

Attachment M

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Molaisín Compost Ltd
Waste Licence Application



JERMYN EGAN landscape consultants

**Existing Composting Facility
At
Kilmolash, Cappoquin, Co. Waterford
For
McGill Environmental Systems (Ireland) Limited**

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LANDSCAPE ASSESSMENT

**MAY 2008
REFERENCE: J_132108**

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1 Introduction

1.1 Background

In May 2008, Jermyn Egan Landscape Consultants Ltd., (JELC) were commissioned by McGill Environmental Systems (Ireland) Limited to undertake a Landscape Character Assessment (LCA) as part of an overall Environmental Impact Statement (EIS) of a site of an existing composting facility located in the townland of Kilmolash, Cappoquin, Co. Waterford.

This LCA contains information on the scale and nature of the development, description of the existing environment, impact assessment and mitigation measures to reduce the impact on the receiving environment.

The Landscape Assessment was undertaken in support of an application for permission to operate a new Waste Licence.

The Molaisín Compost site is operated by McGill Environmental Systems (Ireland) Limited and has been composting non-hazardous residuals and by-products from industrial and municipal generators since 2005, under a Waterford County Council Waste Permit.

This EIS has been prepared according to the 'Guidelines on the information to be contained in Environmental Impact Statements', (EPA, 2002), 'Advice Notes on Current Practice in the preparation of Environmental Impact Statements', (EPA, 2008) and relevant legislation.

1.2 The Site

The 6.5 acre site is located 5 kilometres south of the village of Cappoquin and 12 kilometres west of Dungarvan town. The village of Killierstown is located 4 kilometres south west of the site. The village of Aglish is located 3 kilometres south of the site. The R671 regional road, connecting Clonmel to the north with the N25 to the south) lies one kilometre to the east of the site. A third class public road lies immediately to the south of the site (Keereen Cross Roads, where it joins the R671 to Curraghmoreen). Another third class public road lies further to the north (Curraghmoreen to the R671). See Figure 1 and Figure 2.

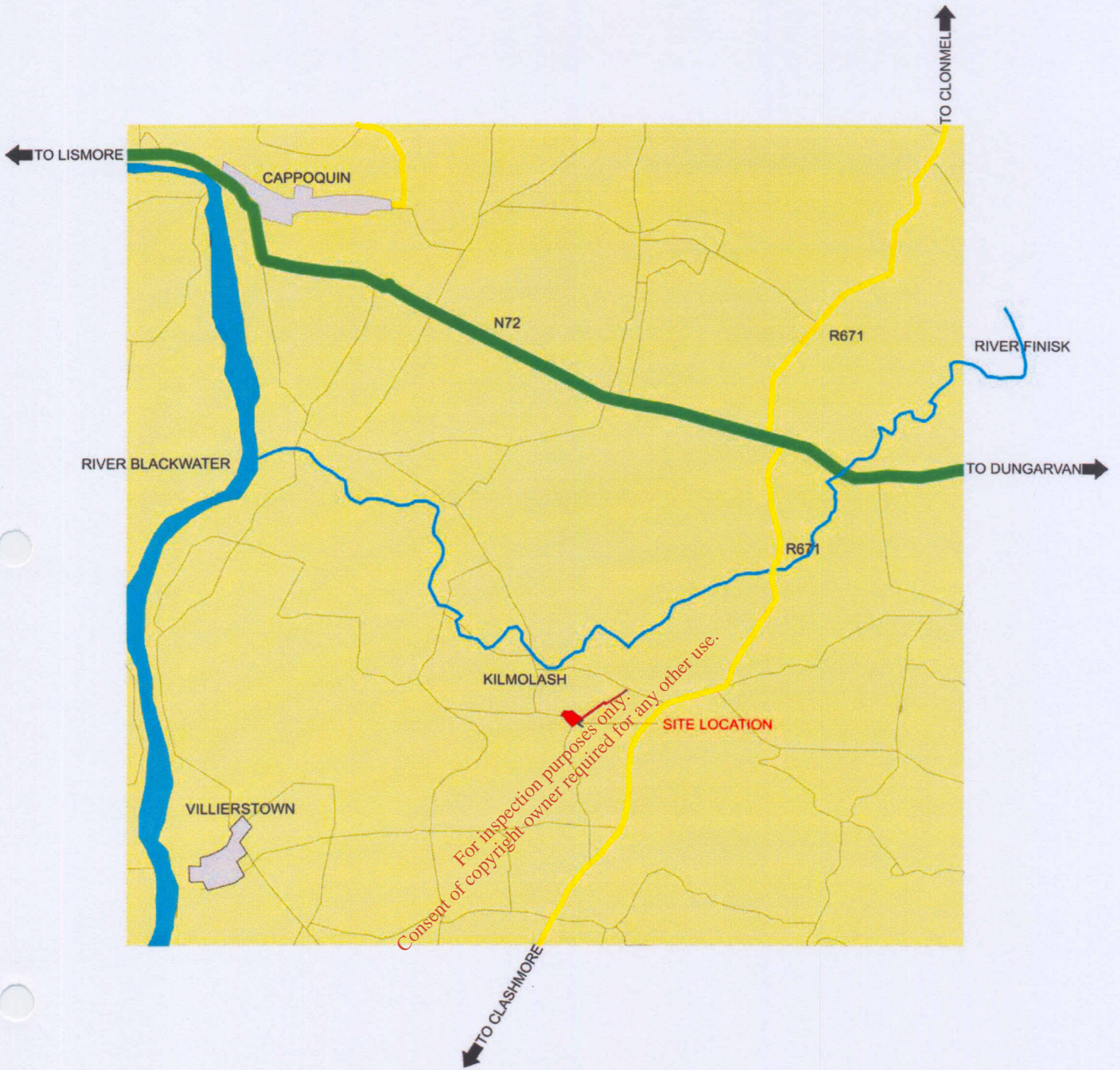


Figure 1: Site Location Map

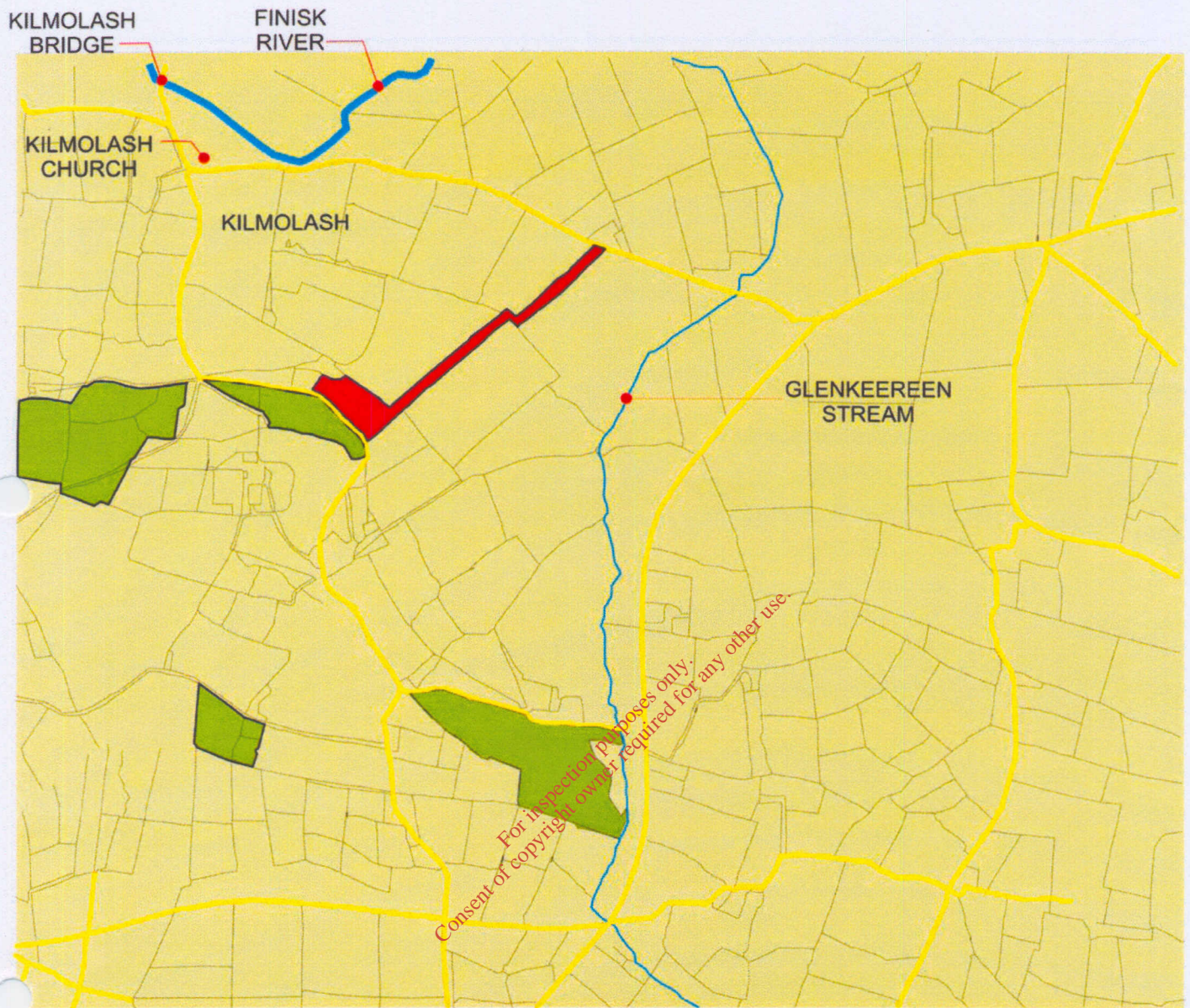


Figure 2: Map showing the third class public roads to the north at the site access road entrance and the third class public road at the south of the site adjacent to the wooded area. The site and site access road are shown in red. Roads are shown in yellow. Woodland areas are shown in the darker shade of green.

1.3 Objective of the LCA

In June 2000, the Department of the Environment and Local Government (DoELG) issued a set of draft guidelines providing for the classification of a landscape according to its character, values and sensitivity. A Landscape Character Assessment evaluates an area based on physical elements and processes, as well as visual compositions, specifically identifying the qualities and characteristics that make it special and distinctive. Once the character of an area is established, this will aid in providing input to planning policies, studies of development potential, strategies for new forms of development, and a wide variety of other planning and management issues.

1.4 Approach and Methodology

The principal underlying philosophy behind this LCA is based upon guidance prepared by DoELG, in the *Consultation Draft of Landscape and Landscape Assessment Guidelines for Planning Authorities, June 2000*, as well as strategy set out in the *Waterford County Development Plan 2005*. The published guidance was consulted where necessary to meet the specific objectives and requirements of this study. A thorough field survey was undertaken by JELC to verify and assess the current status of the site and to obtain the botanical and visual data necessary to progress with the LCA and subsequent landscape design.

The approach used in this LCA has been based on first identifying zones of homogeneous but distinct landscape character, mapping the boundaries of these, then gathering data on a range of natural environmental and cultural attributes therein. Studies such as this are complex and require collection, analysis and integration of data across a number of scientific disciplines.

Photographs contained within this report were taken on 9th April 2008.

This document was prepared to aid in making an assessment of the visual impact of the proposed development on the existing landscape and draw conclusions in the form of a design recommendation and management strategy for the area.

2 Landscape Character of the Area

2.1 Landscape Character

The aim of the words that make up a Landscape Character classification is to describe both the landform, and landcover, which can be observed in the immediate area as one stands on the site and notes the panoramic view from all directions.

The land cover in the region can be described as - a rural landscape type comprising third class public roads, mainly medium to large size agricultural fields in pasture and vegetated hillsides.

Referring to Appendices 1 to 7 in the *Waterford County Development Plan 2005*, the region in which the site is located is described in the following categories, as follows:

Areas of Scientific Interest – *Figure 6*, describes the area surrounding the Finisk River, a tributary of the River Blackwater as ‘a special area of conservation’.

Scenic Evaluation – *Figure 8*, describes this area as ‘a sensitive area’ and ‘visually vulnerable’.

Rural Classification – Figure 3, describes this region as a 'stronger rural area'

Archaeology – Based on the results of an archaeological assessment carried out in May 2004 by Headland Archaeology Ltd., results state that 'there are no archaeological mitigation recommendations with regard to this development'. However the assessment report acknowledges that 'the present facility is located within a diverse and rich archaeological landscape'. Referring to Ch.4 Impact Statement, the archaeological assessment concluded that, prior to the construction of the present facility, it predicted that the development would not impact on any of the seven archaeological sites and one site of architectural heritage within the surrounding landscape.

Geology – Refer to the Hydrogeological Site Assessment Report prepared by O'Callaghan Moran & Associates.

2.2 Topography

The topography of the main area of the site is made of hard standing materials to accommodate vehicle movements in proximity to the compost building facility.

The entirety of the site measures in excess of 97 metres O.D. at the highest point, which is located at the southeast corner along the boundary in proximity to the third class road. The site falls in level along this boundary to 92 metres O.D. at the south west corner. From this site boundary the site falls steeply to the lower levels. 77 metres O.D. is relatively consistent throughout the main area of the site.

An existing earth berm is located along the northern and western sides of the site, with a continuous rise in ridge level of 80 metres O.D. in the northeast to 92 metres O.D. in the south west. The height of the berm is approximately 2.8 metres.

2.3 Land cover

The site is situated amid a region predominantly influenced by agricultural farmland, currently in use for pasture. Such land cover typically comprises of large, open pasture without native overstorey or midstorey vegetation and containing low grasses potentially used for grazing by domestic stock. Native species hedgerows on sod and stone ditches form the field boundaries. Native species woodland exists outside of the site immediately to the south to southwest region.

The site is accessed by a 0.5 kilometre track which joins the third class road to the north east. The Finisk River is located approximately 0.5 kilometres north of the site.

An existing mature native species hedgerow is located along much of the sod and stone ditch at the east side of the access road. An establishing native species hedgerow is located along a sod and stone ditch which runs along the west side of this access road. The vegetation in these hedgerows consists mainly of *Crataegus monogyna* (hawthorn), *Ilex aquifolium* (holly), *Fraxinus excelsior* (ash) and *Acer pseudoplatanus* (sycamore), *Rubus fruticosus* (bramble).

2.4 Existing site boundary treatments

Eastern boundary: The eastern boundary of the site consists of mature and regenerating native species hedgerow vegetation growing on the higher regions of the steeply sloped boundary. Existing supplement planting has occurred along this boundary where it was deemed necessary.

Southern boundary: Existing vegetation is evident in the higher regions of this boundary between the concrete post and chainlink fence at the top of the slope and the public road. Mature trees containing mid and understorey vegetation exist here. Existing supplement planting has occurred along the boundary in proximity to the road where it was deemed necessary. There is a track which runs along the outside of the fence. An old world agricultural gate is located at the end of this track. This gate should be retained. The steep slope runs the full extent in proximity to the southern boundary. Ulex (gorse) and some grasses are establishing in some areas on the predominantly rocky slope.

Also, mature and regenerating native species trees and mid storey and understorey vegetation exist outside of the site between the site boundary and the public road.

Western boundary: The vegetation along this boundary earth berm mainly comprises establishing Ulex (gorse) and some grasses. There is an existing concrete post and concrete three rail and wire boundary fence, which is broken along some sections.

Northern boundary: Likewise, the vegetation along this boundary earth berm is similar to the west boundary, mainly establishing Ulex (gorse) and some grasses. There is an existing timber post and mesh chainlink boundary fence.

2.5 Habitat types

The habitat of the area is determined by the practice of grazing and other agricultural uses that have been taking place in the region for many years. The density of indigenous fauna is limited to common open country birds including crow, blackbird, woodpigeon, magpie and mammals such as badger, fox, field mice and rabbit. Surrounding hedgerows and nearby woodland and river areas provide resources which continue to draw various birds and mammals to the general vicinity.

2.6 Historical and Cultural Influences

Agriculture is the key influence on the most recent and visible layer of the landscape. The site in question was previously an agricultural field (pasture), and had been so for generations. This accounts for the main cultural and historical influences that the site previously held on the landscape.

Existing rural views to the site are seen from the area of Kilmolash Church and Kilmolash Bridge approximately 0.5 kilometres to the northwest. The ancient Kilmolash Church and graveyard (Plate 1), now in ruins is a prominent historical feature in this landscape. Conversely, views from this location show the woodland area on the higher ground to the south of the site as predominant on the skyline.

Mature and regenerating indigenous native species hedgerows, containing mature trees on sod and stone ditches border the fields. Low undulating rolling pastoral farmland is to be seen beyond the site to the east.

There are interrupted views to the site from locations along the N671, particularly along the road in locations north east of the site (Plate 3). The site is in part naturally screened by existing mature field boundary hedgerows.



Plate 1: The ancient Kilmolash Church and graveyard, located on a third class road 0.5 kilometres north west of the site.

3 Values

DoELG defines landscape values as “those realities which satisfy human needs and desires...the environmental or cultural benefits including services and functions that are derived from various landscape attributes”. Examples of possible values for consideration can be one or more of the following (and not restricted to):

- Aesthetic
- Historical
- Ecological
- Social/Cultural
- Religious
- Mythological

It can be argued that every landscape has most or all of the above values in at least a minimal capacity. However, the forthcoming level of landscape sensitivity is determined based upon the most outstanding or exceptional of the listed values. For example, the sensitivity of a site that accommodates a variety of endangered species would be more appropriately measured against the “special” or “unique” *ecological* values of the site, as opposed to its *religious, aesthetic, historical, social, or mythological* values.

In effect, before a sensitivity ranking is made in a Landscape Character Assessment (see *Ch. 4 Sensitivity*), it is helpful to isolate one or more outstandingly significant values with which to proceed in comparing the site’s overall sensitivity. Therefore, a landscape’s overall sensitivity will be determined by its most valuable characteristics.

3.1 Primarily - Aesthetic value

The most significant of the afore-mentioned values at the Kilmolash site, aesthetic value, is a commodity evaluated in direct proportion to its visibility from off-site locations. The extent to which the site is visible is determined by the topography of the area, its rural structure, vegetation and the physical nature of the surrounding environment.

The existing site at Kilmolash is one of moderate visibility from certain parts of the region. However, factors which are most evident of the site is the existing facility building and to a lesser degree, the steep rocky slope to the southern boundary.

This exposure in turn affects the aesthetic value of the site, compared to that of a location hidden from view by a ridge or mountain range, for example. The cladding on the facility building is of a green colour which blends with the landscape. The roofline does not impact on the skyline. (See Plate 2).



Plate 2: View from Kilmolash church, which shows the site in the centre of the picture. The existing facility building is visible from this location.

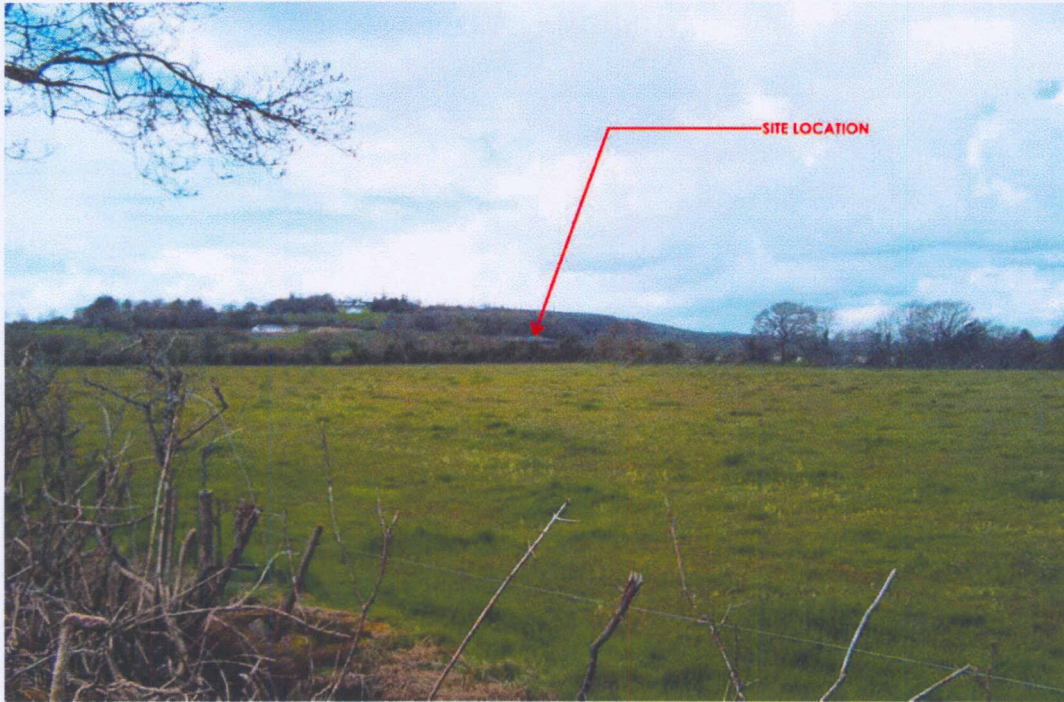


Plate 3: View of the site from N671 which shows the site in the centre of the picture. The existing facility building is visible from this location also.

3.2 Secondary – Historical/Religious value

The existing development is visible from certain viewpoints, as already stated in Ch.2.6, particularly from the Kilmolash Church area. Views from the church to the site are evident which thus impacts on the historical value of both the church and its surroundings. However, referring to the Ch.2.1 Archaeology, the archaeological assessment concluded that the development would not impact on archaeological sites or architectural sites within the surrounding landscape.

3.3 Aesthetic Values – Wooded hedgerows

Reiterating the character of the site, *Rolling and Undulating Farmland*, the visual units frequently associated with this type of land are: open pasture with surrounding wooded hedgerows, and hedgerows atop sod/stone ditches dividing the land within. Existing hedgerows are evidence of greater woodland which once thrived on a site and was eventually cleared by sections in the pattern of geometric-shaped fields for agricultural use. The nature of the site, which was previously part of a larger field has since been changed and developed as a commercial composting facility. However, the existence of hedgerows along the access road are an easy-to-preserve, aesthetic feature with many attributes. When retained, hedgerows will:

- Preserve a feeling of rustic and rural nature on the site, in keeping with its landscape character.
- Mature hedgerows of varying species will encourage the habitat of a variety of nesting birds and various wildlife species currently found in the area.
- Act as a safe corridor for wildlife within the landscape.
- Encourage a feeling of sheltered space and security within the site.

- Lend to the rustic nature of the area when seen from locations far away from the site by screening some development from view.
- Visually integrate the site with neighbouring woodland.

3.4 Aesthetic Values – View by night

Views of the landscape at night are an important component of aesthetic value to consider when evaluating a landscape’s character. The site has low visibility in the hours of darkness.

4 Sensitivity

As mentioned in the introduction to this document, the objective of this particular LCA is to identify and assess landscape values for the purpose of classifying the area concerning sensitivity to the existing development. Every act of development changes a landscape and consequently, *sensitivity* is defined by JELC for the purpose of this document as “a measure of ability to accommodate change, without loss of existing character or interference with existing values”.

For the task of arriving at a suitable assessment of landscape character, DoELG recommend five classes of sensitivity intended for measuring a broad range of indicators set forth by the June 2000 guidelines (Table 1). These sensitivity classes are:

- (1) Low
- (2) Moderate
- (3) High
- (4) Special
- (5) Unique

Where values of a site are deemed to be “special” (4) or “unique” (5), a strong conservation-oriented approach to development may be adopted. Conversely, where it is agreed that values are of a “low” (1) importance, plentiful and replaceable, a more proactive stance on development would be appropriate.

The following table of sensitivity indicators was constructed to isolate any outstanding issues for consideration when embarking upon planning propositions, and design responses for the site.

Table 1. Indicators to be classified by sensitivity scale
1 – Low; 2 – Moderate; 3 – High; 4 – Special; 5 - Unique

<u>Indicators of sensitivity</u>	<u>Class*</u>	<u>Comments</u>
Quality	(1)Moderate	Existing surrounding grazing land already adapted for agriculture
Integrity	(1)Low	No rare elements that risk interference by development
Popularity	(1)Low	Site generally unrecognised or unappreciated
Rarity	(1)Low	Other examples of similar areas exist in county environs
Cultural meaning	(1)Low	Region not protected regarding historical importance
Social importance	(1)Low	Privately owned at present, un-used by public
Sense of public ownership	(3)Low	Moderate visibility from certain locations only
Distinctiveness	(3)Low	A rural character within the wider agricultural landscape

* As evaluated by JELC for the purpose of this Assessment

4.1 Isolated results

As shown by Table 1, one particular indicator of sensitivity stands out when classifying the potential “loss of existing character or interference with values” by the development. The most highly ranked issue (*Quality*) is related to the vulnerability of the site’s land use value, to be discussed in the following section 4.2.

4.2 Aesthetic sensitivity

Essentially, the indicators concerning aesthetics and visibility cannot be rated with a “(1) Low” classification, as the development site is located within a landscape environment which is highly influenced by agricultural activity, particularly grazing, which is the predominant visual feature of this region.

However, the fact that similar flat and rolling agricultural landscape occurs in the wider region and that the site bears visibility only from certain locations, this prevents the site from being classified as (3) High, (4) Special or (5) Unique. Therefore, a classification of “(2) Moderate” is issued to the sensitivity of the site based on visual indicators alone.

5 Conclusion, Results and Recommendations

The landscape character of the site, *Rolling and Undulating Farmland*, describes best what is predominately visible in the surrounding area: fertile agricultural land in and around a rural setting of elevated hillsides and valleys.

When considering a site for development and subsequently carrying out an assessment of its landscape character, it is imperative to view the landscape for its ability to accommodate such development and give indicators as to which development might be most appropriate, under what conditions, and using what design criteria. In doing this, the assessment must recognize the various layers of identity the site has in past, present, and future perspectives.

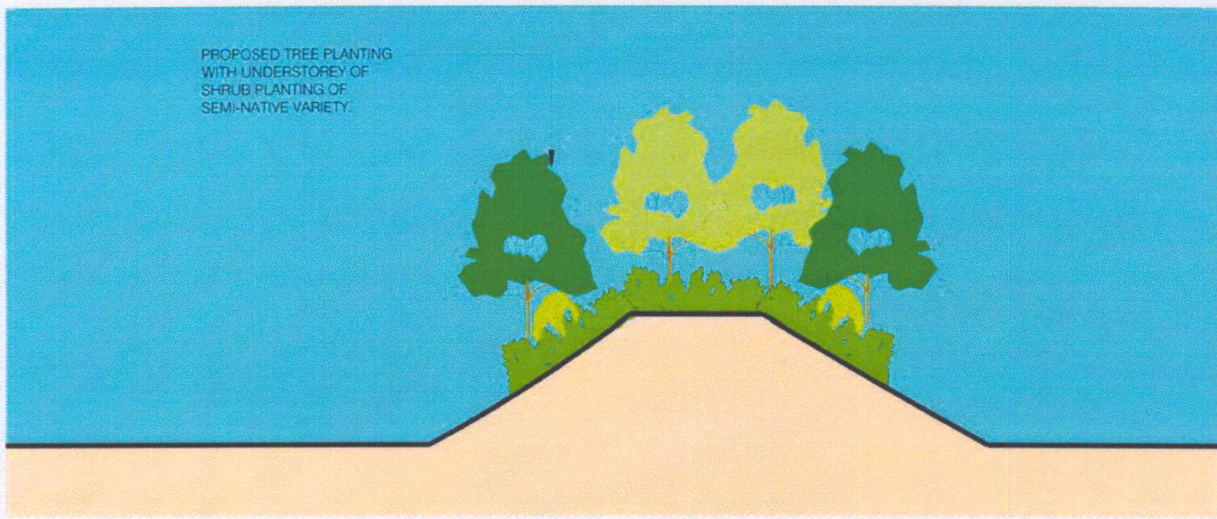
The first layer to consider is the existing character of the site at present, which in the case of this site, is now an existing composting facility. *Rolling and undulating farmland* is the historical character of the region. It is a layer to encourage and maintain as much as possible throughout development design, in an effort to ensure that the site remains visually appropriate within the greater, overall landscape in the region.

The second layer to consider is how this existing development shall blend with its surrounding environment. Blending the two layers of the landscape in question calls for a design and development strategy that will in as many ways as possible, give the site a visual quality from within site boundaries and from outside views looking towards the site.

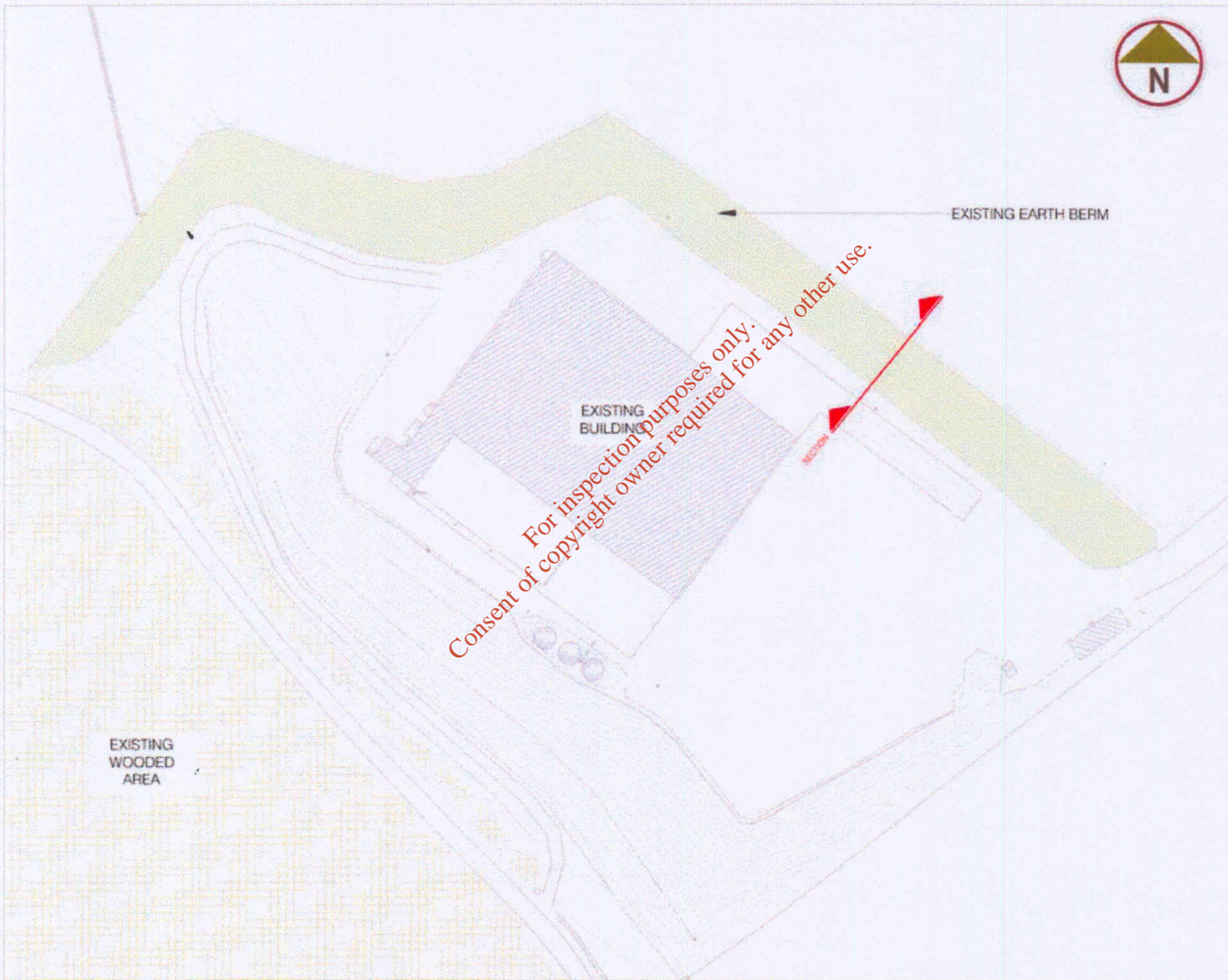
Planning the development with this strategy in mind, will aid in providing a smooth visual transition. It is important to note that the main area within the site is almost completely hidden from view by hedgerows located in the surrounding fields, except from the high ground to the south.

Although altering views to the site is unavoidable in any development process, reducing the visual impact of the existing facility building in a sensitive landscape character is achievable using various landscape planning techniques.

Refer to Figure No. 3, which shows details of the site including the existing site boundary treatment and proposals for landscape works such as retainable hedgerows and proposed planting.



PROPOSED TYPICAL SECTION OF EARTH BERM



EXISTING SITE LAYOUT

Figure 3.

The proposed mitigation measures aim to propagate the feeling of a rural agriculturally influenced environment with strategies such as:

- Removal of all existing *Ulex spp.* (gorse) which has established on the northern and western earth berms. There are young trees, previously planted on these embankments but are being suffocated and damaged by the existence of the *Ulex* (gorse).
- Supplement indigenous native species hedgerow planting should occur on these earth berms such as *Crataegus monogyna* (Hawthorn) and *Fraxinus excelsior* (Ash), *Ilex aquifolium* (Holly).
- Retaining and protecting all hedgerows and mature trees that exist along boundaries on the site.
- An ongoing maintenance management programme should be implemented to ensure the establishment of all boundary plantings, particularly the northern and western earth berms.
- Retain views to the site of open pasture inspired land in keeping with the farmland character of the site
- Vegetation, namely *Ulex spp.* (gorse) and grasses are establishing on the high steep sloped bank at the south of the site. This vegetation should be left to further establish and over the course of time it shall form a cover to large areas of the bank.
- Gorse has begun to establish in some areas along the eastern boundary and should be removed. Previous supplement hedgerow planting exists along this boundary.
- Rabbit guards should occur on all proposed plantings. Rabbit guards should be removed from all existing plants that have since established.

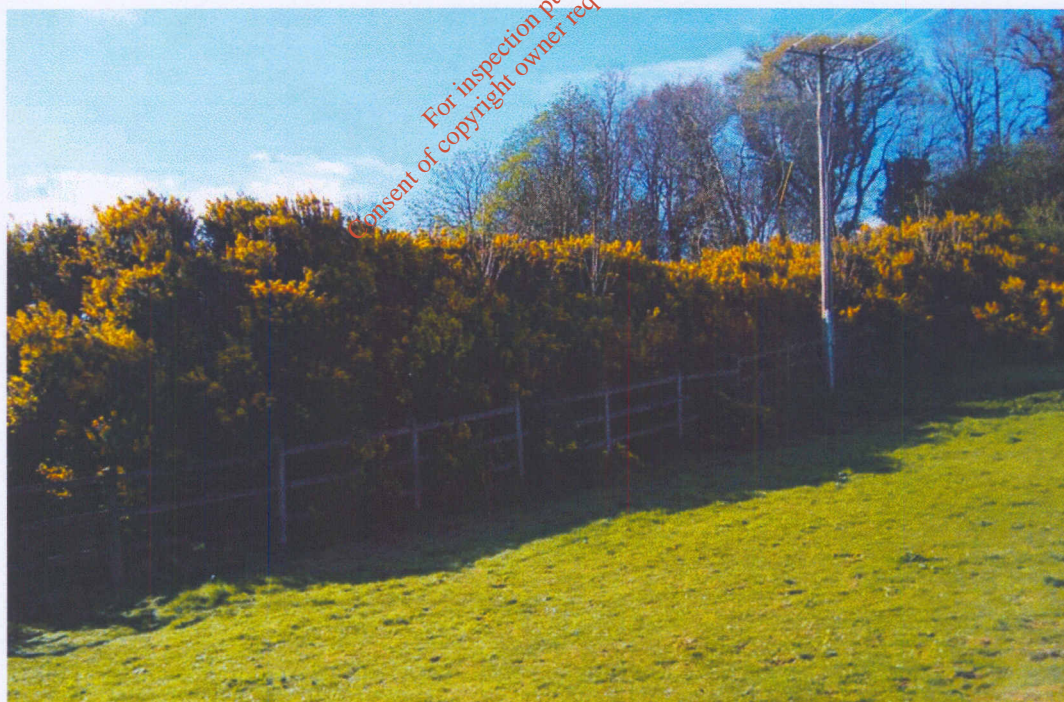


Plate 4: Western earth berm from outside site. *Ulex* (gorse) and grasses have naturally established on this embankment thus suffocating the existing young tree plantings. Some of these trees are visible in the photograph.



Plate 5: Northern earth berm from outside site. Again Ulex (gorse) and grasses have naturally established on this embankment thus suffocating the existing young tree plantings. There are no trees in existence in this view.

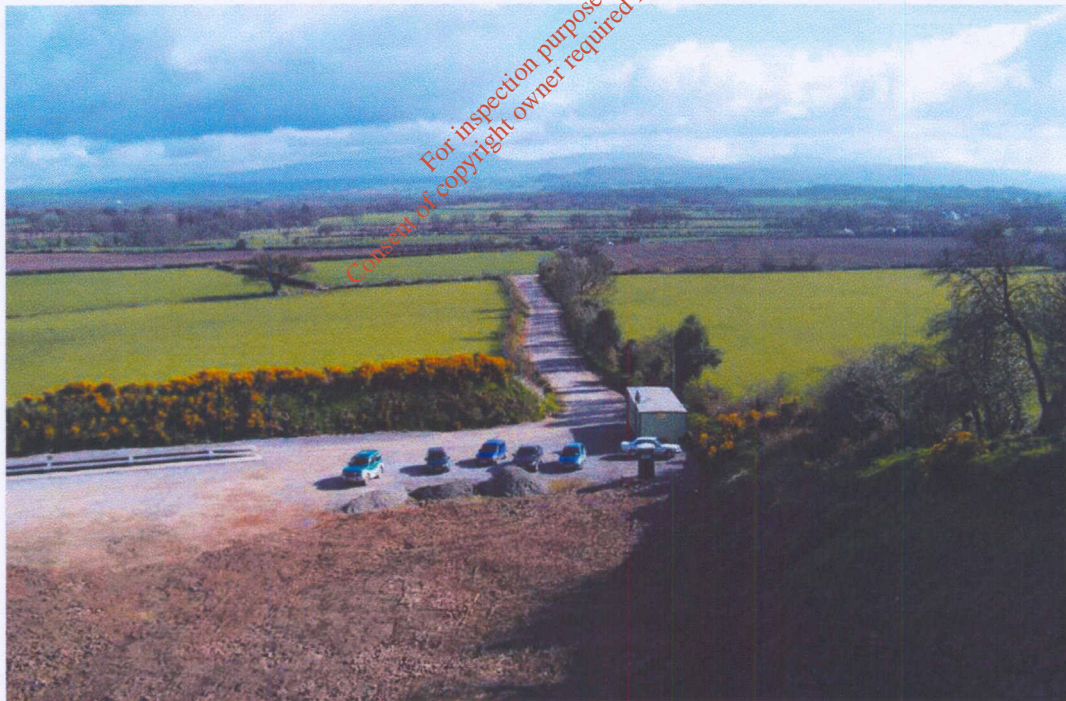


Plate 6: View looking north. The existing mature hedgerow can be seen on the right of the access road and the establishing native species hedgerow is on the left hand side of the access road. The northern boundary earth berm is in the middle of picture at the left side. The eastern boundary, on the right hand side rises to higher ground to join with the southern boundary.



Plate 7: View showing the eastern boundary. The existing mature hedgerow can be seen along the top of this boundary. Gorse can be seen establishing in certain areas along the boundary at the top of the earth berm. This should be removed.



Plate 8: View showing the compost building facility and the southern boundary slope.



Plate 9: View from inside the site showing the northern boundary earth berm.



Plate 10: View inside the site which shows track and the safety fence located along the top of the steep slope on the southern side of the site. The mature indigenous trees on the left hand side are within the site. The public road is on the left of these trees (road not in view).



Plate 11: The public road located along the southern boundary. The site is on the left hand side.



Plate 12: Another view showing the mature vegetation which forms the southern boundary.



Plate 13: The old agricultural gate located at the end of the track in proximity to the southern boundary.

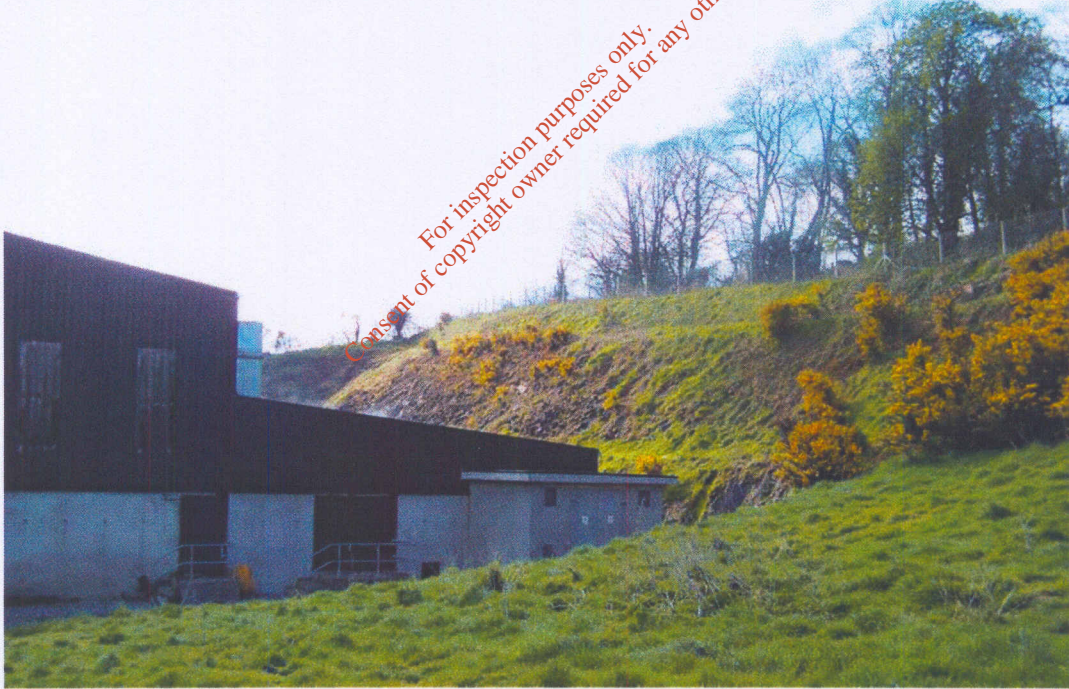


Plate 14: A view looking towards the southern boundary. Note the concrete post and chainlink fence on top of the steep slope.



Plate15: This view from inside the site showing the western earth berm.



Plate 16: A view taken from outside the site looking towards the western boundary.