

3 ENVIRONMENTAL ASSESSMENT METHODOLOGY AND CONSULTATION

3.1 This chapter of the Environmental Statement (ES) sets out the approach taken to the Environmental Impact Assessment (EIA) of the project. The chapter also includes details of the consultation undertaken and the overall approach to the assessment of the likely effects of the project. Further details of topic specific methodologies, such as survey methods, are provided in each topic chapter.

EIA SCOPING

3.2 Scoping is the process of identifying the issues to be addressed during EIA. The scoping of an EIA is an important preliminary procedure, which sets the context for the EIA process.

3.3 Regulation 13 of the EIA Regulations allows an applicant to request that the determining authority sets out its opinion as to the issues to be addressed in the ES (known as a Scoping Direction). Whilst there is no formal requirement in the EIA Regulations to seek a Scoping Direction prior to submission of an ES, it is recognised as best practice to do so.

3.4 A Scoping Request was submitted to PINS on 18 December 2018. The scoping request is appended to this chapter (Appendix 3.1). A Scoping Direction was provided on 12 February 2019 by the Planning Inspectorate, Wales (Ref. 3220457) and appends this chapter at Appendix 3.2.

3.5 The following topics were identified by PINS for assessment in the EIA:

- Ecology and Ornithology;
- Climate Change;
- Groundwater;
- Surface Water Flooding;
- Construction Noise;
- Landscape Character and Visual Impact;
- Historic Environment (including Archaeology); and
- Transport (Road Users).

3.6 Effects on other aspects of the environment are not likely to be significant, as identified in PINS Scoping Direction. These are:

- Tidal Flooding
- Construction vibration;
- Agricultural Land Quality; and
- Contaminated Land.

3.7 PINS also identified the following for targeted discussion:

- Human Health; and
- Glint and Glare.

ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

Relevant Guidance

3.8 The EIA process has taken into account relevant government or institute guidance, including:

- Environmental Impact Assessment Handbook (Third edition, 2019);
- Procedural Guidance Appendix 3: Environmental Impact Assessment (The Planning Inspectorate, 2019);
- Planning Policy Wales (Edition 10, 2018);
- Delivering Proportionate EIA: A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice (IEMA, 2017);
- Environmental Impact Assessment Guide to Shaping Quality Development (IEMA, 2005);
- Technical Advisory Notes (Welsh Assembly Government, 2005);
- The State of Environmental Impact Assessment Practice in the UK: Special Report (IEMA, 2011);
- Guidelines for Environmental Impact Assessment (IEMA, 2004);
- Advice note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects (The Planning Inspectorate, Aug 2019); and
- Circular 11/99 Environmental Impact Assessment (Welsh Office, 1999);

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

Structure

3.10 The assessment of each environmental topic forms a separate section of the ES. For each environmental topic, the following has been addressed:

- Non-technical synopsis
- Methodology and assessment criteria;
- Description of the environmental baseline (existing conditions);
- Identification of likely effects and evaluation and assessment of the significance of identified effects, taking into account any measures designed to reduce or avoid environmental effects which form part of the project and to which the developer is committed;
- Identification of any monitoring measures; and
- Assessment of any cumulative effects with other developments planned in the area.

- 3.11 Each topic chapter provides details of the methodology for baseline data collection and the approach to the assessment of effects. Each environmental topic has been considered by a specialist in that area. The identification and evaluation of effects has been based on the information set out in the project description contained within Chapter 2 of this ES, EIA good practice guidance documents and relevant topic-specific guidance where available.
- 3.12 An ES requires sufficient recent data to form the basis of the assessment. Each topic chapter includes a description of the current (baseline) environmental conditions in relation to an identified study area.
- 3.13 In addition, any likely or foreseeable changes in baseline conditions within the lifetime of a project are considered.
- 3.14 Each topic chapter identifies the limitations of the assessment and whether there were any difficulties encountered in compiling the information that is presented in the ES.

Approach to mitigation

- 3.15 The EIA process is an integral part of the project appraisal and design process. During the EIA process, environmental issues have been taken into account as part of an ongoing design process. The process of EIA has therefore been used as a means of informing the design.
- 3.16 The project assessed within this ES therefore includes a range of measures that have been designed to reduce or prevent significant adverse effects arising. In some cases, these measures result in enhancement of environmental conditions. The assessment of effects has taken into account measures that form part of the project and to which the applicant is committed.
- 3.17 The topic chapters set out the measures that form part of the project and that have been taken into account in the assessment of effects for that topic. These include:
- Measures included as part of the project design, such as the landscape strategy and proposed means of access. These measures are included as part of the project for which consent is sought; and
 - Measures to be adopted during construction to avoid and minimise environmental effects, such as pollution control measures.

ASSESSMENT OF EFFECTS

- 3.18 The EIA Regulations require the identification of the likely significant environmental effects of the project. This includes consideration of the likely effects during the construction and operational phases of the project. This is based on consideration of the likely magnitude of the predicted impact and the sensitivity of the affected receptor. The process by which effects have been identified and their significance evaluated is set out within each individual topic chapter.

Sensitivity or Importance of Receptors

- 3.19 Receptors are defined as the physical or biological resource or user group that would be affected by a project. For each topic, baseline studies have informed the identification of potential environmental receptors. Some receptors will be more sensitive to certain environmental effects than others. The sensitivity or value of a receptor may depend, for example, on its frequency, extent of occurrence or conservation status at an international, national, regional or local level.
- 3.20 Sensitivity is defined within each ES topic chapter and takes into account factors including:
- Vulnerability of the receptor;
 - Recoverability of the receptor; and
 - Value/importance of the receptor.

Magnitude of Impact

- 3.21 Impacts are defined as the physical changes to the environment attributable to the project. For each topic, the likely environmental impacts have been identified. For each topic the likely environmental change arising from the project has been identified and compared with the baseline (the situation without the project). Impacts are divided into those occurring during the construction and operational phases.
- 3.22 The categorisation of the magnitude of impact is topic-specific but generally takes into account factors such as:
- Extent;
 - Duration;
 - Frequency; and
 - Reversibility.
- 3.23 With respect to the duration of impacts, the following has been used as a guide within this assessment, unless defined separately within the topic assessments:
- Short term: A period of months, up to one year;
 - Medium term: A period of more than one year, up to five years; and
 - Long term: A period of greater than five years.

Significance of Effects

- 3.24 Effect is the term used to express the consequence of an impact (expressed as the ‘significance of effect’). This is identified by considering the magnitude of the impact and the sensitivity or value of the receptor.

- 3.25 The magnitude of an impact does not directly translate into significance of effect. For example, a significant effect may arise as a result of a relatively modest impact on a resource of national value, or a large impact on a resource of local value. In broad terms, therefore, the significance of the effect can depend on both the impact magnitude and the sensitivity or importance of the receptor.
- 3.26 Each chapter defines the approach taken to assessment of significance. Unless set out otherwise within the chapter, topic chapters use the general approach set out in Table 3-1. For some topics, a simplified or quantitative approach is considered appropriate.

Table 3-1: Significance matrix based on magnitude of impact and sensitivity

Sensitivity	Magnitude of Impact				
	No Change	Negligible	Low	Medium	High
Negligible	None	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	None	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	None	Negligible or Minor	Minor	Moderate	Moderate or Major
High	None	Minor	Minor or Moderate	Moderate or Major	Major or Substantial
Very high	None	Minor	Moderate or Major	Major or Substantial	Substantial

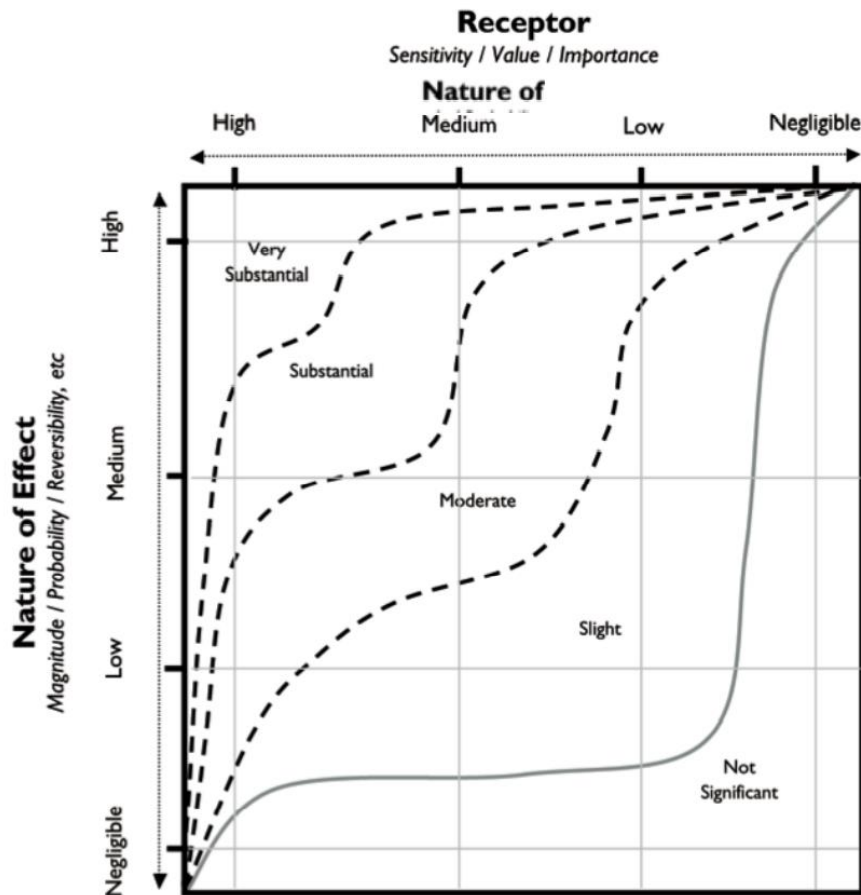


Figure 3-1 Significance levels based on nature of effect

3.27 Significance levels are defined separately for each topic. Unless separately defined in the topic chapters, the assessments take into account relevant topic specific guidance, based on the following scale and guidance:

- **Substantial:** Only adverse effects are normally assigned this level of significance. They represent key factors in the decision-making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer the most damaging impact and loss of resource integrity;
- **Major:** These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process;
- **Moderate:** These beneficial or adverse effects may be important, but are not likely to be key decision making factors. The cumulative effects of such factors may influence decision making if they lead to an increase in the overall adverse effect on a particular resource or receptor;
- **Minor:** These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision-making process, but are important in enhancing the subsequent design of the project; and

- **Negligible:** No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

3.28 The terms minor, moderate and major apply to either beneficial or adverse effects. Effects may also be categorised as direct or indirect, secondary, short, medium or long term, or permanent or temporary as appropriate.

Future Monitoring

3.29 Where relevant and necessary, future monitoring measures have been set out within the topic chapters.

Assessment of Cumulative Effects

Other Proposed Development

3.30 Schedule 4 of the EIA Regulations states that the ES must include a description of the likely significant effects of the development on the environment resulting from *‘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’*. As the requirement is for the EIA to consider existing or approved projects, only those projects with consent need to be assessed in terms of cumulative effects with the proposed solar park, as set out below.

3.31 The cumulative effects of the project in conjunction with other proposed schemes have been considered within each topic chapter of the ES. Other developments considered within the cumulative assessment include those that are:

- Under construction; and
- Permitted, but not yet implemented.

3.32 It is noted that developments that are built and operational at the time of submission are considered to be part of the existing baseline conditions.

3.33 Details of the developments included as part of the cumulative assessment are provided in Table 3-2 below and in the map provided at Figure 3-2.

Table 3-2 Developments considered for cumulative impact assessment

Project	Details and status	Scoped in or scoped out of Cumulative effects assessment
M4 CaN	Refused. https://beta.gov.wales/m4-corridor-around-newport	Scoped out (as not approved).
Newport and Cardiff Tidal lagoons	Refused. http://www.tidallagoonpower.com/projects/newport/ http://www.tidallagoonpower.com/projects/cardiff/	Scoped out (as not approved).
1.6km rail formation - Land Adjacent And North Of Branch Railway Line, Seven Stiles Avenue, Newport	Approved. NCC Planning application (ref. 18/1109) for the construction of 1.6km of rail formation in connection with the stabling of trains including associated engineering and landscaping works. Link to planning application: https://licensing.newport.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=ZZZYBLCPM388	Scoped in. Identified by NCC through consultation in May 2020.
Land at Vinegar Hill - Hybrid app for 155 dwellings	In planning. MCC Planning application (ref: DM/2019/01937) for 155 dwellings cumulative. Link to planning application: https://planningonline.monmouthshire.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=Q1QC73KY00U00	Scoped in. Identified by MCC through consultation in May 2020.
Land at Rockfield Farm - Outline consent for 266 house and approx. 5575m ² of employment space	Approved. MCC Planning application (ref: DC/2016/00883) Master planned development of 13.8 hectares of land for residential use and employment use; up to 266 Proposed residential units and approximately 5575 square meters of B1 floor space. Link to planning application: https://planningonline.monmouthshire.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=ZZZBXFTWR121	Scoped in. Under construction. Identified by MCC through consultation in May 2020.
Land at Rockfield Farm partial RM for the above site - 144 dwellings	Approved and under construction. MCC Planning application (ref: DM/2018/01606) for reserved matter application relating to the above site at Rockfield Farm - 144 dwellings. Link to planning application: https://planningonline.monmouthshire.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=PG0JM1KYK0R00	Scoped in. Under construction. Identified by MCC through consultation in May 2020.

Table 3-2 Developments considered for cumulative impact assessment

Project	Details and status	Scoped in or scoped out of Cumulative effects assessment
<p>Magor Brewery. Erection of sixteen fermentation vessels, enclosed supporting structure and associated works.</p>	<p>In planning. MCC Planning application (ref: DM/2020/00103) for works at Magor Brewery. Erection of sixteen fermentation vessels, enclosed supporting structure and external stairs; extension of existing high level access walkway; earth works; and temporary works including re-use of existing car park as vessel assembly site, creation of two temporary replacement car parks, temporary site roads and walkways, and associated works.</p> <p>Link to planning application: https://planningonline.monmouthshire.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=Q4G931KYHQ700</p>	<p>Scoped in. Identified by MCC through consultation in May 2020.</p>
<p>Magor Motorway Services Installation of ground mounted photovoltaic solar arrays to provide circa 5 MW generation capacity with associated infrastructure.</p>	<p>Approved. MCC Planning application (ref: DC/2015/00573) consent for Works at Magor Motorway Services. Installation of ground mounted photovoltaic solar arrays to provide circa 5 MW generation capacity together with power inverter systems; transformer stations; internal access track; landscaping; cable trench, security measures, fencing, access gates and associated infrastructure.</p> <p>Link to planning application: https://planningonline.monmouthshire.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=ZZZAZFTWR348</p>	<p>Scoped out. Identified by MCC through consultation in May 2020. Application now lapsed and abandoned.</p>

3.34 The ES identifies which sensitive resources and / or receptors are likely to be affected by the Rush Wall Solar Park in combination and other cumulative schemes and to what extent. This information is presented in tabular form and makes use of the assessments carried out by others for cumulative schemes.

CONSULTATION

3.35 The project team has undertaken consultation with, or requested information from, a number of organisations, as set out in the topic chapters. Pre-application consultation has been held with specific consultees to discuss key aspects of the project, as set out in Table 3-3 below.

Table 3-3: Consultation with specific consultees

Date	Consultee	Details
18 December 2018	PINS	Pre-application submission and EIA Scoping Request submitted (See: https://dns.planninginspectorate.gov.uk/projects/wales/rush-wall-solar-park-ltd/?ipcsection=docs)
11 July 2019	NCC	Meeting with NCC to provide a further opportunity to comment on the scope of assessment required, for example net benefits through re-en reinstatement via removal of shading vegetation.
19 Sept 2019	MCC	Meeting with MCC to provide a further opportunity to comment on the scope of assessment required, for example the provision of a glint and glare assessment.
6 November – 8 January 2021	All statutory consultees	Initial DNS Pre-Application Consultation undertaken. Responses received from 17 consultees. Responses are discussed and actioned within relevant topic chapters.

3.36 Further to the above, topic specialists have consulted the relevant experts within NCC, MCC, NRW and with other relevant individuals and organisations on the approach to EIA through the scoping process.

Community Engagement

- 3.37 As part of the consultation process, the Applicant has engaged with the local community in order to inform local people about the project, to explain the development and its likely effects and to take on board any concerns or issues raised. A public exhibition was held at Redwick Community Village Hall on Wednesday, 11th September between 1pm and 7pm. The venue was chosen due to its close proximity to the site and its accessibility to those who live and work in the local area.
- 3.38 The consultation event displayed information boards and two A1 posters were on show detailing the location and extent of the application site. In addition, several A3 posters were displayed, detailing viewpoints, photomontages and additional information regarding typical solar farm developments.
- 3.39 Three members of staff from BSR Energy Ltd (Developer), the EIA Consultant and the Planning Agent were in attendance to answer questions.
- 3.40 Invites were sent to 139 addresses. On the day, 23 people signed in and ten people filled out feedback forms. A summary of the exhibition and feedback can be seen in the pre-application Consultation Report which accompanies the application.