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16.0 LANDSCAPE AND VISUAL IMPACT

Section 1 (Introduction), Section 6 (Site Setting), Section 8 (Description of the Proposed Development) and Section 10 (Flora & Fauna) of the EIS should be referred to before reading this section.

16.1 Introduction

This section of the EIS is a summary of the anticipated landscape and visual impacts of the proposed restoration of Walshestown Pit (the 'Site') from initial Site establishment, during the operational period and through to final restoration and Site closure. The location of the Site is shown in Figure 16.1, Grid Reference: 927/155.

The following assessment has been conducted in accordance with current guidance, namely Guidelines for Landscape and Visual Impact Assessment, (Second Edition); 2002, (The Landscape Institute and Institute of Environmental Management and Assessment.)

A desk-based study was carried out to gather information on the existing landscape and visual resource, planning context and planning designations. Information has been gathered from the following sources:

- Ordnance Survey (Ireland) coloured maps with contours;
- Aerial photography;
- Kildare County Development Plan 2005-2011; and
- Landscape Character Assessment, CAAS Environmental Services Ltd, 2003.

This assessment was prepared during May 2008; however consideration is also being given to potential impacts during the winter period. The assessment describes the following:

- The location, the Site and the existing landscape context;
- The evaluation of existing landscape quality and sensitivity to the proposed development;
- The predicted impact on landscape character as a result of phased infilling together with consideration of mitigation measures, both during the short and medium term and on final Site restoration;
- The visual impact of the development from key receptors and the sensitivity of those receptors for each development phase; and
- The degree of compliance with planning policy related to landscape.

16.2 Site Context

The Application Site falls within the townland boundaries of Walshestown, Blackhall, Bawnoge and Tipperkevin, Co Kildare. The Site is equidistant between the towns of Naas which is situated ca.5 km to the northwest and Blessington to the southeast. Immediately to

the north of the Site is the local primary road, Reference L6042, from which access to the Site is gained.

The proposed development consists of phased infilling principally within an area of land that had previously been worked for sand and gravel, the reserve of which is now exhausted. The unrestored working areas and plant Site area amounts to ca. 50 hectares with the remaining ca.18 hectares having been previously restored and currently used for grazing. It is proposed to infill the Site at an average of 600,000 tonnes per annum over a 13 year period.

The proposed development will comprise of the following:

- Importing inert materials;
- Handling and screening of inert materials where necessary in the inert waste processing area;
- Recovery of soils from on-Site or off-Site sources for the purposes of using these materials for final restoration;
- Backfilling the Site with available on-Site and imported inert materials;
- Re-contouring the Site generally to re-instate the landform back to a rising landform which merges with the surrounding topography and landscape; and
- Final restoration of the Site and the removal of all plant and machinery.

Site establishment works will be carried out at the outset to minimise infilling impacts and progressive restoration will be undertaken in parallel with infill development works.

16.3 Landscape Baseline Conditions

16.3.1 Description of Site

The Application Site largely comprises of land which has been previously worked for sand and gravel. Some of the unrestored areas of the Site have become vegetated with pioneer species typical of recolonising ground. Access to the Site is from the L6042 road which leads directly into the plant Site, which was previously used for the processing of sand and gravel from the Site and is now non-operational (Photo Plate 16A). A concrete batching plant remains on the Site along with a weighbridge and office (Photo Plates 16B and 16C). Lands to the south of the Site have been restored and are used for grazing (Photo Plate 16D). Views from the Site towards Punchestown Racecourse and from Punchestown Racecourse towards the Site are shown in Photo Plates 16E and 16F. There are three sizeable water bodies on Site (ponds A1/A2, A3 and B), these have been created by previous quarrying activities. Surrounding the Site on all boundaries are mature hedgerows and some hedgerow trees (Photo Plate 16G). The western and northern Site boundaries are defined by a single line of Cypress and Larch trees respectively (Photo Plates 16H and 16I). (It is noted that since this LVIA was carried out, these trees have since been removed by Punchestown Management in agreement with Cemex personnel)).

Grazing of hedgerows and trees is in evidence along hedgerow boundaries, where access by stock is possible (Photo Plate 16J).

The following native tree and shrub species have been noted on Site; ash (*Fraxinus excelsior*), elder (*Sambucus nigra*) and hawthorn (*Crataegus monogyna*) trees, with gorse (*Ulex europaeus*), bramble (*Rubus fruticosus*), ivy (*Hedera helix*), nettle (*Urtica dioica*), curled dock (*R. crispus*), creeping buttercup (*R. repens*), creeping thistle (*Cirsium arvense*), herb-Robert (*Geranium robertianum*), sticky mouse-ear (*Cerastium glomeratum*), dandelion (*Taraxacum* agg.), fescues (*Festuca* sp.) and meadow grass (*Poa* sp.) in the understorey.

16.3.2 Landscape Context

A Landscape Character Assessment (LCA) for Kildare County was undertaken by CAAS Environmental services Ltd in October 2003 and is included as a supporting document in the County Development Plan 2005-2011. The purpose of the LCA is to identify and describe the landscape character of each part of the County, its capacity to accept change (or to absorb development without disproportionate effects) and to produce a series of policies to guide development in each type of landscape. The landscape of Kildare County has been divided into seventeen Character Units within this document.

The Site is situated within the Landscape Character area identified as "The Eastern Transition Lands" and described as follows:

This transitional landscape character unit, located between the uplands and lowlands to the east of the County is characterised by undulating topography.....The fields are generally of medium size and regular pattern, with commonly maintained hedgerows. Gorse and natural vegetation occur at some areas of this unit.

The terrain gently rises from the lowland areas to the hilltops of the eastern Kildare Uplands (Chapter 19 of the of the Development Plan). The land undulates through a series of hilltops, the main ones being: Old Killkullen Hill (179 mAOD), Bullhill (174 mAOD), Mullacash Hill (171 mAOD), Nine Tree Hill (168 mAOD) and Carrighill (166 mAOD). The elevated vantage points along the local roads provide long distance views of the Kildare lowlands. The skyline to the east of this unit is defined by the eastern uplands, distant views including the neighbouring Wicklow Mountains, define the extent of visibility. The Hilltops of the Chair of Kildare Hills partially define the skyline to the west.

Critical Landscape Factors are as follows

- Undulating Topography

Undulating topography which characterises this unit, provides a physical shielding within the lee of the hills and thus, can conceal relatively large new features on the lower lying lands.

Furthermore, the dynamic and complex nature of undulating land encloses local vistas, rendering development unobtrusive on the overall landscape.

- Slopes

Sloping land often provides an area with its character and intensifies the visual prominence of any feature over greater distances. The gentle slopes of the hills in this character unit start to define the visual boundary of the adjacent lowland areas (further defined by the Eastern Uplands) and provide an increased potential for development to penetrate the ridgelines when viewed from local roads and villages in the area.

- Low Vegetation

The grassland, tillage fields and generally low hedgerows of this area are usually uniform in appearance, failing to break up vistas, and allowing long distance visibility. Existing well maintained hedgerows partially screen the lowest land parcels. Nevertheless, the commonly low vegetation proves unable to visually absorb new development.

- Shelter Vegetation

Shelter vegetation is represented at some stretches of this unit by coniferous plantations and the presence of scattered trees that grow on field hedgerows. In a similar manner to undulating topography, shelter vegetation has a shielding and absorbing quality in landscape terms. It can provide a natural visual barrier and also adds to the complexity of a vista, breaking it up to provide scale and containment for built forms.

High amenity areas are identified in the LCA i.e. those areas which have high outstanding natural beauty and/or a unique interest value. The Site does not fall within any high amenity areas identified within the LCA, the nearest proposed Natural Heritage site is at Redbog, situated ca. 5 km away to the northeast. The Site is also not within the sphere of influence of any Protected Views and Scenic Routes.

Habitats on Site consist primarily of recolonising bare ground, dry calcareous and neutral grassland, dry meadows and improved wet agricultural grassland.

The Site is not affected by any of the following environmental and landscape designations:

- National Heritage Areas;
- Special Areas of Conservation (SACs); or
- Special protection Areas (SPAs).

With regard to archaeology, the only item of interest within the Application Site is the proposed continuation of a possible trackway (KD024-32) 'The Pilgrims Walk' through the

southern part of the Site. The continuation of this feature is included in the Final Restoration Plan (Section 10 and Figure 10.3).

With regard to tree preservation orders, these are identified on the Development Plan maps, but are all located in excess of 3 km away from the Site. The Site is also not within any of the High Amenity Views and Prospects identified in the LCA to be protected within Policy 9.45 of the current County Development Plan, Volume 1.

Figure 16.2 shows the Site in the context of local land use. Agricultural land within the study area is principally pastoral land, used both for grazing and silage. Development consists of a scattering of dwellings along local roads. There are a small number of scattered woodland copses located throughout the study area consisting mainly of deciduous trees. Deciduous tree cover consists mainly of hedgerow trees which appear in studded form along field boundary lengths, and as dense wooded lines. Field boundaries are primarily mixed hedgerows with a low percentage of walled boundaries. Field patterns and scale are varied throughout the study area.

16.3.3 Topography, Geology and Hydrology

The Site rises from approximately 145 mAOD at the northwestern boundary rising to 169 mAOD in the east. The eastern Site boundary runs parallel to a ridgeline trending northeast to southwest. This ridgeline is further defined by a local road, mature hedgerow and a small number of residential properties several of which overlook the Site. Other significant hills and ridges within the study area are located ca. 2 km to the east within the Eastern Uplands, such as Slieveroe Hill rising to 332 mAOD.

The basic bedrock geology for this area of Kildare County consists of fine grained greywacke, siltstones and shales (Carrighill Formation). Geological information described in this section is based on the Geological Survey of Ireland publication, Sheet No. 16. Additional detailed information has been taken from ground investigations carried out to assess the geological and hydrogeological conditions of the Application Site.

Figure 16.3 shows the Site location, landform/topographical analysis of the study area and its surroundings. Figure 16.4 depicts the existing site conditions (aerial photograph taken in 2004 which reflects current status).

There are very few watercourses and ditches in the area, the nearest watercourse being a small stream feature located to the north of the Site.

Overburden across the Site and its environs consists of hard, silty boulder clay overlain with fluvioglacial sands and gravels that have typically been removed during previous pit operations.

16.3.4 Local Landscape Character

The Site is situated within the Eastern Transitional Land Character Area. A rural landscape dominated by pastoral fields in a variety of scales, generally of irregular shape, and enclosed by mixed hedgerows and blocks of plantation woodland. Landform consists of undulating ridges affording to both open and enclosed views. Views are generally more open to the west and restricted by the eastern uplands to the east. Punchestown Racecourse and associated buildings to the west of the Site have a strong visual presence in the landscape. The buildings are large scale and form a landmark within the surrounding area. Residential properties are low in density and located in close proximity to the local roads.

16.3.5 Planning Policy Context

This section describes landscape designations and components of the physical landscape within the study area which have been, or may be, affected by the development proposals. We have reviewed the most relevant guidance documents related to landscape and visual impacts of this development and taken them into consideration.

Documents reviewed are as follows:

- Planning and Development Act 2000;
- Landscape and Landscape Assessment: Consultation Draft of Guidelines for Planning Authorities (June 2000); and
- Kildare County Development Plan 2005-2011.

The relevant Policy Statements within the Kildare County Development Plan are as follows:

Transition Areas

TA 1 To maintain the visual integrity of areas, which have retained a dominantly undisturbed upland character.

TA 2 To recognise that the lowlands are made up of a variety of working landscapes, that are critical resources for sustaining the economic and social well-being of the County.

TA 3 To continue to permit development that can utilise existing infrastructure, whilst taking account of local absorption opportunities provided by the landscape, landform and prevailing vegetation.

TA 4 To continue to facilitate appropriate development in an incremental and clustered manner, where feasible, that respects the scale, character and sensitivities of the local landscape, recognising the need for sustainable settlement patterns and economic activity within the County.

16.4 Methodology

Two separate methodologies have been used to assess landscape and visual impacts; these are described below.

16.4.1 Methodology for Assessment of Landscape Impacts

In defining the landscape impact significance, Tables 16.1 and 16.2 below have been used as guides. First the 'sensitivity' of the landscape resource and 'magnitude' of change that the proposed works will cause is assessed from Tables 16.1 and 16.2. This is then carried forward to Table 16.3 to help identify the 'significance' of landscape impacts on a scale of substantial, moderate or slight magnitude. The tables are only used as guides and it is up to the Landscape Architect carrying out the assessment to determine the final significance impact threshold of each effect based on professional judgement and experience. This exercise was carried out by Mr Barrie Gannon, Senior Landscape Architect (Golder Associates UK Ltd [GAUK]).

Table 16.1: Sensitivity Classification of Landscape Resource

Sensitivity of Landscape Resource	
Landscape of particularly distinctive character, susceptible to relatively small changes e.g. National Park.	High
Landscape with relatively ordinary characteristics reasonably tolerant of changes.	Medium
Landscape with few features of value or interest, potentially tolerant of significant change.	Low

Table 16.2: Magnitude Classification of Landscape Resource

Magnitude of Change	
Substantial change in landscape characteristics over an extensive area, ranging to very intensive change over a more limited area. Permanent, long term.	Substantial
Moderate change in landscape component over a wide area and/or moderate change in localised area.	Moderate
Discernable but slight change in any landscape component. Short term, temporary.	Slight
Virtually imperceptible change. Insignificant scale to affect the integrity of the landscape component.	Negligible

Table 16.3: Impact Significance (The Relationship Between Sensitivity and Magnitude)

	Low Sensitivity	Medium Sensitivity	High Sensitivity
Substantial Magnitude	Moderate impact	Substantial impact	Substantial impact
Moderate Magnitude	Slight impact	Moderate impact	Substantial impact
Slight Magnitude	Slight impact	Slight impact	Moderate impact
Negligible Magnitude	Negligible impact	Slight impact	Slight impact

Note: Landscape impacts could be adverse or beneficial.

16.4.2 Methodology for Assessment of Visual Impacts

Visual impact is the result of a change in view from receptors such as residential property, public rights of way, and land with public access, roads and offices. Residential properties are considered the most sensitive receptors to changes in view whereas road users are the least sensitive as their experience is transient. The magnitude of impact is assessed according to the scale of the effect, which will depend largely upon the size and type of the development and the distance of the receptor from the Site. The significance of visual impact depends upon the sensitivity of the receptor and the magnitude and duration of the effect.

Tables 16.4 and 16.5 were used as guides in determining the visual impact significance thresholds. First the *sensitivity* and *magnitude* were assessed from Tables 16.4 and 16.5. This was then carried forward to Table 16.6 to identify the *significance* of visual impacts. It was then judged by the GAUK Landscape Architect whether the significance of visual impact is *adverse* (negative) or *beneficial* (positive).

Table 16.4: Sensitivity of Visual Receptors

Sensitivity of Visual Receptor	
Residential properties less than 1 km from the development with direct views from ground floor and first floor windows towards the development. Public Rights of Way less than 1 km from the development with direct views.	High
Residential properties over 1 km from the development or with more restricted views towards the development. Public Rights of Way more than 1 km from the development, or with restricted views. Local side roads and lanes. Sporting and recreational facilities, allotments.	Medium
Offices, commercial developments and industrial sites. Main roads and rail routes.	Low

Table 16.5: Classification of Magnitude of Visual Receptors

Magnitude of Impact (Scale)	
The majority of viewers affected/major changes over a large proportion of the view.	Substantial
Many of the potential viewers affected/major changes over a smaller proportion of the view/moderate change in view/partial view.	Moderate
Few viewers affected/minor change in view/glimpsed view.	Slight
Indiscernible change in the view.	Negligible

Table 16.6: Significance of Impact (Relationship Between Sensitivity and Magnitude)

	Low Sensitivity	Medium Sensitivity	High Sensitivity
Substantial Magnitude	Moderate	Substantial	Substantial
Moderate Magnitude	Slight	Moderate	Substantial
Slight Magnitude	Slight	Slight	Moderate
Negligible Magnitude	Neutral	Neutral	Slight

16.5 Predicted Landscape Impacts

The predicted impacts of the development on the landscape have been assessed during initial Site establishment, phased restoration and on final restoration/Site closure.

The Site is located in the Eastern Transition Lands as described in Section 16.3.2.

The main effects on the landscape will be:

- i. Construction of a screen mound principally along the Site's western boundary between Punchestown Racecourse, together with associated planting and development of a linear water feature;
- ii. Seeding and greening the Site's eastern slopes to further reduce adverse views from Punchestown Racecourse by planting with rapid establishment grassland species;
- iii. Construction of internal access roads, inert waste processing area, and additional screening berms;
- iv. Progressive phased restoration;
- v. Removal of all machinery and buildings on final restoration; and
- vi. Completion of final restoration works, post closure.

Landscape effects consist of the changes in the landscape, its character and quality that might result from the proposed development. The effect that these changes have on the landscape reflects the **sensitivity** of that landscape to change and the **magnitude** of that change.

The significance of landscape impacts reflects the sensitivity of the landscape to change and the magnitude of those changes. The results of this assessment are presented in Table 16.7 below.

Table 16.7: Assessment of Landscape Effects

Development Activity	Effect upon landscape resource	Sensitivity	Magnitude	Significance of landscape impact	Mitigation
1 Construction of screen mound to the western boundary	Long term change to landform and land use	Medium	Moderate	Moderate adverse	This feature is being introduced to screen views from Punchestown Lands. The mound will be seeded and planted with native woodland species to increase its screening potential.
2 Construction of screen mound round inert waste processing area	Medium term change to landform and land use	Medium	Moderate	Moderate adverse	This feature is being introduced to screen views of the inert waste processing area. The mound will be planted as above.
3 Extension of a large open water body	Introduction of a water feature into the landscape	Medium	Moderate	Moderate adverse or neutral	Gently shelving water edge profile will be developed for public safety, visual enhancement and habitat creation benefit.
4 Construction of internal access road	Medium term change to landform and land use	Medium	Moderate	Moderate adverse	Construction of screen mound and associated planting will obscure Site activities.
5 Phased restoration	Permanent landtake	Medium	Moderate	Moderate beneficial	Disturbed areas of land minimised and new habitats created at the earliest opportunity.
6 Removal of all machinery and buildings on final restoration	Removal of alien features in the landscape	Medium	Moderate	Moderate beneficial	Removal of alien features.
7 Completion of final restoration works, post closure	Removal of temporary screen mounds and alien features, enhancement of Site conservation and bio-diversity	Medium	Moderate	Moderate beneficial	Removal of alien features and some restoration back to former agricultural uses.

16.5.1 Summary of Predicted Landscape Impacts

The proposed restoration of the Walshestown Pit will principally result in a final landform that will be in keeping with the Eastern Kildare Uplands Transition character. Fields of similar size of those to the east will be created within a gently falling landform from east to west. The fields will be defined by hedgerows together with hedgerow trees. The more open landform of the Punchestown lands which abuts the Site's western edge will be visually connected by the proposed linear water feature with open areas of water being generally uncommon in the area.

16.6 Visual Baseline Conditions

16.6.1 Existing Visual Amenity

A visual analysis was carried out in May 2008 to assess the overall Site when weather conditions and visibility were good. Viewpoints into the Site were considered and viewpoints selected and used in the photomontage predictions of likely visual impacts shown in Attachments 16.1 to 16.3.

Views are generally more limited to the north, east and south of the Site due to intervening topography, hedgerows and scattered woodland blocks; Figure 16.2 shows the key receptor locations.

The visual receptors identified in Figure 16.2 (A to D inclusive) were visited in May 2008 when all deciduous trees and hedgerows were in full leaf and therefore, restricted views, presenting a best case in limiting views of the Site. An assessment was made of all the visual impacts of the Site's infill development proposals from initial establishment to final restoration. Distance of visual receptors from the proposed development varies from 50 m to 1 km. Photomontages have been produced to illustrate the visual effect the proposals would have from the viewpoint of these visual receptors. This was done for the three principal development phases. The photomontages are included in the attachments at the end of Section 16.

In total, four visual receptors have been assessed in terms of how they might be visually affected by the different phases of the proposed development (A to D). Each visual receptor was assessed on the perceived visual impact the proposed development would have upon it in terms of its effects on property and/or recreational amenity. A list of potential receptors that have been considered as part of this assessment follows.

Residential Receptors A – Properties along L6042 road north of the Site [Attachment 16.1(a) and (b)]

- Establishment Phase:
 - Screen mounding and planting will be carried out to northeastern margins of the Site to restrict views of the proposed inert waste processing area. Construction of the perimeter screen mounding works will be ca. 300 m away at its nearest location to these properties and its impact is considered to be **substantial adverse** during this phase of development.
- Operational Phase:
 - During the operational infilling phase the impact is considered to be **slight adverse**. Views of the proposed waste processing area will be substantially screened.
- Final Restoration/Post Closure:
 - On final restoration and post closure all processing plant, screen mounding and some temporary planting will be removed; the likely impact is considered to be **moderate beneficial**.

Residential Receptors B - Properties to the east of Site situated on western side of local access road [Attachment 16.2(a) and (b)]

- Establishment Phase:
 - Where necessary, construction of a temporary 3 m high screen mound along the eastern limits of the restoration operations will restrict views of the development from the rear of these properties. Seeding works on the temporary screen mound will also be carried out. Impact is considered to be **moderate adverse**.
- Operational Phase:
 - During the Site operational phase, views of the lower level restoration operations are likely. These infilling operations will take place sequentially with progressive restoration following on to minimise the disturbance-footprint at any one period in time. Impact is considered to be **moderate adverse**.
- Final Restoration/Post Closure:
 - On final restoration and post closure, all temporary screen mounding and some temporary planting will be removed; the likely impact is considered to be **moderate beneficial**.

Residential Receptors C - Properties to the east of Site situated on the eastern side of local access road

- Establishment Phase:
 - All construction works in advance of restoration operations are likely to be obscured due to intervening topography and hedgerows. Impact is therefore considered to be **neutral**.
- Operational Phase:
 - During the Site Operational Phase the additional on Site planting and 'gapping-up of hedgerows' will mature and further screen the development. Impact is therefore considered to be **slight beneficial**.
- Final Restoration/Post Closure:
 - On final restoration and post closure, all temporary screen mounding and some temporary planting will be removed; the likely impact is considered to be **slight beneficial**.

Recreational Receptor D – Views from Punchestown Racecourse [Attachments 16.3 (a) and (b)]

- Establishment Phase:
 - Views from the racecourse Grandstand and public circulation areas to the Site's western boundary are all open and not obscured by topography. The coniferous tree screen will be removed and major earthworks carried out to form a permanent screen mound which will be planted with grass species. Impact is considered to be **substantial adverse**.
- Operational Phase:
 - During the operational restoration phase impact is likely to be **neutral to moderate adverse** as landraising continues above the screen mound crest line. The back slope along the eastern boundary will be seeded in the establishment phase to further reduce potential impacts from Punchestown Racecourse. Additional temporary screening measures will also be put in place.
- Final Restoration/Post Closure:
 - On completion of final restoration and post closure, all temporary screen mounding will be removed, with all remaining planted and grassed areas being mature. Impact is considered to be **moderate beneficial**.

16.7 Predicted Visual Impacts

A visual screening berm will be constructed along the western boundary to screen views from Punchestown lands. An internal visual screening berm will also be constructed on the northern side of the proposed Inert Waste Processing Area. A temporary 3 m high screen mound will also be constructed along the eastern limits of the restoration operations to restrict views of the development from the rear of the properties of residential receptors B (Figure 15.2). External slopes, in particular along the eastern boundary will be covered with topsoil, trimmed and seeded with suitable grasses during the Site establishment works to reduce potential visual impacts from users at Punchestown (Figures 16.5 and 16.6 – Conceptual Restoration Filling Plan and Final Restoration Plan).

A summary of the visual impacts from receptors, using the methodology described in Section 16.4, is summarised in Table 16.8. The receptor locations are shown in Figure 16.2.

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Table 16.8: Visual Receptors and Impact Assessment

Ref	Receptor Type	Distance from full boundary	Sensitivity of Visual Receptor (Table 16.4)	Magnitude of Change (Table 16.5)	Significance of Visual Effect during infilling (Table 16.6)	Mitigation and Restoration	Residual Impact (Final Restoration/Site Closure)
A	Residential Properties along the L6042 Road north of Site	150 m approx	High	Moderate	Substantial adverse	Screen mounding and woodland planting	Moderate beneficial
B	Residential Properties east of Site	50 m approx	High	Moderate	Substantial adverse	Temporary screen mounding	Moderate beneficial
C	Residential Properties to the east of Site	100 m approx	High	Moderate	Substantial adverse	Temporary screen mounding	Moderate beneficial
D	Recreational receptors at Punchedown Racecourse	Varies 800 m approx	Medium	Negligible	Substantial adverse	Screen mounding woodland planting and greenery of eastern slopes	Substantial beneficial

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16.7.1 Summary of Visual Impacts

The proposed development will have *substantial (short to medium term) adverse* impact on a small number of residential receptors during early establishment and operational phases (i.e. during first 3 years). Substantial adverse impact on views from Punchestown will also occur until the screening berms are constructed. This is primarily due to the fact that visually the Site will change relatively little during the operational phases. Despite the fact that screen mounding and planting will be put in place, some views of the restoration operations will be evident throughout the restoration process.

As the main elements of final restoration/post closure include the decommissioning and demolition of the plant Site and all built structures, restoring the openness and naturalistic nature of the landscape will be achieved. When combined with the substantial areas of woodland planting, wetland and grassland creation the Site will take on a far more aesthetically pleasing form, as a result the visual impact moves from *substantial adverse* to *moderate/substantial beneficial*.

16.8 Landscape Proposals and Mitigation

Restoration proposals have been developed on the basis of the following key objectives:

- To allow for an end use that is appropriate to the Site's location;
- To integrate the final landform into the local landscape and in keeping with the Eastern Kildare Uplands Transition character area;
- To maximise ecological diversity of the Site and its value for wildlife;
- To provide a land use that complements and enhances the use of Punchestown Racecourse; and
- To deliver a high quality restoration scheme that is sustainable and of lasting benefit.

The proposed Restoration Concept is illustrated in Figures 16.5 and 16.6. Please see Section 8.7 for the detailed landscape and restoration plan. The rural location of the Site, within a predominantly agricultural landscape, lends itself to a mixed end use of agriculture, wetlands and nature conservation elements. The proposed after-use will seek to extend and enhance the existing setting and adjacent land uses associated with Punchestown Racecourse, which is of national importance. These proposals will also be of significant benefit to local residences. Proposed hedgerows will be a mix of native deciduous species with a small proportion of evergreens. Ecologically sound principles will be applied to the creation of new habitats to increase and enhance the existing ecological diversity of the locality.

Land uses, current and proposed, as a percentage of the Site area are summarised in Table 16.9.

Table 16.9: Land Use Impact

Land Use	Existing		Proposed	
	Ha	%	Ha	%
Agricultural land/Species Rich Grassland	23.1	34.0	43.7	64.2
Trees/hedgerows	0.1	0.1	8.2	12.0
Water bodies	3.3	4.8	3.9	5.7
Bare ground and hard surfaces	31.8	46.8	4.8	7.1
Unmanaged grassland and scrub	9.7	14.3	7.5	11.0
Total	68.0	100.0	68.0	100.0

16.9 Conclusions

The ca. 68.0 hectare Site lies within a transitional landscape comprising agricultural pasture land together with the adjacent nationally important Punchestown Racecourse. The Site is not within a designated or nationally protected landscape area nor has it any other designations attached to it. The infill development will, however, physically change the topography of the Site by creating an elevated landform which rises gently from west to east, which is considered in keeping with the Eastern Uplands Transition LCA. The final restoration will also reinstate fields of similar shape, size and composition to those surrounding the Site (Section 8.7).

Visual impacts are significant from the recreational receptors at Punchestown Racecourse in the short term during early Site establishment, these impacts will however reduce once screen mounding is in place and perimeter planting becomes established. Seeding and greening of the eastern slopes, where necessary, will further reduce potential impacts from the Punchestown aspect.

Visual impacts are limited to a few residential properties around the Site and to road users gaining local access. A progressive restoration programme will provide a mixed end use of grazing and nature conservation elements including a linear wetland area. Adjoining and visually linking the Site with Punchestown, a landscape of fields divided by species-rich hedgerows will be created (Figure 16.6).

The impact on landscape character during early establishment and operational phases (i.e. during first 3 years) is predicted to be moderate adverse to substantial adverse, but due to the mitigation measures included in the proposed restoration/final closure scheme the overall impact on landscape character (after completion) is predicted to be moderate beneficial.

The proposals include restoration of the entire Site; which will improve the immediate setting and surrounding landscape. A combination of grassland establishment and reinstatement of hedgerows/hedgerow enhancement will significantly improve the integration of the Site into the surrounding landscape. The use of native plant species will help to reinforce this integration. The creation of a lake feature will diversify the wildlife and habitat creation value of the Site.