

The Historic Landscape Characterisation Project of the General Swords Area

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For Fingal County Council

And The Heritage Council

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Executive Summary

The historic landscape characterisation (HLC) of Swords town and surrounding hinterland is an action of the Fingal Heritage Plan 2005-2010 and was carried out by Margaret Gowen & Co Ltd, co-funded by Fingal County Council and the Heritage Council. The principal products are a series of Geographical Information System (GIS) based data sets, mapping and a supporting report. This exercise complements and links to a similar study carried out for the Donabate-Portraine peninsula.

Objectives of the Study

The aim of the HLC is to produce a distinctive and historic dimension of the present environment for the town of Swords and its hinterland (urban and semi-rural landscape) using a Geographical Information System (GIS) to define the historical elements within the present day landscape and the human processes that have formed it.

The protection of the historic landscape requires not only designation but good management supported by information and understanding. Creating this understanding is the purpose of the HLC.

In achieving this aim the study has-

- Provided an integrated historic landscape planning tool
- Provided greater understanding and definition of the significance of the historic character of the landscape and the historic processes that have formed the present landscape.
- Created GIS data available to the public, private and community sectors, to act as a mechanism to sustain the character of the landscape into the future.

On a broader level it has sought to-

- Establish an integrated mechanism to promote, enhance and manage the identified unique and or sensitive heritage areas within the project area.
- Promote a sense of identity at community level.
- As a research tool, to provide a better understanding and awareness of our environment and local distinctive characteristics and to provide a common place for various experts and the general public to express their views and opinions, encouraging integrated discussion and working.

Methodology

The HLC process assesses all aspects of the landscape, not just 'special' areas or point data associated with the protection of monuments and sites. It is concerned with the commonplace and the locally distinctive in providing a framework for understanding the character and historical development of the landscape. There are two stages in the characterisation process;

- the identification, description and mapping of the main historic influences which have formed and define the present day landscape
- to provide tools to manage change within the landscape.

The results of the characterisation process led to the creation of 9 landuse broad types in which there are 28 landscape character types (Figs 5 and 6). Within the report, these types were assessed in terms of the historical processes from which they derive, the historical and archaeological components that they contain, the characteristics that distinguish them from similar types and the rarity of the type across the study area.

Outcome of the Process

Understanding landscape means understanding the underlying cultural processes and political, social and economic influences, this understanding was generated through a time depth analysis of the landscape character at different time periods.

For this project, four time slices were examined – current landuse (2000), mid 20th century (1935-38), mid 19th century (1837-43) and relict landuse (RMP, PRS, topographical files, historic maps, excavation literary sources and field work). The number of time slices was limited by the amount of accurate historic mapping available for the study area. These time slices established the following trends in landuse over the last 170 years.

Broad Type	Mid 19th	Mid 20th	Current
	Century	Century	
Coastal	0.2%	0.2%	0.3%
Communication	1.8%	1.8%	3.7%
Enclosure	80.4%	83.9%	47.2%
Industrial	0.7%	1.0%	4.9%
Designed	13.1%	5.5%	2.9%
Landscape			
Recreation	0.0%	0.0%	7.7%
Settlement	2.6%	5.4%	32.3%
Water	0.5%	0.5%	0.5%
Woodland	0.0%	0.0%	0.5%
Unclassified	0.7%	1.7%	0.0%

These patterns of HLC types when read in conjunction with the current landuse mapping (Fig. 5 and 6) provide an analysis of their sensitivity, vulnerability and capacity for change, important factors of spatial planning.

When combined with the relict mapping (Fig. 7) and heritage data (Fig. 4) this model can begin to guide the appropriate location, scale and type of new development, limiting impact on the historic environment by identifying key heritage constraints as well as identifying gaps in the archaeological knowledge. This knowledge can lead to the promotion of designs which contribute sensitively and positively to the local character, or indeed the development of a new and innovative landscape where historic character is no longer a determining factor.

Findings and Future Uses of HLC

This holistic approach to cultural heritage issues and the placing of a value on the historic landscape in which we live and work can influence the quality and design of new communities with that environment.

It is hoped that the HLC of Swords will provide a practical input into future landscape management decisions at a local level, increasing the understanding and appreciation of the historic landscape across the community.

For HLC to be successful it has to be a sustained and transparent process, comprehensive in its application and updated regularly.

The products of this particular project have enabled:

- Provision for a forum of integrated discussion across different specialities and different departments within Fingal County Council.
- These discussions have elevated the profile of landscape issues amongst the decision makers and adjudicators, enabling a proactive approach to heritage manage.
- The HLC process to be integrated with other studies on a county, regional and national scale if necessary.
- The use of available technology and information to create a historic landscape dataset (GIS), a valuable resource base in terms of personnel, technology and knowledge
- A cost effective tool for future archaeological analysis
- The interactive data has provided a greater transparency of archaeological information to create knowledge and understanding of the historic landscape and the processes which have helped form it and can be displayed on the web as a source of information for the general public.

PART I: INTRODUCTION & CONTEXT



Introduction

Project Background

'I wonder is it possible to write a simple short statement, a vision of what we want for the Irish landscape? If we can write that and accommodate within it all the social, economic, development, protective and other needs everything else will flow from the vision' - Prof. Michael Ryan, Landscape Conference, 1999.

This historic landscape characterisation (hereafter referred to as HLC) project of the town of Swords and the surrounding hinterland was carried out by Margaret Gowen & Co Ltd, the study was co-funded by Fingal County Council in partnership with the Heritage Council. This project is an action of the Fingal Heritage Plan 2005-2010. The objective of the project is to promote better understanding and management of the historic landscape resource, to facilitate the management of continued change within it and to establish an integrated approach to its sustainable management within Fingal County Council and the Heritage Council and with other organisations.

It is an aspiration of this project that the HLC ethos will become embedded into the planning process on county by county basis at a national scale under the guidance of the European Landscape Convention (2000), which promotes landscape as a primary aspect of the common heritage that requires understanding and sustainable management. This convention has been ratified in Ireland since March 2002 and HLC provides a mechanism of bringing large-scale characterisation into heritage management and shifting our objectives from protecting individual, separate sites (point data) to managing change in all places.

Previous Landscape and Characterisation Work

The use of HLC is relatively new to Ireland. To date it has been primarily used for two reasons, to provide an historic dimension to landscape character assessment reports and to consider specific predefined historic and archaeological landscapes.

The Heritage Council advocates the use and is committed to promoting HLC in Ireland. Studies, of note are the Pilot Landscape Character Assessment of County Clare (Heritage Council, 2000) and the Archaeological Landscape Project (ALP) (Cooney, 2004). The former produced a HLC component for the overall landscape assessment and the latter produced a GIS-based approach to the study of archaeological landscapes on behalf of the Heritage Council. Recently other studies have been carried out in Offaly and Cavan and the Heritage Council are currently involved with a cross boarder study in Carlingford and Derry.

Rational for HLC

HLC emerged in England in the early 1990's and developed rapidly on a county basis, a national HLC programme is due for completion by the end of 2007. The benefits for producing a HLC study

have widely been reported upon in England. Generally is allows a proactive approach to be taken for the management, planning and development with respect to the historic character of an area. It has the potential to assist in the formulation and implementation of economic, agricultural, sustainable tourism and community development and management strategies in rural and urban environments.

The protection of the historic landscape requires not only designation but good management supported by information and understanding. Creating this understanding is the purpose of the HLC.

HLC considers the aspects of the environment and components of the landscape, both natural and built that are products of human activity. This includes fields and their enclosing elements and boundaries, communication systems, distribution of buildings, woodland etc. The modern landscape is the result of processes of change and modification over the millennia, understanding how these processes occur and how they are represented in today's landscape is critical in providing a time-depth analysis to the cultural landscape and appreciating the Swords study area, unique character, sensitivity, vulnerability and capacity for change and development.

Understanding the landscape means understanding the underlying cultural processes and political, social, economic and cultural influences, this can be generated through a time depth analysis of the character and time-slice mapping showing a reconstruction of the landscape character at different time periods.

Reasoning for this project

While the Heritage Council has supported and advised county councils on individual projects and has carried out considerable work and research in the characterisation of the cultural and historic landscape, the approach taken has not always been consistent and comprehensive. This current project provides an opportunity to develop the method and practice of HLC in Ireland, having regard to previous work, in order to demonstrate how HLC can inform a better understanding of the historic processes that have formed the present landscape and to sustain the character of the landscape for future generations of people to enjoy. There are several other reasons for undertaking this process in the study area, these are;

- The need to understand archaeological sites in the Fingal region given their various visibilities within the landscape and to understand all monument types in terms of their wider setting.
- In an urban centre such as Swords a time depth analysis of the rate of change of the character can be generated. The landscape character can be reconstructed at different

time periods by analysis of the various editions of the Ordnance Survey, this provides an understanding as to the rate of change over the last 170 years.

• A review of Landscape Assessment in Ireland (Heritage Council, 2006) recognised the importance of integrating archaeological approaches to landscape with landscape assessment. This project will provide a historical depth to support and complement the Landscape Character Assessment for Fingal.

Project Aim

The aim of the HLC is to produce a distinctive and historic dimension of the present environment for the town of Swords and its hinterland (urban and semi-rural landscape) using a Geographical Information System (GIS) to define the historical elements within the present day landscape and the human processes that have formed it.

The HLC analysis identifies distinct patterns of landscape character that have a broadly common history and tangible heritage. The aim is to produce a concise summary of the historic environment, supported by short descriptions that can be used by consultants and planners to help assess capacity for change at a strategic scale and provide a framework for describing local distinctiveness (Green & Kidd, 2006).

Project Objectives

The objective of this project is to undertake an analysis of the historic character for the urban and semi-rural environment of the greater Swords area. This area is subject to rapid change and development and the project aims at informing future management and development of the landscape and heritage resources within the area. The focus of the project is to recognise that the present landscape is the result of changes and continuities from the past. The challenge is to sustain the character of the landscape in the face of future changes. The immediate objectives of this project are to-

- Provide an integrated historic landscape planning tool
- Provide greater understanding and definition of the significance of the historic character of the landscape and the historic processes that have formed the present landscape.
- Create GIS data available to the public, private and community sectors, acting as a mechanism to sustain the character of the landscape into the future.

Broader Objectives

- Establishment of integrated mechanisms to promote, enhance and manage the identified unique and or sensitive heritage areas within the project area.
- Implementation of heritage schemes at a local level to promote a sense of identity at community level.

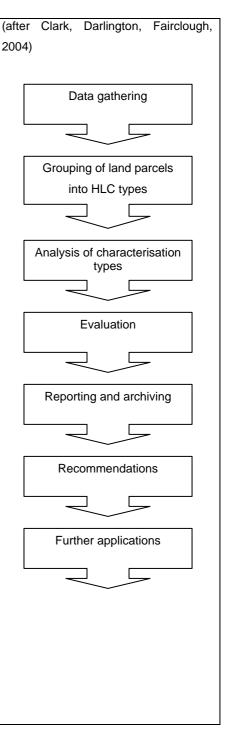
 As a research tool, to provide a better understanding and awareness of our environment and local distinctive characteristics and to provide a common place for various experts and the general public to express their views and opinions, encouraging integrated discussion and working.

Project Phasing of the HLC process

The HLC process assesses all aspects of the landscape, not just 'special' areas or point data associated with the protection of monuments and sites. It is concerned with the commonplace and the locally distinctive in providing a framework for understanding the character and historical development of the landscape (Fairclough, 2004). There are two stages in the characterisation process;

- the identification, description and mapping of the main historic influences which have formed and define the present day landscape
- the provision of tools to manage change within the landscape.

The process commences with the systematic identification (sources listed in Part II) and description of the historic attributes of the contemporary urban and semi rural landscape. This description forms the basis of Part III which provides a narrative of the historical attributes that contribute to the modern landscape of the Greater Swords area. This narrative consists of information drawn from the Record of Monuments and Places (RMP), the National Museum of Ireland, historic mapping, aerial photography, Record of Protected Structures (RPS), excavations, place name evidence and other relevant historic sources. It provides an up to date historic account of the study area to accompany the HLC maps and database (GIS). It also provides an accessible written format of basic available archaeological information for the general public and nonarchaeologist.



The Project

The Project Area

The study area is located around Swords town and its immediate hinterland. It extends to the Naul Road (R108) in the west, the M1 motorway in the east, the Naul Road which bounds the airport to the south and forms a straight line in an east-west direction, cutting across the townlands of Lissenhall Little, Belinstown, Balheary, Broadmeadow, Saucerstown and Roganstown to the north. In total it occupies an area of 5388 acres (2180 hectares or 21.8² km). There are 46 townlands within the study area (Fig. 1-3).

Geology and Soils

The soils within the study area are mainly grey brown podzolics and gley soils. The underlying geology comprises till of Irish Sea origin with limestone and shale. The bedrock geology for the majority of the Swords area is dominated by argillaceous bioclastic limestone and shale while calcareous shale and limestone conglomerate is located throughout the western extent of the study area.

This geological base has influenced the landscape and development of Swords, the topography, soil, hydrology and vegetation are a direct result of the rock types present. All these factors influence the archaeology or relict landscape as they affect movement, settlement, food sources and land drainage within the study area. They have also influenced the agriculture and settlement pattern within the study area, characterising the present day landscape.

Landscape and topography (Fig. 3)

Every area has its own unique character and identity, combining dramatic contrasts and subtle transitions, rich in variety and providing a diversity of natural and built features and remains. The town of Swords and its hinterland, is an area of contrasts, the historic core and street pattern is integral to the large modern urban centre which is encircled by rapidly developing residential schemes set within undulating agricultural land.

The area of Swords is the administrative centre for Fingal County Council and given its location, a key and strategic area for development. The town has direct links to the national road network, is located on the Dublin/ Belfast economic corridor and located immediately adjacent to Dublin Airport, the gateway to the country. The landscape of Swords is currently experiencing rapid change in response to the pressure to develop. The population explosion accompanied by economic growth, prosperity and relative stability has led to an increase in demand for land for housing and commercial development, changing the natural environment permanently. The very real and immediate challenge for the general Swords area is to manage change and the rate of change while protecting the essential historical character of the past and the natural landscape.

The study area is cut in an east-west direction by the Ward River Valley. The ecclesiastical settlement of Swords was built on the banks of the Ward River and historically rivers have often formed the focus for settlement, trade and transport. The River Valley is now an important amenity area forming a green belt to the south of Brackenstown Road consisting of dense woodland, open greenfields now used as playing fields and sheltered riverside walks. This green corridor creates a rich and varied landscape affording good views from the western end of the study area towards the north and east over the coast. The park provides habitat for a variety of wildlife and has many features of historical and archaeological interest including Swords Castle. The lands associated with Brackenstown House (RPS 364) and former designed gardens (RPS 363 and DU011-030) are located adjacent to the park. It is the intention of Fingal County Council to extend the linear park to Knocksedan Bridge (RPS 367 and DU011-028) through Brackenstown Estate (Fig. 4).

To the north, the low-lying Broadmeadow River forms the second river channel to cut the study area in a roughly northwest-southeast direction. The river is tree lined in parts while traversing agricultural open fields. In a field adjacent to the river and the N1 just north of Balheary Bridge (DU011-081), a previously unknown archaeological complex consisting of two circular enclosures (approx 21-25m diameter) and a possible field system was located on a high ridge, by aerial photography (Fig. 2 and 9). The land to the north of the Broadmeadow is predominantly agricultural in character consisting of arable and pasture fields lined with mature tree boundaries, the site of a former estate, Balheary House, shown on Rocque's map of 1760, is now occupied by Emmaus, a retreat centre. The surrounding lands are still delimited by stone walls enhancing the rural character of the area.

The land between these two rivers rises forming good views over the surrounding countryside. Large residential estates line the Rathbeale Road and further development is anticipated for the townlands of Oldtown and Mooretown, as a local area plan is currently being drafted. Further west in Rathbeale and Saucerstown, while limited linear ribbon development has occurred along the roadside edge, the land remains agricultural in nature with Rathbeale Hall (RPS 338/DU011-014) forming one of the last partially intact demesne landscapes in the area. Development in the form of a golf course, leisure complex and hotel encroaches upon the northwest corner of the study area in Roganstown.

The land between the N1 and M1 motorway is developing largely as retail parks, commercial and industrial centres interspersed with older housing estates and high density residential units now being built. Isolated remnants of historical features remain behind gated entrances such as Lissen Hall (RPS 342) while other archaeological features are preserved by record (a possible ringfort (RPS 343/DU012-015) at Lissenhall Great or have been built over such as the earthwork (DU011-036) at Seatown West. Development has also led to new discoveries such as a cremation burial,

kilns and two subcircular enclosures in the townland of Drinan in advance of the Holy Well development. The former two sites were fully excavated and resolved prior to development while the two enclosures are to be preserved in situ within a green area of the proposed development.

To the south of the Ward River and west of the N1 the majority of the area has been in filled by modern housing estates responding to the demand for additional accommodation. Dublin Airport is located at the southern end of the study and apart from a golf course in Forrest Little the lands adjoining it are agricultural. Cropmarks were also revealed in the townlands of Fosterstown and Forrest Little and may be an indication of previously unknown buried archaeological features (Fig. 2).

The Naul Road (R108) forms the western extent of the study area. The narrow, winding nature of the road lends it self to the historic character of the area, with the walled demesne of Brackenstown and associated features located on the east while a number of interesting and protected structures are located on the western side of the road. At the northern end of the road, the mature double tree lined boundary of Rathbeale Estate enhances the semi-rural character of the area. The line of the road is shown on Rocque's (1760) map. The Motte (DU011-024) at Knocksedan Bridge (DU011-028) at the junction of the Naul and Brackenstown Road is the only upstanding earthen monument left in the greater Swords area – a testimony to the intensive agricultural regime and development of lands which have denuded many earthen features. It is also a reminder of the non visible archaeological presence throughout the Fingal area, even large burial sites and enclosures such as those found at Oldtown and Mount Gamble have no reference in the field or documentary sources.

Two exclusive residential developments have sneaked in along the Naul Road – Knocksedan Demesne and Roganstown –the former would appear to be inappropriately placed in Brackenstown Demesne leading to the break up and parcelling of lands, any further development or proposal for development would have to be carefully assessed if the delicate character of the area is not going to deteriorate any further. The Naul Road forms the highest ridge in the study area peaking at the 75m contour line and providing extensive views to the east (Fig. 3).

Settlement history (Fig. 3)

Settlement in prehistory

The earliest evidence for pre-historic activity near the study area has been identified in the Mesolithic (7000BC–4000 B.C) along the shore of the Malahide Estuary where Larnian flints and shell middens have been found (Stout and Stout, 1992), to the east of the study area. Neolithic (4000–2500 B.C) settlement has been recorded at Feltrim Hill, located to the southeast of the study area during excavations conducted in the middle of the 20th century (Eogan and Hartnett, 1964). A flint core (NMI Ref. 1964:31) was recorded in Drinan townland, and also two flint fragments were found in Swords

Glebe in disturbed soil near the foundations of a wall in the west side of the monastic graveyard (NMI Ref. 1978:11-12). A fine grained, basic igneous rock was the raw material used for a polished stone axe head found in Fostertown North (MNI Ref. 1959:13). In Knocksedan, local tradition records that Neolithic burials were revealed from a mound (DU011-029), although this is not substantiated by associated finds. Recent excavation in advance of development in the former grounds of Mount Gamble House in the town of Swords identified an assemblage of artefacts which include thirty-one flints, one chert and one quartz piece, the assemblage dates from the Neolithic or Early Bronze Age representing small scale flint working (O'Donovan, 2005 Licence Ref: 02E0608).

There is no recorded evidence for prehistoric settlement at Swords, although a handful of prehistoric objects recovered around the town indicate the activity of Bronze Age (*c*. 2400 to *c*. 500 B.C) settlers, these objects include two flat axe's (NMI Ref. 1939:16; E92:335), the earliest type of bronze axe, and a palstave (NMI Ref. 1939: 17), a type of middle Bronze Age axe. Archaeological monitoring on the south side of Church Road has also yielded a shale stone axe rough-out, which, while not found in its original context, corroborates some activity in the environs of the town from the prehistoric period (O'Carroll, 2002). A socketed bronze spearhead was also found in Swords townland (NMI Ref. 1998:48).

Activity dating to the Early Bronze Age is indicated by the presence of partially destroyed ringditches/ring-barrows contained within a large enclosure (visible on aerial photographs) at Newpark, near Swords (Stout and Stout, 1992). A ring-ditch (DU011-080) has been identified from an aerial photograph, located in the townland of Holybanks, the ditch is 14m in diameter with a gap to the northwest. A further ring-ditch site (DU011-047) was identified in Nevinstown West. Excavation in Roganstown in advance of a golf-course and hotel leisure complex revealed a fulacht fiadh and a shallow pit with one sherd of medieval pottery (Dehaene, 2002).

The Ordnance Survey Names Books make reference to a tumulus or cairn called Holy Stud located in the northwest corner of Outlands townland:

'in the road from Swords to Ashbourne there is a loaning into Old Town branches off. I was informed there is the remains of a tumulus or cairn, which was recently destroyed six years since in cutting down the road. Bones were found covered with rolled or beach stones. The remains of Holystud is a bout 4ft high a segment of a circle in shape and when perfect must have been small' (O'Donovan 1843, 167).

While the name *Holystuds* is marked on all of the OS map editions, no monument is recorded on the site.

Excavations at Mount Gamble also revealed a multi-phased cemetery with the earliest phase of burial dating to the Late Iron Age indicating the pre-Christian population of the area (O'Donovan, 2005).

Early Medieval Period 400–1000AD

The archaeological significance of Swords town (DU011-034) is well attested in both the archaeological and historical record. The origin of the town is attributed to the establishment of the church site founded by St Colmcille. The local folk tradition records that when St. Colmcille established his church, he took possession of the pre-Christian well (DU 011-034013), and blessed it. St. Colmcille's well was known as Sord Colmcille, from the Irish word *sord* meaning 'pure', it is the name given also to a pagan spring or well (Joyce, 1995). The well was one of the principal sources of water supply in the town and is can be attributed to the modern day name of Swords.

The association of the early foundation of Swords with St. Colmcille, who appointed St. Finan Lobhar (the Leper) abbot, could suggest a sixth century date for the sites foundation (Gwynn and Hadcock, 1988), however, there are no contemporary documentary sources to confirm this. Three churches have been recorded at Swords, dedicated to St. Fintan, St. Brigid and St. Catherine. It has been supposed that these churches were all located within the present Church of Ireland site with its standing round tower (Dalton, 1839). Alild, Bishop of Swords and Lusk, died in AD 965 (*ibid*, 44), so clearly the monastery was located at this site by the 10th century at least. The round tower, rising to 75 feet high, is the only surviving portion of the original monastic establishment, the medieval church tower, 68 feet high, belongs to a structure which was erected not later than the 14th century. The tower is surmounted by a cross, placed there about 100 years ago.

The principal focus of the Mount Gamble excavation centred on an Early Medieval cemetery which covered an area measuring 15m east-west and 10m north-south. O'Donovan (2003) concludes that the hillock at Mount Gamble was the tribal burial ground for a local population from AD 549–1164. Two hundred and eighty three burials representing all ages and sexes were excavated. Extended inhumation with the head to the west was the predominant burial rite uncovered, however, the earliest burials recorded indicate that the pre-Christian local population were burying their dead on the site prior to the introduction of the new 'Christian' burial rite. There were no clear divisions distinguishing between the areas where men or women were buried, however, the eastern quadrant of the site contained a greater proportion of infants than the remainder of the site (O'Donovan 2005).

The supposed remains of Glasmore Abbey church, (DU011-019) and holy well (DU011-018), are located in Mooretown. St. Cronan purportedly founded a church on the site before the mid 7th

century where he was eventually martyred. However, evidence suggests that this was not the location of Glasmore Abbey, which, according to the Martyrology of Oengus, is situated to the south of Swords and not to the northwest.

'Glassmore is a church near Swords on the <u>south (sic)</u>; whither came the Northerners of Inver Domnann (Malahide) and slew both Cronan and his fraternity one night so that they let no one escape'. (Reeves, 1860).

O'Donovan, in the Ordnance Survey Name Books, recorded that the building known as Glasmore Abbey was pointed out to him by a local man, seemingly the only verification for this location. This was further compounded by its appearance on the Ordnance Survey maps as the location of the Abbey. The Archaeological Survey identified it as a post-medieval building and extensive monitoring and testing (99E0536) in the vicinity of the monument revealed no archaeological deposits or features (Swan, 2000).

The topographical files in the National Museum of Ireland records one stray find for Mooretown townland. The object, a stone mortar (NMI Reg. 1958:80), has been variously interpreted as a holy water font possibly associated with Glasmore Abbey or a mortar from the Medieval or late medieval period.

Adjacent to the abbey site, a holy well (DU011-018) is also dedicated to St. Cronan. Holy wells are a Christian adaptation of a pre-Christian tradition of sacred springs, which, like their pagan predecessors, were often visited at certain times of the year, such as saints' or other holy days, and often had the reputation for effecting cures. There is a growing acceptance among historians that holy wells are often indicators of early ecclesiastical settlement. St. Cronan's well is described as a natural spring well in a hollow marked by a tree, it is no longer venerated and no longer visible above ground. It was formerly a station well and local tradition thought of it as a cure for sore eyes and chicken pox (Stout, RMP Files). There are several holy wells in the vicinity of Swords, Forrest Road in Swords (DU011-037), Crowscastle (DU011-045) Drynam Road (DU012-022) and Slips well (site of) to the south of Swords town (DU011-037) and at Lissenhall Little (DU012-011).

Archaeological testing and geophysical survey has been carried out in Oldtown townland following the discovery of human skeletal remains during the construction of a temporary roadway. The site, which had been unknown, comprised an ecclesiastical complex and associated field system. The ecclesiastical complex consists of three concentric enclosing features one of which constitutes the burial ground of the site. A total of six artefacts were recovered, two of which were found in association with burials and one from a ditch. The artefacts, which are indicative of the latter half of the Early Medieval period, include a perforated

stone bead, a bone pin, a nail/possible pin, an iron blade, a piece of animal bone and a fragment of decorated bone/antler comb. Combined with the consistent east-west alignment of the burials and the artefact assemblage recovered, the evidence indicates an ecclesiastical site of significance dating to the latter end of the Early Medieval period (Baker, 2003 Licence Ref 03E1080). Further geophysical survey has revealed that this site probably continues on the other side of the Rathbeale Road (R125) into Mooretown townland.

The most significant component of Early Medieval secular settlement is the ringfort, the only domestic monument surviving in significant numbers from any period in Irish history. These sites consist of circular areas defined by banks and external ditches, and excavation often reveals associated field systems as well as the remains of dwelling houses and outbuildings for extended families. They are usually situated on gentle slopes in open grassland, with good views of the surrounding area. Dating evidence from excavations place these sites in the period AD 500-1000. The Annals of the Four Masters record that a fortress known as the High Rath once existed at Swords (D'Alton, 1838) although the possible location of such a monument within the present town has not been identified. A number of ringfort sites are located in the following townlands adjacent to the study area Broadmeadow (DU011-079), Cloghran (DU011-046), Forrest Great (DU011-043). In Newtown, a site (DU011-078) has been interpreted as a levelled ringfort with an associated field system. The name of the adjacent townland of Rathbeal may also indicate the former existence of early medieval settlement in the area. Enclosure sites and possible ringfort sites are also recorded at Lissenhall Great (DU012-015 and DU012-012) and at Newtown (DU011-017).

The Vikings at Swords

Swords first became a target of the Vikings, or Ostmen, from the close of the tenth century, and according to the Annals of the Four Masters was attacked and burned by them in 1012 and again in 1016. In 1014 the bodies of Brian Boru and his son, Murchad, were taken through Swords on route for burial in Armagh. The monastery was also plundered several more times from 1020–1166 during which time the village of Swords had become part of the Scandinavian kingdom of Dublin. By 1035 the village had been conquered by the Vikings, under Sitric, King of Dublin, and in retaliation for a raid conducted by the settlers, Ardbraccan was attacked and burned in that year by the then King of Meath, Conor O'Melaghlin (Bradley, 1998).

Medieval-Late Medieval Swords

Swords castle at the northern end of the Main Street was constructed originally in the early 13th century to serve as the archiepiscopal residence. It was designed as a defence against the Irish, particularly the O'Byrne's of Wicklow, who were in revolt in the later 13th century, and was sufficiently extensive to shelter the whole population of the town and their chattels within the circuit of its formidable walls. Manorial in character, it is still completely walled on all five sides. It

has a gatehouse, chapel, and a small mural tower on its northern side. It has several phases of building and its stepped crenellations date to the 15th century (Leask, 1973).

Research and development led archaeological monitoring and excavation has been conducted in Swords in recent years. In 1971 a fourteenth century tile pavement was uncovered in a chapel or oratory adjacent to the castle gatehouse (Bradley 1998, 139). More recently, in 1992, monitoring was undertaken of foundation trenches at 'The Pound' licensed premises on Bridge St, adjacent to the castle. This led to the discovery of the moat or ditch that encircled the outer face of the castle wall, it was dated to the medieval period by the recovery of pottery (Swan 1994, 33). Further archaeological testing adjacent to the castle in 1994 and 1996 did not however reveal further signs of the ditch or any evidence of medieval activity (Channing, 1995, 35; Gowen 1997, 38-39).

Elsewhere assessments at 60-68 Main Street, from the street toward the banks of the Ward River (O'Flanaghan 1995, 35), New Road, adjacent to St. Columba's Well (Swan 1996, 29-30) and at the Old Vicarage (RPS No 362) (Kehoe 1997, 39) revealed nothing of archaeological significance. However, during renovation of the vicarage building itself in 1997 the skeletal remains of up to twelve individuals were uncovered. The remains are believed to be Christian burials pre-dating the construction of the seventeenth century vicarage (Dunne 1998, 61).

Generally, little evidence of medieval activity has been found along the Main Street in Swords. Monitoring of advance works in 1997 at a site defined by 49, 51, 53, 55 & 57 Main Street and 5 & 7 Malahide Road failed to yield any evidence other than possible periodic dumping onto the site in the post-medieval period (Conway, 1997). Similarly, monitoring of a sewer along the length of Main Street in 1998 (Walsh, 2000, 68), and at The Old Schoolhouse restaurant (RPS No 359) (Halpin, 2000, 69) did not identify any deposits of archaeological significance. Monitoring of a development at No 20 and testing at No 38 Main Street did not reveal any features of archaeological significance (Bolger, 2002 and Mullins, 2003) likewise an assessment at Seatown Villa, off North Street did not uncover any archaeological remains. Two sherds of medieval pottery were recovered however at The Star Bar on Main Street/Chapel Lane (McMahon, 2000, 69). Limited testing at No. 3 Main Street, a premises that adjoins the curtain wall of the castle did uncover deposits up to a 1m deep that are medieval in date (Walsh, 2002, 188).

The most recent finds of note include the discovery of medieval burials in the flood-plain of the Ward River in Windmill Lands townland in October 1999 (Brady & Kelleher 2000, 94) and urban medieval activity on the south side of Church Road opposite the Early Christian monastic settlement (O'Carroll 2000, 67–68; 2002, 120–122). Monitoring of topsoil stripping between April 1999 and April 2000 in the townlands of Miltonsfields and Barryspark yielded no features or finds of archaeological significance (Purcell 2000).

The majority of objects of the later period are centred on the monastic site and medieval church at Swords Glebe and include fifty medieval church sherds (NMI Ref. 1974:10), glass beads, tanged knives, a bone pin and a bronze /brass finger ring (NMI Ref. 1969:40-57).

The borough in Swords was one of the most enduring, established by the archbishops of Dublin. An extent of the manor of Swords in 1326 noted that there were then 122 burgesses, and references to burgesses and burgages in Archbishop Alen's register throughout succeeding centuries indicate that the borough continued to function into the sixteenth century (Bradley, 1998). Queen Elizabeth I, in 1578, also granted to Swords a new charter as parliamentary borough, and the village continued to send representatives to parliament until the Act of Union in 1800 (Bradley, 1998).

The Civil Survey dating to 1654-56 records fifteen 'lots' or landholdings within Swords itself, mostly ranging in size from 1 to 80 acres. Many appear to be on the periphery of the town but five are specifically described as being bounded by the town and lands of Swords. These are as follows:

- Bartholomew Russell (papist) 15 acres, arable. On the premise 18 tenements with 'backsides' (i.e. back gardens), intermixed with the town and lands of Swords. One stone house, slated, now out of repair.
- James Dillon (papist) one tenement in Swords
- Patrick Russell (papist) one tenement in Swords with backside
- FitzSymons of Grange, Baldoyle (papist) one acre with one slated hall, three cabins with backsides in town of Swordes.
- Nicholas Taylor (papist) 160 acres, meadow 004, arable and pasture 156. On the premises walls of old stone house, one chaffe house and barn, 15 chaff houses and cabins valued at thirty pounds.

Street Pattern and Development of Swords

Throughout the medieval period the town of Swords consisted chiefly of one long wide street, aligned along present Main Street, which, from medieval documentation, was previously known as High Street (Bradley, 1998). It was overlooked from the west by the medieval church, which was constructed on the same ridge of high ground as the Early Christian monastery of which the most prominent surviving feature is a coursed limestone round tower (*c*. 26m (75 ft) high; basal circumference 16.20m). Much of the medieval churches building materials were used in the construction of the present edifice, St. Columbus Church of Ireland, in 1818, and only the fifteenth-century west square belfry tower of the earlier structure now survive (Bradley, 1998). There were at least two other medieval churches at Swords, one dedicated to St. Brigid and one

to St. Finian. St. Brigids was situated on the north side of the town not far from the gates of the castle, and was in ruins by 1532. St. Finians in comparison was situated on the south side of the town near the glebe house, and was still standing in 1532 (Bradley, 1998).

The developing street pattern in Swords also appears to have been influenced by the circular alignment of the Early Christian ecclesiastical enclosure (Simms & Fagan, 1992), the line of which may be represented in the curving line of Brackenstown Road, Church Road and Rathbeale Road (Bradley 1998). The Early Christian monastery was established on the prominent ridge of high ground bounded on the east and south by a stream, known in medieval documents as Reynen (the Ward River). These streets, and therefore the parish church in the sixteenth century, are thought to have been situated outside the western extent of the town's defences. The towns defences are mentioned in 1578 following an issue of a mandate for the better establishment of the corporation of Swords by Queen Elizabeth I (D'Alton, 1838), at which time Swords is described as one of the walled towns of the county. Bradley (1998) suggests that the linear alignment of the present properties on the east side of Main Street is an obvious line for a town wall, while on the west side the Ward River, provided a natural defence. The extent of the defences on the south side of the town not as clear.

The focus of the Main Street/ High Street is upon the gates of the archbishop's castle. There is a reference in a fourteenth century deed to a lane called Le Camerothe (the crooked road). It ran in an east-west direction and may be the modern Well Road or Seatown Road. A weekly market, located in Main Street was confirmed to the bishop in 1395 but a grant probably existed since late 12th century (Bradley, 1992, 139). The town prospered through out much of the medieval period and was accounted as one of the walled towns on Dublin in 1578 (Bradley 1998, 139).

Post-Medieval Period

The post medieval period accounts for 37% of recorded monuments and is the dominant relict landuse type (65.8%) within the study area. There are several reasons for this occurrence mainly that land enclosure can be traced to the 17-19th centuries and no earlier, the presence of relict demesne landscapes such as Brackenstown, the removal of visible earthen archaeological features by intensive agricultural practices and the significant percentage of vernacular and protected structures dating to the post medieval period. There are thirty seven protected structures or cultural heritage features within the bounds of the study area. The western hinterland is defined by a number of medium and large scale residences that were erected by landlords through out the 17th and 18th centuries, these are shown on Rocque (1760) (Fig. A1). The dwellings are located to the east and west of the Naul Road. From north to south they consist of the following, Rathbeale Hall, an 18th century mansion occupies the site of an earlier building associated in the 16th century with the Blackeney family and the Plunketts during the 1641 rebellion. This and the site of a dwelling are protected and recorded as (DU011-014 and

DU011-015 (RPS No 338)). Local tradition holds that James II was brought to the adjacent townland of Rathbeal while on the way to the Battle of the Boyne (the site of possible fortifications associated with this tradition (DU011-016 and RPS No 378)). The site consists of a series of gullies running NE-SW across a field under tillage and pasture. Considerable quantities of cut stone were exposed during ploughing.

Further south is the site of Brazil House (DU011-086) built by Sir Richard Bolton, Lord Chancellor of Ireland in the reign of Charles I c. 1632-40. Brackenstown House is a protected structure (RPS No 364) while the pond and cemetery associated with the house are also protected under National Monuments legislation (DU011-030 (RPS No 363) and DU011-032 (RPS 375)). A dwelling is also recorded in the townland of Forrest Great (DU011-044) as belonging to Lord Ranelagh, today the foundations of the structure lie to the rear of a large farmhouse.

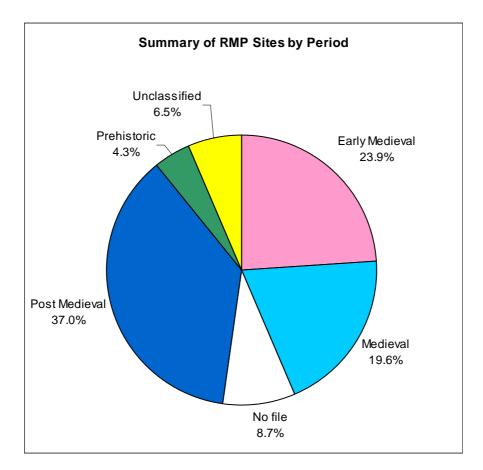
The town of Swords, contains a number of protected structures including the Swords Castle (RPS No 351), Court House (RPS No 350), Carnegie Library (RPS No 346), the Old Borough School (RPS No 357), Sexton's House (RPS No 361), Old Vicarage (RPS No 362), St. Columba's Church (RPS No 360) and St. Columcille's Church (RPS No 356), the old School House Restaurant (RPS No 359), the National Irish Bank (RPS No 372) the Parochial House (RPS No 358, the Mill Bridge (RPS No 352), Accord (RPS No 353) and the Swords Youth and Resource Centre (RPS No 354). These structures define and provide character to the town and streetscape of Swords.

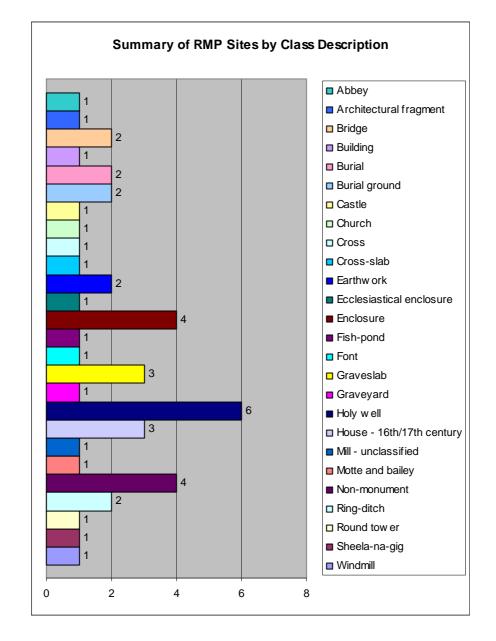
A number of protected bridges are recorded in the study area as the following, Scotchstone bridge on Balheary Road (RPS No 345), Balheary bridge (RPS No 340), Lissenhall bridge (RPS No 341 and DU011-081) and Knocksedan bridge (RPS No 367 and DU011-028). Further protected structures are located off Balheary Road, Newtown House (RPS No 339), the Church of the Immaculate Conception (RPS No 374) while a thatched vernacular cottage (RPS No 344) is located on the Rathbeale Road.

A windmill site, DU011-033, is located on Brackenstown Road in Windmill Lands townlands. On Rocque's map (Fig. A1) of 1760 a windmill, referred to as *Swords Windmill*, is depicted on the site. By the time of the first edition Ordnance Survey map of 1837-43 (Fig. A2) only the stump of the windmill remained and there is no record of the windmill on the 1906 or later Ordnance Survey maps (Fig. A3). A number of windmills are illustrated on Rocque's map in the vicinity of Swords such as at Balheary and outside the study area at Feltrim. A recent excavation on Mount Gamble hill in Swords town uncovered the foundation trenches of a wooden post built early post-medieval Windmill (AD 1400-1600) (O'Donovan, 2005).

Cobbes Hill, the hillock on which Mount Gamble House stood, receives its name from the Cobbes family, an important family who were associated with nearby Donabate. Doctor Cobbe, later Archbishop of Dublin, was by the mid-eighteenth century in possession of the townlands of Lanestown, Haggardstown, Newbridge Demesne, Donabate, Corballis, Baltra (now part of Corballis) and Kilcreagh (Bates 2001).

The following chart is a breakdown by time period of the recorded archaeological sites in the Swords study area.





PART II: PROJECT DESIGN & METHODOLOGY



Methodology

The HLC Process

The project design is essentially a structured data gathering and mapping exercise of the dominant historic influences which define the present day landscape. Consultation played a key role in how the project was approached and the development of strategies to manage the landscape.

Consultation

A range of statutory authorities and bodies, local organisations, interest groups, heritage professionals were consulted during the course of this study. Consultations took a variety of forms including meetings, site visits, presentations followed by discussion, letters, emails and phone calls.

The aim of these consultations was to gain additional information on the historic landscape and archaeological heritage of the study area and to seek confirmation as to the suitability and sustainability of the long term usages for the HLC project for Fingal County Council.

Organisations	Individuals
Fingal County Council	Gerry Clabby, Heritage Officer
Fingal County Council	Fionnuala May, Conservation Officer
Fingal County Council	Marjorie O'Shee, Senior Executive Planner
Fingal County Council	Hazel Craig, Senior Executive Planner
Fingal County Council	Larry Ryan, Chief Technician, Planning
	Department
Fingal County Council	Dominic Byrne, Systems Analyst, IT
	Department
Fingal County Council	Claire McIntyre, GIS Support Officer, IT
	Department
The Heritage Council	Prof. Gabriel Cooney
The Heritage Council	lan Doyle, Archaeological Officer
The Heritage Council	Alison Harvey
Department of Environment,	Tom Condit, National Monuments Section,
Heritage and Local Government	Heritage and Planning Officer
Department of Environment,	Karl Brady, Archaeological Underwater Unit
Heritage and Local Government	
Department of Environment,	Willie Cumming, Architectural Inventory of
Heritage and Local Government	Ireland
Donabate Historical Society	Peader Bates
Swords Historical Society	Bernadette Marks
English Heritage	Graham Fairclough
National Museum of Ireland	Duty Officer

The following organisations and individuals were consulted for information, and advice.

Training

Attendance took place at the Cross Border Stakeholder Workshop held in Carlingford which provided an overview of HLC in Europe and Ireland as well as an introduction to the Carlingford

and Derry (Historic Walled Towns): Emerging Cross-Border Historic Landscape and Seascape Characterisation Study. This workshop provided the opportunity to meet, discuss and exchange ideas with other individuals and experts concerned with characterisation. Personnel involved with the generation of GIS data have also undergone relevant software training.

Sources

The relatively small scale nature of the project, compared to the county scale embarked on by the Heritage Council for Clare or surveys completed by English Heritage allowed a more detailed approach to be taken and a wider range of source material to contribute to the analysis of character types. Field inspection also took place to assess current landuse use and to consider additional influences that were not readily apparent from the sources list below:

Data Sources	Details
Existing Landuse Information	
Study area outline	Predefined study area limits
Ordnance Survey mapping	Current edition (2000) (1:1000 & 1:2500)
	O.S. Discovery Series mapping (1:50,000)
Digital Aerial Photography	2005 (20cm resolution)
	1995 (1m resolution black and white O.S.) (not useful)
Digital Elevation Model	Height information derived from contours
Soils Mapping	GSI Ireland
Geology Mapping	GSI Ireland
Land division (sourced from OS	Townland boundaries
Mapping)	Field boundaries
Pre-existing GIS mapping layers	Development Plan 2005-2011
Local Area Plan mapping	Point data listed as Rathingle, Crowscastle,
	Nevinstown
Planning application mapping	APASS data available since 1992
Google Earth	Visual inspection to supplement digital aerial
	photography & OS mapping
Relict Landuse Information	
Topographical Files	National Museum of Ireland
RMP for Dublin	Archaeological Survey of Ireland, Duchas
RPS data	Fingal County Council
Place names data	Place names, field names and street names
O.S mapping	1 st edition 6 inch scale (1837-1843)
	1935-1938 digital six inch raster
Historical Mapping	Down Survey - 1654
	Rocque - 1760
	Taylor - 1816
Details of previous excavations	Excavations database (www.excavations.ie)
and assessments	

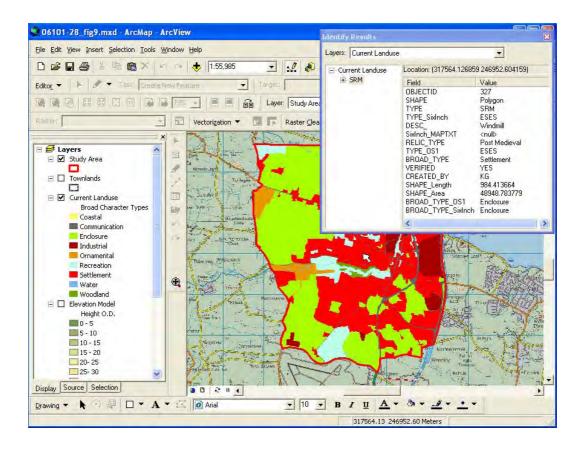
*other sources are listed in the reference section of the report

Creation of a Geographic Information System

HLC mapping and data analysis is managed through a Geographical Information System (GIS). The information is structured by the identification and grouping of archaeological, historic and other environmental attributes attached to land parcels (polygons). This method unlike conventional landscape assessment allows the creation of many different classifications of historic landscape types, each of which are distinct and have a recognisable common character. The distribution of landscape types can be mapped using GIS, supported by written descriptions of the landscape types and historical processes that they represent. This HLC forms a permanent and renewable database that can be utilised to provide information for a variety of planning, conservation and management-led initiatives and strategies.

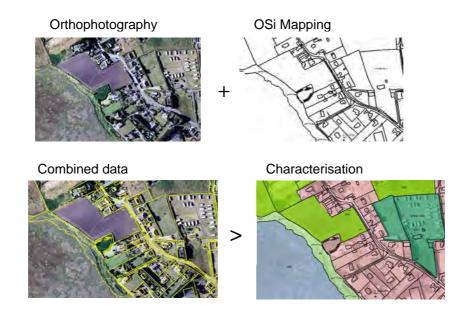
The HLC for the study area was undertaken using ESRI ArcView GIS, enabling the production of a high quality presentation of map information linked to database tables. The information provided by the GIS package has a dynamic output and can be updated and refined when necessary.

The database exists within the GIS. The data attributes attaching to the HLC polygons are stored in a Microsoft Access database file as part of an ArcView Geodatabase file system. The main table in the database contains all the attributes attached to the HLC polygons. This table contains a number of fields which can be analysed and combined together for further analysis (Appendix 1 & 2). Appendix 1 contains a description of each of the database fields.



Characterisation process of current landuse

Modern Ordnance Survey maps (2000) were overlaid with orthophotography dating to 2005 to aid interpretation and verify current land use. The characterisation exercise of the Swords study area was carried out at a map scale of 1:2,500 for rural areas and 1:000 for urban areas. Individual landuse parcels were digitised using this combined data set.

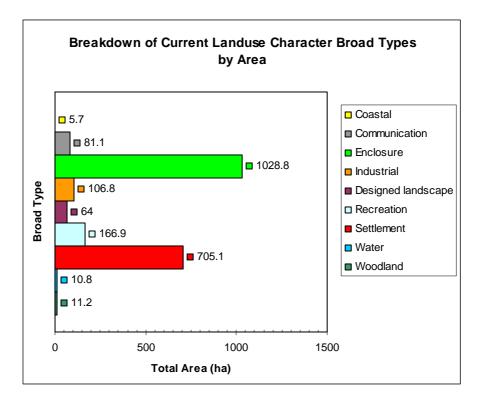


These land parcels were digitised to follow the line work from the OS map layers, this ensured that the data and defined land parcels would relate directly to data previously established and currently used by Fingal County Council, for example the Fingal Development Plan 2005-2011. This data set formed the basis for mapping the present day characterisation process and 9 general categories/attributes (Fig. 5) resulting in 28 current landuse character types (Fig. 6) were generated. The resultant categories were later verified in the field.

Categorisation was achieved by systematically dividing, the Swords HLC area, into areas sharing similar attributes. Classification of these attributes was based on present landuse which was influenced by topography, hydrology, geology, size and shape of the enclosures as well as boundary type, morphology, place name and archaeological evidence. This resulted in the characterisation of 9 broad current landuse broad character types: (Fig. 5)

- Communication
- Enclosure
- Industrial
- Designed Landscape
- Recreation

- Settlement
- Water
- Coastal
- Woodland



The two dominant categories enclosed land and settlement account for 1028.8ha and 705.1ha respectively. The increased provision for road infrastructure is reflected in the communication category (81.1ha), coupled with the growth of industrial facilities along side the road networks (106.8ha). Recreation forms 166.9ha of the study area, while designed landscape (64ha) woodland (11.2ha) and water (10.8) only contribute marginally in terms of land cover, they do contribute significantly in defining the character of the area.

Each broad character type consists of a number of individual current landuse character types. These broad categories were subdivided on the basis of more specific landuses, for example communications involves roads and ESB sub stations while the recreational broad type involves playing fields, amenity land, golf courses and carparks. The amalgamation of the results from the individual land parcelling system creates a larger zone which identifies the broader pattern of historical processes and landuse, and is visually more readable on maps.

While there are 28 landuse character types within the study area, the number encountered will vary given the landscapes encountered and the project objectives. However as there is a common core this allows the transference of data from one area to another and if necessary, for various study areas to be joined together at a later stage. This ensures that this project can be linked to a larger study area, county, regional or even national study if required. Appendix 2 provides a description of the broad and subtype categories while the following table, lists the 9 categories and the 28 current landuse character types.

CODE	SUB TYPE CATEGORY/NAME	BROAD CATEGORY	
RD	Road	Communication	
ESB	Electricity Supply Board	Communication	
ESEL	Enclosure, straight edge large > 16ha	Enclosure	
ESEM	Enclosure, straight edge medium 4 - 16ha	Enclosure	
ESES	Enclosure, straight edge small < 4ha	Enclosure	
EWEL	Enclosure, wavy edge large > 16ha	Enclosure	
EWEM	Enclosure, wavy edge medium 4 -16ha	Enclosure	
EWES	Enclosure, wavy edge small < 4ha	Enclosure	
EMG	Enclosure, market gardening	Enclosure	
SCRUB	Waste land / scrub	Enclosure	
IND	Light Industry	Industrial	
PARK	Parkland / Demesne	Designed	
		Landscape	
	Maadad Daridarad	Designed	
WDP	Wooded Parkland	Landscape	
CAR	Carpark	Recreation	
GC	Golf course	Recreation	
PF	Playing fields and amenity land	Recreation	
HS	Historic settlement	Settlement	
MIX	Mixed use residential	Settlement	
NS	Nucleated settlement	Settlement	
SC	Settlement, cemetery	Settlement	
SM	Settlement, municipal	Settlement	
SCH	Settlement, school	Settlement	
SCOM	Settlement commercial	Settlement	
SRM	Settlement, residential, modern	Settlement	
RIV	River	Water	
INTR	Intertidal	Water	
MARSH	Marsh / Wetland	Coastal	
RG	Rough ground	Coastal	
WD	Woodland, deciduous	Woodland	

When defining the 28 landuse types, various methodologies used in England and Ireland were reviewed and modified to produce the record required for the Swords study area. In contrast to the system used so far in the UK and Ireland, the landuse types were assigned an abbreviated category name rather than a system of letter and numbers. The reasoning for this is that the attribute is easily recognisable and doesn't require constant cross referencing to a legend or key (Fig. 6).

For this project it was decided to establish a land parcelling system based on modern land use and not just to rely on the established townlands divisions. This was carried out after reviewing the size and extent of townlands within the study area and finding that there are 45 medium to small sized townlands, the townland divisions did not reflect how the land was currently being used. However, as the townlands are a unique and recognised central aspect to land division in Ireland, the current landuse broad character types and relict landuse were mapped on a townland basis to compare the results of the two different methodologies (Appendix 5, Figs. A5 and A6).

The average size of a townland is 1.3km² in Ireland. The average townland size within the study area is .68km², roughly half the national average size. The mapping produced for the project, is therefore a more detailed analysis of character types due to the small size of the townlands compared with the study area of a similar size in the Donabate-Portraine peninsula.

The land parcelling system proved to be not as valuable in areas that had experienced recent rapid growth and change due to modern planning decisions. This had the effect of introducing local distortions in the natural development of the landuse character that have no historical reference. For example, a large area that has been recently zoned for industrial use does not represent a landuse that has developed over time.

PART III: THE HISTORIC LANDSCAPE CHARACTER TYPES



Part III THE EMERGING HISOTRIC LANDSCAPE CHARACTER OF SWORDS

Understanding landscape means understanding the underlying cultural processes and political, social and economic influences, this can be generated through a time depth analysis of the landscape character at different time periods. The most important characteristic of landscape is its time-depth, as earlier landscapes exist in the present landscape and the rate of change can be analysed over time.

Part III of the report, discusses each broad type of current landuse, firstly according to the individual time slices listed below, as this offers a more detailed understanding of how human action has shaped the present day environment at specific times in the past, proving an insight into landscape history. For example, through comparison with the Ordnance Survey map of 1837-43 with modern mapping, it was demonstrated that since the mid 19th century the main cause of substantial change in the landscape is the loss of enclosed land and the dramatic impact of increased settlement and urban growth. Secondly, this section of the report examines each HLC broad type, the archaeological features and the processes that have formed and influenced each type on a summary basis providing future management guidelines and strategies to maintain, enhance and safeguard each type.

Time Slices

Time slices are data generated from period based maps demonstrating the influence and survival of the 19th and 20th centuries on earlier landscapes. These maps complement statutory designations such as the RMP and RPS which tend to focus on tightly defined areas and have a rather selective coverage of the 18th-20th century.

The use of GIS allows a wide variety of HLC analyse including time slices at various points in history. For this project, four time slices have been represented. The number of time slices is limited by the amount of accurate historic mapping available for the study area. Mapping is central to defining the modern and relict character landscapes and the presentation and manipulation of results. These results are analysed and interpreted using professional judgement.

Time period	Sources	
Current Landuse	Ordnance Survey 2000 and orthophotography 2005	
Mid 20th century	Ordnance Survey 6 inch (1:10,560) 1935-38	
Mid 19th century	Ordnance Survey 1st ed 6 inch 1837-43	
Relict	RMP, RPS, Topographical file, historic maps, excavations,	
	literary sources, field work	

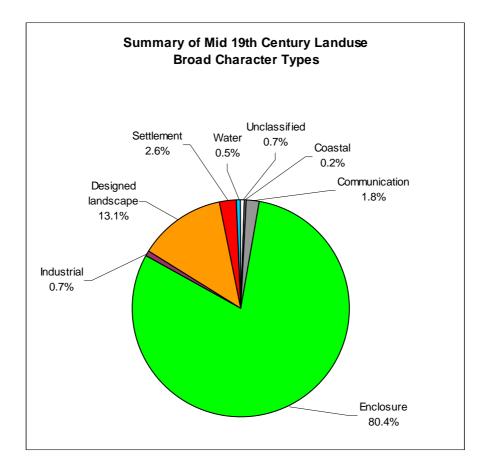
The current landuse character types, as presented in Part II, were applied to the mid 19th (1837-43), mid 20th (1935-38) (contained in Appendix 5 Fig. A7-A10) and relict maps (Fig. 7) to analysis the rate of change of landuse within the study area. The following table charts the percentages of the total land area within each category since 1837.

Broad Type	Mid 19th	Mid 20th	Current
	Century	Century	
Coastal	0.2%	0.2%	0.3%
Communication	1.8%	1.8%	3.7%
Enclosure	80.4%	83.9%	47.2%
Industrial	0.7%	1.0%	4.9%
Designed	13.1%	5.5%	2.9%
Landscape			
Recreation	0.0%	0.0%	7.7%
Settlement	2.6%	5.4%	32.3%
Water	0.5%	0.5%	0.5%
Woodland	0.0%	0.0%	0.5%
Unclassified	0.7%	1.7%	0.0%

This table is significant for establishing the trends of landuse over the last 170 years. It shows at a glance how the break up of demesnes between the mid 19th and 20th centuries led to an increase of enclosed land. It demonstrates that the main acceleration of settlement occurred between the mid 20th and current day, increasing by 26.9% over a 72 year period. Communications, in this case the road network, has doubled over the examined time period. Recreational landuse such as playing fields or designated parks are a recent phenomenon accounting for just over 7% and obviously derived from the earlier enclosed categories. Other categories such as water, coastal and woodland while marginal in terms of landtake are important to the character of the area and the quality of life experienced by the local communities affected by change.

These patterns of HLC types when read in conjunction with the current landuse mapping (Fig. 5 and 6) provide an analysis of their sensitivity, vulnerability and capacity for change, important factors of spatial planning. When combined with the relict mapping (Fig. 7) and heritage data (Fig. 4) this model can begin to guide the appropriate location, scale and type of new development. It can limit impact on the historic environment by identifying key heritage constraints such as, in the case of Swords, the medieval street pattern of Swords Town and Main Street, the identification of a motte in Knocksedan townland, the only upstanding earthen monument in the greater Swords area, the innovative design of Brackenstown Demesne and the rural character of the Naul Road as well as identifying gaps in the archaeological knowledge and assessing the potential of other areas. This knowledge can lead to the promotion of designs which contribute sensitively and positively to the local character, or indeed the development of a new and innovative landscape where historic character is no longer a determining factor.

This holistic approach to cultural heritage issues and the placing of a value on the historic environments in which we live and work can influence the quality and design of new communities with that landscape. The following is an account of each of the broad landuse categories at a specific time period, ie the mid 19th century, the mid 20th century and present day. Each time period is represented by a pie chart showing the percentage landtake of each landuse.



Mid 19th century (1837- 43) (Fig. A2 and A9)

Settlement

Apart from demesnes, Swords is the only town or large scale settlement shown on the map within the study area. Linear property plots (medieval burgage plots) align either side of Main Street forming a nucleated settlement core. The extent of these land divisions is clearly discernable to the east and south and the boundary to the west is defined by the Ward River. The castle dominates the northern extent of the settlement and the ecclesiastical remains overlook the town from the west. The town extends along the Rathbeal Road (R125). Further areas of small historic settlement are located off the principal roads, in total settlement covers 2.6% of the study area.

Communication

The sole use of communication is shown as the road network which emanates from Swords Town, accounting for 1.8% of land coverage. The Dublin-Belfast road which forms the Main Street of Swords must have contributed to the growth of the town centre.

Industrial

There is only one area of large scale industrial activity located in the south-easterly corner of the study area in the townland of Forrest Great. This area was used primarily for quarrying activity. While small scale quarrying was practiced within demesnes, their size and extent is too small to warrant inclusion in their own right. Only 0.7% of the study area is considered to be industrial in this predominantly rural landscape.

Recreation

There are no lands shown on the 1st edition mapping for recreational purposes.

Designed Landscape

This is the second biggest category, and extends over 13.1% of the total lands. Brackenstown, Rathbeale, Newtown, Balheary, Lissen Hall Little and Swords House are all surrounded by designed landscapes. The 1st edition mapping illustrates the different elements that contribute to this type of landscape for example the main house, lodge houses, parkland, ornamental ponds, woodlands, walled enclosures, orchards, private cemeteries and formal avenues.

Enclosure

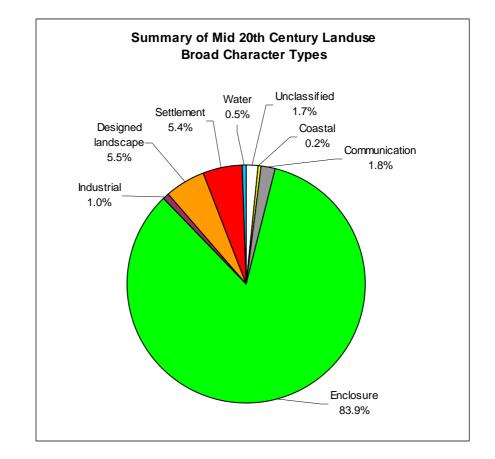
Enclosure is the overwhelming dominant landuse during the mid 19th century accounting for 80.4% of the total land area. The majority of enclosed fields are small and straight edged apart from a few pockets of small wavy edge fields in Fosterstown South, Crowscastle, Forrest Fields, Mooretown and along the Broadmeadow and Ward River. A similar enclosure pattern is shown by Rocque in 1760.

Coastal

Only one area, the Broadmeadow Estuary belongs to the coastal landuse characterisation. The area is negligible in size, accounting for only 0.2%.

Woodland

This category is not represented on the mid 19th century map.



Mid 20th century (1935-38) (Fig. A3 and A7)

Settlement

A more dispersed settlement pattern forms on the mid 20th century mapping. Settlement has increased through out the study area to 5.4% this can be attributed to a relatively stable period in the history of Fingal leading to the construction of large farmsteads and residences along the major route ways into and out of Swords, namely Kilronan House, Fosterstown House, Rathingle House, Great Forrest, Holy Studs House, Newtown House, Lissen Hall, Mill View Cottage, Sunnyside, Saucerstown House and Somerville. The break up of the demesne landscapes often owned by absent landlords and the creation of smaller land holdings characterised by the large farm dwelling during the previous 100 years provides a social commentary on the emergence and creation of the 'middle class'.

The main focus of development is still Swords Town, the two historic elements; the castle and ecclesiastical enclosure are clearly definable. The orientation of Main Street in Swords Town respects the Medieval burgage plot alignment, with properties extending in a perpendicular direction from the Main Street creating a strong linear identity.

Communication

Communication has remained constant at 1.8% of the landtake within the study area. The Main Street of Swords Town is shown as part of the main Dublin to Belfast Road. Swords acts as a confluence point for roads extending in a north, south, east and west direction. This network of roads must have encouraged trade and commerce, helping the town to grow and expand into the commercial and administrative centre it is today.

Industrial

Two large areas of quarry and gravel pits are present at Forrest Great and at Seatown West just south of the marsh land associated with Broadmeadow Estuary. The engine house and reservoir for 'Portrane Mental Hospital' is located in Newtown townland. Industrial coverage of the landscape has increased slightly since the mid 19th century to 1.0%.

Recreation

There are no designated amenity or recreational grounds within the study area however parkland surrounding the demesne and estate houses would have served as extensive grounds for the landholding classes. The Ward River Valley Park is represented as scrub land as the map depicts the area as rough ground with only the occasional tree.

Designed Landscape

After enjoying two centuries of relative economic and political growth and stability since the civil survey records of 1656, the break up of demesnes and the emergence of a different class structure is clearly demonstrated on the mapping evidence from 1837 to 1935. The designed landscape has been significantly reduced, accounting for only 5.5% of the study area, with over half the lands reverting to agricultural land (enclosure). While demesnes are present at Rathbeale, Brackenstown, Balheary and Swords each land holding has decreased considerably in size. Many demesne features are displayed on the mid 20th mapping such as extensive water ways within Brackenstown while the formal planting along the main avenue and mature woodland differentiates Rathbeale Hall from the others.

Enclosure

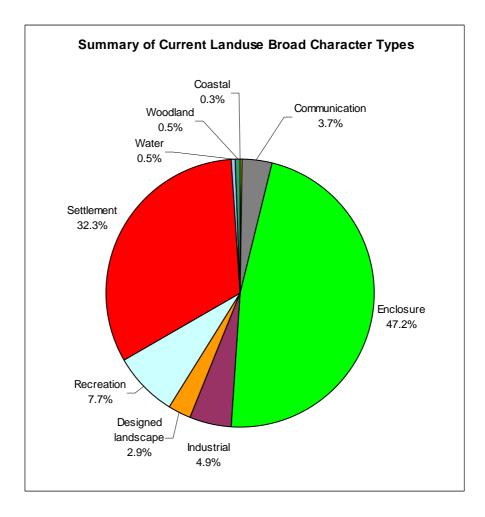
Apart from settlement, enclosure is the only category to have increased in size from the 19th century mapping. This can be attributed to the demise of the designed landscapes. The 20th century map is overwhelmingly dominated by agricultural fields which account for 83.9% of the study area. The field systems are broadly similar to the pattern displayed on the previous mapping however some amalgamation and destruction of field boundaries has occurred. Small irregular field systems characterise the fertile land in the south east (Crowscastle, Barryparks and Miltonfields townlands) of the study area. While the boundaries along the rivers reflect the undulating topography and natural features.

Coastal

There is no change to this category.

Woodland

There is no change to this category.



Current Landuse (Ordnance Survey 2000 and orthophotography 2005) (Fig. 2, 5 and 6)

General

The dominant character types in the study area are enclosure (47.2%) and settlement (32.3%) with isolated areas of recreation (7.7%) and industry (4.9%). After the break up of the designed landscape between the mid 19th and mid 20th centuries only 2.9% of the study area remains demesne land. Coastal (0.3%), woodland (0.5%) and water (0.5%) landuse character types are negligible in land cover, however the Ward River Valley which bisects the study area consists of a wooded river valley parkland, an important amenity and central to the characterisation process of the area.

Settlement

Settlement has increased by 26.6% in the last 75 years to represent 32.3% of the total land cover of the study area. This illustrates the rapid development of the Swords area from an historic settlement to a proliferation of modern suburbs and residences. The main spread of residential development has been to the west, north and south of the Ward River Valley while the N1 has curtailed housing development to the east. Nucleated settlement in the form of one off housing, small residential schemes and ribbon development is located on the roads to and from Swords town such as Forrest, Brackenstown, Rathbeale and Balheary Road. High density housing scheme are currently under development in Drinan.

Communication

The development of the road and motorway network has assisted the growth of industry to the east and provided access to and from housing estates to the west of Swords Town. Roads now cover 3.7%, double the land area previously recorded.

Industrial

The land between the N1 and M1 has largely developed as industrial and retail parks, for example the Airside Centre, light industry and mixed use. This accounts for 4.9% of the study area.

Recreation

The Ward River Valley Park dominates the centre of the study area and provides an amenity walkway to the rear of properties of Main Street linking parkland to the north of Swords town with open fields and woodland to the south. Swords castle is surrounded by parkland reflecting the townland name of townparks. Amenity areas in the form of golf courses are located on the edge of the study area in Roganstown and Forrest Little. New housing developments include open spaces for recreational use. This land use accounts for 7.7% of the total land cover within the study area.

Designed Landscape

Remnants of demesne lands are present off the Naul Road at Rathbeal and Brackenstown but these have experienced encroachment from residential housing and the break up of lands into separate land holdings. They now only represent 2.9% of the survey area. The unusual shape of Brackenstown demesne and townland includes a fish pond that is readily recognisable on the map.

Enclosure

In the last 75 years enclosed agricultural land has decreased by 36.3%. The western section of the study area is still predominantly agricultural in nature. The majority of field systems are regular in shape reflecting the intensive farming nature of the land. Irregular field patterns occur on either

side of the Broadmeadow River reflecting the natural topography. Market gardening is present in the southwest corner of the study area.

Coastal

The Broadmeadow Estuary clips the eastern edge of the study area immediately south of Lissen Hall House and grounds and only consists of 0.3% of the study area.

Relict Landuse Type

The initial stage of the HLC was to identify landscape attributes used to define the landuse character types (Fig. 5 and 6) and to map them digitally leading to a systematic assessment of the study area. Historic landscape character types are defined and land parcels are assigned to the type which best fits it modern landuse character. Distinct patterns of landscape character that have a broadly common history and a tangible heritage are identified as historic landscape character types. The relict landscape is produced by assigning the dominant historic time period (relict landuse) to the newly digitized land parcel (Fig. 7). Polygons of the same categories sharing common boundaries join together to form zones to simplify and extend the information (broad character types).

The categories reflect the dominant relict landuse and while specific periods such as the Mesolithic (7000BC-5000BC), Bronze Age (2500BC-500BC) and the Iron Age (600BC-400AD) are not represented on the map it does not mean that these time periods are not present within the study area just that there was not sufficient data to generate an individual category. Also where a specific date could not be obtained two categories were added Prehistoric (7000BC-500AD) and Unclassified.

Туре	Date
Prehistoric	7000BC-500AD
Neolithic	4000BC-2500BC
Early Medieval	500BC-1100AD
Medieval	1100AD-1534AD
Post Medieval	1534AD-1900AD
None Not of archaeological significance - through test excavation	
Unclassified	Of archaeological significance but the date remains undefined

The relict landuse type maps the archaeological and historical activities that are perhaps abandoned but have left a significant physical trace (and in some cases no visible trace) on the landscape, for example earthen monuments, buildings, field systems. It reflects the major time periods that left the most dominant and significant trace in today's modern landscape. This analysis is based on existing available information taken from the Record of Monuments and Places (RMP), Record of Protected Structures (RPS), stray finds from the topographical files, historic and OS mapping, placename evidence, excavation database and archaeological geophysical surveys undertaken in the study area (Appendix 3).

The detail and level of the characterisation is partly dependent on the number and type of sources assessed for the project and the information that can be gained from these sources to further advance the characterisation of an historic component of a particular area. In cases where the dominant form was equally divided across different time periods, the rarity value of a monument, stray find or structure was taken into consideration. By choosing a rarer site the diversity of the selection for the historic landscape is thereby enhanced.

While the RMP accounts for the majority of information of sites from the Early Medieval period onwards, such as ringforts, tower houses and churches, it was the stray finds (NMI files) found by field walking or by accident and recent excavations that gave the study area a prehistoric presence and significance. It is not surprising that the RPS, focuses on the post medieval period, protecting structures such as vernacular farm houses, bridges and demesne features. When defining an area; other information such as place and townland names and historic maps were taken into consideration. Through excavation the shape of the relict map will be subject to change as additional features are revealed and become the dominant historical character within a land parcel. It is important to note that the HLC process is not static but a dynamic process as newly revealed archaeological features constantly redefine our knowledge of particular landscape.

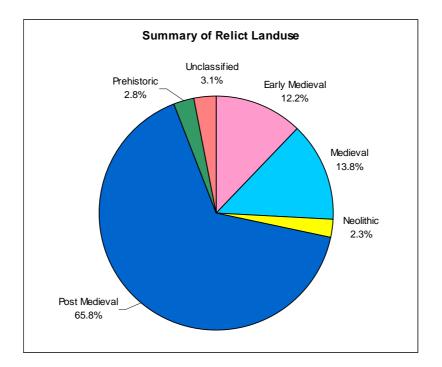
The relict map has to be interpreted with care as designation is dependent on available archaeological information and is contingent with the findings of excavations. Categories have been mapped based on an interpretation of data (professional judgement) and existing archaeological and historic information of the study area. With the accumulation of further archaeological information, the relict map will be subject to change, for example, an area shown as post medieval may still contain significant unrecorded remains from earlier periods. A review of orthophotogaphy (2005) (Fig.2) for the Swords area, revealed cropmark features in the townlands of Balheary (Fig.9), Fostertown South and Forrest Little, suggesting an earlier buried archaeological presence. These areas have been marked as unclassified on the relict map as further work will be required to assess the nature of the cropmarks. As information becomes available it can be fed into the database and the accompanying mapping can be updated accordingly.

The extent of the relict landuse categories depend upon the pre-existing current landuse character type boundaries and in the case of townlands, the townland boundary. In certain cases, where it was considered possible that the archaeological/historic features could have influenced adjacent land parcels (current landuse character types) or townlands they were attributed with the same time period and land parcels and townlands were amalgamated.

It is important to realise that the boundaries of relict landuse have been influenced by modern landuse. For example, the extent of the Early Medieval landscape in Crowscastle, Barryspark and

Drinan townlands has been defined by the development of a large scale high density housing estate named Holywell or the Post Medieval landscape of Mantua, Greenfields and Seatown East has been heavily influenced by the very recent industrialisation of the area.

The mapping of relict landuse types provides the most detailed and objective representation of the historic and archaeological character of a given land parcel and townland. It captures both the historic process explaining the present day framework of landuse and the most significant historic archaeological components underlying this framework. In this sense it provides a time-depth to the characterisation of the historic landscapes reflecting the surviving character of the present day landscape. The following is a summary of the dominant archaeological time periods represented within the study area.



Post Medieval Period (1534AD-1900AD)

The relict map for the study area is dominated by the Post Medieval period (65.8%), this is due to a combination of the following:

- Land enclosure taking place in the 18th and 19th centuries
- The presence of relict demesne landscapes which have removed any visible traces of earlier features, such as Brackenstown
- Removal of visible earthen archaeological features due to intensive agricultural practices
- High percentage of vernacular and protected structures dating to the post medieval period

The Post Medieval period is dominant on land which does not have recorded or designated archaeological sites. Presently it characterises the majority of the western study area but this will be subject to change with further archaeological investigation.

The Abbey of Glassmore (DU011-019) and St. Cronan's Well (DU011-018) are situated south of the Rathbeale Road. Even though St Cronan purportedly founded a church on the site before the mid 7th century, the area has been assigned a post medieval category as The Archaeological Survey identified it as a post-medieval building and extensive monitoring in the vicinity of the monument revealed no archaeological deposits or features.

Medieval Period (1100AD-1534AD)

The medieval period represents 13.8% of the total study area and is derived from recorded upstanding masonry remains of castles, churches and graveyards at Swords town and from excavation information in Miltonfields and Barryparks and at Roganstown. This medieval influence appears to spread to the along the Ward River, as six medieval burials were excavated from the southern river bank in 1999 (99E0554) in Windmill Lands.

A number of holy wells are present south of the Malahide Road (R106) and north of the new Airside link road to the M1 motorway, while the date of these holy wells is uncertain (DU011-045 and DU012-022) the area has been designated medieval in character as both wells are associated with St Werburgh.

Early Medieval (500BC-1100AD)

Earlier ecclesiastical centres at Swords and possibly at Oldtown, enclosures and possible ringforts in Newtown and Broadmeadow and dating evidence from excavations at Drinan have all influenced the Early Medieval category which encompasses 12.2% of the land cover.

The ecclesiastical enclosure (DU011-03402) of Swords was assigned an Early Medieval date while Swords Mains Street and the castle site (DU011-03401) were assigned a Medieval date. At Mount Gamble, shown as Cobb's Hill on various Ordnance Survey mapping editions, further Early Medieval remains, namely burials, were excavated (02E0608).

The new mixed use development at Holy well has been assigned an Early Medieval date after archaeological monitoring and excavation (03E1362) revealed one isolated pit and two small prehistoric sites and one large Early Medieval enclosure which has been preserved in situ and will form part of a green space within the current development.

Prehistoric (700BC-500AD)

A general category entitled Prehistoric was applied to sites and finds dating from 7000BC to 500AD encompassing the Neolithic, Bronze Age and the Iron Age. Two possible barrow sites from Newtown and Nevinstown East and recent excavation works in Roganstown were attributed to this category and cover 2.8% of the study area.

Neolithic (4000BC-2500BC)

The topographical files from the National Museum of Ireland document a stray polished stone axe to the townland of Fostertown North which formed the basis for the Neolithic (4000BC-2500BC) category (2.3% of land cover), while this was not the only Neolithic find through out the study area, it was certainly the only one to dominate a land parcel.

Unclassified

The 'unclassified' category accounts for 3.1% of the study area and defines areas, where previously unrecorded cropmarks have been revealed through aerial photography such as, at Balheary (Fig. 9), Fostertown South and Forrest Little (Fig. 2). These areas require further assessment to determine their archaeological nature. At Balheary, two circular cropmarks and a possible field system was identified on a high ridge overlooking the M1 motorway. In Fosterstown South and Forrest Little, a possible ring barrow was identified in close proximity to a stream and a further enclosure and field system were documented.

None

The 'none' category is not reflected within this study area.

Predictive modelling

The Record of Monuments and Places (RMP) draws information from a number of different sources, however it must be noted that the RMP while a valuable resource reflects the pattern of discovery more than the extent of the archaeological resource and the historic environment. By attributing a time-depth analysis to each land parcel, HLC offers an understanding of the potential archaeological and historical features within each HLC type.

By filling in the 'gaps' between recorded monuments and features and taking an holistic approach to landscape, the potential to reveal new or associated sites and features and the emerging distribution pattern of monument type is better understood. With an interactive GIS system at the fingertips of planners of various departments in the county council, the historic environment can be taken account of with regard to spatial planning so that distinctive and special characteristics, that may have been overlooked by other methods or recording or simply not recognised are noted early in the planning process. Mapping generated for the HLC project can complement the Fingal Development Plan 2005-2011 and Landscape Character Areas mapping (Figs. A11 and A12) already generated by the County Council.

By having a GIS based dataset, the information contained within it can be applied in many different ways to answer specific queries. For example the aspect model of slope (Fig. 8) was generated from the digital elevation model (Fig. A4) which was based on the height information provided by Fingal County Council and shows the direction of slope. This information is useful as historically, settlement favours sheltered south facing slopes. This digital data can be used in conjunction with the recorded monument information (Fig. 4), to ascertain the location and a description of the site, the height at which it is located and its aspect. Information such as this in association with other reference layers such as a soil or geological map or geophysical survey information can be used in order to predict with greater certainty where additional below ground archaeological sites may be located or potential archaeological sensitive areas. Other combinations of data sets such as the recorded archaeological and historical sites (Fig. 4) with the 1st edition OS six inch mapping (1837-43) or the OS six inch 1935-38 edition can also be used to obtain further information of the derivation and context of sites.

Two viewshed models were created for the study area based on information that was generated for this project. The first centres around the new revealed cropmarks located on a high ridge in Balheary townland (Fig. 9). Views from this site extend towards the coast and to Swords town, the site overlooks, the N1, an important route way and the Broadmeadow River. The position of the potential site can be considered to be of strategic importance. Other Early Medieval sites are visible from this potential site.

Geophysical survey at Oldtown and Mooretown revealed an extensive subsurface enclosure with burials, the view from this site extends north and northeast over the Broadmeadow River (Fig. 10). The majority of sites that are visible from the Oldtown area are Early Medieval in nature. These models demonstrate how the material gathered for the HLC project can be manipulated to answer certain archaeological questions such as the indivisibility between monuments types and the date of monuments that can be viewed from these sites.

An overview of HLC findings

The following is an account of each HLC type, the archaeological background and the processes which have formed it. Sources used for the identification of archaeological and historical components are acknowledged while key and significant aspects contributing to the character of the area are also discussed. Measures for maintaining, safeguarding and enhancing each individual historical character and any aspects of the landscape of special importance and therefore deserving special protection are considered.

COASTAL



Aerial view of rough ground and the Broadmeadow Estuary

This HLC type consists of two subcategories, wetland and rough ground and is only present at the mouth of the Broadmeadow River. The area is protected and subject to flooding. Historically, Lissen Hall demesne (RPS 342) is located north of the estuary and Lissenhall Bridge (RPS 341) delineates the coastal area from scrub land and nucleated settlement.

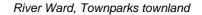
Future management guidelines and strategies to maintain, enhance and safeguard the coastal HLC type

The extent of the coastal environment is extremely limited within this project area, however the protected Broadmeadow Estuary and associated marshland should be carefully managed to ensure that no ecological damage occurs to this sensitive ecosystem.

It is essential that all upstream development on the Broad Meadow and Ward rivers (see water HLC type) should take cognisance of the delicate and protected coastal ecosystem and that any future development should be sustainable employing flood and pollution management strategies.

WATER





This category includes the rivers, natural water features and the intertidal zone. It accounts for 0.5% (10.8ha) of the study area, and has remained unchanged on the Ordnance Survey maps through out the 19^{th} and 20^{th} centuries.

The study area is defined by two major river systems; the Broadmeadow in the north and the River Ward which flows through Swords Town. Small streams and tributaries are located to the south of the study area, flowing through the townlands of Fosterstown, Forrest Little and Nevinstown East and West.

The study area is cut in an east-west direction by the Ward River Valley. The ecclesiastical settlement of Swords was built on the banks of the Ward River and historically rivers have often formed the focus for settlement, trade and transport. Swords was strategically placed to avail of the natural resources such as the river and the view to the coast and to take advantage of possible trading routes.

The River Valley is now an important amenity area forming a green belt to the south of Brackenstown Road consisting of dense woodland, open greenfield now used as playing fields and sheltered riverside walks. This green corridor creates a rich and varied landscape affording good views from the western end of the study area towards the north, east and out over the coast. The park contains many features of historical and archaeological interest including Swords Castle. The former designed gardens of Brackenstown (RPS 363 and DU011-030) located adjacent to the Ward River, harnessed the power of the river for elaborate features such as canals, drainage and water features through out the estate.

The River Ward is exceptional in supporting Atlantic salmon (*Salmo salar* Annex II of the EU Habitats Directive) in addition to resident brown trout (*Salmo trutta*) populations. These characteristics highlight the sensitive nature of the Ward catchment area. Salmonid water constraints apply to any development in this area.

To the north, the low-lying Broadmeadow River, forms the second river channel to cut the study area in a roughly northwest-southeast direction. The river is tree lined in parts while traversing agricultural open fields. In a field adjacent to the river and the N1 just north of Balheary Bridge (DU011-081), a previously unknown archaeological complex consisting of two circular enclosures (approx 21-25m diameter) and a possible field system was located on a high ridge, by aerial photography (Fig. 9).

Further possible archaeological sites were detected on land adjacent to a stream in Forrest Little and Fostertown South townlands in the south of the study area. These features were identified as cropmarks from aerial photography and present as a small circular feature approximately 18m in diameter along with two larger enclosing elements with possible associated field systems. The location of these potential archaeological complexes in both cases near rivers and streams in strategic positions demonstrates the potential for revealing sites and features in these environments.

Future management guidelines and strategies to maintain, enhance and safeguard the water HLC type

Special consideration needs to be paid to water edged features, be they riverbanks or on the side of man-made water bodies. These areas are the most sensitive to change, through erosion or through exposure during periods of drought or flood and potentially contain the greatest density of historic and archaeological features. For example, improvement works carried out along the Ward River in Windmill Lands townland by the County Council (1999), revealed skeletal remains protruding from the river banks. Excavation of these remains revealed six medieval burials (Brady & Kelleher 2000, 94).

Also watercourses and riparian zones should be left in their open natural state in order to prevent habitat loss and aid pollution detection. The designation of lands adjacent to salmonid systems such as the Ward River as areas of open preservation will enhance the biological diversity while providing open space for recreational use (see recreation HLC type) and should be considered.

Improved management of the river corridors, establishment of good practice guidance and archaeological monitoring should be maintained when working along waterways. The considerable potential for buried and hidden archaeological remains within and below alluvial deposits to be revealed should be communicated to different sections of the county council

carrying out work in riverine environments. Awareness raising and talks on archaeological findings and ecological considerations (conservation and heritage issues) with all departments charged with carrying out work along riverine environments should be considered.

Best management practice should be implemented at all times in relation to any activities that may impact on riverine and riparian habitats. Any planned discharges to surface streams must not impact negatively on rivers. The design and construction of any surface water outfall chamber to either river in the study area should be implemented in an ecologically sound and fisheries sensitive manner.

It is essential that sufficient treatment capacity is available both within the receiving sewerage system locally and downstream at the relevant waste water treatment plant in order that the ecological integrity of the water is protected.

A buffer zone of undisturbed land between proposed developments and the river banks should be put in place to ensure that the disturbance of riparian habitats are minimised. The retention of vegetation in as natural a state as possible at all times is preferable for the ecological habitats.

It is recommended that the 'Requirements for the Protection of Fisheries Habitat during construction and development Works at River sites' be consulted when developing adjacent to the two rivers, the Ward and Broad Meadow and their tributaries in the HLC area.

COMMUNICATION



View towards Church Road

It has been documented since the post medieval period and shown on maps (Rocque, 1760, Fig. A1) that the town of Swords has been well served by a network of roads. This has contributed to the growth and stability of the town.

This HLC type mainly comprises of a network of roads and an electricity supply board station at Outlands. The motorway (M1) which bounds the study area to the east is located further east then the existing N1 and the land in between these two routes is being used for an industrial purpose. The increase ((1935) 1.8%- (2005) 3.7%) of the communications HLC has been brought about by the formalisation and upgrading of the road network. However, sustainable and alternative transport modes to the road infrastructure are vital for the future and economic success of Swords Town. The proposed Metro as well as pedestrian and cycleways will contribute to traffic calming along some of the busy and congested streets of the town. For example a decrease in traffic volumes within the historic Main Street of Swords would enhance the architectural heritage and characteristics of the town.

The N1, was originally the main Dublin to Drogheda, an important route way. The route is mapped on Rocque's (1760) map, which shows the key location of Swords. Other roads which were formalised over time as the R125 (Rathbeal Road), R108 (Naul Road) and the R106 (Malahide Road) as well as a number of local roads are also shown on Rocque's map.

These access ways were bridged in a number of key locations, Knocksedan (RMP DU011-028, RPS 367), Balheary (RMP DU011-081, RPS 340), Lissenhall (RPS 341) over the Ward and Broadmeadow rivers.

Future management guidelines and strategies to maintain, enhance and safeguard the communication HLC type

While the modern communication network such as the N1 and the M1 around Swords do not contain an historic time depth, the land through which proposed roads or linear transport links such as the Metro will pass will have to undergo archaeological investigation prior to construction.

To date a number of investigations have taken place in advance or during the construction of road and motorway schemes. The most extensive of these have been the following:

The M1 which defines the eastern extent of the study area was archaeologically investigated in advance of construction. Licences were taken out from 1999 to 2001, and a number of sites were investigated namely:

Belinstown (NGR 319428 248445) (99E0545) - complex Site 5 Lissenhall Great (NGR 319428248445) (99E0546) - earthwork Site 6 Lissenhall Great (NGR 319185247817) (99E0547) - earthwork Lissenhall Little (NGR 319126249686) (00E0953) – possible enclosure

All these sites were found not to be archaeological in nature. Lissenhall Little was further investigated in 2001 (01E1074) and flint (struck and unstruck) flakes, medieval pottery sherds and a few sherds of prehistoric pottery were revealed.

During construction for a local access road to a school in the townland of Oldtown a number of bones were revealed. This area was further investigated by geophysical survey and testing and found to extend archaeologically over 90ha. A double enclosure measuring 200m and 70m in diameter as well as 16 burials were revealed. These features were retained in situ and the road rerouted to avoid the enclosure.

The above findings demonstrate the necessity to archaeologically investigate road schemes in advance of construction. It is only through test investigation and excavation that the extent, nature and significance of previously unknown sites is revealed or that other potential sites that have been identified through aerial photography can be discounted as natural anomalies and not archaeological in nature.

The historic fabric of the road network as shown on Rocque's (1760) map and the 1st edition OS should be noted when upgrading or maintaining routes. Any future road developments such as the Swords Western Bypass, within the study area should take account of the existing historic environment and strive to minimise any disruption to the historic character especially along the Naul Road (R108) which is defined by the designed parkland, large farmsteads and historic houses.

Due to the scale of the HLC project, other transport forms such as bus corridors, pedestrian or cycleways were not detailed as part of the communication HLC type. However, there is a general acceptance that the sustainable development of our towns requires a reduced dependence on private cars which requires investment in high capacity schemes such as the Metro.

The provision of a high quality Metro infrastructural project to support the existing public transport system is central to the sustainable development of the general area of Swords. However, it must be recognised that major transport infrastructure can have significant archaeological implications which have to be addressed. For the HLC project, aerial photography identified potential archaeological remains in green field environments at Balheary and in Fostertown South through which the proposed Metro route will travel (Fig. 2 and Fig.7).

With changes in the existing road network and the closure of minor roads, alternative functions for these roads could be put forward for consideration for linking new areas of development – such as shared transport initiatives or cycle routes. Methods of traffic calming should be considered in new residential developments.

The protected stone bridges through out the HLC Swords study area at Knocksedan, Balheary and Lissenhall are the only functional structures associated with road building that have an historic interest or a time depth dimension. Priority should be given for their maintenance.

ENCLOSURE



Large field systems at Oldtown

In Leinster the system of land enclosure tends to be larger then the rest of the country (Aalen, 1997). Field systems are bounded by hedgerow and bank and ditch formations. The majority of land was held historically in estates or demesnes giving rise to designed parkland with estate walls and ornamental wooded areas. Elements of these designed landscapes survive today while the rest of the study area has been divided in to small and medium sized fields with the occasional large field system present. For the purposes of this project the size of this system of enclosure or field systems have been classified as the following –

Small – less then 4 hectares

Medium - 4-16 hectares

Large – greater then 16 hectares

Land enclosure/boundaries can take many forms, natural tree/scrub lined boundaries, bank and ditch, walled, stonelined, rivers or coastal boundaries. The layout and field pattern for this project have been defined as straight edge large, straight edge medium, straight edge small, and irregular edge large, irregular edge medium and irregular edge small.

Enclosed land comprises the most extensive HLC type in the study area (47.2%). Its main use is for agriculture, arable farming and market gardening. Straight edged medium (4-16ha) and straight edged small enclosures (<4ha) dominate the study area. Irregular edged fields are present along the Broadmeadow River and in Fosterstown South and Forrest Little along side a small tributary of the Ward River. These fields tend to be large (>16ha) to medium (4-16ha) in size and have obviously been amalgamated and opened up over the years. The majority of irregular edge fields are a result of natural processes such as rivers, these types of enclosures can also be helpful to define more ancient enclosures as kinks or irregular field patterns may reflect

boundaries associated with buried (relict) archaeological features. Other small wavy or irregular field patterns may reflect small land holdings on marginal land.

Market gardening is synonymous with the north Fingal area, historically Fingal has been referred to the bread basket for Dublin and the wider area and has been intensively farmed for the production of crops. This forms part of the basis for the straight edge medium enclosures located in the townlands of Brazil and Forrest Great.

Much of the land within the study area was originally enclosed by improvement minded landlords, such as, Brackenstown, Rathbeale, Newtown and Balheary. While the land of these demesnes have different functions today, it still preserves elements of the original estate such as mature woodland and stone walls and adds an historic dimension which is significant to the character of the study area.

The HLC procedure did not assess the nature of smaller landscape features such as individual houses, barns or features such as pylons, ESB poles or street lighting elements, well or water pumps, that can have a significant impact upon the appearance and condition of a semi-rural landscape.

Future management guidelines and strategies to maintain, enhance and safeguard the enclosure HLC type

The importance of this extensive HLC type accounting for just under half of the landuse within the study area (47.2%), and affecting the appearance and use of the landscape should be taken into consideration when planning for new development and determining planning applications. Land division types and boundary type such as mature tree line, bank and ditch, hedgerow or stone wall has never undergone a systematic programme of research or survey within the Fingal area to identify its (historic) heritage assets from a build heritage and historic landscape viewpoint. A survey into the methods of enclosure may be helpful to recognise the diversity in boundary type, their period, rarity in the record, survival and condition, vulnerability and potential within the modern day landscape.

Intensive agricultural practices have led to field amalgamation and the partial break-up of field and townland boundaries ensuring that the majority of fields are either 4-16 hectares (medium) or greater then 16 hectares (large) (Fig. 6). It is important to enhance the public and landowners perception of the role, function and importance of natural and historic boundaries and how they reflect on the historic character of the landscape. The role of humans in the creation and management of enclosed land is not well appreciated and often overlooked, opportunities for increased and improved interpretation should be sought.

Where possible the maintenance of small irregular fields and hedgerows should be encouraged as historically they represent the oldest type of land division and attract a great diversity of wild life and songbirds. The fields tend to be smaller in Lissenhall Little, Balheary and Balheary Demesne and Newtown to the northeast of the study area and Nevinstown East and Marshallstown in the southeast. This may be a reflection on clusters of nucleated settlement, probably farmhouses associated with small local land holdings in both areas. This is in direct contrast to the large open fields at Brackenstown, Fosterstown South and Oldtown.

A substantial loss of original scrub and bank and ditch boundaries has been seen within the HLC area due to development – commercial and residential. Only a few open space areas within residential development have incorporated and retained townland or field boundaries such as the green areas between Glen Ellen and Sandford Wood or between St Cronan's Estate and Elmwood or Abbeyvale and Berwick. Other developments such as Roganstown and Ridgewood have incorporated townland boundaries to the rear of the property plots. Forrest Little golf course also retains the vast majority of its townland boundary. The incorporation of townland or essentially intact field boundaries that form a focus in the landscape, for example along the Broadmeadow River, should be considered for incorporation where possible (see water and recreational HLC types).

Work, dependent on the landowner's permission and understanding of the importance of the historic boundaries could take place on the retention and where appropriate the restoration of distinctive boundaries such as those that delineate the Brackenstown Estate or Rathbeale townland from Mooretown or the stone wall which encloses Balheary Demense townland. The authorities should encourage management regimes that promote the maintenance of existing field boundaries and encourage replacement planting, the clearance of ditches and the maintenance of hedgerows where necessary.

Large amount of enclosed land now currently used for agricultural practices may also preserve relict archaeological features not yet revealed due to their eroded nature. Even with hundreds of years of agricultural activity there is a significant potential to reveal archaeological sites and deposits, further altering the HLC relict map and adding to the cultural heritage knowledge of the area. When assessing the cultural heritage nature of an area prior to development the historic nature and shape of field boundaries should be identified as they may act as an indication for further buried archaeological features. Cropmarks have been identified in large and irregular edged fields in Forrest Little and Fosterstown, the cropsmarks appear to predate field boundaries shown on Rocque's map of 1760. A small circular feature (approx 18m in diameter) is present beside a stream while two further larger enclosures with adjacent field systems are located through out the fields. Relict features associated with Brackenstown Demesne can also be traced on the orthophotography (2005).

Further work is required on the nature of historic boundaries and how they survive in the modern landscape. Many of the large houses associated with large land holding in the past have been removed from the landscape or exist as ruins, for example Brazil House (RMP DU011-086) or Forrest House (RMP DU011-044, RPS 631). The interactions between historic farm buildings and associated land needs to be developed, examples could be taken from the Balheary or Saucerstown House. This information can be used to guide future management practice and put in place appropriate conservation proposals.

Encourage the maintenance of boundaries such as walls, hedges, ditches and associated structures such as gate posts, gate and stone stiles that are part of demesne landscapes or estate houses. This will be essential for maintaining the character of the Naul Road (R108) and distinguishing it from elsewhere in Fingal.

INDUSTRIAL



Recent development - retail parks

There are two sub categories within the industrial HLC, light industry and sand and gravel pits, this HLC type accounts for 4.9% of the study area. Business and industrial parks such as Airside Business Park are located in between the exit and access points of the motor way and the N1. Historically, sand and gravel pits are shown on the 1st (1837) and 1935 6 inch edition Ordnance Survey map, there are two main extraction areas, Forrest Great while the emphasise seems to have shifted to Seatown West by the 20th century. Three windmills have been recorded within the study area, two are known from cartographic references while the third was revealed during excavations at Mount Gamble. Windmills were a source of power that was used with regularity throughout the Fingal region, many are mentioned in the civil survey of the seventeenth century. The presence of a windmill improved the value of land considerably.

There are a number of protected structures, such of forges, mills and sluices which are part of other HLC data sets but are important individual structures in their own right.

Future management guidelines and strategies to maintain, enhance and safeguard the industrial HLC type

The rapid growth of large scale industrial parks have no historic dimension to the land they now cover. However, it must be recognised then even this most recent modification of the landscape is an historical process in its own right. An earlier relict landuse is only attributed if archaeological features have been revealed through excavation or by archaeological monitoring prior to or during the construction of the site. Large scale developments, given the low visibility of earthen monuments in the Fingal region should be archaeological investigated prior to development.

While the historic elements are largely protected by inclusion in the Record of Monuments and Places or the Record Protected Structures, further work should be done in developing an

appreciation for the vernacular structures and industrial heritage and the modern context they now appear within.

RECREATION



The Ward River Valley Linear Park

The recreational HLC type includes golf courses, playing fields, parks and other amenity land and covers 7.7% of the study area. There are two golf courses located within the study area - Forrest Little and the newly developed Roganstown and one pitch and put course in Balheary townland. Golf courses may potentially retain boundaries and landscape features associated either with earlier agrarian regimes, such as ridge and furrow. The creation, development and maintenance of golf courses can disturb and remove historical features and drainage can further degrade subsurface features. It is for this reason that the development of the complex at Roganstown was archaeological investigated, revealing limited archaeological features which were preserved by record. Playing fields are located on the edge of two previous demesne landscapes, Brackenstown and Balheary and along two important rivers – the Broad Meadow and the Ward. The Ward River Valley Linear Park is located at the centre of the study area and is an important focal point for recreational activity for locals.

Future management guidelines and strategies to maintain, enhance and safeguard the recreation HLC type

Recreational land may contain historic structures such as Swords Castle (DU0011-034012 and RPS 352) – work should be done to raise the public awareness of the significance and important of these features within the landscape.

As the requirement for land for high density residential settlement increases, recreational open spaces and parkland will become more important and form a focus in the community. Public awareness should be raised in relation to upkeep of public lands. These open spaces should also be made attractive, litter free and safe for the community and recreational purposes.

Given the relatively low disturbance experienced by recreational land, there is considerable potential to reveal below ground archaeological remains. Development proposals should be accompanied an impact statement. The effect of the new development upon the historical character should also be taken into consideration as well as the merits of the intrinsic character of the area as an historic area of open space.

Riverscapes such as the Ward and Broad Meadow present opportunities for the development of areas of open space, amenity and educational resources such as nature trails. Riverside walks picnic areas and cycleways can be created to provide an amenity for the growing local community and to protect the essential character and setting of river corridors. River corridors are defined as those areas of land linked physically and visually to a river and may require special policies to minimise the potential for conflict between development and conservation and to manage and enhance their linear character.

Control of the location, scale and nature of new development including the material change of use of land will ensure that there are no undue effects on the character and amenities of the river corridors and recreational open space.

Access to recreation lands should be maintained and free from development.

DESIGNED LANDSCAPES



Lodge house at Rathbeal

There are two categories within this HLC type, parkland/demesne and wooded parkland. The demise of the demesne can be charted on the Ordnance Survey maps, where in the mid 19th century they accounted for 13.1% of the land, this was reduced to 5.5% by the mid 20th century and 2.9% on present day mapping (OS 2000). The famine of 1845-1849, a fall in rents and in the profitability of agriculture resulted in an initial decline in the number of new landscape demesnes being created. This accompanied with the development and expansion of towns and preference for an urban lifestyle and the redistribution of land arising from the Encumbered Estates Act of 1849 and the Land Acts of the late 19th and early 20th centuries resulted in a dramatic change of landuse and the decline of designed landscapes. Originally the land was broken up in to separate ownership and used for agricultural purposes, nowadays this land is used for the development of industrial and residential housing schemes.

Historically, the study area was home to several large scale demesnes, Brackenstown (RPS No. 364), Rathbeal Hall (RPS No. 338), Newtown (RPS No. 339), Swords House and Lissen Hall (RPS No. 342) and Balheary House. Apart from Brackenstown and Rathbeal, the original spaces occupied by these demesnes are no longer clearly defined and visible from the orthophotography and many are separated into individual land holdings and have different modern uses.

The townland boundaries for the former two demesnes remain largely intact. With the boundary of Brackenstown protruding out to accommodate a large (400m) canal feature (RMP DU011-030). The demesne also incorporates a burial ground (RMP DU011-032 and RPS 375). Apart from the immediate parkland surrounding the main houses, much of the associated fields are used for agricultural purposes.

Lord Molesworth, the owner of Brackenstown Demesne during the 18th century was responsible for many innovative designs and improvements to his parkland. Rocque's map of 1760 (Fig. A1)

displays many of the elements such as avenues, walled kitchen gardens, orchards, wilderness plantations and water features such as large canals and ponds which required the latest hydraulic engineering techniques to construct and harnessed the potential of the Ward River. While some of these features survive extent today many have been removed or buried by agricultural practices.

In general, these demesne landscapes comprise of many features such as the main house, associated farms, stables, lodges, ice houses, canals, gates and walls to the semi natural woodland of planted shelter belts, the diversity of exotic trees and plant species and tree lined avenues. Earlier archaeological components from phases predating the demesnes establishment may be present, such as the Motte (DU 011-027) at Brackenstown and the possible fortifications at Rathbeale (DU 011-079). From aerial photography analysis a new complex of enclosures were revealed in Balheary townland located on a ridge beside the Broadmeadow River, near the existing N1 which would have been an important route way in ancient times. While located in a ploughed field that once belonged to Balheary Demesne perhaps this is the Norse settlement that is suggested in the townland name.

Future management guidelines and strategies to maintain, enhance and safeguard the designed landscapes HLC type

Both the surviving demesnes of Rathbeal Hall and Brackenstown are in private ownership, an assessment which would record the history and development of the lands, leading to a comprehensive understanding of all the component parts and their contribution to the integrity of the whole demesne is required. This assessment should be carried out with reference to existing documentation such as Finola O'Kane's *Landscape design in the eighteenth-century Ireland* and the National Inventory of Architectural Heritage (NIAH) website for Historic Gardens and Designed Landscapes of Ireland. Understanding the demesne landscape will lead to an assessment of significance of the integrity of the estate, boundary treatment, the designed landscape, the architectural qualities of the house and main structures and wildlife habitats.

This study should be completed in tandem with a full field survey. This initiative will identify and assess the preservation of all aspects associated with the historical demesnes.

Former parkland features whether functional (lodges, deerparks), semi-natural woodland shelter belts, planted avenues, specimen trees and/or ornamental features such as follies and earthworks particularly where they are well preserved and add group value to the overall setting should be conserved appropriately and enhanced.

Parkland boundaries and key relict parkland features that provide time depth within the modern landscape such as former park boundaries, often typified by stone walls (Brackenstown) or a

substantial bank and ditch lined by mature trees (Rathbeal) should be a priority feature for conservation and enhancement along the Naul Road (R108).

If at all possible avoid loss of integrity by division into multiple ownership, or through inappropriate change in use. This has already occurred at Brackenstown with a modern residential settlement located on what would have been the original avenue to the main house. The authorities should promote consultation and advice, and a network of support for management companies and individuals in charge of demesne landscapes.

Encourage management regimes that promote joint working whilst protecting key attributes, such as woodland through tree preservation orders, structure through listing or views through protected view scheduling. Replacement planting should be encouraged where necessary.

SETTLEMENT



Local primary school, Swords

The explosion of development and the demand for housing in Swords has seen dramatic changes in the immediate hinterland of the town from 0.5% in 1935 to 32.3% in 2005 in settlement landuse. Modern residential estates surround the town while further out, settlement mostly comprises of dispersed single farmsteads, estate houses with the occasional nucleated historical settlement.

The settlement category comprises 8 subcategories ranging from Historic Settlement (HS) such as Swords Castle (RPS 351, DU011-034001) and ecclesiastical enclosure (DU011-034003), Saucerstown House (DU011-083) and Nevinstown House and land (DU011-047). All these features are located on the 19th century (1837-43) OS map and earlier cartographic references such as Rocque (1760). Nucleated Settlement (NS) is represented as ribbon development on the 20th century OS map for example at Commons West or Lissen Hall Little. Swords Town as well as the newly built retail parks form commercial centres (SCOM). Also within Swords, the municipal building (SM) of Fingal County Council is present as well as two cemeteries (SC) and a number of schools (SCH), each of which have their own individual settlement category.

With the spread of modern residential settlement (SRM), the expansion in the young population is evident through the number of new schools in the wider area. While some of these estates were built in the 1970s many have been developed since the 1990s such as Gartan, Newcourt, Knocksedan Demesne, Swords Manor, Ormond, Ashton, Thornleigh, Castleview, Applewood Village, Glen Ellen, Sandford Wood, Bunbury Gate, Boroimhe and Brides Glen. Many of the names for modern residential settlement incorporate heritage elements or townland names and reflect on the historic character of the area. Mixed use settlement (MIX) or neighbourhood centres consisting of local shops and businesses and crèches are associated with the development of large scale modern residential settlement (SRM).

There are 37 protected structures or buildings within the study area, the majority of which date to the post medieval age. The development of Swords Town from an Early Medieval monastic enclosure and the medieval borough to a key administrative and commercial centre for the greater Fingal area is largely a result of its strategic position in the landscape. The present day alignment of properties along Main Street reflects the pattern of relict burgage plots associated with the royal manor and borough of Swords. The Early Medieval and Medieval roots of the settlement are particularly well preserved; the remains make it possible to study the form and evolution of the settlement over an extended period. The layout of the modern town displays strong resonances of routeways, boundaries and properties of much earlier periods. Through recent archaeological investigation evidence for Neolithic and Bronze Age activity in the form of portable archaeological finds has been located in and around Swords Town tracing the settlement pattern back over 5000 years.

Future management guidelines and strategies to maintain, enhance and safeguard the settlement HLC type

Due to the strategic positioning of Swords, unprecedented development has occurred in the last ten years. Development on this scale could easily overwhelm the HLC area and requires management in order to preserve the essential and valued historical character. Change should take place in the context of the historic environment in order to maintain historic character, to protect the best of the past and to afford the opportunity for heritage led regeneration.

With the HLC project phasing of residential development can be plotted using information from Final County Council Planning department and the Ordnance Survey and landuse maps (Fig 5). This would determine and assess the rate and direction of the growth since the mid 19th century, detailing expansion since the 1970s.

Settlement can be considered to have three identifiable historical elements

- Historic buildings and structures
- Below ground archaeological deposits
- Historic character of settlements for example street and townscapes, designed landscapes

Each of the above is well protected through existing legislation, such as protected structures (RPS) through the 2000 Local Government (Planning and Development) Act and Recorded (RMP) and National Monuments through the Principal National Monuments Act and amendments (1930-2004). ACAs (Architectural Conservation Areas, (2000, Act)) are places or areas that contribute to the appreciation of a protected structure, in terms or setting and character, in the case of Swords Town, the ACA has a high visual and social amenity value, diverse in architectural character lending itself to a distinctive texture to the streetscape.

The architectural and archaeological significance of settlement is a unique and special resource. Structures and places have over time acquired character and special interest through a combination of factors for example, their continued existence and familiarity in the landscape, these characteristics are displayed at Balheary Bridge (RPS 340) or a vernacular cottage (RPS 344) on the Rathbeal Road (R125). In a changing world, they have a cultural significance, which is important to be passed on to our successors and warrant protection.

In an area proposed for development, an architectural heritage survey can take place to ensure that all features are properly identified and assessed. Where necessary information can be forwarded to the National Inventory of Architectural Heritage (NIAH) who are currently compiling a list of the country's architectural heritage. Structures which are considered to be of a regional importance or great are recommended for inclusion in the Record of Protected Structures (RPS).

In accordance to objectives of the Fingal Development Plan 2005-2011, development proposals within the Swords Town should have due regard to the historic dimension of the existing environment and new development should be aware of local distinctiveness, the layout and scale of buildings and designed spaces, the quality and character of the built fabric and the historic patterns that contribute to the overall uniqueness of the streetscape and landscape. For example, the extension and enhancement of the Ward River Valley Park will contribute to the overall setting of Swords Town.

Strategic planning and guidance should take account of the preservation and enhancement of key attributes of local historic distinctiveness for example Swords Castle and the ecclesiastical enclosure where the round tower is located and the layout of existing property plots along the Main Street of Swords. The present day alignment of property plots along Main Street should be enhanced and retained where possible as these reflect the pattern of relict burgage plots associated with the royal manor and borough of Swords and site accumulation or the unifying of multiple plots into one unit should be kept to a minimum.

The layout of the modern town displays strong resonances of the routeways, boundaries and properties of much earlier periods. It must be ensured that new development will contribute positively to the historical layout, at the present time there is a lack of interplay between the town and the River Ward.

A delicate balance is required between the historic elements of the town and new development which should seek to contribute positively to the character of the streetscape; through the use of new and innovative design proposals and materials. This approach to design is occurring and needs to be maintained within Swords town, examples would be the new primary school located on the corner of Church Road, opposite the ecclesiastical enclosure and the award winning County Council offices.

Cemeteries and burial grounds should be appropriately maintained and protected.

Without the appropriate assessment taking place in order to establish the significance of the demesne landscapes such as Brackenstown and Rathbeal in the greater Swords area, settlement should be curtailed as it may be deemed inappropriate to build.

Archaeological potential

Within urban or semi rural settlement environments there is always the potential to reveal below ground archaeological remains that have no surface expression. Given that the historic core of most settlements still corresponds with the modern core, for example at Swords Town, evidence for Neolithic and Bronze Age activity has been revealed through archaeological excavation. There is a significant potential to impact on below ground remains in developed settlement areas subject to redevelopment. Given this potential, archaeological investigation in terms of research, geophysical survey, topographical survey, test excavation and excavation may take place in advance of development in order to predict with greater certainty the below grounds archaeological remains of an area which has no visible trace. Prior to redevelopment taking place in Swords Town, test excavation takes place under licence to the Department of Environment, heritage and Local Government, this exercise has identified medieval and post medieval remains.

Upstanding archaeological remains within urban and semi-rural environments should be enhanced where possible. At Swords Castle an extensive restoration, excavation and public awareness programme is taking place that will eventually restore the castle as the dominant structure at the north end of the Main Street. Other upstanding remains may benefit from increased attention such as Glasmore Abbey which is currently isolated within a green space and fenced off permitting no access to or from the site. The only upstanding earthen monument, a moated site (RMP DU011-027, RPS 365) left in the Swords area is currently difficult to access off a busy road, the extension of the Ward River Valley Park has the capacity to incorporate this feature and contribute to its overall setting.

Sensitive development of exclusion zones and creation of open spaces where below ground features have been revealed in advance of construction such as Oldtown and Drinan enable the protection and conservation of below ground remains while retaining the integrity of the setting of the site. New archaeological discoveries create a greater understanding of the significance of a place. The creation of management plans communicates this understanding and significance to the general public.

WOODLAND



Deciduous woodland

During the mid 19th and mid 20th century, woodland did not register as a landuse, today there is a low woodland cover within the study area (0.5%). The lack of woodland was highlighted in the Civil Survey records (1650) for the area when it described the scarcity of fuel. On Rocque's historic map of 1760, part of Forrest Road is shown to be tree lined while the surrounding estates - Forrest House, Brackentown, Brazil Rathbeale, Lissen Hall and the Park provide the only other woodland cover. The Ward River Valley Park, while not depicted as woodland on the historic maps, is now populated with a variety of mature tree species of a relatively recent origin.

Future management guidelines and strategies to maintain, enhance and safeguard the woodland HLC type

Before planting modern forestry, the relevant authorities should advise on the appropriateness of the location. The locational accuracy of archaeological sites and if any other features are present should be verified in the field. Also the area should be assessed for structures of architectural merit that may not be included in the RPS but still should be recorded for prosperity or in some cases avoided.

Conserve where possible woodland features and relic landscape attributes. Replacement planting should be considered in demesne landscapes. New planting should take place within the modern residential settlements. The extension of the Ward River Valley Park should establish management plans to maintain and sustain the historic character of the woodlands.

Future Uses of HLC

This report is only one product of the HLC project for the Swords area. This narrative is accompanied by mapping which is supported in a GIS environment ensuring the data can be updated and used simultaneously by numerous users.

The mapping of specified time slices has illustrated the scale and rate of change of the landscape and townscape of Swords. The unprecedented urbanisation and landscape fragmentation due to large scale new housing, extensive retail and business parks and the development of roads has impacted greatly on the quality of the historic environment. The HLC has provided a time-depth analysis of the cultural landscape in order to understand and appreciate the unique character, sensitivity, vulnerability and capacity for change and development throughout the study area.

Within proposed development areas, there is potential for including the historic environment to create a sense of place, for example by retaining vernacular buildings, hedgerows and townland boundaries, locating open space around archaeological monuments and using historic lanes as public rights of way. Imaginative design can make the historic environment part of the future as well as the past.

It is hoped that the HLC will provide a practical input into future landscape management decisions at a local level, increasing the understanding and appreciation of the historic landscape across the community. The HLC is a dynamic and flexible tool that can accept and accommodate new data in the future while providing a central knowledge base for all historical aspects of the landscape. For HLC to be successful it has to be a sustained and transparent process, comprehensive in its application and updated regularly.

The use of HLC is advocated in Archaeology 2020 – repositioning Irish Archaeology in the Knowledge Society – a realistically achievable perspective (UCD & the Heritage Council, 2006) - 'in a need to view archaeological sites in their wider landscape setting and to identify the major historical processes responsible for shaping Ireland's landscapes'.

This view was also echoed by the Heritage Council in 2000 when they described the major benefit of landscape characterisation as

"...that it covers the whole countryside and not just special areas. The special areas benefit from being placed in this wider context, their role being seen as part and parcel of every day life rather than isolated away from it. They are part of the landscape character and the special landscapes will always hold a particular place in our minds eye and our imagination. The characterisation process allows us to link back and further appreciate the significance and value of all landscapes' (Heritage Council 2000, 18). The main benefits of this project are the following:

The creation of a GIS – The information can be reviewed, monitored, added to and changed over time forming a sustainable approach to historic landscape management. This approach has the potential to demonstrate how different layers of archaeological and landscape data can be combined to underpin a landscape based approach to sustaining the historic character of an area. Through the use of GIS, the HLC process can take place on a county, regional or national scale.

Landscape Characterisation - It has provided a historical depth to support, complement and enhance the Fingal Landscape Character Assessment (LCA) (1999) (Fig. A12) which raised the profile of landscape issues and is used within the decision making process for development control. HLC provides an overview of the historic dimension of the landscape. This broad character based approach links with LCAs. Recognition of the historic aspect of the landscape and the central role it plays in the characterisation process is critical to the creation, maintenance and development of a national landscape dataset.

The HLC project also provides for an initial implementation of the principles of the European Landscape Convention (ratified in Ireland in 2002) at a local county level. It has been noted in Scotland that 'an important stimulus for Local Authorities to carry out HLC has been the contribution it can make to the preparation of the county and regional LCAs and the supplementary detail it can provide to inform their implementation' (Countryside Agency & Scottish Natural Heritage, 2002).

Land Use Planning - The project can inform strategic planning and the production of Local Area Plans (LAP's) and form the basis for the production of Strategic Environmental Assessments (SEA's) and contribute to supplementary planning guidance. The study can also help inform spatial planning initiatives and inform the placement of large scale infrastructural projects. The HLC has facilitated integrated discussion of landscape issues across various departments (such as conservation, planning, heritage, IT management) of Fingal County Council, increasing communication and understanding of the historic environment and key features that warrant maintenance, enhancement or protection. The identification of key heritage constraints at the early planning stages of a proposed development, such as the western bypass of Swords Town or the Metro, allows a proactive approach to heritage management.

The planning process supported by Fingal County Development Plan (Fig. A11) has controlled and mitigated the effect of development on archaeology. However, the focus to date has been on individual sites and monuments and protected structures, HLC demonstrates the need for broader historic landscape based policies and also raises the profile of the historic environment. HLC mapping shows the main divisions and the rate of change of enclosure and settlement as well as urban areas, designed landscapes, areas of woodland and rivers, it also characterises the main areas of development into different phases such as prehistoric, Neolithic, Bronze Age, Early Medieval, Medieval, Post Medieval and unclassified. The mapping provides a coherent historic environment image and so allows draft policies to be attached to particular areas.

Conservation – HLC mapping generated for this project can be checked along side the RMP and RPS databases when responding to planning applications and inquiries about the historic environment. HLC has the capacity to fill in the gaps generated by the point data of the above two datasets as well as providing a landscape context from which to appreciate site specific information. It can also help develop programmes that are appropriate and sustainable to the local environment such as the extension of the Ward Valley Linear Park, the refurbishment and conservation of Swords Castle, development of parkland and woodland planting. It is also possible that the project may be used to help form tourism and heritage management initiatives.

Research - The project has helped stimulate research in the study area, revealed new archaeological sites and has provided an up to date account of all recent archaeological findings as a result of large scale development. It has also provided a greater appreciation of the variety of post medieval sites and landscapes which are still evident in the environment today. The study has also highlighted the need where necessary for further research studies to take place such as field survey and recording of various elements which make up a designed landscape or a survey into the methods of enclosure may be helpful to recognise the diversity in boundary type, their period, rarity in the record, survival and condition, vulnerability and potential within the modern day landscape. The results of this project should be integrated into other heritage management records such as the RMP or the RPS where necessary.

Public Outreach - Consultation has taken place with local historical groups and access to the project on the web will ensure that this HLC project is a tool that the general public can access and use for educational purposes. The interactive data will provide a greater transparency of archaeological information to create knowledge and understanding of the historic landscape and the processes which have helped form it. Ongoing opportunities will be sought by the Heritage Officer to engage and consult with local communities, creating awareness and understanding of the Historic landscape.

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Appendix 1 - Database design

The table below outlines the data fields contained with the main table in the HLC database. The database is on Microsoft Access format and follows an ArcView Geodatabase file structure.

NAME	DATA TYPE	DESCRIPTION	
OBJECT ID	OBJECT ID	Unique internal identifier for polygon features within the database	
SHAPE	Geometry	Spatial data shape definition	
TYPE	TEXT	Current landuse type	
TYPE_20C	TEXT	Landscape characterisation types as shown in the mid 20th century OS 6" mapping (1935-38)	
CREATED_BY	TEXT	Contains the initials of the person who created the polygon	
VERIFIED	TEXT	Identifies that the polygon has been verified by another member of the HLC team.	
DESC_	TEXT	Text description field used to record information relating to the polygon e.g. St Ita's Hospital, Seafield House	
ΜΑΡΤΧΤ	TEXT	Field for recording map text from the 1st edition and later Ordnance Survey mapping that falls within each the HLC polygon	
TYPE _RELIC	TEXT	This field records the dominant relic landscape character of each the HLC polygon e.g. Medieval, post medieval, Prehistoric	
TYPE_19C	TEXT	Landscape characterisation types as shown in the mid 19th century OS 6" mapping (1837-43)	
BROAD_TYPE	TEXT	Current broad character type for each polygon	
BROAD_TYPE_20C	TEXT	Broad character types as shown in the mid 20th century OS 6" mapping (1837-43)	
BROAD_TYPE_19C	TEXT	Broad character types as shown in the mid 19th century OS 6" mapping (1837-43)	
SHAPE_Lenght	Double (numeric)	This field is maintained by the GIS system and records the length of the perimeter of the polygon	
SHAPE_Area	Double (numeric)	This field is maintained by the GIS system and records the area of the HLC of the polygon	

Appendix 2 - List of Attributes Current Landuse Codes

Coastal	
MARSH – Marsh / wetland	
RG – Rough ground Areas of rough ground along the coast and estuary, including coastal dunes near the beach.	
Communication	
ESB – Electricity Supply Board Electricity substations	

RD – Road	
Tertiary and higher class road as identified on the O.S. Discovery Series Mapping. This information has been supplemented with data observed in orthophotography where current mapping is not up to date.	
Designed landscape	
	les parkland / demesne and wooded parkland. I of many features from built heritage to the elter belts.
PARK – Parkland / Demesne	
Demesne lands consist of lands and landscape elements held by an estate and include gardens, buildings and farmland.	
WDP – Wooded Parkland	
Continuous areas of planted demesne parkland.	
This HLC type is distinct from the 'PARK – Parkland / Demesne' HLC type, allowing areas of wooded demesne parkland to be discretely mapped even though they may be part of a land parcel which is no longer a demesne property.	

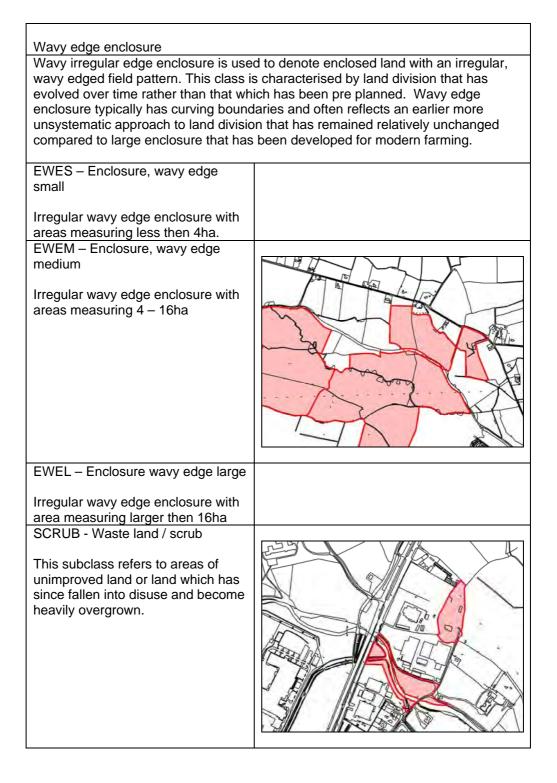
Enclosure

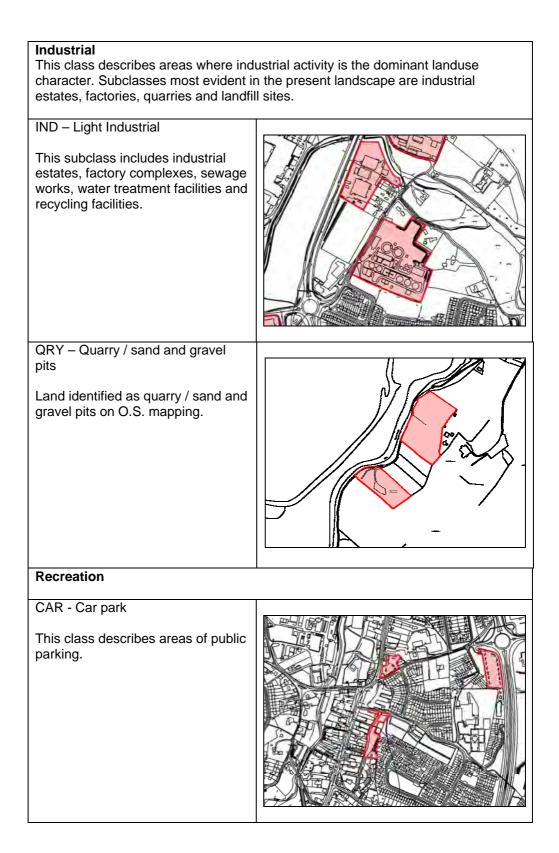
Straight edge enclosure

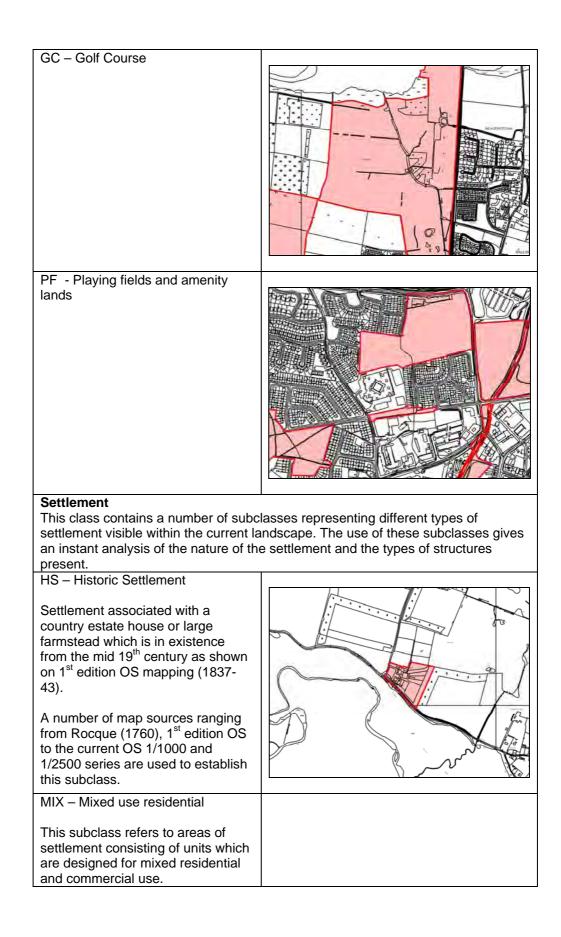
Straight edge enclosure is used to denote enclosed land with a straight regular edged field pattern. These enclosures represent planned, deliberate enclosure often including planned drainage and reclamation schemes. Different phases of landscape development and land ownership are represented by the planned subdivision of large irregular fields and by the amalgamation of smaller irregular fields into large regular fields for modern farming.

During the classification process, fields which contain a wavy irregular boundary on one or more sides where they meet with a natural feature such as a river or a coastline, but otherwise form a straight edged field, are considered to be straight edge fields.



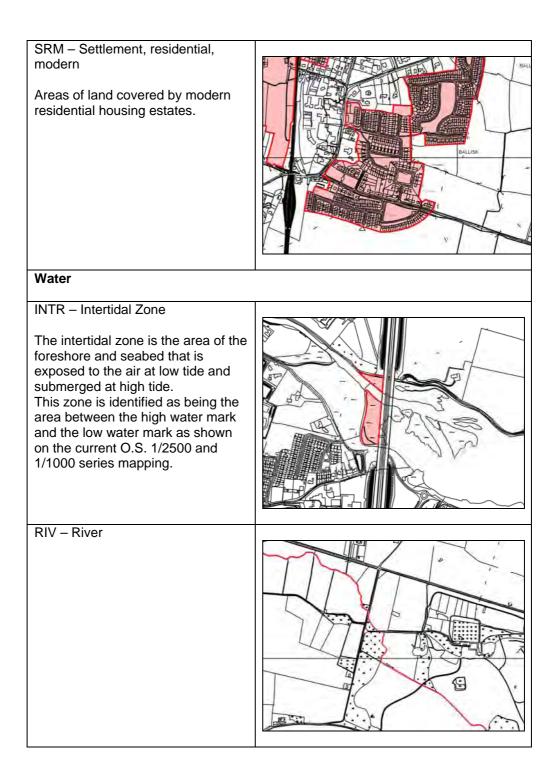






NS – Nucleated settlement Settlement developed around a point such as a village square or developed along a stretch of road. This type of settlement develops over time and often in a haphazard manner. Houses within nucleated settlement of usually detached and of varied size and shape.	
SC – Settlement, Cemetery Cemeteries and graveyards.	

SCH – School	
SCOM – Settlement, commercial	
Areas of commercial settlement including shops, pubs, cafes offices, town centres etc.	
SM – Settlement Municipal	
Municipal buildings such as town halls, court houses and libraries.	



Woodland	
WD – Woodland deciduous	

Appendix 3 - Sources

The Record of Monuments and Places - This provides the legal protection for all monuments listed and mapped under Section 12 of the National Monuments 1994 Amendment Act. The record consists of a list of monuments and places, locational information and a map showing each monument and place. In some cases, difficulties arose in dating and mapping a monument due to either the lack of detailed information in the RMP or that the monument type was so heavily denuded that it defied categorisation. For example, the majority of enclosures or denuded earthworks derive from the Early Medieval period and have been identified by aerial photography they could be earlier, for example Neolithic. In cases like this best judgement was used and other recorded features were taken into account in the immediate vicinity of these site types and the results of any excavation work and field work to map the monument/feature on a time depth basis.

The Topographical Files from the National Museum of Ireland - These files identify recorded stray finds that have been donated or found by the state. In many cases the finds are recorded on a townland basis and the files do not contain precise location details. Where possible these details were mapped otherwise the information is shown on the relict landuse type mapping as unlocated, contributing to the overall archaeological information on a townlands basis but unsuitable for use within specific HLC polygons. However the relict land use may cover several present land use land parcels and as such the information gained from the National Museum was useful. Difficulties were also encountered with location information given as quite often it did not correspond to the general area, in this instance the townland was taken as the location and the find was specific as unlocated within that townland.

RPS – Digital information from The Record of Protected Structures was availed of for the study. Discrepancies occurred in the locational information between the registers for protected structures, and recorded monuments. In some cases the same structure/monument was placed in two different locations by the respective databases. Also in some cases the RPS included denuded earthworks and items of a clearly archaeological nature that are more appropriately protected by the National Monuments Acts (1930-2004). In relation to all archaeological monuments, the RMP was taken as the primary indicator for their position on the map. Structures such as churches, tower houses, castle sites where the features are identified on both sets of records, their actual location was verified by OS mapping, aerial photography and confirmed in the field.

Historic cartographic maps such as Rocque (1760) and Taylor (1816) - can provide information as to the names of certain buildings and places not recorded on later maps, the style and layout of gardens, demesnes and parklands, the nature and size of boundaries. The stylistic nature of these maps and the lack of a discrete scale meant that these maps could not be used to provide

time slice data of the area, however items shown on the maps were used to inform the HLC types.

Test excavation, excavations and geophysical survey - Where previous archaeological work had been undertaken the results of the work was sought either from the Excavations bulletins, the excavation database (www.excavations.ie), or from individual archaeologists to provide the most up to date, comprehensive record possible.

Referenced documentary sources - Documentary sources and discussion with local historians and interest groups led to the emergence of new information in relation to the archaeological activities in certain areas, for example, a possible Viking battle at Knockaman or a possible cist burial at Burrow - while these events and discoveries are claimed to have occurred the lack of a record or physical evidence makes them extremely difficult to portray on a map. Where possible we have sought to confirm all the sources used to produce the HLC type for the area, where it has not been possible to confirm, it is mentioned in the narrative text as unsubstantiated/unreferenced information but still forms part of the rich oral tradition which defines this area.

Place name information - can indicate the presence of a forgotten site or may provide evidence to the location of a monument or provide additional information to the topography of land use of a townland or particular place.

Field Inspection - this assessed the present topography and land use. Various decisions taken in mapping the project were verified in the field. A full set of 1:2500 and 1:1000 (for the urban areas) maps for the study area using modern OS mapping with the orthophotography background imagery was checked and analysed in the field.

Appendix 4 - List of Placenames

Townland names (Fig. 3) can be a valuable indicator of the type of cultural heritage of an area. They are an invaluable source of information not only on the topography, land ownership, and land use within the landscape, but also on its history, the archaeological monuments and the folklore. Where a monument has been forgotten or destroyed, a place name may still refer to it, and may indicate the possibility that the remains of certain sites may survive below the ground surface. The townland names in the Swords area of Fingal reflect both the Anglo-Norman/English heritage of the county as well as the native Irish influence. The majority of names appear in English forms, with translation and anglicisation suggesting the presence of both English and Irish speakers into the middle of the nineteenth century. This may also reflect the dominance and presence of the ruling English gentry in the area and the popularity of the area with later Anglo-Norman settlers.

Townland Name	Derivation	Possible Meaning
Lissenhall Great/Little	Possible derivation from <i>Lios</i> meaning fort or <i>Lissane</i> meaning little fort	Relating to a spacious house located on the brink of a small creek (Joyce,1898)
Seatown West/ East	Anglicised townland name	Referring to the proximity of the coast. Shown on Rocque's map of 1760, in a coastal position, on the southern side of the Broadmeadow Estuary
Mantua	Corruption of the French word <i>Manteau</i>	A type of material (mantua silk) and a loose gown, worn by women in the 17-18th centuries
Greenfields/ Hilltown	Townland name of later origin	Topographical description
Mountgorry	Possibly derived from Godhfhraigh	Hogan (1910) suggests that the name can be interpreted from the personal name of Godfrey.
Drinan	Anglicisation of the Irish word Draighnean	This means a place of blackthorns (Joyce, 1898)
Barryparks/ Townparks	Anglicised name, alternatively Barr in Irish refers to the top of anything	Possibly relating to parkland owned by the Barry family. Townparks relates to parkland associated with Swords, part of which forms the Ward River linear park today.
Marshallstown/Roganstown/ Saucerstown/Nevinstown East/West/Fosterstown South/North/Mooretown/ Belinstown	Incorporates the English element ton which is the equivalent of the Irish term baile.	May refer to personal names of an English coinage.
Cloghran	Derived from the Irish word <i>Cloichrean</i> .	Meaning a stony place (Joyce, 1898)
Glebe part of		Land associated with the church

Brackenstown	Anglicisation of the Irish word	Maybe a topographical
Blackenstown	Breac, meaning speckled	reference, referring to the
	(Joyce, 1898)	soil.
Brazil	The townland is mentioned in	Possibly deriving form the
Diali	the Civil Survey of 1654-	proprietor of the land, Sir
	56AD.	Edward Bolton, Knight of
		Brazeil.
Rathbeal	Taken from the Irish Rath	Rath is an earthen fort while
	Beala	Beale is a family name dating
		to the 12th century. Also
		associated with the Viking
		name Rickanhore, (Peck,
		Dublin Historical Record
		1973)
Broadmeadow part of		Relating to the river which
		crosses the townland
Oldtown	An Seanbhaile	The oldtown, a large scale
		early ecclesiastical site has
		recently been revealed within
Pathinglo	Derived from the Irish Rath	the townland. Possibly means the Rath of
Rathingle		5
Forestfields/ Crowscastle/	meaning fort. Incorporation of personal	the Angel (Hogan 1910).
Miltonfields/Forrest	English names.	
Little/Great	English hames.	
Cremona	Possibly derived from the	Referring to the nature and
oromona	Irish <i>cré</i> meaning clay and	type of land.
	dusty and <i>mona</i> meaning	
	bog.	
Commons East/West	<u> </u>	A name referring to land held
		in commonage outside a
		town for grazing animals.
Swords Glebe/ Demesne	Derived from Sord or Sord	The name originates from a
	Columcille	pure spring well dating to
		pre-Chrisitan times. St
		Columcille is thought to have
		blessed the well.
Windmill Lands		Reference to the windmill on
Outlands/ Newtown/part of	Anglised name	the lands May refer to the location of
Outiands/ Newtown/part of	Anglised hame	the townlands in reference to
		Swords town and the
		expansion of landholdings in
		relation to the town
Holybanks	Anglised name	Possible association with an
		ecclesiastical site or burial
		ground, a ringditch (011-080)
		is located in the northern
		section of the townland
		towards the river.
Glebe (Ed Swords)	English coinage	Many interpretations of the
		word Glebe ranging from soil,
		earth, parcel of land. Most
		commonly associated with
		land belonging to the clergy.
Castlefarm (Ed Swords)	English place name	Farmland possibly
Castlefarm (Ed Swords)	English place name	

Balheary/ Demesne	Derived from the Irish <i>Baile</i> <i>Ui Iorua an</i> alternative Irish explanation <i>is Baile Ui</i> <i>hAodhaire</i>	lorua mat be a variation of the word 'Norwegian or Norse' so may refer to a Norse settlement. According to Hogan (1910) it could relate to a personal name O'Heary's town.
Skidoo	Anglisised version of <i>An</i> Sceach Dubh	Simply translates as the Blackthorn bush (Hogan 1910).