

**The Historic Landscape Characterisation in Fingal
-Balbriggan and Environs**

By
Siobhán Deery and Kieron Goucher
Margaret Gowen & Co Ltd

For
Fingal County Council

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Section I: INTRODUCTION & CONTEXT



Introduction

The historic landscape characterisation (HLC) project of Balbriggan town and its environs was carried out by Margaret Gowen & Co Ltd on behalf of Fingal County Council. The objective of the project is:

- to promote a better understanding and management of the historic landscape resource
- to facilitate the management of continued change within it
- to establish an integrated approach to its sustainable management within Fingal County Council with other organisations.

The European Landscape Convention (2000) recognises the need to value all landscapes and complementing this, there are special landscapes that require specific recognition and management to sustain their character. A view of landscape that is becoming central to heritage management is the concept of HLC, which is based on the premise that it is the interaction of people and place over time that constitutes a landscape. The key feature of HLC is that the entire historic dimension of the landscape is mapped and interpreted. Hence it is inclusive, comprehensive and considers area rather than individual cultural heritage sites or point data.

The use of HLC in Ireland is relatively recent, however the Heritage Council in conjunction with various county councils have carried out considerable work and research on the characterisation of the landscape. The Heritage Council promote the use and benefits of HLC in the decision making process on landscape in Ireland.

In Fingal, two HLC projects have been previously undertaken in these areas, the HLC of Donabate-Portraine Peninsula and HLC of the town and hinterland of Swords and were carried out for Fingal County Council and the Heritage Council in 2007 (Courtney & Goucher). The studies sought to provide an understanding of the key cultural heritage aspects of the landscape in order to inform spatial planning of rapidly developing areas of the county. This project draws from the methodologies developed for the previous Fingal projects.

Project Aim and Objectives

The aim of the Balbriggan and environs HLC is dual one. Initially the HLC aims to produce a distinctive historical and archaeological dimension of the present-day environment within Balbriggan town and its environs and of the human processes that have formed it. The focus of the project is to recognise that the present landscape is the result of changes and continuities from the past. This is achieved by using a Geographical Information System (GIS) to define the historical elements that endure and form part of today's landscape. The challenge is to sustain the character of the landscape in the face of future changes.

Secondly, in the context of cultural resource management, by using the predictive modelling capabilities of GIS and the information gathered from the HLC, the study aims to also produce models that record all archaeological activity from topographical files, geophysical survey, excavation, RMP throughout the area, providing much more comprehensive landscape coverage, not just based on individual recorded (RMP) sites. In addition to this, analysis will also take place on the natural environment such as a topographical survey, examination of rivers and coastline to determine the preferred siting of features this will estimate the probability of an archaeological site being present in areas of heretofore undiscovered archaeological remains and will inform the placement of new projects by providing guidance and informing spatial planning incentives and advice for the future management of such areas.

In achieving these aims the study will-

- 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 county council, to act as a mechanism to sustain the character of the landscape into the future.
- Use the predictive capabilities of HLC to identify areas that are considered to be of archaeological potential.

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 and areas of archaeological potential within the project area.
- Promote awareness of the environment and local distinctive landscape characteristics and to and to encourage integrated discussion and decision making.

The Project Area

The study area is centred in and around Balbriggan town and its immediate environs. It extends to the M1 Motorway to the west, to the Irish Sea coastline to the east, the River Devlin to the north, which also forms the county boundary between Meath and Dublin and to the south by a number of tertiary roads and agricultural land. The study area is characterised by a network of secondary and tertiary access routes the R132 and the Drogheda-Dublin Railway line. In total the HLC study area occupies 5943 acres (2405 hectares or 24.05 km). There are 51 townlands within the study area that lie within the ancient parishes of Balcaddan and Balrothery and in the Barony of Balrothery East (Fig. 1–3).

The study area comprises three main areas of historic settlement, the coastal town of Balbriggan, and the inland villages of Balrothery and Balcaddan. There has been a relatively recent explosion of extensive modern settlement to the northwest and to the southwest of Balbriggan town and large scale development has also occurred to the southwest of Balrothery. The spread of ribbon development between the latter two settlements has almost joined these two settlements. Balcadden village however endures as a small inland village that is very much rural in character. The remainder of the study area comprises open arable landscape. To the south east of the study area lands of Ardgillian Estate a large amenity of immense benefit to the local area. The coastline forms the eastern boundary of the study area; it boasts long sandy beaches, rocky shores, a Martello tower, former bath houses and boat houses, historic piers and harbours.

Soils, Geology, Landscape and Topography

The land in the study area can broadly be described as flat to undulating lowlands that slope down towards the sea to the east and to the Delvin River to the north. Balbriggan is derived from Baile Brigh meaning the town of the small hills and is indeed surrounded by small hills such as Clonard Hill (Cluain Aird meaning High Meadow) and Bremore (Brigh Mor) meaning High Hill. To the south is Strifeland which is located at c. 96m O.D. and in the east the highest hill is Commons at c. 70m O.D, Bowhill /Turkinstown are located at c. 55m O.D, while Clonard Hill is located at c. 50m O.D., and Bremore on the coast at c. 5m O.D (Fig.13). The study area is drained naturally by the River Devlin and River Bracken and their many tributaries, the fields are largely subdivided by deep drainage ditches which carry water off the surface of the open fields. A large man-made reservoir located in Bowhill/Knock townland once supplied water to the mills in Stephenstown and Balbriggan.

The predominant soils in the study area are gleys (80%) with associated grey brown podzolics (20%). There is a band of basin peat along the southern extent in the study area in Knock, Hynspark, Darcystown, Denis' Fields and Courtlough townlands. The 'Bog of the Ring' is located to the west outside the study area. The principle soil in Flemington, the eastern edge of Bremore

townland and in the vicinity of the Delvin River in Gormanstown Demesne and Tobersool areas is grey brown podzolics (70%) and associated gleys (25%) and in the vicinity of Knocknagin and a small part of Bremore and Flemingtown grey brown podzolics (75%), brown earths (20%), gleys (5%) and basin peat (5%).

The underlying geology comprises till of Irish Sea origin with limestone and shale. The bedrock geology varies from north to south, in the north it is greywacke sandstone and siltstone, in the central area it is andesite, pillow breccia, mudstone and tuff, to the south of which lies a narrow band of variably coloured mudstone that 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 the study area, the topography, soil, hydrology and vegetation are a direct result of the rock types present. These have influenced the agriculture and settlement pattern within the study area, characterising the present day landscape. All these factors influence the archaeology or relict landscape as they affect movement, settlement, food sources and land drainage within the study area.

Settlement History

Prehistoric Period (c. 7000 BC–AD500)

Mesolithic Period (c. 7500-4500BC)

The earliest evidence for human settlement in this part of North County Dublin is dated to the Mesolithic period. The transitory hunter-gatherer groups of this period were sustained by the postglacial climate, and attracted to dense woodland cover and large population of wild fauna (the skeletal remains of the Great Elk was found in the '*Bog of the Ring*' near Balrothery in 1982 (McCormack 1999)). Mesolithic groups predominantly exploited the coastline and the river valleys, leaving behind them only ephemeral archaeological remains such as shell middens (mounds sometimes referred to as kitchen middens comprising accumulated discarded shells, animal bones, flint implements and sometimes occupation debris) and flint scatter sites. Such sites have been identified at several locations along the north Dublin coastline including Howth, and evidence for Later Mesolithic (c. 5500–4000BC) occupation at Sutton where excavation revealed four pits and a hearth under a shell midden. A microlith found at Knocklea near Loughshinny and several microliths were excavated at Paddy's Hill in Malahide (Stout & Stout 1992).

Although to date little evidence for the Mesolithic Period has been identified along the coastal zone of the study area, it can be inferred that this abundant resource would have attracted early coastal foragers. A cursory inspection of the coastline between Bremore Head and the mouth of the river Delvin has indicated the presence of large areas of shell that may represent shell middens, layers of which could date from the Mesolithic up to recent times, similar to the sites identified in Sutton. An exposed face located of the coast at Bremore and adjacent to a watercourse (NGR 19057/66041) revealed compact layers of shell c. 1m high comprising an area of c. 15-30m in wide. Midden sites can be up to 200–300m wide and several meters in depth. It is considered very likely that a detailed survey of the coastline in the study area will reveal further midden sites along this stretch of coastline that might date as far back as the Mesolithic. Unfortunately these sites and the wealth of information that they hold about the seasonality, palaeo-dietary change, climate change, mobility of our foraging ancestors are being eroded by the sea and are as yet unrecorded.

Neolithic Period (c. 4000-2400BC)

The Neolithic saw the transition of the early settlers from a hunter-gatherer life-style to a farming economy with the introduction of cattle, sheep, wheat and barley and possibly the introduction of new peoples. This period was characterised by land clearance and the establishment of field systems and permanent settlement sites further inland along river valleys. This period also saw

new developments in ritual activity, and the first permanent monuments, megalithic tombs, were built in the Irish landscape, representing a complex and well structured social hierarchy.

The most prominent and spectacular Neolithic monuments are megalithic tombs. They are separated into four classes namely court tombs, portal tombs, passage tombs and wedge tombs. Passage tombs prevail in the HLC study area with a passage tomb cemetery sited in Bremore (DU002-001001-005, Preservation Order No: 22/76 and RPS 003) comprising five tombs and an associated site in Knocknagin (DU002-010). Passage tombs are found in circular cairns that are often contained by large orthostatic kerbstones; they comprise passages of varying lengths that are roofed with lintels laid across the orthostats which lead into a corbelled chamber. They are unique among megalithic tombs in occasionally having decoration on some stones, in a style known as passage tomb art although to date no art has been revealed at Bremore. They are often situated at vantage points or on the summits of hills, the sites at Bremore are located on a prominent headland and were likely to have dominated the skyline from the sea. Passage tomb cemeteries can be large, and can also be quite dispersed and it is considered that the tombs in Bremore and Knocknagin are part of a larger complex which includes a tombs at Gormanstown (ME028-020 and ME028-021) to the north of the river Delvin in County Meath and are related to the passage tomb cemetery in Fourknocks. The location of these complex of tombs at the mouth of the river Delvin, is a significant one, according to Hartnett (1957) the Bremore/Gormanstown group of tombs represent the point of entry at a 'natural landing point' of the 'Fourknocks Group' and mark the western expansion of this culture along the Delvin River. These group of passage graves originated from modified Iberian cruciform passage tomb forms and are placed relatively early among Irish Passage Graves (Rynne 1960). These tombs can be regarded as the predecessor of the Passage Grave Culture in Ireland the likes of which are be seen in the great ritual complexes such as the Brugh na Bóinne cemetery which is dominated by Newgrange, Knowth and Dowth (Ó Ríordáin 1979).

The passage tomb cemetery at Bremore is located on a rocky promontory, it comprises five mounds, one large mound c. 30m in diameter and c. 3.3m high with some protruding kerbstones, this mound is centrally placed amongst a group of four smaller mounds ranging in size (from just 9m in diameter to 15m and from 0.5m high to 0.75m) (Herity 1974, Rynne 1960). The largest mound is depicted on the first edition OS map and on Rocque's 1760 map it is referred to as 'Knockard' meaning High Hill.

The possible megalithic tomb at Knocknagin (DU002-010) was noted on Duncan's 1821 map as a 'Moat', it is not clear whether the location of this site has been accurately pinpointed as there are no upstanding remains at the site. Knocknagin is said derived from the Irish *cnoc-na-gceann*, meaning the hill of the heads, Joyce states that quantities of human remains were found here (Joyce 1995). A miniature stone axe was also found in the immediate vicinity of the mound (RMP

files). D'Alton (1844) includes a reference from Hamilton to Mr Shaw of Delvin Lodge who came across a 'considerable number of skeletons' when digging a ditch in his lands of 'Knockingen'. D'Alton ascribes this finding historically to a reference from the Chronicles of Ireland by Dr. Hanmer where he claims that an army of invaders in the fifth century, landed at Lambay and Skerries and marched to a place now called 'Knock-na-cean, i.e. the hill of heads, where Dermott Lamhdearg, King of Leinster, met them..'. It was here that a fierce battle was fought and won by the Irish, however according to Hamilton thousands of men were slain in this effort (PRIA 1946 No 54).

The possible passage tomb site in Hampton Demesne (DU005:056) was identified following the discovery of a rock bearing passage tomb art on the beach in Hampton Cove in 1991. It is thought that it originated from a tomb located on the top of the 20m high cliff that was destroyed due to coastal erosion. However, a recent geological survey commissioned by Fingal County Council has suggested that the boulder is composed of pillow lavas which were formed during submarine volcanic eruptions 470 million years ago (during the Ordovician Period), the concentric rings representing cooling structures which have been weathered to give the dramatic effect similar to passage tomb art (Parks 2008)

Evidence for the continued exploitation of coastal locations during Neolithic period in the HLC study area is provided by struck flint scatters identified along the coast, these are described from north to south as follows. Fifty seven pieces of worked flint and chert (NMI 1999:216) were identified in Bremore in the environs of the passage tomb complex (DU002:001001-005, *cf.* below). The systematic field-walking surveys by Stacpoole (1960's), Campbell (1909's) and more recently Collins (1997) has demonstrated that there are substantial quantities of worked stone on the surface of the ploughed fields at Bremore which date to the Neolithic period with some Bronze Age material; providing evidence of all stages of flint tool production using locally derived flint beach nodules.

At Isaac's Bower in Balbriggan an extensive ploughzone flint assemblage was recovered from the topsoil across the coastal stretch of lands associated with Balbriggan Interim Sewerage Scheme development (Shanahan 2001, Licence Ref: 01E0951) .The assemblage included three possible blades, two Neolithic scrapers and ten flint cores. The assemblage was not associated with structural evidence or occupation debris and was likely to reflect a localised flint-knapping site rather than intensive occupation near the exposed cliff edge.

Barnageeragh has been the focus of much work on prehistoric artefacts, intensive collection of surface flints in the 1950's and '60's (Stacpoole) and 1970's (Walsh; material in private collection) and developed between 1990 and 1992 in a programme of systematic field-walking and collection by Bernard Guinan (DU005-061, DU005-017002 and DU005-016002). The general lithic content

of the two collections of flint are comparable in terms of their technology, evidence for raw material exploitation and use (Guinan 1992). The distribution of the lithic material illustrates the exploitation of a landscape by sedentary, rather than mobile, populations during the Neolithic and later periods. It provides evidence for early prehistoric occupation and both industrial and domestic activity (flint material being sourced locally from glacial beach pebbles and worked within range of the home base).

In Hampton Demesne (NMI Ref: 1936:1187) a granite hammerstone which would have been utilized in the manufacture of lithic tools was found. Further inland on the eastern side of an earthen mound in Inch (DU005-008) an oval flint flake and a scraper were identified (NMI Ref: 1978:60-61).

The artefacts identified during fieldwalking have been brought to the surface by ploughing. Artefacts circulate within the plough zone and each time a field is ploughed it has an affect on the pattern of artefacts that become visible at every field walking episode. Archaeologists monitoring topsoil removal along the Northern Motorway/Balbriggan Bypass recovered several pieces of worked flint on the surface (Lynch, 1998) this evidence and the above mentioned flint spreads indicate that there is a general surface spread of Neolithic activity across the landscape of Balbriggan and it is very likely that further lithic assemblages are located in the cultivated soils within the HLC area.

Archaeological excavation in Stephenstown in advance of the Balbriggan Outer Relief Road, (07E0836ext, Mc Loughlin) and in the immediate environs of a souterrain and enclosure site (DU005-052, see below) revealed concentrations of prehistoric activity. Excavation revealed shallow linear features and a considerable number of pits, hearths and possible post-holes. Finds include undated prehistoric pottery and a possible Neolithic hollow scraper. One large sub-circular pit measuring 2.60m in length, 1.50m in width and 0.43m in depth contained over a hundred pieces of worked flint including blades, a possible scraper, flakes, cores and struck debitage indicating that flint working took place on site. The scattering of post-holes located to the adjacent to the pits did not appear to form part of a substantial structure but may have formed part of a temporary hut or windbreak associated with the small flint industry. The temporal relationships between these features are as yet unknown.

A Neolithic house was revealed in the townland of Flemington during archaeological excavations in advance of a housing development (Bolger, forthcoming) indicating the movement of settlement further inland. It formed part of larger complex of multi-period sites. The structure at Flemington was orientated roughly north–south and was defined by a slot trench and measured 6m by 10m in dimension suggesting that it was plank built. Primarily within this slot trench a significant early Neolithic pottery assemblage (over 250 sherds) was revealed and C14 analysis from the feature

gave an early Neolithic date for the structure. Some struck flint, a polished stone axe and a fine flake tool made from sedimentary rock were also retrieved.

Further south and immediately outside of the study area another Neolithic house was revealed at Barnageeragh near Skerries (Corcoran, forthcoming).

Bronze Age Period (2200BC-500BC)

Evidence from standing monuments and recent excavations have shown that settlement extended into the lowland coastal interior during the Bronze Age Period with a dispersed pattern of settlement clusters and ritual activity sites in Bremore, Balscadden, Flemingtown and Clonard or Folkstown Great, Folkstown Little Darcystown, Banageeragh and some further activity in Knock and Ardgillan Demesne.

The Bronze Age is characterised by an introduction of metal and metalwork technology and by a change in burial rites. Replacing the megalithic monuments Bronze Age burials occurred in simple pits and cists (pits lined with stone flags) and was sometimes accompanied by pottery or other grave goods. These cists may be placed in tumuli, cairns and barrows or set within 'natural' monuments such as sand ridges or laid in so-called flat cemeteries with no above ground evidence at all.

Two monuments, an upstanding 'cairn' and the site of another are recorded in the townland of Barnageeragh (DU005-016 and DU005-017). Both cairns are marked on the first edition of the Ordnance Survey maps (1837) and the upstanding monument (DU005:016) is also marked on the 1937-38 edition. This cairn and another mound were investigated in the mid-nineteenth century by Mr. Hamilton and Mr. Burdon who sought to establish '*whether they were artificial mounds, or whether they were some of those natural heaps called Eskers, which are found so frequently across Ireland*'. Some bones and fragments of clay pipes were retrieved from this mound, indicating its archaeological derivation.

Barrows are burial monuments of the Bronze Age and Iron Age and usually consist of a circular central area that may be flat or slightly dished (a ring ditch) or domed (a ring barrow). They are enclosed by a ditch and occasionally by an external bank. Barrows tend to occur in clusters and it is likely that a number of unrecorded low profile barrow sites also occur in their vicinity. Ring ditches identified in aerial photography are recorded in Hampton Demesne (DU005:015), at Stephenstown (DU005-005) and Gibbonsmoor (DU005-014). Two mound sites are recorded in Bremore (DU002-013, DU002-003) these sites demonstrate a continued focus of ritual activity of the coastal promontory area into the Bronze Age period. In Inch there is a mound site located on

a prominent Hillock to the west of Balrothery Village (DU005-008); it is marked as a 'moat' on Duncans 1821 map. Two worked flints were also identified in its vicinity (NMI 1980:60-61)

In Darcystown predevelopment excavation (03E0067 ext, Wiggins 2004) identified six areas containing material of archaeological significance dating to the Bronze Age. Excavation revealed a substantial cemetery comprising a large number of cremation pits containing cremated bone and vessel fragments. Seven pits contained cremation deposits in upright substantially intact ceramic vessels. Two pits produced a large quantity of prehistoric pottery sherds, including rim sherds decorated with horizontal grooves. Finds included sixteen sherds of prehistoric pottery and three worked flints. In Balscadden a cinerary urn was excavated along the route of the Balbriggan Bypass (95E338, Lynch)

Excavation in Clonard or Folkstown Great (02E0298, Byrnes) produced evidence for long term Bronze Age domestic activity. An inverted basket like structure defined by 30 stake-holes was identified dating to the early Bronze Age (2176–1958 cal. BC). The main period dated from the middle Bronze Age and comprised the partial remains of a round house (1449–1319 cal. BC) comprising a circular post-built structure with a porch-like entrance to the southeast. A small polished axehead, flint waste flakes and three sherds of prehistoric pottery were amongst the finds. (Grogan, O'Donnell & Johnston 2007, 128 and 216).

As part of the Pipeline to the West project a segmented curvilinear ditch, thought to be a ring-ditch dating from the late Bronze Age, with activity continuing into the Iron Age was excavated at Flemington, dates of 985–817 cal. BC and 217–34 cal. BC were scientifically recorded (02E0298 Byrnes) (Grogan, O'Donnell & Johnston 2007, 219-220). A sherd of Bronze Age coarse ware pottery was also recovered from the southern segment of the ditch. A grain drying kiln (02E0296, Byrnes) thought to date to the early Bronze Age was identified in Flemingtown it was of simple construction comprising a sub circular bowl, with a shallow curvilinear flue cut into the natural subsoil. A least three episodes of use were identified.

Fulachta fiadh are ancient cooking places usually dated to the Bronze Age (2500-500BC). They consist of a trough in which heated stones were used to boil water; the stones, when fire-cracked beyond use, are discarded and form a kidney-shaped mound around the trough. The monuments are usually identified in the field by this characteristic mound but sometimes, when ploughing has occurred, they are seen as a spread of burnt stone on the field's surface and this is the case in Barnageeragh. Additional fulacht fiadh have recently been identified in plough-soil in Barnageeragh (pers. com. Baker 2008). In Bremore a fulacht fiadh (DU001-0016) was identified as a large spread of burnt stone with charcoal and black soil near the shoreline in a field under tillage indicating that activity in this area continued into this period. Two sites have also been

recorded in Knock (DU005-062 and DU005-063) in low-lying marginal lands at the interface between dry ground and the edge of a bog (Red Bog lies further to the south) and in the vicinity of a stream. One fulacht had two troughs, one of which was lined with a brushwood wattle matt, the other trough had a possible circular post-hole which may have once supported a superstructure over it (Tobin, 02E0683 and 02E0685). The second fulacht was highly truncated. Burnt mound material and Bronze Age ceramic was identified during development in Flemington (Bolger forthcoming) and in Darcystown predevelopment excavation (03E0067 ext, Wiggins 2004) identified a fulachta fiadh in the vicinity of the Bronze Age cremation cemetery discussed above.

Two isolated pits related to prehistoric, possibly domestic activity were identified in Tobertown (Lynch 1996:145, 96E279) as part of the Balbriggan Bypass archaeological monitoring. Two sherds of prehistoric pottery were recovered from the fill of one of the pits and the fill of the feature was similar to burnt mound material and may be related to cooking activity. It is considered a possibility that this may perhaps represent a fulacht fiadh. In Folkstown Great along the route of the Balbriggan outer relief road, the remains of a burnt mound was excavated (8.5m x 13m x 0.4m) and sealed a large waterhole, two troughs and a small pit. The troughs were roughly sub – rectangular and had no trace of any lining. One additional small pit and one very shallow rectangular trough also lay outside of the burnt mound deposit. (Mc Loughlin, 08E055)

Late Bronze Age and Iron Age (c. 500 BC to c. AD 500)

The transition between the end of the Bronze Age and the beginning of the Iron Age in the first millennium B.C. is difficult to define and the monuments directly dated to period are few (O Riordain 1987). Monuments that characterise the period are defensive habitation sites which include hillforts which enclosed the summits of hills, coastal promontories at cliff edges, crannogs in lakeside environments and some early ringforts. These defended sites reflected a marked upheaval in society caused by climatic deterioration creating shorter seasons and growth limitations in agricultural land (e.g. growth in bog, the largest expanse of bogland in the study area being in Bog of Ring), over-cultivation and forest clearance and a large expansion of population (Raftery 1994). The closest defensive sites to the study area are in Knockbrack and Loughshinny located over 5km outside the study area to the south. Ritual monuments such as ring-ditches and barrows extend into this period.

The Iron Age is represented in the HLC area by pre-development archaeological investigations rather than upstanding sites. In Darcystown, predevelopment monitoring and excavations identified a number of multi-period sites, ranging from the Iron Age, or possibly earlier, to the medieval period. Three ring-ditches, several pits, one small hearth and one possible medieval kiln were identified. It has also produced a large amount of stratified prehistoric pottery (Carroll, 02E0043, 04E0741). A single inhumation provisionally dated to the 4th century AD, was located within one of the ring-ditches (Ryan, 04E0680, 2004:0496) and in a second ring-ditch (measuring

6m in diameter) four cremation deposits were found within the ditch fill. To its west was a kiln, while to its north and west were a series of 29 post- and stake-holes and three pits.

Excavations (Carroll, 99E0155 ext, 04E0680, 04E0741) in Rosepark Balrothery identified a high status defensive habitation site, the artefacts and C14 dates of 3rd to the 8th/9th century suggests that the site was occupied throughout the 1st millennium AD, the late Iron Age/Early Christian Period. The hilltop enclosure was defended by ditches from the late 3rd century to the 6th / 7th centuries AD. These earlier fortifications were replaced in the 7th/8th century by the bank and ditch enclosure (Carroll 2002), this excavation is further described below (*cf.* Early Medieval Period section).

Other Prehistoric Sites

Some monuments within the HLC study area are prehistoric sites that cannot be easily placed into a specific chronological timeframe. A standing stone at Rose Park (DU005-012) was situated on a prominent rise in a field of rough pasture and is now located in an open green located in a housing development. It is four sided with an east–west axis measuring 1.7m high and 1.25m in width. The site marked on the Ordnance Survey maps as *Gallan*, an Irish name ascribed to standing stones. The Irish word *gallan* is the diminutive of *gall* which according to Joyce refers to the Gauls who are said to have first erected them (Joyce 1955, 344). Standing stones too are generally dated to the Neolithic and the Bronze Age, and while they occasionally mark burials (cists), they often appear to mark routeways through the landscape, or the presence of sacred areas, or territorial boundaries. On western face of the standing stone there are a series of grooves (Healy 1975) or cross cuts that may resemble ogham (NMI, Dr. McAlister).

The upper stone of a rotary quern stone found in Inch (NMI Ref 1975:249) to the east of Balrothery could indicate Iron Age or Early Christian settlement, perhaps associated with the settlement discovered in Rose Park. Quernstones were used to grind corn into flour, and this example was found one foot below the surface of a ploughed field.

Early Medieval Period (500BC-1100AD)

The early medieval period in the HLC area brought with it a focus on extensive open settlement, the standing monuments of the period and recent archaeological investigations have indicated that the focus of early Medieval settlement was at Tobersool, Flemington, Rosepark (Balrothery). Folkstown Little and Stephenstown and the monastic settlements of Bremore and Balscadden.

Secular Activity

The early medieval period was one of population growth and the ringfort, a classic early medieval secular settlement type, consisting of circular areas defined by banks and external ditches. They have a dispersed distribution, although some are occasionally located in pairs. Excavation within these sites has revealed evidence for dwelling houses for extended families and outbuildings. Though they are among the commonest archaeological monuments in the country, in the north Leinster area there is a comparatively low density. According to Stout this may be related to the good quality soils of the locality and durability of the subsequent Anglo-Norman settlement (Stout 1997), whereby the ringforts were removed by generations of intense tillage activity. Indeed the majority of the ringforts in the study area have been ploughed-out and have no surface expression; they were identified through aerial photography and generally classified as enclosures. In Tobersool (DU001-009) an aerial photograph shows a circular cropmark c. 30m in diameter in an area marked as 'Leechtown Wood' and close by 'Rath Wood' as marked on the Ordnance Survey mapping (1937-1941). There are no visible traces of these sites at ground level. The ringfort site in Kilsough South (DU005:006001) lies beneath 'The Chancies' housing development and in the same townland in what is now a golf course, a levelled enclosure (DU005:00602) c. 30m in diameter was also identified in aerial photography. There is an enclosure at Balscadden (DU004-003), identified in aerial photography that measures c. 50m in diameter which may represent the remains of a ringfort and at Courtlough/Cullenhill (DU005-020) an aerial photograph identified the presence of an enclosure c. 35m in diameter with an annexe.

Geophysical survey across an enclosure/ringfort (DU005-05201) was carried out in advance of the Balbriggan Outer Relief Road in Folkstown Little and Stephenstown. The survey revealed a large, possible ringfort, with a double ditched interior enclosure, associated field systems and an outer enclosing ditch (geophysical licence ref.: 07R0158). A 50m length of the outer ditch of the ringfort was impacted on by the proposed road and associated drainage. The excavation revealed a U-shaped ditch orientated SE-NW and measuring c. 69m in length, c. 4.5m to 0.6m wide, 1.4m at it's deepest. The upper fills appear to be slightly later as several sherds of 12th–14th century pottery were recovered. A copper-alloy stick pin and a small fragment of a bracelet or buckle, was found. The internal area of the enclosure was divided by two large east–west orientated ditches, thought to form part of the ringfort's associated field system. The profile and dimensions of the main outer enclosing ditch changes noticeably in the section of the ditch between these two field

boundaries, it gets considerably deeper and wider at this point and it is possible that this enclosed area may have been used as a cattle enclosure. A possible key-hole shaped corn-drying kiln and a large circular pit were identified between the two field boundaries (Kavanagh, 07E0836ext). McCormick (1995) has suggested that, given the value placed on cattle, and the occurrence of cattle raiding during the Early Christian period, one of the primary functions of the ringfort may have been to keep cattle within the same boundary as the dwelling, thus allowing the inhabitants to keep a close watch on their livestock. There are references in early Irish legal texts to watchdogs guarding the byres and sheepfold as well as the home, suggesting that people and animals may all have lived within the same enclosure.

Sometimes associated with ringforts are underground passages known as souterrains a site type that is relatively rare in Dublin; however there is a relatively high density in the HLC study area. As their name suggests they are underground passages, probably built for storage purposes, as they maintain very constant temperatures, and are often very inaccessible. It was thought at one stage that they were refuges, but their single entrances would probably make them extremely unsafe hiding places. A possible souterrain is excavated by George Hamilton in 1840 in a field known as 'the North House Meadow' in Hampton Demesne (DU005:042).

It comprised a substantial length of passage (c.18.29m) leading to a beehive chamber which had an air-vent. Bones described as being oxen, swine and bird bone along with sea shell were discovered (Clinton 1998, Hamilton 1845–7).

In Stephenstown in the vicinity of the afore mentioned ringfort/enclosure (DU005-052002) a previously unknown souterrain was identified on a prominent hill during the construction of farm buildings, the passage survived to a length of 22.75m and ran in a northwest to southeast axis, although the full extent of it wasn't opened, a second passage c.1–1.5m long was identified at the end of which was a circular chamber (Clinton 1998). The geophysical survey carried out across the site identified the location of the souterrain chamber (licence ref.: 07R0158).

In Knocknagin in the vicinity of the possible passage tomb (DU001-012) a subterranean structure which is described by Clinton (1998) as a potential souterrain site was identified during agricultural work in the area, the structure had a large cap stone and a possible passage, the feature apparently appears as a cropmark in certain conditions. It is possible, however that Clinton may have been referring to the remnants of the passage tomb recorded at this location.

As briefly discussed above a substantial multi-ditched enclosure complex (DU005-013002), was excavated in advance of development in Rosepark, Balrothery (Carroll, 99E0155 ext, 04E0680, 04E0741). The site was originally identified from the air as a series of cropmarks (St Joseph/CUCAP, BDS 57, 1970) and comprised an enclosure, an annexe and a field system covering an area of c. 8 acres located on a north facing hillside to the east of Balrothery Village. A high-status defensive habitation site, which included souterrains, corn-drying kilns and an entranceway to the complex were excavated. The artefacts and C14 dates suggests that the site was occupied throughout the 1st millennium AD. Earlier fortifications (see above) were replaced in the 7th/8th century by a banked and ditched enclosure. The southern half of the enclosure was excavated in advance of development, while the northern half was preserved *in-situ* as a public space area. The site has an 'enigmatic' layout of ditches, where there is a central 'key-ring-spiral' ditch form which other ditches branch (Carroll 2002). Seven souterrains were found on the site and many other features identified may have been the remains of souterrains. The souterrains had narrow passages and 1–2 circular chambers each. Where there was evidence of construction, the circular chambers (2.3–3m in diameter) were corbelled and were 1–2m in height. The corn-drying kilns were of varying shape and size but were most often 'keyhole'-shaped. There were the possible remains of one very roughly half-circular structure on top of the hill, but otherwise there was a significant lack of domestic structures. From the presence of souterrains and corn-drying kilns, animal bone and domestic debris, as well as E-ware, bronze and bone pins, an iron scythe and pin shanks, glass beads, a spindle-whorl and a bone comb, this was evidently a habitation site of some sort, probably high-status in character. This 'high-status' character is suggested by the comparatively large amount of E-ware and the number of souterrains on the site. The residential housing complex has taken on the name Rath to reflect the below ground archaeological remains.

Recent excavations at Flemington have revealed a ditched complex early medieval in date (Bolger, 2008). The remains of this site are complex and extensive in nature indicating a long duration of activity in the area, while there was no settlement focus and little evidence for habitation or structures, the evidence predominantly pointed toward land management activities that is ancillary to a settlement or habitation site i.e. cereal processing, metalworking and water management. Further geophysical survey (Nicholls & Shiel, 2005) has indicated that this site extends to the north, immediately south of the holy well (DU001-004) in Flemington.

Excavations in advance of the Balbriggan outer relief road in Folkstown Great identified postholes and associated features that possibly represent two structures (a possible circular structure, c.4.5m x c.5m and a sub rectangular structure, c.5.5m by c.8.5m) (Mc Loughlin 08E053). These features were enclosed by two parallel northeast-southwest ditches which may have been

contemporary with the structures. Finds recovered at the site indicate a medieval date but there is also the possibility that the structures may be prehistoric, radiocarbon results will confirm this.

Early Medieval Period non-secular activity

Holy Wells

There is a growing acceptance that holy wells frequently indicate the presence of ecclesiastical sites in their vicinity (MacShamhráin 1996). Holy wells are an example of the pre-Christian tradition of sacred springs that was subsumed into Christianity which, like their pagan predecessors, were visited at certain times of the year on saints' or other holy days, and often had the reputation for affecting cures. There are six holy wells located within the HLC study area mainly dedicated to either St Mary or St Bridget.

Tobersool (DU001-001) a natural spring well, is known as 'St. Brigids well' or the 'eye well' because of the tradition that the water cures diseases of the eye (Lewis 1837, Vol.1, 171, Skyova 2005), it gives the townland its name. It is located in a copse in the middle of a level field, the area around the well is protected by a wooden fence, the well opening is covered by a sheet of corrugated iron. The pattern day for the well is in February. An associated story with the well is that Cromwell dried up the well when he bathed his feet in it, the water was then restored by the prayers of a priest.

Tobertown holy well (DU001-00303) is also associated with sore eyes; it is located in the graveyard of St. Mary's in Balscaddan and comprises an oval shaped structure. The pattern day to the well is the 15th August. A natural spring well, located inside the graveyard beside the late medieval church and early graveslab. The well, known locally as 'St Mary's' is enclosed by a masonry wall with stone steps leading down to the well. It is still venerated. Patterns held here annually on the 15th August (REP NOV 1958, 72, Skyova 2005).

There are two holy wells in Stephenstown, known as 'Lady's Well' (DU005:002) and Mabel's Well (DU005:003). 'Lady's Well' is also locally referred to as 'Grahams Well' (Skyova 2005). It is located in a waterlogged area above a stream at the foot of an old ash tree and is roughly lined with stones. It has been venerated in living memory and is known to cure sore eyes, toothache and headache. Mabel's Well is located on a northwest facing slope above a stream. This is a natural spring in which the water sprung from beneath a boulder which was removed in 1994.

Flemington holy well (DU001-004) known locally as Lady's well (REP NOV 1958, 72) is situated in an area of rock outcrop adjacent to farm buildings. It is enclosed by a recently constructed ditch

and bank, built to keep the farm animals out. The well is probably the only above ground indication of the recent extensive early medieval findings from Flemington.

A holy well in Rosepark (DU005-013001) Balrothery was known as 'St Bridget's well'. It was located on a hillside under tillage in a field known as 'church field' (O'Danachair 1958). It was frequently visited and had a large ash tree which functioned as a 'ragg tree'. It has however been destroyed by development. Another Holy well was known locally in Balrothery it was referred to locally as 'Biddy Boughy's Well' is located off Chapel School Lane, the name is thought to be a corruption of the Irish *Bride Bothar* meaning the road to Bridget's Well, it was fed by the same well in Rosepark.

Monastic Settlements

There are two ecclesiastical foundations in the HLC study area, at Bremore a foundation dedicated to St. Molaga and at Balscadden a possible foundation with associations with St Benignus.

Bremore

A late medieval church in ruins (DU002-002002) is located in a disused graveyard of the Bremore fortified house. It lies upon the reputed early monastic site of *Lann Beachaire*, meaning 'the church of the beekeeper'. It was founded by St Molaga in the seventh century (Walsh 1888, Gwynn and Hadcock 1988). St Molaga or otherwise referred to as *Mo-Lucé* and *Mo-Domnóc* was student of St David in Menevia in Wales whose primary foundations were Timoleague (Tech-Mo-Laga), County Cork, and the unidentified Tulach-min-Molaga, probably near Fermoy, County Cork. An early medieval 'Life' of the saint describes how, when returning from studying in Wales, he founded a town (oppidum), near Dublin, which was called Lannbeachaire. It was a significant early monastic settlement that survived into the later medieval period where it continued as a local church and burial ground even after the reformation. While no features or structures of the early monastery survive, documentary evidence such as the *Martyrology of Oengus* or *Felire* provides early references to the church and firmly dates to the last decade of the eighth century, which lists '*Lann Bechiar I mBregaib*' in the territory of Brega. The foundation is important as it has links with other early Irish monasteries and as the '*lann*' element of the placename would suggest was linked with Welsh Christianity of the period. The present remains comprise a late medieval church. The name survives today in the form Lambeecher, now the site of a modern housing estate. The later church, still dedicated to St Mo-Laga, is in a ruinous state. The local national school, Naomh Molaga is dedicated to the Saint. The burial-ground nearby was still in use when Samuel Lewis visited the site in the 1830's, and more recent interments have taken place within the church.

The church is in a very ruinous condition and the surrounding graveyard is very overgrown. It measures 12m east-north-east and 4m west-south-west (internally) and comprises an undivided nave and chancel. The north wall is incorporated into an orchard wall, part of a nineteenth century complex of farm buildings. Traces of a blocked doorway are visible in the south wall but there are no architectural features which can reliably date the church (RMP files). Four fragments of seventeenth-century stonework lying inside the church (discussed below) and other segments of arches or windows bonded into the orchard wall and the gateposts at the entrance to the graveyard.

Balscaddan

Balscaddan village has a connection to St Benignus, St Patrick's favourite Psalm singer. St. Patrick is reputed to have baptised St Benignus in the River Delvin. At an early age he studied and travelled with St. Patrick and later succeeded him as Bishop of Armagh (Dunne 1996). He was variously referred to as St Benen, St Mionnan and St Benignus. The local national school is dedicated to the saint.

The present graveyard in Balscaddan Village on the western outskirts of the town in Tobertown townland (described below), is located on a bend in the road to the west of Balscaddan village, is thought to contain possible ecclesiastical remains (DU001-003005) (Healy, 1975); the graveyard is circular in plan except at the southeast where it takes a curve indicating the possible presence of an enclosure. On Rocque's map (1760) the church is marked as being 'in ruins' and there appears to be an enclosure surrounding it. The presence of St Mary's holy well within the enclosure also indicates the early medieval origins of the settlement.

Medieval and Later Medieval Period 12th–16th Century

The districts surrounding Dublin were brought under English Crown authority following the intervention of King Henry II in the winter of 1171-2, with large estates bestowed on secular and ecclesiastical peers of the English realm in the form of manors. The majority of Anglo-Norman manors were located near rivers and, preferring established settlements with an existing infrastructure, the new settlers also took over established ecclesiastical sites (as in Bremore and Balscadden). The main Anglo-Norman settlements in the study area include Balrothery, Balscadden, Bremore and Stephenstown and their surrounding arable lands forming part of the manorial estates.

The prominent medieval family in the study area were the Barnewall's. Although Stanyhurst claims that the Barnewalls were amongst the earliest Anglo-Norman arrivals in Ireland, the earliest reference to the family comes in 1216, when Hugh de Barnewall held the lordship of Drimnagh and Terenure. In 1316, Reginald Barnewall arranged the marriage of his son Wolfran II to a daughter of Robert de Clahull, and, as a result, the family acquired large estates in north

County Dublin. By the end of the fourteenth century, the Barnewalls were described as lords of Bremore, Balrothery and Balbriggan (Duffy 1997).

Balrothery

At the time of the arrival of the Anglo-Normans (1169), Balrothery was held by a family of Welsh origin from Gwyneed. Thirteenth century genealogical collections refer to a Welshman '*Rhirid ab Owain Gwyneed*' or perhaps '*Rhodri*' his brother, who held lands in the Barony building on the foundations laid by Edmund Curtis. The Dublin Merchant roles c.1200AD states that the town was named *Baliretheri*, an Irish form, suggesting that the brothers owned the town before the establishment of the Anglo Norman over lordship (Duffy 1997). Like many of the pre-Norman landholders in Fingal, the Welsh lost control of many of their early estates that they had acquired through their association with the Ostmen of Dublin. The lands were subsequently granted to the newly arrived Anglo-Norman lords, the lands of Balrothery passing into the hands of the de Clahulls and later, the Barnewalls (Duffy 1997).

It is also popularly thought that the name may have been derived from the Irish *Baile O'Ridire* meaning the town of the Knights. Balrothery tower house (DU005-010, RPS 085), located on a natural rise in the wooded gardens of Glebe House to south of the present church and graveyard in the village was a class of Parliament House where the Barons or Lords of the district would gather to take counsel (Donnelly, 1977). Plots of land were appointed to Knights to graze their horses. These are indicated on the early OS map editions as long narrow plots to the east of the main street. Within one of these plots a decorated stone disc was found (NMI 1974:80) which may have been discarded or lost by one of the knights.

On a permanent knoll above the fair green to the south of the town is the present Church of Ireland Church and graveyard (DU005-009003). It was built in 1816 and occupies the site of a medieval parish church (DU005-009001) which was levelled with the exception of the western, round, residential tower (c.1500) that is incorporated into the present building (a National Monument No. 590). The first pastor was Praticius De Rosel who was appointed in 1190, then in 1200 by Geoffrey De Constantyn, to whom the manor of Balrothery was entrusted. The thirteenth century *Crede Mihi* states that the church of Balrothery belonged to the prior of Kilbixy, near Tristernagh in County Westmeath. A Regal Visitation of 1615 reported that the church and chancel was in good repair however in 1630 Archbishop Bulkeley recorded both as being in total disrepair. The antiquarian Austin Cooper describes the church in 1783 as '*an old church of extraordinary construction*' which '*undoubtedly appears to be of ancient construction*'. A projecting head from the east wall is likely to be from the medieval church. It was dedicated to St Peter. The existing church was closed in 1965 (Walsh 1992). The graveyard has eighteenth century graveslabs with folk art inscribed on them (DU005-009002)

On a site along the Old Coach Road (along the main street of the town) a substantial medieval metalled surface and a medieval pit was identified (01E0255). In Glebe South predevelopment excavations identified medieval ditches and fifteen sherds of medieval pottery (Baker, DU00E0034).

Balscaddan

In 1178, Archbishop O'Toole confirmed Balscadden as a possession of Holy Trinity (later Christ Church Dublin). The beginnings of the manorial system in Balscadden however was marked in 1250 by King Henry who granted '*three carucates, 89A., and a mill in Balscadden, also the homage and service due by Robert and Andrew Passelwe and William Fitzmilo from their tenements in the same village...*' to Christ Church Dublin (D'Alton 1838).

Situated on a hill above the village of Balscadden is the churchyard of ruins of an ancient parish church on the site of an earlier ecclesiastical foundation (DU001-003005, *c.f* above), Balscaddan is said to derive its name from the Gaelic *Baile Na Scadán* (meaning the town of the Herrings). The herrings were traditionally transported inland from a small fishing port, commonly known as 'Cromwell's Harbour' or 'Balscaddan Bay' (*cf.* below). Balscaddan was recorded as an ancient manor of the Ormonde family in 1616 and the medieval church to the west of the settlement was noted to be in good repair as late as 1630. Oliver Cromwell is reputed to have used the medieval church for target practice for his cannon from the grounds of Balscaddan House, reducing the church to ruins. Legend states that he washed his feet in St Bridget's holy well in Tobersool and dried it up.

The 1654-6 Civil Survey described the boundaries of the Parish of '*Balskaddon*' as '*bounded on ye west to ye Parish of ye Naall on ye east to ye Parish of balrothery on ye south with ye Bogg of balrothery and ye Parish of Hollywiid on ye North to ye little river of Gormanstowne commonly called Elvin water*'. It appears that John Finglas, Thomas Conran, Richard Caddell, Patrick Gough, Luke Hussey and Matthew Barnwall of Bremore were all listed as proprietors of the various townlands in the Parish and are all listed as Irish Papists.

Bremore Castle

Bremore Castle (DU002-002001, and RPS 014) a medieval manorial complex was a Barnewall holding from the 14th century onwards and a manorial seat of the Barnewall family in the 16th and 17th centuries. It is indicated on the Down Survey Map of 1655 as an imposing edifice surrounded by trees and is described in the Civil Survey returns (1654-6) as a burnt castle with a great barn, eight tenements, one orchard and a park owned by Matthew Barnwall. Archaeological investigations (Licence no. 01E0311 and 01E0370, Swan 1996; O'Carroll 2003a; 2003b) of the tower house and its environs provided evidence of medieval field systems (DU002-014, RMP

digital file) and cultivation, large amounts of medieval pottery and a six-pound cannonball was also discovered as well as earthen post-medieval agricultural features found to the north of Bremore Castle. Two parallel ditches extending 150m east-west and 50m apart formed the borders of the field system adjacent to the castle, cultivation took place within these plots, it was concluded that the field system extended across the N1 joining Hamlet lane which ran along the same axis as the southernmost ditch (O'Carroll, 2003). In total, approximately 4000 sherds of pottery was collected from the site, the majority of which was late medieval in date with a large proportion of Leinster Cooking Ware.

Bremore Harbour 'New Haven' and Headland

The Calendar of Carew Manuscripts (1515-1574) record that James Barnewall and his wife Margaret were granted to build in 1562 at Newhaven 'a quay or harbour and fisher towne' which would have provided important docking facilities on the nearby shore, 'le Newhaven of Brymore', is recorded in one of his land deeds of 1592.

The Down Survey shows five structures on Bremore Head (1654-1656) and also refers to Newhaven as the following: '*On the North of the Barony stands a point or North of land (extending itself into the sea) called New Haven it being by the industrie of the inhabitants of the towne which stands; near this point made a secure harbour for boates and is a considerable place for fishing.*' And '*In the towne of Bremore is a towne called Newhaven, a towne of fishing.*' This port predates the building of Balbriggan pier by almost two hundred years.

The Civil Survey of Dublin (1654-1656) refers to the proprietor of '*Breemore and Newhaven a fishing towne on ye said land*' as '*Matthew Barnewall of Breemor, Irish Papist*' who was stated to hold at Bremore 300 acres, of which 150 were arable, 140 pasture, and 10 meadow. The site was said to contain '*one burnt castle with a great barne and eight tenements, one orchard & parke with some young ashtrees*' while at Newhaven there were said to be ten small cottages, both of which, when combined, a jury valued at £110. The bounds of Bremore were set as: the sea on the east; the lands of *Tankerdstowne* on the south; the land of *flemingstowne* on the west; and the land of *Knockhengen* on the north.

New Haven is also indicated on Rocque's 1760 map, the pier is described as a 'quay'. In other written sources it is referred to as 'Cromwells Harbour' or 'Balscadden Bay' (Cluskey 1999). It is said that majority of fish landed here were herrings which were then transported by horse cart on a road that ran through the village of Knocknagin and then a road to Balscadden for preparation and sale, this routeway is shown on Rocque's map, on Duncan's 1821 map it is referred to by D'Alton as 'a pretty hedge road' (1838).

Newhaven Harbour (DU002-015, recorded as a quay on the RMP digital file) is located on the southern side of Bremore Head and runs in a north-northeast direction almost parallel to the headland. It comprises a rubble stone pier that survives relatively intact. It is approximately 62m in length and varies from 8- 10m in width. It is sited in a sheltered location in an enclave of high sea cliffs and a level sandy beach which would have facilitated the unloading of cargo from vessels. Field survey for the HLC identified what appears to be a narrow (c. 1m wide) and steeply sloping sunken-way leading from the site of the New Haven settlement down the cliff edge to the pier. It had what appeared to be a metalled surface which was exposed in places by hill wash. On the coast nearby the harbour is a cairn of stones known locally as the 'sailor's grave' from the shipwreck of the Belle Hill

Stephenstown

Upstanding monuments and historical records indicate that in addition to the early medieval activity discussed above there was also an Anglo-Norman settlement in Stephenstown. This medieval manor did not develop beyond the seventeenth century. The foundations and lower courses of a square tower house (DU005:004) is situated on a northwest-facing slope in the townland of Stephenstown. The Civil Survey mentions a 'burnt castle' held by Elizabeth Finglas here in 1654. The site is marked as 'Castle' on the first edition OS map. Adjacent to Stephenstown and likely to be associated with the castle is a chapel site in Folkstown Little (DU005:001). It is shown on the first edition OS six-inch map but not on the current edition, and not mentioned in the Civil Survey. D'Alton mentions that the chapel is listed in the Inquisitions of 1562. There are no visible surface indications of the site but the field is known locally as the 'chapel field'.

Post Medieval Period (1534AD onwards)

The ancient Parishes of Balrothery and Balscadden were united in 1620 to become the Parish of Balbriggan (Donnelly 1977). The 1659 census showed the sharp contrast of population sizes between the villages, Balrothery had a population of 204, Balscadden with 190 and Balbriggan with just 30 (Walsh 1992) indicating the relative importance of the settlements in the preceding Medieval period. In 1718 the Hamilton's bought the estates of Balbriggan and Balrothery from the Barnwalls becoming the dominant landowners.

Taylor and Skinner's eighteenth century road map (c. 1777 & c.1783), details some of the main town settlements, villages and seats. Within the HLC area, 'Knockigen; Martin Esq, Lowther Lodge; Lowther Esq.' and Hampton Hall; Baron Hamilton', the towns of Balbriggan and Ballruddery are shown, Bremore Castle is indicated as being in ruins and Stephentown Mill is drawn but is unnamed. Topographical features indicated include Clonard Hill and the river Devlin.

The eighteenth century brought a shift of focus to the area and saw Balbriggan emerging from a small fishing village to a large industrial centre with a corresponding and rapid decline of the villages of Balrothery and Balscadden. Today Balscadden belies its original size and importance and the village of Balrothery has been subsumed into the town of Balbriggan. The returns of the 1841 Census are revealing in this regard, indicating that the population of Balscadden numbering 295 and Balrothery with 386 and a hugely contrasting 2,959 people living in Balbriggan (Walsh 1992).

Balbriggan

Balbriggan was a small fishing village originally part of the united Parishes of Balrothery and Balscadden which were formed by the Synod of Kilkenny in 1618 (Walsh 1992). It derives its name from *Baile Breacáin*, the town of the hills and is probably the youngest town in Fingal (Donnelly 1977).

In 1659 it was a small fishing village with just 30 inhabitants, on the Down survey map of 1655 refers to Balbriggan as the *Great Farme of Ballibriggan* and the *Little Farme of Ballibriggan*. In the corresponding Civil Survey 1654-6 'Great Farme' is recorded to contain one farm house and three tenements belonging to Nicholas Barnewall of Turvey and as 'little farme' belonging to Peter Barnewall of *Tyrenure* containing one farm house, ten cottages and a mill, with both areas occupying 220 acres. There is, however, no mention of fishing in relation to Balbriggan in either the Civil Survey or the Down Survey. It would appear that the haven declined in importance some time between 1577 and 1641. Its decline may have paralleled the rise of the port of Newhaven which was only about 2km away and perhaps reflected the growing importance of the Barnewall family of Bremore (Ni Mhurchadha, 2005).

In 1762 the fortunes of a modest fishing village of Balbriggan was changed by the construction of a limestone pier forming a large harbour built by Baron Hamilton with the aid of Parliamentary grants which undoubtedly rivalled the small quay at New Haven. On the pier two plaques reading: *This pier was built by the / Honourable George Hamilton / of Hampton in the county of Dublin/ Third Baron of His Majesty's count of the Exchequer /in Ireland/ whose great object in life was to promote / the trade and prosperity / in His country/ann.dom.1761*

A lighthouse positioned at end of east pier was constructed in 1769 and was originally illuminated by candlelight. The northern jetty was built in 1826 and 1829 (Walsh 1992). John Rocque's Map (1756) shows Balbriggan as a tiny hamlet with its new harbour and quay both named.

Baron Hamilton was also responsible for placing Balbriggan amongst a centre of manufacturing and commercial importance. He founded the cotton mills in Balbriggan in 1780, thereby facilitating

the production of hosiery that was still widely in demand in the 1820s (Lewis 1837; Wright 1825). Indeed, during the 1830s, more people were employed in cotton manufacture than in fishing as the fishing industry was suffering from the withdrawal of the bounty or subsidy (Lewis 1837).

In 1791, it was said that where only a few cottages had existed a few years ago, there were now smiths, weavers, tailors, butchers, brewers and spinners all attracted to Balbriggan by the Comerford and O'Brien cotton factory (Whelan 1997). The once thriving cottage industries of Balrothery came to an end. In 1837, Balbriggan contained 3,016 inhabitants in 600 houses, many of which were well built. Hot baths along the coastline were constructed for the many visitors who came there during the bathing season. During this time, there were two large factories that were both powered by steam engines and water wheels. Three hundred people were employed in the factories themselves but a further 942 were employed in and around the town working hand looms (Lewis 1837).

There are two post medieval watermills in the HLC Study area in Balbriggan and Stephenstown, neither watermill survives and both sites are now located beneath nineteenth-century mill complexes. The 22 acre reservoir near in Knock supplied the mills with water. The mill in Balbriggan (DU005-050) was located at the end of a lane off Dublin Street. No evidence survives of the post-medieval mill but it is known to have existed from the Civil Survey of 1654 and was marked on the Down Survey map for the area. An historical assessment of an extensive area of open ground between Mill Street and George's Hill, Balbriggan, indicated industrial activity from the late eighteenth century onwards. This was centred on the Hamilton (later Gallen) cotton works, the main factory building that is still in use. The programme of testing and recording was designed to create a detailed record of existing elements of the industrial complex and to identify potentially unrecognised remains in the area. Inspection of the site following removal of a dense cover of vegetation revealed that most of the elements of the industrial complex as depicted on the 1868 twenty-five-inch map could be clearly identified on the ground. These elements included the millpond, feeder channel, two well preserved sluice gates, a spillway, weaving sheds and outbuildings. No structures or elements of the mill complex that had not already been identified from historical or cartographic sources were found on the site. In addition, no archaeological material was recovered during testing or monitoring of engineering test pits that would suggest substantial activity on the site before the late eighteenth century (Swan 2000).

Balrothery

In 1641 the right of holding three annual fairs and a weekly market was conceded to this town (Lewis) indicating its former prosperity. In 1800 Balrothery had 80 houses within it and as shown on Duncan's 1821 map they were located facing the triangular fair green area located at the

eastern entrance to the church and along the length of the Main Street. Industries within the village included two distilleries, a biscuit factory, a tannery (indicated by the stream known as Tanner's Water) and a turnery making wood household implements. Weaving was a local cottage industry in the area, it was thought that the Bog of the Ring provided many of the dyes used (Campion 1957). The opening in 1740 the factories in Balbriggan marked the demise of this thriving local economy and like Balcadden the local people turned to the thriving industries in Balbriggan. The rerouting of the Old Coach Road (see below) and Dublin-Drogheda railway (1840-4) also marked its decline.

As discussed above the medieval church in Balrothery was replaced in 1816 by the present Church of Ireland structure, the church was closed in 1965. A Catholic chapel is shown on Duncan's 1821 map to the east of the on a road running parallel to the main street, its remains are said to be behind St Oliver's National School.

Balcadden

In comparison to the other villages in the study area the development of Balcadden village has been slow, although records show that in 1659 it had a population of 190 compared to Balbriggan which only had a population of 30. The 18th and 19th century development Balbriggan starting with the construction of the harbour (1761-5) and the cotton and hosiery industry (1780's), the rerouting of the Old Coach road and the 1845 famine marked the demise of the village. The current street pattern has not altered greatly from that indicated on Rocque's map of 1760.

The current Catholic Church of St Mary's (RPS 6) was built in 1819 by subscription; this is interesting as it predates Catholic Emancipation by ten years (Cluskey 1999, Walsh 1997) and the schoolhouse (now used as the community centre) was constructed in 1832.

Stephenstown

The second watermill (DU005-051) in the study area was located in the townland of Stephenstown. The site can be accessed from Tanner's Lane west of the main Dublin-Belfast road. The nineteenth-century mill complex overlies the site of the post-medieval mill. It too was mentioned in the Civil Survey and marked on the town survey map as 'the mill of Stephen' (RMP). On Rocque's 1756 Map '*Stevenstown*' is indicated with a windmill on the summit of the hill (at a location marked on the first edition Ordnance Survey map as a Pigeon House). The fact that Stephenstown is named separately from Balbriggan suggests that the mills here were independent of those in Balbriggan and that the settlement that grew up around the mill was a village in its own right, although it did not survive, other than as a scatter of houses through the townland. A '*Bridge*' is marked on the road crossing the stream here indicating that the original bridge was built prior to 1756.

Bremore

By 1607, the manor of Bremore was held by John and Eleanor Barnewall and included lands at Clonusk, Flemingstown, Harbardstown, Balscadden, Balbriggan and Balrothery amounting to 600 acres. In 1641, Matthew Barnewall was recorded as holding 300 acres at Bremore and was attainted for his adherence to the Catholic cause. Although much of the lands were recovered following the restoration of the monarchy in 1660, Bremore and the other estates were eventually lost to the Barnewalls when the male line died out in the early eighteenth century (Duffy 1997).

The development of an estate village at Balbriggan in the 17th century would indicate the settlement in Bremore had not prospered. Austin Cooper in 1783 described the castle as 'The case. (castle) of Bremore about a mile N. of Balbriggan is situated on a rising ground very near the sea and commanding a delightful prospect there of...' Walter Bagenal married the heiress to Bremore, and Bremore was sold by him in 1727 to the Earl of Shelbourne, from whom it passed to the Marquis of Lansdowne. The latter's descendants retained possession until recent times when it was acquired by Fingal County Council, the castle is currently being restored.

Four fragments of seventeenth-century stonework lying inside the church and adjacent to the castle (DU002-002002), two of the mantel-like architectural fragments may originally have belonged to the castle although, as suggested in the RMP report, they may represent part of a wall-tomb. Both of these fragments contain panels of sculpture and one bears the date 1689.

Lower Lodge

Lowther Lodge is a ruined dwelling surviving to one storey overlooking the coast in the townland of Knocknagin. It appears to be entirely constructed in redbrick and comprises out-offices and a possible walled garden, the structure is almost entirely overgrown. The Lowther family are reputedly to have come from Cumbria in the 1630's and where involved with the coal trade. In Taylor and Skinners Road map (1778) 'Lowther Esquire' is named as owning the lands. By 1837 Lewis states that Lowther Lodge was the seat of G. Macartney, Esq., and that in the grounds was an ancient rath. The rath he refers to may be the 'moated' site shown on Duncan's map recorded as a possible megalithic tomb in the RMP in Knocknagin townland (DU002-010). The house is also shown on Duncan's 1821 historic map and the 1st edition Ordnance Survey (1837-43) as well as the associated pier and harbour. Roads running north and south from the lodge are shown. It is possible that this pier was constructed in the 17th or 18th century for the purpose of importing coal into Ireland. The harbour consists of a dry rubble stone pier and an area of cleared foreshore for pulling up and mooring boats. It is smaller in scale than Newhaven pier and it is not shown on the Down Survey map but does appear on the 1st edition Ordnance Survey map of 1843 and is probably in use at that time. The lodge was in the ownership of the Filgates during the 1800's and was inhabited until the 1940's (information taken from the underwater unit archive).

Built Heritage in the HLC

The HLC area has a rich and varied heritage of historic buildings that range from estate houses to more modest vernacular architecture and industrial structures. There are many rural buildings in the county that have served varied purposes—domestic, agricultural, educational, religious and industrial. There are 101 protected structures i.e. structures, or parts of structures which are of special architectural, historical, archaeological, artistic, cultural, scientific, social and or technical interest within the HLC study area that are listed in the record of protected structures (RPS) in the Fingal County Development Plan (2005-2010), this includes some archaeological sites (27 in total) including earthworks, holy wells and stone standing structures such as pre-1700 churches and castles these are described and referenced as RMP and RPS elsewhere in the report.

Ardgillan Demesne, Balscadden village, Balrothery and numbers 14–28 Hampton Street Balbriggan are defined as Architectural Conservation Areas (ACA) in the Fingal County Development Plan (2005-2010). An ACA is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. They also are areas, which contribute to the appreciation of Protected Structures.

Demesne Houses

The stone manor house, or what became known in Ireland as the ‘big house.’ were constructed by planter families in north County Dublin, as elsewhere in the country, roughly between the years 1670 and 1850, and they are often found near to or on the sites of older ruined castles or tower houses, churches or defunct administrative centres. Big Houses were also often situated within embellished and ornamented demesne land ringed by high walls (McCullough & Mulvin, 1987). The demesnes or designed landscapes within the study area are described as follows.

The lands to the south of the River Devlin that were once associated with the designed landscape of Gormanstown House (Co. Meath) and up to the twentieth century retained the woodland areas and walks have since vanished.

Ardgillan Demesne (RPS 94) is situated on eighty hectares of elevated rolling mature parkland, mixed woodland and gardens. The demesne consists of the ancient townlands of Kilmainham, Ardgillan and Baltray and parts of Ballymad, Laytown and Barnageera Little (Murphy 1984). On Rocque’s (1760), Duncan’s (1821) map it was named ‘Prospect’. It is a castellated thirteen-bay three-storey over basement house, built 1738 by Dean Robert Taylor. It comprises a central three-bay block with breakfront tower and is flanked by advanced three-bay wings which are terminated by towers. The house overlooks a restored walled garden. It was remodelled c.1815 and opened to the public as a Regional Park in June 1985.

Hampton Hall (RPS 92), now in private ownership, is located to the south of Ardgillan Demesne. It is a six-bay two-storey house and was the former home of Hamilton family and the principal residence of G.A. Hamilton Esq. The demesne extends along the shore from Balbriggan to Skerries. It is well wooded, greatly diversified topography consisting of hill and valley; containing vistas of the wood and commanding sea views. Its former outbuildings, Hampton Hall farm are also protected (RPS 91).

To the north of the study area is Knocknagin House (RPS 002) which built in c. 1680 and remodelled in different periods. Knocknagin was to become a small village as shown on Rocque's 1760 map where there are mills and what appears to be an orchard. A coach road through Knocknagin provided a route from Newhaven to Balscadden where herrings were brought for processing (discussed briefly above). Recent restoration work has uncovered evidence of formal and walled gardens, a culverted stream with a very early type of outdoor privy over it, and traces of a village known to have existed near the house. It is shown on the 1st edition Ordnance Survey map as 'Seaview'. The present front elevation, a three bay with single storey wings each side, is thought to date from the early 19th century.

Vernacular Structures

The expansion of agriculture and population in the late eighteenth and early nineteenth centuries led to the construction of the familiar 'cottage' in farmyards and along roadsides throughout the countryside (McCullough & Mulvin 1987). Fingal is noted for its large number of clay houses. Mud or marly clay is a traditional building material in the area and these clay buildings survive best in warm dry areas. Some buildings have walls constructed of clay over stone. Stone foundations were usually 9 inches deep and another 9 inches above the ground. Walls were built in layers sometimes using boards or shutters and chimneys were constructed on mud cross walls. The traditional north county Dublin house has a roof of oaten thatch, the hip ends of which are swept in a distinctive curve. Surviving houses are now largely roofed with corrugated iron, slates or tiles. The visual impact of these buildings, or their associated outhouses in many cases, is often reinforced by the custom of whitewashing the walls (Aalen et al 1997).

Farmsteads in Fingal have many different layouts – most common is the courtyard farm where the farmhouse forms one side of a rectangular enclosure and one or more buildings form the others. In a second type the outbuildings are built onto the house in a linear fashion. A third is the parallel farmstead with house and outbuildings located opposite each other across a narrow yard or street. Outbuildings typically comprise one or more spaces or units, each with its own entrance and often closed by a half-door. They are frequently similar to, though of rougher construction than dwelling houses. Windows are scarce except for narrow slit openings splaying inwards to

maximise the light. The most typical function of traditional farm buildings were as byres, stables, barns and stores. Nowadays most old outhouses are likely to be used for storage. An earlier wave of mass-produced farm buildings came in the early decades of this century with the introduction of the Dutch Barn – the familiar red barrel-roof iron hayshed.

There are a number of former thatched dwellings and presently thatched dwellings within the HLC study area, however all of them are not listed in RPS. There is a four-bay single storey thatched dwelling in New Lane, Darcystown (RPS 176) and the very recently refurbished thatched dwellings in Tankardstown ('Tankard Ville' in Breacan Close RPS 16) and Bremore on the Drogheda Road (RPS 10, cottage and outbuildings). A former thatched single storey dwelling with corrugated iron roof and out offices (RPS 015) on the Flemingtown to Tobertown Road. There is also a thatched cottage in Knocknagin (NIAH reg no 11302002) that is not in the RPS.

The more substantial two storey houses visible in the country are often simply elaborations of basic vernacular patterns; the majority developed in the eighteenth and nineteenth century as the dwellings of strong farmers or successful traders. These include the eighteenth century Inch House (RPS 078) on the Matt Road and the following nineteenth century structures: Blackhall House (RPS 80) in Blackhall on the Dublin Road, Tara House (RPS 088), the former Glebe House in Balrothery and Whitestown House (RPS 099) on the Tobertown Road.

Balbriggan Town

The industrial growth of Balbriggan, instigated by Baron Hamilton, began in the mid-eighteenth century. It created a unique industrial character to the former small fishing hamlet, unlike many of the towns along the Fingal coastline. Harbours, factories, chimneys, mills, roads and the railway brought prosperity to the town. This prosperity is reflected in the quality of dwellings in the town which date to the late eighteenth and nineteenth century.

The townhouses of the nineteenth century are characterised by the former residences on Georges Square (No.'s 7 and 8, RPS 44 and 45), the semi-detached houses of Georges St/Church Street (No.'s 3 and 5, RPS 50 and 51) and the two storey Georgian residences on Seapoint Lane, originally part of George's Street until the railway divided it (Croom House, McAvinue House and Seapoint house, RPS 53-55). A large modern development outside the town attempts to imitate the houses along Seapoint; whether pastiches such as these can work as a distinctly urbanised, high density context is debatable. Commanding excellent views of the coastline all the way to the Cooley Mountains are four pairs of semi-detached mid-nineteenth century houses at the Bower in Fancourt to the south of Balbriggan town (No.'s 1-4, RPS 56-69). Other former residences within the town of architectural heritage merit include, No.13 Drogheda Street, a two storey corner building (RPS 21), Peacock House also on Drogheda Street (RPS 27),

two dwellings houses on Bridge Street (No.'s 11 and 19, RPS 40 and 41), a terraced house on High Street (No.11 RPS 47), No. 2 Dublin Street (RPS 58) and a Victorian Gothic Revival style house named 'Kincora' (RPS 48) also on High Street. In addition to the protected structures mentioned above numbers 14–28 Hampton Street are defined as Architectural Conservation Areas (ACA)

The facades of many structures along Drogheda Street (No.'s 2, 19, 29, 32-34 and 72) are protected in the RPS (RPS 020-022 and 023-026)

Industrial structures within Balbriggan town include the redbrick Chimney stack of Former Hosiery Factory off Bath Road (RPS 20) and the chimney of Smyth's Factory (RPS 029) on Convent Lane. The Facades of former Smyth's Hosiery Factory on both sides of Railway Street (incl. redbrick structures & buildings with commemorative medallions) are protected and currently house retail outlets (RPS 032). The earliest cotton factory established in 1780 by Barron Hamilton, the former Gallens Cotton & Linen Factory on Mill Street (RPS 033) has been refurbished and is awaiting occupancy. The former four storey Corn Mill former mill on Vauxhall Street is now an apartment block (RPS 064). The Old Mill Bridge on Coolfores Road (RPS 034) is also protected.

The historic mill dam, mill race and the former corn mill (in ruins) in Stephenstown are also protected (RPS 070-72). The reservoir & associated sluices in Knock once provided the water for these early mills, known locally as Wavin Lake or Bowhill Lake (RPS 090). The lake is now considered to be a local nature reserve.

Church buildings in the town include St. George's Church & Hall (RPS 052), a Gothic Revival Church of Ireland church, St. Peter & Paul's Church (RPS 062) a mid-19th century Roman Catholic Church and its associated early twentieth century Parochial House (RPS 63), St. Mary's Church (RPS 006), a Roman Catholic Church in The Square. Marian House (RPS 028) on Convent Lane was a former convent and is currently used as a school building. On Hampton Street is the nineteenth century St. George's National School & Schoolhouse (RPS 057). Bedford House (RPS 049) on Georges St/Church Street was a former Vicarage/Rectory and is now a Nursing Home. St. Peter & Paul's Church has a Harry Clark Window 'Son and Visitation' which was designed in 1924; other windows were also obtained from the Harry Clarke Studio's.

Possibly the most distinctive structures within the town are those in Georges Square with public buildings such as the Court House (RPS 042), the Carnegie library with a turreted clock tower (RPS 046) and the AIB bank building (RPS 43). Other large commercial structures in the town include the NIB Bank building (RPS 23) on Drogheda Street.

Many of the distinctive facades in the town are protected; these include the Art Deco façade from a former cinema and former garage on Dublin Street (RPS 059 and 060) and the façade of No. 30 Clonard Street (RPS 039).

Other structures include the former early nineteenth century Market House (RPS 065) on Market Green, the former Foresters Hall 56 on Hampton Street and the Corner building at junction with Market Green & Dublin St (RPS 061).

Structures on the Coast

In addition to the ports at Lowther Lodge, New Haven, and Balbriggan, there are many surviving structures associated with the coast and harbour industry. At the end of the southern pier at Balbriggan Harbour (RPS 038) is a tapered circular lighthouse (RPS 037). There are two former lifeboat houses in Balbriggan, to the south of the harbour is the former RNLI Lifeboat House which is tucked under the arch of Balbriggan Viaduct (RPS 035) and a large former stone boathouse on King Strand (RPS 18) built 1889 adjacent to the Martello Tower which was in the early twentieth century used as a bath house but now lies derelict. These stations were replaced by a lifeboat unit in Clogher Head further north in Meath (Dublin City Council 1989).

The Martello Tower in Balbriggan overlooks 'Kings Strand' (RPS No. 017, RMP DU002-004), it is in poor condition and lies derelict. They were built between 1804 and 1806, in response to a perceived threat of an invasion of England via Ireland by Napoleon. They are named after, and their design is based on, a tower at Cape Mortella in Corsica, which was captured by the British in 1793. They were short lived and were evacuated after the death of Napoleon. Over 70 towers were planned and twenty-eight towers were built between Balbriggan and Bray, each with overlapping fields of artillery fire, twenty-one of which survive (Enoch 1970), some were removed for the construction of the railway and others were washed out to sea. South Dublin towers are of granite ashlar, whereas those in Fingal are mostly of rendered rubble masonry.

Railway Heritage

Ireland entered the railway age in 1834 with the opening of the Dublin to Kingstown (Dún Laoghaire) line and in 1838 an act was passed enabling the building of a railway from Dublin to Drogheda. The terminus for this line at Amiens Street (now Connolly Station) was built between 1844 and 1846. The line ran along the shore to the east of Balbriggan town as it does to this day (de Courcy 1996). Balbriggan railway house (RPS 030) designed by George Papworth and the former station masters house (RPS 031) are protected structures. Two impressive railway structures are located in the HLC study area, the Knocknagin/Gormanstown viaduct (RPS 001) over the River Delvin and the Balbriggan viaduct (RPS 036) over four roads and a river in the

town. Balbriggan viaduct has eleven arches. They were designed by Sir John MacNeill and constructed in c.1843–44 under the direction of William Dargan (Cox & Gould 2003). In addition to these imposing edifices there are several stone rail bridges over a laneway in Bremore (RPS 012) a single-arch railway rock faced granite bridge and several pedestrian accesses beneath the line to access the coast.

The Old Coach Road/Dublin to Dunleer Turnpike Road

The route of what is an inconspicuous tertiary road running from Dublin through Balrothery and Folkstown/Clonard to the county border at Gormanstown Bridge has had a long history which dates back to ancient times. It can be traced from an ancient *Slige*, to a late/post Medieval coach road from Dublin to Drogheda, an eighteenth century turnpike road from Dublin to Dunleer, then demoted to a modern tertiary road and has now very recently been traversed by a new outer ring road.

The ancient road known as the *Slighe Mhidhluachra*, which led from Tara to Emain Macha is said to include this stretch of road (with the junction with Tara achieved by turning west at Drogheda). According O'Lochlainn (1940) this road ran from Dublin through the early settlements of Swords, Balrothery, Clonard and Gormanstown (River Devlin or *Inbher n-Ailbhine*) and onwards to the north.

The earliest map indicating this northern route is Petty's 1655 Down Survey map which shows the river Devlin bridge crossing and a dotted line indicating a road from Balrothery. Gormanstown Bridge (RMP DU001-010, RPS 004) is one of the oldest surviving bridges on this northern routeway. A survey of the bridge carried out by O'Keeffe and Simington (1991) found that the bridge had been widened at least twice, they found that the original upstream section was considerably earlier dating perhaps to the 13th century based on the style of the structure and documentary sources relating to the development of the lands by the first Lord of Gormanstown, Sir Robert Preston. A central cutwater is located on the up-river side and the parapet is high, probably for defensive purposes.

The route later became a Coach Road or main northern route maintained by the parish labour system and the county grand juries (Broderick 2002). It ran from Dublin via Swords through Balrothery, over the Hill of Clonard passing Bascaddan, through Tobersool and over the Gormanstown Bridge at the River Devlin into County Meath. The route of the Old Coach Road is shown on Moll's (1714), Rocque's (1760), Taylor and Skinners' (1778) and Duncan's (1821) map. There are written accounts of the coach road; in 1637 a guide for Strangers in the Kingdom of Ireland describes the *Swords to Balruddery* section being 6 miles and the *Balruddery to Drogheda* 8 miles (Broderick, 1996). In 1690 the journal of Captain Sevens prior to the Battle of the Boyne

describes the road from Swords to Drogheda '*...from Swords to Bellagh is 4 miles, thence to Ballruddre 2 both of them poor villages*'.

Contributing to the smooth running of the coaching system were the Inns that replenished the coach passengers. Austin Cooper, an eighteenth century antiquarian, wrote in 1783 of the many inns along the coach road, 'the Man of War', 'the Cage', 'the Bear' and 'the White Hart'. The White Hart Inn is located in Stephenstown (DU005-056, a proposed protected structure) is a large two-story vernacular structure with seven bays which has subdivided into two and modernised, it was formerly thatch and still retains some historic elements including outbuildings to the rear. There is a tradition that King James II lodged here on the way to the Battle of the Boyne in 1690 where he was defeated. It is indicated on Rocque's 1760 map.

The Man of War Inn, outside the study area to the south, was one of the infamous inns or stage coach services along this northern routeway, it continued until 1834 until it was by-passed. It was an inn before the establishment of the turnpike road. The current Man of War pub is located in a vernacular structure a few meters from the ruins of the original Inn.

The next incarnation for road was its establishment as a Toll Road. The section of road from the 'Bear of Balrothery' to 'The Cock' at Gormanston, is reputed to be part of the second oldest toll road in Ireland, namely the Dublin to Dunleer Turnpike Road. The turnpike roads were established by an Act of Parliament in March 1732. The Act empowered trustees to erect turnpike gates and collect tolls (Broderick 1996) which was the principal road from Dublin to Belfast from 1731–1835. A turnpike was located at the junction between Santry Avenue and the Man-of-War and northwards the next gate was at the 'Cock' in Meath.

The demise of the importance of the road was marked by the replacement of Gormanstown Bridge by a bridge at Knocknagin in the late eighteenth century (1773–75) when the turnpike road was diverted from Balrothery via Balbriggan (O'Keeffe & Simington 1991, Broderick 1996) making the section of road from Balrothery to 'the Cock' redundant (Broderick 1999b).

Milestones, comprising large hexagonal blocks of cut granite with the number of miles inscribed were erected every mile along the road for the guidance of those travelling on foot, on horseback or by coach. They are indicated on Rocque (1760), Taylor and Skinner (1778) and on the first edition OS map (1837-43). Broderick's examination of milestones in the late 1990's identified at least four examples within the study area, however a brief search for the milestones as part of the HLC study did not find any surviving milestones in the study area, for example at the location of the Balrothery milestone is a new development and at the Gormanstown Bridge the milestone appears to have very recently been taken.

Balbriggan became a post town in 1773 increasing the revenue of the newly diverted turnpike road, from 1790–1820 the post office made payments for the running of mail coaches along this road (indicated on Larkin's 1805 map of post roads). 1855–6 marked the end of the turnpike road which could not compete with the railways. The Balbriggan Bypass was opened in 1998 and a new outer relief road around Balbriggan has recently been opened. The new road crosses a c.200m stretch of the Old Coach Road in Stephenstown, essentially making it redundant, it has however been reinstated into a pedestrian walkway thus preserving the line of this early communication link.

Shipwrecks

Approximately 17 vessels are recorded in the Underwater Units Archive as having been wrecked off the coast from Barnageeragh to Knocknagin (Appendix 5). The record however only contains historic accounts and placenames mentioned at the time of the wreck and their current whereabouts can only be estimated.

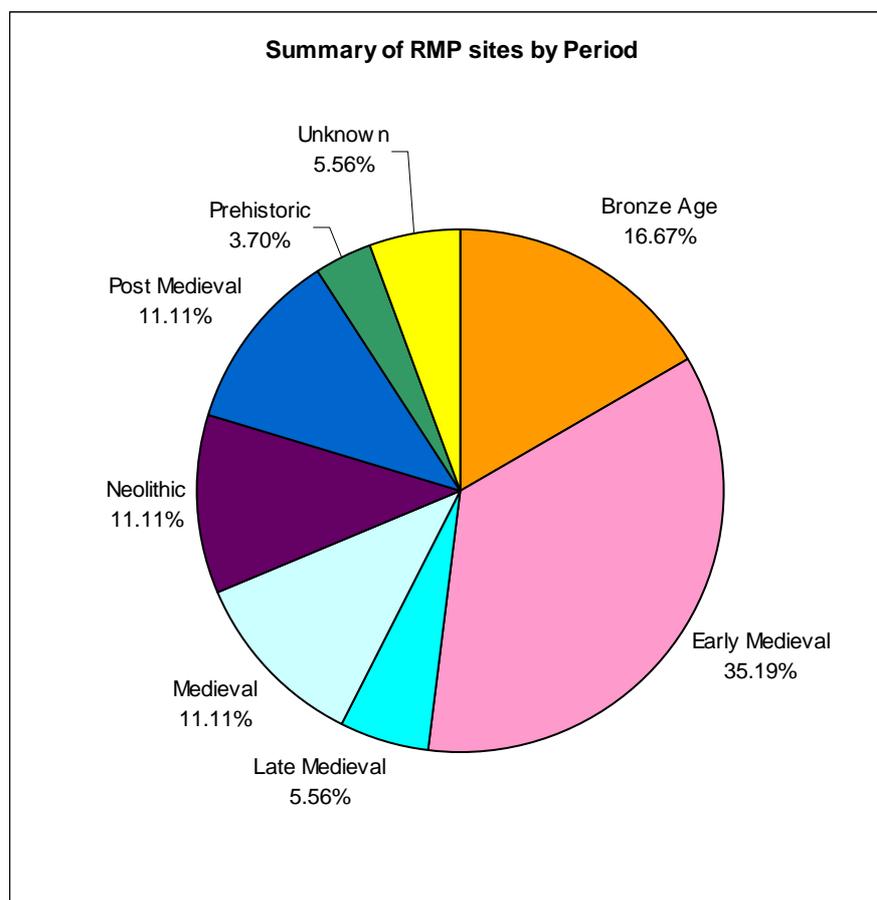
The Cardy Rocks claimed seven possibly eight vessels. Lewis (1837) noted that the 'Cargee' rocks were dry at half ebb and a beacon was placed on them to ward ships away from the danger. He also noted that from this point northwards to Carlingford Lough, 'is for the great part a broad shallow strand free from shoals or other obstructions'.

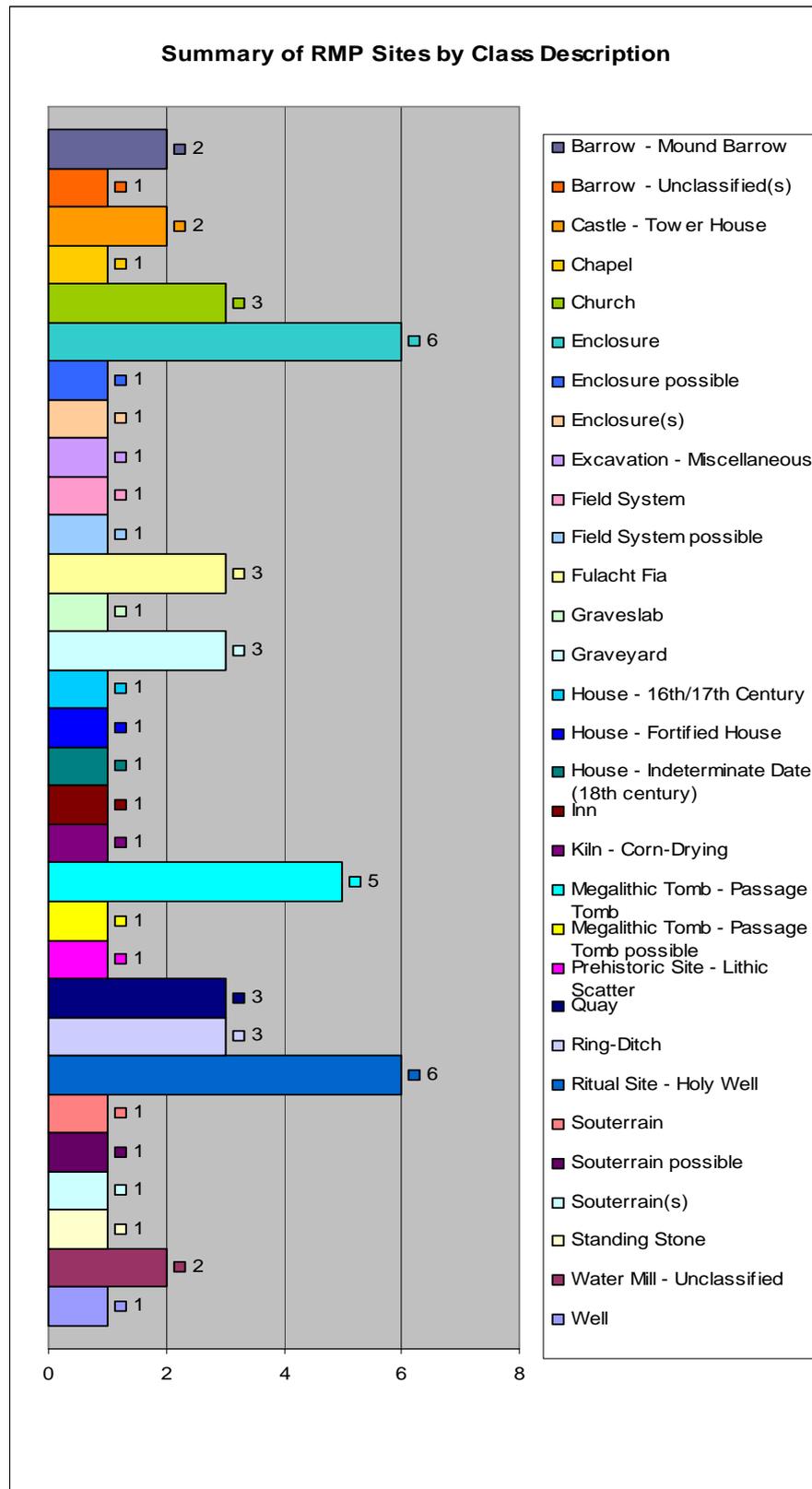
The Belle Hill lost in 1875 is of particular note, only one sailor in the crew survived, six bodies were recovered and buried in Balrothery Cemetery and the remaining bodies were washed up on the coastline of the Isle of Man and the Cumberland (Dunne 1999). A small stone cairn to the south of Newhaven Harbour honours the men that lost their lives. This wreck was also visible during the 1950s and 1960 at low tide at Newhaven Point and it is likely that there is quite a large zone of wreckage today.

Many other ships were lost were recorded more than five miles from the coastline of Balbriggan including the *Eva*, *Fast* and *Spray* and the *Lady* (Dunne 1999).

The following table is a breakdown by time period of the recorded archaeological sites (RMP Sites) and stray finds mentioned above which lie within the HLC study area.

| Period | No. of sites | % of record | Site Types |
|--------------------|--------------|-------------|---|
| Neolithic | 6 | 11.11% | Megalithic tombs, cairn site, lithic scatters |
| Bronze Age | 9 | 16.67% | Fulachta Fiadh, ring ditches, mound barrow, barrow, |
| Other prehistoric | 2 | 3.70% | Lithic scatters |
| Early Medieval | 19 | 35.19% | Ringforts, enclosures, monastic sites, holy wells, souterrains, churches and graveyards |
| Medieval | 6 | 11.11% | Castle, church field system and kiln (excavated) |
| Late Medieval | 3 | 5.56% | Chapel, church and fortified house |
| Post Medieval | 6 | 11.11% | House, inn, quay and watermills |
| Unknown | 3 | 5.56% | Enclosure, field systems, stray finds |
| Total sites | 54 | 100 | |





SECTION II: PROJECT DESIGN & METHODOLOGY



Methodology

The project design is essentially a structured data gathering and mapping exercise of the dominant historic influences which define the present day landscape. The HLC draws from the methodology successfully adopted for the Historic Landscape Characterisation of Donabate-Portrairie Peninsula and the town and hinterland of Swords (Courtney & Goucher 2007) also funded by Fingal County Council and the Heritage Council .

Sources

Baseline Data Gathering:

The data gathering stage primarily involved a desk study which assessed historical information, digital and paper map sources (current and historic), aerial photographs and documentary sources (Table 1). The sources were used to establish the existing landforms and natural factors that have shaped the landscape (i.e. the size and shape of the land parcels) and to identify the type of landscape attributes to be examined. These attributes are the aspects of the natural and built environment that have been shaped by human activity in the past. A broad-based field inspection also took place to assess current landuse and to consider additional influences that were not readily apparent from the sources list below:

Table 1: Baseline Data Sources

| Data Sources | Details |
|---|---|
| Existing Landuse Information | |
| Study area outline | Predefined study area limits |
| Ordnance Survey mapping | Current edition (2005) (1:1000 & 1:2500) |
| | O.S. Discovery Series mapping (1:50,000) |
| Digital Aerial Photography | 2005 (20cm resolution) |
| Digital Elevation Model | Constructed from an amalgamation of 10m contours from O.S. Discovery Series mapping, with height information derived OS 1:1000 & 1:2500 mapping and height information from road centre points and highpoints |
| Soils Mapping | GSI Ireland |
| Geology Mapping | GSI Ireland |
| Land division (sourced from OS Mapping) | Townland boundaries Field boundaries |
| Google Earth Livemaps OSI Aerial | Visual inspection to supplement digital aerial photography & OS mapping |
| Relict Landuse Information | |
| Topographical Files | National Museum of Ireland |
| Record of Monuments and Places (RMP) for Dublin | Archaeological Survey of Ireland, Department of the Environment, Heritage and Local Government |
| Record of Protected Structures (RPS) Data | Fingal County Council |

| Data Sources | Details |
|---|---|
| Shipwreck data | Underwater Archive, Department of the Environment, Heritage and Local Government |
| Place names data | Place names, field names and street names www.Logainm.ie, Joyce, (1995) Irish Names of Places Three volumes. Dublin, De Búrca and local sources listed in the bibliography |
| 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 Taylor and Skinner c. 1777 & c.1783 Duncan's 1821 |
| Details of previous excavations and assessments | Excavations database (www. excavations.ie), |

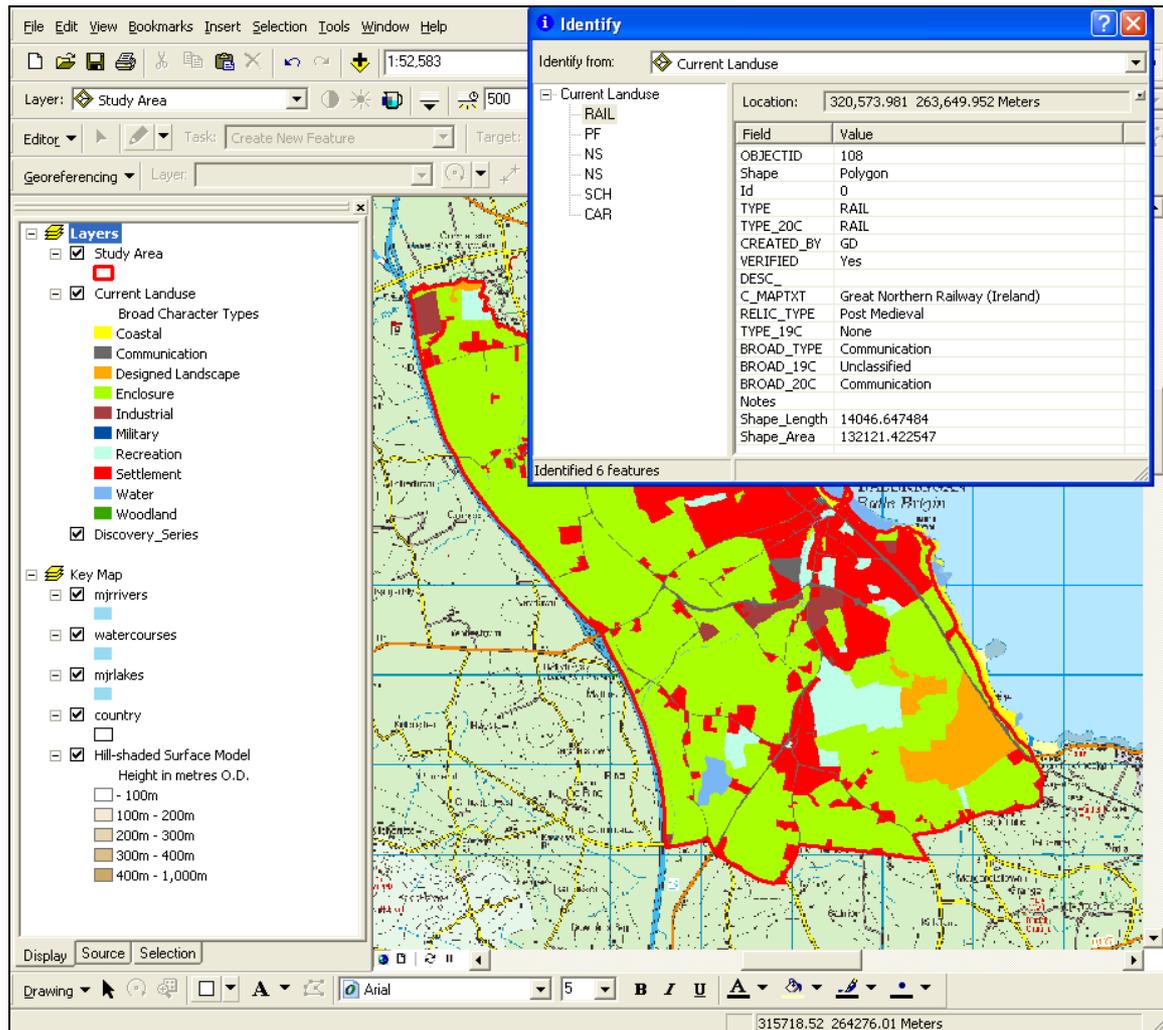
*other sources are listed in the reference section at the end of this report

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.

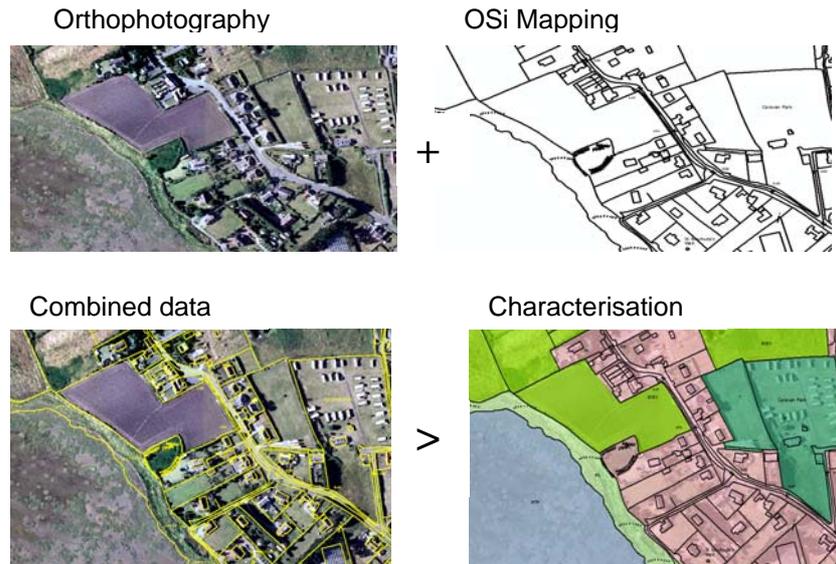
The HLC for the study area was undertaken using ESRI ArcView GIS, enabling the production of a high quality presentation of map information linked to database tables. The information provided by the GIS package has a dynamic output and can be updated and refined when necessary.

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 Balbriggan 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.

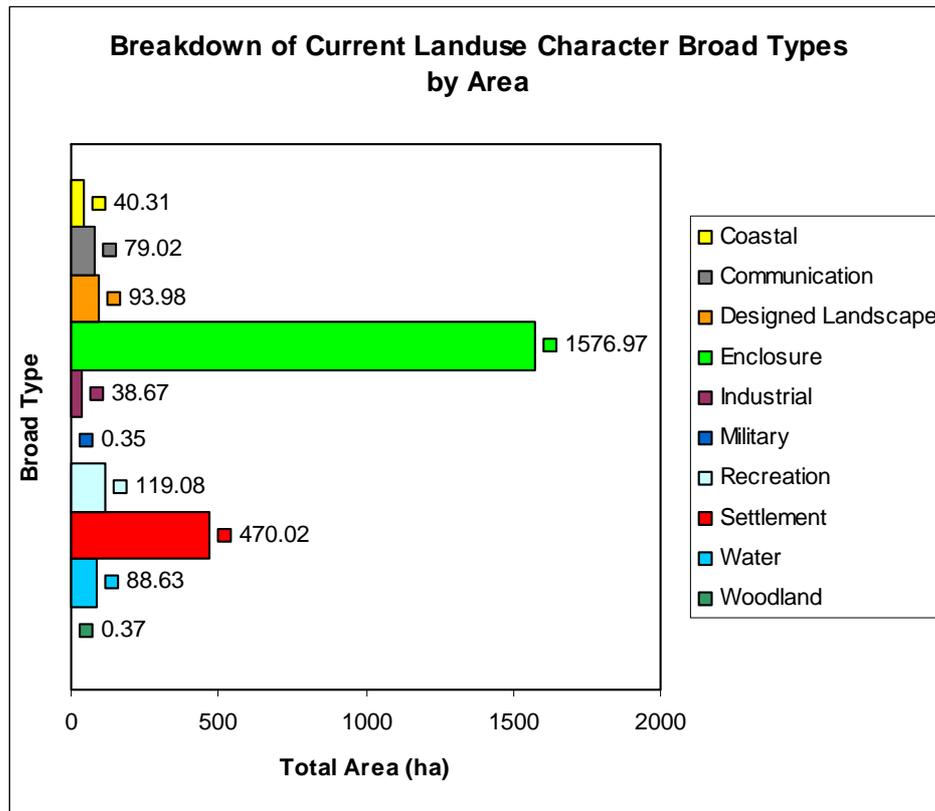


These land parcels were digitised to follow the line work from the OS map layers, this ensured that the data and defined land parcels would relate directly to data previously established and currently used by Fingal County Council, for example the Fingal Development Plan 2005-2011. This data set formed the basis for mapping the present day characterisation process and 10 general categories/attributes (Fig. 6) resulting in 35 current landuse character types (Fig. 5 being generated). The resultant categories were later verified in the field.

Categorisation was achieved by systematically dividing, the Balbriggan 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 10 broad current landuse broad character types: (Fig. 6)

-

- Coastal
- Communication
- Designed Landscape
- Enclosure
- Industrial
- Military
- Recreation
- Settlement
- Water
- Woodland



By far the most dominant category is enclosed land, it accounts for 1,576.97ha of land or 62.9% of the overall landuse in the study area. This demonstrates the largely rural nature of the landscape. The next largest category is settlement; it consists of 470.22 ha of land which forms 18.7% of the overall landuse, this is not surprising considering that residential development on the outskirts of Balbriggan town has increased substantially since 2005. Recreation forms 4.7%, followed by designed landscape at 3.7% and communications at 3.2%. Coastal landuse is composed of 40.31ha of harbours, piers, sand, cliff and rough ground, the entire eastern boundary of the study area is formed by the coast and though only forming 1.6% of the overall landuse cover it does substantially contribute to defining the character of the study area. Woodland, military, industry only contribute marginally to the overall current landuse character of the landscape.

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 rail and roads 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 35 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 10 broad landuse categories and the 35 current landuse character types. Each landuse type was assigned an abbreviated category name or code (Fig. 5).

Table 2:

| CODE | SUB TYPE CATEGORY/NAME | BROAD CATEGORY |
|-------|--|--------------------|
| CL | Cliffs | Coastal |
| CR | Coastal Rocks | Coastal |
| HARBR | Harbour | Coastal |
| S | Sand | Coastal |
| RD | Road | Communication |
| RAIL | Railway | Communication |
| ESB | Electricity Supply Board | Communication |
| ESEM | Enclosure, straight edge medium 4 - 16ha | Enclosure |
| ESES | Enclosure, straight edge small < 4ha | Enclosure |
| EWEL | Enclosure, irregular large > 16ha | Enclosure |
| EWEM | Enclosure, irregular medium 4 -16ha | Enclosure |
| EWES | Enclosure, irregular small < 4ha | Enclosure |
| RG | Rough Ground | Enclosure |
| SCRUB | Waste land / scrub | Enclosure |
| IND | Light Industry | Industrial |
| PARK | Parkland / Demesne | Designed Landscape |
| WDP | Wooded Parkland | Designed Landscape |
| CAR | Carpark | Recreation |
| GC | Golf course | Recreation |
| PF | Playing fields and amenity land | Recreation |
| HS | Historic settlement | Settlement |
| HOSP | Hospital | 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 |
| WTR | Water | Water |
| INTR | Intertidal | Water |
| RES | Reservoir | Water |

| CODE | SUB TYPE CATEGORY/NAME | BROAD CATEGORY |
|------|------------------------|----------------|
| PM | Previous Military | Military |
| WD | Woodland, deciduous | Woodland |

Following on from the previous HLC's for Fingal a land parcelling system was used for the report which is based entirely on modern land use rather than established townland divisions.

In areas that that had experienced recent rapid growth and change due to modern planning decisions it 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.

Predictive Modelling Methodology

Predictive modelling is a technique to predict, at a minimum, the location of archaeological sites or materials in a region, based either on the observed pattern in a sample or on assumptions about human behaviour Kohler & Parker (1986)

In the context of cultural resource management, by using the predictive modelling capabilities of GIS and the information gathered from the HLC, Part 2 of the study aims to produce models that estimate the probability of an archaeological site being present in areas of heretofore undiscovered archaeological remains and to propose guidance and advice for the future management of such areas.

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.

This was carried out by producing models of the landscape using a combination of:

- recorded archaeological and historic site location (Fig. 4)
- greyscale summary of location of previous geophysical surveys (Fig. 19)
- digital orthophotography (Fig. 2)
- elevation model and surface contour (Fig. 13)
- aspect model (slope direction) (Fig. 17)
- hill-shade model (Fig. 21)

SECTION III: THE HISTORIC LANDSCAPE CHARACTER TYPES



The Emerging Historic Landscape Character of Balbriggan and Environs

Understanding the modern day landscape involves understanding the underlying cultural processes and political, social and economic influences that have helped to mould it. 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. Understanding this can be generated through a time depth analysis of the landscape character at different specific time periods by analysing the Ordnance Survey maps.

This section 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, providing 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 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. This mapping is central to defining the modern and relict character landscapes and to the presentation and manipulation of results.

Four time slices have been represented for analysis; the number is limited by the amount of accurate historic mapping available for the study area. These results were 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 Section II (Fig. 5), were applied to the mid 19th (1837-43), mid 20th (1935-38) (contained in Appendix 2, Fig. 15–16) and relict maps (Fig. 14)

to analyse 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 indicating landuse development in the study area over the last 170 years, they are also indicated graphically in the pie charts below.

| Broad Type | Mid 19th Century | Mid 20th Century | Current |
|--------------------|-------------------------|-------------------------|----------------|
| Enclosure | 74.85% | 73.18% | 62.89% |
| Settlement | 3.51% | 4.50% | 18.75% |
| Recreation | - | - | 4.75% |
| Designed Landscape | 12.47% | 13.39% | 3.75% |
| Water | 3.61% | 3.58% | 3.53% |
| Communication | 1.97% | 2.53% | 3.15% |
| Coastal | 1.63% | 1.63% | 1.61% |
| Industrial | 0.44% | 0.20% | 1.54% |
| Woodland | 0.98% | 0.97% | 0.01% |
| Military | 0.01% | 0.01% | 0.01% |
| Unclassified | 0.53% | - | - |

What is revealing about the data and its corresponding landuse maps (Fig's. 15–16) is that in the years between the mid-19th century and the mid-20th century each landuse type only slightly increases or decreases in size and in some cases a negligible amount. The enclosure, settlement and designed landscape and communication type increase slightly while the water, industrial and woodland types decrease slightly. Coastal and military stay static. This has the affect of little or no change occurring throughout this 100 year period.

Over the past 170 years enclosure is by far the landuse in the study area that prevails. In the mid-19th century it formed 74.85% of the total landuse which then reduced slightly to 73.18% in the mid-20th century representing a reduction of just 42 hectares. Enclosure currently forms 62.89%, representing a loss of 258 hectares of land since the mid-20th century. The reduction of the enclosure type in recent times is undoubtedly related to the dramatic change in settlement which rose from just 3.51% in the mid-19th century to the slightly higher at 4.50% in the mid-20th century to representing 18.75% currently. Four times the amount from previous time slices. This demonstrable rapid increase of settlement in greenfield areas surrounding the town of Balbriggan and to the southeast of Balscadden is a relatively recent phenomenon that is within the last 10 years, and is possible to chart by reviewing the number of planning applications in the study area.

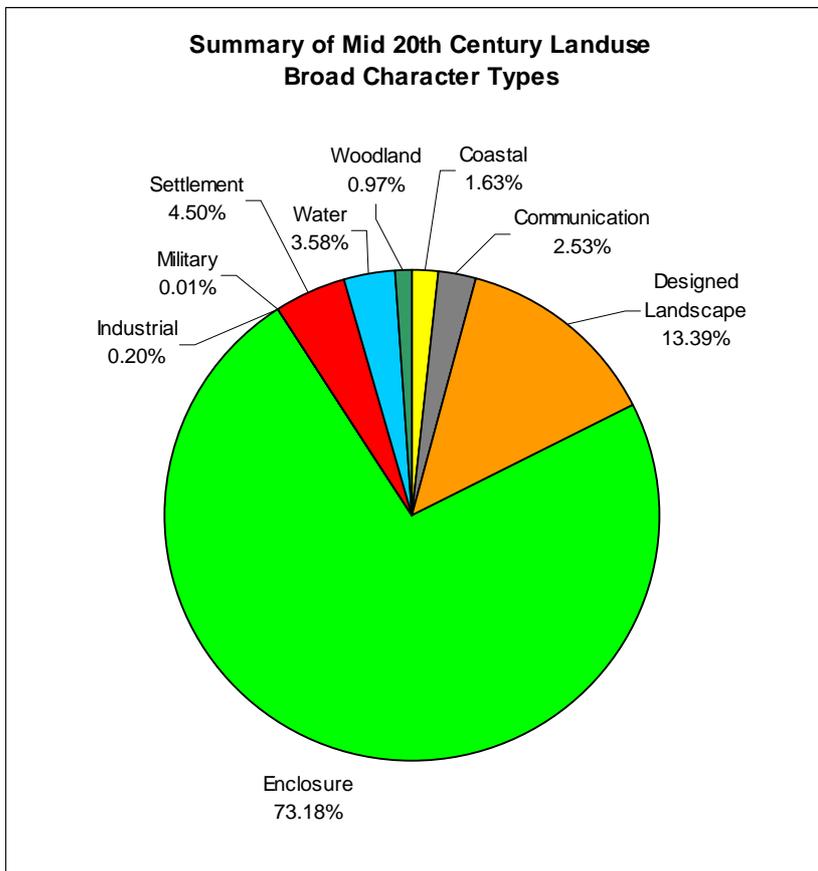
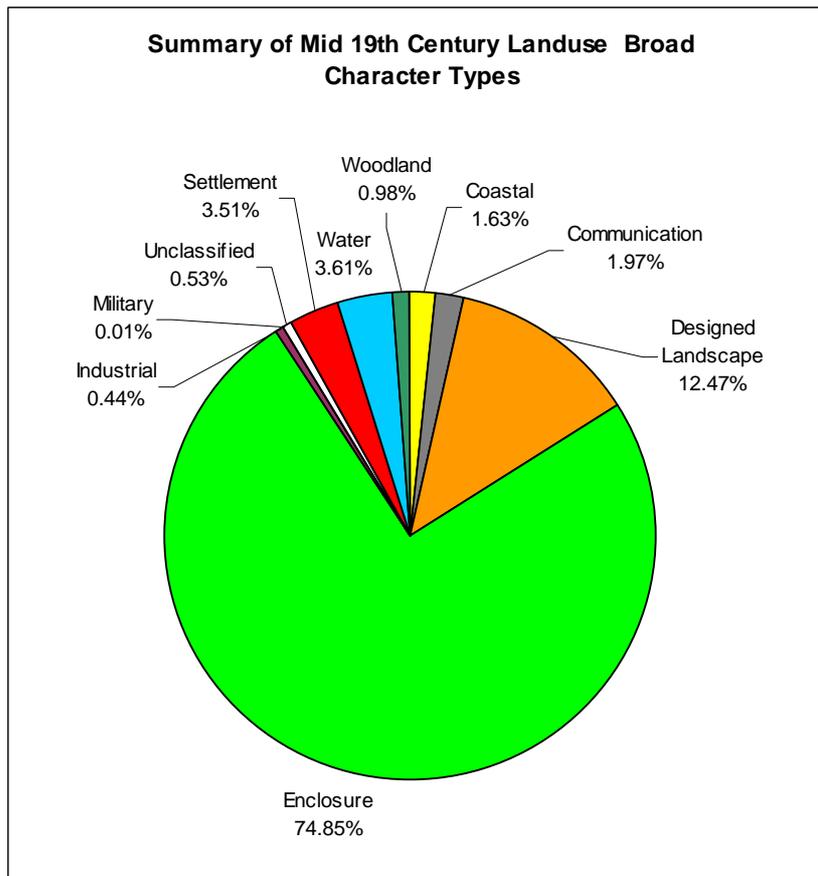
There is a slight rise in designed landscapes between the 19th and 20th centuries (12.47%–13.39%) but is marked by a significant reduction of this landuse type in the present day environment (3.75%) where the landuse types changes to form part of the present day recreational and enclosure type. Recreation is a new phenomenon and appears as a landuse type for the first time in the twentieth century (4.7 %), the use of designed landscapes for recreational purposes have, due to their striking settings attracted golf courses especially in coastal landscapes.

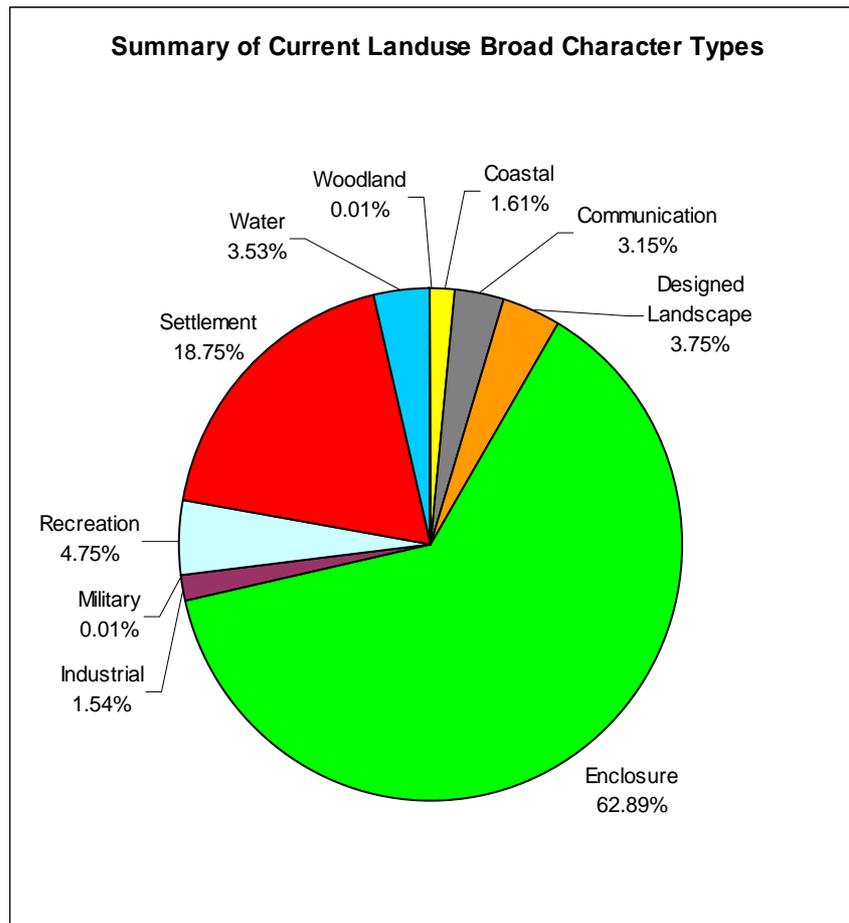
Communication has grown steadily through the time slices, attributed to with each period is the construction of a new communication corridor such as the railways in the mid 19th century, the Balbriggan Bypass was opened in 1998 and the new Balbriggan relief road which is nearing completion.

The unclassified landuse in the mid-eighteenth century refers to the railway line corridor, which while still having a relict component that it cannot be quantified as it runs as a single unit through the landscape through several landuse polygons.

The patterns of HLC types when combined with the current land use mapping produces a powerful tool that can capture both the historic process explaining the present day framework of landuse and the most dominant historic archaeological components that underlying this framework (Fig. 18). In this sense it provides a time-depth to the characterisation of the historic landscapes reflecting the surviving character of the present day landscape and thus revealing their sensitivity, vulnerability and capacity for change- vital aspects of sustainable and strategic spatial planning.

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.





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 its 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. 14). 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), Iron Age (600BC-400AD) and late medieval (1534AD-c.1700) 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. Areas where extensive modern development has taken place where either no archaeological features have been recorded or have been entirely lost (i.e. where archaeological conditions were not requisite as part planning conditions for large scale developments), generally comprising the broad landuse character type SRM (settlement, residential, modern), have been ascribed the category 'none'.

The coastal landuse form, comprising the rocky shore (Cliffs, Coastal Rock and Rough Ground) is largely unexplored, only recently have historic harbours been identified in these areas and during the course of the HLC process to the north of the Bremore coastline possible midden sites and ship timbers have also been noted by archaeologists on the shore but not recorded systematically; this presents a significant gap in our knowledge. The coastline was the focus for human activity from the Mesolithic right through to the present comprising ritual, communication and cultural exchange, shelter, resource, industry, economic prosperity and amenity; it also, as the shipwreck records show, was fraught with tragedy which also leave an indelible mark in a cultural heritage landscape.

Table:

| Type | Date |
|-------------|---------------|
| Prehistoric | 7000BC-400AD |
| Neolithic | 4000BC-2400BC |

| Type | Date |
|----------------|--|
| Bronze Age | 2500BC-500BC |
| Early Medieval | 500BC-1100AD |
| Medieval | 1100AD-1534AD |
| Post Medieval | 1534AD-1900AD |
| None | Not of archaeological significance - known 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) and the topographical context of the land parcel in relation to archaeological sites or finds.

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.

In addition to the RMP sites which accounted for the majority of information of sites dating from the Neolithic, stray finds (NMI files) found by field walking, academic study or by accident and recent excavations have given the study area a significant prehistoric presence that is considered to be of considerable significance. When defining an area; other information such as place and townland names, historic maps and the extensive local history sources were taken into consideration. A review of various geophysical surveys carried out in recent times, has indicated that there is a considerable unknown quantity of ploughed out subsurface archaeology to be found in the HLC landscape and through further archaeological assessments and excavations (Fig. 20) 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. By placing all the new

geophysical surveys and emerging evidence onto one map, newly emerging historic and archaeological landscapes and not just individual sites are being revealed.

It is important to note that the HLC process is not static but is a dynamic process as newly revealed archaeological features and landscapes constantly redefine our knowledge of a particular landscape. The RPS focuses on the post medieval period, protecting structures such as vernacular farm houses, bridges and demesne features, again this list is not exhaustive and is being constantly updated, indeed as the relict land use will show the post medieval period is one of the most vulnerable historic /relict land use types.

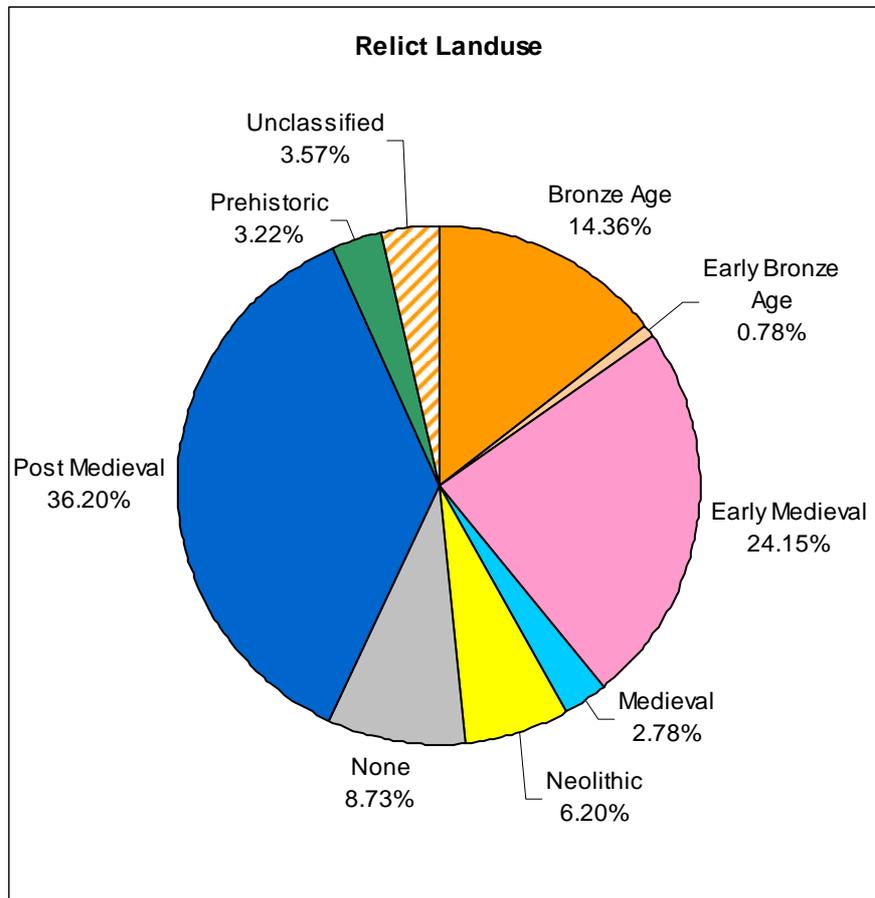
The relict map has to be interpreted with care as designation is dependent on available archaeological information and is contingent with the findings of excavations. Categories have been mapped based on an interpretation of data (professional judgement) and existing archaeological and historic information 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.

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. In certain cases, where it was considered possible that the archaeological/historic features or topographical content could have influenced of the adjacent land parcels (current landuse character types) they were attributed with the same time period (for example the identification of fulacht fiadh in one character type boundary will extend the Bronze Age relict landuse into a contiguous boundary defined by low-lying damp and water-logged ground conditions).

The mapping of relict landuse types (Fig. 14) provides the most detailed and objective representation of the historic and archaeological character of a given land parcel.

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 (36.20%, c.908ha of land); this is broadly due to a combination of the following:

- Land enclosure taking place in the 18th and 19th centuries
- The presence of relict demesne landscapes or designed landscapes which have removed any visible traces of earlier features, such as Ardgilligan, Hampton Demesne, Knocknagin House and Lowther Lodge
- Removal of visible earthen archaeological features due to intensive agricultural practices practiced in Fingal
- High percentage of vernacular and protected structures dating to the post medieval period and architectural conservation areas with Balbriggan being a thriving port town of the 19th century with many fine buildings due to its economic wealth.

The Post Medieval period is dominant on land which does not have recorded or designated archaeological sites. Presently it characterises the majority of the central eastern side of the study area but this is, as described above, subject to change with further archaeological investigation. However, 11.11% of the recorded archaeological sites are also dated to this period such as the mills in Balbriggan and Stephenstown, the quay site in New Haven, the 17th century Knocknagin House and the 18th century Martello Tower.

The eastern end of Balscadden village has been given a post medieval relict landuse character type. The focus of the early medieval and medieval settlement appears to have shifted to the east of the village in the post medieval period, which possibly was influenced by the vibrant trade by travellers along the Old Coach Road, the route way to Knocknagin and the port of New Haven and by the construction of a new church in the 19th century, this end of the village is also an ACA.

Medieval Period (1100AD-1534AD)

The medieval period represents 2.78% (c.70ha) of the total study area. This relict character was derived from recorded upstanding masonry remains of castles, churches and graveyards and field systems in Stephenstown, Bremore and Balrothery and to a smaller extent in Balscadden.

To the south of Balscadden there are long strip fields that are characterised as small straight edge enclosures (ESES, i.e. areas less than 4ha) which immediately emerge from its neighbouring medium straight edged enclosure types. They are likely to represent vestiges of the medieval Anglo-Norman occupation of the villages such as burgage plots, the townland name of Commons also reinforces this assertion.

The early monastic site of *Lann Beachaire* lies at the site of Bremore Castle. It is one of two monastic settlements in the HLC area, however the upstanding remains of the church and castle (currently being conserved), the excavations in the environs of the castle providing evidence of medieval field systems and cultivation and a significant amount of medieval pottery, determined the dominant relict landuse in the area as Medieval. The castles association the Barnwell family is also significant. The excavations did not reveal any evidence for the early monastic foundation.

Early Medieval (500BC-1100AD)

The Early Medieval Period is the second largest relict landuse type in the study it represents 24% comprising 605ha. Emerging on the western half of the study area are distinct early medieval patterns of activity that occur in close proximity to the line of the Old Coach Road (reputed to be the early medieval highway- the Slighe Mhidhluachra) and in the vicinity of watercourses.

To the southwest of Balrothery in the townland Rosepark and Darcystown a multi-ditched enclosure complex dating to this period was excavated. The site represents a defensive habitation site dated the 7th/8th century, which included several souterrains, corn-drying kilns and

an entranceway to the complex. While the earliest phase of the site was confirmed to be Iron Age, the extensive 'high status' nature of the site in the early medieval period determines the dominant relict landuse character. Some of this site is preserved in situ in an open space at the highest point of the development where there are extensive views of the surrounding landscape.

Recent excavations at Flemington have revealed a ditched complex early medieval in date relating to land management activities that is ancillary to a settlement or habitation site i.e. cereal processing, metalworking and water management. In addition to the main early medieval activity an early Neolithic house (heavily truncated by early medieval ditches) was identified and excavated. This is highly significant as it provides evidence for the movement of Neolithic settlement, possibly a sedentary population from the coast to further inland. However due to the extensive nature of the early medieval finds and the emerging surrounding early medieval landscape it followed that the early medieval period was chosen as the dominant relict landuse. For the latter reasons the two outlying burnt mounds and residual prehistoric features pre-dating the main early medieval complex were also considered not to be the principle relict landuse.

The extensive predevelopment archaeological assessments at Stephenstown have identified significant early medieval remains associated with ritual, secular settlement and industrial activities of the period. There are medieval and post medieval sites in Stephenstown and some prehistoric phases have been identified but the presence of holy wells, a univallate ringfort with extensive annexes and souterrains dominate the relict landuse character.

The western side of the Balscadden Village, in Tobertown, has been attributed an early medieval character even through there is a medieval church and graveyard on the site, the dominant relict landuse chosen in this area is early medieval due to the presence of a potential ecclesiastical enclosure connected to an early Patrician Saint, a holy well and ringfort's and holy wells in close proximity. Such early medieval ecclesiastical enclosures have proven to be an extensive phenomenon in the Fingal area, many of which have been identified through geophysics such as in Milverton (to the south of the study area) and in Oldtown/Mooretown, Swords. On this basis, in defining the singular most significant relict attribute, the early medieval period takes precedent.

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, this broad relict landuse type represents 3.22% (81ha) of the study area. This relict landuse follows the narrow stretch of the coast between Balbriggan Harbour and Barnageeragh and includes the townlands of Kilmainham and Barnageeragh. It is based on the flint scatters defined during various predevelopment excavations (e.g. at Isaac's Bower and at Barnageeragh) and field walking surveys carried out for research purposes and from amateur fieldwalking exercises. Excavations carried out in a site outside the study area in Barrngeeragh in the vicinity of various prehistoric recorded monuments

also had a bearing on the designation of this dominant relict type along the very southeastern corner of the study area. This relict type did not extend into the Hamilton or Ardgillian Demesne to the west of the railway line as these demesnes dominate the relict landuse.

Neolithic (4000BC-2500BC)

The Neolithic represents the earliest dominant relict landuse form in the study area comprising 6.2% (155ha) of the study area. The relict landuse is concentrated at the passage tomb cemetery sited in Bremore (DU002-001001-005, comprising five tombs and an associated site in Knocknagin (DU002-010) and along the River Delvin, this area formed a focus for ritual and ceremonial activity. There is a Preservation Order (No: 22/76) on the Bremore site, and as such it is treated as a National Monument. It is also listed a protected structure (RPS 003). The river Devlin has also been given the Neolithic as its dominant relict landuse character, the significance of the Bremore tomb complex has been associated with the River Delvin which provided access inland and acted like a conduit for the cultural transmission of the period, linking Bremore to the Fourknocks passage tomb complex. The Bremore tombs should however not be seen in isolation and must be considered with the Gormanstown tombs to the north of the river Devlin in Co. Meath.

Unclassified

The 'unclassified' category accounts for 3.75% of the study area and relates entirely to the coastal zone. Three historic piers/ harbours are located along it, such as a pier associated with Lowther Lodge, 'New Haven' Harbour off Bremore, and Balbriggan harbour. Other structures include sites of bath houses and shell middens which can date from the prehistoric period to post medieval times. This area contains a rich archaeological and cultural heritage that has largely been unexplored and is of considerable potential.

None

It is important to realise that the boundaries of relict landuse have been influenced by modern landuse. For example, areas such as Tankardstown parts of Bremore and Castleland which are defined by the development of a large scale high density housing estate and by the recent industrialisation of the area. Such areas have been given the category 'None', as no relict landuse exists in the 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, the inherent 'bias' in the record is demonstrated by the number of previously unknown archaeological discoveries that have been made in the study area in recent times, most notably in Flemington, Stephenstown and Rosepark. In addition, the actual extent of recorded archaeological sites may be unknown and is also a factor to be borne in mind. 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.

The HLC has, by filling in the 'gaps' between recorded monuments and features and taking an holistic approach to landscape, provided the potential to reveal new or associated sites and features and the emerging distribution pattern of monument type is better understood. When excavations, geophysical survey and aerial survey analyses is brought into the equation – it is both the invisible and visible landscape that is being analysed- which can be valuable in the management of change in an area and for spatial planning.

For example the aspect model of slope (Fig. 17) was generated from the digital elevation model (Fig. 13) 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.

While it is true that environmental factors such as topography, proximity to water supply and soil conditions for farming all influence the choice of settlement location, it is also true that these are not the only factors that people consider when choosing where and how to settle in a landscape (Fig. 21).

HLC provides a way of filling in the 'gaps' in archaeological information within a landscape. The overarching principle of HLC is that the present landscape is a product of human activity overtime. Using this principle we can hypothesize that areas which display one dominant broad type

character over time are likely to have been seen as suitable locations for human activity which would generate a similar broad type character in the past. Figure 18 illustrated this hypothesis.

An overview of HLC findings

The following is an analysis of each HLC type and involves an account of the landscape elements and features which define Balbriggan and its environs distinctive characteristics and types, the significant archaeological elements and the processes which have formed it. This account focuses on what provides an area with a unique sense of place. The 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.

ENCLOSURE



Enclosed land comprises the most extensive HLC type in the study area forming 62.9% of the landuse and representing 1576.97ha of land, giving the landscape a predominantly rural character. For the purposes of this project the size of this system of enclosure or field systems have been classified as small (less than 4 hectares) and medium (between 4-16 hectares). None of the enclosed land in the study area exceeds an area larger than 16 hectares. The layout and field pattern for the fields have been defined as straight edge medium (ESEM), straight edge small (ESES), irregular wavy edge medium (EWEM) and irregular wavy edge small (EWES). The irregular/wavy edged fields are the result of natural features such as the rivers and the coast and by man-made features such as the reservoir or 'Bowhill Lake' in Knock.

Wasteland and scrub have been included in this landuse character type. The land enclosure/boundaries in the study area generally are formed by natural tree/scrub lined boundaries, bank and ditch, rivers or coastal boundaries.

The enclosed land is predominantly used for arable farming. In the last ten years, in a landscape that has been principally rural in nature, residential and industrial development has significantly encroached on the western study area lands (such as the residential developments in Bremore and Flemington at the western end of Hamlet Lane), with new communication links opening up more and allowing access to more land for development to the southwest of the town.

The townland boundaries in the study area are largely intact. The size of townlands can vary from very large tracts of land such as Bremore and Flemington, to smaller townlands such as those to the south of Balrothery e.g. Dennis Fields, and Hynespark comprising just three or four small fields.

The field boundaries in the study area predominantly comprise hedgerow, bank and drainage ditches. The townland boundaries are generally more substantial with mature trees and larger banks; they are also formed by natural features such as the watercourses.

A series narrow linear field plots to the south of Balscadden are thought to represent early land division and are of the size and form that are suggestive of Anglo Norman field plots.

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

Enclosure represents over one third of the landuse type in the study area. Any development that may affect enclosure HLC type should be taken into consideration when planning for new development and adjudicating on planning applications. Rather than the stock removal of field boundaries that has been seen to-date for developments in the study area, consideration might be given to maintaining part of the field boundaries within proposed development land.

Where possible townland boundaries should be maintained, townlands are a unique feature in the Irish landscape. They are one of the oldest land divisions in the country, and their origins are undoubtedly of great antiquity, most certainly pre-Norman, they existed well before parishes or counties. Townland boundaries generally contain mature species of trees and can be attractive features within proposed developments they are likely to contain a rich variety of plant species and are important for biodiversity.

Maintaining the size and layout of narrow linear field plots to the south of Balscadden village should be encouraged and also where possible be the maintenance of small irregular fields and hedgerows in the study area should be encouraged as they attract a great diversity of flora, wildlife and songbirds and will provide a connection to the former rural nature of the land.

The local 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 are likely to also preserve relict archaeological features not yet revealed due to their eroded subsurface nature. Even with hundreds of years of agricultural activity there is a significant potential to reveal archaeological sites and deposits (as indicated in the geophysical surveys carried out in the lands of Flemington and Stephenstown, Fig. 20), 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 (for example some boundaries may curve to respect or incorporate an archaeological feature, such as enclosure sites, whereby the curve remains in the boundary and the site has since been ploughed away). Further work is required on the nature of historic boundaries and how they survive in the modern landscape.

SETTLEMENT



Settlement currently comprises 18.75% of the landuse in the study area. It represents a dramatic increase of landuse which in the mid-19th century was just 3.51% and in the mid-20th century was only slightly higher at 4.50%. These time slices present a demonstrable rapid increase of settlement. However it must be noted that this considerable increase is a relatively recent phenomenon that has occurred within the last 10 years. These areas of new settlement growth surround the town of Balbriggan and are located to the southeast of Balscadden village.

Settlement in the study area is diverse and incorporates eight subcategories namely; historic settlement (HS), nucleated settlement (NS), modern residential settlement (SRM), mixed use residential (MIX), cemetery (SC), school (SCH), commercial (SCOM) and municipal (SM) (*cf.* list of attributes in Appendix 2).

The three principal historic settlement areas in the study are Balbriggan, Balrothery and Balscadden.

Balbriggan is a large coastal town that has spread widely into its surrounding landscape. The town centre is characterised by a mix of new commercial development, nucleated settlement and mixed use residential. Most of the former industrial structures within Balbriggan town survive and form part of the unique and distinctive character of the town. Former industrial structures are currently being such as the former Smyth Hosiery factory on Railway Street/Convent Lane (dating c.1870 onwards), the former Gallens Cotton & Linen Factory on Mill Street, have been reused as commercial premises and some have been refurbished and are awaiting occupancy. Public open spaces between the refurbished industrial quarters appear to work well. Some former industrial streets are in need of rejuvenation. The nineteenth century townhouses, municipal buildings and railway buildings survive well in the town. There however does not appear to be connectivity between the historic areas of the town. Derelict or vacant structures along the main street somewhat detract from the historic town.

Balrothery village comprises a mix of historic settlement, comprising a church and graveyard, a castle, a glebe house, a fair green and some vernacular structures interspersed with nucleated settlements and new residential developments along the main street. Recent modern residential settlement has occurred to the southeast and a mixed use commercial development has recently been constructed on approach to the village

Extensive modern residential estates surround Balbriggan town and the bypassing of Balrothery has led to little perceivable division between the towns of Balbriggan and the village of Balrothery. To a casual bystander, the town and village could be mistaken as a single entity. This is regrettable given the early origins of Balrothery and its wealth of archaeological remains and vernacular architecture.

The settlement of Balscadden is the smallest in the study area; it is a village that is distinctly rural character, despite being in close proximity to a large town. There vernacular structures within the village, mixed with modern nucleated dwellings that do not seem detract from its historic character. Stone walls in the area also enhance the setting of this village. The recorded archaeological sites are located to the west of the main village church and graveyard in ruins and at the site of the possible early ecclesiastical enclosure.

Nucleated Settlement (NS) is represented as ribbon development along roads and at road junctions on the mid- 19th mid- 20th century OS maps. Some of these remained isolated units

along Hamlet Lane and Flemington Lane until quite recently where new modern residential development has been developed around them.

Settlement in the remainder of the study area, dispersed single farmsteads, estate houses such as Ardgillan Demesne and Hampton Hall and Knocknagin House.

Historic Settlement (HS) or features are located on the 19th century (1837-43) OS map and earlier cartographic references such as Rocque (1760), they include early features such as Balrothery Castle and Balruddery Church and graveyards but they area for the most part post medieval structures.

With the spread of modern residential settlement, the expansion in the young population is evident through the number of new schools recently constructed or under construction in the study area on the periphery of the new developments. Older schools are located within the town or village centres. Mixed use settlement or neighbourhood centres consisting of local shops and businesses and crèches are associated with the development of large scale modern residential settlement

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

Using the HLC project the phasing of modern residential settlement 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 20th century, detailing expansion from the last ten years which will be an important exercise in understanding the rapid rate of growth in the study area.

The protected structures within the HLC study area are protected through the 2000 Local Government (Planning and Development) Act and recorded archaeological sites and National Monuments are protected through the Principal National Monuments Act and subsequent amendments (1930-2004).

The eastern end of Balscadden, the southern end of Balruddery and 14–28 Hampton Street, Balbriggan are listed as Architectural Conservation Areas (ACA). 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. An ACA has a high visual and social amenity value, diverse in architectural character lending itself to a distinctive texture to the

streetscape. Development control within these areas will ensure the protection of key attributes of each area.

The management, or conservation, of historic landscapes and their components, must be based on an understanding of their significance. An architectural heritage audit or survey can take place to ensure that all post-medieval structures of merit are properly identified and assessed. Structures considered to be of a regional importance or greater 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 Balbriggan, Balcadden and Balrothery 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.

RECREATION



The recreational HLC type includes golf courses, playing fields and car parks and covers 4.75% of the study area. There is one golf course in the study area, the Balbriggan Golf Club established in 1945, an 18 hole parkland golf course to the northeast of Balrothery which incorporates lands that were once associated with Hampton Demesne. The Balbriggan Rugby Club has also opened new playing grounds in Balrothery.

The coastal area and the designed landscapes (Ardgillan Demesne) within the study area are also considered to be recreational in nature; however they are discussed under their individual HLC character types.

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

Recreational areas are a vital component to a local community; they encourage social interaction between community members and contribute a sense of well being and improve the quality of life. It is important to have public recreational facilities that are free and available to all to use, some presented in the study area appear to be private and are tailored for the sports minded individuals in the area.

As the requirement 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 the public lands. These open spaces should also be made attractive, litter free and safe for the community and recreational purposes.

Once completed the restoration work at Bremore Castle (DU002-002001, and RPS 014) will provide a new archaeology-based recreation and tourist interest to the study area.

Given the relatively low disturbance by development experienced by recreational land and the fact there are many archaeological sites recorded in the vicinity of the Balbriggan Golf Course, there is considerable potential to reveal below ground archaeological remains or intact post-medieval features associated with Hampton Hall within these lands. Any development proposals should be accompanied an impact statement.

DESIGNED LANDSCAPES



There are two categories within this HLC type, parkland/demesne and wooded parkland. The designed landscape type decreased from 13.39% of the land in the mid-20th century to just 3.75% of the land in the current landscape. Ardgillan Demesne (RPS 94) remains for the most part intact and is situated on eighty hectares of elevated rolling mature parkland, while the parkland associated with Hampton Hall (RPS 92), has been given over to agriculture and recreational facilities. The lands to the south of the River Devlin that were once associated with the designed landscape of Gormanstown House (Co. Meath) and up to the twentieth century retained the woodland areas and walks have since vanished.

Earlier archaeological components from phases predating the demesnes establishment may be present within these landscapes, such as the ring ditch (DU005:015) and a possible souterrain excavated by George Hamilton in 1840 in a field known as 'the North House Meadow' in Hampton Demesne (DU005:042).

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

Ardgillan Demesne is open to the public, it contains renowned gardens with a Victorian conservatory and rose garden and a walled garden. It represents a popular and vital amenity to the study area, for the local people and for tourists.

Ardgillan Demesne is defined as an architectural conservation area (ACA)—these are areas that contribute to an appreciation of a protected structure in terms of setting and character. Integrated management regimes which protect key attributes should be encouraged, such as woodland through tree preservation orders, structure through listing or views through protected view scheduling.

Hampton Hall is in private ownership, the present ownership of the lands must be established in order to protect the landscape type into the future, if there are multiple landowners a collective should be formed and the authorities should promote consultation and advice, and a network of support for management companies and individuals in charge of demesne landscapes. However if it is at all possible it is recommended that loss of integrity through inappropriate change in use be avoided, to date the lands associated with Hampton Hall have been given over to agriculture and amenity. While the significance of this demesne landscape has been identified an assessment of the demesne will provide a better understanding of all the component parts and their contribution to the integrity of the whole demesne. 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. Integrated management strategies to protect the demesne and its vulnerable features can be put in place.

WATER



The water HLC category includes rivers, the former reservoir near Balrothery and the intertidal zone; it forms 3.53% of the landuse in the study area. It has dropped slightly from the preceding mid-19th and mid-20th centuries when mill ponds associated with mills were still functioning, these have since been filled in.

The study area is drained by the River Delvin, the River Bracken and their tributaries. These riverine environments are regarded as highly sensitive and are considered to have an intrinsically significant archaeological potential as they have acted as focal points through all periods of human settlement (Fig. 4 and Fig. 20), as the monuments in their vicinity will attest.

The archaeological significance of the Delvin is demonstrated by presence of the passage tomb complex at Bremore (DU002-001001-005) and the passage tomb at Knocknagin (DU002-010). In the Neolithic period the river provided an access point for the movement of people and their ideas inland to Fourknocks and beyond. The river was an important network and resource during all periods of human occupation of the area. There are a number of sites in its vicinity dating to later periods including the early ecclesiastical settlement of Balscadden (DU001-003) which was founded on a tributary of this river.

The river Bracken and its tributaries were harnessed in the 18th and 19th centuries and possibly earlier for the milling industry. Its early and continued use is illustrated by the numerous

archaeological sites dating from the prehistoric period to post medieval times in its vicinity e.g. in Stephenstown and in the settlement of Balrothery which dates from the Iron Age.

Knock reservoir, known locally as Wavin Lake and Bowhill Lake, is an artificial lake that once supplied the mills of Balbriggan and Stephenstown. It is the largest freshwater lake in Fingal and has become a vibrant habitat attracting lake birds such as wintering wildfowl and waders.

The intertidal zone is a potentially large archaeological and cultural heritage resource that has yet to be explored. Potential waterlogged wooden features such as fish-traps, landing points, boats etc. may survive buried under mid flats and slits. Up to 17 shipwrecks have been recorded as having been wrecked off the coast of the study area, the majority of which have been dated to the post-medieval period, there is a likelihood that further wrecks dating to earlier periods or that have moved closer towards the inland are present. The remains of a possible prehistoric log boat were discovered off Gormanston Beach to the north of the study area in 2002 during monitoring of the Irish Sub-Sea Interconnector Pipeline which somewhat affirms the potential of the intertidal zone.

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

The former reservoir at Bowhill/Knock is an unexploited amenity for the Balrothery area. It is however an objective of Fingal County Council 'to enhance the amenity of Bowhill Lake and to seek to establish pedestrian walking routes to the Lake from Balrothery'. Plans concerning conservation of the natural environment should be carried out under consultation with relevant specialists.

Similarly the best management practices should be implemented in relation to any activities that may impact on riverine habitats. Improved management of the river corridors, the establishment of good practice guidance and archaeological monitoring should be maintained for any persons or state agencies working in riverine environments. It should be noted that the wider river floodplains may also contain the remains of archaeological sites sealed by the silts deposited by flood waters. A buffer zone, where no development can take place, should be established between proposed developments and river banks to ensure the protection of sensitive habitats and potential archaeological remains.

It is a local objective in the Fingal County development Plan 'to facilitate and encourage the development of a new deep water port at Bremore'. Due regard must be paid to the significant archaeological potential and importance of this largely unexplored environment. The management or conservation of this dynamic environment must be founded on a firm understanding of its significance that is derived from a wide-ranging archaeological intertidal and underwater coastal survey incorporating both the alluvial and estuarine environments.

COMMUNICATION



Communication forms 3.15 % of the landuse in the HLC study area and comprises 79.02ha of land. This HLC category includes roads, rail and ESB substations.

Communication networks running through the study area has been recorded in early medieval annals and has been documented since the post medieval period and shown on maps (Down's Survey 1655, Fig. 7, Rocque 1760, Fig 8, Taylor & Skinner 1778, Fig. 9). Each century brought with it the development of a new communication network, including the most recent Balbriggan Inner Relief Road which is currently under construction.

The legacy the mid-19th century railway is important on a local, regional level with all of the related infrastructure intact and currently in use. Associated with this network are a range of structures with distinctive styles of architecture, creating a distinctive character in the Balbriggan Station area of the town and in the viaducts and tunnels along the track. The significant railway structures are protected.

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

The conservation and maintenance of the railway heritage should be continued. Significant structures associated with the railway are listed in the record of protected structures.

A now redundant section of the Old Coach Road has been preserved as a pedestrian walkway. To further enhance this amenity, appropriate signage detailing the trials and fortunes of the very early routeway should be erected. If possible the substantially sized granite milestones that have recently been removed should be tracked down and reinstated and added to the protected structures list in order to safeguard them.

Any future road developments proposed within the HLC study area, including the 'route of the C road between the Naul Road and Flemington Road in Balbriggan' (Development Plan), must have regard to the current historic environment and to the key environmental and heritage constraints such as archaeological sites, protected structures and sensitive riverine environments.

COASTAL



The coastal HLC type forms the eastern boundary of the study area and comprises 1.61% landcover or 40.31ha. It consists of five categories namely cliffs, coastal rock, rough ground, sand and harbour. The coastal area represents an ever evolving landscape that has largely been largely unexplored, hence its relict landuse character has been attributed an 'unclassified' category.

Although little evidence for the Mesolithic Period has been identified along the coastal zone of the study area, it can be inferred that this abundant resource would have attracted early coastal foragers. Possible shell midden sites have been identified along the coast at Bremore which may date to this period. The strategic siting of the Bremore passage tomb complex (DU002-001001-005) along this coastline is significant; according to Hartnett (1957) the Bremore/Gormanstown group of tombs represent the point of entry at a 'natural landing point' of the 'Fourknocks Group'

and mark the western expansion of this culture along the Delvin River. This area formed a focus for ritual and ceremonial activity that utilised the coastline in the prehistoric period.

The exploitation of the coast continued throughout the prehistoric period and into the medieval and post medieval period. The provision of natural harbours in New Haven, at Lower Lodge and eventually a newly built harbour in Balbriggan enabled generations to derive their livelihood from the sea. The sea, as in prehistoric times, continued to be a medium for exchange of customs, ideas and trade. Even the inland villages of Balscadden and Balrothery gained from the returns of the sea.

Toady the coastal area is predominantly being used for amenity; it is somewhat an underutilised resource that hasn't reached its full potential. The structures along the coast, such as Balbriggan harbour, the lighthouse, the Martello tower, and boat houses lie in a dilapidated state and have attracted antisocial behaviour which has led to the littering of the beach and the reticence of locals to visit it.

The coastal area offers spectacular views along the entire coastline. At the southern tip of the HLC study area from Hamilton Demesne views are clear to Skerries and views to the north stretch as far as the Cooley/Moorne Mountains, similarly views from Bremore Head to the north of the study area also incorporate views into Meath and Louth. Vantage points all along this coastline between Bremore and Barnageeragh boast similar views.

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

Objectives of the current development plan relevant to the coastal HLC type include proposals

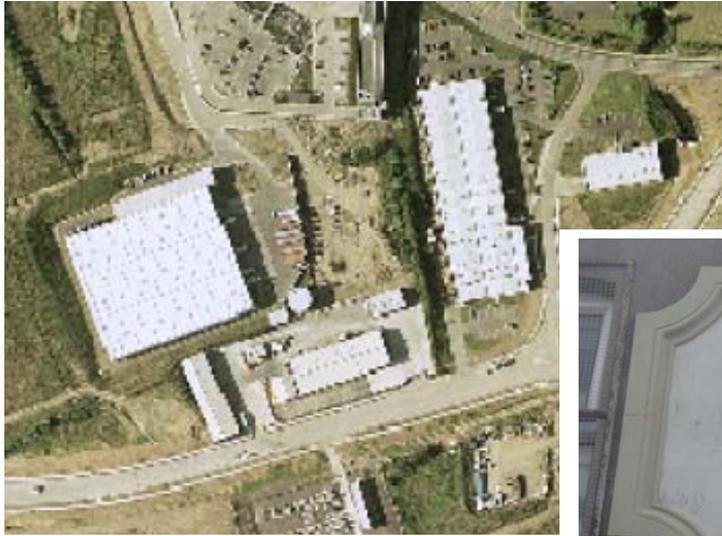
- 'to prepare and implement a regeneration plan for the harbour area'
- 'to preserve and improve access to the harbour, beaches and seashore'
- 'to incorporate the Bath House and Martello Tower at North Beach as part of the heritage area in conjunction with Bremore castle'

To ensure a successful and sympathetic restoration of these coastal structures conservation expertise will be required. The careful restoration of these coastal structures will serve to enhance a vital public amenity in a rapidly developed urban area and will encourage local pride of place.

In conjunction with the intertidal survey, discussed with regard to the Water HLC type above, a coastal archaeological survey and assessment of the entire stretch of coastline, as far as it is practical and safe, should be carried out. This survey will identify the key archaeological and cultural heritage features that may be present, such as shell middens, early piers and caves etc..

It is a local objective in the Fingal County development Plan 'to facilitate and encourage the development of a new deep water port at Bremore'. Due regard must be paid to the national significance of the passage tomb complex at Bremore (DU002-001001). There is a Preservation Order (No: 22/76) on the Bremore complex, and as such it is treated as a National Monument. It is also listed a protected structure (RPS 003). Due regard must also be paid to the significant visual context of the Bremore tombs and their possible inter-visibility with other tomb sites. The visual amenity currently afforded by of the Balbriggan coastline must also be considered.

INDUSTRIAL



The industrial HLC type is subdivided into light industrial and quarries; it represents 1.54 % of the landuse or 38.67ha of land. The modern industrial areas comprise recently constructed business and industrial parks along the new Balbriggan inner relief road on the between Balbriggan and Balrothery. Historically however industry was centred in Balbriggan and was the one of the most important catalysts for the development of the town in the 18th and 19th centuries, a former fishing Hamlet. The development of Balbriggan was the downfall of the villages of Balrothery and Balcadden. The many remnants of the once thriving eighteenth and nineteenth century industries can be found in the town itself. Most of the structures that survive are currently being used for commercial activity (and as such are discussed in the Settlement HLC category) such as the former Smyth Hosiery factory on Railway Street/Convent Lane (dating c.1870 onwards) and former Gallens Cotton & Linen Factory on Mill Street and the reservoir at Knock discussed under

the Water HLC Category. There is no modern quarrying activity in the HLC area today, historically quarrying occurred at a local scale for use in the construction of houses or for the railway and was recorded on the Ordnance Survey maps.

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

Industrial estates and retail parks are a necessity and a function of urban living and are usually located on the outskirts of residential settlements, towns or villages so associated traffic volumes are kept low through urban centres. Retail and industrial centres do not have an 'historic dimension' their construction may have removed through excavation any traces of the past. What is important for the future is that these centres of industry are designed sensitively and in a sustainable and creative manner, extending the sense of identity so the local character of the area is enhanced and not diluted any further.

WOODLAND



In a landscape that has such high-quality economic arable land; woodland only represents a minor aspect of the landuse cover. During the mid 19th and mid 20th century, woodland represented only 0.96% and 0.97% of the landuse. The small areas of wood were located in Drummans and Tobersool (Leechstown Wood, Balscadden Wood) immediately to the south of Gormanstown Demesne and may have originally formed part of the estate. The woodland landuse has reduced to just 0.01% today and is represented by a small plot of land in Balscadden measuring just 0.37ha. In the study area there are however extensive woodlands associated with Hampton Hall and Ardgillan Demesne, these are discussed under the 'Designed Landscape' HLC type.

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

The woodland HLC type does not form a major part of the current or relict landuse types in the HLC study area.

Any proposal for future planting of deciduous woodlands should be done so under consultation with the relevant authorities who will advise on the appropriate of location, there are areas where some blocks of planting can have adverse visual effects and change of character of an area. Prior to planting the location of archaeological sites should be verified in the field and avoided.

New planting should be encouraged within new development areas, which will serve to enhance open green spaces. Planting should also be used appropriately to enhance public amenity areas.

MILITARY



The Military landuse which represents just 0.01% (0.35ha of land) consists of the Martello Tower on King's Strand. This tower was part of a chain of defence around the coast of Ireland during the Napoleonic Wars and is a well known landmark. The tower is currently in a state of neglect along with the stone built boat house and boat-slip that lies adjacent to it. It is recorded as a protected structure RPS No. 017 and an RMP site DU002-004).

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

The Martello tower is a strategically positioned military installation and as such affords clear and panoramic views of the coastline and the sea. The amenity value of its location and historic association should be harnessed. The restoration of the Martello Tower is listed as a local objective in the Fingal Development Plan (2005-2011). To ensure a successful and sympathetic restoration of the structure conservation expertise will be required. A well restored functional structure will raise an interest in and an awareness of its history and origins, which will serve to further enhance local pride of place.

The reuse of the structure would become part of a wider network of heritage-led initiatives that will also serve to attract more people to the coast and form part of a thriving, and self-sustaining community amenity (see coastal HLC type).

Conclusions

This report is only one product of the HLC project for the Balbriggan 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 and environs of Balbriggan. The unprecedented urbanisation and landscape fragmentation due to large scale new housing to the west of Balbriggan and in Balrothery, 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 roadways as public walks. 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 planning process supported by Fingal County Development Plan 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.

References

- Aalen, F. H. A, Whelan, K., & Stout, M. (1997), *Atlas of the Irish rural landscape*, Cork University Press, Cork.
- Buckley, V. & Cumming W (1992) 'Beach Boys discover a rolling stone ' *Archaeology Ireland* . Vol 6, No. 3, Autumn
- Bence-Jones, M. (1978) *Burke's Guide to Country Houses*. British Book Centre.
- Benton, J and Curtis, J Smyth and Co. (1999) "Real Balbriggans" in *Balbriggan: A History for the Millennium*, Balbriggan and District Historical Society.
- Bhreathnach, E. (2005) 'The Medieval Kingdom of Brega' in Bhreathnach, E. (ed) *The Kingship and Landscape of Tara*. Four Courts Press for the Discovery Programme
- Bissette, A. (1999) Balbriggan Harbour in *Balbriggan: A History for the Millennium*.
- Bolger, T. 2006, *Archaeological Assessment and Impact Statement, Flemington, Balbriggan, Co. Dublin, Licence No. 05E0663, Planning Ref. F06A/0784 (Previously F04A/1434)*, Unpublished report for Margaret Gowen & Co. Ltd.
- Bolger, T., 2005 *Supplementary impact statement, Flemington, Balbriggan, County Dublin*. Unpublished Report: Margaret Gowen & Co. Ltd.
- Bolger, T., 2002, *Archaeological assessment Hamlet Lane, Balbriggan, County Dublin*. Unpublished Report: Margaret Gowen & Co. Ltd.
- Bolger, T.,(Forthcoming) *Archaeological excavation Flemington, Balbriggan, County Dublin*. Unpublished Report: Margaret Gowen & Co. Ltd.
- Byrnes, E., 2004a, 'Flemington, County Dublin (02E0296) in Bennett, I. (ed.), *Excavations 2002*. Bray: Wordwell Ltd., 160
- Byrnes, E., 2004b, 'Clonard or Folkstown Great, County Dublin (02E0298) in Bennett, I. (ed.), *Excavations 2002*. Bray: Wordwell Ltd.
- Bonsall, J and Gimson H. (2006) Bremore Townland, Balbriggan, County Fingal, Archaeological Geophysical Survey (Licence No. 06R050). Earthsound archaeological geophysics (unpublished report)
- Brady, K., Moore F. and Condit, T. (2007) Newhaven – a forgotten harbour in Fingal in *Archaeology Ireland*, Issue No. **82**, (4) 8-11.
- Carroll, J., 2003, 'Rosepark, Balrothery, County Dublin', in Bennett, I. (ed.) *Excavations 2001*. Dublin: Wordwell Ltd., 85
- Calender of Carew Manuscripts preserved in the Archiepiscopal Library at Lambeth 1515-1574, edited by J.S. Brewer and William Bullen, Longman, Green, Reader & Dyer, London 1867.
- Clinton, M. (1998) 'The souterrains of county Dublin' in Manning, C. (ed.) *Dublin and beyond the Pale - Studies in honour of Patrick Healy*. Wordwell, Bray, Co Wicklow.
- Cooney, G. (2000) *Landscapes of Neolithic Ireland*. London:Routledge.
- Cooney, G. (2007) The Bremore Promontory –a prominent and persistent headland in Fingal in *Archaeology Ireland. Heritage Guide No. 39*.
- Cooney, G. & Grogan E. (1994) *Irish Prehistory – A Social Perspective* Dublin Wordwell.
- Craig, M. (2006) *Classic Irish Houses of the Middle Size*. Ashfield Press.
- D'Alton, J. (1838), The history of the County of Dublin, pp 480-3
- D'Alton, J, (1844) *The History of Drogheda and its environs*, an introductory memoir of the Dublin and Drogheda Railway, Vol 1. Dublin.
- Danaher, K. (1975), *Ireland's Vernacular Architecture*, Cork Mercier Press, reprinted (1991) as *Ireland's Traditional Houses*, Dublin (Bord Fáilte)
- Draft Fingal County Council Development Plan 2005-2011

- Duffy, S. 1997, *Historical Background to the Church and Castle at Bremore, Balbriggan, Co. Dublin*. Unpublished notes prepared for Margaret Gowen & Co. Ltd.
- Dunne, G. (1999) A Glimpse of Ancient Times, in *Balbriggan, A History for the Millennium*, Balbriggan and District Historical Society. p. 17.
- Grogan, O'Donnell & Johnston 2007
- ibid., p. 22 and Walsh, J. Saint Molaga of Bremore, in ibid, p.36.
- Hamilton, G.A (1845-7) On 'a north house' in the demesne of Hampton, and the opening of a tumulus near Knockingen. *Proceedings of the Royal Irish Academy* **3**, 249-51.
- Harbison, P. (2000) *Coopers Ireland*. The O'Brien Press, Dublin
- Hartnett, P. J. (1957) Excavation of a passage grave at Fourknocks, Co Meath. *Proceedings of the Royal Irish Academy* **58C**, 197-277
- Healy, P. (1975), Third report on monuments and sites of archaeological interest in County Dublin, An Foras Forbartha Teoranta, Vol 3, Northern Section, 15.
- Herity, M. (1970) The early prehistoric period around the Irish sea. In D. Moore (ed.), *The Irish Sea Province in archaeology and history*, 29-37. Cardiff: Cambrian Archaeological Association.
- Herity, M. (1974) *Irish passage graves*. Dublin. Irish University Press.
- Hogan, E. (1910) *Onomasticon Goedelicum locorum et tribuum Hiberniae et Scotiae. An index, with identifications, to the Gaelic names of places and tribes*. Reprinted 1993. Four Courts Press. Dublin
- Leigh, J., 2005, Geophysical Survey, Flemingtoun, Balbriggan, County Dublin. Unpublished Report: Margaret Gowen & Co. Ltd
- Lewis, S. (1837) *A Topographical Dictionary of Ireland*, Vol. I. Lewis & Co. London
- McCullough, N & Mulvin, V (1987) *A Lost Tradition, The Nature of Architecture in Ireland*, Gandon Editions, Dublin.
- Nicholls, J. & Sheil, D. 2005, *Geophysical Survey Report: Balbriggan, North County Dublin*, Unpublished report for Target Archaeological Geophysics.
- Ní Mhurchadha, M. (2005) Fingal, 1603-60 Contending Neighbours in North Dublin, Four Courts Press, ISBN 1-85182-804-4
- O'Carroll, E. 2006, *Archaeological assessment at Balbriggan, Co Dublin*, Unpublished report for The Archaeology Company.
- O'Carroll, F., 2003a, 'Bremore, Balbriggan, Co. Dublin (01E0311)', in Bennet, I. (ed.) Excavations 2001. Bray: Wordwell Ltd., 78-9
- O'Carroll, F., 2003b, 'Bremore, Balbriggan, Co. Dublin (01E0370)', in Bennet, I. (ed.) Excavations 2001. Bray: Wordwell Ltd., 79-80.
- O'Danachair, C (1958) 'The Holy Wells of Dublin'. *Reportorium Novum*, 2 no. 1, 68-87
- O'Flanagan, M. (1928) (ed.) *Letters containing information relative to the antiquities of the County of Meath collected during the progress of the Ordnance Survey in 1836*. Bray
- O'Riordain, S (1965) *Antiquities of the Irish Countryside. 4th Edition* London
- O'Lochlainn, C (1995) 'Roadways in Ancient Ireland' In Ryan, J. (editor) *Feil-sgríbhinn Eoin Mhic Neill*, 465-74 Four Courts Press, Dublin
- Parks (****)
- Rynne, E. (1960) Survey of a probable passage grave cemetery at Bremore, Co. Dublin. *Journal of the Royal Society of Antiquaries of Ireland* **90**, 79-81.
- Scally, G. 2004 *Excavation at proposed development site, Balbriggan Harbour Co. Dublin*. Unpublished report produced for Margaret Gowen & Co. Ltd.

Shanahan, B., 2003, 'Isaac's Bower, Balbriggan, County Dublin', in Bennett, I. (ed.) *Excavations 2001*. Dublin: Wordwell Ltd., 80

Simington R.C. (1945) *The Civil Survey AD 1654-1656 Vol VII County of Dublin*, Irish Manuscripts Commission (Dublin).

Skyova 2005

Smyth, W. J. (1992). "Social and Cultural Topographies" in F.H.A. Aalen & Kevin Whelan (ed.) *Dublin City and County: from Prehistory to the Present*. Dublin.

Somerville-Large, P. (1995) *The Irish Country House – A social history*. Sinclair-Stevenson.

Sorenson, D. (1999) The Establishment of the Dublin to Drogheda Railway, in *Balbriggan: A history for the Millennium*, Balbriggan and District Historical Society.

Stalley, R. Daniel Grose & Grose, F. (1991), *The Antiquities of Ireland*. Irish Architectural Archive.

Stout, Geraldine and Stout, Matthew (1992). "Patterns in the Past: Co. Dublin 5000 B.C. to 1000 A.D.". in F.H.A. Aalen & Kevin Whelan (ed.) *Dublin City and County: from Prehistory to the Present*. Dublin.

Swan, D. Leo. (1985). "Monastic Proto-towns in Early Medieval Ireland: the Evidence of Aerial Photography, Plan Analysis and Survey". in H.B. Clarke & Anngret Simms (ed.) *Comparative History of Urban Origin in non-Roman Europe*. Oxford.

Swan, D.L., 1996, "Bremore Castle, Bremore, Co. Dublin", in Bennett, I. (ed.) *Excavations 1995*. Bray, 11

Swan, D.L., 2000, "Mill Street/George's Hill, Balbriggan", in Bennett, I. (ed.) *Excavations 1999*. Bray.

The Knight of Glin, D. J. & Robinson, N. K. (1988) *Vanishing Country Houses of Ireland*. The Irish Architectural Archive and the Irish

Walshe J., Bourke, S., & C. Timmins (2006) *Balbriggan the street where you live....Street & Place Names of Balbriggan*. Balbriggan & District Historical Society

Other sources

Record of Monuments and Places (RMP), The Archaeological Survey of Ireland, 51 St Stephen's Green, Dublin 2.

Topographical Files of the National Museum of Ireland, Kildare Street, Dublin 2.

Websites

www.Balbriggan.net

www.excavations.ie

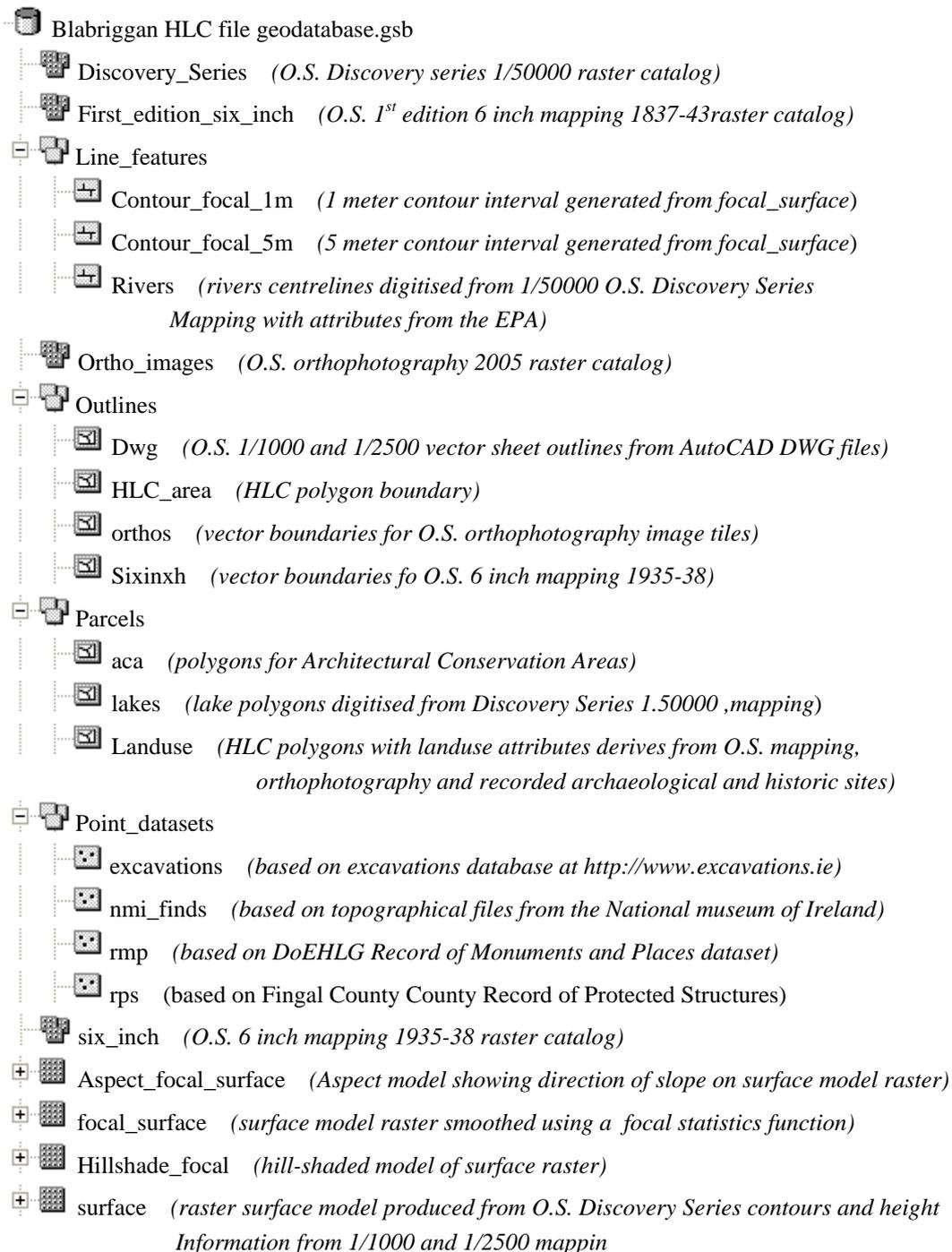
www.logainm.ie

Appendix 1 – GIS Database design

The spatial database for the Balbriggan HLC has been designed and implemented using ArcGIS Desktop 9.3 in order to provide full compatibility with the GIS systems currently in use within Fingal County Council.

The datasets used for the mapping consist of source material and background mapping provided by Fingal County Council together with datasets generated for the project by Margaret Gowen & Co. Ltd. These datasets have been structured into a file geodatabase, from which the presentation mapping and figures for this report have been generated.

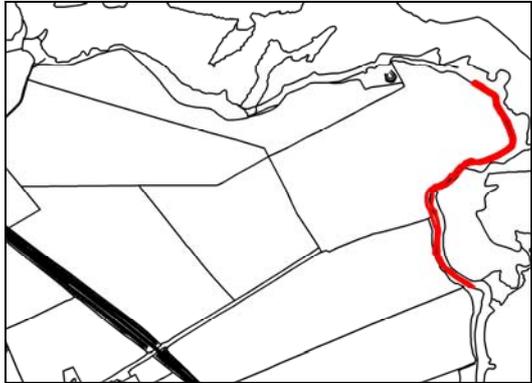
ArcGIS File Geodatabase Structure

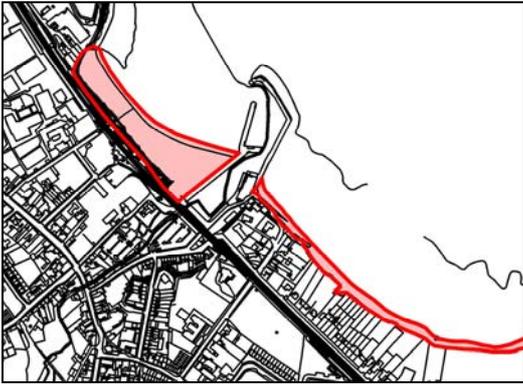


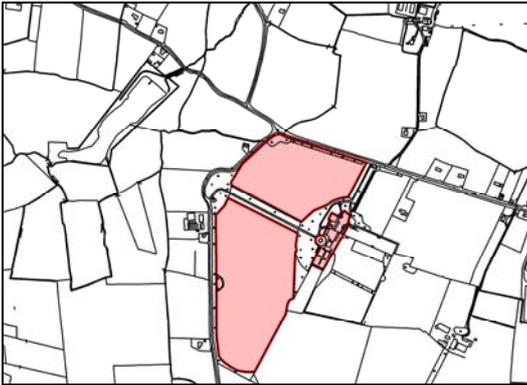
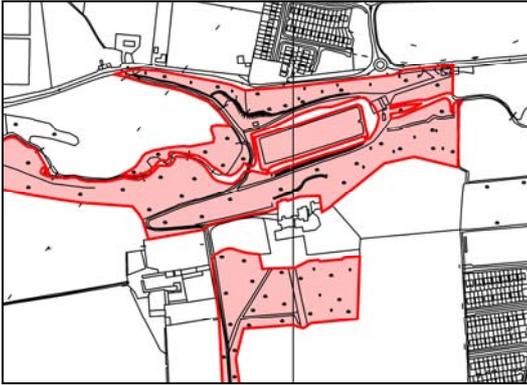
The table below outlines the attribute fields contained within the Landuse dataset in the HLC spatial database. The database follows an ArcGIS file Geodatabase structure.

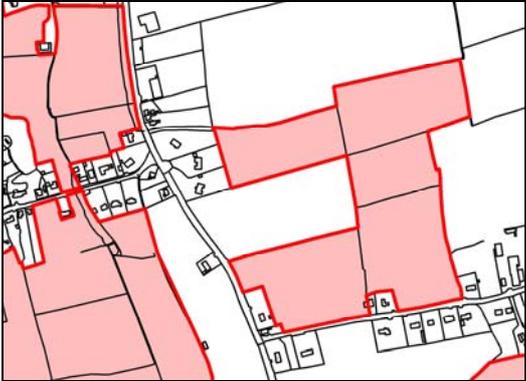
| NAME | DATA TYPE | DESCRIPTION |
|--------------|------------------|---|
| OBJECT ID | OBJECT ID | Unique internal identifier for polygon features within the database |
| SHAPE | Geometry | Spatial data shape definition |
| TYPE | TEXT | Current landuse type |
| TYPE_20C | TEXT | Landscape characterisation 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. Sunshine House, River Delvin |
| MAPTXT | 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_20C | TEXT | Broad character types as shown in the mid 20th century OS 6" mapping (1935-28) |
| BROAD_19C | TEXT | Broad character types as shown in the mid 19th century OS 6" mapping (1837-43) |
| SHAPE_Length | 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 |

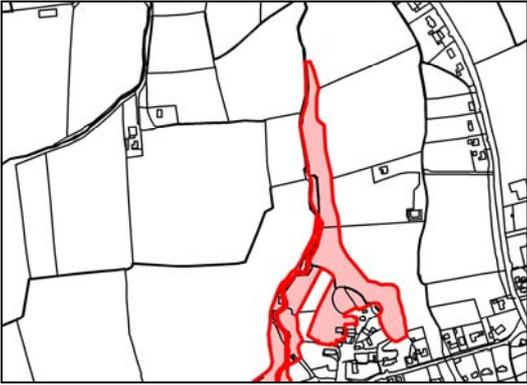
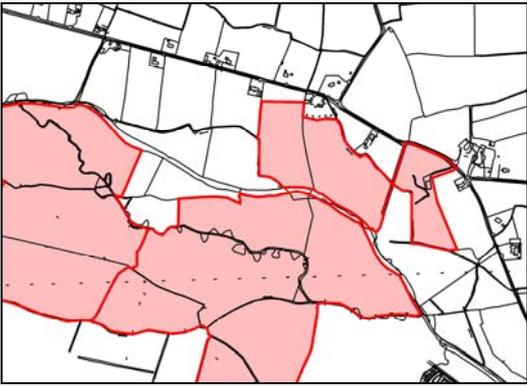
**Appendix 2 - List of Attributes
Current Landuse Codes**

| Coastal | |
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| <p>CL – Cliffs</p> <p>Areas identified as cliffs along the coast on the current O.S. mapping.</p> |  |
| <p>CR – Coastal rock</p> <p>Large areas of rock outcrop along the coast which is often covered during high tides. These areas could be used as a food resource for foraging at low tide.</p> |  |
| <p>RG – Rough ground</p> <p>Areas of rough ground along the coast and estuary, including coastal dunes near the beach.</p> |  |

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| <p>S – Sand</p> <p>Large areas of sand along the coast, above the high tide line defining the start of the intertidal zone.</p> |  |
| <p>HARBR – Harbour</p> |  |
| <p>Communication</p> | |
| <p>ESB – Electricity Supply Board</p> <p>Electricity substations</p> |  |
| <p>RAIL – Railway</p> |  |

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| <p>RD – Road</p> <p>Tertiary and higher class road as identified on the O.S. Discovery Series Mapping.</p> <p>This information has been supplemented with data observed in orthophotography where current mapping is not up to date.</p> |  |
| <p>Designed landscape</p> <p>The designed landscape class includes parkland / demesne and wooded parkland. Landscape demesnes are comprised of many features from built heritage to the semi natural woodland of planted shelter belts.</p> | |
| <p>PARK – Parkland / Demesne</p> <p>Demesne lands consist of lands and landscape elements held by an estate and include gardens, buildings and farmland.</p> |  |
| <p>WDP – Wooded Parkland</p> <p>Continuous areas of planted demesne parkland.</p> <p>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.</p> |  |

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| <p>Enclosure</p> | |
| <p>Straight edge enclosure</p> | |
| <p>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.</p> | |
| <p>ESES - Enclosure, straight edge small</p> <p>Straight edge enclosure with areas measuring less than 4ha.</p> |  <p>A map showing several small, irregularly shaped fields outlined in red. The fields are clustered together, with some showing straight edges and others showing more irregular boundaries. The surrounding area is white, representing unenclosed land.</p> |
| <p>ESEM – Enclosure, straight edge medium</p> <p>Straight edge enclosure with areas measuring 4 – 16ha</p> |  <p>A map showing a large, irregularly shaped field outlined in red. The field has a straight edge on one side and a curved boundary on the other. The surrounding area is white, representing unenclosed land.</p> |

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| <p>Wavy edge enclosure</p> <p>Wavy irregular edge enclosure is used to denote enclosed land with an irregular, wavy edged field pattern. This class is characterised by land division that has evolved over time rather than that which has been pre planned. Wavy edge enclosure typically has curving boundaries and often reflects an earlier more unsystematic approach to land division that has remained relatively unchanged compared to large enclosure that has been developed for modern farming.</p> | |
| <p>EWES – Enclosure, wavy edge small</p> <p>Irregular wavy edge enclosure with areas measuring less than 4ha.</p> |  |
| <p>EWEM – Enclosure, wavy edge medium</p> <p>Irregular wavy edge enclosure with areas measuring 4 – 16ha</p> |  |
| <p>SCRUB - Waste land / scrub</p> <p>This subclass refers to areas of unimproved land or land which has since fallen into disuse and become heavily overgrown.</p> |  |

Industrial

This class describes areas where industrial activity is the dominant landuse character. Subclasses most evident in the present landscape are industrial estates, factories, quarries and landfill sites.

IND – Light Industrial

This subclass includes industrial estates, factory complexes, sewage works, water treatment facilities and recycling facilities.

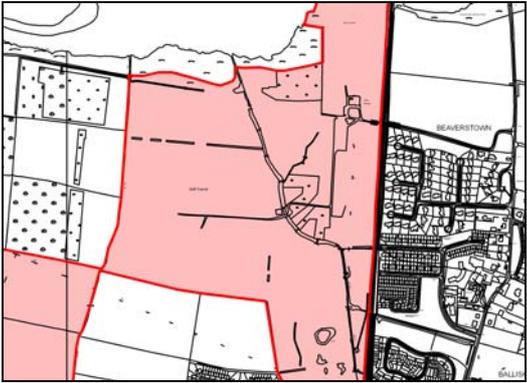
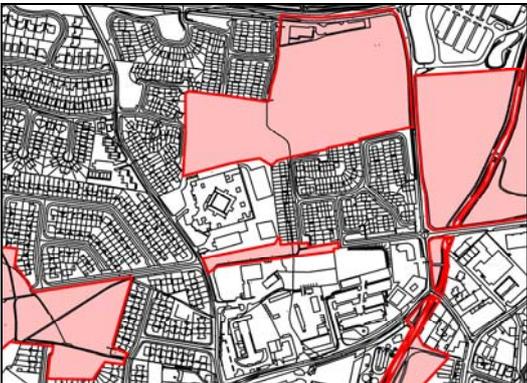


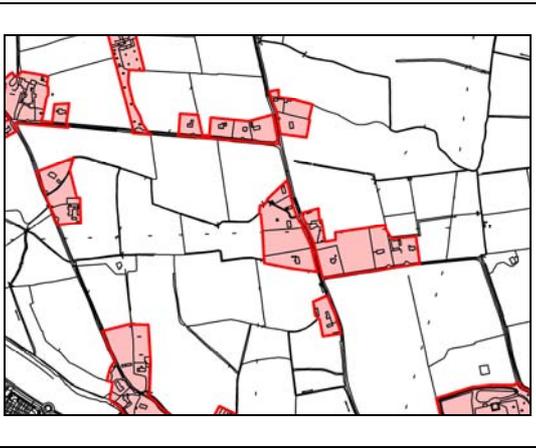
Recreation

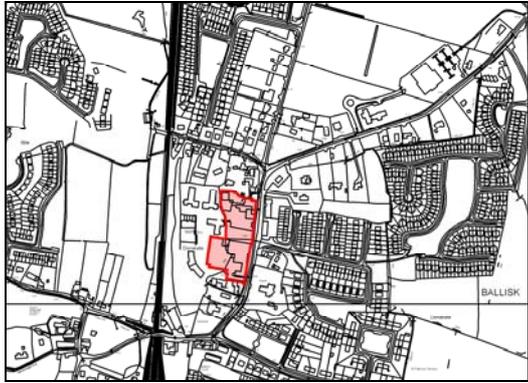
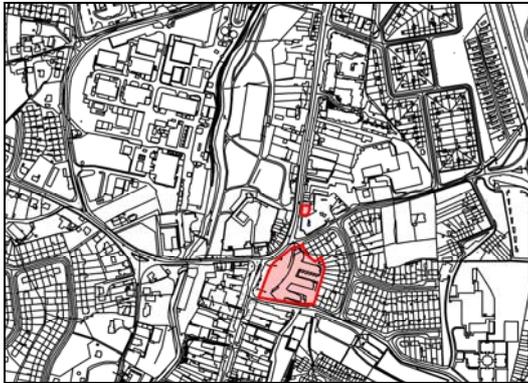
CAR - Car park

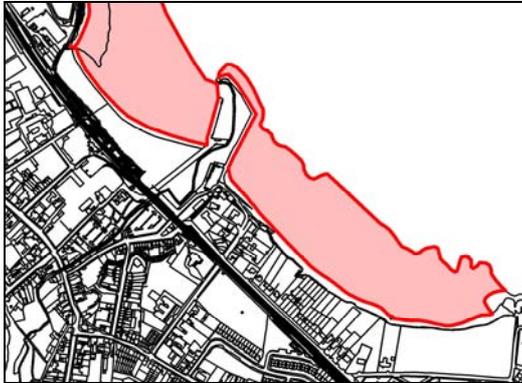
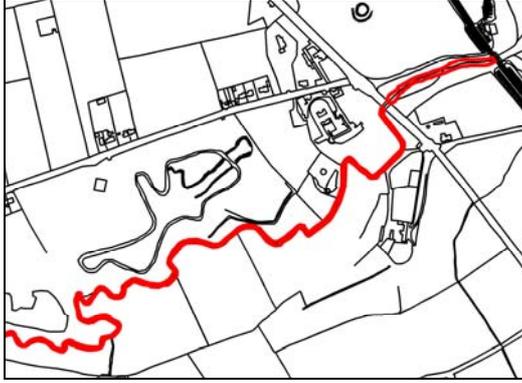
This class describes areas of public parking.

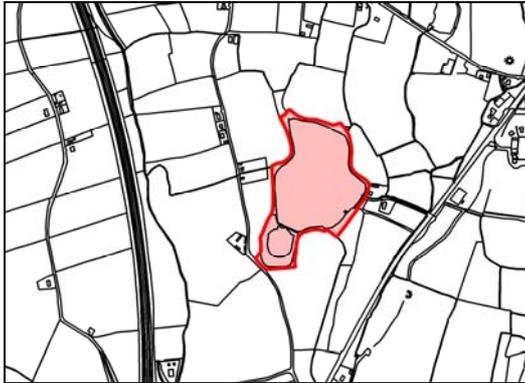


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| <p>GC – Golf Course</p> |  |
| <p>PF - Playing fields and amenity lands</p> |  |
| <p>Settlement This class contains a number of subclasses representing different types of settlement visible within the current landscape. The use of these subclasses gives an instant analysis of the nature of the settlement and the types of structures present.</p> | |
| <p>HS – Historic Settlement</p> <p>Settlement associated with a country estate house or large farmstead which is in existence from the mid 19th century as shown on 1st edition OS mapping (1837-43).</p> <p>A number of map sources ranging from Rocque (1760), 1st edition OS to the current OS 1/1000 and 1/2500 series are used to establish this subclass.</p> |  |
| <p>MIX – Mixed use residential</p> <p>This subclass refers to areas of settlement consisting of units which are designed for mixed residential and commercial use.</p> |  |

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| <p>NS – Nucleated settlement</p> <p>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.</p> |  |
| <p>SC – Settlement, Cemetery</p> <p>Cemeteries and graveyards.</p> |  |

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| <p>SCH – School</p> |  A detailed black and white architectural plan of a town. Three distinct building footprints are highlighted in red. These buildings are located in the upper and middle sections of the plan, near a road network. |
| <p>SCOM – Settlement, commercial</p> <p>Areas of commercial settlement including shops, pubs, cafes offices, town centres etc.</p> |  A detailed black and white architectural plan of a town. A central cluster of buildings is highlighted in red. The plan shows a dense street grid and various building footprints. The word 'BALLISK' is visible in the lower right corner of the map. |
| <p>SM – Settlement Municipal</p> <p>Municipal buildings such as town halls, court houses and libraries.</p> |  A detailed black and white architectural plan of a town. A single, large building footprint in the lower-middle section is highlighted in red. The plan shows a complex street layout and numerous other buildings. |

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| <p>SRM – Settlement, residential, modern</p> <p>Areas of land covered by modern residential housing estates.</p> |  <p>A detailed map showing a residential area with numerous buildings and streets. A large, irregularly shaped area is highlighted in red, representing modern residential housing estates. The map includes labels for 'BALLISK' in two locations.</p> |
| <p>Water</p> <p>INTR – Intertidal Zone</p> <p>The intertidal zone is the area of the foreshore and seabed that is exposed to the air at low tide and submerged at high tide. This zone is identified as being the area between the high water mark and the low water mark as shown on the current O.S. 1/2500 and 1/1000 series mapping.</p> |  <p>A map showing a coastal area with buildings and a body of water. A red-shaded area along the shoreline represents the intertidal zone, extending from the water's edge inland to a specific boundary.</p> |
| <p>RIV – River</p> |  <p>A map showing a river winding through a landscape with fields and some buildings. The river is highlighted with a thick red line, indicating its course through the area.</p> |

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| <p>RES – Reservoir</p> |  A map showing a central area highlighted in red, representing a reservoir. The map includes surrounding fields, roads, and a railway line on the left. |
| <p>Woodland</p> | |
| <p>WD – Woodland deciduous</p> |  A map showing a central area highlighted in red, representing woodland. The map includes surrounding residential areas, roads, and a railway line on the left. |

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 Balbriggan 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.

Appendix 5

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| Location | Bremore, rocks off |
| Name of Vessel | Europe Date 13 th February 1766 |
| Description | Snow en route from Workington, cargo of coal. Became wrecked. Freeman's Journal 18 th – 22 nd February 1766, 194 |
| Location | Balbriggan Harbour, north of (within 100 yards of the wreck of <i>Bower Hill</i>) |
| Name of Vessel | Young England Date 14 th November 1852 |
| Description | 409 ton, 8 year old barque of Kincardine. Classed as A1 by Lloyd's, master was Robertson. En route from Singapore to Liverpool, sixteen crew, general cargo. Encountered an ESE force 9 wind, became stranded, sank. Fourteen crew saved, two perished. Some cargo was expected to be saved. Bourke 1994, 13; LL 12,060, 16 th November 1852; PP, 1852-1853, LXI, 186-7; PP 1852-1853, XCVIII, 7; PP 1857-1858, LII, 5; PP 1861, LVIII, 36; PP 1864, LV, 130 |
| Location | Balbriggan, 2 miles N |
| Name of Vessel | Sirius Date 02/02/1853 |
| Description | 236 ton of Liverpool, en route from Liverpool to Para, eleven crew, general cargo. Wrecked during a SW force 4 wind. Estimated loss on vessel £150. Vessel was insured. LL 12,127, 4 th February 1853; PP 1854, XLII, 12-13 |
| Location | Knocknagin, near Gormanstown Castle |
| Name of Vessel | Duke of Wellington Date 09/02/1861 |
| Description | 70 ton, 60 year old brigantine/schooner of Dundalk. Master was Mc Ardle. En route from Troon to Dundalk, four crew, cargo of coal. Encountered E force 10 wind, lost use of sail. Vessel went ashore, broke up, became a total wreck. Master drowned, remaining crew rescued by coastguard. Cargo washed out. Part of vessel floated into the River Boyne. The Independent (Wexford) 13 th February 1861, 3; LL 14,620, 12 th February 1861; LL 14,622, 14 th February 1861; LL 14, 630, 23 rd February 1861; PP 1862, LIV, 15,23 |
| Location | Newhaven Point, near Balbriggan 300 yards from shore |
| Name of Vessel | Bell Hill Date 26 th February 1875 |
| Description | 500 ton iron barque of Liverpool. Built in Seacombe, 1866, official no. was 29,998. Classed A1 by Lloyd's. Owned by John Banks Walmley of Liverpool, master was Edward Edgar. En route from Liverpool to Valparaiso, 16 crew, general cargo. Encountered Strong ESE gale, foggy conditions. Fog cleared, Balbriggan lighthouse seen c. 4 miles off starboard bow. Vessel drifted ashore. Port, starboard anchors dropped to prevent drifting ashore but dragged. Struck ground 800 yards from shore. Drifted onto rocks off New Haven Point, circa 300 yards from high water mark. Rockets fired in an attempt to rescue crew by coast guard. Crew appeared ignorant of the workings of the apparatus, made no effort to save themselves. Masts fell overboard, vessel began to break up rapidly. Crew thrown into the water, three were rescued. Two died soon after from exposure. Only survivor was unclear about the circumstances surrounding the wreck. Court inquiry was unable to arrive at any conclusion as to how the Bell Hill became wrecked. Cargo including bar iron, gas pipes, pipes, kegs of paint, bales of bedsteads, 11 tons of iron salvaged from wreck. Wreck sold for £293 at auction. Locals salvaged |

some cargo. Seven bodies recovered, buried at old Balrothery cemetery. Ribs of the vessel remained visible in the sand until 1950s. Bourke 1994, 12; PP 1875, LXX, 421; Condrot et al. 1984, 52; de Courcy Ireland, 1983, 93; LL February, March, April, May, June, August 1875; Times (London) 28,250, 27th February 1875

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| Location | Balbriggan, 7 miles NNE | |
| Name of Vessel | Unknown | Date 10/10/1881 |
| Description | Balbriggan trawler reported fouling its nets on a sunken barque. LL 21,048, 10 th Oct 1881 | |
| Location | Cardy rocks | |
| Name of Vessel | Unknown | Date 25 th January 1883 |
| Description | Ringsend trawler was wrecked. Crew probably lost. LL 21,449, 27 th January 1883 | |
| Location | Cardy Rocks, Balbriggan | |
| Name of Vessel | Ellen and Mary | Date 21 st November 1883 |
| Description | 50 ton, 11 year old wooden cutter of Dublin. Owned by M. Dalton of Ringsend, master was W. Byrne. Fishing off Dublin in ballast, four crew. Became stranded in NNE force 4, became totally wrecked. LL 19,098, 22 nd November 1898; LL 19;103, 28 th November 1898; PP 1900, LXXVII, 134 | |
| Location | Cardy Rocks, near Balbriggan | |
| Name of Vessel | Osprey | Date c. 25 th January 1883 |
| Description | 37 ton, 25 year old wooden cutter of Dublin. Owned by J. Campbell of Ringsend, master was J. Dalton. Fishing in ballast from Ringsend, four crew. Became stranded, totally wrecked. Crew perished. PP 1884, LXXI, 118 | |
| Location | Cardy Rocks | Date 25 th January 1883 |
| Name of Vessel | <i>Unknown</i> | |
| Description | Ringsend trawler was wrecked. Crew probably lost. LL 21,449, 27 th January 1883 | |
| Location | Barmegera (Barnageera), Skerries | Date 12 May. 1886 |
| Name of Vessel | <i>Fortune</i> | |
| Description | This 48 year old wooden brigantine/ brig of Belfast weighed 69 tons. The owner and master was R. Parker of Carrickfergus. She was en route from Carrickfergus to Dublin with a cargo of rock salt when she was stranded and totally wrecked in an ESE force 10 gale. There was no loss of life. Bourke, 1998, 9; CSP, 1887, Vol. LXXIV, 140 | |
| Location | Cardy Rocks | |
| Name of Vessel | Hart | Date 16 th July 1903 |
| Description | Balbriggan trawler went ashore, became a total wreck. LL 20,541, 16 th July 1903; LL 20,551, 28 th July 1903 | |
| Location | Cardy Rocks | |
| Name of Vessel | Unknown | Date 16 th July 1903 |
| Description | First-class vessel stranded on rocks, became a total wreck. RSIF 1903 | |
| Location | Meath, app 3 miles N of Skerries, 53 38 4.704N, 06 03 52.632W | |

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| Name of Vessel | Unknown | Date Unknown |
| Description | UKHO wreck no. 009000136. Chart symbol USC 17. Two large iron barges lying side by side in a general sea depth of 19m. Still intact standing upright, 4m high. INSS; UKHO Wreck Data 1996 | |
| Location | Bremore, 5.5 miles E by N, 53 38 12.372N, 06 02 37.248W | |
| Name of Vessel | Unknown | Date Unknown |
| Description | Wreck identified (INSS No. G 126) during the National Seabed Survey. Wreck measures 16m long, 5m wide with a height of 2m off the seabed. It lies in a general sea depth of 21m INSS | |
| Location | Balbriggan, approx 10 miles off | |
| Name of Vessel | Unknown | Date Unknown |
| Description | Fishermen of the 'Deborah Anne' trawled up two large cannonballs and some wood from 57m of water. Evening Herald, 11 th December 2001 | |
| Location | Cardy reef, Bremore Bay | |
| Name of Vessel | Bower Hill | Date unknown |
| Description | Wrecked within 100 yards of <i>Young Englander</i> . Bourke 1994, 13 | |

Appendix 6 Glossary