

17 APPENDIX 17.1: GLOSSARY OF IMPACTS AND ASSESSMENT METHODOLOGY

17.1 Glossary of Impacts

17.1.1 Types of Impacts

Potential impacts on the receiving cultural heritage environment can be described as direct physical impacts, indirect physical impacts, and impacts on setting (i.e. the surroundings in which a cultural heritage asset can be experienced; Historic England 2017).

Direct physical impacts are those development activities that directly cause damage to the fabric of a cultural heritage asset. Typically, these activities are related to construction works (e.g. they could include excavation of foundations, earthmoving / site preparation creation of access roads, cycle paths, and the excavation of service trenches).

Indirect physical impacts are those processes, triggered by development activity, that lead to the degradation of cultural heritage assets.

Impacts on the setting of cultural heritage assets describe how the presence of a development changes the surroundings of an asset in such a way that it affects (positively or negatively) the heritage significance of that asset. Visual impacts are most commonly encountered. Such impacts may be encountered at all stages in the life cycle of a development, but they are only likely to be considered significant during the prolonged operational life of the development.

Types of impact (now referred to as effects), as defined by the EPA Guidelines on Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022):

- *Cumulative Impact* – The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant, effects.
- *Do Nothing Impact* – The environment as it would be in the future should the subject project not be carried out.
- *Indeterminable Impact* – When the full consequences of a change in the environment cannot be described.
- *Irreversible Impact* – When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
- *Residual Impact* – The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
- *'Worst case' Impact* – The effects arising from a project in the case where mitigation measures substantially fail; and
- *Indirect or Secondary Impacts* – Effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.

17.1.2 Quality of Impacts

Impacts on the cultural heritage environment are assessed in terms of their quality, i.e. positive, negative, neutral:

- Negative Impact: A change that will detract from or permanently remove an cultural heritage asset from the landscape;
- Neutral Impact: A change that does not affect cultural heritage; and
- Positive Impact: A change that improves or enhances the setting of a cultural heritage asset.

17.1.3 Duration of Impacts

The duration of an impact can be as follows:

- *Temporary Impact*: Impact lasting for one year or less;

- Short-term Impact: Impact lasting one to seven years;
- Medium-term Impact: Impact lasting seven to fifteen years;
- Long-term Impact: Impact lasting fifteen to sixty years; and
- Permanent Impact: Impact lasting over sixty years.

17.2 Assessment Methodology

This assessment methodology has regard to the EPA assessment criteria (EPA 2022) and to the National Roads Authority (NRA) Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes (hereafter referred to as the NRA Guidelines) (NRA 2005).

Cultural heritage sites are a non-renewable resource and such assets are generally considered to be location sensitive. In this context, any change to their environment, such as construction activity and ground disturbance works, could adversely affect these sites.

17.2.1 Significance / Sensitivity Criteria

In accordance with EPA Guidelines (EPA 2022), the context, character, significance and sensitivity of each cultural heritage asset requires evaluation and the significance of the impact is then determined by considering the significance / sensitivity of the asset and the predicted magnitude of the impact.

The significance / sensitivity can be ascertained by looking at the following criteria: the existing status (level of protection), condition or preservation, documentation or historical significance, group value, rarity, visibility in the landscape, fragility or vulnerability, and amenity value (Table 1). While these criteria contribute to the significance of a feature they should not be treated as definitive. These criteria are indicators which contribute to a wider judgement based on the individual circumstances of these cultural heritage assets.

Table 1 Explanation of Cultural Heritage Asset Assessment Criteria

Criteria	Explanation
Existing Status	The level of protection associated with a cultural heritage asset is an important consideration.
Condition / Preservation / Integrity	The survival of a cultural heritage asset's archaeological potential both above and below ground is an important consideration and should be assessed in relation to its present condition and surviving features. Well-preserved sites should be highlighted, this assessment can only be based on a field inspection.
Documentation / Data	The significance of a cultural heritage asset may be enhanced by the existence of records of previous investigations or contemporary documentation supported by written evidence or historic maps. Sites with a definite historical association or an example of a notable event or person should be highlighted.
Group Value / Character	The value of a single a cultural heritage asset may be greatly enhanced by its association with related contemporary monuments or with monuments from different periods indicating an extended time presence in any specific area. In some cases it may be preferable to protect the complete group, including associated and adjacent land, rather than to protect isolated monuments within that group.
Rarity / Character	The rarity of some a cultural heritage asset types can be a central factor affecting response strategies for development, whatever the condition of the individual feature. It is important to recognise sites that have a limited distribution.
Visibility in the landscape/ Character / Integrity	Cultural heritage assets that are highly visible in the landscape have a heightened physical presence. The inter-visibility between monuments may also be explored in this category.
Fragility /	It is important to assess the level of threat to a cultural heritage asset from erosion, natural degradation, agricultural activity, land clearance, neglect, careless treatment or development.

Criteria	Explanation
Vulnerability / Integrity	
Amenity Value / Character	Regard should be taken of the existing and potential amenity value of a cultural heritage asset.

An evaluation of the significance / sensitivity of cultural heritage assets is based on their designation and on the extent to which these assets contribute to the cultural heritage environment, though their individual or group qualities, either directly or potentially. Table 2 presents the scale of significance / sensitivity together with criteria. It has been compiled by Courtney Deery Heritage Consultancy Ltd, based on standard authorities and guidelines as listed at the end of this appendix. Undesignated cultural heritage sites can be assigned a low, medium or high sensitivity value, taking into consideration the criteria cited in Table 1 (e.g. condition, character, integrity or preservation, data, group value, rarity, visibility in the landscape, fragility or vulnerability, and amenity value).

Table 2 Significance / Sensitivity Criteria

Sensitivity / Significance	Criteria
Very high	World Heritage Properties and properties on the Tentative List. Built heritage assets, historic gardens and designed landscapes rated as being of international importance by the National Inventory of Architectural Heritage (NIAH).
High	National Monuments. Protected Structures, built heritage assets, historic gardens and designed landscapes, rated as being of national importance by the NIAH, and structures within an Architectural Conservation Area (ACA). Undesignated cultural heritage sites considered to be of national importance.
Medium	Recorded Monuments (RMP sites, and SMR sites scheduled for inclusion in the next revision of the RMP). Protected Structures / NIAH sites and ACAs. Newly identified archaeological sites, confirmed through archaeological investigation, to be added to the SMR. Undesignated cultural heritage sites considered to be of regional importance.
Low	Assets compromised by poor preservation and/or poor survival of contextual associations. Sites listed in the County or City Industrial Heritage Records, Record of Protected Structures (RPS) and NIAH Building for which there are no upstanding remains. Upstanding sites listed in the County or City Industrial Heritage Records considered to be of local importance. Undisturbed greenfield areas and riverine environs, which have an inherent archaeological potential. Undesignated cultural heritage sites considered to be of local importance.
Negligible	Assets with very little or no surviving cultural heritage interest.
Unknown	The importance of the asset has not yet been ascertained (e.g. a LiDAR feature that may or may not be archaeological). In such cases, the significance of effect will be 'Indeterminable'.

Table 3 Description of Criteria

Criteria	Description
World Heritage Properties	World Heritage Properties as designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and properties on the Tentative List.
National Monuments	The National Monuments Act (1930, Section 2) defines a 'National Monument' as 'a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto'. The National Monuments legislation legally protects access to and the visual amenity associated with National Monuments and requires consent from the Minister for invasive works in their vicinity.
Recorded Monuments	The primary source of information for archaeology is the Record of Monuments and Places (RMP) maintained by the Department of Housing, Local Government and Heritage (DHLGH). The RMP documents known upstanding archaeological monuments, their original location (in cases of destroyed monuments) and the position of possible sites in rural areas identified as cropmarks on vertical aerial photographs dating to before 1700 AD (with some later ones also being included). It is based on a comprehensive range of published and publicly available documentary and cartographic sources. For the purpose of the assessment, the Sites and Monument Record (SMR) data and mapping as updated by the Archaeological Survey of Ireland (www.archaeology.ie) was also examined.
Protected Structures	A 'Protected Structure' is a structure that a planning authority considers to be of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social, or technical point of view and is included in its Record of Protected Structures (RPS). It may be a building or part of a building which is of significance because of its architectural or artistic quality, or its setting, or because of its association with commercial, cultural, economic, industrial, military, political, social, or religious history.
Architectural Conservation Areas	An Architectural Conservation Area (ACA) is a place, area, group of structures or townscapes that is of special interest and that has been afforded statutory protection by the planning authority in accordance with Section 81 of the Planning & Development Act.
NIAH	The National Inventory of Architectural Heritage (NIAH) is a state initiative established on a statutory basis, to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for Housing, Local Government and Heritage to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).
Undesignated Sites	<p>Newly identified archaeological sites that have been confirmed through archaeological investigation (monitoring, testing, excavation, geophysical survey) are considered to be of medium importance. Such sites are undesignated as they have yet to be added to the SMR.</p> <p>Potential or undesignated cultural heritage sites identified through aerial photography, historic mapping, stray finds are considered to be of low sensitivity, as they have yet to be ground-truthed through archaeological investigation. Similarly, undisturbed greenfield areas and riverine environs, which have an inherent but as yet unproven archaeological potential are considered to be of low sensitivity.</p> <p>Zones of archaeological potential (ZAP) can be defined as areas within the urban and rural landscape that possess the potential to contain archaeological remains due to the settlement history of a place and or to the presence of topographical features such as rivers, lakes and high, defendable ground</p> <p>Sites / features recorded in county / city industrial heritage surveys, where these are not designated assets.</p>

17.2.2 Magnitude of Impact

When assessing the impact magnitude, the following criteria need to be considered:

- Extent – size, scale and spatial distributions of the impact;
- Duration – period of time over which the impact will occur;
- Frequency – how often the impact will occur; and
- Context – how will the extent, duration and frequency contrast with the accepted baseline conditions (see Table 1).

Table 4 Magnitude of Impact Criteria

Impact Magnitude	Criteria
High	These impacts arise where a cultural heritage asset is completely and irreversibly destroyed by a proposed development. A change such that the value of the asset is totally altered or destroyed, leading to a complete loss of character, integrity and data about the site.
Medium	An impact which, by its magnitude, duration or intensity alters an important / significant aspect of the environment. An impact like this would be where a cultural heritage asset would be impacted upon leading to a significant loss of character, integrity and data about the site. Or an impact which by its magnitude results in the partial loss of a historic structure (including fabric loss or alteration) or grounds including the part removal of buildings or features or part removal of demesne land (e.g. severance, visual intrusion or degradation of setting and amenity). A permanent positive impact that enhances or restores the character and / or setting of an upstanding cultural heritage site in a clearly noticeable manner.
Low	A low impact arises where a change to the site is proposed which though noticeable is not such that the cultural heritage character / integrity of the site is significantly compromised, and where there is no significant loss of data about the site. A positive impact that results in partial enhancement of the character and / or setting of an upstanding cultural heritage site in the medium to long-term.
Negligible	An impact which causes very minor changes in the character of the environment and does not directly impact a cultural heritage asset, or affect the appreciation or significance of the asset. There would be very minor changes to the character and integrity of the asset and no loss of data about the site.

17.2.3 Significance of Effect

The EPA Revised Guidelines on the Information to be Contained in Environmental Impact Statements (EIS) (EPA 2017) contained two additional levels of significance of effect: Very Significant and Not Significant (Table 5 and Figure 17-1). These levels have been retained in the current EPA Guidelines (2022).

Table 5 Significance of Effects (EPA 2022)

Significance of Impact	Description
Very Significant	An impact which by its character, magnitude, duration or intensity significantly alters the majority of a sensitive aspect of the environment, for example in this case a monument
Not Significant	An impact which causes noticeable changes in the character of the environment but without noticeable consequences.

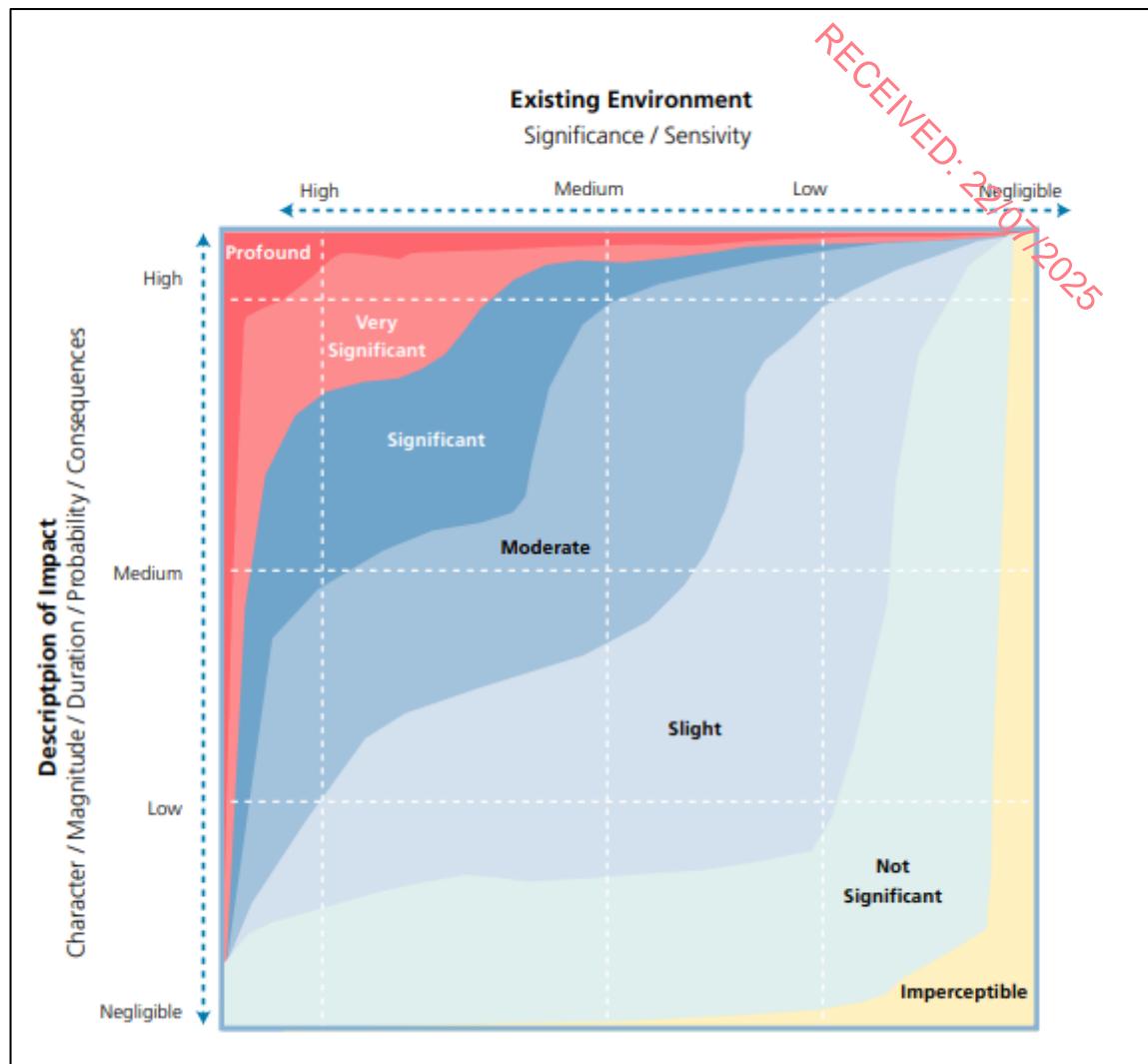


Figure 17-1 Chart Showing Typical Classifications of the Significance of Effects, from the EPA Guidelines on Information to be Contained in EIAR (EPA 2022)

The likely significance of impacts is determined by considering the baseline rating or sensitivity value of the asset upon which the impact has an impact and the magnitude of the impact (Image 1). The impact significance is defined as Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant, or Profound (Table 6).

Table 6 Defining Significance of Effects

Impact	Definition
Imperceptible	An impact capable of measurement but without noticeable consequences.
Not Significant	An impact which causes noticeable changes in the character of the environment but without significant consequences.
Slight	An impact which causes minor changes in the character of the environment and does not affect a cultural heritage asset in a moderate or significant manner.
Moderate	A moderate impact arises where a change to the site is proposed which though noticeable, does not lead to a significant loss of character, integrity and data about the cultural heritage asset.
Significant	An impact which, by its magnitude, duration or intensity, alters an important aspect of the environment. An impact like this would be where part or all of a site would be permanently impacted upon, leading to a significant loss of character, integrity and data about the cultural heritage asset.

Impact	Definition
Very Significant	An impact which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
Profound	Applies where mitigation would be unlikely to remove adverse impacts. Reserved for adverse, negative impacts only. These impacts arise where a cultural heritage asset is completely and irreversibly destroyed by a proposed development.

17.2.4 Relevant Guidelines and Standards

EPA (2015). Revised Guidelines on the information to be contained in Environmental Impact Statements, Draft September 2015.

EPA (2022). Guidelines on the information to be contained in Environmental Impact Assessment Reports.

Historic England (2017). The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning No. 3 (Second Edition). Historic England.

National Monuments Act, 1930 to 2014.

National Roads Authority (NRA) (2005). Guidelines for the Assessment of Architectural Heritage Impact of National Road Schemes.

NRA (2005). Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes.

Permanent Delegation of Ireland to the OECD and UNESCO (2010). UNESCO World Heritage Tentative List [Online]. Available from <https://whc.unesco.org/en/tentativelists/5523/>

Code of Practice for Archaeology agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Transport Infrastructure Ireland, 2017.

Code of Practice for Archaeology agreed between the Minister for Environment, Heritage and Local Government and EirGrid, 2009.

Council of Europe (2005). Framework Convention on the Value of Cultural Heritage for Society, 'Faro Convention'.

EirGrid (2015). Cultural Heritage Guidelines for Electricity Transmission Projects: A Standard Approach to Archaeological, Architectural and Cultural Heritage Impact Assessment of High Voltage Transmission Projects. EirGrid.

Department of Arts, Heritage, Gaeltacht and the Islands (1999). Framework and Principles for the Protection of the Archaeological Heritage.

DAHG (2015). National Landscape Strategy for Ireland 2015-2025.

Department of Arts, Heritage and the Gaeltacht (2011). Architectural Heritage Protection Guidelines for Planning Authorities.