

## Appendix 17.2 Glossary of Impacts

### 17.1 Types of Impacts

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

Direct physical impacts are those development activities that directly cause damage to the fabric of an archaeological / cultural heritage receptor. 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 archaeological / cultural heritage receptors.

Impacts on the setting of archaeological / cultural heritage receptors describe how the presence of a development changes the surroundings of a receptor in such a way that it affects (positively or negatively) the heritage significance of that receptor. 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.
- *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.

### 17.2 Quality of Impacts

Impacts on the archaeological and 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 archaeological monument / cultural heritage receptor from the landscape;
- **Neutral Impact:** A change that does not affect archaeological and cultural heritage; and
- **Positive Impact:** A change that improves or enhances the setting of an archaeological / cultural heritage receptor.

### 17.3 Duration of Impacts

The duration of an impact can be as follows:

Temporary Impact	Impact lasting for one year or less;
Short-term Impacts	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.

## 17.4 Assessment Methodology

### 17.4.1 Introduction

This assessment methodology has regard to the EPA assessment criteria (EPA 2022) and to the and to the Transport Infrastructure Ireland (TII), (2024) *Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects* ('TII Guidelines' hereafter).

Archaeological and cultural heritage sites are a non-renewable resource and such receptors 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.

#### Significance / Sensitivity Criteria

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

In accordance with the TII Guidelines (TII 2024), the significance criteria used to evaluate an archaeological site, monument or complex take into account the character and integrity of the receptor and any available data regarding it. This can be ascertained by looking at the following criteria (compiled by Courtney Deery Heritage Consultancy Ltd, based on standard authorities and guidelines): 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 archaeological / cultural heritage receptors.

**Table 1: Explanation of Archaeology and Cultural Heritage Receptor Assessment Criteria**

Criteria	Explanation
Existing status	The level of protection associated with an archaeological / cultural heritage receptor is an important consideration.
Condition / Preservation / Integrity	The survival of an archaeological / cultural heritage receptor'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 an archaeological / cultural heritage receptor 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 an archaeological / cultural heritage receptor 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 an archaeological / cultural heritage receptor types can be a central factor affecting response strategies for development, whatever the

Criteria	Explanation
	condition of the individual feature. It is important to recognise sites that have a limited distribution.
Visibility in the landscape / Character / Integrity	Archaeological / cultural heritage receptors 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 / Vulnerability / Integrity	It is important to assess the level of threat to an archaeological / cultural heritage receptor from erosion, natural degradation, agricultural activity, land clearance, neglect, careless treatment or development.
Amenity Value / Character	Regard should be taken of the existing and potential amenity value of an archaeological / cultural heritage receptor.

An evaluation of the significance / sensitivity of archaeological / cultural heritage receptors is based on their designation and on the extent to which these receptors contribute to the archaeological or cultural heritage environment, through their individual or group qualities, either directly or potentially. Table 2 presents the scale of significance / sensitivity together with criteria as per the TII Guidelines. Undesignated archaeological or 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	Designated Built Heritage Receptors rated as being of international importance, including associated historic gardens and designed landscapes. Designated features of international intangible heritage value. Designated historic landscapes of international value. National Monuments. Other designated Cultural Heritage Receptors of international importance. World Heritage Properties.
High	Architectural Conservation Areas. Built Heritage Receptors rated as being of national importance by the NIAH, including associated historic gardens and designed landscapes. Historic landscapes (designated or undesignated) of outstanding interest and of demonstrable national value. These will be well-preserved historic landscapes exhibiting considerable coherence, time-depth, or other critical factors. Other designated or undesignated Cultural Heritage Receptors of demonstrable national importance. Places or features of national intangible heritage value. Protected Structures. Recorded Monuments (or sites and monuments scheduled for inclusion on the RMP) of high quality and importance. Sites and monuments subject to a Preservation Order or Temporary Preservation Order. Undesignated receptors of high quality and importance. World Heritage Tentative List properties.
Medium	Built Heritage Receptors rated as being of regional importance by the NIAH, including associated historic gardens and designed landscapes. Historic landscapes of regional value (designated or undesignated). Historic townscapes or built-up areas with demonstrable historic integrity in their buildings or built settings (e.g. including street furniture and other structures). Other designated or undesignated receptors of regional Cultural Heritage importance. Places or features of regional intangible heritage value. Recorded Monuments (or sites and monuments scheduled for inclusion on the RMP).
Low	Built Heritage Receptors rated as being of local importance by the NIAH, including associated historic gardens and designed landscapes.

	<p>Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.</p> <p>Historic townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).</p> <p>Other designated or undesignated Cultural Heritage Receptors of local importance.</p> <p>Places or features of local intangible heritage value.</p> <p>Receptors compromised by poor preservation of contextual associations with inherent, albeit limited, Cultural Heritage value.</p> <p>Undesignated historic buildings of modest quality in their fabric or historical association.</p>
Negligible	Receptors/landscapes with very little surviving Cultural Heritage interest.

## 17.5 Defining Receptor Types

### 17.5.1 National Monument

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.

### 17.5.2 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 (ASI) ([www.archaeology.ie](http://www.archaeology.ie)) was examined so it could be used within an interactive identification and mapping system developed for Proposed Project.

### 17.5.3 Zones of Notification

Zones of notification (ZoN) around RMP / SMR sites are provided on the statutory RMP mapping and on the non-statutory Historic Environment Viewer of the ASI. A Section 12 Notification of Works will be required. Under Section 12 of the 1994 amendment of the National Monuments Act, all monuments listed on the 'Record of Monuments and Places' (RMP) are given a minimum level of protection in the form of a requirement to give two months' notice in writing to the Minister for Housing, Local Government and Heritage of intention to interfere. In this case, a description of the proposed works will have to be forwarded to the Minister in order to demonstrate that the monument in question will remain unaffected by the said works. These can also indicate 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, defensible ground.

### 17.5.4 Non-Designated Sites

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.

Potential or undesignated archaeological sites identified through aerial images, 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.

## 17.6 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 2 which explains the sensitivity criteria).

**Table 3: Magnitude of Effect**

Impact Magnitude	Criteria
Very High	Major alteration to, or complete loss of, a Cultural Heritage Receptor. Effects likely to be experienced at a very large scale; considered permanent and irreversible.
High	Notable or long-term change to a Cultural Heritage Receptor.
Medium	Moderate or long-term change over a restricted area or a moderate change to a Cultural Heritage Receptor.
Low	Minor, short- or medium-term change over a restricted area or a minor change to a Cultural Heritage Receptor.
Negligible	Imperceptible change to a Cultural Heritage Receptor.

## 17.7 Significance of Effect

The likely significance of effect is determined by considering the baseline rating (importance) of the receptor upon which there is an impact and the magnitude of the effect (Image 1). The effect significance is defined as Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant, or Profound (Table 4 and Image 1).

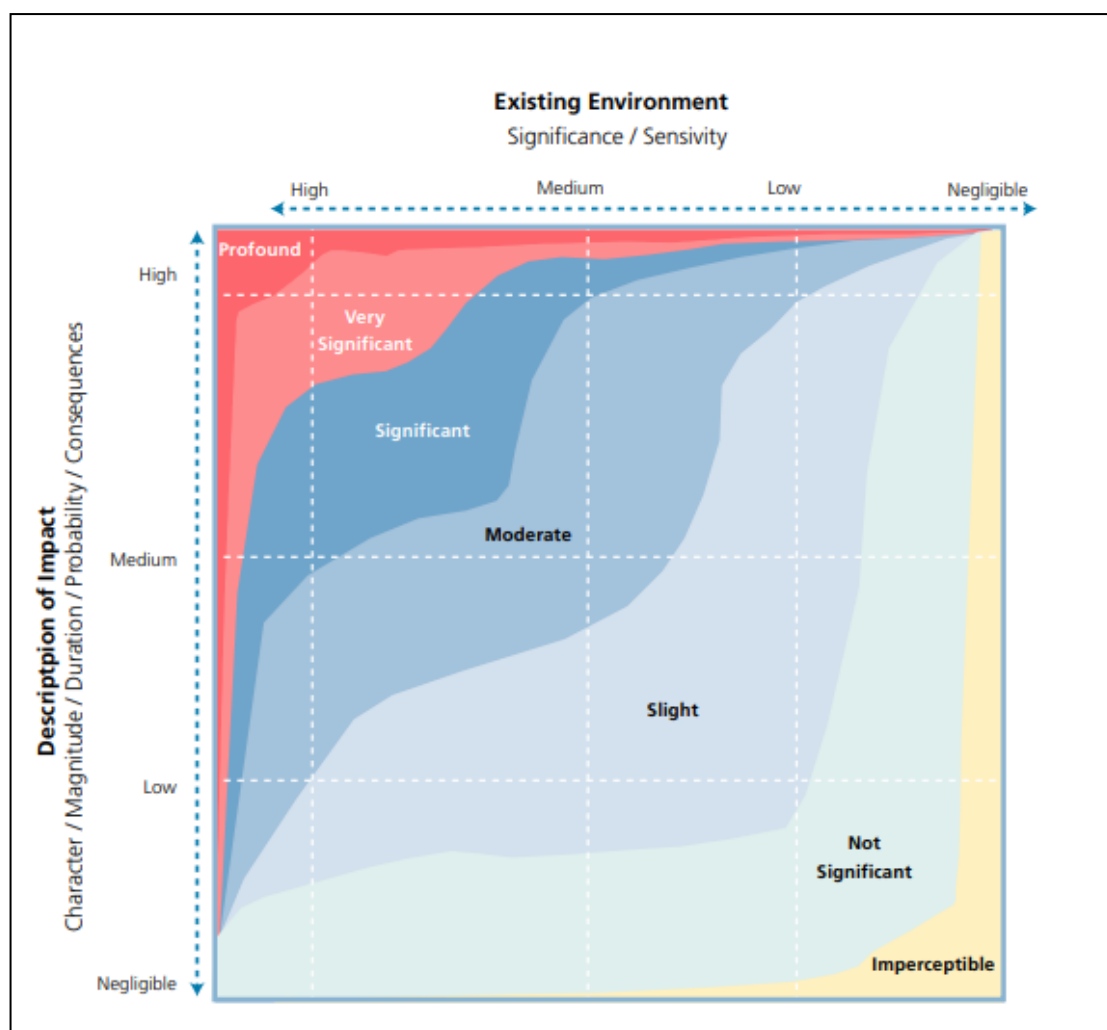


Image 1: Chart showing typical classifications of the significance of effects, from the EPA Guidelines (Figure 3.5, EPA 2022)

Table 4: Defining significance of impacts.

Impact	Definition
Profound	An effect which obliterates a Cultural Heritage Receptor of high or very high importance.
Very Significant	An effect which, by its character, magnitude, duration or intensity considerably alters most of an important aspect of the Cultural Heritage Receptor.
Significant	An effect which, by its character, magnitude, duration or intensity alters an important aspect of the Cultural Heritage Receptor.
Moderate	An effect that alters the character of the Cultural Heritage Receptor in a manner that is consistent with existing and emerging baseline trends.
Slight	An effect which causes noticeable changes in the character of the Cultural Heritage Receptor without affecting its importance.
Not Significant	An effect which causes noticeable changes in the character of the Cultural Heritage Receptor but without significant consequences.
Imperceptible	An effect capable of measurement but without significant consequences.

Table 5: Significance of Impact

Impact Significance (+/-)*					
Impact Magnitude (+/-)* ▼	Baseline Rating ►				
Neutral (0)	Very low (1)	Low (2)	Medium (3)	High (4)	Very high (5)
Very low (1)	Imperceptible (1)	Imperceptible (2)	Not Significant (3)	Slight (4)	Slight (5)
Low (2)	Imperceptible (2)	Slight (4)	Moderate (6)	Moderate (8)	Moderate (10)
Medium (3)	Not Significant (3)	Moderate (6)	Moderate (9)	Significant (12)	Significant (15)
High (4)	Slight (4)	Moderate (8)	Significant (12)	Significant (16)	Very significant (20)
Very high (5)	Slight (5)	Moderate (10)	Significant (15)	Very Significant (20)	Profound (25)