

## 14 LANDSCAPE AND VISUAL IMPACT

### 14.1 Introduction

This section describes the existing landscape in the vicinity of the proposed development location and the visual character of the local landscape. This section also set out the factors that impinge on the landscape and visual characteristics of the locality, setting out how the proposed development interacts with them and specifying any significant effects.

The term 'landscape' refers primarily to the visual appearance of an area, including its shape, form and colour and the interaction of these elements to create specific patterns that are distinctive to particular localities. Landscape is also not purely a visual phenomenon. Its character relies closely on the local physical geography and environmental history. Besides any scenic and/or visual dimension, there are also a whole range of other constituents of significance. These include:

- Topography
- Ecology
- Landscape history
- Land use
- Buildings and settlement
- Architecture

### 14.2 Study Area

The study area was determined by the limits of view as predicted by a computer generated Zone of Theoretical Visibility (ZTV) taken from the highest point within the site, at a height of 57m above ordnance datum (AOD) (ref Figure 14-4). The landscape and visual impacts were assessed for a much smaller area than the full extent of the ZTV.

This ZTV development was undertaken by DH Design and used to inform the impact assessment undertaken in Section 14.5.

### 14.3 Assessment Methodology

This landscape and visual impact assessment has been undertaken in accordance with the following guidelines:

- Department of Environment and Local Government - *Landscape and Landscape Assessment, Consultation Draft of Guidelines for Planning Authorities, June, 2000*
- The Landscape Institute – *Guidelines for Landscape and Visual Impact Assessment, 3<sup>rd</sup> Edition, 2013*
- The Landscape Institute – Advice Note 01/11 – *Photography & Photomontage in Landscape and Visual Impact Assessment - 2011*

#### 14.3.1 Existing Landscape Assessment

The landscape character, values and sensitivity of the area in the vicinity of the development location is outlined in accordance with the Department of Environment and Local Government Guidelines - *Landscape and Landscape Assessment, Consultation Draft of Guidelines for Planning Authorities, 2000*. In these guidelines, landscape character, values and sensitivity are defined as:

- **Landscape character** can be established for an area where there is visual distinctiveness and identity through a continuity of similar characteristics. This description outlines 'what is physically on the land surface', resulting from geology, soils, hydrology, topography, vegetation and land-use.
- **Landscape values** can be described as the environment or cultural benefits that are derived from various landscape resources. These resources may include physical and visual components.

- **Landscape sensitivity** can be described as the extent to which a landscape can accommodate change without unacceptable loss of existing character or interference with values.

The baseline condition in relation to the landscape character of the area of the proposed development was assessed by means of a desk-based study to assess the available information in relation to the sensitive landscapes in the area of the proposed development, the current presence of sensitive visual receptors in the area and the presence of sites of cultural significance in the vicinity of the proposed development.

Once the baseline assessment had been carried out, an assessment of both the positive and negative impacts of the proposed development on the surrounding area in terms of the visual impact was undertaken. These impacts are presented in this section, as well as the mitigation measures proposed, if appropriate, to mitigate any negative impacts.

The data and publications used to compile the baseline assessment are listed below:

- Greater Dublin Area, Regional Planning Guidelines, 2010 – 2022
- Wicklow County Development Plan 2010- 2016
- Wicklow Draft County Development Plan 2016 - 2022

The development site was visited by personnel from FTC and DH Design in September and October 2015. A site walkover and windscreen survey of the surrounding area was undertaken. The purpose of the site walkover and the windscreen survey was to assist in the characterisation of the landscape in the local and broader context, in addition to identifying sensitive receptors.

### 14.3.2 Visual Impact Assessment

The landscape impact assessment describes the nature and scale of changes to the landscape elements and character and outlines the effect of the proposed development on the landscape character of the area. Landscape impacts may be viewed as positive, neutral or negative.

The magnitude of the effects from the proposed development on landscape is rated as follows:

- *No change* – very minor loss or alteration to one or more key elements/features/characteristics of the baseline i.e. the introduction of elements that are not uncharacteristic with the surrounding landscape
- *Low* – minor loss or alteration to one or more key elements/features/characteristics of the baseline i.e. the introduction of elements that may not be uncharacteristic when set within the attributes of the receiving landscape
- *Moderate* – partial loss or alteration to one or more key elements/features/characteristics of the baseline i.e. the introduction of elements that may be prominent but may not necessarily be considered to be substantially uncharacteristic when set within the attributes of the receiving landscape
- *High* – total loss or major alteration to one or more key elements/features/characteristics of the baseline i.e. the introduction of elements considered to be totally uncharacteristic when set within the attributes of the receiving landscape

The significance of the change to the landscape is dependent on the sensitivity of the landscape or viewer and the magnitude of the change.

### **Significance of Change**

The visual impact assessment will describe the visual effects or changes due to the proposed development. Visual impact may occur by means of intrusion and/or obstruction. These terms can be defined as:

- Visual Intrusion:** An impact on a view without blocking  
**Visual Obstruction:** An impact on a view involving blocking thereof.

Visual impacts on a particular view may be viewed as positive, neutral or negative. The significance of these effects will be rated as follows:

- *Little/None* - arises where the proposal is adequately screened by existing landforms, vegetation or the general built environment and there is no discernible deterioration within the existing view.
- *Low* - arises where views affected by the proposal form only a small element in the overall panorama and there is a perceptible deterioration within the existing view
- *Moderate* - arises where an appreciable segment of the panorama is affected and where may be readily noticeable to the receptor or where there is an intrusion into the foreground and there would be a noticeable deterioration within the existing view
- *High* - arises where the view is significantly affected, obstructed or so dominated by the proposal as to form the focus of attention and there is a significant deterioration of the existing view

## 14.4 Existing Environment

### 14.4.1 Existing Landscape Character

#### Immediate Area

The site is located within Co. Wicklow and the Wicklow County Development Plan 2010-2016 (and draft 2016 – 2022 Plan) outlines the hierarchy of landscape in County Wicklow, to ensure that “*the environment and heritage generally are maintained in a sustainable manner, while at the same time enabling a proactive approach to development*”.

The Plans identifies 6 levels of landscape hierarchy (with 15 distinctive landscape categories identified in the draft CDP) in Co. Wicklow:

**Table 14-1: Landscape Hierarchy and Areas (as per CDPs 2010 to 2016 & 2016 – 2022)**

Hierarchy	Landscape Category	Landscape Area
1	Mountain and Lakeshore Areas of Outstanding Natural Beauty (ANOB)	The Mountain Uplands
		The Blessington Lakes Area
		The Bray Mountains Group
		The North Eastern Valley
2	Coastal Areas of Outstanding Natural Beauty (ANOB)	Northern Coastal Area
		Southern Coastal Area
3	Areas of High Amenity	North East Mountain Lowlands
		South East Mountain Lowlands
		Southern Hills
		Baltinglass Hills
		Transitional Lands
4	Corridor Area	The N11(Eastern Corridor)
		The N81 (Western Corridor)
5	Lowlands	Rolling lowland Areas 1-6
6	Urban Area	All towns ranging from Levels 1-6 of the Wicklow Settlement Hierarchy

In accordance with Map 17.09B of the 2010 to 2016 CDP and the Landscape Category Map 10.13 series of the draft 2016 – 2022 CDP, the proposed development location is on the periphery of “Eastern Corridor Area” and “Urban Area” of Kilcoole. given that the development location directly bounds the local area plan extent of Greystones, Delgany and Kilcoole.

The Eastern Corridor Area is described as being of medium vulnerability and being under “*intense pressure from residential and other sporadic development*”.

Urban areas are identified as being of low vulnerability and it is stated in the Plans that “*it will not be necessary for developments in urban areas to have regard to the surrounding landscape classification or to carry out landscape or visual impact assessment*”.

## Visual Envelope

The visual envelope is the extent of potential visibility of the site to or from a specific area or feature. The visual envelope for the development location is defined by views from the local L1042 Kilquade road to the west of the site and the R761 to the east of the site, as shown in Figure 14.3.

### 14.4.2 Existing Landscape Values & Sensitivity

The DoELG publication “*Landscape and Landscape Assessment, Consultation Draft of Guidelines for Planning Authorities*” (June, 2000), identifies the more common values to be considered when assessing landscape as:

1. aesthetic - most frequently visual, vistas, scenic areas, outstanding landscapes, areas of special amenity
2. ecological - habitats, biotopes, wildlife sanctuary, special areas of conservation, natural heritage areas and special protection areas
3. historical - archaeological heritage, artefacts, field patterns
4. socio-cultural - buildings, settlements, monuments, social history or social geography
5. religious - shrines, wells, burial places, pilgrimages
6. mythological - ancient Celtic stories

Of these, items 2, 3, 4, 5, & 6 are addressed in other relevant sections of this EIS. The proposed development location, being between the Eastern Corridor Area and the Kilcoole and surrounding Urban Area is considered as having a low to medium vulnerability.

In terms of the proposed development, the aesthetic value and ecological value are considered the more important of these values to be considered.

The description of the ecological values i.e. habitats, biotopes, wildlife sanctuary, special areas of conservation, natural heritage areas and special protection areas have been assessed in Section 11 and in the NIS accompanying this EIS in Appendix 3.

The descriptions of the aesthetic value i.e. most frequently visual, vistas, scenic areas, outstanding landscapes, areas of special amenity, are considered to be appropriately addressed in the assessment of the CDPs landscape hierarchy, where the sensitivity of the Corridor Area and Urban areas are identified as being medium and low respectively.

### 14.4.3 Amenity Views

The Wicklow County Development Plan 2010 – 2016 and draft Plan 2016 - 2022 identify amenity views and prospects in Co. Wicklow, with the Development Plan objectives being the protection of these views and prospects from development “*that would obstruct these views or form an obtrusive or incongruous feature.*”

The nearest amenity view to the proposed development site is:

- The Glen of the Downs – located c. 3 km north east of the development location

While the nearest prospects are:

- N11 Glen of the Downes (prospect of both sides of Glen of the Downs) – located c. 3 km north east of the development location
- N11 at Kilmullin (prospect of Kilcoole and the coast) – located c. 4 km south west of the development location

## 14.5 Potential Visual and Landscape Impacts

### 14.5.1 Zone of Theoretical Visibility (ZTV) production

The term Zone of Theoretical Visibility (ZTV) is used to describe the area over which a development can theoretically be seen by using only contour analysis. A ZTV does not take account of localised landform (cuttings/embankments), buildings, vegetation or climatic conditions. True visibility will therefore affect a more restricted area within the ZTV as localised landform, buildings, vegetation or climatic condition will restrict views.

The ZTV for this development is presented in Figure 14.1 to 14.5 and was processed using a digital terrain model based on United States Geological Survey's Shuttle Radar Topography Mission (SRTM) and GeoNames.org. In order to verify the level of accuracy of this data, it was visually cross referenced with Ordnance Survey Ireland (OSI) Discovery Series mapping, 1:50,000 scale and the [www.osi.ie](http://www.osi.ie) mapping viewer. Long sections were also produced to confirm the ZTV and a desk based analysis of visibility was carried out to confirm the reliability of the final ZTV. All information was found to correspond. Each pixel in the ZTV covers approximately 0.8ha (2 acres).

A point 57m above ordnance datum (AoD), at 0m above ground level, in the north east of the site (see Figure 14.4) was chosen as the reference point for the ZTV. This point/elevation is the highest point within the site and as such has the widest ZTV.



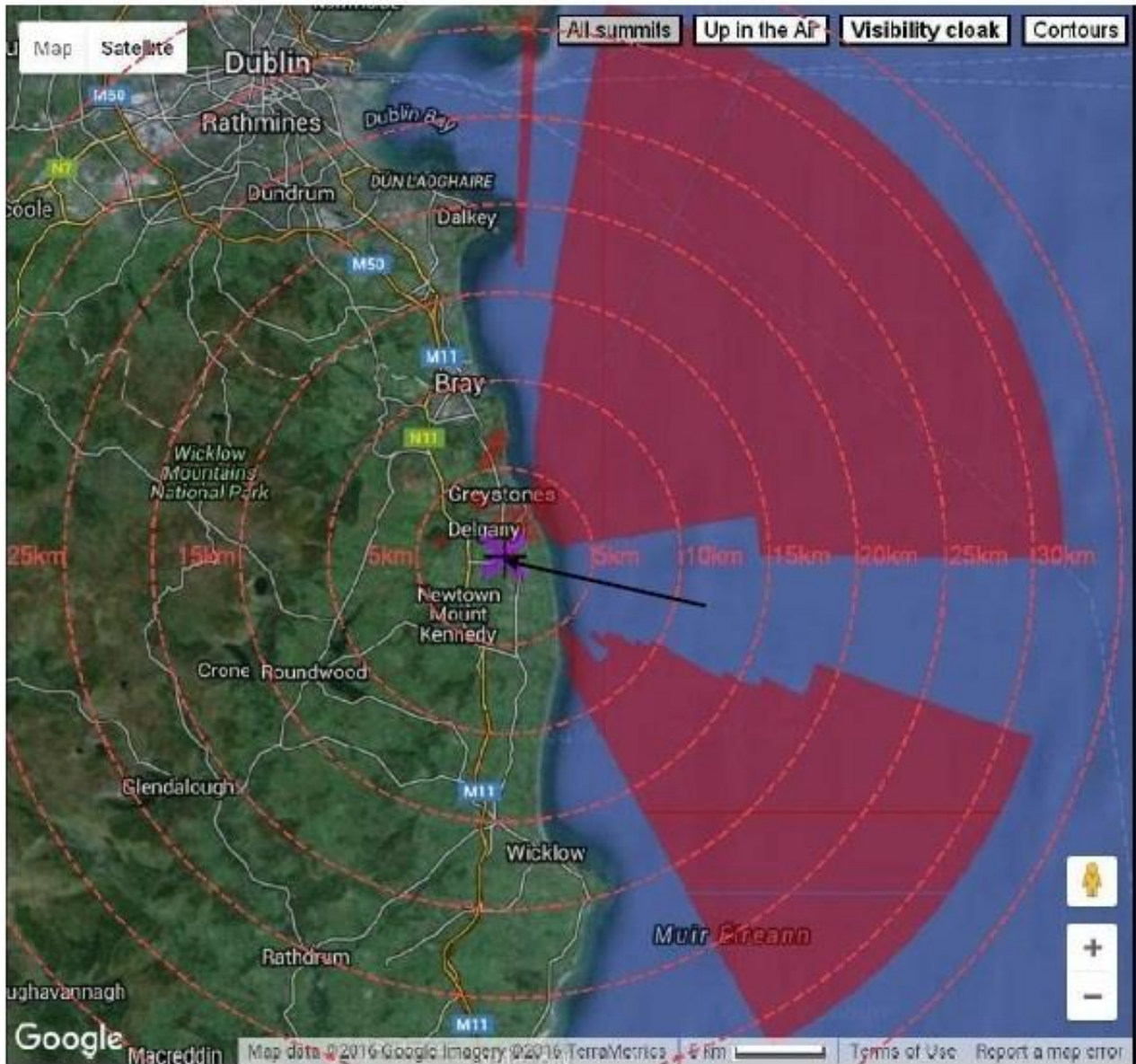


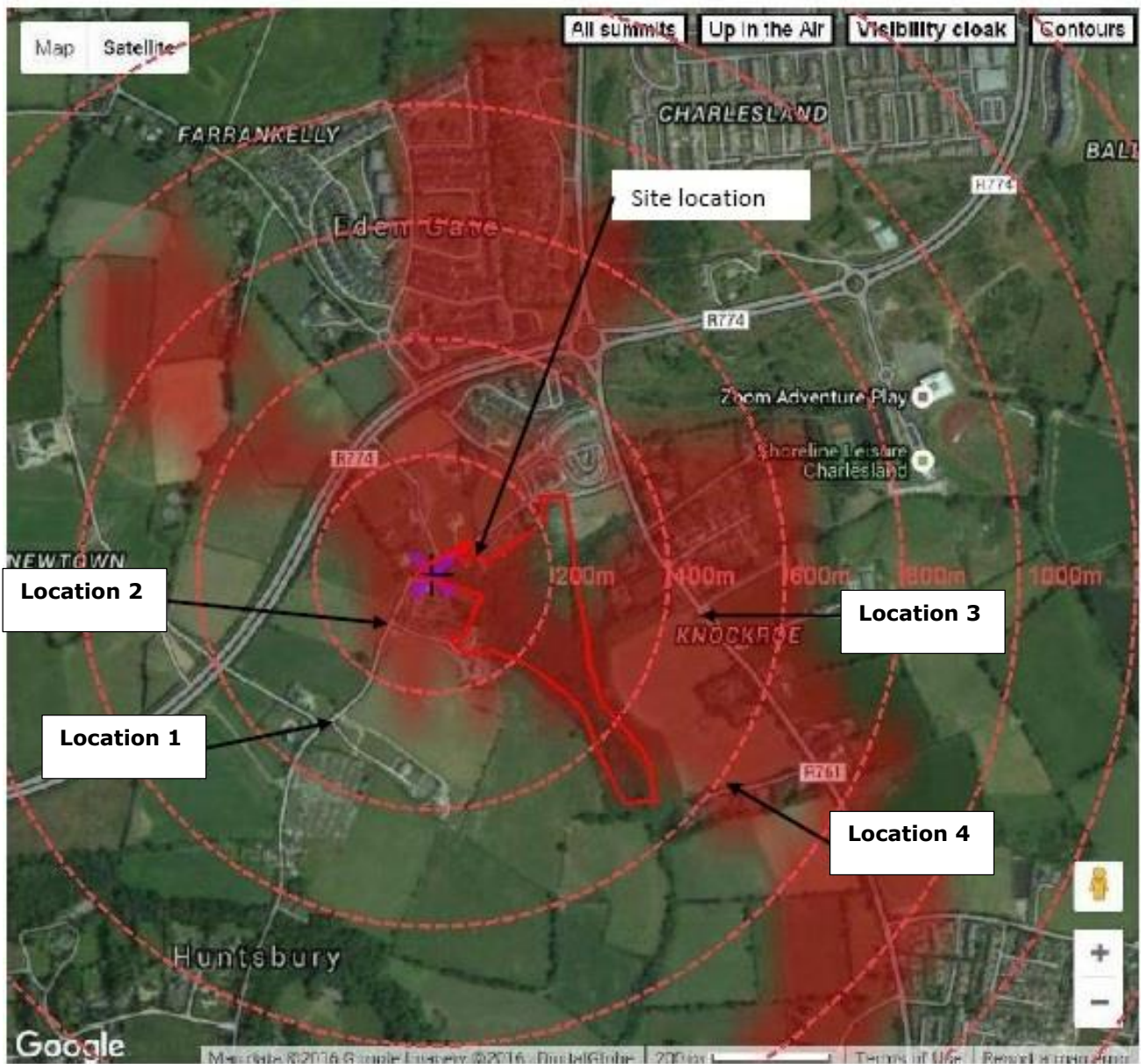
Figure 14-1: Zone of Theoretical Visibility (ZTV) shown in red



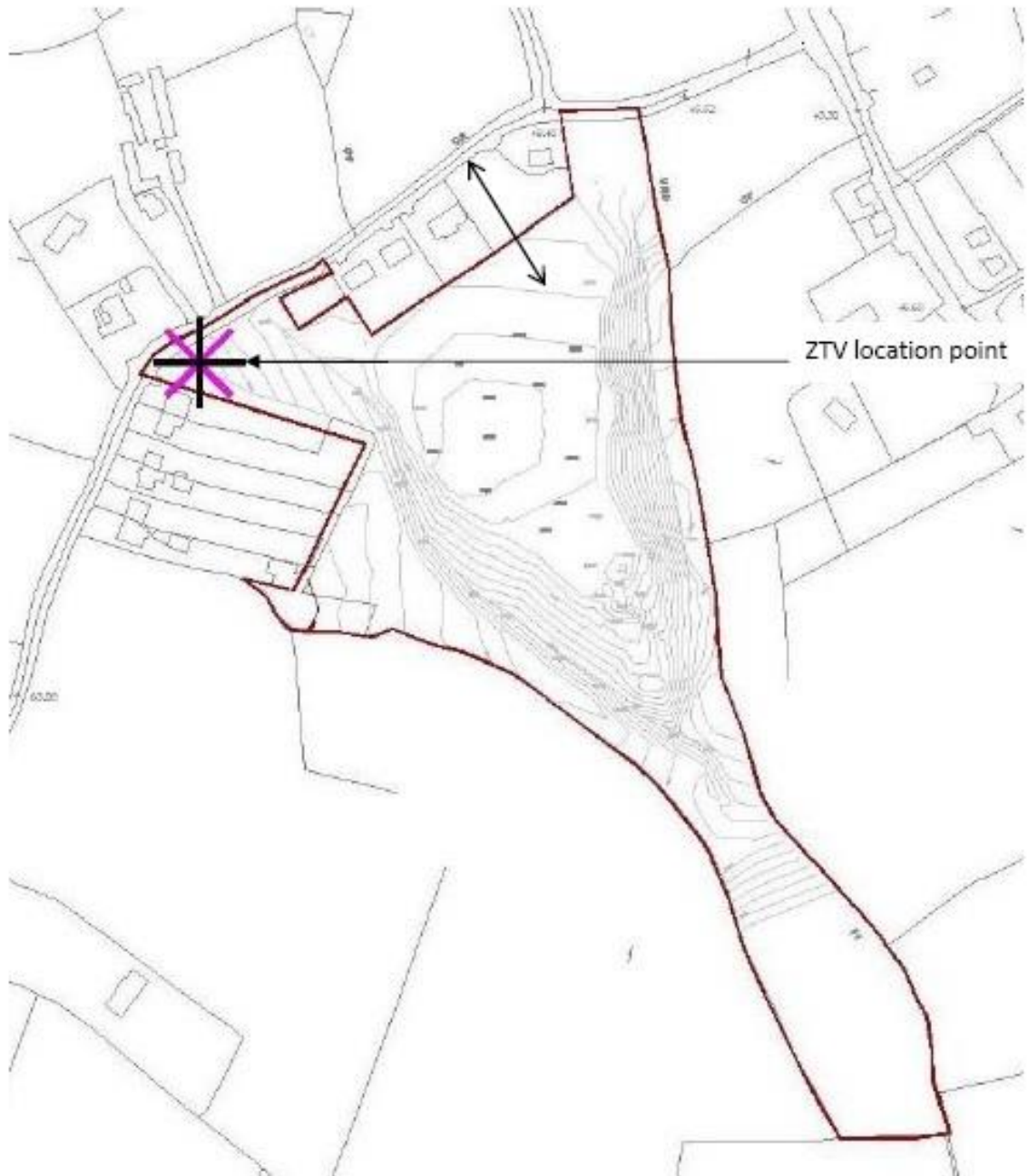


Figure 14-2: Zone of Theoretical Visibility (ZTV) detail up to 6km





**Figure 14-3: Zone of Theoretical Visibility (ZTV) detail up to 1 km & Viewpoint Locations**



**Figure 14-4: Point for Zone of Theoretical Visibility (ZTV)**

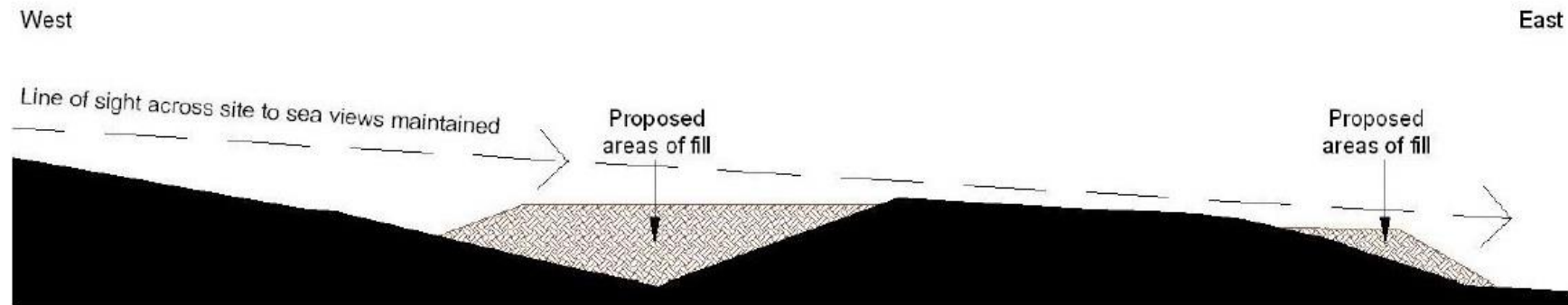


Figure 14-5: Line of sight across Site

### 14.5.2 Viewpoint Locations

To determine the visual impact of the development, a number of viewpoints were selected for detailed assessment, in keeping with the visual envelope identified above. The viewpoints are shown in Figure 14-3 and listed in Table 14.2 with an indication of their location, distance from the site, a description of their existing view and their sensitivity. These viewpoints are shown in Figure 14-6 to 14.9.

**Table 14-2: Viewpoint Location**

Viewpoint Location	Grid Reference (ITM)		Approximate Distance from nearest Site Boundary	Existing View	Sensitivity
	Easting	Northing			
1	728556	709157	300m	View from L1042 300 m south-west of site boundary, at elevation of 20 – 30 m above site level	Low to medium – pleasant view of green pastures, site not directly visible
2	728644	709301	270m	View from L1042 270 m west of site boundary, at elevation of 20 – 30 m above site level	Low – view dominated by residential dwelling, site not directly visible
3	729144	709353	210m	View from R761 300 m east of site boundary, at elevation of 10 – 20 m above site level	Medium - pleasant view of green pastures and distant hills, site partially visible
4	729260	709076	180m	View from R761 180 m south- east of site boundary, at elevation of 10 – 20 m above site level	Medium - pleasant view of green pastures and distant hills, site visible

### 14.5.3 Potential Visual and Landscape Impacts – Direct & Indirect

The phases of the proposed development have been described in detail in Section 3.

During site clearance in the Construction Phase, works will involve the removal of vegetation in adherence with the Site Clearance Plan shown in Figure 3-6. Operatives and machinery may be observed from local adjoining properties, with limited view from viewpoint location 1 & 2. Machinery will be more noticeable due to its increased size and colour contrast to its surroundings.

The material placement works and Eco-park development is expected to take 8-15 months to complete in total. Increases in truck movements to and from the site will be visible for directly bordering houses to the site but will not be visible from Viewpoints 1 & 2 and will be limited in visibility from Viewpoints 3 & 4.

There may be localised temporary visibility of equipment placing material insitu. This phase will result in a colour contrast between the imported material and the surrounding landscape. This contrast will be short term in nature as the imported material will be top-soiled and planted, in accordance with the Landscaping Plan, immediately upon completion of the works and this vegetation will establish itself over a period.

The rehabilitation of the site is expected to take less than 12 months and will include the top soiling of the final parts of the site, planting of proposed vegetation, the installation of paths, signage and other ancillary works.

Vegetation on parts of the site with footpaths and parking will be periodically maintained (every 12-24 months), with routine annual cutting of wildflower areas and formative pruning of shrubby/tree species, as required. The rest of the site will be allowed to grow naturally and take on a similar appearance as before any works commenced.

#### 14.5.4 Impacts on Landscape Character – Direct & Indirect

There will be a temporary, direct, negative impact of low magnitude during the Construction Phase on the character of the landscape due to the works associated with the clearance of the site and placement of the material, where the colour contrast that results, will be visually intrusive for the period of the works.

During the Post-construction phase, the site will return to its former nature due to re-establishment of vegetation and there will be no change to the character of the landscape.

#### 14.5.5 Impacts on Landscape Sensitivity – Direct & Indirect

The sensitivity of the local landscape is identified as being low to medium and works proposed during the Construction phase and impacts on landscape sensitivity resulting from same are described as low in significance and magnitude, direct and temporary in nature.

Post construction, there will be no discernible deterioration in the sensitivity of the landscape, resulting in a neutral impact on landscape sensitivity.

Table 14.3 over summarises these conclusions when examining each individual viewpoint previously.







1a.



1b.

**Figure 14-6: Viewpoint 1**

**Site not visible as per ZTV. Site located in valley below red dashed line, Electricity pole visible, circled in red.**



**Figure 14-7: Viewpoint 2**

**Small portions of existing vegetation possibly seen, circled red. Site hidden in valley below red dashed line.**





**Figure 14-8: Viewpoint 3**

**Site largely hidden from view by boundary hedges and local contours, Site vegetation between red dashed lines. Electricity poles visible circled red.**



**Figure 14-9: Viewpoint 4**

**Site largely hidden from view by boundary hedges and local contours. Central flat area of site visible. Site vegetation between red dashed lines. Electricity poles visible circled red.**



Table 14-3: Magnitude of visual impacts in the Construction &amp; Post-Construction phases

Location	Impact description	Sensitivity of Viewpoint	Magnitude of impact	Significance of impact
<b>Construction Phase</b>				
1	Very limited potential for temporary impact during Construction phase as site not visible from location.	Low to medium	No change	Little/none
2	Limited potential for temporary impact during Construction phase as only small portion of site visible from location.	Low	No change	Little/none
3	Limited potential for temporary impact during Construction phase as only small portion of site visible from location.	Medium	Low	Little/none
4	Potential for temporary impact during Construction phase as central, flat area of site visible, which will correspond to active staging area during construction phase, with machinery, operatives and material visible.	Medium	Low to Moderate	Low
<b>Post Construction Phase</b>				
1	No potential for permanent impact during post construction phase - site not visible from location.	Low to medium	No change	Little/none
2	No potential for permanent impact during post construction phase - only small portion of site visible from location.	Low	No change	Little/none
3	No potential for permanent impact during post construction phase due to re-establishment of vegetation	Medium	No change	Little/none
4	No potential for permanent impact during post construction phase due to re-establishment of vegetation	Medium	No change	Little/none

## 14.6 Mitigation Measures

This section outlines the mitigation measures that are proposed to avoid or reduce the potential impacts due to this project.

The mitigation approach is defined primarily by 'mitigation by design'.

### 14.6.1 Mitigation by Design

The proposed design of the Pretty Bush Eco-park is such that it has avoided the requirement for excessive re-contouring of the site or any re-contouring above the level of the existing highest contours onsite. Through placement of dredge spoil material in lower parts of the site i.e. existing depressions and through mirroring of the existing contours insofar as possible, the line of sight across the site will remain wholly the same, as per Figure 14-5 and views into, out of and across the site will remain very similar to what they are. The highest point of the site i.e. the central 'flat' area will not be raised through placement of dredge spoil material.

The maintaining of a 15 m buffer along the site boundary, as shown in Figure 3.8, which contains existing screening provision in terms of the tallest trees onsite, will ensure that screening provided by this vegetation will continue to be maintained.

The implementation of the Landscaping Plan, as presented in Figure 3.9 previously, will ensure that the site returns to its previous state, as prior to the Construction phase, in terms of the character of the landscape i.e. a wild vegetated area.

## 14.7 Residual Impacts after Mitigation

No significant residual impacts are envisaged after mitigation as outlined. There will be no visual intrusion or obstruction of existing views around the site. Some minor, slight variation in terms of vegetation colouring may be observed at different times of the year but this is considered to be a neutral impact.

The visual character of the development site will remain as it is.

## 14.8 Monitoring

No monitoring measures are proposed or required in relation to the visual character of the local environment.

## 14.9 Conclusion & Summary

4 no. viewpoints were selected to assess the visual impact of proposed development. The assessment of the viewpoints has indicated that any visual impact during the construction phase will be slight only in significance and there will be no impacts of any significance post construction.

Through maintaining of an existing buffer at the site perimeter, through mirroring of site contouring when placing dredge spoil material and through the implementation of the proposed Landscaping Plan, any potential impacts identified will be appropriately mitigated. No residual impacts of any significance are envisaged.

## 14.10 References

Department of Environment and Local Government - *Landscape and Landscape Assessment, Consultation Draft of Guidelines for Planning Authorities, June, 2000*

The Landscape Institute – *Guidelines for Landscape and Visual Impact Assessment, 3<sup>rd</sup> Edition, 2013*

The Landscape Institute – *Advice Note 01/11 – Photography & Photomontage in Landscape and Visual Impact Assessment – 2011.*

## 15 MATERIAL ASSETS - ARCHAEOLOGY, ARCHITECTURE & CULTURAL HERITAGE

### 15.1 Introduction

This section assesses the impacts, if any, of the proposed development on the archaeological, historical and cultural environment in the vicinity of the site. This section will also propose mitigation measures to safeguard any monuments, features or finds of antiquity if required.

The objectives of this section are to:

- identify all known features of archaeological, architectural and cultural heritage importance in the vicinity of the proposed development
- determine any potential impacts of the proposed development on the archaeological, architectural and cultural heritage resource
- identify measures to mitigate any potential impacts of the development on the archaeological, architectural and cultural heritage resource.

### 15.2 Study Area

There is no professional standard for defining the extent of a study area when assessing potential impacts on archaeological, architectural or cultural heritage remains. A study area of 1 km from the site boundary has been imposed around the proposed development to assess the presence of statutorily protected archaeological remains. This involved mapping all Recorded Monuments within 1 km of the development and assessing their potential to be impacted on as a result of the proposed development.

In addition, a study area of 1 km has been imposed around the proposed development area to record the presence of Protected Structures or any additional statutorily protected archaeological, architectural or cultural heritage features recorded in the *Wicklow County Development Plan 2010 – 2016* or the National Inventory of Architectural Heritage.

The key objectives of this report are to assess, as far as is reasonably possible from existing records, the potential impacts of the proposed development on the archaeological, architectural and cultural heritage resource. The following key issues are addressed:

- Direct and indirect impacts of construction activities on recorded and unrecorded archaeological, architectural and cultural heritage features
- Direct and indirect impacts of the operation of the proposed development on recorded and unrecorded archaeological, architectural and cultural heritage features
- Residual impacts of the proposed development on recorded and unrecorded archaeological, architectural and cultural heritage features.

### 15.3 Methodology

The study involved detailed interrogation of the archaeological and historical background of the proposed development area and its surrounding landscape. This included information from the:

- Record of Monuments and Places (RMP) of County Wicklow
- Topographical Files of the National Museum of Ireland
- Wicklow County Council's *Wicklow County Development Plan 2010 – 2016* and the *Draft Wicklow County Development Plan 2016 - 2022*
- National Inventory of Architectural Heritage, cartographic and documentary records and aerial photographs
- Environmental Protection Agency's *Guidelines on the Information to be Contained in Environmental Impact Statements* (2002) and *Draft Revised Guidelines on the Information to be Contained in Environmental Impact Statements* (2015).

An impact assessment and mitigation strategy has been prepared. The impact assessment is undertaken to outline potential adverse impacts the proposed development may have on the archaeological, architectural or cultural heritage resource, while the mitigation strategy is designed to avoid, reduce or offset such adverse impacts.

Research has been undertaken in two phases. The first phase consisted of a paper and digital survey of archaeological, historical and cartographic sources. The second phase involved a field inspection of the proposed development area.

### 15.3.1 Data Sources

The following sources were examined and a list of sites and areas of archaeological, architectural and cultural heritage potential was compiled:

**Record of Monuments and Places of County Wicklow** - This is a list of archaeological sites known to the National Monuments Service. Back-up files of the Sites and Monuments Record (SMR) provide details of documentary sources and field inspections where these have taken place. There are no sites recorded on the RMP within the proposed development area.

**Topographical Files of the National Museum of Ireland** - This is the archive of all known finds recorded by the National Museum. This archive relates primarily to artefacts, but also includes references to monuments and unique records of previous excavations. The find spots of artefacts are important sources of information in the discovery of sites of archaeological significance.

The **Wicklow County Development Plan** (2010 - 2016) (and draft Plan 2016 – 2022) contains Objectives on the preservation and management of archaeological, architectural and cultural heritage features. It was consulted to obtain information on sites within the proposed development area and the 1 km study area.

**National Inventory of Architectural Heritage (NIAH)** - This is a section within the Department of Arts, Heritage and the Gaeltacht (DoAHG). The work of NIAH involves identifying and recording the architectural heritage of Ireland from 1700 to the present day. The NIAH website also contains a non-statutory register of historic gardens and designed landscapes, and this was assessed to look for the presence of any such features within 1 km of the proposed development area.

**Cartographic sources** - These are important in tracing land-use development within the proposed development area, as well as providing important topographical information on sites and areas of archaeological potential. Cartographic analysis of relevant maps has been made to identify any topographical anomalies that may no longer remain within the landscape.

**Documentary sources** were consulted to gain background information on the historical and archaeological landscape surrounding the proposed development area.

**Aerial photographs of Ordnance Survey Ireland and Bing aerial photography** - This coverage is an important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its potential to contain previously unidentified archaeological remains.

**Environment Protection Agency's "Guidelines on the Information to be Contained in Environmental Impact Statements"** and **"Draft Revised Guidelines on the Information to be Contained in Environmental Impact Statements"** provide standard definitions for potential impacts on archaeological, architectural and cultural heritage remains.

### 15.3.2 Field Inspection

Field inspection is necessary to determine the extent, character and condition of archaeological, architectural and cultural heritage remains, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information. Further information in relation to the field inspection is included in Appendix 21 of Volume 3 of this EIS.

## 15.4 Existing Environment

### 15.4.1 Archaeological and Historical Background

There are no Recorded Monuments within the proposed development area. There are 35 Recorded Monuments within the 1 km study area ([www.archaeology.ie](http://www.archaeology.ie)). The closest Recorded Monument (WI013-104) to the proposed area of land take is located approximately 220 m north west of the development area and takes the form of 12 dispersed pits excavated as part of the Greystones Southern Access Route (Figure 15-1).

Reference to Summary Accounts of Archaeological Excavations in Ireland ([www.excavations.ie](http://www.excavations.ie)) has shown that six fieldwork projects have been carried out in Priestsnewtown townland, the location of the proposed development. All fieldwork was carried out in 2004 and was associated with construction of the Greystones Southern Access Route. Fieldwork revealed the remains of Bronze Age ring-ditches, cremations, a hearth, pits, post-holes and stake-holes, a charcoal-rich clay spread and *fulachta fiadh*.

Information on artefact finds and excavations from County Wicklow is recorded by the National Museum of Ireland. There was no record of any finds from within Priestsnewtown townland noted in the Topographical Files.

Reference to cartographic sources failed to identify any archaeological or architectural features within the proposed development area. Five roofed structures in two separate holdings and an associated access track are recorded immediately west of the western boundary of the proposed development area on the First Edition (1839) Ordnance Survey map. These structures are not recorded on later editions of the Ordnance Survey maps. A roofed structure is recorded immediately north of the northern boundary of the proposed development area on the First Edition (1839) Ordnance Survey map. This structure is not recorded on later editions of the Ordnance Survey maps. A townland boundary is recorded along the eastern side of the proposed development area, and partially along the northern part of the area of land take.

There was no evidence of any archaeological, architectural or cultural heritage features recorded on aerial photographs within the proposed development area.

No archaeological, architectural or cultural heritage features were revealed within the proposed development area as a result of carrying out the walkover survey.

Detailed information on the archaeological and historical background of the landscape surrounding the proposed development area, as well as a summary of previous fieldwork undertaken and the cartographic analysis carried out, is provided in Appendix 21.

### 15.4.2 Record of Monuments and Places (RMP)

There are no Recorded Monuments within the proposed development area. There are 35 Recorded Monuments within the 1 km study area.

**Table 15-1: RMP sites within 1km of the proposed development area**

<b>RMP No.:</b>	WI013-006001
<b>Townland:</b>	Charlesland
<b>Classification:</b>	<i>Fulacht fiadh</i>
<b>Distance from proposed development area:</b>	c. 700 m
<b>Description:</b>	Archaeological excavation revealed a large burnt mound which sealed 11 troughs and a number of pits, post-holes and gullies. A charcoal sample from one of the troughs produced a radiocarbon date of 1710-1690 cal. BC.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-006002
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Excavation- miscellaneous



<b>Distance from proposed development area:</b>	c. 700 m
<b>Description:</b>	A palisade trench associated with the above-mentioned burnt mound (WI013-006001) and which produced a date of 1400-1120 cal. BC.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-007001
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Enclosure
<b>Distance from proposed development area:</b>	c. 750 m
<b>Description:</b>	Archaeological excavation revealed a 5 <sup>th</sup> /6 <sup>th</sup> century penannular enclosure 26 m in diameter which was partially cut by a larger 13 <sup>th</sup> /14 <sup>th</sup> century enclosure (WI013-007002).
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-007002
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Enclosure
<b>Distance from proposed development area:</b>	c. 760 m
<b>Description:</b>	A 13 <sup>th</sup> /14 <sup>th</sup> century enclosure measuring approximately 42 m in diameter.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-018
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Enclosure
<b>Distance from proposed development area:</b>	c. 780 m
<b>Description:</b>	Located on a very gentle south east facing slope. A bivallate circular enclosure measuring approximately 35 m in diameter, defined by a fosse with a possible entrance gap at the south east and an outer fosse at the east, approximately 20 m from the inner fosse. The site is recorded as a cropmark on an aerial photograph. Possible house sites occur in the interior of the site and between the two fosses. This site does not survive above ground.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-019
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Enclosure
<b>Distance from proposed development area:</b>	c. 630 m
<b>Description:</b>	Located on a gentle south facing slope. A circular bivallate enclosure with an internal diameter of approximately 30 m, defined by a fosse. The site is visible as a cropmark on an aerial photograph and does not survive above ground. An outer fosse approximately 85 m in diameter is visible at the east.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-020

<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Enclosure
<b>Distance from proposed development area:</b>	c. 450 m
<b>Description:</b>	Located on a gentle south facing slope. A circular enclosure measuring approximately 15 m in diameter is defined by a fosse with a possible entrance gap at the west. The site is visible as a cropmark on an aerial photograph and is not visible at ground level.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-020001
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Enclosure
<b>Distance from proposed development area:</b>	c. 520 m
<b>Description:</b>	Located on a gentle south facing slope. A circular enclosure measuring approximately 18 m in diameter and defined by a fosse. The site is visible as a cropmark on an aerial photograph and does not survive above ground.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-021
<b>Townland:</b>	Kilquade
<b>Classification:</b>	Church
<b>Distance from proposed development area:</b>	c. 1 km
<b>Description:</b>	Situated in gently undulating terrain. Traditionally the site of an early foundation on which now stands a 19 <sup>th</sup> century church. There are no pre-19 <sup>th</sup> century headstones.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-021001
<b>Townland:</b>	Kilquade
<b>Classification:</b>	Font
<b>Distance from proposed development area:</b>	c. 1 km
<b>Description:</b>	Part of a granite font with a five-sided recess into which a circular bowl is cut stands just outside the main door of the church (WI013-021).
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-021002
<b>Townland:</b>	Kilquade
<b>Classification:</b>	Graveyard
<b>Distance from proposed development area:</b>	c. 1 km
<b>Description:</b>	No further information recorded.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-021003

<b>Townland:</b>	Kilquade
<b>Classification:</b>	Bullaun stone
<b>Distance from proposed development area:</b>	Not recorded
<b>Description:</b>	The precise location for this record is not known.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-062001
<b>Townland:</b>	Kilcoole
<b>Classification:</b>	Bullaun stone (present location)
<b>Distance from proposed development area:</b>	c. 700 m
<b>Description:</b>	A block of granite measuring approximately 0.9 m x 0.6 m, which has three broken hollows or basins on one side and a large oval hollow on the opposite side.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-073
<b>Townland:</b>	Farrankelly
<b>Classification:</b>	Habitation site
<b>Distance from proposed development area:</b>	c. 230 m
<b>Description:</b>	The curving arc of a ditch measuring 68 m in length, two slot-trenches and a number of pits and post-holes were excavated in 2003. One of the slot-trenches contained a barbed and tanged arrow head and prehistoric pottery, while one of the pits contained a fragment of prehistoric pottery.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-075
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Habitation site
<b>Distance from proposed development area:</b>	c. 740 m
<b>Description:</b>	The remains of a linear ditch measuring 47 m in length east/west, a structure defined by post-holes, a cremation pit, a number of animal burials and a curvilinear feature 10 m in length were excavated in 2003. Finds included a Late Bronze Age socketed looped axehead and Beaker pottery.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-076
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Habitation site
<b>Distance from proposed development area:</b>	c. 750 m
<b>Description:</b>	Two Bronze Age structures: Structure 1 (10 m in diameter) was defined by a double ring of post-holes, some of which contained cremation deposits and sherds of Bronze Age pottery. Structure 2 (also 10 m in diameter) was defined by a single row of post-holes and its northern limit was truncated by a series of pits and post-holes. Three linear ditches were located at the eastern extent of the site forming a probable enclosure with an east-facing

	entrance. A large number of associated pits, post-holes, hearths and a possible metallised surface were also excavated and yielded a fragment of bronze, Early Neolithic and Bronze Age pottery and six saddle querns. Two kilns were also excavated with a rotary quern being found in the larger kiln.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-077
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Ring-ditch
<b>Distance from proposed development area:</b>	c. 290 m
<b>Description:</b>	A ring ditch (width 1.4 m; average diameter 0.6 m) was excavated in 2003 enclosing a circular area measuring 5.6 m north/south x 5.39 m east/west. Nine flints were found in the ditch.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-078
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Habitation site
<b>Distance from proposed development area:</b>	c. 1 km
<b>Description:</b>	Two trenches were excavated in 2003 as part of construction work associated with the Charlesland Residential Development. Trench A revealed a hearth measuring 0.85 m in length north/south x 0.54 m in width and an isolated post-hole which contained fragments of flint debitage. Trench B lay 40 m to the south and revealed a number of post-holes, pits, shallow burnt spreads and a narrow linear feature.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-079
<b>Townland:</b>	Charlesland
<b>Classification:</b>	<i>Fulacht fiadh</i>
<b>Distance from proposed development area:</b>	c. 1 km
<b>Description:</b>	A <i>fulacht fiadh</i> was excavated in 2003. The burnt mound measured 14 m east/west x 11.5 m north/south x 0.2 m deep. It sealed four troughs, and a number of post-holes and stake-holes were found associated with the troughs. One of the troughs had a wattle lining which predated an internal lining of roundwoods on the east and west sides, and timber plank flooring. Set in the base of this trough was a set of six prehistoric pipes, made of yew and thought to be part of a musical instrument. A radiocarbon date of between 2120 and 2085 BC was obtained from a peg used in the construction of the trough lining.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-080
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Habitation site
<b>Distance from proposed development area:</b>	c. 530 m
<b>Description:</b>	An unroofed structure was defined by a series of post-holes which formed a circular area measuring 8 m north/south x 7.4 m east/west. Directly to the

	south, a sunken hearth and a series of inter-cutting pits were uncovered which contained a large quantity of charred cereal grains.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-097
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Excavation- miscellaneous
<b>Distance from proposed development area:</b>	c. 900 m
<b>Description:</b>	A series of pits, post-holes, stake-holes, hearths, troughs and burnt spreads were uncovered during topsoil stripping in 2004.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-099
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	<i>Fulacht fiadh</i>
<b>Distance from proposed development area:</b>	c. 950 m
<b>Description:</b>	Two spreads of heat shattered sandstone fragments were exposed as part of construction work associated with the Greystones Southern Access Route. Both were interpreted as a possible <i>fulacht fiadh</i> . Site 1 (WI013-099) measured approximately 6 m x 3 m and was undisturbed by the construction work.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-100
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	<i>Fulacht fiadh</i>
<b>Distance from proposed development area:</b>	c. 970 m
<b>Description:</b>	Two spreads of heat shattered sandstone fragments were exposed as part of construction work associated with the Greystones Southern Access Route. Both were interpreted as a possible <i>fulacht fiadh</i> . Site 2 (WI013-100) measured approximately 6 m x 3.5 m. A pipe trench cut through Site 2 and exposed a pit.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-101
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Barrow- unclassified
<b>Distance from proposed development area:</b>	c. 900 m
<b>Description:</b>	The enclosed area of an annular ditch, measuring approximately 13 m in diameter, contained 22 post-holes and three cremations which were placed in Late Bronze Age vessels. A series of pits, post-holes, a cremation (also placed in a Late Bronze Age vessel) and a number of linear ditches (one of which extended beyond the limit of the road take) were found outside the ditch.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>



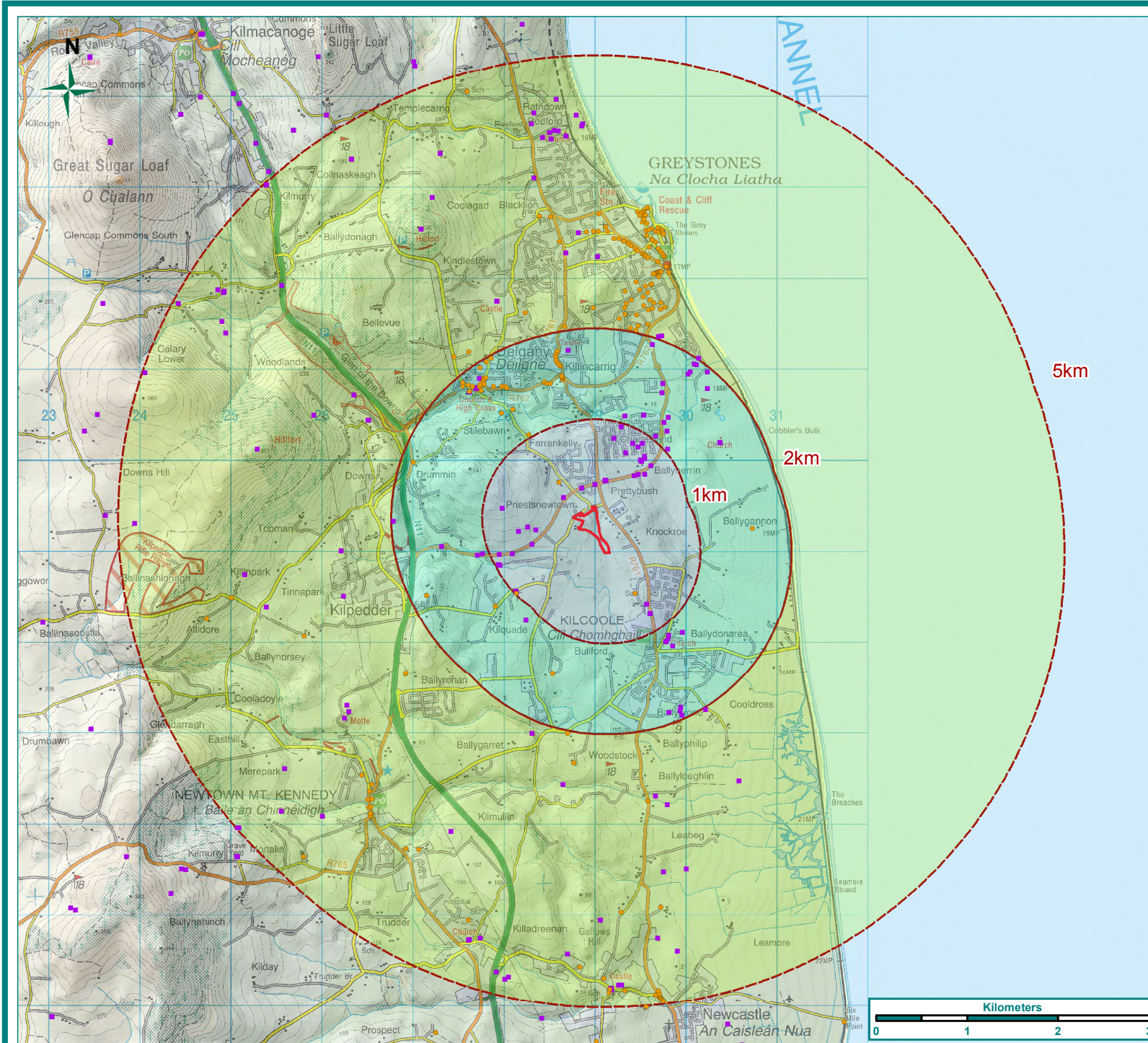
<b>RMP No.:</b>	WI013-102
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Corn-drying kiln
<b>Distance from proposed development area:</b>	c. 780 m
<b>Description:</b>	A series of pits, stake-holes and a roughly keyhole-shaped area which was filled with baked clay were excavated as part of construction work associated with the Greystones Southern Access Route. The excavator suggested that this may represent the remains of a corn-drying kiln.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-103
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Excavation- miscellaneous
<b>Distance from proposed development area:</b>	c. 550 m
<b>Description:</b>	Six pits and 12 post-holes, some of which contained burnt stone, charcoal and cremated bone, were excavated as part of construction work associated with the Greystones Southern Access Route. The excavator suggested that these remains may be part of a more substantial structure, which may extend beyond the limit of the road take.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-104
<b>Townland:</b>	Farrankelly
<b>Classification:</b>	Excavation- miscellaneous
<b>Distance from proposed development area:</b>	c. 220 m
<b>Description:</b>	Twelve pits dispersed over an area measuring 160 m x 40 m were excavated as part of construction work associated with the Greystones Southern Access Route. Six of the pits contained burnt stone.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-105
<b>Townland:</b>	Priestsnewtown
<b>Classification:</b>	Ring-ditch
<b>Distance from proposed development area:</b>	c. 240 m
<b>Description:</b>	The southern half of a circular ditch, measuring approximately 12 m in diameter, was excavated as part of construction work associated with the Greystones Southern Access Route. No internal features or finds were uncovered. The remaining half is preserved outside of the road-take. A stone-lined hearth was excavated approximately 22 m to the east.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-109
<b>Townland:</b>	Charlesland
<b>Classification:</b>	<i>Fulacht fiadh</i>
<b>Distance from proposed development area:</b>	c. 850 m

<b>Description:</b>	The remains of a <i>fulacht fiadh</i> were excavated in 2004. No further information is supplied.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-110
<b>Townland:</b>	Charlesland
<b>Classification:</b>	<i>Fulacht fiadh</i>
<b>Distance from proposed development area:</b>	c. 800 m
<b>Description:</b>	The remains of a <i>fulacht fiadh</i> were excavated in 2004. No further information is supplied.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-111
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Excavation- miscellaneous
<b>Distance from proposed development area:</b>	c. 800 m
<b>Description:</b>	A series of Medieval pits were excavated in 2004. No further information is supplied.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-112
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Urn burial
<b>Distance from proposed development area:</b>	c. 670 m
<b>Description:</b>	The remains of an isolated Bronze Age urn were excavated in 2004. No further information is supplied.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-113
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Cremation pit
<b>Distance from proposed development area:</b>	c. 300 m
<b>Description:</b>	A cremation pit was located 3.07 m to the north east of a ring-ditch (WI013-077) and contained deposits of cremated bone, charcoal and large stone.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-114
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Structure
<b>Distance from proposed development area:</b>	c. 300 m
<b>Description:</b>	A small circular structure measuring 3 m north/south x 2.8 m east/west was located 10 m to the west of a ring-ditch (WI013-077). It was defined by a narrow, circular slot-trench with two post-holes defining an entrance. There was also a centrally placed post-hole, and a slot-trench was ringed with an

	outer circle of post-holes in which several fragments of prehistoric pottery were found.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>RMP No.:</b>	WI013-115
<b>Townland:</b>	Charlesland
<b>Classification:</b>	Structure
<b>Distance from proposed development area:</b>	c. 300 m
<b>Description:</b>	A small structure was located 11 m north of WI013-114 (structure), and was formed by a series of post-holes and stake-holes which defined a circular depression measuring 2.76 m in diameter x 0.14m deep.
<b>Reference:</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>







### Legend

- Study Boundary
- Distance from Site
- 1000
- 2000
- 5000
- National Inventory of Architectural Heritage (NIAH)
- Record of Monuments and Places (RMP)

Date 09/05/2016

Name Of Client  
Wicklow County Council

Name Of Job  
EIS for proposed Kilquade Waste Soils Recovery Facility

Title Of Figure  
Cultural Heritage Features within 1, 2 and 5 km of the Proposed Development Location Map

Scale Used 1:60,000 @ A4

Figure No. 15.1	Rev A
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### 15.4.3 National Monuments

The Department of Arts, Heritage and the Gaeltacht maintains a database on a county basis of National Monuments in State Care. The term National Monument is defined in Section 2 of the National Monuments Act (1930) 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”* ([www.archaeology.ie](http://www.archaeology.ie)).

There are no National Monuments in State Care within the proposed development area or the 1 km study area.

There are no sites with Preservation Orders or Temporary Preservation Orders within the proposed development area or the 1 km study area.

There are no World Heritage Sites or Candidate World Heritage Sites within the proposed development area or the 1 km study area.

### 15.4.4 Wicklow County Development Plan 2010 – 2016

Schedule 16.1 of the Wicklow County Development Plan (2010, Volume 2, 22) contains a list of *Areas of Archaeological Potential & Significance*. There are no Areas of Archaeological Potential and Significance within the proposed development area or the 1 km study area.

There are no Areas of Archaeological Potential and Significance recorded in the Draft Wicklow County Development Plan (2016 – 2022) within the proposed development area or the 1 km study area.

Schedule 16.2 of the Wicklow County Development Plan (*ibid.*) contains a list of *Major Sites of Archaeological Importance in Wicklow in State Ownership or Guardianship*. There are no Major Sites of Archaeological Importance within the proposed development area or the 1 km study area.

There are no Areas of Archaeological Potential and Significance recorded in the Draft Wicklow County Development Plan (2016 – 2022) within the proposed development area or the 1 km study area.

The proposed development area is located outside the boundary of the Adopted Greystones-Delgany and Kilcoole Local Area Plan 2013-2019 ([www.wicklow.ie](http://www.wicklow.ie)).

### 15.4.5 Protected Structures

Appendix 4 Volume 2 of the Wicklow County Development Plan (2010) contains the *Record of Protected Structures* for the county. There are no Protected Structures within the proposed development area. There are six Protected Structures within the 1 km study area (Figure 15-2).

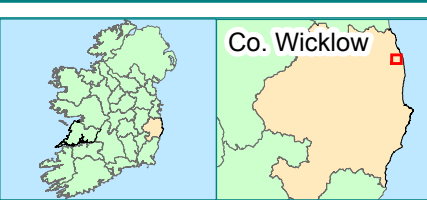
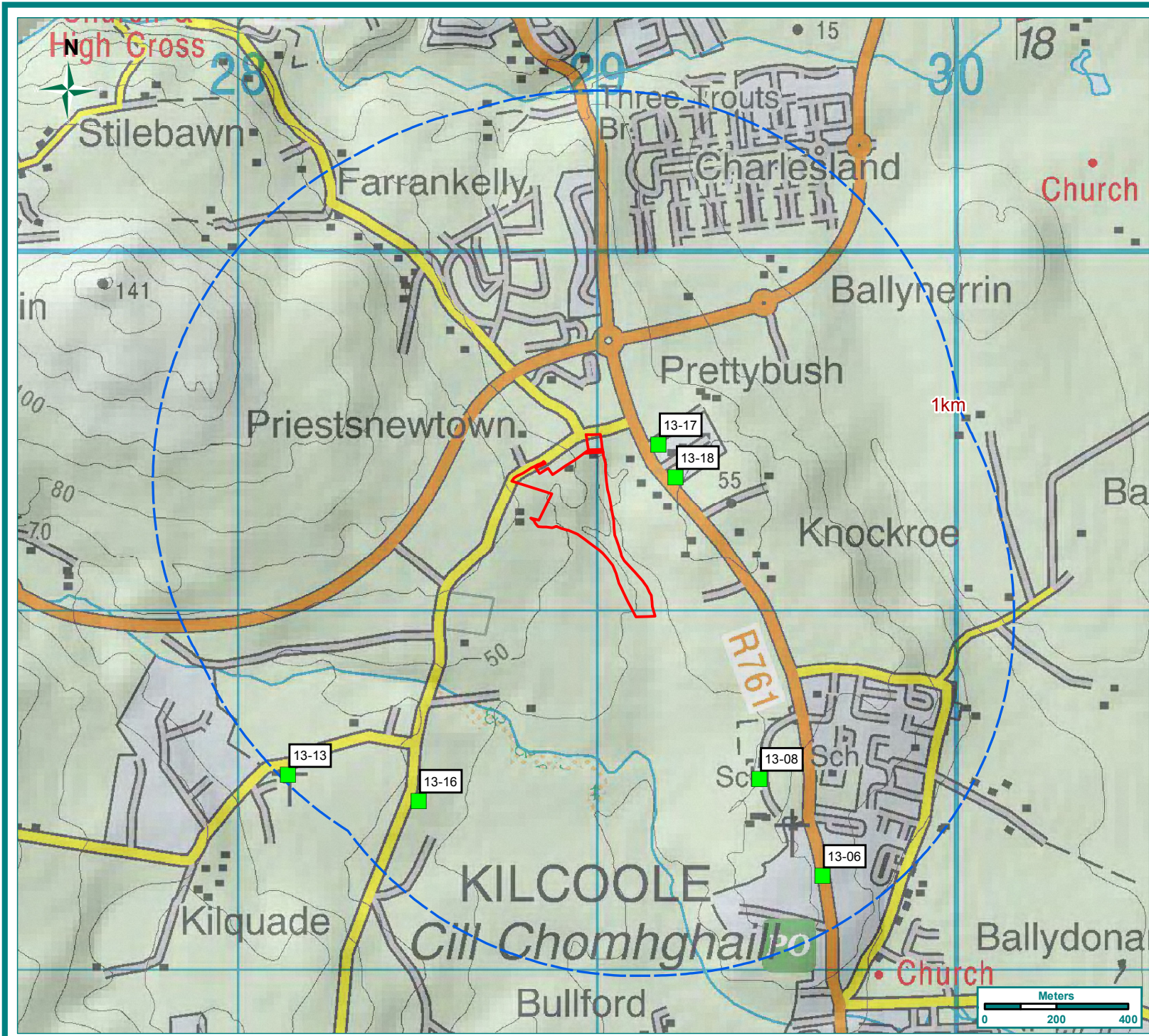
There are no Amendments, Additions or Deletions to the Record of Protected Structures within the proposed development area or the 1 km study area recorded in the Draft Wicklow County Development Plan (2016 – 2022).

**Table 15-2: Protected Structures within the 1 km Study Area**

Protected Structure No.	Description	Townland	Distance
13-06	Cottage. A simple, four-bay, single-storey cottage, dating from the 19th century, with painted, rendered walls, sash windows and a slated roof.	Kilcoole Street	Main c. 950 m

Protected Structure No.	Description	Townland	Distance
13-08	Country house. Now in use as a convent. Late 18 <sup>th</sup> century country house with five-bay, two-storey façade over a basement with painted, rendered walls, Venetian window over round-headed doorcase with sidelights, parapet hiding a hipped roof.	Kilcoole	c. 520 m
13-13	St. Patrick's church. Small, T-plan, barn church with whitewashed walls, pointed windows and high-pitched roof with pinnacles, unusual, crenellated porches on the transepts which contain staircases to the galleries.	Kilquade	c. 950 m
13-16	Country house. Springfarm House. A country house and water gardens.	Kilquade	c. 750 m
13-17	Hand pump. A hand pump on the east side of the road to the south of the new roundabout.	Knockroe	c. 125 m
13-18	Pretty Bush former National School. A small National School of c. 1950. The building is gable-ended with painted, rough-cast walls, a flat-roofed porch at the north end and five windows to the front. Now a dwelling.	Knockroe	c. 160 m





**Legend**

- Study Boundary
- 1 km Zone
- Protected Structures

Date 09/05/2016

Name Of Client  
Wicklow County Council

Name Of Job  
EIS for proposed Kilquade Waste Soils Recovery Facility

Title Of Figure  
Protected Structures within 1km of the Study Area

Scale Used 1:15,000 @ A4

Figure No. 15.2	Rev A
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### 15.4.6 Architectural Conservation Areas

Table 16.1 of the Wicklow County Development Plan (2010, 239) contains the list of *Architectural Conservation Areas* for the county. There are no Architectural Conservation Areas within the proposed development area or the 1 km study area.

There are no Architectural Conservation Areas recorded in the Draft Wicklow County Development Plan (2016 – 2022) within the proposed development area or the 1 km study area.

### 15.4.7 National Inventory of Architectural Heritage (NIAH)

NIAH ([www.buildingsofireland.ie](http://www.buildingsofireland.ie)) maintains a non-statutory register of buildings, structures *etc.* recorded on a county basis.

There are no entries recorded on the NIAH building survey within the proposed development area. There are three entries recorded within the 1 km study area (Figure 15-3).

**Table 15-3: NIAH Structures within the 1 km Study Area**

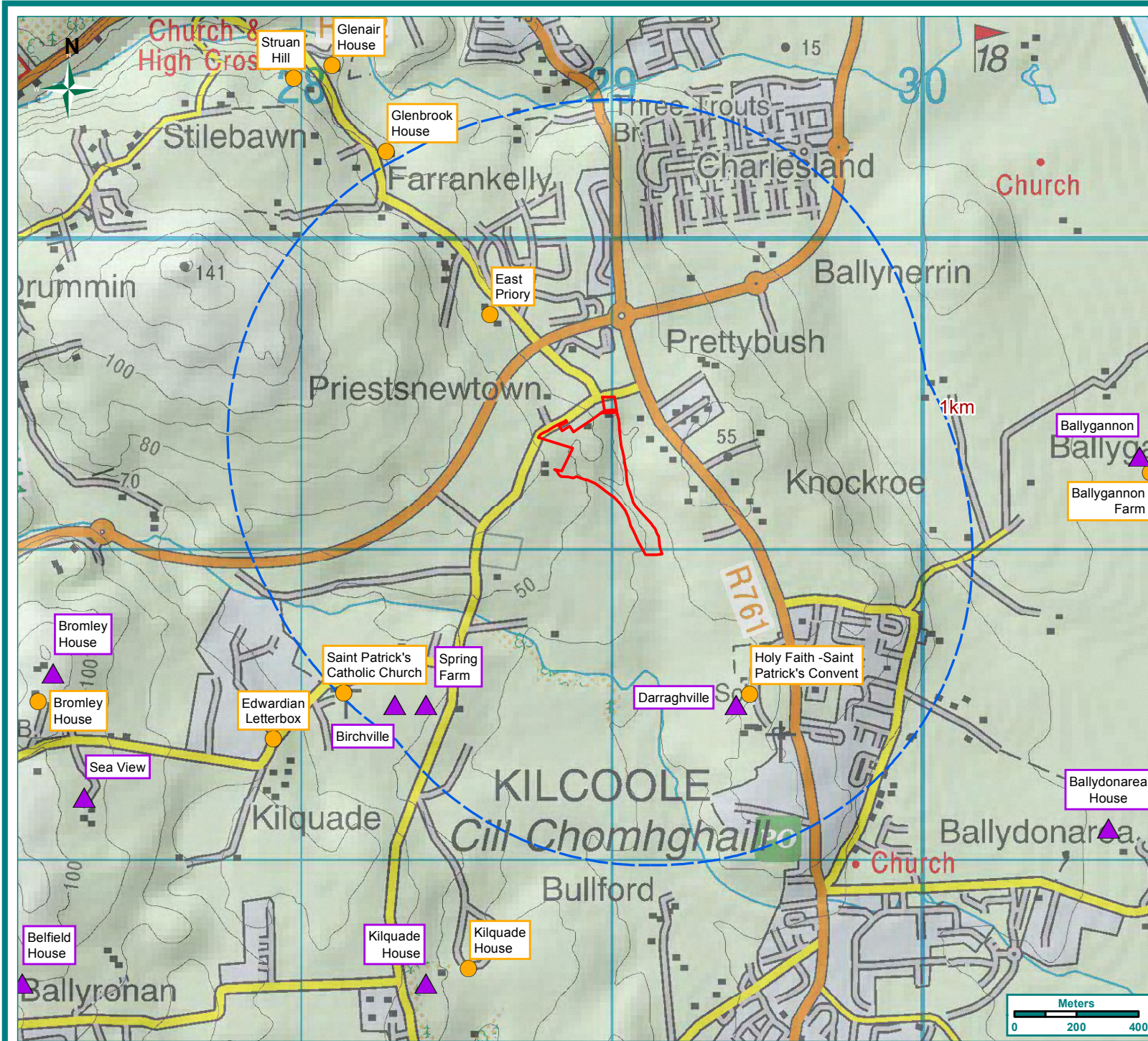
NIAH Reg. No.	Townland	Description	Rating	Distance
16401302	Kilcoole	Holy Faith- St. Patrick's Convent.  Detached five-bay two-storey former country house, built c. 1830, now in use as a convent.	Regional	c. 520 m
16401312	Kilquade	St. Patrick's Catholic Church.  Detached three-bay single-storey Roman Catholic church, built c. 1850.	Regional	c. 950 m
16401313	Priestsnewtown	Detached five-bay single-storey house, built c. 1830. The building is finished in roughcast render.	Regional	c. 400 m

NIAH also maintains a non-statutory register of historic gardens and designed landscapes recorded on a county basis. There are no entries recorded on the NIAH garden survey within the proposed development area. There are five entries recorded partially within the 1 km study area (Figure 15-3), as they extend beyond the extent of our study area, due to their size.

**Table 15-4: NIAH Historic Gardens and Designed Landscapes partially within the 1 km Study Area**

NIAH Reg. No.	Townland	Site Status	Distance
WI-56-0-283085	Kilquade	Birchville. Virtually no recognisable features.	c. 570 m at nearest point
WI-56-0-284076	Kilquade	Kilquade House. Main features substantially present- no loss of integrity.	c. 850 m at nearest point
WI-56-0-284085	Priestsnewtown	Spring Farm. Main features substantially present- peripheral features unrecognisable.	c. 420 m at nearest point
WI-56-0-294085	Kilcoole	Darraghville. Main features substantially present- peripheral features unrecognisable.	c. 370 m at nearest point
WI-56-0-307093	Ballygannon	Ballygannon. Main features substantially present- peripheral features unrecognisable.	c. 950 m at nearest point





**Legend**

- Study Boundary
- 1 km Zone
- National Inventory of Architectural Heritage (NIAH)
- ▲ NIAH Gardens (Unofficial Dataset)

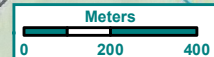
Date	09/05/2016	
Name Of Client	Wicklow County Council	
Name Of Job	EIS for proposed Kilquade Waste Soils Recovery Facility	
Title Of Figure	Location of NIAH Structures & Gardens within 1km of the Study Area	
Scale Used	1:17,500 @ A4	
Figure No.	15.3	Rev A

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## 15.5 Summary of Key Possible Impacts

As described in further detail in Section 3 of this EIS, the proposed development will comprise the:

- clearance of existing vegetation of applicable areas of the site
- importation, stockpiling and deposition of inert dredge spoil material and topsoils as per the developed Placement Plan
- site entrance improvement works at northern portion of the site
- subsequent landscaping for post construction use of site as an Eco-park.

As a result of carrying out this assessment, the following potential archaeological, architectural and cultural heritage direct, indirect, construction, operational and residual impacts have been assessed:

### 15.5.1 Construction Phase Impacts (Direct and/or Indirect)

- There are no Recorded Monuments, Protected Structures, Architectural Conservation Areas, NIAH structures or NIAH historic gardens within the proposed development area. As a result, there will be no direct construction impact on the recorded archaeological, architectural or cultural heritage resource.
- The proposed development will have a permanent direct construction impact on any previously unrecorded archaeological remains that may exist within the development area.
- There are 35 Recorded Monuments, six Protected Structures, three NIAH structures and five NIAH historic gardens within the 1 km study area. It is considered there will be an imperceptible construction visual and noise impact on the archaeological, architectural and cultural heritage resource.
- The eastern side and a small part of the northern end of the proposed development area are recorded as a townland boundary.

### 15.5.2 Post Construction Phase Impacts (Direct and/or Indirect)

- There are 35 Recorded Monuments, six Protected Structures, three NIAH structures and five NIAH historic gardens within the 1 km study area. It is considered there will be an imperceptible operational visual and noise impact on the archaeological, architectural and cultural heritage resource.

## 15.6 Mitigation Measures

### 15.6.1 Construction Mitigation Measures

- It is recommended that archaeological monitoring of all groundworks be carried out. Monitoring will be carried out under Licence to the Department of Arts, Heritage and the Gaeltacht and the National Museum of Ireland. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.
- It is recommended that a written and photographic record be created, well in advance of any groundworks, of the townland boundary located along the eastern side and a small part of the northern end of the proposed development area.
- There are no mitigation measures available to offset the imperceptible construction visual and noise impact on the archaeological, architectural and cultural heritage resource.

### 15.6.2 Post Construction Mitigation Measures

- There are no mitigation measures available to offset the imperceptible operational visual and noise impact on the archaeological, architectural and cultural heritage resource.



## 15.7 Residual Impacts after Mitigation

- There will be an imperceptible residual visual and noise impact on the archaeological, architectural and cultural heritage resource.

## 15.8 Monitoring

With the exception of the mitigation measures recommended in Section 15.6 above, there are no future monitoring requirements.

**Table 15-4: Summary of Impacts**

Potential Impact	Significance	Proposed Mitigation	Residual Impact
Potential direct construction impact on previously unrecorded archaeological remains	Unknown	Monitoring, Preservation <i>in situ</i> , or full-scale excavation if required	None
Potential direct construction impact on a townland boundary	Imperceptible	Written and photographic record	None
Visual and noise construction impact	Imperceptible	None	Imperceptible
Visual and noise operational impact	Imperceptible	None	Imperceptible

## 15.9 Conclusion and Summary

There are no Recorded Monuments, Protected Structures, Architectural Conservation Areas, NIAH structures or NIAH historic gardens within the proposed development area. As a result, there will be no direct construction impact on the recorded archaeological, architectural or cultural heritage resource. The proposed development will have a permanent direct construction impact on any previously unrecorded archaeological remains that may exist within the development area. There are 35 Recorded Monuments, six Protected Structures, three NIAH structures and five NIAH historic gardens within the 1 km study area. The eastern side of the proposed development area and a small part of the northern end is recorded as a townland boundary.

It is considered there will be an imperceptible construction and operational visual and noise impact on the archaeological, architectural and cultural heritage resource. It is recommended that monitoring of all groundworks be carried out. Monitoring will be carried out under Licence to the Department of Arts, Heritage and the Gaeltacht and the National Museum of Ireland. It is recommended that a written and photographic record be created, well in advance of any groundworks, of the townland boundary located along the eastern side and a small part of the northern end of the proposed development area.

There are no mitigation measures available to offset the imperceptible construction and operational visual and noise impact on the archaeological, architectural and cultural heritage resource. There will be an imperceptible residual visual and noise impact on the archaeological, architectural and cultural heritage resource.

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<a href="http://www.bing.com/maps">www.bing.com/maps</a>	Bing aerial photography
<a href="http://www.buildingsofireland.ie">www.buildingsofireland.ie</a>	National Inventory of Architectural Heritage
<a href="http://www.excavations.ie">www.excavations.ie</a>	Database of Irish Excavation Reports
<a href="http://www.maps.osi.ie">www.maps.osi.ie</a>	Ordnance Survey Ireland
<a href="http://www.wicklow.ie">www.wicklow.ie</a>	Wicklow County Council

### Cartographic Sources

Ordnance Survey	Map Editions 1839, 1907 – 1909 and 1911
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## 16 MATERIAL ASSETS - INFRASTRUCTURE

### 16.1 Introduction

This section examines existing material assets in the area of the development location. It predicts the impacts that may occur on these assets and the measures proposed to mitigate these effects.

### 16.2 Study Area

This assessment is based on material assets which have the potential to be directly impacted by the proposed development and therefore are those that occur within the immediate vicinity of the proposed development location.

### 16.3 Methodology

A desk-top study was undertaken to outline the material assets in the existing environment. In order to assess the impacts of the proposed development on material assets, a review of the proposed development to identify potential impacts on material assets was undertaken and the significance of these impacts assessed.

Impacts on transportation infrastructure, archaeology, ecology, architecture and cultural heritage and local settlements have been discussed in their relevant sections, and should be read in conjunction with this section.

### 16.4 Existing Environment

Material assets are outlined by the EPA in their *Advice Notes on Current Practice for the Preparation of Environmental Impact Statements* (2002) (and the 2015 Draft Revision to same) as “resources that are valued and that are intrinsic to specific places...they may be of human or natural origin and can be important for either economic or cultural reasons”.

A range of material assets are identified in these Advice Notes and assets potentially relevant to the proposed development and its location are presented in Table 16.1.

**Table 16-1: Relevant Material Assets**

Human Origin Assets	Natural Origin Assets
<ul style="list-style-type: none"> <li>Transportation infrastructure (roads, railways, airports etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Assimilative capacity of air &amp; water</li> </ul>
<ul style="list-style-type: none"> <li>Utilities (water supplies, sewage, power systems etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Non-renewable resources (e.g. minerals, soils)</li> </ul>
<ul style="list-style-type: none"> <li>Agronomy</li> </ul>	<ul style="list-style-type: none"> <li>Renewable resources (hydraulic head, wind exposure)</li> </ul>
<ul style="list-style-type: none"> <li>Ownership and access</li> </ul>	
<ul style="list-style-type: none"> <li>Cities, towns, villages &amp; settlements</li> </ul>	
<ul style="list-style-type: none"> <li>Property</li> </ul>	
<ul style="list-style-type: none"> <li>Tourism and recreational infrastructure</li> </ul>	

Natural Origin assets, in terms of assimilative capacities, have been discussed in Section 8 – Human Beings – Air Quality & Climate and Section 13 Surface Water Quality & Drainage.

Human Origin assets such as transportation infrastructure and settlements have been addressed in Section 9 Human Beings – Roads, Traffic & Transportation, Section 3 The Development and Section 7 Human Beings – Socio Economic, Land Use & Amenity, respectively. Agronomy has been discussed in general terms in Section 12 Soils, Geology & Hydrogeology, while potential impacts on property, in terms of nuisance related to the proposed works, have been addressed in Section 10 Noise and Section 8 Air Quality & Climate. (However, discussion on property values is included in Section 16.5.1 following). Tourism has been discussed in Section 7.

This section will therefore focus on remaining assets not addressed elsewhere in this EIS i.e. utilities, ownership and access, non-renewable resources and renewable resources.

#### 16.4.1 Utilities Infrastructure

Utilities infrastructure is necessary to ensure that power (electricity/gas), water and amenity services, such as telecommunications and sewer collection, are provided to communities in a reliable consistent manner. Due to a community's dependency on such sources, any disruption to a utility supply can have a negative impact.

The site is not serviced by electricity, water supply or telecommunications. A distribution building owned by Eir, is located directly adjacent to the second access point and some underground cabling associated with this building traverses a small portion of the site at this point.

2 no. ESB power lines traverse the site. A 10kV line runs in a north west – south east direction across the northern portion of the site, terminating adjacent to the existing Eir telecom distribution building on the north eastern boundary of the site.

The Fassaroe-Greystones-Kilcoole 38kV line runs in a north-south direction along the eastern flank of the site and terminates at a pylon located approximately 40 m from the main facility entrance. From here, the cable travels underground as far as the main entrance and continues to run underground in an easterly direction.

A gas supply line running from Greystone to Kilcoole runs along the R761 road, approximately, approximately 100m to the east of the site boundary. A foul sewer line and a main water supply line run across the existing site entrance in an east-west direction and service the residences in the vicinity. The site is not connected to the local sewer main nor is any surfacewater drainage infrastructure installed. There is no connection to the water supply. Rainfall percolates naturally to ground. No fuels are stored onsite.

#### 16.4.2 Ownership and Access

Wicklow County Council has full ownership of the site area in which the proposed development is located. Access is as per described in Section 3.2.2.

#### 16.4.3 Non Renewable Resources

There are two quarries located within 5 km of the development site, at 4 k m and 5 km respectively, south west of the development location.

Bedrock geology at the site greywacke sandstones and siltstones interbedded with green, purple, red and grey slates and massive quartzites. Bedrock at the site is close to the surface or exposed in parts.

#### 16.4.4 Renewable Resources

There are no wind energy facilities in proximity to the site and no assessment of the wind resource has been carried out at the site. Given its location, the proposed development location has a solar irradiation resource of approximately 3 kWh/m<sup>2</sup> per day, which is typical for locations south of Dublin.

## 16.5 Summary of Key Possible Impacts – Direct & Indirect

### 16.5.1 Property Values

There is a perception that property values could be depressed by the proximity of a facility that will be classified as a waste facility. The potential impact on residential properties arises principally from a combination of visual, noise, air and traffic effects. These have been identified as occurring during the Construction Phase only and their mitigation discussed in the preceding sections of this document.

The proposed development however, is not directly comparable to a 'general' waste facility, as the material to be deposited will be inert dredge spoil, as opposed to any municipal or odour generating wastes, and this will be accepted at the facility over a short duration also i.e. 8 – 15 months. Furthermore, the facility is classified as a waste recovery facility and will only be classified as such in order to facilitate environmental oversight of same by the EPA, through the application of a licence to cover the placement activities.

Once placement of the dredge spoil material is complete, the site will be immediately developed as an Eco-park, with the benefits which that will be bring, accruing straight away.

Therefore, direct or indirect negative impacts on property values in the wider locality due to the proposed development are not predicted, as any negative impacts identified in preceding section of this EIS in relation to noise, dust or traffic will be temporary only and will be confined to the Construction Phase. In fact, there is potential for some increases (albeit minor ones) in property values in the locality due to the presence of such a recreational resource.

### 16.5.2 Utilities Infrastructure

The road network servicing the site has been assessed in Section 9. The proposed site entrance upgrade will result in an improved traffic arrangement on the L1042 in the vicinity of the site.

There will be no direct or indirect impacts on water or sewer utility or electrical infrastructure due to the proposed development.

### 16.5.3 Ownership and Access

There will be no direct or indirect impacts on ownership of the site as Wicklow County Council will retain full ownership of the development site. A positive direct impact will result due to the upgraded site access.

### 16.5.4 Non-Renewable Resources

As there will be no winning of rock or stone onsite, no impact will result on mineral deposits at the site. There will be no additional requirements for non-renewable resources and no direct or indirect impacts on same. Importation of topsoil from an offsite location will provide a re-use option for this material with no resultant impact.

### 16.5.5 Renewable Resources

The proposed development will not directly or indirectly impact potential future renewable resources in the vicinity of the site or within the site curtilage.

## 16.6 Mitigation Measures

There is no requirement for mitigation measures in relation to material assets as it is considered that the proposed development will not impact in any significant manner on the existing material assets in the surrounding environment.

## 16.7 Residual Impacts after Mitigation

Residual impacts on materials assets due to the proposed development are considered to be negligible.

## 16.8 Monitoring

There is no additional monitoring required for material assets onsite.

## 16.9 Conclusion & Summary

The development of a waste soils recovery facility and a subsequent Pretty Bush Eco-park at the proposed development location is not predicted to impact significantly on material assets associated with the site. No negative impacts on property values are predicted as a result of the proposed development, while improvements to the site access will positively impact the traffic flows on the locality.

A number of utility services were identified on-site and off-site and it is not considered that there will be any significant impact on utility infrastructure.

Wicklow County Council retains full ownership of the site and access area therefore no impacts on ownership and access to lands will result from this proposed development.

The proposed development will not impact existing potential future renewable or non-renewable resources surrounding the site or within the site curtilage.

## 16.10 References

EPA, *Advice Notes on Current Practice for the Preparation of Environmental Impact Statements* (2002)

## 17 INTER-RELATIONSHIPS & INTERACTIONS

### 17.1 Introduction

The previous sections have described the potential impact of the development under a variety of different topic headings. The purpose of this section is to take a more holistic view. This ensures that there is adequate coverage in this EIS of the potential for the development to cause overall effects and cumulative impacts. This process also examines whether interactions between the different effects themselves may cause impacts that are greater than those alluded to when the relevant topics were discussed individually. As such, this section responds to the requirement of the legislation governing the EIA process for the cumulative effects and the inter-relationship or interaction between the various topics to be fully considered and described.

### 17.2 Impact Summary

The proposed development to accept up to 200,000 tonnes per annum of dredge spoil material at the Pretty Bush site and subsequently an Eco-park facility there has the potential to cause both positive and negative impacts on the environment. Based on an assessment of the potential impacts identified in the previous sections, the project team have identified the potential impact resulting from the proposed development (prior to mitigation) and these are identified as follows:

#### Potential Negative Effects

- increase in noise levels during Construction phase
- increase in traffic levels during Construction phase
- potential for dust generation during Construction Phase
- impact on existing ecology of the site during Construction Phase
- potential impact on surface water quality Construction phase

#### Potential Positive Effects

- provision of beneficial recreational outlet for the locality and wider area
- provision of ecological sanctuary when Eco-park is complete
- potential for additional eco-tourism benefits to the locality

Although separate and unrelated to the proposed development, the other developments outlined in Section 2.4 could have the potential to impact on the environment on greater scale than the proposed Pretty Bush waste soils recovery facility & Eco-park alone, when considered in combination with the Pretty Bush development. These potential combined cumulative effects have been considered in a number of sections in the EIS, particularly:

- Section 8: Human Beings – Air Quality & Climate
- Section 9: Roads, Traffic & Transportation
- Section 10: Human Beings – Noise
- Section 11: Flora & Fauna

Table 17.1 summarises the impacts of the proposed development on each environmental aspect. Any adverse impacts are primarily localised in their extent and that their significance can be described as slight and the table also outlines a number of positive impacts from the proposed development.



### 17.3 Interaction of Effects including the adjacent Developments

Table 17.2 outlines the interactions between the proposed Pretty Bush development and the other development identified in Section 2.4, when considered under the topics of noise, traffic, hydrology and water quality.

#### 17.3.1 Cumulative Effects

In the context of an EIS, cumulative effects can relate to two different aspects of a development. Firstly, the various impacts of a particular project can interact in a manner which causes additional effects, which when taken together are greater than they appear when documented under separate topic headings. Secondly, a project may magnify impacts associated with other built development, which is existing or is proposed for development. This may mean that, when a development is proposed at a greenfield location which is devoid of other significant built development, its impact is acceptable; by contrast, where it is proposed in conjunction with other development, the cumulative effect may be much greater. In some cases, the impacts of these multiple developments collectively may exceed that which is tolerable.

In relation to the issue of cumulative effects between the proposed Pretty Bush development and other projects, Section 2.4 identified a number of proposed developments in the wider vicinity of the Pretty Bush site, which could have potential to have wider cumulative impact when considered in combination with the Pretty Bush development.

An analysis of the relevant cumulative effects is set out in the Table 17.2.

**Table 17-1: Summary of Relative Significance of Impacts with and without Mitigation**

Topic Area	Description of Impact	Geographical Scale					Potential Impact	Duration	Significance Without Mitigation	Significance With Mitigation
		I	N	R	C	L				
<b>Human Beings</b>	Landuse					x	Neutral	Pe	-	-
	Employment generation				x	x	Positive	Tp - St	Slight	Slight
	Amenity and Tourism				x	x	Positive	Lt	Slight	Slight
<b>Transportation</b>	Additional Road Traffic					x	Adverse	Tp	Moderate	Slight
<b>Noise</b>	Construction phase noise					x	Adverse	Tp	Moderate	Slight
<b>Ecology</b>	Impacts on designated areas			x	x	x	Adverse	Tp - St	Slight	Imperceptible
	Impacts on flora and fauna onsite					x	Adverse	Tp - St	Moderate	Slight-
<b>Geology/Hydrogeology</b>	Soil and geology impacts					x	Adverse	Tp	Imperceptible	Imperceptible
	Groundwater impacts					x	Adverse	Tp	Imperceptible	Imperceptible
<b>Hydrology/ Surface water</b>	Surface water quality impacts					x	Adverse	St - Mt	Slight	Imperceptible
	Hydrological impacts					x	Adverse	Mt - Lt	Imperceptible	Imperceptible
	Flood risk impacts					x	Adverse	Mt - Lt	Imperceptible	Imperceptible
<b>Air &amp; climate</b>	Air emissions					x	Adverse	Tp	Slight	Imperceptible
	Climate impacts			x	x	x	Adverse	Tp	Imperceptible	Imperceptible
<b>Landscape/Visual</b>	Visual Impact of operations					x	Neutral	Tp - St	-	-
<b>Cultural Heritage</b>	Construction & post construction impacts					x	Neutral	Mt - Lt	-	-
<b>Material Assets</b>	Impacts on material assets					x	Neutral	Mt - Lt	-	-

Scale		Duration		Significance
I -	International	Tp -	Temporary (<1 yr)	Imperceptible
N -	National	St -	Short term (1-7 yrs)	Slight
R -	Regional	Mt -	Medium term (7-15 yrs)	Moderate
C -	County	Lt -	Long Term (15-60 yrs)	Significant
L -	Local	Pe -	Permanent (60+ yrs)	Profound

**Table 17-2: Summary of Cumulative Impacts of the Proposed Development with other developments**

<b>Environmental Topic</b>	<b>Cumulative Impact with proposed development with other developments</b>	<b>Significance of Cumulative Impact</b>	<b>Scale of Cumulative Impact</b>	<b>Comment</b>
<b>Human Beings</b>	Landuse, employment, amenity & tourism	Neutral	Localised	Proposed development will generate some increased employment in the locality during the construction phase to augment that which may be provided as part of other development
<b>Traffic</b>	Additional traffic	Slight (negative)	Localised	Proposed development will increase traffic volumes above the existing, potential for additional slight, negative impact in combination with one or more of the identified developments, should haulage routes be the same; however, road network considered to have sufficient capacity and none of the other developments proposed impact on the L1042
<b>Noise</b>	Additional noise from proposed development during the Construction phase above the existing	Slight (negative)	Localised	Separation of Pretty Bush site from other developments identified mitigate any potential increased cumulative impacts
<b>Flora and Fauna</b>	Impacts on designated areas	Imperceptible	Localised	None of the other identified developments are considered to impact on designated sites in combination with the proposed Pretty Bush development
	Impact on flora and fauna	Slight	Localised within development site	Impacts on flora and fauna as a result of the Pretty Bush development will be limited to the Pretty Bush site; none of the other development sites are considered to be of high ecological values and are removed from the Pretty Bush site.
<b>Soil, Geology and Hydrogeology</b>	Soil and geology impacts	Imperceptible	Localised within development site	There will be no excavations required as part of the proposed development and placement will be of inert dredge spoil material in the Pretty Bush site only; other developments may impact at their location locally but no cumulative impacts will occur
	Groundwater impacts	Imperceptible	Localised	Only inert dredge spoil material will be placed onsite, with no impact on hydrogeology of the Pretty Bush site; nor interaction with hydrogeology of other development sites

	<b>Cumulative Impact with proposed development with other developments</b>	<b>Significance of Cumulative Impact</b>	<b>Scale of Cumulative Impact</b>	<b>Comment</b>
<b>Hydrology/ Surface Water</b>	Hydrological, water quality, and flood risk impacts	Imperceptible	Localised	Mitigation measures included for surface water run-off will ensure impacts associated with the proposed development on the existing hydrological regime are minimal; separation from other development sites ensures no cumulative impacts
<b>Air and Climate</b>	Air emissions	Imperceptible	Localised	Mitigation measures for air emissions during the Construction Phase will minimise impacts on the local environment; separation from other development sites ensures no cumulative impacts
<b>Landscape and Visual</b>	Cumulative visual effect on landscape and visual amenity	Neutral	Localised	No impacts are envisaged on the landscape and visual amenity of the locality as a result of the proposed development; separation from other development sites ensures no cumulative impacts

## 17.4 Conclusion of the Development and its impacts in context

The proposed development at the Pretty Bush site will provide an outlet for the management of inert dredge spoil material from the River Dargle Flood Defence Scheme in the short term, while providing an Eco-park for community benefit in the longer term.

The previous sections of this EIS have dealt with any potential impacts from the proposed development – where potential negative impacts are expected in some instances, primarily associated with the Construction phase of the development, mitigation measures have been proposed to minimise or eliminate these impacts. With the successful application of the mitigating measures presented and best practice techniques implemented during construction, the proposed development at the Pretty Bush site is not anticipated to have any significant, long term, negative impacts on the local environment.

When considered in parallel with other existing and potential developments in the wider locality, it is concluded that the proposed development will not result in greater cumulative impacts than those identified for the proposed development alone.

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