CULTURAL HERITAGE 10

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INTRODUCTION

Background

10.1 This report is intended as the cultural heritage chapter of an EIS to accompany a planning application in relation to the intensification of use of an existing slaughter facility at Beauparc, Painestown, Slane, Co. Meath. The proposed development will comprise increasing the slaughter rate at the plant from the existing permitted level of 200 cattle per day to 350 per day. Much of the plant, equipment and infrastructure required to facilitate the increased throughput at the plant is already in place or is to be developed consequent of a recent grant of planning permission from Meath County Council (Planning Ref. No. SA140210).

10.2 In order to facilitate the proposed increase in the livestock slaughter rate and enhancement of ancillary facilities at the plant, the proposed development also provides for the following:

- construction of 112m² of additional lairage facilities;
- demolition and removal of existing temporary site offices;
- removal of temporary procurement / sales office;
- construction of new site offices and staff welfare facilities on the same footprint as the existing structures;
- change of use of existing farmhouse to office use;
- construction of a green offal processing room;
- installation of paunch press gantry;
- construction of a new well pump house;
- provision of 5 No. ancillary parking spaces.

A full description of the proposed development is contained in Chapter 2.

Methodology

10.3 In preparing this chapter, regard has been had to EPA Guidelines on the compilation of Environmental Impact Assessments (2002). The chapter consists of a baseline study of the archaeological and architectural heritage of the study area (based on a desk study and field inspection of the study area), followed by an outline of potential impacts, predicted impacts and proposed mitigation measures (if required). The desk study included a search of the following archaeological and architectural heritage sources:

- Recorded Monuments - All recorded monuments in the State have been given a unique identification number. The monuments are indicated on the archaeological constraint maps (based on the six inch series and recorded on a county basis) and listed in the accompanying index. The sites are afforded legal protection under the National Monuments Acts and Amendments 1930-2004.
- RMP Files - A file on each monument is kept by the National Monuments Service in their offices at The Custom House, Dublin. The file contains any relevant details about the site.
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- Cartographic Sources - A number of early maps of County Meath including the Downe survey and the first editions of the Ordnance Survey 6 inch and 25 inch series were examined.
- Meath County Council - The Record of Protected Structures appears as an Appendix (A8) to the County Development Plan 2013-2019.
- NIAH - The National Inventory of Architectural Heritage compiled a survey of County Meath which is a representative sample of buildings and structures of architectural heritage value.
- Research - Relevant books journals and other historical reference works were examined for any relevant information on the area.

10.4 The following legislation and publications offer guidance in assessing potential impacts:
  - Heritage Act, 1995
  - The Architectural Heritage (National Inventory) and Historic Monuments Miscellaneous Provisions) Act, 1999
  - Local Government (Planning and Development) Act, 2000
  - Guidelines on the information to be contained in Environmental Impact Statements, (Environmental Protection Agency, 2002)
  - Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964)
  - Convention for the Protection of World Cultural and National Heritage (1972)

RECEIVING ENVIRONMENT

The Landscape

10.6 The application site is located in the townland of Painestown, approximately 5km south of Slane, 9km east of Navan and approximately 800m south east of the village of Yellow Furze.

10.7 The bedrock of the study area is Loughshinny Formation with dominant rock types of dark micrite, calcarenite and shale. The surrounding area contains sandstone and carboniferous limestone till. The soil in the area is made up of grey brown podzolics offering a wide land use capability.
10.8 The area immediately surrounding the site is sparsely populated and rural in character. The site is surrounded by agricultural fields which are primarily used for grazing cattle interspersed with farm buildings and single dwellings. There are no dwellings adjoining or in the immediate vicinity of the site, with the closest located at distances of between 250m and 520m from the processing plant.

10.9 The topography surrounding the site is gently undulating between low points of around 60mOD and a number of local highpoints of over 100mOD. The application site itself is located between 90mOD and 100mOD, on the southern slopes of one such locally elevated hill which rises to 110mOD less than 500m to the north of the plant. Just over 3km to the north-west, ground levels fall quickly to less than 30mOD along the banks of the River.

10.10 The Meath Landscape Character Assessment divides the county into 20 Landscape Character Areas (LCA’s) and the application site is located entirely within LCA 6 identified as the ‘Central lowlands’. LCA 6 is classed as being of ‘High’ Landscape Value, with ‘Regional’ Landscape Importance. It is also considered as having ‘Medium Landscape Sensitivity’ which is a description that refers to landscapes that can accommodate a certain amount of change without affecting overall landscape character.

Historical and Archaeological Background

10.11 Painestown is both a townland and parish in the barony of Lower Duleek in County Meath. Meath has a long settlement history and has a rich archaeological resource with some of the finest examples in Ireland of upstanding archaeological remains from the prehistoric to medieval periods.

10.12 In the early historic period, the area between the River Boyne and the Delvin River was known as the territory of the Ciannachta. According to legend the king of Munster had sent his grandson Tadhg son of Cian to restore Cormac Mac Art as high king of Ireland. When Tadhg defeated the Ulstermen at the battle of Cinna near Newgrange he was rewarded with lands which he named after his father. The founder of the first church in Duleek St Ciannan has a very similar name and it has been suggested that he may have been a Christianised form of a tribal ancestor deity.

10.13 New kingdoms were established in Ireland after the decay of Tara as the chief political centre of Ireland in 588. One of these new kingdoms, Bregia, comprised the present county of Meath and portions of Dublin, Louth and Cavan. Ciannachta was subsumed as a sub kingdom of Bregia.

10.14 The coming of the Normans had a profound impact on those counties, including Meath, which they controlled throughout the medieval period. The boundaries of the present county of Meath were delineated in 1542 although it first formed the eastern half of the Norman Liberty of Meath granted to Hugh de Lacy in 1172. De Lacy immediately began to organise the colonisation and settlement of this grant and in order to do so he subdivided...
the Liberty into a number of smaller areas which he granted to his principal sub tenants during what is known as the sub infeudation of Meath.

10.15 The construction of manorial churches was another stage in the settlement of the new Anglo Norman manors. A large number of churches were built in County Meath and in many cases all that remain of these manorial churches are the graveyards. One such graveyard and associated architectural fragments are located 1.2km north of the study site.

10.16 The medieval pattern of settlement introduced to County Meath by the Normans, which revolutionised the landscape of the area during the medieval period, was itself replaced and few traces of it remain. The present landscape of Meath is chiefly the product of the extensive changes of the late seventeenth and eighteenth centuries when enclosure took place and the medieval open fields were consolidated into discreet farms. Pastoralism replaced the medieval agricultural economy and the pattern of dispersed farmsteads with occasional villages and towns dominant in the area today replaced the nucleated settlement pattern of the medieval period.

10.17 The Cromwellian confiscations led to a major change in land ownership throughout Ireland and the transplanting of many catholic or rebel families. This process had less dramatic results in Meath but nevertheless the Downe survey records land ownership in Painestown passing from Symon Dellafield, (Protestant) in 1641 to James Duke of York (Protestant) and Charles Fleetwood (Protestant) in 1670. The titulado having been John Delafyeld (gent).

10.18 Lewis records in 1837 that the medieval church in Painestown was still standing, “… an old, but very neat edifice, with a handsome tower; in 1823, a gallery was erected at the west end, and the steeple was roofed and repaired…”.

The Prehistoric Period

10.19 Brú na Bóinne is a world heritage site situated on the north bank of a bend in the River Boyne 6km NNE of the study site. The complex contains 40 passage graves spread over 3 cemeteries in Newgrange, Knowth and Dowth as well as enclosures, henges and a cursus. Throughout the Neolithic and Early Bronze Age a characteristic feature of farming communities in Ireland and over much of Western Europe was the practice of collective burial in stone tombs, now known as ‘megalithic tombs’ (Power 1992, 13). These consisted of a burial chamber / chambers with walls built of large upright stones and roofed with lintels or corbels of stone. They were originally contained within a cairn with access at one end into the chamber (ibid.). The dead, inhumed or cremated were placed in the chamber and often accompanied by grave goods such as pottery vessels and flint arrowheads. More than 1,550 examples are known in Ireland. Four main types are recognised; court tombs, portal tombs, passage tombs and wedge tombs (Farrelly and O’Brien 2002, 1). Court tombs are distinguished by a court leading to a long rectangular gallery divided into two or more chambers. They
are typically placed at the broader end of a long cairn. Portal tombs are single-chambered structures characterised by two tall portal stones at the front, with the sides and back usually formed by a single stone (ibid.). Passage tombs are found in round mounds or cairns, often on hilltops and can occur in groups or clusters. Wedge tombs consist of a narrow gallery that increases in width and height towards its western end. The Brú na Bóinne complex is located 5.5km NE of the study site.

Barrows are earthen monuments which are associated with burial. There are several types which include ring-barrows, bowl barrows, mound barrows, stepped barrows, pond barrows and ditch barrows (Farrelly and O’Brien 2002, 103). The practice of erecting a barrow to cover or contain a burial dates back to Neolithic times and continued up until the late Iron Age. There is a mound barrow 160m NW of the study site.

Ogham is a script in which groups of 1-5 parallel incised lines cut along the edge of a stone represent letters of the Roman alphabet (Power 1994, 60). Usually these appear on standing stones and the inscription is read from the bottom upwards and sometimes down another side. The inscriptions take the form of a person’s full name. The first name is often followed by the fathers name after the word MAQI (Mac or son of) and sometimes MUCOI is used to introduce the name of a remote ancestor. The purpose of these stones is not clear; some could have acted as memorials or grave markers, or they may even have been territorial markers (ibid.). The inscriptions are now generally believed to have first appeared in the second or at least the third century AD. Their use continued for a short time after the introduction of Christianity. Ogham stones are a particularly Irish phenomenon though also found in parts of western Britain which came under Irish influence in the early centuries AD. They are most numerous in the south-western counties of Cork and Kerry. Ogham stones are found in souterrains reused as lintels (Brash 1879; Macalister 1945; Harvey 1990). An ogham stone was found in Seneschalstown 430m SE of the study site and was removed to the National Museum of Ireland.

The Medieval Period

Ringforts are the most widely distributed and common monuments in the country. They consist of circular areas, defined by banks and external ditches, and excavation often reveals the remains of dwelling houses and outbuildings for extended families. O’Riordain (1979) described the ringfort as ‘a space most frequently circular, surrounded by a bank and fosse or simply by a rampart of stone’. Excavations have revealed that the ringfort was typically an Early Christian (c. 500 to 1100 AD) settlement type although some have shown to predate and postdate this period (Sweetman and O’Brien 1997, 24). According to Stout (1997) ringforts were not built to repel prolonged sieges, or designed to annex territories and populations but rather to repel the lightning cattle raids, which were endemic during the Early Christian period in Ireland. In areas where there is little field stone, the banks are generally of earth, while in stony areas, the banks may be of stone, with either stone-cut ditches, or no ditch at all. They can be referred to as caiseal,
cathair, dún, lios and rath. Rath is the term applied to those with earthen banks while cashel is referred to those constructed with stone banks. They tend to have a dispersed distribution, although some are occasionally located in pairs, or even conjoined. A ringfort is located in Realtoge, 2.1km from the study site.

10.23 Enclosures are generally circular and are defined by an earth and/or stone bank, sometimes with a fosse. Some are most likely much degraded ringforts or the remains of other monuments such as ring-barrows or henge-type monuments (Farrelly and O’Brien 2002, 168). Enclosures are located at Dollardstown (2.3km), Brownstown (2.3km) and Haystown and Carnuff Little 2.4km from the study site.

10.24 A motte was an early form of Anglo-Norman castle consisting of a flat-topped, steep-sided, earthen mound supporting a wooden tower, with an associated courtyard or bailey, which is often raised and enclosed by a bank and fosse. They date from the late 12th and early 13th century AD. There is a castle-motte 2km from the study site in Thurtianstown.

10.25 There is a moated site at Realtoge 2.8km from the study site. These are square, rectangular or occasionally circular areas, sometimes raised above the ground, enclosed by a wide, often water-filled, fosse, with or without an outer bank and with a wide causewayed entrance. They date to the late 13th/early 14th centuries and were primarily fortified residences/farmsteads of Anglo-Norman settlers though they were also built by Gaelic lords.

Recorded Monuments

10.26 There no recorded monuments on the application site.

10.27 There are 7 recorded monuments within 2km of the application site boundary;

<table>
<thead>
<tr>
<th>SMR No</th>
<th>ME026-008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>Barrow - mound barrow</td>
</tr>
<tr>
<td>Townland</td>
<td>PAINESTOWN</td>
</tr>
<tr>
<td>Irish Grid E,N</td>
<td>295330, 270190</td>
</tr>
<tr>
<td>Distance</td>
<td>160m</td>
</tr>
<tr>
<td>Description</td>
<td>Circular, low mound (diam. 18m, H 1.2m) situated on rock outcrop</td>
</tr>
<tr>
<td>Plates</td>
<td>10.09, 10.10</td>
</tr>
</tbody>
</table>

SMR No. ME026-009
Class Ogham stone
Townland SENESCHALSTOWN
Irish Grid E,N 294849, 269287
Distance 430m
Description Found in field close to Senechalstown House and now in National Museum of Ireland
Plate N/A
CULTURAL HERITAGE

SMR No: ME026-002
Class: Church
Townland: PAINESTOWN
Irish Grid E,N: 294481, 270992
Distance: 1.2km
Description:

Located towards the bottom of a gentle NW-facing slope. According to Dopping's Visitation (1682-5) the church and chancel, dedicated to the Blessed Virgin Mary, were in good repair although a font was lacking, and the church was enclosed (Ellison 1971, 36). The church was described as 'old' by Lewis (1837, 2, 454) and its steeple had been repaired in 1823. The church is now removed but the outline of an undivided rectangular structure (int. dims 17.3m E-W; 6.05m N-S) is traceable as fragments of walls. The base of a tower (ext. dims 6.05m N-S; 3.75m E-W; int. dims 3.8m N-S; 1.88m E-W; max. H 0.5m) with an entrance (Wth 0.8m) at W is attached to the W end of the church, and another structure (int. dims 5.15m E-W; 4.3m N-S) defined by grass-covered wall footings is attached to the W side of the tower. The church is within a graveyard, the original extent of which is not certain but there is a concentrated area of burials (dims c. 45m E-W; c. 20m N-S at E to c. 30m N-S at W) around the church within a subrectangular area (dims c. 75-110m NE-SW; c. 60m NW-SE) defined by earthen banks with trees on each side except the NE where railings separate it from a N-S public road.

Plate: 10.12

SMR No: ME026-002001
Class: Tomb - effigial
Townland: PAINESTOWN
Irish Grid E,N: 294481, 270992
Distance: 1.2km
Description:

The effigy of a woman (H 1.3m; Wth 0.46m) sculpted in a shroud that is lacking the head and upper body (Hunt 1974, 214) was moved to St. Patrick's Church of Ireland church in Slane (ME019-023001-) where it is displayed on the S wall of the vestry.

Plate: N/A

SMR No: ME026-002002
Class: Graveyard
Townland: PAINESTOWN
Irish Grid E,N: 294469, 270982
Distance: 1.2km
Description:

Located towards the bottom of a gentle NW-facing slope. The parish church of Painestown (ME026-002) is within a graveyard, which was described as fenced in Dopping's Visitation (1682-5) (Ellison 1971, 36), but the original extent of which is not certain. There is a concentrated area of...
burials (dims c. 45m E-W; c. 20m N-S at E to c. 30m N-S at W) around the church within a subrectangular area (dims c. 75-110m NE-SW; c. 60m NW-SE) defined by earthen banks with trees on each side except the NE where railings separate it from a N-S public road.

Plates
10.11, 10.12

SMR No ME026-002003
Class Font
Townland PAINESTOWN
Irish Grid E,N 294491, 270992
Distance 1.2km
Description Part of an octagonal sandstone font (H 0.34m) consisting of the base of the bowl (diam. 0.39m; max. surviving D 0.1m) and the chamfered under-panels with a large cylindrical mortise (diam. 2m; D 0.2m) underneath to take the shaft is in the graveyard of Painestown parish church (ME026-002).

Plate 10.13

SMR No ME026-002004
Class Architectural fragment
Townland PAINESTOWN
Irish Grid E,N 294491, 270992
Distance 1.2km
Description In the graveyard of Painestown parish church (ME026-002) are three sandstone pieces that combine to create the conical top of a spire (diam. of base 0.51m; total H 1.73m). Each piece is octagonal in cross-section with eight raised ribs (Wth 5cm; H 5cm), but the apex of the spire is missing. In addition eight semi-circular limestone drums (dims 0.6m x 0.3m; H 0.3m) that are faceted could be combined to create a pillar (diam. 0.6m; H 1.2m) with eight facets that might have been the base of the spire.

Plate 10.12

There are 18 recorded monuments within 3km of the site boundary. Most of these belong to the medieval period, representing both Gaelic and Anglo-Norman settlement. There are however a number of prehistoric monuments reflecting the Neolithic and Bronze Age funerary tradition exemplified in the nearby Brú na Bóinne and an Ogham stone representing the proto-historic transition from Iron Age to early Christian society. Recorded monuments within 3km of the application site are identified in Table 10.1 below.
Table 10-1
Recorded Monuments Within 3km of the Proposed Development

<table>
<thead>
<tr>
<th>SMR No</th>
<th>Class</th>
<th>Townland</th>
<th>Irish Grid (E,N)</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME019-032</td>
<td>Promontory fort - inland</td>
<td>CARRICKDEXTEN</td>
<td>294008, 272665</td>
<td>2.8km</td>
</tr>
<tr>
<td>ME019-047</td>
<td>Castle - motte</td>
<td>THURSTIANSTOWN</td>
<td>295240, 271960</td>
<td>2km</td>
</tr>
<tr>
<td>ME026-001</td>
<td>Enclosure</td>
<td>DOLLARDSTOWN</td>
<td>293031, 271136</td>
<td>2.3km</td>
</tr>
<tr>
<td>ME026-002</td>
<td>Church</td>
<td>PAINESTOWN</td>
<td>294481, 270992</td>
<td>1.2km</td>
</tr>
<tr>
<td>ME026-002001</td>
<td>Tomb - effigial</td>
<td>PAINESTOWN</td>
<td>294481, 270992</td>
<td>1.2km</td>
</tr>
<tr>
<td>ME026-002002-</td>
<td>Graveyard</td>
<td>PAINESTOWN</td>
<td>294469, 270982</td>
<td>1.2km</td>
</tr>
<tr>
<td>ME026-002003-</td>
<td>Font</td>
<td>PAINESTOWN</td>
<td>294491, 270992</td>
<td>1.2km</td>
</tr>
<tr>
<td>ME026-002004-</td>
<td>Architectural fragment</td>
<td>PAINESTOWN</td>
<td>294491, 270992</td>
<td>1.2km</td>
</tr>
<tr>
<td>ME026-003</td>
<td>Mound</td>
<td>JOHNSTOWN</td>
<td>296236, 271925</td>
<td>2.1km</td>
</tr>
<tr>
<td>ME026-007</td>
<td>Cairn - unclassified</td>
<td>KINGSTOWN and CARNUFF GREAT</td>
<td>292574, 269011</td>
<td>2.5km</td>
</tr>
<tr>
<td>ME026-008</td>
<td>Barrow - mound barrow</td>
<td>PAINESTOWN</td>
<td>295330, 270190</td>
<td>160m</td>
</tr>
<tr>
<td>ME026-009</td>
<td>Ogham stone</td>
<td>SENESCHALSTOWN</td>
<td>294849, 269287</td>
<td>430m</td>
</tr>
<tr>
<td>ME026-012</td>
<td>Moated site</td>
<td>REALTOGE</td>
<td>294015, 267207</td>
<td>2.8km</td>
</tr>
<tr>
<td>ME026-013</td>
<td>Enclosure</td>
<td>BROWNSTOWN</td>
<td>294730, 267390</td>
<td>2.3km</td>
</tr>
<tr>
<td>ME026-019</td>
<td>Enclosure</td>
<td>HAYSTOWN AND CARNUFF LITTLE</td>
<td>292760, 270980</td>
<td>2.4km</td>
</tr>
<tr>
<td>ME026-019001</td>
<td>Burial</td>
<td>HAYSTOWN AND CARNUFF LITTLE</td>
<td>292760, 270980</td>
<td>2.4km</td>
</tr>
<tr>
<td>ME026-030</td>
<td>Ringfort - unclassified</td>
<td>REALTOGE</td>
<td>295403, 267573</td>
<td>2.1km</td>
</tr>
<tr>
<td>ME026-031</td>
<td>Earthwork</td>
<td>NEWTOWN</td>
<td>297975, 270521</td>
<td>2.5km</td>
</tr>
</tbody>
</table>
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Cartographic Sources

10.29 The Down Survey (Figure 10.2)
The Down Survey undertaken by William Petty between 1656 and 1658 was a systematic mapping of Ireland for the purpose of administering the Cromwellian confiscations. It was based on the earlier civil survey and recorded land ownership and features by townland. The map names ‘Paynestonne’ and depicts the north of the parish as well settled with land divisions, houses, plantation, a church and a castle. The south of the parish in which the study area is located has less features.

10.30 1st edition 6 inch to 1 mile O.S map c. 1840 (figures 10.3, 10.4)
Ireland was included in the British Ordnance survey beginning in the 1820s. The maps offer a record of the country before the changes wrought by the Great Famine of the 1840s. The 1st edition O.S map shows the site of the proposed development having a house named as Green Hills House with two outbuildings on the site of the present slaughter facility. There is an avenue in from the NE and a lane to the southern fields which both follow the same line as the current roads on site. There is a gate lodge at the entrance to the avenue. The field layout is as today, apart from a small field boundary in the south. The map also records Seneschalstown House and demesne to the west and Yellow Furze village to the NW of the study area.

10.31 1st edition 25 inch to 1 mile O.S map c. 1900 (figures 10.5, 10.6)
The 25 inch O.S map shows the site largely unchanged apart from the removal of the gate lodge and there are no new features of archaeological interest recorded.

Place Name Evidence

10.31 Painestown is recorded in the Downe survey of 1656-8 as Paynestonne.

10.32 logainm.ie records the following historical references to Painestown parish.

- 1836 Baile Phaodhan • OC:AL, Mi090,13
- 1836 Painestonne • DS:AL, Mi090,13
- 1836 Painestowne • DS Map:AL, Mi090,13
- 1836 Painstowne • DS Ref.:AL, Mi090,13
- 1836 Painstoun • HCSV:AL, Mi090,13
- 1836 Painstown • GJ Rates (Old Copy):AL, Mi090,13
- 1836 Painestowne • Quit Rents (Old Copy):AL, Mi090,13
- 1836 Painestown • Applot. Bk (Rev. Brabazon, Mi090,13
- 1836 Painestown • Co. Map 1812:AL, Mi090,13
- 1836 Parish of Painstown • BS:AL, Mi090,13
- 1836 Painestown • dúc dearg:AL, Mi090,13
- 1836 Baile Faodhan • pl:AL, Mi090,13

10.33 logainm.ie records the following historical references to Painestown townland:
Aerial Photography

10.34 Aerial photographs (satellite images) were examined for unrecorded archaeological features. No features could be seen on the site of the proposed development. Several circular features could be seen south of the study area but examination of earlier photos indicates these features are recent landscape modifications in the tradition of demesne follies.

Previous Excavations

10.35 A review of www.excavations.ie and the more recently published excavations bulletins revealed no licensed archaeological investigations in the study area. The nearest excavations took place in Newtown, Rosnaree and Beauparc.

License no. 96E243
Townland Rosnaree, Beauparc
NGR N997718
Detail An archaeological assessment of a proposed residential development at Rosnaree, Beauparc, Co. Meath, was carried out in September 1996 by ACS. The site lay in a prehistoric landscape and is close to sites SMR 26:5, 26:4, 19:48, and 19:259. Six test-trenches were excavated in the area to be disturbed by the proposed development. In all of the trenches natural boulder clay was exposed close to the surface and at a consistent depth. No finds or features were recovered.

License no. 05E0588
Townland THURSTIANSTOWN
NGR 29530 27175
Detail Monitoring was conducted by ACS on 25 July 2005 during the construction of a proposed single dwelling and garage to be located within the townland of Thurstianstown, Slane, Co. Meath. The site was beside a motte, SMR 26:18. No archaeological features or deposits were exposed and no finds were recovered.
Excavations bulletin no. 2005:1226
Townland NEWTOWN (NEWTOWN BEAUPARC)
NGR N/A
Detail Planning permission was granted to build a dormer bungalow with associated septic tank, driveway, etc., at Newtown (Newtown Beauparc), Navan. Monitoring of groundworks was required. The topsoil was removed from the footprint of the house and a strip around the house. Topsoil was c. 0.45m deep. The owner of the site said that the recent ploughing had been to depth of 0.25m. Topsoil was loamy brown clay. Nothing of archaeological interest was exposed during ground disturbance. No artefacts were recovered.

Field Inspection

10.36 A field inspection was conducted on 21/8/14. The existing facility and recent works were inspected, as well as the existing house on site, recorded monuments and protected structures in the vicinity.

10.37 The areas of the plant inspected included processing plant, temporary storage yard, cattle pens, dwelling and temporary car park, site offices and canteen storage, lagoons under construction and decommissioned settlement ponds. The undeveloped greenfield area to the north of the facility was also inspected.

10.38 Recorded monuments in the vicinity inspected included ME026-008 (Mound barrow), ME026-002 (Church), ME026-002002 (Graveyard), ME026-002003 (Font) and ME026-002004 (Architectural fragments). All monuments were as described in the Archaeological Inventory of County Meath.

10.39 No previously unrecorded features of archaeological interest were noted during the site inspection.

Structure Assessment

Designated Structures

10.40 The Record of Protected Stuctures (RPS) is presented as an appendix (A8) to the Meath County Development Plan 2013-2019. The National Inventory of Architectural Heritage has included a number of these structures in its survey of County Meath. The following protected structures in the vicinity of the proposed development are identified below, with NIAH description / details and the corresponding field inspection plate reference number.

<table>
<thead>
<tr>
<th>RPS No.</th>
<th>MH026-101</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>House</td>
</tr>
<tr>
<td>Name</td>
<td>House</td>
</tr>
<tr>
<td>Location</td>
<td>Painestown</td>
</tr>
<tr>
<td>NIAH N0.</td>
<td>14402602</td>
</tr>
</tbody>
</table>
### Estate Worker's House

- **Date**: 1830 - 1870
- **Previous Name**: N/A
- **Coordinates**: 294287, 271456
- **Categories of Interest**: ARCHITECTURAL HISTORICAL TECHNICAL
- **Rating**: Regional
- **Original Use**: worker's house
- **In Use As**: house

**Description**
Terrace of four three-bay two-storey former estate workers' houses, built c.1850, now in use as private houses. Hipped slate roof with red brick chimneystacks. Roughly dressed stone walls with ashlar voussoirs to segmental-arched openings. Roughly dressed stone boundary wall to site. Single-storey outbuilding attached to north gable.

**Appraisal**
This terrace of four houses makes a significant contribution to the streetscape, due to their form and scale. The retention of many original features and materials, such as the slate roof and the ashlar limestone voussoirs enhance the architectural heritage significance of the group. Located to the south of Beauparc House, this terrace formed part of a group of demesne related structures.

**Plate**: 10.16

---

### Unusual Building

- **Date**: 1830 - 1870
- **Previous Name**: N/A
- **Coordinates**: 293742, 271424
- **Categories of Interest**: ARCHITECTURAL TECHNICAL
- **Rating**: Regional
- **Original Use**: unknown
- **In Use As**: house

**Description**
Detached single-bay two-storey building, built c.1850, with adjoining gable-fronted single-bay former outbuilding now converted to dwelling. Hipped roof with pinnacle to two-storey section. Pitched slate roof to former outbuilding. Rubble stone walls, with ashlar stone to gable front of former outbuilding. Rubble stone boundary wall.

**Appraisal**
The unusual form of this building makes a positive contribution to the surrounding area. Contrasting with the regular forms of the adjacent buildings, this notable building is enhanced by the retention of original features such as the slate roof with the central pinnacle. This building may have been associated with the railway.

**Plate**: 10.18
### Non-designated Structures

#### 10.41

The NIAH garden survey has begun the process of recording the remains of Ireland’s designed landscapes or demesnes. The following demesnes in the vicinity of the study site are included:

<table>
<thead>
<tr>
<th>Name of Site</th>
<th>Reference</th>
<th>Site Status</th>
<th>Feature Richness Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurstanstown House</td>
<td>ME-43-N-954715</td>
<td>Main features substantially present - peripheral features unrecognisable</td>
<td>4</td>
</tr>
<tr>
<td>Dollardstown House</td>
<td>ME-43-N-932405</td>
<td>Virtually no recognisable features</td>
<td>2</td>
</tr>
</tbody>
</table>
10.42 Green Hills house, adjacent to the proposed site development, Seneschalstown House to the west and Beauparc to the north are not included on the NIAH garden survey but are recorded on the 1st edition O.S maps of 1840 and 1900. There is no trace of the original Green Hills House.

Field Inspection

10.43 A field inspection was conducted on 21/8/14. The existing facility and new works were inspected, as well as the existing house on site, recorded monuments and protected structures in the vicinity.

10.44 Protected structures inspected included RPS No. MH026-101 (House) RPS Nos. MH026-102 to 105 (Estate workers terraced houses) and RPS No. MH026-106 (Beauparc Station House). All structures were as described in the Record of Protected Structures.

10.45 The house on the site of the proposed development is not a designated structure and does not appear on the early O.S maps. There is no trace of Green Hills house which appears on the early O.S maps.

10.46 No new structures of architectural heritage interest were noted during the site inspection.

IMPACT ASSESSMENT

Direct Impacts

10.47 There will be no direct impact on any recorded monument or archaeological feature.

10.48 A small area of previously undeveloped ground will be disturbed / impacted by the proposed development works adjacent to the existing farmhouse (car parking spaces and temporary construction compound). There is a potential negative direct impact on possible unrecorded archaeological features or finds. Given the dense distribution of monuments and long settlement history in the area the likelihood of such an impact is high.

10.49 No direct impact is predicted in previously developed (brownfield) areas across the application site (the majority of the site)

Indirect Impacts

10.50 There will be no visual impact on any recorded monuments.
Impacts on Structures

Direct Impacts
10.51 There will be no direct impact on any structures of architectural heritage value.

Indirect Impacts
10.52 There will be no visual impacts on any features of architectural heritage value.

Interaction with Other Impacts
10.53 There are no predicted impact interactions.

Do Nothing Impacts
10.54 If the development were not to proceed there would be no impact on the local cultural heritage or any structure of heritage value.

Worst Case Impact
10.55 The worst case impact would be if work were to be completed without archaeological mitigation resulting in a negative impact on unrecorded subsurface features or finds.

Mitigation Measures

Direct Impacts
10.56 Archaeological monitoring of topsoil removal is recommended during the construction phase in the area of the temporary construction compound and of all works involving ground disturbance.

Indirect Impacts
10.57 No mitigation is required for indirect impacts

Residual Impacts
10.58 There are no predicted residual impacts.
REFERENCES


Moore, Michael J. (1987) *Archaeological Inventory of County Meath*. Dublin


Sweetman and O’Brien (eds.) (1997) *Archaeological Inventory of County Offaly*. Dublin

Waddel, John, ‘The Prehistoric Archaeology of Ireland’. Galway

Figure 10-1
Record of Monuments and Places Constraint Map of Meath
(Sheets 19 and 26)
Showing Proposed Development Site and Recorded Monuments Within 3km

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Figure 10-2
Map of Downe Survey 1556-1558 featuring Painestown
Figure 10-3
1st Edition 6 inch to 1 mile O.S map c. 1840

Figure 10-4
1st Edition 6 inch to 1 mile O.S map c. 1840 detail of Study Site
CULTURAL HERITAGE

Figure 10-5
1st Edition 25 inch to 1 mile O.S Map c. 1900

Figure 10-6
1st Edition 25 inch to 1 mile O.S map c. 1900, Detail of Study Site
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Looking NE towards ME026-008

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ME026-002 Looking E Across the Graveyard

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ME026-002 Looking W at Church Site
(with assembled architectural fragments in foreground)
Plate 10-13
ME026-002003 Font

Plate 10-14
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Plate 10-16
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INTRODUCTION

11.1 This section of the Environmental Impact Statement (EIS) examines the impact of the proposed intensification of slaughtering activity on material assets immediately adjacent to the existing Dunbia plant at Painestown and in the surrounding local area.

Proposed Development

11.2 The EIA process which informed this statement assesses the impact of the proposed development which comprises an increase in cattle throughput at the existing plant from 200 cattle/day to 350 cattle/day, together with related development comprising:

(i) Demolition and removal of existing offices as required under Condition No 3 of planning permission SA/140210;
(ii) Construction of new offices, staff welfare and storage facilities at the location of the demountable structure referred to in (ii) above;
(iii) Change of use of an existing farmhouse to office use;
(iv) Construction of 112m² of additional lairage facilities;
(v) Construction of a 18m² green offal processing room abutting the main factory building;
(vi) Construction of an external gantry to support a stomach press;
(vii) Construction of a pumphouse.

Methodology

11.3 ‘Resources that are valued and that are intrinsic to specific places are called ‘material assets’. They may be of either human or natural origin and the value may arise for either economic or cultural reasons.’ (EPA’s Advice Notes on Current Practice, 2003).

11.4 The scope of an assessment on material assets will vary according to the type of assets relevant to the proposed development. For economic assets, the scope may relate to ensuring equitable and sustainable use of resources while the assessments of cultural assets are more typically concerned with securing the integrity and continuity of both the asset and its necessary context.

11.5 This material assets impact assessment is the process of comparing existing cultural or economic resources pertinent to the proposed development and/or the application site with the likely development effects on those resources.

11.6 The assessment has sought to achieve a balance in the appraisal of impacts at both the local and sub-regional scale. This is achieved by undertaking a top down assessment of assets (macro-picture) and as well as a bottom-up approach which required a more detailed assessment of projected impacts on material assets at the local level.
11.7 At the national level, Section 2 of the EPA’s Advice Notes on Current Practice (2003) sets out some considerations for completion of a material assets impact assessment. It refers to the following topics which may be examined under this heading:

- Transportation infrastructure (roads, railways, airports etc);
- Assimilation capacity of the surrounding natural environment;
- Major utilities (water supplies, sewage, power systems etc);
- Cities, towns and nearby settlements;
- Non renewable resources
- Ownership and access
- Architectural and and archaeological heritage.

Where relevant, this approach is adopted and included within the following stages in the assessment methodology.

**Stage 1: The Baseline Assessment**

11.8 This assessment has been informed by a comprehensive consideration of the characteristics of the surrounding area which has been prepared by way of a desk based study using published information from a range of sources which are referenced throughout this chapter. The baseline assessment has sought to:

(i) Describe the location and extent of material assets within the development boundary and extending beyond the site.

(ii) Describe the nature and use of the asset.
- It is exploited, used or accessible?
- Is it renewable or non-renewable?

**Stage 2: Assessment of Effects**

11.9 To support the assessment, expected impacts on material assets have been quantified where possible, throughout each stage of the development, i.e. construction and operational. Through a combination of qualitative and quantitative assessment, this stage describes

(i) The activities, areas, infrastructure and resources likely to be affected;

(ii) Changes in overall land-use;

(iii) The consequences of change, referring to indirect, secondary and cumulative impacts;

(iv) The potential for interaction with other impacts;

(v) The residual impact for material assets when mitigation measures are implemented.

11.10 The magnitude of impacts have been assessed in a qualitative manner based on the predicted nature (beneficial / adverse) of the change, the magnitude of the change (negligible, minor, moderate or major) and the sensitivity or value of the resource or receptor (low, medium, high or very high).
11.11 The baseline conditions set out below have been used to establish the magnitude of the impact of the proposed development based on the sensitivity or value of the identified receptors.

Stage 3: Mitigation Measures

11.12 On completion of Stage 2, and where impacts are identified, measures have been advanced to avoid and/or reduce effects on sensitive or scarce assets.

RECEIVING ENVIRONMENT

11.13 In order to clearly establish the impacts of the proposed development, this section provides detailed information on the characteristics of the proposed development site and the surrounding area and in particular sensitive material assets likely to be directly affected or the subject of secondary impacts such as an alteration of traffic flows.

11.14 The scope of the material assets assessment took into account qualitative and quantitative analysis, a review of relevant literature and professional judgement in relation to impact on material assets, encompassing economic and cultural assets.

11.15 The first step in the scoping process is to establish the geographical scope of the assessment within which the main effects of the proposed development will be concentrated. We consider that impacts on material assets at the regional scale are not relevant for this study. As such the geographical scope of the assessment will be based on the premise that the majority of impacts will occur in the local and sub-regional area. The assessment will defer to the scope of local impacts particularly in relation to roads and traffic which has been assessed separately in Chapter 12 of this Environmental Statement.

Economic Assets: Roads Infrastructure

11.16 Access to the Dunbia facility is made via Windmill Road, a local road immediately east of the site. This runs south for 700m to a junction with the L1013, a local road that runs in an east to west direction and connects Windmill Road to the N2 National Primary Road approximately 1.3km to the east and the R153 Regional Road (between Navan and Kentstown) approximately 5.4km to the west. The L1013 is subject to a speed restriction of 80km/hr and its width typically varies between 5.8m and 6m.

11.17 Windmill Road links the L1013 to the L1600 and crosses the Drogheda to Navan rail line, approximately 2km north of the site. Windmill Road is subject to a speed restriction of 80km/h. In between the site access and the junction with the L1013, the width of Windmill Road varies from 5m-5.8m. Forward visibility is good in both directions.

11.18 To the north of the application site access, Windmill Road reduces in width to a single vehicle width, appropriate for the low traffic flows experienced. To
11.19 The N2 is a single carriageway National Primary route that runs from Ashbourne, 15km north of Dublin, to the Northern Ireland border at Moy Bridge (Mulllynure). The N51 National Secondary Road linking Delvin in County Westmeath to Drogheda in County Louth connects to the N2 approximately 5km to the north of the application site at Slane.

11.20 The L1013 / N2 junction forms a staggered cross-roads at Rathdrinagh with an unclassified road on the opposite side of the N2. The junction takes the form of a ghost right-turn layout, enabling southbound vehicles turning off the N2 to wait in a right-turn lane and not obstruct through traffic. Visibility in both directions at the junction is good.

11.21 The R153, which junctions with the L1013 to the west of the application site, runs in a south-east to north-west direction from the N2 at Ballymagarvey (Balrath Crossroads), via Kentstown to Navan. It has varying speed limits, ranging between 50kph near Navan to 80kph close to the N2. Visibility levels at the R153 / L1013 junction are excellent in both directions, with a well maintained low grass verge located on either side of the junction.

11.22 A pavement survey carried out along the extent of the L1013 in February 2014 concluded that the condition of the road surface varies at different locations, with some sections of road having been recently subjected to an overlay, and in very good condition, and other sections displaying issues of surface distress and requiring a structural overlay or local reconstruction.

11.23 The pavement survey also concluded that the section of Windmill Road from the Dunbia access junction to the junction with the L1013 local road requires a structural overlay at a number of locations where it has deteriorated.

**Economic Assets : Railways**

11.24 The Navan to Drogheda railway runs approximately 1.8km north of the application site. The route, shown in Figure 11.1 is no longer used for passenger services, but continues to provide services for rail freight, with several trains per day transporting zinc ore from Boliden Tara Mines at Navan to Dublin (via Drogheda). There are up to four trains a day with each of these carrying a cargo equivalent to that of forty HGV lorries. The continued use of the railway is important in reducing HGV movements on the local and national road network. The former station buildings (now converted to residential use) and an unmanned crossing mark the location of the original railway stop at Beauparc, approximately 2km north-west of the Dunbia site.
Paragraph 6.10.4 of the current Meath County Development Plan 2013-2019, refers to the importance of the continued use of this railway line for freight transport. Efficient freight transport is considered essential in terms of supporting economic activity. With 98% of Ireland’s current internal freight carried on the road network, Boliden Tara Mines has one of the few freight flows still currently operating on Irish railways.

**Figure 11.1**
Navan Drogheda Railway Line

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**Settlements and Land Use**

11.26 The application site comprises the factory and office buildings, the surrounding hard standing yard, the access road, a property (formerly a farmhouse) with adjoining lawn garden and car parking area, as well as two medium sized fields. One of the fields is under pasture, while the other contains the redundant integrated constructed wetlands (ICWs), which are now being decommissioned, having been replaced by the lined (and covered) wastewater storage lagoons.

11.27 The closest urban areas are Slane, Duleek and Navan which are 4.5km, 9.5km and 8km respectively from the existing Dunbia plant at Painestown. Drogheda is the closest large town and is over 14km from the proposed development site. The nearest settlement is the village of Yellow Furze, located approximately 800m north-west of the application site.

11.28 The area immediately surrounding the site is sparsely populated and rural in character. Apart from the presence of dispersed rural housing, the area also supports an active agricultural industry, and there are a number of nearby agricultural enterprises that are involved in cattle rearing and beef production.
The surrounding landscape is characterised by agricultural land comprising hedgerow bounded fields under permanent pasture. This is interspersed with low density rural housing and small scale commercial activity which is predominantly linked to the agricultural and horticultural sectors. Land use in closest proximity to the application site is shown in Figure 11.2.

**Figure 11.2**
Surrounding Land Use

Figure 11.3 shows address points in the wider area beyond the application site. Points in yellow are classified as residential properties and points in purple as commercial only premises. Points in blue denote properties that accommodate both residential and commercial uses.

As can be seen, there is considerable quantum of existing development in the area surrounding the existing meat processing plant at Painestown, albeit dispersed and at a low density. The majority of these are residential properties.
Community Infrastructure

11.32 Existing social infrastructure in the vicinity of the site is primarily located within the nearby village of Yellow Furze, which is approximately 800m northwest of the proposed development.

11.33 The village is a small settlement centred on the cross roads that link the townlands of Dollardstown, Seneschalstown and Painestown. Community infrastructure at Yellow Furze includes a Roman Catholic Church and Yellow Furze National School, an eight-teacher co-educational primary school with approximately 181 pupils enrolled.

Enterprise

11.34 Figure 11.4 overleaf highlights commercial organisations in the area surrounding the application site. This categorisation reflects the NACE Code, a pan-European classification system for business activities.

11.35 Yellow Furze Nurseries Limited is shown to the south of the site, along the L1013. There are also some commercial enterprises located at residential properties along Windmill Road. These appear to be minor in scale and comprise 2 No. road freight businesses (shaded yellow on Figure 11.4) and a floor / carpet retail enterprise (shaded olive green). There are also a number of agricultural enterprises located across the area, most notably to the west of the application site at Seneschalstown House (shaded green on Figure 11.4). Seneschalstown House is hidden from view from the application site but is a notable building which can be viewed when looking east from a high point further west on the Dean Hill Road.
Agricultural Enterprise and Land

11.36 Agricultural land is an important material asset within the study area as it provides the basis for a strong agricultural sector. The area immediately surrounding the application site principally comprises agricultural land used as pasture. The wider area is also a well established farming area, however the intensity of agricultural activity fluctuates over time, according to changes in a number of factors including demand and profitability.

11.37 Since 1991, the total area of land farmed in Meath and Painestown has increased, however over the same period, between 1991 and 2011, there was a decrease in the area in pasture of 6.6% and 21.9% respectively. This drop in the area set aside for pasture, shown in Table 11-1, contrasts with an overall increase recorded across the State over the same time period.

Table 11.1
Total Area Farmed and Total Area in Pasture

<table>
<thead>
<tr>
<th>Year</th>
<th>State</th>
<th>Meath</th>
<th>Painestown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area in Pasture</td>
<td>Total Area Farmed</td>
<td>Area in Pasture</td>
</tr>
<tr>
<td>1991</td>
<td>2,249,435</td>
<td>4,441,755</td>
<td>107,555</td>
</tr>
<tr>
<td>2000</td>
<td>2,218,147</td>
<td>4,443,071</td>
<td>93,118</td>
</tr>
<tr>
<td>2010</td>
<td>2,507,573</td>
<td>4,568,938</td>
<td>100,456</td>
</tr>
</tbody>
</table>
11.38 The total number of farms in the State has been gradually decreasing over time, from 170,578 in 1991 to 139,860 in 2010. This has coincided with a marginal increase in larger farms, those greater than 30 hectares, together with a fall in the number of smaller farms, those that cover areas of less than 30 hectares.

11.39 These trends broadly correspond with trends in Meath and Painestown, however in contrast these areas show a slight recovery in the total number of farms in 2010, albeit significantly lower than the baseline figures in 1991. Table 11-2 also provides data for larger farms and the proportion they represent in the context of the overall total. The higher proportion of larger farm enterprises may be linked to the overall recovery in numbers in both areas.

### Table 11.2
Number of Farms

<table>
<thead>
<tr>
<th>State</th>
<th>Meath</th>
<th>Painestown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Farms</td>
<td>Farms (&gt; 30 ha)</td>
<td>Total Farms</td>
</tr>
<tr>
<td>1991</td>
<td>170,578</td>
<td>48,025 (28%)</td>
</tr>
<tr>
<td>2000</td>
<td>141,527</td>
<td>53,773 (38%)</td>
</tr>
<tr>
<td>2010</td>
<td>139,860</td>
<td>56,118 (40%)</td>
</tr>
</tbody>
</table>

### Environmental Resources: Water Supply

11.40 The existing processing plant at Painestown requires a water supply of 120,000 litres or 120 m³ (cubic metres) each day. Up to recently, this was provided by two on-site groundwater wells. However, following difficulties encountered during a period of prolonged dry weather in summer 2013, Dunbia drilled an additional groundwater well in the field to the north-east of the plant in early 2014 to supplement the existing wells and provide greater security of supply.

11.41 A pump test undertaken on the newly constructed well indicated that it will be able to provide a sustained yield of 60 m³/day to the plant. The new well significantly increases the available groundwater supply and provides the necessary security of supply for activities at the plant.

11.42 The Geological Survey of Ireland’s well database records a number of private wells at residences located along Windmill Road, immediately to the east of the application site. It is not known if all these wells are currently in service or whether some have been replaced by a public mains supply.

11.43 An existing public water reservoir located at the top of the ridge, approximately 300m to the north of the existing processing plant, on the western side of Windmill Road. The reservoir holds treated water which
supplies existing public water mains in the vicinity of the application site. It is understood that this water is pumped to the reservoir from a groundwater supply borehole at Slane.

Cultural Assets

11.44 Cultural heritage is valuable asset to communities both in terms of its intrinsic and economic worth. It is unique to the area to which it relates and as such is a finite resource.

11.45 Meath has a rich heritage, quality rural landscape and attractive towns and villages. It holds one of Europe's best collections of prehistoric sites which in turn draw large visitor numbers. The most famous such site is the UNESCO World Heritage Site at Brú na Bóinne, shown on Figure 11.5, which incorporates the passage tombs at Newgrange, Knowth and Dowth.

11.46 The World Heritage Site boundary is located within the Boyne Valley area, which is also recognised as an area with distinctive landscape character. It is described by Meath County Council Landscape Character Assessment as 'arguably the most significant and highly valued landscape in the County because it contains the Bru na Boinne World Heritage Site and the heritage towns of Trim and Slane'. This landscape is characterized by a steep river valley with areas of rolling lowland adjacent and it is integral to the experience of those visiting tourism attractions such as Newgrange, Dowth and Knowth, Bru na Boinne, Slane, Bective Abbey and Trim Castle.

Figure 11.5
Brú na Bóinne World Heritage Site and Buffer Zone (Meath CDP)
11.47 Figure 11.6 below is extracted from the Meath Landscape Character Assessment and references tourism attractions of note within the County. It clearly shows that there are no attractions located in the vicinity of the application site or indeed areas of potential which could in the future be developed as tourism attractions.

11.48 Amenities in closest proximity to the proposed development include the national cycle and walking route to the north, which at various points overlaps with the route of the Navan - Drogheda railway line.

**Figure 11.6**
*Meath Landscape Character Assessment – Tourism Attractions*

**IMPACT ASSESSMENT**

11.49 The proposed intensification of activities at Dunbia (Slane) together with ancillary development has the potential to have a number of direct and indirect effects on material assets within the surrounding area and within the development site. Having regard to the location and nature of the proposed development it is considered that the potential effects that require further assessment are as outlined in Table 11.3 overleaf.
Table 11.3
Summary of Potential effects on Material Assets

<table>
<thead>
<tr>
<th>Potential Receptors</th>
<th>Potential Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Assets</td>
<td></td>
</tr>
<tr>
<td>Road Infrastructure</td>
<td>Quality and congestion</td>
</tr>
<tr>
<td>Enterprise</td>
<td>Increased commercial activity and traffic congestion in the surrounding road network.</td>
</tr>
<tr>
<td>Agricultural Enterprise/Land</td>
<td>Land use</td>
</tr>
<tr>
<td>Environmental Resources</td>
<td>Water Supply</td>
</tr>
<tr>
<td>Cultural Assets</td>
<td>Built and natural heritage including Boyne Valley, Landscape Character and Protected Views</td>
</tr>
</tbody>
</table>

11.50  These potential effects are considered in more detail below.

**Road Infrastructure**

11.51  In terms of traffic movements during the construction phase, it is estimated that the additional HGV traffic generated by construction activities will be a maximum of 2 No. two-way HGV movements each way (in and out) per hour, together with a small number of light vehicle (car) 2-way movements associated with construction workers arriving / departing the site.

11.52  During the construction phase, the additional HGV and light vehicle trips would occur for a defined time period, on a temporary short-term basis. The additional traffic flows (up to 2 HGV trips per hour and 5-10 car trips per day at its peak) would be indistinguishable from normal daily traffic flows on the local road network and would have practically negligible impact.

11.53  In relation to future operational traffic flows, the traffic assessment indicates that the development proposals will generate an additional 43 daily trips, of which 33 will be classified as HGV. This equates to an additional 86 daily 2-way movements, of which 66 will be classified as HGV.

11.54  The assessment also confirms that the Windmill Road / L1013 priority junction operates comfortably, when subject to the forecast additional vehicle trips generated on weekday peak periods during the operational phase of the proposed development.

11.55  In terms of the wider road network, the link capacity assessment demonstrates that the N2 operates comfortably within its theoretical capacity when subject to the existing traffic flows, with sufficient headroom for the additional vehicle trips associated with the development proposals.
11.56 In conclusion, the proposals will have a minimal impact on the operation of the local road network. However, although the increase in traffic flows is assessed as being minor / moderate, it is likely that, in the absence of any future mitigation, the quality of the existing road surface, particularly along Windmill Road, will continue to deteriorate.

Local Enterprise

11.57 Increasing throughput at the Dunbia facility will result in an increase in direct spending in the local economy which will mainly benefit cattle farmers / suppliers within the catchment and additional employees through salary payments.

11.58 This increase in direct spending, presented in detail in Chapter 3, will also create indirect economic benefits to other sectors in the local economy, which may in turn lead to an increase in employment levels within those sectors. Depending on their catchment area, minor indirect benefits will accrue to local enterprise including agricultural enterprises, retailers and service providers.

11.59 The proposed development will therefore directly increase the value of outputs in the agricultural and agri-food sector and indirectly increase demand in other sectors of the economy.

11.60 This minor benefit to other local enterprises may be offset by the increase in road traffic in the surrounding road network, however this would be not be considered significant. Conflict with other business users is expected to be limited as the application site is located in a rural area and there are relatively few other commercial enterprises in the immediate locality.

Agricultural Land and Enterprises

11.61 The proposed development does not require any additional agricultural landtake, as intensification of livestock throughput at the Painestown facility will largely be accommodated within the existing site and uses established site infrastructure. The proposed development provides for new offices (constructed on the footprint of the existing temporary offices), an additional water supply well and proposed rainwater harvesting tanks, a lairage extension (located on an existing concrete surface) and the refurbishment and change of use of the existing residential farmhouse to office use.

11.62 An increase in direct spending within the agricultural sector is likely to contribute toward maintaining the value, quantum and viability of existing material assets, such as the total area of land farmed and/or in pasture, both in the local area and in the wider county.
Environmental Resources – Water Supply

11.63 The proposed intensification of activities at the Painestown plant will result in an increase in water demand from 120,000 litres or 120m³ at present to an estimated 175,000 litres or 175m³. The additional water supply will be secured by pumping from a new supply well drilled in February 2014 which is capable of delivering a sustained yield of 60m³/day to the plant and by the proposed harvesting of rainwater from the wastewater lagoon covers for non-potable use (e.g. lairage and yard washdown).

11.64 There are a number of private wells serving residential properties along the public road (Windmill Road) immediately to the east of the proposed development. However, as assessment of aquifer conditions and hydraulic parameters undertaken at the time of the well drilling and testing in February 2014 established that the operation of the new groundwater abstraction well would not have any significant drawdown impacts either on the adjacent existing groundwater abstraction boreholes (used by Dunbia) or on the closest private abstractions located beyond the eastern site boundary. As such, it is concluded that there is little or no impact on existing groundwater wells which may be used by third parties living in the immediate vicinity of the application site. Further details in respect of this assessment are provided in Chapter 6 (Water).

11.65 The proposed development will have no impact on the existing public water reservoir located approximately 300m to the north of the existing processing plant, nor on the existing public mains supply or the associated pipeline infrastructure.

Cultural Assets

11.66 There are no cultural assets, including national monuments or protected structures in the immediate vicinity of the application site. The nearest area of cultural significance is the Boyne Valley, located approximately 2.5km to the north and north-west of the site. There is no potential impact on this area as the local highpoint immediately to the north-west of the application site shields the existing and proposed development from any view from a northern, north-western and western direction.

11.67 There are local highpoints approximately 3km to the southwest and south of the site. Due to the distance from the site and intervening vegetation, it is not possible to clearly identify the existing development in any views from these highpoints. It can also be confirmed that none of the views and prospects listed for protection in the current Meath County Development Plan will be affected by the proposed development.
Summary

11.68 The significance of the impacts on material assets are summarised and concluded in Table 11.4.

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Sensitivity</th>
<th>Magnitude of Impact</th>
<th>Nature of Impact</th>
<th>Significance of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Infrastructure</td>
<td>Moderate</td>
<td>Minor</td>
<td>Adverse</td>
<td>Minor</td>
</tr>
<tr>
<td>Enterprise</td>
<td>Low</td>
<td>Minor</td>
<td>Beneficial</td>
<td>Slight</td>
</tr>
<tr>
<td>Environmental Resources -- Water Supply</td>
<td>Low</td>
<td>Minor</td>
<td>Adverse</td>
<td>Slight</td>
</tr>
<tr>
<td>Cultural Assets</td>
<td>High</td>
<td>Negligible</td>
<td>Adverse</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

11.69 The significant effects on material assets are:

- Road Infrastructure: There will be a minor adverse impact on road capacity and without mitigation, further deterioration of poor road surface conditions.
- Local Enterprise: The proposed development will directly increase the value of outputs in the agricultural and agri-food sector and indirectly increase demand in other sectors of the economy.
- Agricultural Land: An increase in direct spending within the agricultural sector which is likely to help sustain and/or increase the total area of land farmed or under pasture in the local area and wider county.
- Groundwater Resources: There will be no impact on existing groundwater wells used by third parties living nearby.

11.70 In conclusion the proposed development provides an overall minor benefit to a number of material assets including enterprise and agricultural land, together with minor adverse effects on road infrastructure.

MITIGATION MEASURES

11.71 Mitigation measures with respect to traffic effects on road infrastructure are set out in Chapter 12 of this EIS.

RESIDUAL IMPACT ASSESSMENT

11.72 The assessment has concluded that the proposed development will have a minor residual impact on road capacity and condition during the construction and operational phases.