case, this has been stated in Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3).

Scoping Opinion

- 15.4.8 The proposed CEA methodology, together with a copy of the preliminary Stage 1 long list of other developments was provided in the Environmental Scoping Report (TR010064/APP/6.6) for formal consultation on the scope of the EIA (see Chapter 4: Environmental Assessment Methodology of this Environmental Statement (TR010064/APP/6.1) for further details).
- 15.4.9 Four local planning authorities (LPAs) fall within the study area for cumulative effects and were consulted by the Planning Inspectorate in relation to the Environmental Scoping Report (TR010064/APP/6.6) (see Figure 15.1: Shortlisted Other Developments for Inter-project CEA of the Environmental Statement Figures (TR010064/APP/6.2) for locations of LPA administrative boundaries and the Zone of Influence (ZOI) for cumulative effects). The four LPAs are:
- Bury Metropolitan Borough Council
 - Manchester City Council
 - Salford City Council
 - Rochdale Borough Council
- 15.4.10 Of the four LPAs listed in paragraph 15.4.9, consultation feedback was received from Bury Metropolitan Borough Council and Rochdale Borough Council only. No specific comments in relation to the assessment of cumulative effects were received from Bury Metropolitan Borough Council or Rochdale Borough Council.
- 15.4.11 Four LPAs which fall outside of the cumulative effects study area were also consulted by the Planning Inspectorate in relation to the Environmental Scoping Report (TR010064/APP/6.6): Blackburn with Darwen Council; Bolton Council; Lancashire County Council; and Rossendale Borough Council. Of these, consultation feedback was received from Blackburn with Darwen Council only. No specific comments in relation to the assessment of cumulative effects were received from Blackburn with Darwen Council.
- 15.4.12 Table 15.5 summarises the key requirements from the Planning Inspectorate's Scoping Opinion (TR010064/APP/6.7) as relevant to the scope of the cumulative effects assessment, and identifies any matters scoped out of the assessment as agreed with the Planning Inspectorate and other stakeholders. This table also explains any changes to the assessment methodology as a result of this engagement.

Table 15.5 Scoping Opinion feedback for cumulative effects assessment

Stakeholder	Comment	Response
Planning Inspectorate	<p><u>ID 3.3.4 – Baseline scenario</u></p> <p><i>‘In light of the number of ongoing developments within the vicinity of the Proposed Development site, the Applicant should clearly state which developments will be assumed to be under construction or operational as part of the future baseline. The Inspectorate makes these comments particularly in respect of the “Significant road developments and improvements” proposed as part of the Manchester North-West Quadrant (MNWQ) scheme and the 55,000 additional homes and 50,000 additional jobs by predicted by 2031 within the Greater Manchester City Region. The ES should distinguish between developments in the future baselines that form part of any cumulative impact assessment or are inherent in traffic forecasting and any other assumptions.’</i></p>	<p>The other developments which have been taken into account in the traffic model and are therefore not considered further in this chapter in relation to effects arising from operational traffic are listed in Table 15.3.</p> <p>The other developments which were under construction at the time of the CEA and have been assumed to have completed construction prior to the start of construction of the Scheme have been considered as part of the future baseline of the technical chapters of this Environmental Statement. The other developments considered as part of the future baseline are listed in Table 15.4.</p> <p>The Manchester North-West Quadrant scheme has been included in the longlist of other developments (Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3)). The scheme is currently uncertain, and next steps will be agreed by government as they finalise the next Road Investment Strategy, expected to be published in 2025.</p>
	<p><u>ID 4.11.1 – Material assets and waste</u></p>	<p>Noted. Material assets and waste is scoped out of the inter-project CEA.</p>

Stakeholder	Comment	Response
	<p><i>‘On the basis that the assessment proposed in the materials and waste aspect chapter will consider the impact of the Proposed Development on national material recovery targets, regional recycled aggregate targets, sub-regional minerals sterilisation and regional landfill capacity, the Inspectorate agrees that relevant consideration of cumulative effects will be inherent in that assessment. The Inspectorate therefore agrees that these can be scoped out of further specific consideration in the cumulative effects assessment.’</i></p>	
	<p><u>ID 4.11.2 – Climate</u></p> <p><i>‘The assessment proposed in the climate aspect chapter considers the Proposed Development’s effect on the global climate and the effect of changes in climate on the Proposed Development (ie vulnerability to climate change).</i></p> <p><i>On the basis that consideration of the extent to which climate exacerbates or ameliorates the effects of the Proposed Development will be presented in the climate aspect chapter of the ES, the Inspectorate agrees that it can be scoped out of further specific assessment in terms of cumulative effects and this approach accords with industry standard guidance of the Institute of Environmental Management and Assessment (IEMA).’</i></p>	<p>Noted. Climate is scoped out of the inter-project CEA.</p>

Stakeholder	Comment	Response
	<p><u>ID 4.11.3 – Operational noise and air quality cumulative effects</u></p> <p><i>‘The traffic modelling upon which the air quality and noise assessment are based will take into account committed development in the future traffic flow forecasts and therefore these two aspect chapters are “inherently cumulative”.</i></p> <p><i>On the basis of the approach to the assessment set out in 16.3.13 - 16.3.25, the list of cumulative development schemes should be confirmed within the ES as being within the scope of the operational traffic scenario modelling to demonstrate that all relevant pathways of cumulative noise and air quality effects have been considered.’</i></p>	<p>The other developments which have been taken into account in the traffic model and are therefore not considered further in this chapter in relation to effects arising from operational traffic are listed in Table 15.3. The other developments which have not been taken into account in the traffic model have been assessed for cumulative noise and air quality effects during operation, where relevant (i.e. where the other development is located within the relevant ZOI for the inter-project CEA).</p>
<p>Natural England (Appendix 2 of the Scoping Opinion)</p>	<p><i>‘It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the ‘in combination’ effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.’</i></p>	<p>An assessment of inter-project cumulative effects of the Scheme, including all supporting infrastructure, in combination with other reasonably foreseeable developments has been undertaken and reported in this chapter.</p>

Stakeholder	Comment	Response
	<p>The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.</p>	<p>The long list and shortlist of other developments (Tables 2.1 and 3.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3), respectively) considers other developments at scoping stage. The level of environmental information likely to be available for the inter-project CEA is indicated by the tier of development that the Applicant has assigned to each other development (see Table 15.7 for further details regarding the tier of development categories that have been used).</p>
	<p>A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.</p> <p>The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):</p> <ol style="list-style-type: none"> a. existing completed projects; b. approved but uncompleted projects; c. ongoing activities; d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and 	<p>An assessment of inter-project cumulative effects of the Scheme, including all supporting infrastructure, in combination with other reasonably foreseeable developments has been undertaken and reported in this chapter. The types of schemes listed in points A to E have been considered in the inter-project CEA where appropriate.</p>

Stakeholder	Comment	Response
	<p>e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.</p>	
<p>Public Health England (Appendix 2 of the Scoping Opinion (TR010064/APP/6.7))</p>	<p>Evaluate any potential cumulative impacts as a result of the development, currently approved developments which have yet to be constructed, and proposed developments which do not currently have development consent.</p>	<p>An assessment of inter-project cumulative effects of the Scheme, including all supporting infrastructure, in combination with other reasonably foreseeable developments has been undertaken and reported in this chapter.</p>

Statutory consultation

15.4.13 No key feedback was received during the statutory consultation regarding the assessment of cumulative effects. All comments raised during the statutory consultation, as well as the Applicant’s responses, are included in Annex Q of the Consultation Report Annexes (TR010064/APP/5.2).

General approach

Inter-project cumulative effects

15.4.14 DMRB LA 104 notes that the CEA should report on:

- Road projects which have been confirmed for delivery over a similar timeframe
- Other development projects with valid planning permissions or consent orders, and for which EIA is a requirement
- Proposals in adopted development plans with a clear identified programme for delivery

15.4.15 For the purpose of this CEA, it is considered that the categories of development identified in DMRB LA 104 would cover existing plans and projects that are ‘reasonably foreseeable’ and as such have been reported on in this chapter as per point 4.16 in the NPS NN (DfT, 2014). However, the Planning Inspectorate’s (2019) Advice Note Seventeen lists broader types of developments to be included in the CEA, as it lists developments which have been submitted for planning but have yet to be determined, and it also does not restrict it to planning applications for which EIA is a requirement. Advice Note Seventeen has been adopted in the methodology applied for this inter-project CEA.

- 15.4.16 DMRB LA 104 notes that the assessment of cumulative effects shall:
- Establish the ZOI of the Scheme together with other developments
 - Establish a list of projects which have the potential to result in cumulative impacts
 - Obtain further information and detail on the list of identified projects to support further assessment
- 15.4.17 DMRB LA 104 notes that there are no defined limits or criteria for selecting the list of projects for cumulative assessment, and professional judgement using Annex III of the EIA Directive should be applied and justification provided for developments selected (and excluded). Furthermore, DMRB LA 104 notes that the temporal and spatial scope, together with characteristics of the identified projects, are key considerations in identifying projects that require further assessment as part of the inter-project CEA.
- 15.4.18 Therefore, given the above, the inter-project CEA methodology captures the requirements and advice in DMRB LA 104 together with the staged approach and broader interpretation set out in Advice Note Seventeen (Planning Inspectorate, 2019).
- 15.4.19 The four-staged approach applied for this inter-project CEA is illustrated in Plate 15.1 and is outlined in further detail below.

Plate 15.1 Four-staged approach to the inter-project CEA



Stage 1: Establishing the long list

- 15.4.20 The long list of other developments (Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3)) was identified by determining the ZOI for each environmental aspect and using this to form a study area within which to identify reasonably foreseeable development, in accordance with DMRB LA 104, paragraph 3.22. It should be noted that the ZOIs vary according to environmental aspects and matters. Therefore, some developments on the long list of other developments would be included in further stages of the CEA for some environmental aspects and matters, but not for others.

15.4.21 ZOIs for environmental aspects are listed in Table 15.6. The ZOIs have been developed using professional judgement, taking into account relevant guidance and standards and knowledge of effects experienced on similar schemes. The ZOIs are based on the potential for likely significant effects from the Scheme and its interactions with other developments. It is unlikely that other developments further away than these ZOIs could contribute to significant cumulative effects due to the area over which effects would be dispersed.

Table 15.6 Criteria for determining the ZOI for the CEA for each environmental aspect

Environmental aspect*	ZOI**	Reasoning
Air quality	Construction dust – 0.4km of all construction activity.	DMRB LA 105 (Highways England, 2019a) indicates that dust can be a nuisance up to 200m. Therefore, a ZOI of 400m has been chosen to cover an adjacent development that also has a 200m study area for dust.
	Construction traffic emissions – 0.4km from the Affected Road Network (see Chapter 5: Air Quality of this Environmental Statement (TR010064/APP/6.1)).	DMRB LA 105 (Highways England, 2019a) indicates that emissions from road vehicles have negligible impacts after 200m. Therefore, 400m has been allowed for to cover an adjacent development that also has a 200m study area for vehicle emissions.
	Operational traffic emissions – 0.4km from the Affected Road Network (see Chapter 5: Air Quality of this Environmental Statement (TR010064/APP/6.1)).	Applicable for committed developments that are not included within the traffic model. DMRB LA 105 (Highways England, 2019a) indicates that emissions from road vehicles have negligible impacts after 200m. Therefore, 400m has been allowed for to cover an adjacent development that also has a 200m study area for vehicle emissions.
Cultural heritage	Construction and operational effects on non-designated assets and their settings – 1km.	The size of the study area is informed by standards within DMRB (LA 106, (Highways England, 2020b), Section 3.5) and takes into account the likely extent of physical impacts and setting changes on non-designated assets. The ZOI is double the study area to allow for developments with similar sized study areas.
	Construction and operational effects on designated assets and their setting – 2km.	The assessment will consider the way in which setting is a factor from other developments on the designated assets within the Scheme study area, in accordance with the professional guidance within the Setting of Heritage Assets - Historic England's Good Practice Advice Planning Note 3 (2017) for understanding the setting of heritage assets.

Environmental aspect*	ZOI**	Reasoning
Landscape and visual	Construction and operational effects on landscape and visual – 2km.	Receptors within the 2km study area could be subject to cumulative effects with other development within and beyond 2km. These will be considered for the landscape and visual aspect following guidance in the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) (Landscape Institute and IEMA, 2013). The ZOI for cumulative effects will consider both the ‘other development’ and the receptor type. As stated in GLVIA3, paragraph 7.20, the study area should be defined so that it is proportional, ensuring that the focus is on cumulative effects that are likely to be significant.
Biodiversity	General construction and operational effects on biodiversity – 2km.	Professional judgement based on CIEEM’s Guidelines for Preliminary Ecological Appraisals (2017) and CIEEM’s Guidelines for Ecological Impact Assessment in the UK and Ireland (2018).
	<p>Construction and operational effects on protected and notable species –</p> <ul style="list-style-type: none"> • Great crested newt – 1km (extending further if part of a meta population). • Badger – 200m (extending further if based on clan territories). • Birds – Barn owl 100m; Breeding birds 500m; wintering birds 1km. • Otter and water vole – 400m. • Bats – potential roosts – 200m; transect surveys – 2km. • Terrestrial invertebrates – Order Limits. • Reptiles – Order Limits. 	Based on professional judgement and knowledge of each species, along with industry guidance including Great Crested Newt Mitigation Guidelines (English Nature, 2001) and Bat Survey Guidelines for Professional Ecologists, 3rd Edition (Bat Conservation Trust, 2016). The study areas for all protected and notable species, except terrestrial invertebrates and reptiles, have been doubled to allow for overlapping study areas from adjacent developments. Study areas for terrestrial invertebrates and reptiles have not been extended as it is assumed that the other developments’ study areas will also be their Order Limits and therefore no overlap would occur.

Environmental aspect*	ZOI**	Reasoning
Geology and soils	Construction and operational effects on geology and soils – 0.5km.	Follows study area requirements in DMRB LA 109 (Highways England, 2019b). A study area of 250m has been used for the geology and soils assessment (see Chapter 9: Geology and Soils of this Environmental Statement) as it is considered to be the furthest distance that contamination would reasonably travel from the Order Limits. The distance from the Order Limits has been doubled to allow for an adjacent development that also has a 250m study area for geology and soils.
Noise and vibration	Construction noise effects – 0.6km.	Follows study area requirements in DMRB LA 111 (Highways England, 2020c). The distance for the ZOI has been doubled to cover an adjacent development that also has a 300m study area for construction noise.
	Construction vibration effects – 0.2km.	Follows study area requirements in DMRB LA 111 (Highways England, 2020c). The distance for the ZOI has been doubled to cover an adjacent development that also has a 100m study area for construction vibration.
	Operational noise effects – 1.2km from new road links or roads links physically changed or bypassed by the Scheme.	Applicable for committed developments that are not included within the traffic model. Follows study area requirements in DMRB LA 111 (Highways England, 2020c). The distance for the ZOI has been doubled to cover an adjacent development that also has a 600m study area for operational noise.
	Operational vibration effects – Scoped out.	N/A – scoped out.
Population and human health	Construction and operational effects on land use and community health effects – 1.2km.	Follows study area requirements in DMRB LA 112 (Highways England, 2020d), LA 111 (Highways England, 2020c), LA 105 (Highways England, 2019a) and professional judgement that likely significant effects on land use and human health from noise, air quality, visual intrusion and local disruption would be typically up to 0.6km. The distance for the ZOI has been doubled to allow for overlapping study areas.
	Construction and operational effects on physical activity opportunities – 2km.	A distance of 2km is considered for regular walking journeys and physical activity.

Environmental aspect*	ZOI**	Reasoning
		The ZOI is intended to capture cumulative effects on journeys undertaken by WCH by expanding on the 100m land use and accessibility study area to include the full distance between trip origins and destinations. It was based on the Local Cycling and Walking Infrastructure Plans Technical Guidance for Local Authorities (DfT, 2017).
Road drainage and the water environment	Construction and operational effects on hydromorphology – 1km.	ZOIs were set based upon professional judgement and similar schemes of this nature and study area requirements in DMRB LA 113 (Highways England, 2020e).
	Construction and operational effects on effects on flood risk, water quality and groundwater – 2km.	ZOIs have been doubled to allow for overlap with other developments (except for groundwater, as a ZOI of 2km for groundwater is already considered to be a large precautionary study area), but consideration of catchment boundaries would be applied.

*The Material Assets and Waste and Climate aspects are scoped out of the CEA (see Table 15.5 for further details).

**Distance from Order Limits, unless otherwise specified.

15.4.22 The study area for the landscape and visual aspect initially extended to 5km from the Order Limits. Due to the type of development, context and scale, at this distance the Scheme is likely to be barely perceptible and unlikely to give rise to significant effects (see Section 7.6 of Chapter 7: Landscape and Visual of this Environmental Statement (TR010064/APP/6.1)). Further refinement of the study area has been undertaken following site work and a ZOI extending to 2km from the Order Limits has been defined for this assessment based on professional judgment.

15.4.23 As the maximum ZOI presented in Table 15.6 is 2km, an overall ZOI of 2km has been established to represent the search area within which other development have been identified. LPA boundaries and the ZOI for the cumulative effects assessment are shown on Figure 15.1: Shortlisted Other Developments for Inter-project CEA of the Environmental Statement Figures (TR010064/APP/6.2).

15.4.24 The search for other development for the long list of other developments (Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3)) has included a review of:

- Planning applications for major developments (as defined in paragraph 15.4.25) registered with the relevant LPAs (Town and Country Planning Act 1990) since January 2016, including:
 - Development with planning consent and under construction (but not completed)

- Extant planning consent (consent granted and not expired, but construction has not commenced)
- Planning applications currently under consideration by the Local Planning Authority
- Screening / scoping opinions currently under consideration by the Local Planning Authority (which may indicate a planning application is forthcoming)
- Development allocations proposed in an approved or emerging (with at least a draft having been submitted to the Planning Inspectorate) Local Plan
- NSIPs listed on the Planning Inspectorate's programme of projects (Planning Act 2008) including:
 - Where the developer has advised the Planning Inspectorate in writing that they intend to submit an application in the future
 - Where an application has already been made to the Planning Inspectorate and is undergoing the development consent process
 - Where a proposal has been decided
- Development of transport systems authorised by Transport and Works Act Order (Transport and Works Act 1992) including:
 - Applications currently under consideration by the Secretary of State
 - Made Orders
 - Hybrid Bills currently before parliament
- Reserved matter applications and discharge of conditions – these have been reviewed for cases where although the planning application to which they relate may pre-date 2016, they indicate large scale developments which are being brought forward in phases and so there is potential for temporal overlap with the Scheme

15.4.25 Major developments are defined under Development Management Procedure (England) Order 2010 (as amended) as development involving any one or more of the following:

'(a) the winning and working of minerals or the use of land for mineral-working deposits;

(b) waste development;

(c) the provision of dwelling houses where —

(i) the number of dwelling houses to be provided is 10 or more; or

(ii) the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph (c)(i);


(d) the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or

(e) development carried out on a site having an area of 1 hectare or more.'

15.4.26 Advice Note Seventeen (Planning Inspectorate, 2019) does not specify any criteria to be considered before selecting other developments for the long list at Stage 1, other than being within a relevant ZOI for CEA. However, it is considered that the inclusion of all minor planning applications into the long list would not be proportionate and these have therefore been excluded from the preliminary long list prior to Stage 1. The exclusion of minor developments is justified on the basis that these would be developments of not more than local significance and are highly unlikely to give rise to cumulative effects of a scale that would be environmentally significant over and above the Scheme in isolation.

15.4.27 All developments identified in the long list of other developments (Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3)) have been categorised into Tier 1 to 3 development stages based on Advice Note Seventeen (Planning Inspectorate, 2019) guidance (refer to Table 15.7). The level of available information decreases between each respective tier.

Table 15.7 Criteria for determining tier of development for CEA (adapted from Advice Note Seventeen (Planning Inspectorate, 2019))

Tier	Development Status	Level of available data
Tier 1	Under construction.	Decreasing level of available data 
	Permitted applications whether under the Planning Act 2008 (Planning Act 2008) or other regimes, but not yet implemented.	
	Submitted applications whether under the Planning Act 2008 or other regimes, but not yet determined.	
Tier 2	Projects on the Planning Inspectorate's Programme of Projects or in the local planning authorities' portal where a Scoping Report has been submitted.	
Tier 3	Projects on the Planning Inspectorate's Programme of Projects or in the local planning authorities' portal where a Scoping Report has not been submitted.	
	Identified in the relevant Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that there will be limited information available on the relevant proposals.	

Tier	Development Status	Level of available data
	Identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward. Projects that have requested a screening opinion from the relevant local planning authority.	

15.4.28 The other developments listed in long list of other developments (Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3)) have each been assigned a Planning ID for ease of reference (e.g. 'ID BMBC-APP-001'). The Planning ID reference system comprises 'ID' followed by the relevant planning authority for planning applications and development allocations (e.g. 'BMBC' for Bury Metropolitan Borough Council), followed by the application type (e.g. 'APP' for planning applications, and 'ALL' for development allocations), followed by a unique number (e.g. '001').

15.4.29 Stage 1 of the inter-project CEA involves screening the developments in the long list to set out which of the various environmental aspects' ZOIs they fall within, and therefore which environmental aspects are relevant considerations in the CEA process for each of the developments. In some cases a development will not be taken through to Stage 2 because, although it falls within a ZOI, the nature and scale of the development is not relevant in terms of being likely to affect the environmental factors for which that ZOI has been determined.

15.4.30 A cut-off date of 30 November 2024 has been used to identify other developments and allow sufficient time for completion of the inter-project CEA process and compilation into the Environmental Statement.

Stage 2: Establishing the shortlist

15.4.31 The next stage of the CEA is to create a short list of 'other existing development and/or approved development'. This involves taking the developments screened in from Stage 1 and applying threshold criteria to determine if there is potential for significant effects to arise in combination with the Scheme. These criteria are set out in Table 15.8. Professional judgement has been used to identify whether potential cumulative impacts are likely to be significant, with consideration to the inclusion / exclusion criteria set out in Table 15.8.

Table 15.8 Stage 2 shortlisting inclusion and exclusion criteria

Consideration	Criteria
Temporal scope	Other development with overlapping construction (2026 – 2029) and operational periods (2029 – 2044) to the Scheme will be considered further. Other development with temporal scopes outside these periods have not been shortlisted for the CEA.

Consideration	Criteria
Scale and nature of development	Development identified as Schedule 1 and/or Schedule 2 (10. Infrastructure Projects) developments in the EIA Regulations have been considered further. Other development not identified as Schedule 1 or 2 development have not been shortlisted for the CEA unless, after reviewing it against criteria in Schedule 3 of the EIA Regulations (or with reference to any screening opinions issued by LPAs in response to screening requests), it is considered that it has characteristics by which there is a likelihood of significant effects when considered in combination with other development.
Sensitivity of the receiving environment	Where there are potential source-pathway receptor linkages between other development and the Scheme cumulative effects will be considered further. Other development with no clear source-pathway-receptor linking have not been shortlisted for the CEA.

15.4.32 Screening of the other developments progressed to Stage 2 of the inter-project CEA against the threshold criteria in Table 15.8 is presented in Table 3.1 of Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3). Only likely significant effects have been taken forward to the next stages of the inter-project CEA, rather than every potential interaction. Justification is provided in Table 3.1 to assist in providing a clear record of other development considered and the decision-making process taken with respect to including / excluding development from further assessment.

Stage 3: Information gathering

15.4.33 Environmental information for the other developments that have been progressed for further assessment in Table 3.1 of Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3) has been obtained from the following web-based sources, as appropriate:

- Planning application documentation and supporting environmental assessments obtained from LPA planning portals
- Local Development Plans prepared by the respective LPAs
- Strategic Environmental Assessments / Sustainability Appraisals
- The Planning Inspectorate’s website, including EIA documents prepared for NSIPs

15.4.34 Information gathered included the following, in so far as it was available for each of the shortlisted other developments:

- Proposed design and location
- Construction, operation, and decommissioning
- Baseline data and effects arising from the other development

Stage 4: Assessment

- 15.4.35 Stage 4 of the inter-project CEA involves an assessment of the potential inter-project cumulative effects arising between the Scheme and the other developments that were progressed to Stages 3 and 4 of the inter-project CEA.
- 15.4.36 The potential for cumulative effects has been assessed by reviewing the available environmental information and identifying potential impacts at shared sensitive receptors. The assessments have been completed by the same team of environmental specialists who carried out the technical assessments reported in Chapters 5 to 14 of this Environmental Statement (TR010060/APP/6.1) in collaboration with a competent EIA practitioner.
- 15.4.37 The significance of effects from the Scheme have been taken from the respective technical chapters of this Environmental Statement. Cumulative effects arising from the Scheme in combination with other developments have been identified as 'significant' or 'not significant'.
- 15.4.38 For the shortlisted other developments, whose own environmental assessments may have used different significance criteria or terminology, their effects have been interpreted using professional judgement, based on the available environmental documents. No new assessment of the effects of individual developments has been carried out.
- 15.4.39 The results of stage 4 of the inter-project CEA are presented in Table 4.1 of Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3).

15.5 Assessment assumptions and limitations

- 15.5.1 Planning applications granted before 2016 (10 years before the planned start of construction works for the Scheme) have not been considered. It was considered reasonably likely that developments related to permissions granted before 2016 will have been completed before the Scheme construction works start. Such developments were therefore considered unlikely to give rise to cumulative effects during construction, and operational effects would already form part of the baseline environment.
- 15.5.2 A cut-off date of 30 November 2024 has been used to identify other developments and allow sufficient time for completion of the inter-project CEA process and compilation into the Environmental Statement.
- 15.5.3 EIA Regulations Schedule 2 threshold criteria have been used to make a judgement as to whether other development might be considered to be EIA development (and therefore have potential for significant effects, and in turn, significant cumulative effects). The following EIA Regulations Schedule 2 threshold criteria have been used where relevant:
- 10(a) Industrial estate development projects: The area of the development exceeds 0.5 hectare (ha).
 - 10(b) Urban development projects, including the construction of shopping centres and car parks, sports stadiums, leisure centres and multiplex cinemas:

- i) The development includes more than 1ha of urban development which is not dwellinghouse development; or
 - (ii) the development includes more than 150 dwellings; or
 - (iii) the overall area of the development exceeds 5ha.
 - 11(b) Installations for the disposal of waste (unless included in Schedule 1):
 - i) The disposal is by incineration; or
 - ii) the area of the development exceeds 0.5ha; or
 - iii) the installation is to be sited within 100m of any controlled waters.
- 15.5.4 It has been assumed that if future developments exceed the above criteria they are likely to be an EIA development and therefore could have significant cumulative effects. Screening opinions issued by LPAs in response to screening requests by developers have also been used to determine whether other development are EIA development.
- 15.5.5 It has been assumed that a medium-sized housing development (100+ dwellings) would be constructed at a rate of 50 dwellings per year. This has allowed the assessment to make assumptions about the duration of the construction activity.
- 15.5.6 For all types of development, the timing of discharged pre-commencement planning conditions has been used as an indicator as to whether there has been or would be sufficient time for the development's construction to be completed prior to construction starting on the Scheme.
- 15.5.7 Where planning permission has been granted for a development, it has been assumed that construction will start within the timeframe specified within the decision notice issued by LPAs (typically three years from date of the permission). If an initial notice or other pre-commencement activity (such as discharge of conditions) is not available on the LPA's planning portal, and recent aerial view (Google, 2023) of the site boundary does not indicate that construction has started, then it has been assumed that construction has not started within the timeframe specified within the decision notice issued by LPAs, and the developer would need to submit a new planning application, which would be considered separately in the inter-project CEA should a new application be submitted.
- 15.5.8 For applications submitted but not yet determined it has been assumed that there would be potential for a temporal overlap in construction with the Scheme.
- 15.5.9 The other developments which have been taken into account in the traffic model and are therefore not considered further in this chapter in relation to effects arising from operational traffic are listed in Table 15.3.

- 15.5.10 The other developments which were under construction at the time of the inter-CEA and have been assumed to have completed construction prior to the start of construction of the Scheme have been considered as part of the future baseline of the technical chapters of this Environmental Statement. The other developments considered as part of the future baseline are listed in Table 15.4.
- 15.5.11 As part of the information-gathering exercise (Stage 3 of the CEA), differences in the amounts of information that LPAs report and include on their planning portals were identified. The assessment has relied on the available information, which in some cases is limited. No additional work has been done to identify potential receptors and impacts not evident from their application documents.
- 15.5.12 Professional judgement has been used where necessary to interpret the available information for use in the assessment of cumulative effects.
- 15.5.13 It is possible that there will be future planning applications for developments which could result in cumulative effects with the Scheme, about which there is currently limited or no information. Developments about which there is limited information have been identified in the long list of other developments, but noted as being too early in the planning process to include in the shortlist of other developments. Developments that are not yet known about cannot feature in this assessment. However, any CEA completed in due course for relevant future planning applications would have to consider the effects of the Scheme.

15.6 Assessment of likely significant effects

Long list

- 15.6.1 The long list of other developments (Table 2.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3)) identified 128 records of planning applications, development plan allocations and other reasonably foreseeable developments within the study area for the inter-project CEA. After initial screening 32 applications were taken forward to Stage 2 shortlisting.

Shortlist

- 15.6.2 The shortlist of other developments (Table 3.1 in Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3)) was screened against the criteria set out in Table 15.8. Of the 32 other developments taken forward to Stage 2 shortlisting, four other developments were taken forward for further assessment. These comprise:
- ID BMBC-APP-010, planning application reference 68530: Hybrid application - Full application: Zone 1 development of Commercial building No1 (Creche, Use Class E), car parking and internal site roads, a new site access junction to Pilsworth Road, highway improvements to Hollins Brook Way and Pilsworth Road, and continued use of an existing car park exit to Aviation Road. Outline application: Zone 2 development of Commercial building No.2 (Hub building, Use Class E) car parking and internal site roads and a multi-purpose all-weather sports pitch (Including reserved matters of means of access, layout and scale included for determination).

- ID RBC-APP-022, planning application reference 16/01399/HYBR: Part full/part outline planning application for the development of land at South Heywood, including the demolition of a number of existing on-site buildings and structures. Full consent sought for the construction of a new link road between Junction 19 of the M62 and Pilsworth Road and the widening of part of Pilsworth Road, together with associated works. Outline consent (all matters reserved for except access) for a major mixed-use development comprising up to 1000 dwellings; employment uses (Classes B2/B8); a new primary school; employment land; associated landscaping, open space and sports pitches, drainage, ecological enhancements, cycleway and footpath linkages, infrastructure and other ancillary works.
- ID BMBC-APP-035, application reference 70449: Prestwich Regeneration. Hybrid Planning Application constituting EIA Development comprising: Full application for demolition of existing buildings/structures and erection of phased mixed use development including Community Hub with flexible uses of library, offices, medical/health services (Classes F1 (a-f), F2(b), E(c), E(e), E(g)) & retail uses (Classes E(a), E(b) F2(a)) & Sui Generis (hot food takeaway & bar), new Market Hall (Classes E(a), E(b) & Sui Generis (hot food takeaway and bar)), Commercial Building with flexible uses including retail, offices, gymnasium (Classes E(a), E(b), E(c), E(d), E(g), F2(a), Travel Hub with car parking & cycle parking (Sui Generis), public square & realm, associated landscaping, car parking provision, cycle storage & associated works; and, Part Outline application (all matters reserved) - mixed use development of residential (Class C3), flexible commercial, business, service, local community & learning uses (Classes E, F) & Sui Generis (hot food takeaway & bar), engineering works to Rectory Lane, new public realm, associated landscaping, car parking provision, cycle storage & associated works.
- ID BMBC-APP-040, application reference 71262: Request for environmental impact assessment (EIA) scoping opinion for proposed Northern Gateway site (JPA 1.1).

Inter-project CEA

- 15.6.3 The inter-project CEA for the other developments listed in paragraph 15.6.2 is presented in Table 4.1 of Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3). The inter-project CEA has concluded that there would be potential for significant cumulative effects arising from the Scheme in combination with ID BMBC-APP-040 during construction and/or operation. However, these assessment conclusions are uncertain, as the other development is currently at the scoping stage of EIA and a full EIA has not yet been undertaken and reported. It is expected that the relevant planning application submission for the Northern Gateway JPA1.1 site will be accompanied by an Environmental Statement containing an assessment of cumulative effects with other development, including the Scheme. Full details of uncertainties relating to the assessment of cumulative effects with ID BMBC-APP-040 can be found in Table 4.1 of Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3).
- 15.6.4 While Table 4.1 of Appendix 15.1: Inter-project Cumulative Effects of the Environmental Statement Appendices (TR010064/APP/6.3) considers each development in turn, the text below describes the overall cumulative effects on receptors and receptor groups.

Air quality

- 15.6.5 ID BMBC-APP-010, ID RBC-APP-022 and ID BMBC-APP-035 are located outside of the ZOIs for construction dust, construction traffic emissions and operational traffic emissions, therefore there is no potential for cumulative effects. Additionally, ID RBC-APP-022 has been considered in the Scheme traffic model (see Table 15.3) and has therefore already been incorporated into the assessment in Chapter 5: Air Quality of this Environmental Statement (TR010064/APP/6.1) for construction and operational traffic. In the context of ID BMBC-APP-040 there are unlikely to be significant cumulative effects, in terms of worsening of air quality, during construction. However, there is the potential for significant adverse cumulative effects during operation from road traffic on the M66, M62 and M60. This is deemed to be potentially significant, but uncertain based on the scoping assessment as detailed air quality assessment has not yet been undertaken for the other development.

Cultural heritage

- 15.6.6 The Scheme would have minimal impact on heritage assets during construction and operation. However, there is potential for temporary significant adverse cumulative effects during construction on the setting of the Grade II listed building Brick Farmhouse (NHLE 1067266) resulting from the Scheme in combination with ID BMBC-APP-040, should both the Scheme and the other development be under construction at the same time. This is deemed to be potentially significant, but uncertain based on the scoping assessment as a detailed cultural heritage assessment has not yet been undertaken for the other development. Brick Farmhouse is located approximately 330m from the Scheme works to construct Pond 1. In contrast, Brick Farmhouse is located within the red line boundary for the other development. Given the respective distances of Brick Farmhouse from the Scheme and the other development, it is considered that it is the other development that has potential to generate the majority of any significant adverse cumulative effects.
- 15.6.7 There are no shared receptors that are likely to be affected by the Scheme in combination with ID BMBC-APP-010, ID RBC-APP-022 and ID BMBC-APP-035. There is therefore no potential for cumulative effects with those other developments.

Landscape and visual

- 15.6.8 While the Scheme would have significant residual effects on some receptors during construction and operation, there is no combined landscape/townscape effect on local landscape and visual receptors or intervisibility between the Scheme and ID BMBC-APP-010, ID RBC-APP-022 and ID BMBC-APP-035 therefore no significant adverse cumulative effects are anticipated.
- 15.6.9 With regard to ID BMBC-APP-040, there is the potential for significant adverse cumulative effects during construction on Landscape Character Area (LCA) 26: Prettywood, Pilsworth and Unsworth Moss, depending on whether construction phases for the Scheme and the other development occur in the same areas at the same time. At operation year 1 and year 15 there would be no significant adverse cumulative landscape effects.
- 15.6.10 During construction and operation year 1 there is the potential for significant adverse cumulative effects in combination with ID BMBC-APP-040 on visual receptors at representative viewpoint (VP) locations VP3, VP7 and VP14, depending on whether construction phases occur in the same areas at the same time. This is due to the change in views from visual disturbance from construction activities for new infrastructure, site clearance operations, location of temporary construction compounds, laydown areas and plant movement within the construction sites. By operation year 15 these effects would reduce to not significant as mitigation planting (as shown on Figure 2.3 Environmental Masterplan of the Environmental Statement Figures (TR010064/APP/6.2)) would have established. There is the potential for intervisibility from shared viewpoints for the Scheme and the other development. However, by operation year 15, this would not give rise to a greater effect when combined with the other development.

Biodiversity

- 15.6.11 The Scheme would have neutral or no effects on shared ecological receptors for ID BMBC-APP-010 and ID RBC-APP-022, therefore there is no potential for cumulative effects. Additionally, habitat loss would be temporary during construction and would be reinstated following construction. Both the Scheme and each of the other developments have identified opportunities for enhancement. Therefore, no significant adverse cumulative effects are identified.
- 15.6.12 Due to the distance between ID BMBC-APP-035 and the Scheme and a lack of shared receptors for air quality impacts, it is assessed the effects of the Scheme and the other development would be highly unlikely to affect the same individual animals and therefore there would be no potential for cumulative effects. Both the Scheme and ID BMBC-APP-035 would result in a net gain of habitats.
- 15.6.13 It is considered that there would be no significant cumulative effects from construction of ID BMBC-APP-040 and the Scheme because it is considered that air quality and hydrological impacts could be managed by standard mitigation. Noise impacts would be assessed by the Northern Gateway EIA process. There is potential for significant cumulative effects during operation due to overlapping operational areas which may result in increased nitrogen deposition on the local Sites of Biological Importance (SBIs) and increased operational noise. This is deemed to be uncertain based on the scoping assessment as detailed air quality, noise and biodiversity assessments have not yet been undertaken for the other development. It is considered that there is no potential for significant cumulative effects due to hydrological impacts which could be managed by standard mitigation. Both Schemes would provide a net gain in habitats.

Geology and soils

- 15.6.14 ID BMBC-APP-010, ID RBC-APP-022 and ID BMBC-APP-035 are located outside of the ZOI for geology and soils, therefore there is no potential for cumulative effects with these other developments.
- 15.6.15 There is potential for significant adverse cumulative effects with ID BMBC-APP-040. Both the Scheme and the other development would lead to a permanent loss of agricultural soils in the local area, which could be significant in the local area. This is deemed to be potentially significant, but uncertain based on the scoping assessment as details of permanent and temporary land take are not yet known and a detailed agriculture and soils assessment has not yet been undertaken for the other development.

Noise and vibration

- 15.6.16 ID BMBC-APP-010, ID RBC-APP-022 and ID BMBC-APP-035 are located outside of the ZOI for construction noise and vibration, therefore there is no potential for cumulative effects with these other developments during construction.

- 15.6.17 ID RBC-APP-022 has been considered in the Scheme traffic model (see Table 15.3) and has therefore already been incorporated into the assessment in Chapter 11: Noise and Vibration of this Environmental Statement (TR010064/APP/6.1) for operational traffic.
- 15.6.18 There is the potential for significant adverse cumulative noise and vibration effects with ID BMBC-APP-040, depending on whether construction phases occur in the same areas at the same time. The details on construction and phasing of ID BMBC-APP-040 are not yet developed, so potential cumulative effects are uncertain based on the scoping assessment. There is also potential for significant adverse cumulative noise effects during operation from road traffic on the M66, M62 and M60, but this is also uncertain as detailed modelling has not yet been undertaken for the other development. As both the partial opening year of 2032 and the final opening year of 2039 for the Northern Gateway development are after the opening year of 2029 for the Scheme then it is expected that the traffic patterns from the Scheme will be included within the baseline for the EIA assessment of the Northern Gateway development. It is therefore anticipated that the Environmental Statement for ID BMBC-APP-040 will carry out its own assessment of potential cumulative effects and develop mitigation where appropriate.
- 15.6.19 During operation there would be no significant operational noise effects arising from the Scheme. Due to the scale and nature of ID BMBC-APP-010 and ID BMBC-APP-035, their distance from the Scheme, and the mitigation measures identified by the applicant in their application documentation, no significant cumulative effects are anticipated.

Population and human health

Land use and community health

- 15.6.20 ID RBC-APP-022 is located outside of the ZOI for land use and community health, therefore there is no potential for cumulative effects with this other development.
- 15.6.21 ID BMBC-APP-010 is located on the edge of the Pilsworth Retail Park some distance (800m) from the Scheme. The proposals are relatively modest in scale and would be similar to the baseline context (being commercial development). Due to geographical separation and the limited influence of the Scheme and other development on community receptors, no significant cumulative adverse effects on land use and community health are anticipated from the construction or operation of the Scheme and the other development.
- 15.6.22 ID BMBC-APP-035 coincides with the very edge of the ZOI for land use and community health (495m from the Scheme). There would be no notable overlap between the assets and neighbourhoods affected by each development and therefore no likely significant cumulative effects are predicted between the other development and the Scheme.

- 15.6.23 The land use allocation of ID BMBC-APP-040 Northern Gateway was assessed in the Applicant's assessment for the Scheme on the basis that it was allocated under the Places for Everyone Submission Plan under Heywood / Pilsworth Northern Gateway JPA1.1. Table 12.16 of the Applicant's assessment assesses the Scheme impact on this allocation as slight adverse on the basis that the small amount of land-take is not likely to compromise use of the site for development and improving capacity of the motorway network is required to support scale of development. This is considered to be a negligible cumulative effect on land use.
- 15.6.24 The construction of ID BMBC-APP-040 Northern Gateway has potential to give rise to cumulative effects on local communities who would experience impacts on their quality of life through effects of construction traffic on local lane networks, and construction noise, dust and loss of visual amenity. However, details on the construction and phasing of ID BMBC-APP-040 are not yet developed so the likelihood, magnitude and significance of potential cumulative effects with the Scheme are uncertain based on the scoping assessment. It is expected that the Environmental Statement for ID BMBC-APP-040 Northern Gateway would make its own assessment of potential cumulative effects with the Scheme and develop appropriate mitigation to reduce effects on local communities.

Physical activity opportunities

- 15.6.25 Both ID BMBC-APP-010 and ID BMBC-APP-035 are relatively contained and are considered unlikely to affect any public rights of way (PRoW) or footpath routes that could be cumulatively affected by the Scheme during construction. While there would be temporary short term impacts on PRoW for both the Scheme and ID RBC-APP-022 from diversions, there are no routes that would be directly impacted by both the Scheme and the other development, and it is anticipated that the works to construct the link road will have been completed prior to the construction of the Scheme, therefore there would be no temporal overlap in PRoW diversions. During construction, ID BMBC-APP-040 would be likely to affect PRoW on land in the north-east quadrant of M60 Junction 18, for example footpath 9WHI, 7WHI, 6WHI and 89BUR, so there is potential for cumulative effects with a localised impact on physical activity opportunities. However detailed construction information is not yet available for the other development so the magnitude and duration of potential cumulative effects during construction is uncertain based on the scoping assessment. In the event of cumulative effects on these PRoW, a small minority of the local population would likely be affected and other PRoW would be expected to remain available. Therefore, no significant adverse cumulative effects on physical activity opportunities are anticipated during construction.

15.6.26 During operation, ID BMBC-APP-010, ID RBC-APP-022, and ID BMBC-APP-035 and ID BMBC-040 have identified measures to maintain or enhance PRow and/or footpath routes. The Scheme proposals relate to the motorway itself and do not accommodate improvements to facilities for walkers and cyclists, however no change in population health outcomes associated with physical activity levels are predicted during operation. Therefore, no significant adverse cumulative effects on physical activity opportunities are anticipated during operation.

Road drainage and the water environment

15.6.27 No significant cumulative adverse effects are anticipated on the road drainage and water environment as there is limited likelihood of impact from both the Scheme and the other developments, owing to the implementation of best practice and mitigation measures for both the Scheme and the other developments during construction and operation.

15.7 Mitigation and monitoring

15.7.1 No further mitigation or monitoring is identified, beyond the measures set out in Chapters 5 to 14 of this Environmental Statement (TR010060/APP/6.1).

15.8 Summary

15.8.1 A CEA has been undertaken and reported in this chapter, and the Scheme is therefore considered compliant with the NPS NN (DfT, 2014) and the emerging draft NPS NN (DfT, 2023).

15.8.2 Table 15.9 summarises residual significant effects identified for the cumulative effects aspect.

Table 15.9 Summary of residual significant cumulative effects

Construction	Operation
The construction of the Scheme in combination with the construction of ID BMBC-APP-040 has the potential for significant adverse cumulative effects for cultural heritage, landscape and visual, geology and soils, noise and vibration, and population and human health.	The operation of the Scheme in combination with the operation of ID BMBC-APP-040 has the potential for significant adverse cumulative effects for air quality, landscape and visual (in operation year 1, reducing to not significant by year 15), biodiversity, and noise and vibration.

Acronyms and initialisms

Acronym or initialism	Term
CEA	Cumulative Effects Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management
DCO	Development Consent Order
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
EIA	Environmental Impact Assessment
GLVIA3	Guidelines for Landscape and Visual Impact Assessment, Third Edition (Landscape Institute and IEMA, 2013)
ha	Hectare
IEMA	Institute of Environmental Management and Assessment
IES	Institution of Environmental Sciences
LCA	Landscape Character Area
LPA	Local Planning Authority
NPS NN	National Policy Statement for National Networks
NSIP	Nationally Significant Infrastructure Project
PRoW	Public Right of Way
SBI	Site of Biological Importance
VP	Representative viewpoint
ZOI	Zone of Influence

Glossary

Term	Definition
Zone of Influence	This is established for each environmental aspect considered within the Environmental Statement in order to establish the relevant 'other existing development and/or approved development' to be considered within the cumulative effects assessment.
Cumulative effects	Effects upon the environment that result from the incremental impact of an action when added to other past, present or reasonably foreseeable actions. Each impact by itself may not be significant but can become a significant effect when combined with other impacts.

Term	Definition
Inter-project cumulative effects	The combined action of a number of different projects, in combination with the Scheme being assessed, on a single resource/receptor.
Combined effects (interrelationship of effects)	The combined action of a number of different environmental topic specific effects upon a single resource/receptor.

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