

**Byers Gill Solar
EN010139**

8.27 Landscape and Visual Assessment - Cumulative Effects Technical Note

Planning Act 2008

APFP Regulation 5(2)(q)

Infrastructure Planning (Applications: Prescribed Forms
and Procedure) Regulations 2009

Volume 8

Deadline 6 - December 2024

Revision C01



Table of Contents

Page

1.	Introduction	1
1.1.	Scope	1
1.2.	Principles and purposes of cumulative assessment	1
1.3.	Guidance	3
1.4.	Methodology: Main LVIA in Chapter 7 of the ES (APP-030)	5
1.5.	Methodology and Effects: Cumulative landscape and visual effects in Chapter 13 of the ES [APP-036]	7

1. Introduction

1.1. Scope

- 1.1.1. The note addresses the approach that an Applicant should take to the assessment of cumulative landscape and visual effects, and the approach taken by the Applicant RWE to its existing assessment. Annexes A and B are extracts from documents referred to below. Annex C addresses a specific question raised by the ExA during ISH7 in relation to cumulative effects on the local roads between Brafferton and Bishopton.
- 1.1.2. Particular reference will be made to:
- Scoping report [APP-120];
 - Scoping opinion [APP-121];
 - ES Chapter 7 Landscape and Visual [APP-030];
 - Appendix 7.1 Methodology [APP-132]; and
 - Chapter 13 Cumulative Effects [APP-036].
- 1.1.3. This note covers the principles and purposes of cumulative assessment with reference to relevant legislation, policy and guidance; and the methodology used for cumulative assessment within the Byers Gill Solar LVIA [APP-030] and Cumulative Effects Assessment provided in ES Chapter 13 [APP-036].

1.2. Principles and purposes of cumulative assessment

- 1.2.1. NPS (EN-1) states that the Secretary of State should consider how the “accumulation of, and interrelationship between effects 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.” (paragraph 4.2.6). In addition, the EIA Regulations ¹ require the ES to provide “A description of the likely significant effects of the development on the environment resulting from, inter alia ... 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”. Neither of these documents specify how this should be done – for instance it is not specified that a single ‘cumulative effects assessment’ must contain all of the required information.
- 1.2.2. The principle of the planning system is that each application must be considered on its own merits is not altered by these requirements. The operation of this principle in relation to landscape and visual effects in the case of multiple developments of the same type in one place is best understood by way of a simple example. For instance, an application is made for a new house at the edge of a village. In this case it is very

¹ The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, Schedule 4

unlikely that the applicant would be requested to provide an assessment of cumulative effects which ‘added up’ the effects of both the village and the house, nor would it be suggested that the changes that would arise from building that house must be greater because the village is already there.

- 1.2.3. Extending this to consented development, consider the same example, but with the addition that a developer had previously gained consent for 10 houses on a plot adjacent to the proposed new house. In this instance the decision maker would take account of this adjacent consent, but in doing so would not be expected to request that the applicant provide an assessment of cumulative effects which ‘adds up’ the effects of the consented development and the house. Such an assessment would not help them to consider the effects of the new house, it would mostly tell them about the effects of the larger development of 10 houses – a decision already made which they may not revisit.
- 1.2.4. In these simple examples, the focus of the decision-maker would be on the effects of the proposed development – the single house, and it is readily understood that the existing village (operational development) does not add to its effects, and nor does the adjacent consent. However, both the village and the consented houses would form part of the context (the current and future baseline) within which the new house would be built – factors that would that need to be taken into account in decision-making.
- 1.2.5. This basic principle, that it is the effects of the proposed development which require consideration, remains unchanged regardless of the nature of the development; the complexity or quantum of existing and consented development; the relative scale of the developments, or the requirement to consider cumulative effects. The purpose of describing cumulative effects is to ensure that other changes to the environment which are expected to arise before or alongside the proposed development are considered in making a decision.
- 1.2.6. As set out by the Applicant during ISH7, different environmental topics may take different approaches to cumulative effects depending on the policy or regulations that their topic needs to address. For topics where upper limits or thresholds are set by regulations or policy for the degree of acceptable change (for example noise limits at homes), there is a need to ‘add up’ the effects of the current baseline, future baseline and proposed development to evaluate whether that combination would exceed the threshold. For landscape and visual effects there is no policy or regulation which sets upper limits for cumulative changes to landscape character or views – the landscape may continue to evolve indefinitely. Similarly, there is no fixed point in time, (past, present or future) against which all changes to the landscape and views must be evaluated. Each change to the landscape moves forward to a new baseline (the landscape present now), and each consented development moves forward to a new, accepted future baseline (the landscape that will soon be present). It is also important to note that the EIA regulations require the “*description*” of the likely significant effects – not their quantification. Taking these factors into account it is important to recognise that the purpose of a landscape and visual cumulative effects assessment is not to ‘add

up' landscape changes to inform a consideration of whether 'too much' landscape change would take place.

- 1.2.7. In the absence of policy or regulation setting upper limits, the provision of an assessment which 'adds up' the effects of operational and consented developments also would not aid the decision to be made – it would describe either in part or mostly the effects of decisions already made which are not within the remit of the current application. The question to be addressed in the LVIA is the likely significant effects of the proposed development in the context of the landscape within which they are likely to arise – the future baseline. The purpose of the cumulative effects assessment in that context is to consider other possible scenarios which may arise – i.e. that projects currently not consented may become so during the time between the assessment and a decision being made. Providing an assessment of cumulative effects 'just in case' other developments are consented aims to ensure that should that situation arise, assessments do not need to be updated in order to inform the decision – the assessment of likely significant effects of the proposed development in that scenario has already been provided.

1.3. Guidance

- 1.3.1. The principles set out above are recognised within both of the main guidance documents relevant to considering cumulative landscape and visual effects. Paragraph 7.13 of GLVIA3² (see extract in Annex A) advises that:

“Taking 'the project' to mean the main proposal that is being assessed, it is considered that existing schemes and those which are under construction should be included in the baseline for both landscape and visual effects assessments (the LVIA baseline). The baseline for assessing cumulative landscape and visual effects should then include those schemes considered in the LVIA and in addition potential schemes that are not yet present in the landscape but are at various stages in the development and consenting process:

- *schemes with planning consent;*
- *schemes that are the subject of a valid planning application that has not yet been determined.*

Schemes that are at the pre-planning or scoping stage are not generally considered in the assessment of cumulative effects because firm information on which to base the assessment is not available and because of uncertainty about what will actually occur, that is, it is not 'reasonably foreseeable' .”

- 1.3.2. PINS Advice Note 17 (August 2019, applicable at the time the LVIA was prepared, but now superseded – see Annex B) advised that:

“Where other projects are expected to be completed before construction of the proposed NSIP and the effects of those projects are fully determined, effects arising from them should

² Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3)

be considered as part of the baseline and may be considered as part of both the construction and operational assessment. The ES should clearly distinguish between projects forming part of the dynamic baseline and those in the CEA.” (CEA – Cumulative Effects Assessment).

- 1.3.3. An important point to note in both of these pieces of guidance is that they definitively state that other projects and/or the effects arising from them are to be included in the relevant baseline – they do not advise that they be included in the assessment of effects. The glossary of GLVIA3 (see Annex A) defines ‘baseline studies’ as the process of identifying and describing “*the environmental conditions against which any future changes can be measured or predicted and assessed.*”
- 1.3.4. Taking those two slightly different pieces of guidance into account, it is clear that operational projects form part of the LVIA baseline. What is less clear is how to treat consented development, given that a consented development may commence construction at any point in time after its consent. With this ambiguity in guidance, some practitioners prefer to provide an assessment in the main LVIA that only takes account of operational development, on the basis that consented development may not be built. For instance, in the recent past this has been a pertinent consideration for wind farms in Scotland where changes in the funding regime for wind farms meant that some consented projects became financially unviable. However, that it is possible that some consented projects may not be built should not be taken to form a principle that consented development should always or usually be considered in the cumulative effects assessment.
- 1.3.5. What is important is provide a main LVIA which realistically describes the likely significant effects of the proposed development. In most circumstances it is highly likely that consented development will be built within either a relatively short timeframe after consent (if a different timing is not specified in the application or consent), or in the timeframe set out within the application and/or consent for that development.
- 1.3.6. Beyond the guidance described above, more recent guidance and decisions provide helpful clarification as follows:
- PINS advice note 17 has been updated and the pertinent section now contains an example which clarifies when and why the effects of consented projects might be considered too uncertain to include in the future baseline:
“If the effects of other existing and, or approved development under construction are not yet fully determined, for example the outcome of mitigation is being monitored and is not yet known, it may be appropriate to consider these in the CEA.”
 - The High Court decision in relation to a proposed coal mine near Whitehaven (Friends of the Earth v SoS Levelling Up, Housing and Communities & others [2024] EWHC 2349 (Admin), includes at paragraph 70 the following clarification of the way in which ‘likely significant effects’ should be interpreted:
The EIA Regulations involve predicting what are “likely” effects ([72]). There are potentially different interpretations of what is meant by “likely” ([73]). ...where a lack of evidence

means that a possible effect is simply a matter of conjecture or speculation, then it would not be possible rationally to conclude that it is “likely.” Material should only form part of an EIA if it is information on which a reasoned conclusion could properly be based. Conjecture and speculation have no place in the EIA process. So, if there is insufficient evidence available to found a reasoned conclusion that a possible effect is “likely”, there is no requirement for that effect to be identified and assessed “

- In the recent appeal decision in relation to Dragon Energy (CAS-01859-K1M7Y6 – paragraph 127), the Inspector set out their approach to considering cumulative effects in the context of a disagreement between the parties as to the correct approach, as follows:

“Turning to the assessment of cumulative effects, in particular in relation to concerns relating to the inclusion of existing infrastructure, such as the Valero oil chimneys. The applicant has confirmed that the Planning Inspectorate Advice Note 17 (PINS Note) has been followed which, although dealing with Nationally Significant Infrastructure Projects in England, is helpful insofar as it specifically directs that existing development be included as part of the baseline and not within the assessment of cumulative effects. As PCNPA’s SPG might indicate a different approach, the implication arising is that its judgements of impact will lean towards ‘higher’ than those in the ES LVIA as it is reflective of the effects arising from the combination of existing development with the proposed development. For clarity, I have approached the assessment of cumulative effects in a manner consistent with the advise in the PINS Note.“

- 1.3.7. From this decision it can be seen that the need to consider the ‘worst case’ effects of the proposed development does not extend to using a method of cumulative assessment that results in identifying greater effects because it combines the effects of multiple developments.

1.4. Methodology: Main LVIA in Chapter 7 of the ES (APP-030)

- 1.4.1. The approach to the assessment of landscape and visual effects for Byers Gill solar takes account of the factors discussed above as follows:
- Guidance is clear that operational developments and those under construction should be included in the baseline. For consented developments it is relevant to consider whether an assessment of effects without them is needed, for example because they are likely not to be built; are likely to be built after the Proposed Development; or because the effects that may arise from them are not yet reasonably foreseeable.
 - In the context of Byers Gill solar it is not likely that that the Proposed Development would be either constructed or operated in a context within which none of the shortlisted consented developments have been constructed; this is a possibility which falls within the realms of ‘conjecture or speculation’. All of them would be expected to commence and/or complete construction before Byers Gill Solar. On this basis there is no need to assess effects against a baseline which does not include consented developments.

- No further processes are required to determine the landscape and visual effects of the consented developments included in the shortlist for Byers Gill Solar; they are reasonably foreseeable from the information already known about the developments.

1.4.2. Within the Scoping Report, the proposed approach to the assessment of cumulative landscape and visual effects was set out within Table 7.2 'Criteria for the assessment of cumulative effects for LVIA' as follows [APP-120]:

- Existing development within the study area: "*Forms part of the baseline for the main LVIA*";
- Consented development within study area: "*Included within the future baseline for the main LVIA unless there is good reason to believe it will not be constructed (or that it will not be constructed before the proposed development). Where consented development is not included within the future baseline, it will be considered within the assessment of cumulative effects.*"; and
- Developments in planning: "*Considered within the assessment of cumulative effects.*"

1.4.3. The Scoping Opinion [APP-121] made no comment on this proposed approach.

1.4.4. On this basis, the main LVIA provided in ES Chapter 7 Landscape and Visual [APP-030] considers both operational and consented developments to form part of the baseline and future baseline for the LVIA. With developments forming part of the baseline, it would be possible to take account of these either in the analysis of the sensitivity of receptors or in considering the magnitude of impacts. There is no guidance which directly advises which approach is correct. Taking account of existing and consented developments in sensitivity judgements creates the risk of accidentally double-counting by including consideration in both sensitivity and magnitude; it may create unnecessary divergence from published baseline studies of landscape character sensitivity which tend not to overtly take account of existing development as a factor in reducing or increasing sensitivity, and has limited relevance when considering the sensitivity of visual receptors for whom the primary considerations are the value of a view and "*the occupation or activity of people experiencing the view at particular locations; ...and the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience*" (GLVIA3, para 6.32 – see Annex A) rather than the nature of what they can see.

1.4.5. For these reasons, the methodology used takes account of the current and future presence of development in considering the magnitude of impact. Three separate judgements are made in considering the magnitude of impact as set out in Appendix 7.1 to the ES [APP-132]. These relate to scale, extent and duration of the change to the baseline situation which would be brought about by the proposed development. The consideration of other developments may affect any or all of these factors – for example where an existing or consented development would entirely or mostly screen the proposed development from view, the scale of visual change arising from the

proposed development is likely to be reduced compared to a situation in which that other development is not present and the proposed development is fully visible. In another example, changes to landscape character arising from views of a proposed solar farm in nearby fields are unlikely to arise in locations which are, or will be, within or adjacent to another solar farm – and thus the extent of those changes is reduced compared to a situation in which no other solar farm is present. As a final example, the duration of a change may be reduced if there is presently an open view from a location, and the proposed development would be visible, but planting included in a consented development will screen that view in future.

- 1.4.6. In considering the magnitude of impact on each receptor, the LVIA for Byers Gill Solar takes account of the current baseline and how that will change as a result of consented developments (and other foreseeable changes to the landscape) to construct the future baseline into which Byers Gill Solar would be introduced. Then the judgements about the scale, extent and duration of changes to that future baseline which would arise from the Proposed Development are made and combined to reach a judgement of magnitude.

1.5. Methodology and Effects: Cumulative landscape and visual effects in Chapter 13 of the ES [APP-036]

- 1.5.1. As described above, the main LVIA for Byers Gill Solar is, ‘inherently cumulative’ in relation to operational and consented developments – they have already been taken account of in assessing the effects of the proposed development.
- 1.5.2. The only task remaining therefore is to consider the potential effects of the Proposed Development in the situation that one or more current applications is consented before the decision is made in relation to Byers Gill Solar and therefore may need to be taken into account (as discussed in paragraph 10 above). In relation to this, PINS Advice Note 17 advises that *“In preparing the assessment, it should not be forgotten that a key purpose of the ES is to enable the examination necessary to inform decisions (the Secretary of State must examine the environmental information in reaching a reasoned conclusion on the significant effects of the proposed development). Whilst applicants should make a genuine attempt to assess the effects arising from multiple, individually non-significant effects, the CEA should be proportionate and no longer than necessary to identify and assess likely significant cumulative effects.”* In a similar vein, GLVIA3 advises at paragraph 3.19 that *“Some possible effects ... may have been judged unlikely to occur or so insignificant that it is not essential to consider them further”*.
- 1.5.3. Bearing this guidance in mind, the assessment provided at paragraphs 13.5.32-13.5.46 first sets out the scope of assessment and projects included; refers to how existing and consented development has been considered in paragraphs 13.5.33 and Table 13-9 and then moves on to consider whether the shortlisted projects in planning require a detailed assessment to identify likely significant cumulative effects. The question of the significance threshold used in the assessment of cumulative landscape and visual effects

is addressed at paragraph 13.5.33 which references Appendix 7.1 of the ES – i.e. the LVIA methodology applies.

- 1.5.4. In paragraphs 13.5.41-13.5.46, the potential cumulative effects arising from the proposed development with each of the shortlisted application projects are described, and in each case it is concluded that they do not warrant detailed assessment – they are “*so insignificant that it is not essential to consider them further*” and a full, detailed assessment is not provided so that the assessment is not “*longer than is necessary to identify and assess any likely significant cumulative effects*”.
- 1.5.5. What this effectively means is that in the event that one of more of the projects identified in the long or short lists is consented – including those which were considered potentially relevant to consider and listed at paragraph 13.5.40 of the ES - the effects of Byers Gill Solar would remain as reported in Chapter 7 of the ES and no different or additional significant effects would be expected to arise.

andscape and Visual Impact
essment (LVIA) can be
to planning decisions by
tifying the effects of new
elopments on views and on
andscape itself.

fully revised edition of
ndustry standard work on
A presents an authoritative
ement of the principles of
ssment. Offering detailed
ce on the process of
ssing the landscape and
al effects of developments
their significance, it also
ades a new expanded
oter on cumulative effects
updated guidance on
entation.

ten by professionals for
essionals, the third edition
is widely respected text
ides an essential tool
andscape practitioners,
elopers, legal advisors and
sion-makers.

DSCAPE / PLANNING

LVIA

Guidelines for Landscape and Visual Impact Assessment

Third edition

Landscape Institute and
Institute of Environmental
Management & Assessment

LVIA

business
978-0-415-68004-2



 **Routledge**
Taylor & Francis Group
www.routledge.com

Routledge titles are available as eBook editions in a range of digital formats

**Landscape
Institute**
Inspiring great places

iema
Institute of Environmental
Management & Assessment

**Landscape
Institute**
Inspiring great places

iema
Institute of Environmental
Management & Assessment

 **ROUTLEDGE**

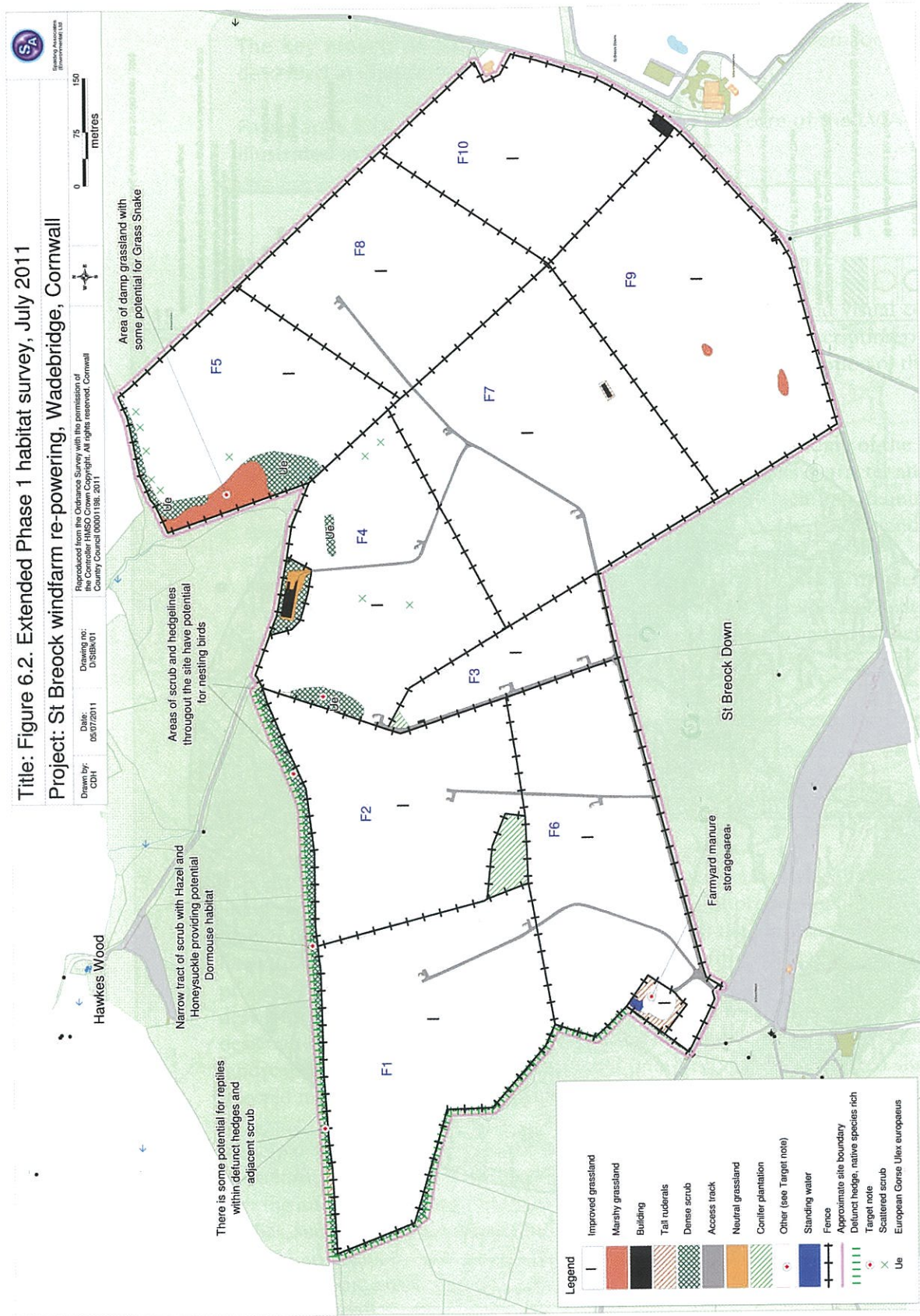


Figure 3.3 A Phase 1 habitat plan. A habitat baseline survey can assist in establishing the nature, extent and value of the landscape resource that could potentially be affected by a proposed development

Identification and description of effects

Once the key aspects of the proposed development that are relevant to landscape and visual effects have been determined, and the baseline conditions established, the likely significant effects can be predicted. There is no formulaic way of doing this. It is a matter of systematic thinking about the range of possible interactions between components of the proposed development, covering its whole life cycle (for example: for built development, usually construction, operation and decommissioning stages; for mineral extraction, usually operation, restoration and aftercare stages), and the baseline landscape and visual resource.

3.18

Some possible effects will already have been identified during the screening and/or scoping processes. Some may have been judged unlikely to occur or so insignificant that it is not essential to consider them further – this is sometimes referred to as the ‘scoping out’ of effects. Others may have been addressed by amendments to the scheme design through the iterative design/assessment process – either being designed out altogether or rendered not significant. Both situations must be made clear in the final Environmental Statement, so that there is transparency about how the landscape and visual considerations have influenced the final design, when compared to earlier, alternative design iterations. Other than any effects that are considered and eliminated at an earlier point, likely significant effects must be considered in the assessment stage of LVIA.

3.19

In most cases it will be essential to give detailed consideration to both:

3.20

- effects on the landscape as a resource (the **landscape effects**); and
- effects on views and visual amenity as experienced by people (the **visual effects**).

Sometimes there may be likely significant effects on the landscape resource but the development may be in a location that does not affect visual amenity significantly. It is also possible, although less common, that there may be likely significant effects on visual amenity without effects on the landscape resource.

Predicting what effects are likely depends upon careful consideration of the different components of the development at different stages of its life cycle, and identification

3.21

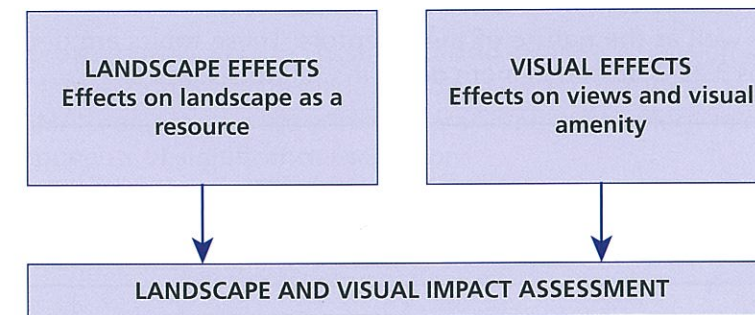


Figure 3.4 Landscape and visual effects

- 6.25 The potential extent to which the site of the proposed development is visible from surrounding areas (the ZTV), the chosen viewpoints, the types of visual receptor affected and the nature and direction of views can all be combined in well-designed plans. Existing views should be illustrated by photographs or sketches with annotations added to emphasise any particularly important components of each view and to help viewers understand what they are looking at. It is important to include technical information about the photography used to record the baseline, including camera details, date and time of photography and weather conditions.

Predicting and describing visual effects

- 6.26 Preparation of the visual baseline is followed by the systematic identification of likely effects on the potential visual receptors. Considering the different sources of visual effects alongside the principal visual receptors that might be affected, perhaps by means of a table, will assist in the initial identification of likely significant effects for further study. Changes in views and visual amenity may arise from built or engineered forms and/or from soft landscape elements of the development. Increasingly, attention is being paid to the visual effects of offshore developments on what may be perceived to be valued coastal views.
- 6.27 In order to assist in description and comparison of the effects on views it can be helpful to consider a range of issues, which might include, but are not restricted to:
- the nature of the view of the development, for example a full or partial view or only a glimpse;
 - the proportion of the development or particular features that would be visible (such as full, most, small part, none);
 - the distance of the viewpoint from the development and whether the viewer would focus on the development due to its scale and proximity or whether the development would be only a small, minor element in a panoramic view;
 - whether the view is stationary or transient or one of a sequence of views, as from a footpath or moving vehicle;
 - the nature of the changes, which must be judged individually for each project, but may include, for example, changes in the existing skyline profile, creation of a new visual focus in the view, introduction of new man-made objects, changes in visual simplicity or complexity, alteration of visual scale, and change to the degree of visual enclosure.
- 6.28 Consideration should be given to the seasonal differences in effects arising from the varying degree of screening and/or filtering of views by vegetation that will apply in summer and winter. Assessments may need to be provided for both the winter season, with least leaf cover and therefore minimum screening, and for fuller screening in summer conditions. Discussion with the competent authority will help to determine whether the emphasis should be on the maximum visibility scenario of the winter condition of vegetation, or whether both summer and winter conditions should be used. The timing of the assessment work and the project programme will also influence the practicality of covering more than one season.

As with landscape effects an informed professional judgement should be made as to whether the visual effects can be described as positive or negative (or in some cases neutral) in their consequences for views and visual amenity. This will need to be based on a judgement about whether the changes will affect the quality of the visual experience for those groups of people who will see the changes, given the nature of the existing views.

6.29

Methods of communicating visual effects are covered in Chapter 8.

Assessing the significance of visual effects

The visual effects that have been identified must be assessed to determine their significance, based on the principles described in Paragraphs 3.23–3.36. As with landscape effects, this requires methodical consideration of each effect identified and, for each one, assessment of the nature of the visual receptors and the nature of the effect on views and visual amenity.

6.30

Sensitivity of visual receptors

It is important to remember at the outset that visual receptors are all people. Each visual receptor, meaning the particular person or group of people likely to be affected at a specific viewpoint, should be assessed in terms of both their susceptibility to change in views and visual amenity and also the value attached to particular views.

6.31

Susceptibility of visual receptors to change

The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of:

6.32

- the occupation or activity of people experiencing the view at particular locations; and
- the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.

The visual receptors most susceptible to change are generally likely to include:

6.33

- residents at home (but see Paragraph 6.36);
- people, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focused on the landscape and on particular views;
- visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience;
- communities where views contribute to the landscape setting enjoyed by residents in the area.

1. What types of cumulative effect should be considered – should they be only those from projects of the same type as the main project under consideration or include those from other types of development in the vicinity?
2. What past, present or future proposals should be considered, either for the same or different types of development?

What types of development should be included?

- 7.9 Cumulative effects assessment can be relevant to any form of development. In order to ensure a proportional response to the particular development proposal under consideration agreement should be reached in the scoping stage, through discussion with the competent authority and consultation bodies and judgement by the assessor, on the scope of the cumulative effects assessment.
- 7.10 In most cases the focus of the cumulative assessment will be on the additional effect of the project in conjunction with other developments of the same type (as, for example, in the case of wind farms; see SNH, 2012). In some cases, development of another type or types will be relevant and may help to give a more complete picture of the likely significant cumulative effects. For example, previous or planned road improvements or developments such as energy-from-waste facilities are likely to be relevant ‘other developments’ when assessing cumulative effects in relation to a major urban extension.
- 7.11 The requirement for consideration of cumulative landscape and visual effects is a matter for agreement at the scoping stage of the assessment but could relate to one or a combination of:
- other examples of the same type of development;
 - other types of development proposed within the study area, including those that may arise as an indirect consequence of the main project under consideration;
 - in the case of large, complex projects, different scheme components or associated and ancillary development that in some cases may require their own planning consent.²
- 7.12 In consultation with the competent authority (who in turn may liaise with other consultation bodies) it is also necessary to agree the geographic extent (or study area) over which the cumulative effects will be assessed.³ The work involved in assessing cumulative effects will require the use of information supplied by the competent authority and consultation bodies about other schemes being considered in the cumulative assessment, especially those still in the consenting system. As discussed in Paragraph 7.5, agreement between all parties on the extent of such work should consider what is reasonable and proportional in the circumstances.

Timescale of proposals for inclusion

- 7.13 This section sets out how development proposals at different stages in the planning process, whether of the same or different types, should be treated in assessing cumulative landscape and visual effects. Taking ‘the project’ to mean the main proposal that is being assessed, it is considered that existing schemes and those which are under construction should be included in the baseline for both landscape and visual effects

assessments (the LVIA baseline). The baseline for assessing cumulative landscape and visual effects should then include those schemes considered in the LVIA and in addition potential schemes that are not yet present in the landscape but are at various stages in the development and consenting process:

- schemes with planning consent;
- schemes that are the subject of a valid planning application that has not yet been determined.

Schemes that are at the pre-planning or scoping stage are not generally considered in the assessment of cumulative effects because firm information on which to base the assessment is not available and because of uncertainty about what will actually occur, that is, it is not ‘reasonably foreseeable’. But there may be occasions where such schemes may be included in the assessment if the competent authority or consultation bodies consider this to be necessary. Such a request should only be made if absolutely necessary to make a realistic assessment of potential cumulative effects. It should be noted that in England and Wales guidance from the Planning Inspectorate explicitly indicates that nationally significant infrastructure applications should consider this aspect in scoping their cumulative effects (Planning Inspectorate, 2012).

The baseline for the LVIA itself will include evidence about change that may affect the landscape in the future (as described in Paragraph 5.18). There may therefore be some degree of overlap with the baseline for the cumulative effects assessment. The key is to ensure that the assessment is true to the spirit of the generic definition of cumulative effects in dealing with ‘other past, present or reasonably foreseeable actions’ but that it is again proportional and reasonable and focuses on likely significant effects.

There is no doubt that stakeholders, including local communities, will not draw artificial distinctions between what already exists or is under construction and is therefore part of the LVIA baseline, and what may happen as a result of schemes that may be implemented in the future. They will be concerned about the totality of the cumulative effect of past, present and future proposals. Those assessing these effects should reflect these concerns as realistically as possible while still keeping the task to a manageable scale. EIA co-ordinators will ultimately need to ensure that a consistent approach is adopted throughout the EIA and that the assessment of cumulative landscape and visual effects is in line with this. To re-emphasise the point made in Paragraph 7.5, the key for all cumulative impact assessments is to focus on the **likely significant** effects and in particular those likely to influence decision making.

Types of cumulative effect

There are many different types of cumulative landscape and visual effect that may need to be considered. They can include:

- the effects of an extension to an existing development or the positioning of a new development such that it extends or intensifies the landscape and/or visual effects of the first development;

visibility, show relevant components of the development as realistically as possible, and be printed at an appropriate scale for comfortable viewing at the correct distance.

- Presenting photomontages in the 'triple arrangement', in which a panoramic baseline photograph, a matching wireframe image of the proposal and a fully rendered photomontage are combined, may compromise other important standards such as image size and ideal viewing distance.
- Photomontages should be reproduced at an agreed image size and should show an appropriate level of detail. They may be incorporated into a separate volume of the Environmental Statement if necessary.
- The Non-Technical Summary of the Environmental Statement may also include some photomontages of key views but it should be emphasised that they are only selected images and that full understanding requires examination of the full set of images.
- 3D models are most useful where there is a need to portray complex developments in more detail than can easily be achieved using a single or even several photomontages. They are not required for most projects and are demanding of resources and computer power.
- Careful thought must be given to how the competent authority, stakeholders and the public will view graphics, and especially 3D material and animations. Ideally all parties should have access to the same type of information and illustrative material.
- Non-digital visualisation techniques, such as overlays and perspective sketches (either hand drawn or constructed over computer-generated wire lines), may also be appropriate, for example when speed of production and available budget are limiting factors, or simply when they are preferred and illustrate the proposals adequately.
- The competent authority will review the adequacy of the landscape and visual effects material included in the Environmental Statement, and the summary good practice points in this guidance and several other existing sources may help in this. If specialist advice or expertise is required to assist with the review it should be sought from suitably qualified landscape professionals.

Glossary

This glossary has been prepared specifically for this edition of the GLVIA and defines the meanings given to these terms as used in the context of this guidance.

Access land Land where the public have access either by legal right or by informal agreement.

Baseline studies Work done to determine and describe the environmental conditions against which any future changes can be measured or predicted and assessed.

Characterisation The process of identifying areas of similar landscape character, classifying and mapping them and describing their character.

Characteristics Elements, or combinations of elements, which make a contribution to distinctive landscape character.

Compensation Measures devised to offset or compensate for residual adverse effects which cannot be prevented/avoided or further reduced.

Competent authority The authority which determines the application for consent, permission, licence or other authorisation to proceed with a proposal. It is the authority that must consider the environmental information before granting any kind of authorisation.

Consultation bodies Any body specified in the relevant EIA Regulations which the competent authority must consult in respect of an EIA, and which also has a duty to provide a scoping opinion and information.

Designated landscape Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.

Development Any proposal that results in a change to the landscape and/or visual environment.

Direct effect An effect that is directly attributable to the proposed development.

'Do nothing' situation Continued change or evolution in the landscape in the absence of the proposed development.

Ecosystem services The benefits provided by ecosystems that contribute to making human life both possible and worth living. The Millennium Ecosystem Assessment (www.unep.org/maweb/en/index.aspx) grouped ecosystem services into four broad categories:



Cumulative Effects Assessment

Advice note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects

Status of this Advice Note

This Advice Note has no statutory status and forms part of the suite of advice provided by the Planning Inspectorate.

This Advice Note supersedes all previous versions. It will be kept under review and updated when necessary.

This Advice Note makes reference to other Advice Notes, these can be found at: <http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

Summary of this Advice Note

The requirement for cumulative effects assessment (CEA) is set out in the Environmental Impact Assessment (EIA) Directive¹. With respect to Nationally Significant Infrastructure Projects (NSIPs) under the Planning Act 2008 (as amended) (“the PA2008”), the requirements of the Directive are implemented through the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“the EIA Regulations”)².

A range of public sector and industry-led guidance is available on CEA but at present there is no single, agreed industry standard method. Consequently, the approach taken to CEA varies between applications. This Advice Note sets out a staged process that applicants may wish to adopt in CEA for NSIPs. It complements the advice provided in the **Planning Inspectorate’s Advice Note 9: Rochdale Envelope**³.

This Advice Note seeks to provide:

- a brief description of the legal context and obligations placed on an applicant, with respect to cumulative effects under national planning policy and the EIA Regulations⁴;
- an overview of the CEA process that applicants may wish to adopt for NSIPs; and
- advice regarding a staged approach and the use of consistent template formats for documenting the CEA within an applicant’s Environmental Statement (ES).

Contents

1. Legal Context and Obligations Placed on an Applicant	(Page 2)
2. Overview of the CEA Process for NSIPs	(Page 3)
3. Staged Approach and Formats for CEA	(Page 4)
4. Data Protection	(Page 10)

1. EIA Directive 2014/52/EU which amends EIA Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment
2. The EIA Regulations include transitional provisions for Proposed Developments that have commenced an EIA process under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009
3. <http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>
4. The Planning Inspectorate’s Advice Note 10 deals with habitats regulations assessment



This Advice Note should be read in conjunction with the EIA Directive, the EIA Regulations, the PA2008, relevant Government Planning Policy⁵, guidance from Consultation Bodies⁶, European Commission guidance⁷, relevant institute guidelines and emerging industry guidance. To assist, some documents are referenced in the footnotes but it will be for applicants to ensure that all relevant policy, legislation and guidance has been applied.

1. Legal Context and Obligations Placed on an Applicant

EU Directive, Regulatory and Planning Policy Framework

1.1 The EIA Regulations implement the EU Directive “on the assessment of the effects of certain public and private projects on the environment” (usually referred to as the EIA Directive) for the PA2008 regime.

1.2 Schedule 3 paragraph 1(b) of the EIA Regulations, which refers to the selection criteria for screening Schedule 2 development, states that ‘the characteristics of development must be considered with particular regard to...
...(b) the 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. The EIA Regulations expand the definition set out in Annex III of the Directive, which simply refers to ‘the cumulation with other projects’.

1.3 In relation to the information for inclusion in an ES, 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: (e) 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’ the text goes on to state that ‘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.’

1.4 The need to consider cumulative effects in planning and decision making is set out in planning policy⁵, in particular the National Policy Statements (NPSs)⁸. For example, the Overarching NPS for Energy (EN-1)⁹ paragraph 4.2.5 states that “When considering cumulative effects, the ES should provide information on how the effects of the applicant’s proposal would combine and interact with the effects of other development¹⁰ (including projects for which consent has been sought or granted, as well as those already in existence)”.

1.5 NPS EN-1 paragraph 4.2.6 goes on to state that the Secretary of State should consider how the “accumulation of, and interrelationship between effects 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.”

5. For example: The relevant National Policy Statements (England and Wales); National Planning Policy Framework (NPPF) (England); Planning Policy Wales (Wales)

6. For example: A Strategic Framework for Scoping Cumulative Effects. Marine Management Organisation (MMO) 2014; Development of a generic framework for informing Cumulative Impact Assessments (CIA) related to Marine Protected Areas through evaluation of best practice. Natural England 2014; Design Manual for Roads and Bridges (DMRB) Volume 11, Section 2 Part 5, Highways Agency 2008

7. Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions, European Commission 1999 and Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report. European Commission, 2017.

8. <http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/national-policy-statements/>

9. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf

10. For the purposes of this advice note, ‘other existing development and/or approved development’ is taken to include existing developments and existing plans and projects that are ‘reasonably foreseeable’



1.6 The NPSs⁸ variously state that applicants should, amongst other matters, consider mitigation for cumulative effects in consultation with other developers; assess cumulative effects on health; give due consideration to other NSIPs within their region; consider positive and negative effects; and consider environmental limits (e.g. the potential for water quality effects to arise due to incremental changes in water quality).

2. Overview of the CEA Process for NSIPs

2.1 The scale and nature of NSIPs will typically dictate a broad spatial and temporal zone of influence (ZOI). The scale and complexity of an NSIP may result in a complex CEA process that takes into account a dynamic baseline environment that goes beyond a static assessment of the current situation. There may be considerable variation in the approach to the identification and assessment of 'other existing development and/or approved development' as part of the CEA process.

2.2 This Advice Note presents a four-stage approach to CEA that applicants may wish to adopt. The stages are illustrated in the figure below and outlined in more detail in Section 3 of this Advice Note. Stages 1 – 2 should ideally be undertaken early in the pre-application phase and ideally before requesting a Scoping Opinion. Applicants should make use of the EIA scoping process to provide information on the CEA and ensure that it is appropriately focussed and proportionate. Additional focussed assessment may be required during examination for newly identified 'other existing development and/or approved development' with potential to give rise to significant effects. This may be requested by the Examining Authority.

2.3 The Inspectorate has produced templates which can be used by applicants to document the staged CEA process and to aid consistency in the approach. The Templates are provided at **Appendix 1** and **Appendix 2** of this Advice Note. The templates ensure that information on the outcomes from each stage of the process are clearly presented in a standardised format and provide benefit to those involved in the application and examination. Applicants are encouraged to use them in order to ensure a robust assessment of the effects and to facilitate meaningful consultation during the pre-application stage and beyond. The aim is to assist the Secretary of State in making the decision by presenting the CEA process in a transparent and easy to understand format.

2.4 The Inspectorate's proposed CEA process is staged and sequential, however, the assessment should be iterative and may need to be repeated a number of times during the preparation of a Development Consent Order (DCO) application and on occasion during the examination.

The staged approach to the CEA process



2.5 The recommended process focuses on cumulative effects with 'other existing development and/or approved development'. This should not be confused with the assessment of interrelationships between aspects for the proposed NSIP (e.g. between ecology and hydrology). These will typically have been assessed as part of the specialist aspect chapters. Stages 1 and 2 are presented sequentially in this advice note but it may be practicable to combine these stages and undertake them simultaneously.



3. Staged Approach and Formats for CEA

3.1 Stage 1: Establishing the long list of ‘other existing development and/or approved development’

3.1.1 ‘Other existing development and/or approved development’ likely to result in significant cumulative effects should be identified and assessed by the applicant in the CEA. In order to establish the relevant ‘other existing development and/or approved development’ the applicant should determine the Zone of Influence (ZOI) for each environmental aspect considered within the ES. The ZOI for each aspect should be documented within the ES. For clarity a table format is recommended (see Table 1 below).

3.1.2 The Inspectorate also recommends that the ZOI for each aspect is mapped, using GIS software. The ZOI (once generated) will enable a transparent and justifiable area of search within which ‘other existing development and/or approved development’ may be located. The applicant may wish to present this information (in plans or figures) as an appendix to the ES.

Table 1: Example ZOI summary table entry

Environmental aspect	Zone of Influence
Air Quality	e.g. Construction dust and vehicle emissions – ZOI defined by relevant institute guidelines. e.g. Operational plant emissions – ZOI identified by air quality modelling.
Heritage	e.g. Physical effects on buried archaeology – ZOI defined by relevant institute guidelines.

3.1.3 The ZOI for each aspect should support a desk study exercise to identify the long list of other existing development and/or approved development in the form of planning applications, relevant development plans and any other available and relevant sources (e.g. consultation response information particularly from a relevant planning authority). Matrix 1 at **Appendix 1** may be used to capture this information.

3.1.4 ‘Other existing development and/or approved development’ types that should be established for the CEA are listed in Table 2 below. The Planning Inspectorate acknowledges that the availability of information necessary to conduct the CEA will depend on the current status of the ‘other existing development and/or approved development’. The applicant should clearly state any assumptions or limitations in relation to the ‘other existing development and/or approved development’ data collected. It is recommended that a level of certainty, reflecting the availability of detail and information necessary for the assessment, is assigned to each development and recorded.

3.1.5 Table 2 provides criteria that may be used to indicate the certainty that can be applied to each ‘other existing development and/or approved development’. The criteria are assigned in tiers which descend from Tier 1 (most certain) to Tier 3 (least certain) and reflect a diminishing degree of certainty which can be assigned to each development. It is recommended that applicants record the assigned tier using the template provided at **Appendices 1 and 2**. This information will clearly illustrate the level of certainty the applicant has applied to the information available.

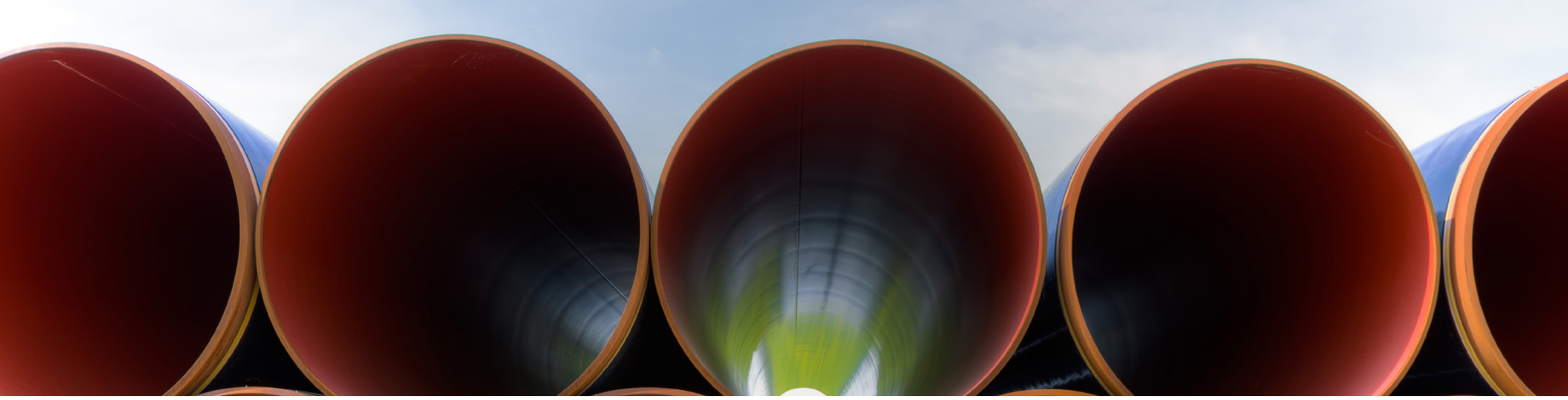


Table 2 – Assigning certainty to ‘other existing development and/or approved development’

Tier 1	<ul style="list-style-type: none"> under construction*; 	<p>Decreasing level of detail likely to be available</p>
	<ul style="list-style-type: none"> permitted application(s), whether under the PA2008 or other regimes, but not yet implemented; 	
	<ul style="list-style-type: none"> submitted application(s) whether under the PA2008 or other regimes but not yet determined 	
Tier 2	<ul style="list-style-type: none"> projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted. 	
Tier 3	<ul style="list-style-type: none"> projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted. 	
	<ul style="list-style-type: none"> 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; 	
	<ul style="list-style-type: none"> 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. 	

* Where other projects are expected to be completed before construction of the proposed NSIP and the effects of those projects are fully determined, effects arising from them should be considered as part of the baseline and may be considered as part of both the construction and operational assessment. The ES should clearly distinguish between projects forming part of the dynamic baseline and those in the CEA.

Development related to the NSIP (including permitted development)

A proposed NSIP may comprise multiple, geographically dispersed development sites (e.g. a development site supported by offsite highways improvements and freight consolidation centres), including development for which consent is sought under a different planning regime (e.g. an application under the Town and Country Planning Act). In these circumstances, the applicant should consider the potential for cumulative effects to arise due to the interactions between different components of their NSIP, as well as with ‘other existing development and/or approved development’.

Where the proposed NSIP comprises elements of work classed as permitted development, the applicant should ensure that these are included within the CEA, if they are not already considered within the individual aspect based assessments.



3.2 Stage 2: Establishing a shortlist of ‘other existing development and/or approved development’

3.2.1 Following Stage 1, applicants should apply threshold criteria to the long list, in order to establish a shortlist of other existing development and/or approved development and to ensure that the CEA is proportionate. The criteria should be used to guide a decision as whether to include or exclude ‘other existing development and/or approved development’ that falls within the proposed NSIP’s ZOI from further assessment.

3.2.2 Ideally, the criteria used to determine whether to include or exclude other existing development and/or approved development should be presented at an early stage, such as within the applicant’s scoping report. This will enable the Planning Inspectorate to provide its opinion on the criteria.

3.2.3 The criteria should be structured to support a proportionate assessment. It should ensure that only other existing and/or approved development which is likely to result in a significant cumulative effect is taken forward to the assessment stage. Care should be taken in this regard, it is important not to exclude consideration of effects deemed individually not significant from the CEA, since the cumulative effect of a number of non-significant effects could in itself be significant.

3.2.4 The criteria used to determine whether to include or exclude ‘other existing development and/or approved development’ from further assessment should be clearly presented. It should be prepared having regard to relevant policy or guidance documents and in consultation with the appropriate statutory consultation bodies (particularly the local planning authority). The criteria should address the following:

- **Temporal scope:** The applicant may wish to consider the relative construction, operation and decommissioning programmes of the ‘other existing development and/or approved development’ identified in the ZOI together with the NSIP programme, to establish whether there is overlap and any potential for interaction.
- **Scale and nature of development:** The applicant may wish to consider whether the scale and nature of the ‘other existing development and/or approved development’ identified in the ZOI are likely to interact with the proposed NSIP. Statutory definitions of major development and EIA screening thresholds may be of assistance when considering issues of scale.
- **Other factors:** The applicant should consider whether there are any other factors, such as the nature and/or capacity of the receiving environment that would make a significant cumulative effect with ‘other existing development and/or approved development’ more or less likely and may consider utilising a source-pathway-receptor approach to inform the assessment.
- **Documentation:** The CEA shortlisting process may be documented using Matrix 1 (Appendix 1). The reasons for excluding any development from further consideration should be clearly recorded. This will provide decision makers, consultation bodies and members of the public with a clear record of ‘other existing development and/or approved development’ considered and the applicant’s decision making process with respect to the need for further assessment.

3.2.5 Professional judgement may also be used to supplement the threshold criteria and in order to avoid excluding ‘other existing development and/or approved development’ that is:

- Below the threshold criteria limits but has characteristics likely to give rise to a significant effect; or
- Below the threshold criteria limits but could give rise to a cumulative effect by virtue of its proximity to the proposed NSIP.

3.2.6 Similarly, professional judgement could be applied to support excluding ‘other existing development and/or approved development’ that exceeds the thresholds but may not give rise to discernible effects. All of the ‘other



existing development and/or approved development' considered should be documented and the reasons for inclusion or exclusion should be clearly stated.

3.2.7 Where the applicant has identified 'other existing development and/or approved development' with the potential to give rise to a significant cumulative effect, the applicant should proceed to Stage 3 – Information Gathering. The applicant should consult on the 'shortlist of other existing development and/or approved development' for assessment with the relevant consultation bodies including the local planning authorities.

Consultation Applicants are strongly advised to take advantage of pre-application consultation with the consultation bodies including the relevant local planning authority(ies) and other relevant organisations, to ensure that the shortlist of 'other existing development and/or approved development' identified for CEA is comprehensive and accurate. Applicants should ideally use completed matrices to identify and discuss issues with the consultation bodies and other relevant organisations. Ultimately this approach should also assist with identifying a robust suite of mitigation measures submitted with the application for development consent that might otherwise remain unresolved and require exploration during the examination. This process may need to be repeated during the pre-application stage and should be based on the most up to date list of developments available. The CEA should include a summary of any such consultations undertaken and evidence of any agreements reached.

3.3 Stage 3: Information Gathering

3.3.1 Stage 3 of the CEA process requires the applicant to gather information on each of the 'other existing development and/or approved development' shortlisted at Stage 2. As part of the Stage 3 process the applicant is expected to compile detailed information, to inform the Stage 4 assessment. The information captured should include but not be limited to:

- Proposed design and location information;
- Proposed programme of construction, operation and decommissioning; and
- Environmental assessments that set out baseline data and effects arising from the 'other existing development and/or approved development'.

3.3.2 The relevant data is likely to be available from a variety of sources including the website of the relevant local planning authority(ies), the Planning Inspectorate's website and potentially through direct liaison with other stakeholders including other local authorities, statutory bodies and relevant applicants/developers. Key details from the information gathered should be captured and presented in an accessible format, for example in line with Matrix 2 (**Appendix 2**).

3.4 Stage 4: Assessment

3.4.1 The applicant should assess the cumulative effects of the proposed NSIP with the 'other existing development and/or approved development' identified in Stages 1-3 of the process outlined above. As highlighted above, there may be some overlap and iteration between the various stages of the CEA.

3.4.2 The assessment should be undertaken to an appropriate level of detail, commensurate with the information available at the time of assessment. Information on some proposals may be limited and such gaps should be acknowledged within the assessment. The assessment will move from a more qualitative to a more quantitative



assessment as the availability and/or certainty of information increases. Any uncertainty in the assessments should be clearly documented.

3.4.3 An assessment should be provided for all Tier 1 and Tier 2 'other existing development and/or approved development', where possible. For 'other existing development and/or approved development' falling into Tier 3, the applicant should aim to undertake an assessment where possible, although this may be qualitative and at a very high level. The assessment should be carried out with reasonable effort and should be clearly documented in the ES for example using the format presented in Matrix 2 (**Appendix 2**).

3.4.4 Certain assessments, such as transport and associated operational assessments of vehicular emissions (including air and noise) may inherently be cumulative assessments. This is because they may incorporate modelled traffic data growth for future traffic flows. Where these assessments are comprehensive and include a worst case within the defined assessment parameters, no additional cumulative assessment of these aspects is required¹¹. Any such assumptions should be clearly stated in the technical aspect chapter and CEA chapter. However, the assessment should be kept under review in the event that any new 'other existing development and/or approved development' is identified that has potential to exceed the previous worst case assumptions based on growth data (e.g. not previously included in modelled forecasts). This may trigger the need to update previous modelling work.

3.4.5 In preparing the assessment, it should not be forgotten that a key purpose of the ES is to enable the examination necessary to inform decisions (the Secretary of State must examine the environmental information in reaching a reasoned conclusion on the significant effects of the proposed development)¹². Whilst applicants should make a genuine attempt to assess the effects arising from multiple, individually non-significant effects, the CEA should be proportionate and should not be any longer than is necessary to identify and assess any likely significant cumulative effects.

3.4.6 Where significant cumulative effects between the proposed NSIP and 'other existing development and/or approved development' are only likely to arise in relation to one environmental aspect area, the assessment should focus on that issue only. The assessment should be proportionate to the effect being assessed and some effects will need only very brief information to indicate that they have been considered. A precautionary but pragmatic approach, based around the best available evidence, should be used where baseline data or data about the environmental effects of 'other existing development and/or approved development' are incomplete, although applicants should be able to demonstrate that they have attempted to source this data where relevant.

The co-ordinated approach Where an Applicant is required to submit a Habitats Regulations Assessment (HRA) alongside an ES. The Applicant should ensure that information is not duplicated between assessments. The use of shared datasets is recommended.

3.4.7 Significance Criteria: The significance criteria used to assess cumulative effects should consider the capacity of the receiving environment and receptors to accommodate changes that are likely to occur. The terminology used to determine significance should be explicit and support a clear presentation and understanding of the outcome of the CEA.

11. Separate consideration may be required of the accumulation or inter-relationship of these effects on an individual set of receptors e.g. as part of a socio-economic assessment

12. Regulation 21(1) of the Infrastructure Planning (EIA) Regulations 2017



3.4.8 Where bespoke criteria are developed for determining significance of cumulative effects, consideration needs to be given to the following:

- the duration of effect, i.e. will it be temporary or permanent;
- the extent of effect, e.g. the geographical area of an effect;
- the type of effect, e.g. whether additive (loss of 2 pieces of woodland of 1ha, resulting in 2ha cumulative woodland loss) or synergistic (two discharges combine to have an effect on a species not affected by discharges in isolation);
- the frequency of the effect;
- the 'value' and resilience of the receptor affected; and
- the likely success of mitigation.

3.4.9 Assessment Cut-off Date: It is understood that applicants are required to stop assessment work at a particular point in time in order to be able to finalise and submit an application. The applicant should state any assessment cut-off date. However, where new 'other existing development and/or approved development' comes forward following the stated assessment cut-off date, the Examining Authority may request additional information during the examination in relation to effects arising from such development. The applicant should be aware of the potential need to conduct additional assessments to reduce delays and questions during examination.

3.4.10 Mitigation and monitoring: The Applicant should describe the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant cumulative effects and, where appropriate, any proposed monitoring arrangements. The means of securing delivery of these measures should be explained. This should be documented within Matrix 2 (**Appendix 2**). All mitigation relied upon in the assessment should be described and presented in the ES. Where mitigation and/or monitoring is proposed to be secured and delivered through a requirement in the draft DCO, e.g. within a Construction Environmental Management Plan (CEMP), rather than embedded in the design of the NSIP, the draft requirement should be clearly referenced in the mitigation column of the applicant's Matrix 2 and/or as part of an applicant's overarching schedule of mitigation.

3.4.11 As a minimum, applicants are expected to include the mitigation necessary to address impacts associated with their proposed NSIP. However, apportionment of effect and mitigation between the proposed NSIP and 'other existing development and/or approved development' included in the CEA may be acceptable in certain cases, subject to robust justification and agreement with the relevant consultation bodies and/or other applicant(s).

3.4.12 Where possible, applicants should consider opportunities to develop holistic mitigation strategies in collaboration with other relevant bodies identified in the CEA, for example, NPS EN-3 paragraph 2.6.120 which advocates the use of shared cable corridors to minimise 'the cumulative effects of multiple cable routescrossing the subtidal zone'. The relevant method by which to secure such mitigation should be agreed by the applicant in consultation with their legal advisors and other relevant bodies.



4. Data Protection

4.1. If an application is accepted to progress to examination by the Secretary of State, it will be published on the National Infrastructure Planning website (<https://infrastructure.planninginspectorate.gov.uk/>)

4.2. Applicants must ensure that the information provided with their application complies with data protection legislation and that any confidential or personal information of private individuals is treated appropriately – this may include redaction or obtaining consent from the individuals concerned regarding the processing of their personal information.

Terms and abbreviations used in this Advice Note

Applicant	The party applying for development consent. Responsible for carrying out the necessary preparatory work in support of the application to enable the competent authority to carry out its duties
CEA	Cumulative Effects Assessment
CEMP	Construction Environmental Management Plan
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
ExA	Examining Authority
GIS	Geographical Information Systems
HRA	Habitats Regulations Assessment
NPPF	National Planning Policy Framework
NPS	National Policy Statement(s)
NSIP	Nationally Significant Infrastructure Project(s)
ZOI	Zone of Influence

Further information

The Planning Inspectorate, Major Casework Directorate, Temple Quay House, Temple Quay, Bristol BS1 6PN

Email: environmentalservices@planninginspectorate.gov.uk

Telephone: 0303 444 5000

Web: <https://infrastructure.planninginspectorate.gov.uk>

Byers Gill Solar – ISH7 Action points (Annex C)

Scope of this document

1. This annex addresses queries raised in Issue Specific Hearing 7 (Cumulative Effects) in relation to:
Cumulative effects on road users travelling between Brafferton and Redmarshall.

Effects and Cumulative Effects on Road Users

2. As indicated by the Applicant during ISH7, this matter was first raised by Darlington Borough Council in their LIR Appendix 2 (Rep1-021), where at 10.12 they indicate their opinion that *"It is clear that every road would interact with a solar farm and travellers would potentially experience a solar farm every 2-3 minutes along the entire 10.6km central route connecting the villages. DBC is of the view, therefore, that such effects should be considered significant."* The route being specifically referred to is that between Brafferton and Bishopton, illustrated on Figure 6 of DBC LIR Appendix 2, which is approximately 10km in length.
3. Since that time, DBC and the Applicant have set out their respective positions in the Statement of Common Ground (SOCG, REP3-010) at item DBC060 with DBC identifying effects on that stretch of route as significant and the Applicant identifying effects as Moderate, Adverse and not significant.

Importance of the route between Brafferton, Bishopton and Redmarshall

4. During ISH7 this point was raised in the context of cumulative assessment with DBC describing the route as *"the central route"*, and the length of road being considered was extended by the ExA to Redmarshall. There is no reason known to the Applicant to consider that road users travel this route more frequently or are more sensitive to changes to views than those using other parts of the local road network between the villages as illustrated by Figure 4 in LIR DBC2. For instance, Sadberge and Stillington are some of the larger villages, so travel to and from them is also likely to be frequent, if not more frequent, and views from the routes connecting them are likely to be equally important to local road users. The main difference between the route between Bishopton and Brafferton and other routes that might be taken within the study area is not its local importance or frequency of use, but that it happens to pass close to the Proposed Development in a number of locations.
5. Of necessity, the LVIA does not consider every possible journey that a local road user might take and assess the sequential effects along that route. It would give rise to an unnecessarily complex and lengthy assessment. Instead, users of each section of road is considered within one of the visual receptor groups listed below:
 - Roads within villages are considered as part of that village:
Paragraphs 7.10.63-7.10.111 of the ES [APP-030] and paragraphs 20-38 of Appendix 7.5 [APP-136];
 - Roads between A167, Salters Lane, Lea Hall and Little Ketton Farm:
7.10.113 (construction); 7.10.118-119 (operation) and 7.10.125 (decommissioning).
 - Roads east of Salters Lane, between Lea Hall, Newton Ketton, Elstob Lane and Hill House Lane:
7.10.128 (construction); 7.10.132-133 (operation) and 7.10.139 (decommissioning).
 - Roads East of Elstob Lane and Hill House Lane, between Bleach House Bank, Stoney Flatt Farm and Gillyflatts:
7.10.144 (construction); 7.10.148 (operation) and 7.10.153 (decommissioning).
 - Roads East of Bleach House Bank between Stillington, Redmarshall and Stoney Flatt Farm:
7.10.158 (construction); 7.10.162 (operation) and 7.10.166 (decommissioning).
6. Assessments of effects are provided for key routes likely be used by large numbers of visual receptors in Appendix 7.5 to the ES (APP-136). If for instance the route between Newton Aycliffe and Redmarshall had been an A-road or promoted as part of a scenic driving or cycling route, a separate assessment would have been provided. However, it is the view of the Applicant that the effects on the local roads between Brafferton and Bishopton/Redmarshall are not of any greater relevance than effects on any other combination of local roads that may be used to travel between the various villages in the vicinity of the Site.

Baseline and Future Baseline

7. Much of the route between Brafferton and Redmarshall is hedge lined. The most noticeable views are over lower ground towards Brafferton near Viewpoint 1 (APP-071); the large phone mast close to that; long views to the east near Great Stainton; and the pleasant views of Bishopton while passing through the village. Otherwise, the road is largely experienced as passing between hedges, past occasional houses, farms, local businesses, field gates and junctions. Great Stainton is not especially noticeable heading east, but there are views towards the village on higher ground when approaching the village heading west, and there are similar views towards Redmarshall when approaching the village heading east. As shown by Figure 7.7 of the ES (APP-069), road users will experience close views of Whinfield solar farm (ID21) seen over roadside hedges and through field gates to the west of the junction between Lime Lane and Lodge Lane and westbound road users will also have close views of Gateley Moor solar farm (ID16) as they approach The Garth on the S-bend west of Redmarshall, otherwise views of Gateley Moor solar farm will be more limited due to a combination of distance, roadside vegetation and rising ground to the south of the road.
8. As set out within the ES, the sensitivity of local road users using this route is judged to be Medium – it is typically mostly used by vehicles rather than being a quieter route often used by recreational users.

Effects

9. As set out within the note to which this text is annexed, the presence of consented solar farms which would be visible from this route should not be assumed to increase the cumulative effects of the proposed development. Consented solar farms are considered as part of the future baseline and in this respect the way in which they interact with the assessment of effects is as follows:
 - There will be a short stretch of Lime Lane from which the Proposed Development would not be seen because Whinfield solar farm will screen it from view.
 - Views of solar farms from this route already arise, but they are not widespread enough that the effects of the Proposed Development are reduced by taking this consideration into account.
10. Viewpoints 1, 4, 12, 15, 21 and 28 represent changes to views arising along this route. The scale of effect at these viewpoints, and at those parts of the route where a viewpoint is not located has been taken account of, as have the consented solar farms, in reaching the assessments of effects provided in ES Chapter 7 (APP-030). The effects on the route during early operation before planting matures are split among multiple area-based receptor groups and described in the ES as follows:

Section	Viewpoints	ES Paras.	Effects
Brafferton to Salters Lane	1,4	7.10.118-7.10.119	<i>"Drivers using Lime Lane, particularly in taller vehicles, would have occasional views of the solar PV modules within Panel Area A ... with parts of the Proposed Development in these fields on slopes facing towards the road which has an elevated outlook over a shallow valley in this area (see viewpoints 1 and 4)... Effects for road users would be at most Medium scale, reducing to Medium /small scale in summer"</i>
Salters Lane to Elstob Lane	12, 15	7.10.132	<i>"Drivers using Lodge Lane, particularly in taller vehicles, would have close views of the Proposed Development within Panel Area B as they pass the Site near Stainton Hill House (see viewpoint 12), with occasional more distant views where gaps in hedges allow (see viewpoint 15). ...Effects for road users would be Large scale near Stainton Hill House on Lodge Lane; ... and there would be occasional Small scale changes to views elsewhere along Lodge Lane ..."</i>
Elstob Lane to Bishopton	21	7.10.148	<i>"Changes to views arising from the proposed Development would include close views of Panel Area E above hedges from roads to the west of Bishopton (see viewpoints 21 and 22) and close views of</i>

Section	Viewpoints	ES Paras.	Effects
			<i>Panel Area D from the road which connects Great Stainton and Bishopton, giving rise to Localised Large scale changes to views."</i>
Bishopton to Redmarshall	28	7.10.158	Assessment of effects users of roads other than Mill Lane - " <i>Effects on users of other roads in this receptor group would be negligible.</i> "

11. Considering the above together it can be seen that the greatest effects will be experienced passing Stainton Hill Farm and between Great Stainton and Bishopton and in that respect the 'worst case' effects on this route would be as assessed for those sections of the route with Large scale, Localised changes to views giving rise to a Medium magnitude of impact and effects which would be Moderate, Adverse and not significant. The additional Medium to Small scale changes to views experienced infrequently elsewhere along the route would not increase that assessment.