Ards and North Down Borough Council

Landscape Character Review for Ards and North Down

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1.0 INTRODUCTION

1.1 Background

The landscape character of Northern Ireland is described in the Northern Ireland Landscape Character Assessment which was undertaken in 1999 (NILCA 2000)[1]. The assessment describes the Northern Irish landscape through 130 landscape character areas (LCAs). 10 LCAs are wholly or in part within the Ards and North Down Borough Council Area. The character assessment describes the character of each area, its sensitivity, condition and provides principles for landscape and development management. More recently, information on the biodiversity and geodiversity of each LCA was added to the assessment, and these are available on the Northern Ireland Department of Agriculture, Environment and Rural Affairs websites, along with the character assessment.

In the years since the publication of the original assessment, parts of the landscape in Ards and North Down have been subject to change, and may be subject to future change different to those envisaged in the earlier assessment. For the character assessment to remain relevant to planning policy and the development management process, an update of the landscape and associated assessments is required to capture the current landscape character and its sensitivities, and to provide up to date development management guidance.

Ards and North and Down includes one of the most scenic landscapes in Ireland at Strangford Lough, with special qualities recognised through national Area of Outstanding Beauty (AONB) landscape designation. Other parts of the landscape are recognised through local designation. There is a requirement to make sure that designations, in particular local designations, properly reflect the special landscape qualities and remain relevant to objectives set out in planning policy.

Ironside Farrar was commissioned in 2021 by the Borough Council to undertake a review and update of the character assessment within Ards and North Down, including updating of the biodiversity and geodiversity profiles which accompany each character assessment, and a review of local landscape designations. This report describes the findings of the review and provides an updated landscape character assessment specific to the Ards and North Down Borough Council Area. This review will contribute to the evidence base to inform the preparation of the Local Development Plan.

The updated landscape character assessment is complementary to the Northern Ireland Regional Landscape Character Assessment (NIRLCA)[2] and the Northern Ireland Regional Seascape Character Assessment (NIRSCA)[3], published in 2016 and 2014 respectively, which characterise the landscape and seascape of Northern Ireland at a larger scale.

[1] Published by Northern Ireland DAERA, available on their website www.daera-ni.gov.uk
[2] https://www.daera-ni.gov.uk/services/regional-landscape-character-areas-map-viewer
[3] https://www.daera-ni.gov.uk/publications/northern-ireland-regional-seascape-character-assessment

2.0 LANDSCAPE CHARACTER ASSESSMENT

2.1 The Landscape Resource

The objective of assessing and understanding the landscape resource is to ensure that the distinct identity, diverse character and scenic quality of Northern Ireland's landscapes as a whole can be safeguarded and enhanced while also accommodating change. Landscape character assessment provides the starting point for Local Authorities to develop specific zonal policies for the care, enhancement and sustainable use of their landscapes. Landscape character assessments can inform other strategies and studies, such as for renewable energy, housing development, or woodland and forestry, to understand how they might affect and be best accommodated in the landscape.

Understanding the landscape, and the relationship between change and landscape management, is a critical part of landscape character assessment. Safeguarding the quality of landscapes and recognising that all landscapes are important to someone, a principle of the European Landscape Convention (ELC)[4], accepts the need to guide and manage change in accordance with broad principles. The following principles guiding this assessment are derived from the objectives and definitions of the ELC:

- Landscapes evolve, but change should be guided

Landscapes are continually changing, but because of the increasing extent and pace of change, and the loss of distinctiveness resulting from it, a more proactive approach to landscape planning and management is required to ensure that the landscapes of tomorrow are of no less quality than today's.

- Landscape change should be positive in effect

Most change in our landscapes should fit with and enhance existing landscape character, particularly where present character is highly valued. But the character of a landscape cannot always be retained and some landscapes will be changed through land uses and development. In all these cases the objective should be to ensure that the landscape is recognisable and valued as distinctive and appealing.

- All landscapes deserve care

Safeguarding landscape has traditionally focused on designated areas (e.g. Areas of Outstanding Natural Beauty). Nevertheless, it is the countryside as a whole (including settlements) that provides the valued diversity of distinctive landscapes, as well as the settings for most people's lives. All landscapes are usually of value to those who live in them and are therefore deserving of care.

- Some landscapes warrant special safeguard

Even within a universal approach, some landscapes are widely recognised as being of particular value, are therefore more sensitive to change, and justify special effort to ensure they are safeguarded. Their designation is an important planning and management tool to ensure they continue to be given care when proposals for change arise.

- Quality should be the goal

Care for Northern Ireland's landscapes needs an emphasis on achieving high standards of design and management, along with a considered approach to the development and implementation of policies and actions which affect landscape.

- Landscapes are a shared responsibility

Northern Ireland's landscapes are important to all. Many activities influence the landscape's appearance; their net effect is of legitimate concern to all those who, for example, live, work, seek recreation in, or have other associations with, these places. An integrated and collective approach is therefore required, based on a broad agreement on the direction, nature, and extent of desirable landscape change.

2.2 The Landscape of Ards and North Down

The Ards and North Down Borough Council area comprises the legacy districts of North Down and Ards. Landscape assessments for each former administrative area were originally published in two separate volumes of the NILCA 2000 assessment. The former North Down Borough Council area comprises the northern coast including the main settlements of Bangor and Holywood, along with the northern parts of the rural landscapes of the Holywood Hills and Ards Peninsula. Ards District Council comprised the larger part of the modern Borough Council area, including Strangford Lough and most of the Ards Peninsula.

The landscape of Ards and North Down is an entirely lowland landscape. Even the highest parts, the Holywood Hills which rise to only 217m AOD, are farmed and settled. Outside of settlements the landscape is an overwhelmingly pastoral one of small or medium sized fields, often divided by clipped hedgerows, which rise and fall across a landscape of undulating drumlins. Inland there are often only subtle differences to the character of the farmland, for example where the flatter topography creates a larger landscape scale near Scrabo, or where steep undulating drumlins create a more enclosed character, such as to the west of Strangford Lough. The larger landforms of the Holywood Hills and those at Portaferry provide some contrast with the relatively uniform drumlin landscape, with the craggy outcropping at Scrabo Hill and the steep escarpment at Craigantlet more dramatic elements.

It is, however, the relationship with the coast which adds special qualities to this drumlin farmland landscape. The Borough Council area adjoins three areas of distinct seascape character; Strangford Lough which is the largest sea lough in the United Kingdom, the long outer Ards coastline with the Irish Sea with its wide horizons, and the northern coast with Belfast Lough and views to

[4] https://www.coe.int/en/web/landscape/home

Antrim across the busy shipping channel. Inland, within the often disorientating landscape of undulating drumlins there are usually no views to the sea despite most parts of the landscape being within a few miles of the coast. It is only when very close to the coast, or from occasional high points, where the sea is visible.

At Strangford Lough the combination of land and sea results in a landscape of outstanding quality, recognised through AONB designation. Here farmland sinks abruptly into the lough, and on its east facing shore the partially submerged drumlins create a complex and intimate coastline in contrast to the expansive character of other parts of the lough's coast. Large wooded estates, for example at Mount Stewart, are an important shoreline feature. The Strangford Lough 'Narrows' is a highlight, with its opposing picturesque settlements of Portaferry and Strangford, enclosing hills, and wooded estates. The often fast flowing narrows, its ferry and other maritime activity add animation and further interest for the observer. Scrabo Hill, accentuated by its tower, is an often present landmark in views from around the lough.

The Outer Ards Coast is long and undramatic, experienced as a sequence of low rocky outcroppings, sandy bays, small settlements, with a hinterland of pastoral farmland. While its scenic qualities are not as high as those around Strangford Lough, it has an exposed, windswept quality and an increasing sense of remoteness towards the end of the peninsula at Ballyquintin Point.

The northern part of the Borough Council area is the most developed. On the north coast, facing Belfast Lough, urban development is close to continuous between Holywood and Bangor, with minimal separation provided by farmland, estates, and undeveloped parts of the coast. The Holywood Hills provide a backdrop of higher ground contributing to the setting of these settlements in views from the lough and the Antrim coast.

Newtownards is spread across a flat plain at the head of Strangford Lough, contained by the Holywood Hills. While the town has historically had little relationship with the lough, and was never developed as a port, the more recent development of coastal areas for the airport, industrial and commercial uses means that the town is separated from the lough and does not have a coastal character.

2.3 Landscape Character Assessments for Ards and North Down

Introduction

The landscape of Ards and North Down is described and characterised as part of 3 separate but related character assessments:

- The Northern Ireland Regional Landscape Character Assessment (NIRLCA) published in 2016;
- The Northern Ireland Regional Seascape Character Assessment (NIRSCA) published in 2014; and
- The Northern Ireland Landscape Character Assessment (NILCA 2000) published in 1999.

These assessments, and their interrelationship, are briefly described below.

The 2016 Northern Ireland Regional Landscape Character Assessment (NIRLCA)

The Northern Ireland Regional Landscape Character Assessment (NIRLCA) was undertaken in 2016. The NIRLCA provides a strategic overview of the landscape of Northern Ireland, describing the broad variations in landscape character through the identification of 26 Regional Character Areas with their own distinct character, identity and sense of place.

Four Regional Character Areas (RCAs) fall within the Ards and North Down boundary, shown on Figure 1, however it is the **Strangford, Ards and Lecale RCA** which covers and describes much of the character of the local authority area.

Strangford, Ards and Lecale: Drumlin strewn, partially submerged, lowlands centred around Strangford Lough sea lough, including the Ards Peninsula.

Down Drumlins and Holywood Hills: The eastern edge of an extensive plateau of drumlins covering much of County Down, including the more distinct Holywood Hills and Craigantlet Escarpment which enclose Belfast to the north east.

Belfast Lough and Islandmagee: A narrow coastal plain forming the transition from the coast to the Holywood Hills. The area is substantially urbanised, including the settlements of Bangor and Holywood, main road and rail corridors.

Belfast and Lagan Valley: a largely urban RCA including Belfast and Lisburn, only a very small part of which falls within the Ards and North Down boundary.

Published in 2016, the NIRLCA remains current and is not subject to revision as part of this review. It is complementary to the smaller scale NILCA 2000 and this updated assessment.

2014 Northern Ireland Regional Seascape Assessment (NIRSCA)

The Northern Ireland Regional Seascape Character Assessment (NIRSCA) describes the entire Northern Ireland coast from Londonderry to Newry. The assessment is principally concerned with coastal character as defined by headlands, islands and other coastal features, and the method of assessment follows the general principles of landscape character assessment.

The coastline of Northern Ireland is described through 24 Seascape Character Areas (SCAs), 4 of which adjoin the coastline of Ards and North Down: *Strangford Lough*, *Ards Peninsula*, *Belfast Lough* and *Belfast Harbour*.

Regional seascape character areas are shown in Figure 1 along with regional character areas of the NIRLCA. The updating of the local NILCA includes the review of the seascape assessments to ensure that important aspects of the coastal landscape character are captured, however the updated NILCA does not update or replace any part of the 2014 seascape assessment.

The 1999 Northern Ireland Landscape Character Assessment (NILCA 2000)

The Northern Ireland Landscape Character Assessment (NILCA 2000) provides a finer grained and more detailed characterisation of the landscape than the regional assessment. 10 landscape

character areas (LCAs) fall wholly or in part within the Borough Council boundary. The NILCA 2000 LCAs are shown on their own in Figure 6 and in relation to the RCAs and SCAs in Figure 1.

LCAs of NILCA 2000 do not fall neatly within NIRLCA 2016 RCA boundaries, because the assessments were undertaken separately and at different scales, with boundaries of the regional assessment inherently more imprecise when defining very broad variations in landscape character. However, there is good correspondence between the two assessments and they complement each other.

- Six LCAs overlap substantially with the *Strangford, Ards and Lecale* RCA, describing the local variations in character of this large regional area, mostly comprising low lying undulating drumlin pastures (LCAs 92 *Ballyquintin and Lecale Coast*, 93 *Portaferry and North Lecale*, 94 *Strangford Drumlins and Islands*, 99 *Outer Ards Coast*, 100 *Ards Farmland and Estates*, 101 *Scrabo*)

- Within Ards and North Down the *Belfast Lough and Islandmagee* RCA comprises one LCA; 103 *Bangor Coastline*.

- The *Down Drumlins and Holywood Hills* RCA includes the more elevated LCAs of 102 *Holywood Hills*, small parts of 104 *Craigantlet Escarpment* and 95 *Ballygowan Drumlins*. LCA 95 *Ballygowan Drumlins* is split between the *Strangford, Ards and Lecale* RCA and the *Down Drumlins and Holywood Hills* RCA, reflecting the gradual and indistinct transition between these two areas of regional character.

Each original NILCA 2000 LCA character assessment includes key characteristics, landscape description, an assessment of landscape condition and sensitivity to change, principles for landscape management and principles for accommodating new development. An overview of the geodiversity and biodiversity of each LCA was added to the assessment in the mid-2000s.

The original NILCA covers the Ards and North Down landscape in 2 volumes, separating Ards from North Down. Each volume also includes descriptions of the settings to selected settlements, including siting and design guidance for new development. Volumes of the original assessment are not widely available; the assessments for each LCA are published online[5] but settlement assessments are not.

The following review updates the NILCA 2000 assessment, incorporating relevant information from the regional landscape and seascape assessments where appropriate.

2.4 The Need for Reassessment

Within Ards and North Down, and other landscapes in Northern Ireland, development has led to gradual landscape change over the past 20 years and some present and likely future trends are different to those from 20 years ago. Some development types, such as wind energy, had very limited presence in the landscape at the time, whereas wind turbines are now often striking features of the rural landscape. House building in the countryside and settlement expansion have also resulted in landscape change.

For the landscape character assessment to remain relevant to planning policy and the development management process, it is necessary that the contemporary landscape conditions and sensitivities are properly described, and that development management guidance is relevant to current and likely future pressures for change.

At the time of preparing NILCA 2000, the process of landscape character assessment in the UK was evolving and it predated the publication of the very influential 2002 *Landscape Character Assessment Guidance for England and Scotland* (Scottish Natural Heritage/ Countryside Agency).

Recent English guidance, the 2014 *An Approach to Landscape Character Assessment* (Natural England), has been adopted in Northern Ireland as 'best practice'. The 2014 guidance provides an approach to landscape character assessment fundamentally unchanged from that described in the 2002 publication. The 2014 publication largely excludes the guidance provided in that of 2002 for 'making judgements' with the outcome of a landscape character assessment e.g. for development management guidance, focussing only on the landscape characterisation process. The earlier 2002 guidance remains current in Scotland.

Therefore, as well as ensuring that the assessment reflects current landscape conditions and trends, it is also of benefit to ensure the assessment corresponds with the established principles of landscape character assessment that have evolved since publication of the original assessment.

As noted previously, since publication of the original NILCA 2000 assessment, there has been the publication of the regional landscape and seascape assessments. Updating of the local landscape character assessment provides an opportunity for linking to, and ensuring consistency with, these two assessments. The Regional Character Assessment included cultural and perceptual influences. This LCA review includes an initial review of examples of different forms of cultural influence across all character areas. It should be noted that the examples are not exhaustive (see Appendix D).

Finally, the landscape character assessment for the current Ards and North Down Borough Council area is described in hard copy volumes relating to legacy council areas which are difficult to obtain, or alternatively as downloadable individual LCA assessments which are lacking in local context. This review provides the opportunity to present the landscape character assessment for the Borough Council area in a single comprehensive illustrated report, and in a more accessible format.

[5] https://www.daera-ni.gov.uk/articles/landscape-character-northern-ireland

Ref	NILCA 2000 LCAs (A&ND Only)
92	Ballyquintin and Lecale Coast
94	Strangford Drumlins and Islands
95	Ballygowan Drumlins
99	Outer Ards Coast
100	Ards Farmlands and Estates
101	Scrabo
102	Holywood Hills
103	Bangor Coastline
104	Craigantlet Escarpment
93	Portaferry and North Lecale

Belfast and Lagan Valley

Down Drumlins and Holywood Hills

Strangford, Ards and Lecale

13. Belfast Lough

14. Belfast Harbour

15. Ards Peninsula

16. Strangford Lough

Legend

- A&NDBC Boundary
- Other Local Authority Boundaries
- NILCA 2000 LCAs
- Seascape Character Areas

Regional Character Areas

- Belfast and Lagan Valley
- Belfast Lough and Islandmagee
- Down Drumlins and Holywood Hills
- Mourne and Slieve Croob
- South Antrim Hills and Six Mile Water
- Strangford, Ards and Lecale

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Figure 1

Regional Landscape and Seascape Character Areas

Scale 1:160,000 at A3

0 2 4 6 8 km

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Ref	NILCA 2000 LCAs (A&ND Only)
92	Ballyquintin and Lecale Coast
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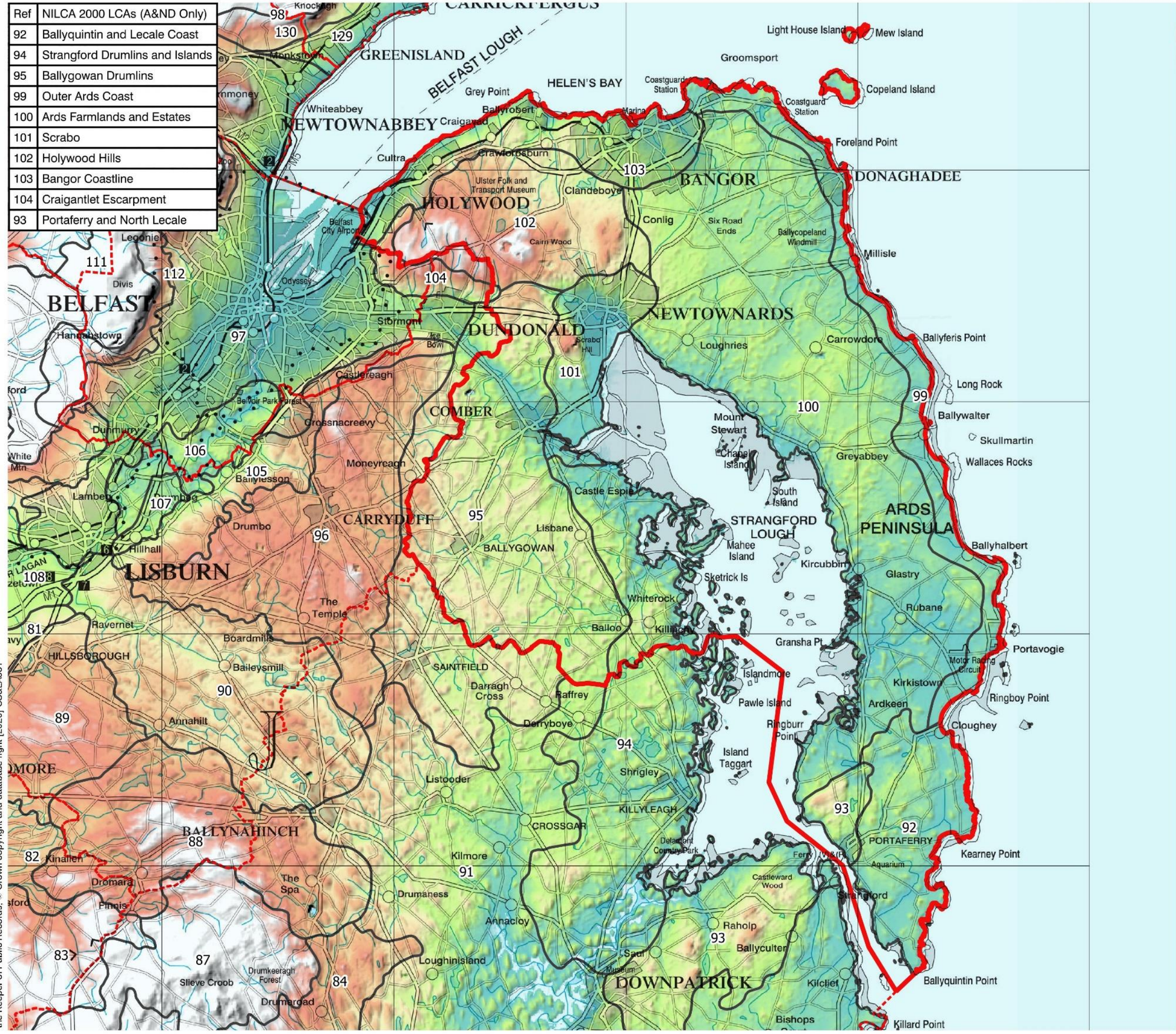
100	Ards Farmlands and Estates
101	Scrabo
102	Holywood Hills
103	Bangor Coastline
104	Craigantlet Escarpment
93	Portaferry and North Lecale



Legend

- A&NDBC Boundary
- Other Local Authority Boundaries
- NILCA 2000 LCAs

Ground Level

mAOD

180

0

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Figure 2

Topography with NILCA 2000 LCAs

Scale 1:160,000 at A3

0 2 4 6 8 km

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Ref	NILCA 2000 LCAs (A&ND Only)
92	Ballyquintin and Lecale Coast
94	Strangford Drumlins and Islands
95	Ballygowan Drumlins
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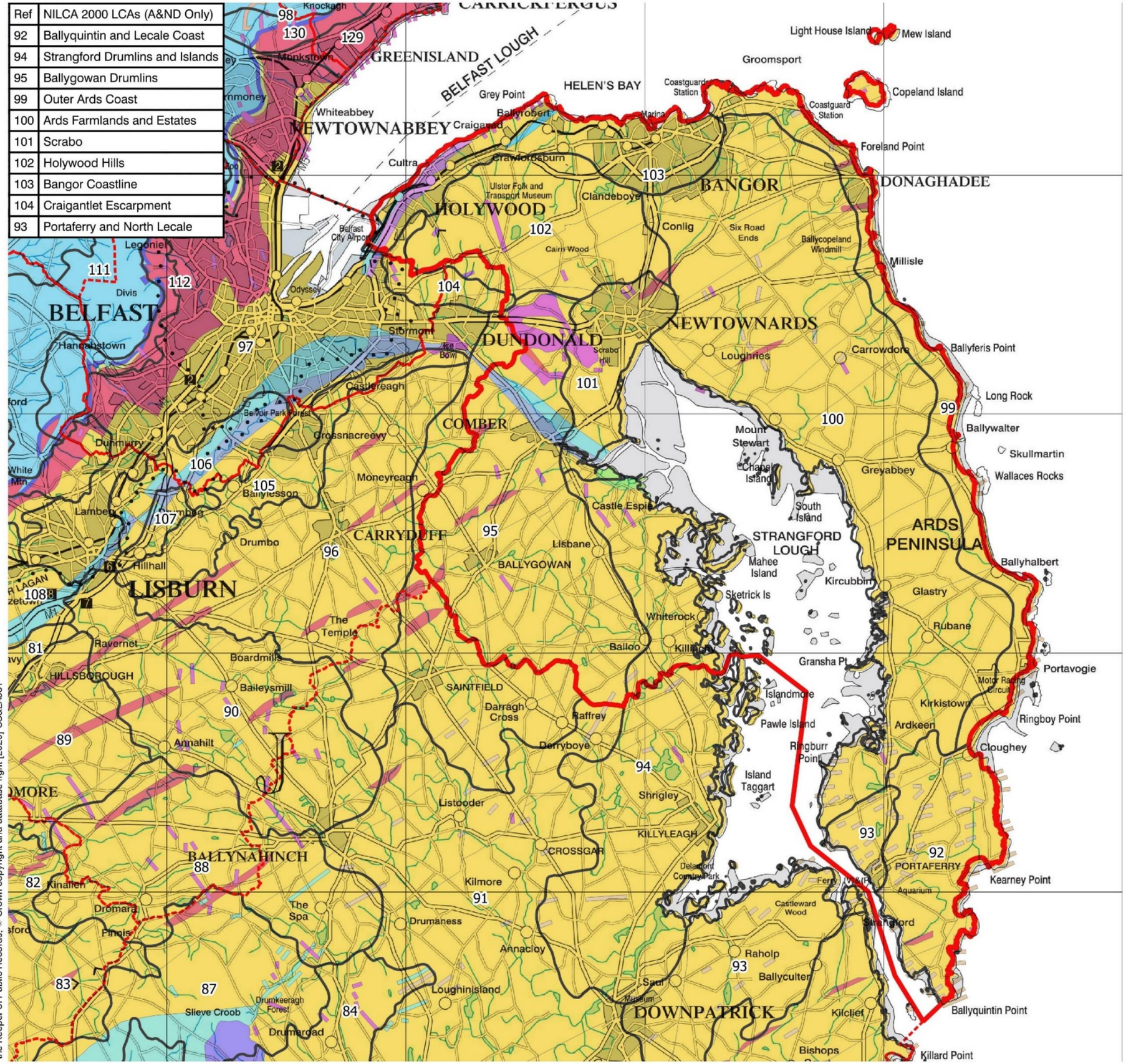
100	Ards Farmlands and Estates
101	Scrabo
102	Holywood Hills
103	Bangor Coastline
104	Craigantlet Escarpment
93	Portaferry and North Lecale



Legend

- A&NDBC Boundary
- Other Local Authority Boundaries
- NILCA 2000 LCAs

Bedrock Geology

- ANDESITE
- ARGILLACEOUS ROCK
- ARGILLACEOUS ROCK AND [SUBEQUAL/ SUBORDINATE] LIMESTONE, INTERBEDDED
- ARGILLACEOUS ROCKS WITH SUBORDINATE SANDSTONE AND EVAPORITIC ROCKS
- BASALT
- BAUXITE-CLAY
- BRECCIA AND SANDSTONE, INTERBEDDED
- CHALK AND SANDSTONE
- DIORITE
- FELSITE
- GRANODIORITE
- LAMPROPHYRES
- LIMESTONE AND MUDSTONE, INTERBEDDED
- MICROGABBRO
- MUDSTONE
- RHYOLITE
- SANDSTONE
- SANDSTONE AND [SUBEQUAL/SUBORDINATE] ARGILLACEOUS ROCKS, INTERBEDDED
- SANDSTONE AND SUBORDINATE BRECCIA
- SANDSTONE, CONGLOMERATE AND [SUBORDINATE] ARGILLACEOUS ROCKS

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Figure 3

Bedrock Geology with NILCA 2000 LCAs

Scale 1:160,000 at A3

0 2 4 6 8 km

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Ironside **Farrar**

Ref	NILCA 2000 LCAs (A&ND Only)
92	Ballyquintin and Lecale Coast
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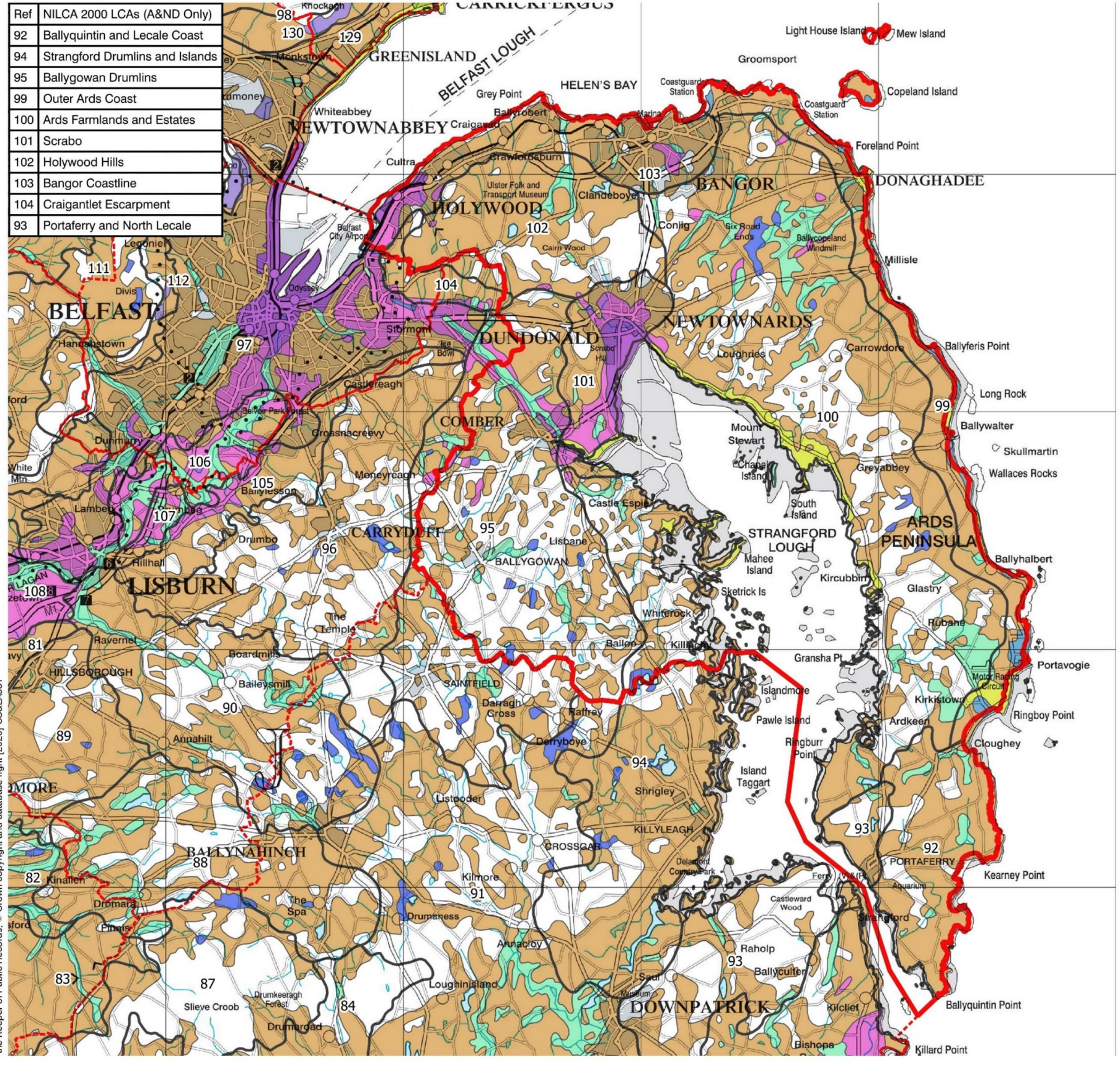
100	Ards Farmlands and Estates
101	Scrabo
102	Holywood Hills
103	Bangor Coastline
104	Craigantlet Escarpment
93	Portaferry and North Lecale



Legend

- A&NDBC Boundary
- Other Local Authority Boundaries
- NILCA 2000 LCAs

Superficial Geology

- ALLUVIUM
- BLOWN SAND
- GLACIAL SAND AND GRAVEL
- LANDSLIDE DEPOSITS
- PEAT
- RAISED BEACH DEPOSITS
- RAISED MARINE DEPOSITS
- TILL

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Figure 4

Superficial Geology with NILCA 2000 LCAs

Scale 1:160,000 at A3

0 2 4 6 8 km

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3.0 LANDSCAPE DESIGNATIONS

3.1 Landscape Designations within Ards and North Down

All landscapes are important, and the 'all landscapes' approach advocated in the European Landscape Convention and established guidance recognises that all landscapes are a resource deserving of care irrespective of the presence or otherwise of formal landscape designation. However, much of Ards and North Down is designated in recognition of its special landscape qualities. Designations are indicated on Figure 5.

Areas of Outstanding Natural Beauty (AONB)

AONBs are designated by the Department of the Environment, and the Strangford and Lecale AONB covers 43% of the Borough Council area, centred on Strangford Lough.

AONB are designated for their *'…high landscape quality, wildlife importance and rich cultural and architectural heritage…'*[6]. The AONB extends south from the Borough Council area into Newry, Mourne and Down and is contiguous with the Mourne AONB at Dundrum.

Area of High Scenic Value (AoHSV)

AoHSV is a local designation recognising areas of local landscape quality. The planning designation is included in the draft Belfast and Metropolitan Area Plan (dBMAP) and will potentially be retained in the new Local Development Plan. Areas of Scenic Quality (ASQ) were identified in NILCA 2000, and subsequently adopted into local planning policy as the AoHSV landscape designation.

The Ards and Down Area Plan 2015, originally adopted in 2009, identifies the AoHSV of the Craigantlet Escarpment partly within the Borough Council area, but largely within the Lisburn and Castlereagh, and Belfast administrative areas.

3.2 Landscape Designations and the Landscape Character Review

Landscape designation is usually based upon a range of criteria encompassing recreational, natural and cultural heritage value in addition to special landscape qualities. Landscape character assessment is a key informative study, contributing to the evidence base for designation decisions, but not usually the sole reason for designation.

Because the area of the AoHSV within Ards and North Down is very small, the review considers mainly the degree to which the designated area is consistent with the special qualities of the wider designation, and whether the boundaries of the area within Ards and North Down are reasonable.

In Northern Ireland there is no formal guidance on the process of local landscape designation, however guidance produced by NatureScot and Historic Environment Scotland[7], is considered a useful reference.

The AONB designations are the responsibility of DAERA and are therefore not reviewed as part of this study. The landscape qualities of the AONB designated areas will be updated through the landscape character assessment; however, recommendations for the revision to AONB boundaries or the preparation of revised statements of significance[8] is beyond the scope of this study.

[6] *Strategic Planning Policy Statement for Northern Ireland (SPPS) Planning for Sustainable Development* (DOENI, 2015)

[7] *Guidance on Designating Local Landscape Areas* (2017, NatureScot and Historic Environment Scotland)

[8] Descriptions for AONB in Northern Ireland are available online at https://www.daera-ni.gov.uk/topics/land-and-landscapes/areas-outstanding-natural-beauty

Ref	NILCA 2000 LCAs (A&ND Only)
92	Ballyquintin and Lecale Coast
94	Strangford Drumlins and Islands
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99	Outer Ards Coast
100	Ards Farmlands and Estates
101	Scrabo
102	Holywood Hills
103	Bangor Coastline
104	Craigantlet Escarpment
93	Portaferry and North Lecale

Legend

- A&NDBC Boundary
- Other Local Authority Boundaries
- NILCA 2000 LCAs
- AoHSV
- AONB

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Figure 5

Landscape Designations with NILCA 2000 LCAs

Scale 1:160,000 at A3

0 2 4 6 8 km

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4.0 APPROACH TO LANDSCAPE CHARACTER ASSESSMENT

4.1 Aim of the Assessment

The following landscape character assessment has not been carried out from first principles. It is essentially a review and update of the NILCA 2000 assessment for the parts within the boundaries of Ards and North Down. It builds constructively on this and does not seek to challenge its principles and broad thrust. The assessment does not include any review of the regional or seascape character assessments and remains complementary to these assessments.

The review seeks to provide a more up to date landscape record appropriate to the strategic planning uses which it will support. It has the following aims:

1) To review the NILCA 2000 assessments and identify significant change in the landscape that has taken place since the original assessment was carried out in the late 1990s. This includes tailoring descriptions to ensure they describe the areas within Ards and North Down where LCAs straddle local authority boundaries.

2) To systematically categorise LCAs with similar characteristics into broad landscape character types (LCTs) and, if necessary, to re-name LCAs based on the landscape character type and its geographical location.

3) To review the boundaries of the current LCAs and determine whether they reasonably correspond to the point of transition between one area of landscape character and another.

4) To identify where sub-division of existing LCAs may be appropriate where there is significant variation in character within existing LCAs.

5) To identify where simplification may be appropriate, for example through amalgamation of LCAs of similar landscape character.

6) To reappraise landscape sensitivities and forces for landscape change based on the updated assessment, taking into account any redefinition of boundaries and the changes to character that have occurred since the original assessment was undertaken.

7) To provide revised landscape management guidelines based on the reassessment of sensitivities and forces for change.

8) To provide updated assessments and guidance for the key settlements within Ards and North Down.

The assessment has been carried out by means of a desktop review of the existing character assessment, OSNI mapping, spatial datasets, aerial photography and through undertaking site visits in November 2021.

The NILCA 2000 assessment includes sections describing the geodiversity and biodiversity of each landscape character area, seemingly added in the mid to late 2000s. These sections have been updated by means of a review of recently published materials such as recent geological records, spatial datasets relating to habitats and biodiversity, wildlife records, and comparisons between historical and contemporary aerial photography.

4.2 Assessment Methodology

This review is undertaken with reference to the guidance *An Approach to Landscape Character Assessment* (2014, Natural England). The process of landscape character assessment remains unchanged to that set out in the earlier *Landscape Character Assessment Guidance for England and Scotland* (2002, SNH/ Countryside Commission). The assessment is divided into two main stages:

Stage 1 – landscape characterisation: the process of identifying, classifying and describing areas of distinctive landscape character. Existing landscape characterisations are used as the starting point, with the assessments updated to take account of landscape change or new information available since the original assessments. The updated character assessments for each landscape character area (LCA) include classification into landscape character type (LCT), a landscape description including the key landscape characteristics, and a renaming according to LCA and location. This section of the assessment also includes:

- A description of the landscape condition; and
- Likely forces for change which may result in changes to landscape character.

Stage 2 – making judgements: a primary application of this assessment is to assist with the development management process, and this part of the assessment includes judgements as to the sensitivity of the landscape to different development types, guidance for the accommodation of development in a way that will not undermine landscape character, and recommendations for its enhancement. Each landscape character assessment includes:

- An overview of the landscape sensitivity;
- Management and planning guidelines recommended for the maintenance or enhancement of key landscape characteristics; and
- An assessment of landscape sensitivity to selected development types on a 5 point scale from low to high.

The assessments of landscape sensitivity are undertaken in accordance with the guidance *An approach to landscape sensitivity assessment – to inform spatial planning and land management (2019, Christine Tudor, Natural England)*. The methodology and details of the assessment are provided in Appendix A, but which, in summary, defines general indicators of landscape susceptibility and value to the development type in question, and provides an assessment of each LCA against these indicators to evaluate sensitivity. These assessments are undertaken for the categories of:

- Settlement and Development: principally rural housing development.
- Minerals: hard rock and sand and gravel extraction.
- Tourism: specifically caravan/ camping sites or chalet developments
- Tall Structures: principally wind turbines but also masts and towers.

It should be noted that assessments for the Tall Structures category draws from the document *Wind Energy Development in Northern Ireland's Landscapes*, Supplementary Planning Guidance to Accompany Planning Policy Statement 18 'Renewable Energy' (Northern Ireland Environment Agency, 2010).

4.3 Settlement Assessments

Settlement assessments describe the development patterns and landscape settings of key settlements within the Borough Council area. The purpose of these assessments is to define the key landscape issues which should guide future development of the settlements. At the request of Ards and North Down Borough Council, the principal settlements that have been assessed are as shown on Figure 8 in Section 9 of this report.

Recommendations are included which promote the following generally desirable landscape/ townscape planning objectives:

- Maintenance of the distinction between the rural and urban landscapes;
- The retention/ enhancement of landscapes which contribute to distinct townscape character, important views from settlements, or important landscape resources for recreation, natural heritage, cultural heritage or other reasons;
- Preventing coalescence of settlements;
- The retention or creation of distinct settlement gateways;
- The maintenance or creation of strong settlement boundary features; and
- The avoidance of generally undesirable patterns of urban development, such as linear developments, uncontained 'sprawl' or development dislocated from settlement cores which may undermine the identity or character of a settlement and its landscape setting.

5.0 MAIN FEATURES OF THE REVISED LANDSCAPE CHARACTER ASSESSMENT

5.1 Review of the NILCA 2000 Assessment

A number of observations on the assessment of NILCA 2000 have been made whilst undertaking this review and have resulted in changes to the assessment for the areas covering Ards and North Down. While Sections 8 and 9 of this report provide the updated, detailed assessments for landscape character areas and settlements, what follows is an overview of the main changes to the assessment.

Landscape Character Types

The 2002 and 2014 guidance on landscape character assessment make the distinction between landscape character types (LCTs) and landscape character areas (LCAs): LCTs are generic categories of landscape with broadly similar characteristics that can be found in many locations across an area; LCAs are geographically specific landscape areas of a particular LCT which may be found in one or more locations. NILCA 2000 only identifies LCAs and does not provide categorisation of these into LCTs.

Landscape character type categorisation is useful for better understanding and describing the landscape in a systematic approach, and for identifying those landscape character areas which may have similar sensitivities or could benefit from common management approaches. Therefore, this update has provided a categorisation of LCAs into LCTs.

LCTs have been identified where landscapes share broadly similar patterns of topography, geology, land use, settlement and landscape patterns. LCTs have been defined from observations of the Ards and North Down landscape; there is no common system of landscape type although many of the landscape types identified in this assessment will be found elsewhere in Northern Ireland.

Landscape categorisation requires balancing the need to be sufficiently simplified to provide an understandable landscape overview, while at the same time not missing important distinctions in landscape character. Judgement is required when deciding if an area of landscape falls into one category or another, and therefore there can be some notable differences between the character of landscapes classified as of the same type.

LCTs and updated LCAs are shown on Figure 7, while the original LCAs of NILCA 2000 are shown on Figure 6.

Landscape character types identified as part of this assessment, with their associated LCAs, are as follows:

Peninsula Farmland – Lecale (92): The southernmost tip of the Ards peninsula with a coastline to both the Irish Sea and Strangford Lough.

Lowland Hills – North Lecale (93), Holywood Hills (102): Distinct low hills towards the north and south of the Borough Council area.

Drumlins and Islands – Strangford (94): The partially submerged landscape of sunken drumlins and small loughs at Strangford Lough and its western setting.

Lowland Drumlin Farmland – Ballygowan (95), Ards (100): The most widely occurring landscape character type within the Borough Council area, comprising low lying undulating drumlin farmland with small rivers and wet inter-drumlin hollows.

Coastal Fringe – Outer Ards (99): Coastal farmland ending in a low shoreline of rocky outcrops and sandy bays at the Irish Sea.

Coastal Plain – Scrabo (101): Flat land towards the head of Strangford Lough including the urban area of Newtownards, and from which the landmark outcropping of Scrabo Hill rises.

Urbanised Coastal Fringe – Bangor (103): The more urbanised north facing coastlines including the main settlements of Bangor and Holywood, mostly backed by the Holywood Hills.

Escarpment – Craigantlet (104): The steeply sloping western transition from the Holywood Hills to the urban areas of Belfast and Dundonald.

LCT and LCA naming

2014 Natural England guidance suggests that at a local level LCT names should comprise two or three words to convey a sense of the landscape based upon features such as landform, landcover and settlement, while LCAs require geographically unique names, an approach adopted in this assessment.

e.g. *Strangford* ***Drumlins and Islands*** *(94)*

The numberings of the NILCA 2000 assessment are appended to the revised LCA names for reference.

Landscape Character Areas and Boundaries

The LCA review is undertaken for the part of each LCA falling within the Ards and North Down Borough Council boundary, with the character descriptions and analysis updated **specific to the area falling within Ards and North Down**. This means that some characterisations may not apply to the wider LCA where extending significantly beyond the Borough Council boundary.

An exception to this is the Craigantlet Escarpment (LCA 104). This is a small character area, largely outwith the Borough Council area, but because no part of the LCA is more than 2km from the Borough Council boundary, characterisation and guidance is provided for the character area as a whole.

The review also considers whether or not the LCAs of the NILCA 2000 assessment are of a sufficiently uniform character to be considered single units of landscape character, or whether subdivision or amalgamation might be appropriate.

The review has found that the NILCA 2000 LCA boundaries generally provide appropriate subdivision of the landscape when considered at the local scale (1:50,000 approximately), although

it also identifies a sub-division of character within the LCA of the Outer Ards Coastal Fringe (LCA 99). No amalgamations of LCAs are identified as necessary.

The point at which a landscape changes from one character type to another is often gradual and not obvious. LCA boundaries are imprecise and do not usually or necessarily follow features such as roads or walls. The positioning of LCA boundaries is reliant on professional judgement and should more often be considered as a zone of transition rather than an obvious point of change from one LCT to another. For this reason the review typically avoids minor boundary amendments if it is considered that existing boundaries reasonably reflect variations in landscape character. Boundary amendments are typically proposed only where an obvious mischaracterisation or discrepancy is observed.

Landscape Character Assessments

Character assessments for each LCA include the following:

- *Landscape Character Descriptions*

  Landscape character descriptions are updated for each LCA. Descriptions include text from the original assessments where they are considered to remain relevant, and updates based on desk study and site visits. Descriptions are provided under the headings of 'landform', 'landcover', 'settlement' and 'perception', headings used for the Scottish Natural Heritage/ NatureScot Landscape Character Assessment for Scotland which was updated in 2019. Further information on the cultural heritage interests of each LCA is provided in Appendix D.

- *Landscape Condition and Forces for Change*

  This part of the assessment provides observations and judgements on the condition of the landscape i.e. its intactness and distinctiveness as an area of distinct character, and the state of repair of its elements. This section also considers the forces which may result in changes to landscape character, for example based on the continuation of historical trends, likely future development pressures or possible natural processes such as climate change or tree diseases. Forces for change are addressed under the broad topic headings of:

  Agriculture;

  Trees and Woodland;

  Settlement and Development;

  Minerals;

  Tall Structures;

  Tourism and Recreation;

  Climate Change and Coastal Erosion (where applicable).

- *Landscape Management and Planning Guidelines*

  This section provides an overall assessment of landscape sensitivity and provides landscape management and planning guidelines, replacing the previous 'Principles for Landscape Management' and 'Principles for Accommodating Landscape Change' provided in the original NILCA 2000 assessment.

  Development management guidance is provided under the same heading as the preceding 'Landscape Condition and Forces for Change' section, some LCAs may include limited or no guidance depending on the applicability of the topic to the character area in question.

  This section includes a general description of sensitivities, along with sensitivity evaluations for the main development types. These evaluations, on a 5-point scale from 'low' to 'high', are provided in Appendix A.

  Guidance for tall structures includes the sensitivity assessments for wind energy development provided in the Supplementary Planning Guidance (SPG) *Wind Energy Development in Northern Ireland's Landscapes*, which accompanies Planning Policy Statement 18 'Renewable Energy'.[9] The SPG remains the primary source of guidance for wind energy development in the Borough and its guidance is summarised or reiterated in the guidance provided with this character assessment review.

- *Biodiversity Profile*

  This section provides an update of the biodiversity profile of each LCA including its important sites, main habitat types, key issues and recommended actions.

- *Geological Characteristics*

  This section provides an overview of the solid and drift geology for each LCA. This part of the assessment is largely based on the information provided in the original NILCA 2000 assessment, but edited to be more relevant to the Borough Council area, including the removal of duplicated material in the original NILCA 2000 assessments, and the addition of any relevant new information. References and background information are also provided in Appendix B and C.

[9] *Wind Energy Development in Northern Ireland's Landscapes*, Supplementary Planning Guidance to Accompany Planning Policy Statement 18 'Renewable Energy' (2010, Northern Ireland Environment Agency)

Settlement Assessments

Assessments are provided for the following settlements identified by Ards and North Down Borough Council:

- Bangor
- Comber
- Donaghadee
- Holywood
- Newtownards
- Portaferry

Assessments are updates to those provided in NILCA 2000. Settlements are shown on Figure 8.

5.2 Specific Changes

The landscape character review has provided updated landscape character area names and identified landscape character types. Character area descriptions have been updated, additional judgements made as to likely forces for landscape change, and updated guidance provided, for all character areas.

However no changes to the boundaries of NILCA 2000 LCAs are identified as necessary. In part this is due to the often subtle nature of the variation between character types within the Borough Council area, where the change from one landscape area to another is not always obvious, and boundaries could be drawn in different ways. Overall it was considered that the boundaries of NILCA 2000 were reasonable and should not be changed. However some distinction has been made within the Outer Ards Coastal Fringe LCA (99) to reflect differences in development levels, and, to a lesser extent, landform.

Table 1 provides the NILCA 2000 LCAs with the proposed revised character area name and landscape character type.

Table 1: NILCA 2000 and Revised Landscape Character Areas

LANDSCAPE CHARACTER AREA (NILCA 2000)	REVISED LANDSCAPE CHARACTER AREA	LANDSCAPE CHARACTER TYPE
92 Ballyquintin and Lecale Coast	Ballyquintin	*Peninsula Farmland*
93 Portaferry and North Lecale	Portaferry	*Lowland Hills*
94 Strangford Drumlins and Islands	Strangford	*Drumlins and Islands*
95 Ballygowan Drumlins	Ballygowan	*Lowland Drumlin Farmland*
99 Outer Ards Coast	Outer Ards (North and South)	*Coastal Fringe*
100 Ards Farmlands and Estates	Ards	*Lowland Drumlin Farmland*
101 Scrabo	Scrabo	*Coastal Plain*
102 Holywood Hills	Holywood	*Lowland Hills*
103 Bangor Coastline	Bangor	*Urbanised Coastal Fringe*
104 Craigantlet Escarpment	Craigantlet	*Escarpment*

5.3 Forces for Landscape Change

The landscape character review identifies change in the landscape, both in the past and that which may occur in the future and provides recommendations for accommodating landscape change while maintaining and enhancing distinctive characteristics.

Historical landscape change is not always easily observed, although comparison of the present day landscape with the descriptions of the NILCA 2000, aerial photography and the use of planning application data provides some basis for the identification of landscape change.

Identification of future landscape change is speculative; in some cases, it can be reasonably concluded that historical trends may continue, such as pressure for housing development in the countryside or development for tourism. However, unknowable factors, such as changes to farm subsidy regimes, environmental policies, economic conditions or natural factors such as tree diseases, may have a profound impact on the appearance of the landscape, how it is managed for agriculture or used alternatively, for example, for the production of renewable energy.

The following section provides a summary of possible issues under the topic headings for 'forces for change' addressed in each LCA assessment. Also addressed is the topic of 'roads', considered only in general terms rather than at the individual LCA level, as forces for change and guidance are considered to apply generally to all LCAs, with no specific road schemes identified which might bring about landscape change.

Agriculture

Agricultural practice has a fundamental impact on the character of lowland landscapes. The size of fields, their use, and the nature of their boundaries defines the pattern of a landscape, while farmhouses, barns and sheds are other characterising elements.

Changes in farming practice to achieve greater efficiency, accommodate different farming practices or larger farm machinery may result in changes such as the removal of traditional field boundaries to enlarge fields, the use of polytunnels, or the construction of larger scale farm accesses and gates. Field boundaries may become redundant altogether if moving from mixed rotational farming with animals to arable cropping only. Changes to the structure of the farming landscape such as these also can affect landscape character.

Farm diversification, for example for leisure and recreation, tourism or solar energy may also be a force for landscape change.

Within Ards and North Down, traditional smaller pastoral farming is predominant. Many of the lowland landscapes in the area are defined by a regular patchwork of small to medium sized pastures, with hedgerow field boundaries accentuating the form of smoothly undulating drumlins. Better quality farmland is given over to arable production, notably to the south of Newtownards.

Whether the model of small scale farming remains viable in the future is difficult to accurately predict, but traditional hedgerows, trees, and stone walls will remain important for retaining a coherent landscape structure. Loss of pastures to scrub, woodland or active habitat creation may result in some change to landscape characteristics, however, this may not be an adverse change in lowland landscapes.

More modern and larger styles of agricultural building have, by and large, replaced traditional stone white and red painted ones. The typically long and low form of newer buildings can be accommodated in the often undulating landscape where consideration is given to their siting and when including mitigation measures such as earth mounding and woodland planting. Large agricultural buildings clustered on drumlin tops can, however, appear out of character in smaller scaled landscapes.

Traditional well-maintained farm buildings contribute to a sense of local identity and provide links to the past, in contrast to more generic modern farm infrastructure, and efforts to retain those that remain are worthwhile.

The farmland to the south of Scrabo Hill has poorly defined field boundaries which tends to weaken the landscape structure, although variations in land use mean there is a defined landscape pattern.

Trees and Woodland

Ards and North Down has relatively low woodland cover, but with significant concentrations in large estates such as Clandeboye and Mount Stewart, and country parks such as Scrabo, Redburn, Whitespots and Crawfordsburn. Nevertheless, trees and small woodlands contribute much to the fabric of the landscape, and lowland areas often have a well wooded appearance owing to frequent hedgerow trees and the small size of the enclosed fields, despite a lack of larger woodland units.

Stands of trees are often striking features, such as beech and Scots pine at farms, estates and at the coast, while sycamore often shelters older farm buildings and houses.

Trees and woodland are vulnerable to removal to accommodate new development, damage from browsing animals, and important wet woodland is vulnerable to drainage. The predominance of ash trees in hedgerows is a cause for significant concern with the onset of ash dieback (resulting from the *Hymenoscyphus fraxineus* fungus).

On the other hand, levels of woodland cover could increase in the future, perhaps through the deliberate incentivising of woodland creation schemes to mitigate the effects of climate change, to improve habitat diversity or for commercial reasons. Small farm scale woodlands could be accommodated in most parts of the landscape without unduly affecting key characteristics.

Sycamore trees shelters old and newer farm buildings on an exposed drumlin top.

With no truly upland landscapes, there is little likelihood of significant expansion of commercial woodland within the Borough Council area, although a level of plantation forestry could be accommodated on the undulating plateau of the Holywood Hills.

A stand of Scots pine west of Strangford Lough.

Settlement and Development

Development in the context of this landscape character assessment typically refers to housing development and settlement expansion. The NILCA 2000 identified new housing development as a source of landscape change in many landscape areas.

Traditional rural dwellings are quite a rare sight in Ards and North Down, seemingly having been largely replaced by more modern, comfortable properties. Occasional ruined dwellings are seen close to the new properties which have replaced then. Since the NILCA 2000 assessment there has been ongoing development of rural housing outside of settlement limits, however the level of development has been variable.

Heat mapping and planning application data show areas subject to the greatest levels of development pressure are to the west and north of the Borough Council area, where there are good transport links to Belfast and other centres, whereas the Ards Peninsula appears subject to lower levels of demand.

Levels of rural housing beyond settlement limits in Northern Ireland are typically much higher than in other parts of the UK, and this pattern of development is well established in parts of Ards and North Down. Frequent rural housing can adversely affect the character of rural landscapes, particularly where housing designs adopt architectural styles more in keeping with urban environments, including roadside gardens with large lawns and exotic garden planting, and where concrete kerbing is added to rural roads. The cumulative effect of multiple developments can be suburbanising, with a loss of coherence to the rural landscape.

It is observed that many more recent housing developments in the Ards and North Down countryside have adopted designs which are sympathetic to more traditional styles of rural housing development, in particular with their choices of materials and surface finishes such as pale harling and exposed stonework. This has assisted with their integration into the landscape.

Housing development at settlement edges has been an ongoing force for change in areas with greater pressure for housing development. The poor design and integration of new developments can result in a loss of distinction between the urban and rural landscapes, an undesirable landscape change. Where settlements are close there can be a fragmentation of countryside and eventual merging of urban areas. In particular, separation between settlements along the north coast, and between Bangor and Newtownards, is minimal.

A modern house adopting elements of traditional rural housing design.

Tourism and Recreation

The landscape of the area has long been a draw for recreation and tourism. Bangor developed in the 19th century as a fashionable seaside resort and today has a seafront and large marina development. Strangford Lough offers opportunities for marine leisure, while the Irish Sea coast has an attractive coastline and sandy beaches. The Mount Stewart estate, managed by the National Trust, is a major attraction while several country parks provide other recreational opportunities.

Pressure for recreation and tourism largely occurs along the Borough's sensitive coastline. Perhaps because of the length of the coast such developments are currently accommodated fairly easily without undue effects to the character of the Irish Sea coast or Strangford Lough.

Holiday accommodation, such a static caravans and chalets, are potentially intrusive landscape features. There are several examples on the Irish Sea coast which are sited in exposed locations and with little regard to their prominence, for example at Seahaven east of Groomsport. The cumulative effect of such development along the coast has the potential to adversely affect its character, although currently effects are localised, with the overall characterising influence of such development low.

The larger scale character of the Irish Sea coast means that it is more suited to accommodating holiday park development than Strangford Lough. While the waterbody of Strangford Lough is expansive, its coastline is often small scaled and intricate, particularly the east facing coastline, while inward views from boats or the opposite shore are another sensitivity.

However, appropriately scaled marine leisure developments can typically be accommodated within Strangford Lough, particularly within the more enclosed parts, punctuating the coastline with some animation and interest.

More generally, tourism and recreation requires infrastructure including car parking, picnic sites, information centres, toilets and access. Insensitive designs, for example engineered car parking in small scaled rural areas, or the upgrading of roads with concrete kerbing, white lining or intrusive signage, can detract from landscape qualities.

Holiday accommodation near Cloughey.

Roads

Lowland rural landscapes in Northern Ireland, including those of Ards and North Down, are characterised by a dense network of minor roads which contribute strongly to the landscape pattern.

Much of the road network is long established, having been in existence for centuries. The minor roads making up the vast majority of the road network tend to work with topography, often include traditional materials such as stone bridges and walling, are bounded by mature trees and hedgerows, and are less likely to include modern elements such as conspicuous road signage, concrete kerbs, and road markings. As a result, the traditional small scale road network can be perceived as a positive aspect of the rural landscape and integral to its character.

New or upgraded parts of the main road network are designed to modern engineering standards which constrain road alignments to minimum criteria for factors such as gradients, bends and visibility. Such requirements often result in alignments which are incompatible with the smaller scale landscape patterns of rural Northern Ireland and, as a result, modern roads tend to cut across the landscape with an apparent disregard for historical landscape patterns and natural topography.

At the smaller scale, the local minor road network, including B and C class roads, can be subject to improvements such as junction upgrades, widenings, bridge replacements and construction of accesses to adjacent properties.

While no specific road schemes are identified as forces for landscape change, an awareness of the above issues can inform the design of new roads, or the upgrading of the existing network, and limit their landscape effects.

Minerals

There are six active hard rock quarry sites in Ards and North Down, located in the south western parts of the Holywood Hills, at Ballygowan, Comber and on the Ards Peninsula east of Kircubbin. Minerals development may be a force for landscape change in the future, either through the opening of new sites or the expansion of existing ones.

The undulating nature of the landform, along with some tree cover, means that disturbance to the landform caused by quarrying can often be accommodated in the landscape, with its industrialising influence limited in extent. However, this is less achievable in the more exposed parts of the landscape, including the Holywood Hills, where quarrying on its outer south western slopes are visible. With the limited ability to effectively restore hard rock extraction sites, they become a permanent and often visible scar on the landscape.

Mitigation measures including the incorporation of bunding and native woodland planting should be successful for integrating minerals workings into the landscape in most lowland locations. However, consideration should also be given to the effects of ancillary elements such as quarry infrastructure, parking, storage areas and gateways.

Climate Change

United Kingdom climate change projections, published in 2018 (UKCP18)[10] project that, under a scenario of 'high emissions', by 2070:

- Summers in central Northern Ireland may be up to 38% drier and 4.9° warmer;
- Winters in central Northern Ireland may be up to 25% wetter and 3.9° warmer;
- Sea levels may rise by up to 94cm at Belfast; and
- In general, there is likely to be more extreme weather, such as periods of intense rainfall or prolonged hot weather.

The Northern Ireland government identifies that, as a result of climate change[11]:

- An increase of flooding and coastal wearing will put pressure on drainage, sewage, roads and water habitat; and
- Increased temperature, increased pollution and poorer air quality may bring discomfort to the vulnerable and threaten species of animals and crops.

These trends are likely to have implications for landscape character, and while it is not possible to predict with certainty the degree to which the landscape will change, nor the timescales over which changes may occur, it is possible to identify some aspects of landscape character which may be affected.

A changing climate may result in conditions less favourable to some native or naturalised tree species which currently characterise the landscape, while conditions become more favourable to exotic non-native species. For example, beech trees, often a feature of estates and designed landscapes, are susceptible to drought and potentially vulnerable to warmer and drier summers. It could be that the composition of woodlands, hedgerows and urban landscapes may change as a result of the deliberate introduction of non-native species more suited to a changed climate, or through natural changes in the range of native and non-native trees. A further concern is that a changing climate may provide favourable conditions for tree pathogens currently absent from the island of Ireland.

The distribution of other natural habitats such as bogs and wet woodlands may change as a result of drier summers, while there may be an increased incidence of fires affecting heath and moorlands.

Farming may adapt to a changing climate in a number of ways which have implications for landscape character. The types of crops grown may be different to those favoured today, or the infrastructure requirements for successful farming, for example irrigation systems, reservoirs, farm buildings or polytunnels, may increase. Adaptation of the farming landscape may result in the loss of more traditional patterns of farming which characterise the landscape today, along with the potential loss of characteristic elements such as stone walling and hedgerows.

The accommodation of intense rainfall may result in the alteration of river channels, either naturally or artificially as a means of protecting against flooding. Flood defence features such as embankments and flood plains may affect the settings of settlements. In parts of the landscape, periodic flooding and waterlogging may become more frequent because of high intensity rainfall events.

Climate change is likely to continue to drive the transition to renewable energy, and it can be expected that the prevalence of such schemes in the landscape, such as wind and solar, will increase over time.

Sea level rise, occurring because of climate change and also isostatic rebound from the last ice age, will affect the whole of the UK to a greater or lesser extent. Effects in Northern Ireland are predicted to be lower than elsewhere in the UK[12], but nevertheless when combined with more extreme weather events, higher intensity storms and higher energy waves, may contribute to coastal flooding.

Coastal Erosion

No part of Ards and North Down is greater than 10km from the sea, and the Borough Council has a long coastline relative to its land area. The coastline is low, and inland parts of the Ards Peninsula are in places no higher than 10m AOD. Rising sea levels and the likelihood of more intense storms as a result of climate change may have implications for the coastline of Ards and North Down through increased coastal erosion and flooding. Northern Ireland lacks a legislative and policy framework to address coastal erosion, and there is currently no systematic collection of related data. However, DAERA and the Department for Infrastructure have utilised what data there is to undertake a high level assessment of coastline vulnerability in Northern Ireland[13], and identified areas where coastal erosion may present a significant risk, based upon the likelihood of erosion and the presence of physical (i.e. man-made), historical and natural heritage assets. The study acknowledges the limitations of the exercise owing to the absence of data.

Within the Borough Council area there are two broad coastal zones identified in the report; the Outer Ards Coast from Larne to Dundrum Bay; and the Sea Loughs including Strangford Lough. In general, the report highlights that much of the coast of the Borough is vulnerable to erosion due to its low-lying nature, and that beaches are often only a thin veneer of deposits on top of the underlying geology.

The National Trust is anticipating the impact of sea level rise at Strangford Lough. At Mount Stewart, the National Trust is planning for the long-term reconfiguration of parts of its grounds in anticipation of increased flooding, erosion, rising ground water levels and increased salinity. Beach narrowing

[10] https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index

[11] https://www.nidirect.gov.uk/articles/climate-change#toc-3

[12] *Baseline Study and Gap Analysis of Coastal Erosion Risk Management NI* (2018, DAERA/ DfI)

[13] *Ibid*

is reported to have occurred within Strangford Lough because of coastal defences stopping erosion which provides their source of sediment[14].

Tall Structures

For the purposes of this assessment, tall structures refers to development types of a vertical scale significantly exceeding the horizontal, such as masts, towers or stacks. Tall structures can have particular effects on landscape character, distinct from other development types, for example where vertical manmade features contrast with wide horizons or skylines, diminish the scale of other tall natural landscape features, or are highly visible over long distances.

The height at which a tall structure may become a concern for landscape character varies depending on the nature of the landscape in question. Relatively short mobile phone masts or domestic scale wind turbines may be perceived as dominant features in a small scale, enclosed landscape if, for example, sited upon a prominent landform. On the other hand, it may be possible to accommodate tall commercial wind turbines in a simple, large scaled, upland landscape without unacceptable effects to landscape character.

Wind turbines are amongst the most ubiquitous of tall structures seen in many landscapes today. Their movement and pale colouring tends to catch the eye from long distances in a way that other tall structures do not. Their height, rotor diameter and grouping all affect how they are perceived in the landscape. For the purposes of this report, 'small scale' wind energy development refers to single wind turbines, typically below 30m in height, associated with domestic properties or farm buildings. Larger scales of wind energy development include a range of typologies comprising medium to large sized turbines, typically at least 50m in height, either alone or grouped into arrays as a wind farm.

Radio masts and electricity transmission pylons can also have significant landscape and visual effects, but tend to be less conspicuous due to their metal lattice structure, and wind turbines have a greater potential for cumulative effects across wide areas of landscape.

There are no large scaled wind energy developments within the Borough Council area, and given the settled character and small scaled landscape pattern, it seems unlikely that any major wind farm development would proceed in the area. However, parts of the landscape have some capacity for smaller scales of wind energy development, single and small groups of turbines are already scattered across the area and future pressure for smaller scaled developments, for example community led or farm developments, is likely to continue into the future, particularly in response to requirements for renewable energy. There is the risk that the proliferation of such development in the generally open landscape could have adverse cumulative effects to its character, potentially affecting views of Strangford Lough and its setting, and the wider AONB. The more exposed parts of the landscape, such as the Holywood Hills, and potentially the Ards Peninsula, may be subject to the greatest development pressure.

5.4 General Development Management Guidance

The following section provides general principles for the accommodation of the preceding development types into the landscape, and for addressing likely forces for landscape change, while at the same time maintaining key landscape characteristics. This is a high level summary of the guidance provided for each landscape character area in Section 8. Guidance refers to the landscape character types and areas shown in Table 1.

Agriculture

The aspects of the farming landscape which most affect landscape character are the degree of enclosure, the scale and shape of enclosed fields, the nature of their boundaries, the land cover, and the design and siting of farm buildings. While some aspects do not fall within the remit of development management, the managing of farmland in a way which helps retain and enhance landscape characteristics can be assisted through, for example, agri-environmental schemes, grants and training. The following general guidelines apply.

- Hedgerow field boundaries are the features which most widely define the pattern of the farming landscape, providing habitat and contributing to biodiversity. Retention of existing hedgerows, their maintenance, and replacement where field boundaries are altered should be encouraged. Modern methods of hedge cutting often leads to the indiscriminate cutting back of tree saplings which may otherwise develop into hedgerow trees, and the protection of selected saplings to develop into future generations of hedgerow trees should be encouraged.

- Traditional methods of hedgerow management, through hedge laying, could be promoted to improve the robustness of the hedgerow structure and improve their habitat value.

- The undulating lowland drumlin farmland typically allows modern farm buildings to be accommodated within the landscape with limited effects on its character. Nevertheless, careful siting and design should be encouraged to assist with their integration into the landscape, including measures such as the use of earth mounding and native tree planting, siting away from prominent landforms, and where possible the use of materials and colours sympathetic to traditional building styles and the landscape setting.

- Traditional farm buildings, such as white walled and red or green roofed barns, are few in number but nevertheless are often characterful and their upkeep and retention should be encouraged wherever they occur throughout the Borough Council area.

- Changing farming practices, particularly in more productive parts of the farming landscape, may involve the use of larger machinery. Where modifications are made to existing accesses, or where new access is required, attention should be paid to the integration of existing features such as hedgerows, trees and walling, or such features incorporated into the new farm infrastructure. New access should follow existing field boundaries where possible. Particular

[14] Ibid., p31

attention should be paid to roadside boundaries, where treatments such as hedge planting, walling, trees, fencing and railing should be selected according to that traditionally prevalent in the landscape.

Trees and Woodland

The following general development management guidance applies to trees, woodland and forestry throughout the Borough Council area, recognising the positive contribution of single trees, small copses and woodlands to the fabric of the landscape, and the potential adverse effects of commercial forestry.

- Woodlands, copses and small tree clumps sheltering buildings should generally be encouraged within the lower lying landscapes such as the *Lowland Drumlin Farmland* and the *Drumlins and Islands* LCT where they contribute much to the fabric and character of the landscape.

- The Holywood Hills is the landscape area most suited to some limited commercial forestry development. Forestry schemes would benefit from the inclusion of native species to soften the edges and break up the uniformity of plantations. Commercial plantations which include some diversity of tree species are preferable to those which are monocultural.

- Stands and specimens of Scots pine and beech are characteristic of many parts of the Borough Council area, with beech often associated with larger farms and estates. These often striking features should be retained and their succession planned for through the inclusion of replacement trees with new rural development schemes.

- Ash is the prevalent along roadsides and hedgerows. Consideration should be given to the implications of ash die back; it may be preferable to encourage specimens of native species other than ash, either through planting or being left uncut in hedgerows.

Settlement and Development

The following guidance applies generally to rural development, typically housing development, in the countryside beyond settlements. Guidance for the main settlements is provided in Section 9.0 of this report.

- As a general principle, it is beneficial for the maintenance of landscape character for new development to be associated with existing areas of settlement or farm complexes, rather than set alone in the countryside. Applying this principle is particularly important to those parts of the landscape subject to the most development pressure, such as the *Ballygowan Lowland Drumlin Farmland* LCA.

- Building in association with existing development should not include the linear expansion of settlement along roads i.e. ribbon development, to help maintain the distinction between the rural and the urban landscape when travelling through it.

- The siting of new buildings in sheltered locations, utilising trees and/ or landforms as a backdrop, will allow their better integration into the landscape. The siting of new housing on prominent, exposed sites should be avoided.

- Rural housing development should follow traditional rural patterns which tend to be integrated into the landscape, rather than sub-urban layouts where views to front gardens and houses are prominent. This will require giving careful consideration to the siting of a building within a plot and its means of access. Access via existing tracks following field boundaries is preferable to the creation of driveways accessed from roads.

- Architectural styles of rural housing development should be carefully selected, taking cues from traditional buildings in terms of their design and materials selection. Elements such as lighting, walling and fencing should be selected so as to be sympathetic to a rural, rather than suburban, setting.

- Attention should be given to the appropriate scale and massing of rural housing development, taking into consideration factors such as the scale of existing development, the wider landscape scale, its level of exposure or enclosure.

- Rural housing should be integrated into the landscape with the use of native tree planting and hedges, ideally linked to the existing pattern of hedgerows and woodlands. Species should typically be native, selected from those prevalent in the surrounding landscape.

- Opportunities should be sought for retaining or restoring the traditional cottages and houses that remain in the landscape.

Tourism and Recreation

Tourism and recreation place pressure on parts of the Borough's landscapes, particularly those adjacent to the coast. The following general guidelines apply to associated development.

- The scale of coastal caravan parks should be proportionate to the scale of the landscapes and seascapes in which they are situated; the often enclosed, intimate character of parts of Strangford Lough is less suited to larger scales of such development in comparison to the more expansive coastline with the Irish Sea.

- The siting of coastal caravan parks on the more exposed promontories of the Irish Sea coast should be avoided. Sufficient separation should be maintained between developments to ensure that their cumulative effect does not change the overall character of the coastline.

- Internal and external native tree planting, bunding and the avoidance of uniform layouts can assist with the integration of caravan developments into the landscape.

- Car parks, roadside picnic sites and motorhome parking places should be designed and sited with respect to their landscape settings. Facilities in the more remote, quieter parts of the landscape would be better integrated if informal, rough surfaced, incorporating stone walling

and carefully sited within more enclosed parts of the landscape. Native trees and shrubs should be integrated into their design.

- The provision of facilities to allow areas to be accessed via active travel (i.e. walking, wheeling and cycling), and public transport, may reduce the need for more intrusive facilities to accommodate private cars and which may have adverse effects on landscape character and views.

Roads

The following are general principles by which new roads, or road upgrades, can be integrated into the landscape in a way which limits their effects:

- Local characteristic features such as landforms, rock outcrops, water features, distinctive trees or key views should be identified and integrated into the road design.
- Earthworks should be sympathetically designed to reflect locally characteristic landforms.
- Where possible, naturalistic rock cut features should be used in favour of heavily engineered rock slope stabilisation.
- Sustainable Urban Drainage Systems (SUDS) should be integrated into the landscape naturalistically, taking advantage of opportunities for habitat creation.
- The inclusion of traditional building materials, e.g. for walls, the use of local vernacular building styles and bespoke designs, with attention to detailing, should be considered for structures at key locations.
- Opportunities should be sought to reinforce patterns of woodlands and hedgerows which may be subject to fragmentation or disconnection through engineering works.
- Schemes should include planting strategies which promote biodiversity and habitat creation, involving low maintenance inputs, and which are designed to mitigate landscape and visual effects.
- The urbanising effect of the upgrading of minor rural roads with, for example, concrete kerbs, signage, road paint, and other elements characteristic of urban roads should be avoided.

Transport Scotland guidance on the integration of road schemes into the landscape is available, and while not adopted in Northern Ireland, its recommendations are considered equally relevant here.[15]

Climate Change and Coastal Erosion

Because of the uncertain implications of a changing climate on the landscape, the following guidance is necessarily general.

- The ongoing, long term monitoring of important habitats, including the health and distribution of native trees and woodland, is recommended to inform their management and to ensure their continued survival.
- In general, resilience against the effects of climate change will be enhanced through tree planting, for example as a means of slowing runoff in upland river catchments, providing shading to river corridors or providing shade and natural cooling to developments and urban areas.
- The integration of sustainable urban drainage systems, landscape frameworks and structure planting into future urban expansions will help mitigate against the effects of intense rainfall and hot weather.
- Coastal landscapes may be subject to significant change in the decades ahead and therefore it will be important to avoid damage and disturbance to natural coastal environments such as salt marsh or dunes which provide a natural resilience against winter storms and coastal flooding.
- Careful consideration should be given to the effects of any proposed coastal protection schemes to avoid adverse effects on other areas of coast. Protection by natural systems such as salt marsh and sea grass should be favoured over engineered solutions.
- Avoiding disturbance to the undeveloped parts of the coastline will assist in maintaining coastal landscape/ seascape character, help protect fragile coastal habitats, and guard against the effects of future sea level rises and coastal erosion. As a general principle, unless a coastal situation is an absolute necessity, further development at already developed coastlines should be focussed inland, rather than being allowed to spread along the coast.

Minerals

The following general guidance applies to minerals development within the Borough.

- The often undulating, partially wooded lowland landscape has some capacity to accommodate mineral development, particularly where accompanied by appropriate native tree planting as mitigation. Nevertheless, minerals consents should be mindful of the impact of ancillary features such as plant, fencing and accesses on landscape and visual amenity.

[15] *Fitting Landscapes* (2014, Transport Scotland)

- The outer, more exposed parts of the Holywood Hills LCA, are more susceptible than lowland landscapes to the effects of minerals developments which may disturb skylines and landforms. The Lowland Hills at Portaferry, within the AONB, are more sensitive still.

- The coastal landscapes are all susceptible to intrusion from minerals schemes and should be kept free from the influence of such development.

- The restoration of mineral workings to consented plans, secured through planning condition, should assist with the limiting of long-term landscape and visual effects.

Tall Structures

The following general guidance applies to tall structures, such as telecommunications masts, electricity transmission towers and wind turbines within the Borough.

- The guidance provided in the document *Wind Energy Development in Northern Ireland's Landscapes*, Supplementary Planning Guidance to Accompany Planning Policy Statement 18 'Renewable Energy' (Northern Ireland Environment Agency, 2010) should be applied to the siting and design of wind energy schemes in the LCAs of the Borough.

- The undulating Ballygowan and Ards *Lowland Drumlin Farmland* LCTs have some capacity for accommodating smaller typologies of wind energy development, such as single turbines associated with domestic or farm properties.

- Coastal landscapes, including those around Strangford Lough, have low capacity for wind energy development, with turbines likely to appear as exposed, prominent features, or potentially interrupting views along the coast. Notable levels of wind energy development would risk undermining the landscape qualities of the AONB.

- The siting and design of wind energy development on the Holywood Hills should take account of the low elevation of the hills and the potential effects of large wind turbines to the settings of settlements in the adjacent lowlands. Turbines should appear of minor scale in comparison to the height of the hills.

- The cumulative impact of relatively short vertical structures such as masts, poles or wind turbines should be taken into consideration in the more open lowland landscapes, such as those near the coast, which together may have an adverse effect on views featuring strong horizontal elements such as sea horizons or long coastlines.

- Masts are a feature of some hill tops of the Holywood Hills. It is generally desirable to avoid the positioning of masts on the most distinctive hill tops, and the clustering of masts is preferable to their proliferation on multiple summits.

- The impact of masts, pylons and other tall structures in flatter coastal landscapes should be controlled to avoid adverse cumulative effects of multiple vertical features in landscapes which are characterised by strong, wide horizons.

Table 2: Sensitivity to Wind Energy Development (from *Wind Energy Development in Northern Ireland's Landscapes* (NIEA, 2010)

LCA Reference	Sensitivity Assessment
92 Ballyquintin and Lecale Coast	High
93 Portaferry and North Lecale	High
94 Strangford Drumlins and Islands	High
95 Ballygowan Drumlins	High to Medium
99 Outer Ards Coast	High
100 Ards Farmlands and Estates	High
101 Scrabo	High
102 Holywood Hills	High to Medium
103 Bangor Coastline	High
104 Craigantlet Escarpment	High

Ref	NILCA 2000 LCAs (A&ND Only)
92	Ballyquintin and Lecale Coast
94	Strangford Drumlins and Islands
95	Ballygowan Drumlins
99	Outer Ards Coast
100	Ards Farmlands and Estates
101	Scrabo
102	Holywood Hills
103	Bangor Coastline
104	Craigantlet Escarpment
93	Portaferry and North Lecale

Legend

- A&NDBC Boundary
- Other Local Authority Boundaries
- NILCA 2000 LCAs (A&ND Only)
- NILCA 2000 LCAs

Ironside **Farrar**

Ards and North Down Borough Council

Ards and North Down Landscape Character Review

Figure 6

NILCA 2000 LCAs

Scale 1:160,000 at A3

0 2 4 6 8 km

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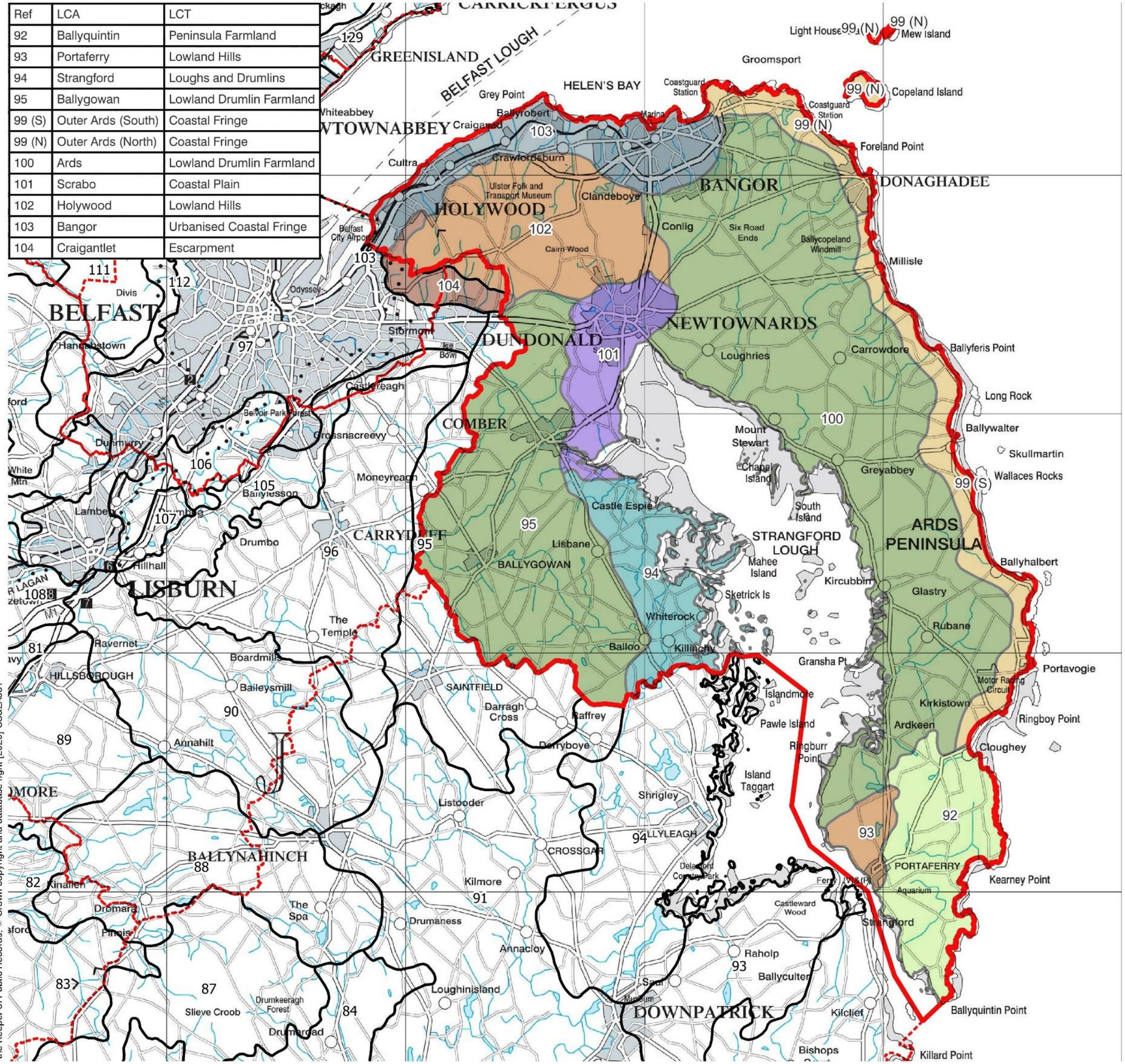
Ref	LCA	LCT
92	Ballyquintin	Peninsula Farmland
93	Portaferry	Lowland Hills
94	Strangford	Loughs and Drumlins
95	Ballygowan	Lowland Drumlin Farmland
99 (S)	Outer Ards (South)	Coastal Fringe
99 (N)	Outer Ards (North)	Coastal Fringe
100	Ards	Lowland Drumlin Farmland
101	Scrabo	Coastal Plain
102	Holywood	Lowland Hills
103	Bangor	Urbanised Coastal Fringe
104	Craigantlet	Escarpment



Legend

- A&NDBC Boundary
- Other Local Authority Boundaries

Landscape Character Types

- Coastal Fringe
- Coastal Plain
- Escarpment
- Drumlins and Islands
- Lowland Drumlin Farmland
- Lowland Hills
- Peninsula Farmland
- Urbanised Coastal Fringe

Ards and North Down Borough Council

Ards and North Down Landscape Character Review

Figure 7

Landscape Character Types and Character Areas

Scale 1:160,000 at A3

0 2 4 6 8 km

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6.0 BIODIVERSITY PROFILE REVIEW

6.1 Introduction

Ards and North Down Borough Council was established in 2015 following the amalgamation of Ards Borough Council and North Down Borough Council. The council area is just over 566 square kilometres in size and has a population of around 162,000.

The Landscape Character Assessment (LCA) of Northern Ireland divided the province into 130 landscape character areas based on land form, land use, geology, ecology and cultural features. Descriptions of each area were initially completed in 2000 and updated in 2006. As an aid to strategic planning, the Council have requested a review and update of the 10 LCAs that occur within the council area. This chapter reviews the biodiversity sections of the LCAs.

Priority species and habitats in this revision, relate to those listed and described within the Ards and North Down Local Biodiversity Action Plan 2013 – 2017 and they are shown in bold text – they are also priorities at a Northern Ireland level.

6.2 Process and Remit

The review of the biodiversity element of LCA areas in Ards and North Down was entirely desk based, using information from a number of sources (see below). A GIS project was constructed showing the ANDBC boundary and the relevant overlapping LCA area boundaries. This revealed that five of the overlapping LCA areas were well represented within the council area, one has approximately two-thirds within the ANDBC boundary (number 95), while the remaining four (numbers 92-94 and 104) have less than one-third of their area contained within the council area.

Orthophotography (aerial photographic coverage) of Ards and North Down was available from 2018, 2019 and 2020 (in addition to two small islands covered by a single image from 2016) – with enough tiles to cover the whole council area once between the three years; no individual year had full coverage of the council area (Table 4). All orthophotography was added to the GIS project, which was further populated with boundary information, and available spatial datasets relating to biodiversity and natural heritage features within Ards and North Down. This included the location of designated sites, nature reserves, parks, woodlands, waterbodies and other relevant natural heritage features. Analysis was also aided by referring to Google Earth imagery.

Relevant original LCA documents from the 10 overlapping areas were reviewed and, where possible, statistics on the biodiversity resource within each LCA area was updated to reflect the area of the LCA that lies within the ANDBC boundary.

6.3 Information Sources

Information was sought from several organisations (Table 3) through direct consultation or by accessing webpages and online reports. A range of information sources were used to undertake the review (Table 4).

Table 3: Organisations contacted to obtain information on biodiversity in the LCA areas

Organisation consulted	Form of consultation	Information received
Ulster Wildlife	Webpages	Information accessed on webpages.
Royal Society for the Protection of Birds (RSPB)	Webpages	Information accessed on webpages.
Department of Agriculture, Environment and Rural Affairs (DAERA)	Webpages	Information on designated sites, rural land-use and agricultural statistics at council level were provided.
ANDBC	Webpages	A range of datasets were provided. No recent survey/trend data available on species and habitats.
National Trust	Webpages	Information on key sites and ongoing projects.
Northern Ireland Environment Link	Webpages	Information accessed on webpages
British Trust for Ornithology	Webpages	Information accessed on webpages
Wildfowl and Wetlands Trust	Webpages	Information accessed on webpages
Mammals, Amphibians & Reptiles of Northern Ireland	Webpages	Information accessed on webpages
Northern Ireland Bat Group	Webpages	Information accessed on webpages
Strangford Lough and Lecale Partnership	Webpages	Information accessed on webpages
National Biodiversity Network	Data request	Spatial dataset of species records from ANDBC area
CEDaR	Webpages	Information accessed on webpages

Table 4: Information sources used in the review of biodiversity in LCA areas

Information type	Data set/detail	Available information	Data holder(s)
Boundaries	ANDBC boundary LCA boundaries	Spatial data on location and extent.	ANDBC
Mapping	OSNI digital maps of NI	OSNI 1:250,000 digital map of NI OSNI 1:25,000 digital map (coverage limited to ANDBC)	Ordnance Survey of Northern Ireland
Aerial photography	High resolution georeferenced aerial photography	Coverage of ANDBC: 2016 – Lighthouse Island/Mew Islands 2018 – most of northern half 2019 – north-west and central band 2020 – southern tip	ANDBC
Landcover	Broad categories for landcover types	1km raster tiles for ANDBC – dominant landcover type	CEH
Designated nature conservation sites	Special Protection Area (SPA) Special Area of Conservation (SAC) Ramsar Site Area of Special Scientific Interest (ASSI)	Spatial data on location and extent. List of qualifying features. Site condition assessment.	DEARA
Local designations	Sites of Local Nature Conservation Importance (SLNCI) – some of these sites are assigned for their earth science interest	Spatial data on location and extent.	ANDBC

6.4 Broad Trends in the Ards and North Down Area

Woodland

There appears to have been a slight overall increase in woodland cover in recent years, arising from new plantation woodlands on previously farmed land. Woodland cover in Ards and North Down currently stands at 4.7%, although the available woodland cover dataset did not include some smaller patches of woodland and scrub habitat. Nevertheless, the percentage of woodland cover is substantially lower than is found in the UK (13.3 %) and also lower than the overall Northern Ireland total (8.6%). According to the latest agricultural trends report, across Northern Ireland as a whole areas of state-owned forestry have changed little since the year 2000.

Agricultural Land

Currently, approximately 79% of the total Northern Ireland land area is used for agriculture, including common rough grazing. During the period 2015-2020, the majority of agricultural output was in livestock and livestock products, followed by horticultural products and then arable crops, with barley the most common cereal crop.

Spatial information on agricultural land use was not available at a resolution that allowed the quantification of the grassland and arable resource, or the identification of trends, within individual LCA areas. Landcover statistics only allowed for broad estimates of landcover types. However, the absence of significant trends in different categories of agricultural statistics (see Table 4) for most categories within Ards and North Down as a whole and, for most categories, within Northern Ireland between 2006 and 2020, mean that the overall resource is likely to be broadly similar to that described in 2006.

An exception to this, has been the decreasing trend in the area of farmed land classified as ‘rough grazing’ between 2006 and 2015 at the Northern Ireland level, a trend which had been ongoing since these data were first published in 1981; however since 2015 there has been a slight increase. An overall decreasing trend has also been seen in Ards and North Down, although the increase since 2015 has not been so marked or consistent as that seen at the Northern Ireland level. This type of agricultural land is generally less heavily managed, with fewer inputs, less drainage and lower grazing levels; hence, it probably supports relatively high biodiversity and the longer term declining trend is likely to have affected wider populations of NI priority species such as breeding waders and marsh fritillary.

However, changes in the spatial extent of agricultural areas that may support biodiversity are often less important than changes in farming practices, which tend to affect biodiversity to a greater degree and cannot be deduced from spatial statistics alone. One example is a shift in arable production from spring-sown cereals to autumn-sown cereals, which can reduce the suitability of fields for some breeding bird species.

Heath, Bog, Fen and Wetland

The overall extent of heath and wetland habitat in the council area appears broadly unchanged, with many of the significant areas receiving some degree of protection through designation and sympathetic ownership. Numerous small areas mapped as priority peatland are scattered throughout Ards and North Down and many represent former inter-drumlin bogs that have been cut-over, drained and reclaimed for agriculture, or have been colonised by trees to become wet woodland.

Species

Data on species populations and trends within the council area were lacking. No targeted species conservation initiatives appear to be in place in Ards and North Down, although collation of data on occurrence is undertaken on an ad-hoc basis for species such as red squirrel, where local groups encourage sightings to be reported. The majority of information available was based on information sourced regarding designated sites, primarily ASSIs, from DAERA – in addition to reviewing NBN records for each LCA.

Bird population trends are likely to be broadly in line with the rest of NI, where seven commoner species have shown a statistically significant increase between 2008 and 2018 and eleven species have shown a decline; those in decline across the province include species associated with grassland and mixed habitats, including **linnet**, lesser redpoll, reed bunting and mistle thrush. Most significantly, the greenfinch has seen a decline of 86%. Wader populations are also in decline across the wider area. Some wildfowl populations that occur within Ards and North Down, particularly light-bellied brent geese at Strangford Lough, are censused annually as part of wider monitoring initiatives; estimates of population size of light-bellied brent geese for 2018-2020 indicate continued stability with around 27,000 counted from Strangford Lough, although the local population occurs inside and outside the council area.

Agri-Environment and Forestry Grant Schemes

Support to land-owners and managers through agri-environment schemes is currently provided via the Environmental Farming Scheme (EFS) which is administered by DAERA. There are a range of EFS options targeting biodiversity enhancement and the uptake of these measures, and future similar measures, should be encouraged.

7.0 GEOLOGICAL CHARACTERISTICS REVIEW

7.1 Introduction

Ironside Farrar has been tasked with reviewing and amending information presented in the Landscape Character Assessments for the Ards and North Down Borough Council. What follows is information on geology pertaining to the character of the landscape.

The use of a cultural overlay in defining Landscape Character Areas (LCAs) means that they frequently subdivide natural physiographic units. It is common therefore for significant geomorphological features to run across more than one LCA. It is also possible in turn, to group physiographic units into a smaller number of natural regions. These regions invariably reflect underlying geological, topographic and, often, visual continuities between their component physiographic units, and have generally formed the basis for defining landscape areas such as Areas of Outstanding Natural Beauty. It is essential therefore, that in considering the 'Geodiversity' of an individual LCA, regard should be given to adjacent LCAs and to the larger regions within which they sit.

7.2 Regional Geological Characteristics

The geological characteristics of the three main Regional Character Areas (RCA), as defined int the 2016 Northern Ireland Regional Landscape Character Assessment, which comprise the Ards and North Down Borough Council area, are as follows.

Down Drumlins and Holywood Hills RCA

The Down Drumlins and Hollywood Hills RCA is, as the name suggest, a landscape dominated by post glacial drumlins. The undulating terrain of the RCA, owes its character to the superficial drift deposits laid down as ice retreated from the landscape. Bedrock geology below the site takes the shape of Silurian turbidite deposits.

Strangford Ards and Lecale RCA

The landscape within this RCA is defined by the drumlin swarms and undulating terrain. Geological mapping shows the area to be underlain by Silurian sandstone and greywacke rocks. Superficial mapping shows there to be a broad covering of glacial tills. This is typical of a post glacial landscape.

Belfast Lough and Islandmagee RCA

The landscape within this RCA is defined by drumlins and undulating terrain. Geological mapping shows the area to be underlain by Ordivician greywacke, Carboniferous sandstones and conglomerate rocks. Superficial mapping shows there to be a broad covering of glacial tills and glaciofluvial deposits. This is typical of a post glacial landscape.

7.3 Landscape Character Area Review

A geology review for each LCA is provided in Section 8. This has involved the review of information provided in the NILCA 2000 assessment and referring to online mapping and other data sources. References are provided in Appendix B at the back of this report. Existing NILCA 2000 information has been edited to ensure it is relevant to the Ards and North Down Borough Council area, removing much duplicated material included in the original assessments.

8.0 LANDSCAPE CHARACTER TYPES AND AREAS

PENINSULA FARMLAND LCT

Ballyquintin Peninsula Farmland (92)

LOWLAND HILLS LCT

Portaferry Lowland Hills (LCA 93)
Holywood Lowland Hills (LCA 102)

DRUMLINS AND ISLANDS LCT

Strangford Drumlins and Islands (LCA 94)

LOWLAND DRUMLIN FARMLAND LCT

Ballygowan Lowland Drumlin Farmland (LCA 95)
Ards Lowland Drumlin Farmland (LCA 100)

COASTAL FRINGE LCT

Outer Ards Coastal Fringe (LCA 99)

COASTAL PLAIN LCT

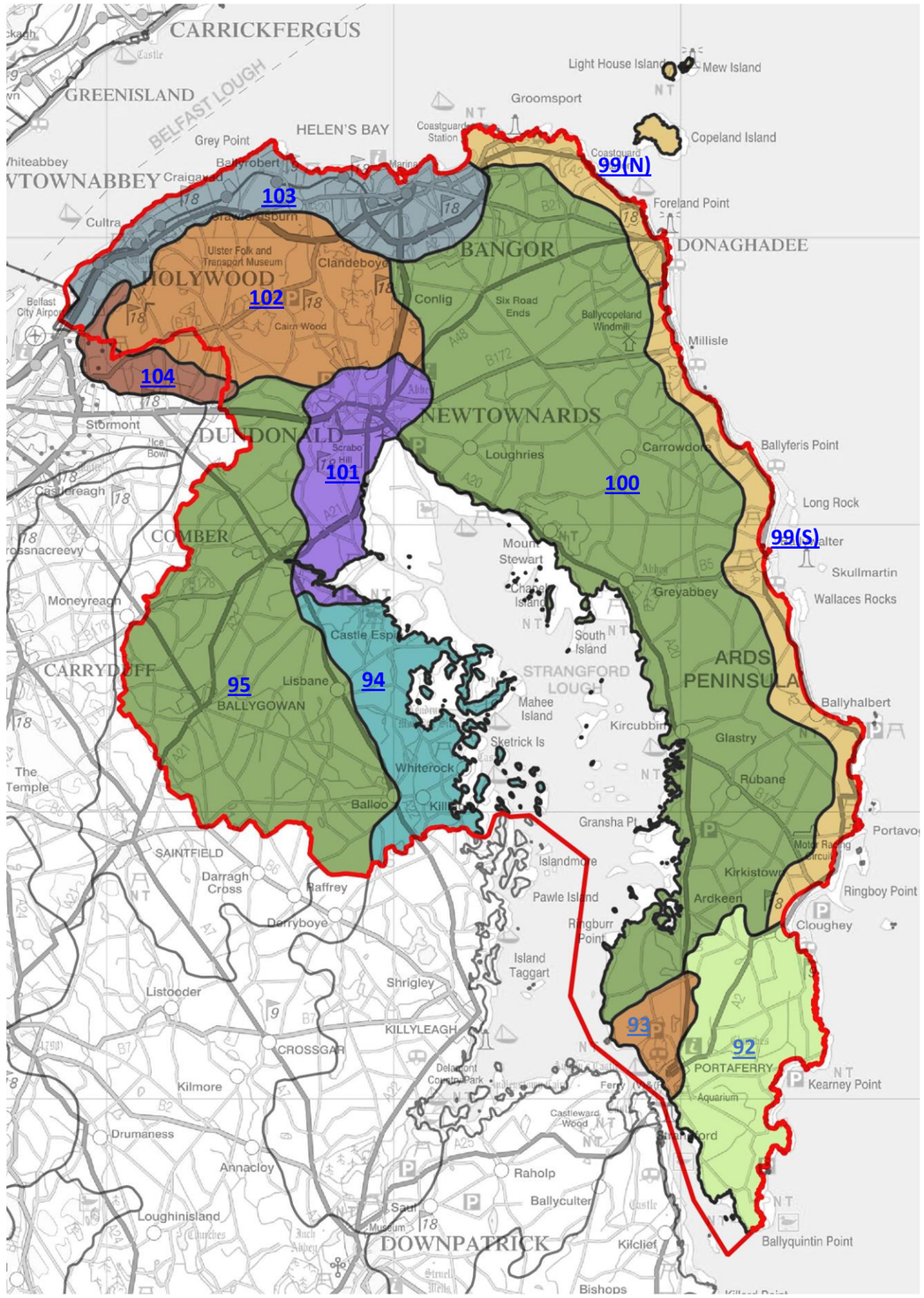
Scrabo Coastal Plain (LCA 101)

URBANISED COASTAL FRINGE LCT

Bangor Urbanised Coastal Fringe (LCA 103)

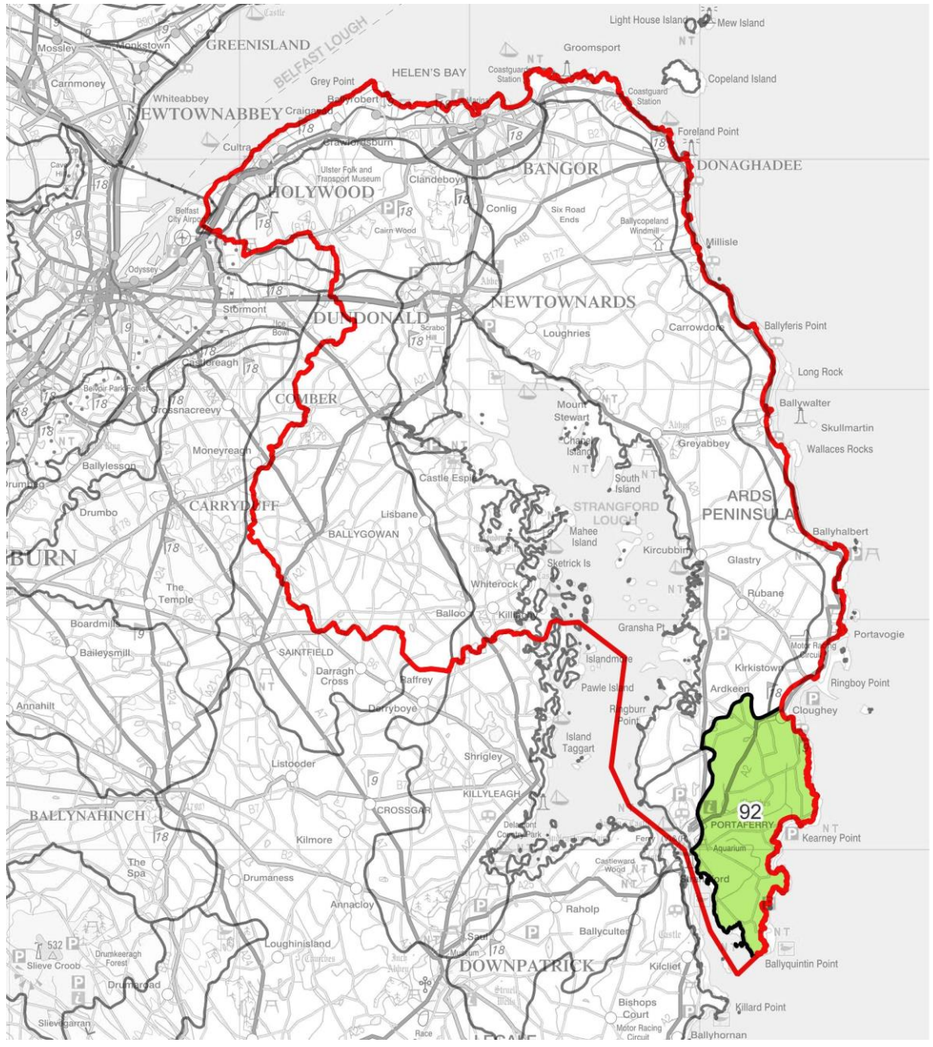
ESCARPMENT LCT

Craigantlet Escarpment (LCA 104)



Ballyquintin Peninsula Farmland (92)

Return to LCA List



Settlements: No Main Settlements

Landscape Character

Open farmland close to Ballyquintin Point, looking west across the Strangford Lough 'Narrows'.

Location and Context

The ***Ballyquintin Peninsula Farmland*** is located at the southern-most tip of the Ards Peninsula with a coastline to both the Irish Sea and Strangford Lough, and bounded to the west by the outcropping of low hills near Portaferry. A landscape of similar character extends south across the entrance to Strangford Lough into Lecale beyond the Borough Council boundary.

Key Characteristics

- Exposed and windswept rocky shoreline with small sandy bays.
- Contrast between the open Irish Sea coast and the more enclosed Strangford Lough 'Narrows'.
- Open, gently undulating farmland with flat coastal edge.
- Patches of gorse, scrub and stone walls.
- Extensive sheep grazing.
- Numerous archaeological remains.
- Open views of the sea.

PENINSULA FARMLAND LCT — Ballyquintin (92)

Landscape Description

Landform

The Ballyquintin Peninsula is underlain by sedimentary rocks which have numerous Dolerite dykes aligned in a NE direction. This is a predominantly coastal landscape and its character is influenced by its extremely windswept position. The Irish Sea coast is low, indented with small sandy bays and rocky headlands. The more sheltered coast within Strangford loch is rocky with mudflats, such as those of the Granagh Bay Nature Reserve. Inland the landform is generally smoothly undulating, albeit with occasional rocky outcroppings, with large, widely spaced drumlins and often quite expansive, flat areas with fen, wetland and occasional small loughs, drained by small watercourses. There are somewhat larger landforms to the north east of Portaferry. More distinct drumlins are often topped with trees at rath sites.

Landcover

Landcover is predominantly improved pasture, with ley pastures and some arable farmland and occasional patches of gorse and scrub which add texture to the landscape particularly in its higher parts. Fields are medium sized and enclosed by low hedgerows, sometimes gorsy and windblown. Stone walling is occasionally present. Field boundaries are often treeless, with woodland limited to small clumps around farm buildings or hill top raths. Woodland at Quintin Castle to the east of the LCA is perhaps the most extensive. The lack of tree cover contributes to the very open character of the landscape.

Settlement and Development

The area is sparsely settled with farms and houses, sometimes clustered in to small groupings on the higher ground, with the lower lying and more poorly drained areas free from development. Kearney is a small informal grouping of buildings. It was a thriving fishing community in the 19th Century and has since been restored by the National Trust. It comprises of a collection of vernacular properties with white rendered walls and tiled roofs which exemplify the traditional housing styles found in the wider landscape. Decorative iron gates are a feature of the farming landscape to the south of the LCA, a style incorporated into some new developments. The area is traversed by an irregular network of minor roads which follow the higher ground, and the A2 is the only main road in the area.

There is a small amount of tourism and leisure related development on the east coast including a caravan park and golf course at Ballyspurge and a small caravan park further south at South Bay. Car parking provides access to the coast at various points such as Kearny Point and Ballyquintin Point, but development is low key and small scale.

The area has a strong sense of history with numerous historical sites including standing stones, fortifications, raths, ruined churches and graveyards.

Perception

The exposed position of this landscape imparts a sense of remoteness. It has a strong, traditional rural character, relatively free from modern or any larger scales of development. Low hedgerows and a lack of trees promotes long views across the open landscape from the higher landforms, including views to the coast and across the mouth of Strangford Lough towards the settlement of Strangford. From the south west of the LCA there are distant views to the Mournes.

Landscape Condition and Forces for Change

Landscape Condition

The landscape is in good condition with a strongly rural character which has not been subject to larger scales of development. Some field boundaries are in poor condition.

Forces for Change

Agriculture

The agricultural landscape appears largely stable and in productive use. Agricultural improvements or neglect may result in the loss of traditional field boundaries or their replacement with wire fencing.

Trees and Woodland

While tree cover is generally low, occasional hedgerow trees at field boundaries and along road sides, along with small woodland sheltering farms and houses, contribute to the structure of the landscape. Losses from tree disease, new development or agricultural practices are a possibility.

Settlement and Development

Pressure for development appears low, however the attractive location and coastal views to the Irish Sea and the Strangford Lough ‘Narrows’ may result in some pressure for new housing development, including potentially second homes or holiday accommodation.

Minerals

Records show historical small scale sand and gravel quarrying at Ballybranigan. Otherwise there is no significant minerals development within the LCA and no evidence to suggest minerals development may be a force for change in the future.

Tall Structures

A low number of relatively small wind turbines have been consented in the LCA. The exposed location of the LCA, with a likely good wind resource, may make the LCA attractive for wind energy development in future as demand for renewable energy increases.

Tourism and Recreation

Scenic coastal landscapes, included within the Strangford and Lecale AONB designation, natural and cultural heritage interests result in some tourism and recreation interest. A designated cycle

PENINSULA FARMLAND LCT — Ballyquintin (92)

route passes close to the east. At present development for tourism and recreation is small scale and low key. There is a caravan park at Ballysprurge and there may be pressure for similar coastal tourism developments in the future.

Climate Change and Coastal Erosion

Rising sea levels have the potential to affect coastal farmland and coastal developments. This may include changes to the water table and increasing salinity. The general forces for landscape change relating to climate change and coastal erosion set out in Section 5.3, should also be referred to.

Landscape Management and Planning Guidelines

Key Sensitivities

This is a relatively unspoilt landscape, with traditional rural features and numerous historical sites. This tranquil unspoilt character is valuable but ensures that the landscape is sensitive to change. Much of the area is within the Strangford Lough and Lecale Coast AONB, and the presence of landmarks, such as ancient graves, castles and the restored settlement at Kearney, make this a special landscape, worthy of conservation.

Ballyquintin Point, on the southern tip of the Ards Peninsula, is a National Nature Reserve, with an interglacial raised beach and saltmarshes. The headland of Killard Point, on the opposite side of the narrows, is also recognised for its nature conservation and earth science importance by its designation as an ASSI.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	Medium/ High
Minerals:	High
Tourism:	Medium/ High

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- Selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).
- Sections of stone wall should be retained and rebuilt where possible.
- Distinctive metal field gates are a landscape feature which could be retained and also incorporated into new accesses to fields and properties.

Trees and Woodland

- The management and creation of small farm woodlands would help to maintain landscape diversity and integrate new development into the landscape. However larger scale woodland planting may adversely affect the open landscape character.
- Existing mature specimen trees and tree stands should be maintained. Native successor trees should be encouraged either through planting or appropriate management of emerging saplings.

Settlement and Development

- Coastal locations are the most sensitive to development. The urbanisation of stretches of roads at beaches or accessible parts of the coast should be avoided.
- Inland, the undulating landform can accommodate a low degree of rural housing development if appropriately sited to take advantage of hollows in the landscape and enclosure by trees.
- Single housing development can be better accommodated in the landscape when utilising traditional materials such as pale harling, exposed stone and slate roofing, even when of modern design. Urban and suburban styles of housing designs or those incorporating non-traditional materials such as brick can undermine rural landscape character.
- The settings of archaeological features and sites of historical interest should be conserved and public access provided and managed to help prevent damage to the monuments or their settings.

Minerals

- Larger scales of minerals development would potentially have a significant effect on rural landscape characteristics.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- Wind energy development should be infrequent and of sufficiently small scale to be associated with existing farms and housing development.
- Wind turbines and other tall structures should avoid the more exposed parts of the landscape close to the coast, particularly towards the south of the LCA.

Tourism and Recreation

- Tourism and recreation related development should remain relatively small scale, in keeping with the character of the landscape, for example limited interventions to accommodate activities such as walking, cycling, kayaking and appreciation of local natural and cultural heritage.

- Coastal caravan developments should be limited both in their scale and frequency along the coast so as not to become a characterising feature. In general the more open Irish Sea coast is more suited to such development, rather than the Strangford Lough narrows, because of its larger scale and greater capacity to absorb appropriately scaled development.
- Small, rough surfaced car parks would be preferable to more engineered designs incorporating sealed surfaces, concrete kerbs and marked bays. Local materials and features such as stone walls and characteristic native planting could be used to construct and integrate any new development into the landscape.

Climate Change and Coastal Erosion

- Maintaining the integrity of natural coastal systems, such as salt marsh, may assist in mitigating the effects of any future coastal flooding.
- Limiting the amount of further coastal development will have benefits to landscape character and help mitigate against the possible effects of coastal erosion and flooding.

Biodiversity Profile

Key Characteristics

- Occupies the southern tip of the Ards Peninsula below Cloughy and the east coast of Newry Mourne and Down District
- Flat to gently undulating coastal landform becomes more undulating and with scattered drumlins inland towards Downpatrick and the North Lecale Hills
- Large, flat areas between drumlins often have small loughs and wet pastures
- Largely devoid of woodland
- Land cover is dominated by an intimate mix of arable and pasture fields

Key Sites

- SPA/Ramsar: Strangford Lough, Outer Ards
- SAC: Strangford Lough, North Channel
- ASSI: Outer Ards, Ballyquintin Point, Strangford Lough Part 2, Tieveshilly
- National Nature Reserves: Ballyquintin Point
- Nature Reserves: Granagh Bay, Cloughy Rocks
- AONB: Strangford and Lecale (covers 66% of the LCA)
- Historic Parks and Gardens: Quintin Castle

Woodlands

The LCA has little woodland cover, with less than 2% of the area within Ards and North Down forested, including a few small patches around farmhouses. **Wet woodland** is found colonising former peatland areas north of Ballyfinragh, with signs of similar colonisation north-east of Portaferry.

Grassland and Arable

Grassland and arable fields are the most dominant land covers in the LCA and together occupy the majority of the land area. Most of this is an intimate mix of arable and pasture fields. This arable land supports birds such as the **linnet**, starling and house sparrow. Priority grasslands are mostly relegated to the south of the LCA outside of Ards and North Down, primarily in proximity to Ardglass.

Heaths and Bogs

In the past there were some small bogs between hills in the LCA, but few remain. Areas of priority peatland are scattered north of Strangford Lough, with some small patches between Portaferry and Ballyfinragh. These inter-drumlin sites are now in carr (**wet woodland**) or have been reclaimed for agriculture.

Wetlands and Lakes

There are small but significant areas of fen remaining in the LCA, all of which are south of Strangford Lough outside of Ards and North Down.

Open water and lakes are likewise rare, especially within Ards and North Down, with the largest waterbody being 2.5ha Ballyfinragh Lough.

Coastal

LCA 92 is characterised by its coastal position and there are significant areas with a relatively high biodiversity - several of which are National Nature Reserves, Areas of Special Scientific Interest or are protected by the National Trust. This includes Ballyquintin Point ASSI and NNR, which features patches of low-growing burnet rose flower and wind-dwarfed blackthorn scrub which survives on the exposed cobbles. This habitat is also suitable for bird species including stonechats, **linnet** and whitethroats, as well as migrating butterflies such as the red admiral. This area also contains pockets of **coastal saltmarsh**.

Granagh Bay NR, part of Strangford Lough SPA and SAC, is noteworthy for its populations of common and grey seals as well as for the rich variety of shoreline birds.

Strangford Lough is designated as an SPA, SAC and ASSI for its marine and intertidal habitats, breeding and wintering bird populations and common seal populations.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: low woodland cover; **wet woodland** is found colonising former peatland sites

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Actions:

- enhance biodiversity through appropriate measures to extend woodland cover using in agri-environment and forestry grant schemes such as The Woodland Grant Scheme or The Farm Woodland Premium Scheme; management plans for woodland around farmhouses should be directed toward their survival, through natural regrowth or planting of native broadleaf species
- enhance the biodiversity value of farmland woodlands by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that any hazel scrub is not cleared
- ensure conservation of wet woodlands by allowing succession to take place and installing fencing to prevent trampling; ensure that loss does not occur through drainage, reclamation, landfill or dumping/tipping

GRASSLAND AND ARABLE

Issue: improved grassland and extensive areas of purely arable land dominate land cover in this LCA, particularly in the central region, but are of low biodiversity value

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland and protect any unsown areas of grassland
- maintain and enhance damp grassland by, where possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying
- with fertilisers, slurry, herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

HEATHS AND BOGS

Issue: once existent inter-drumlin bogs have been lost to cutting and agriculture, with only very limited patches remaining today

Actions:

- following the release of the Northern Ireland Peatland Strategy 2021 – 2040 support strategic efforts including the conservation of existing peatlands, restoration of degraded areas and supporting sustainable peatland management
- maintain the integrity of those small remaining inter-drumlin peatlands by for example, preventing infilling, fly-tipping, fires, new drainage and mechanised peat cutting - applies particularly to intact peatlands but cut-over sites can provide important habitats for birds and invertebrates
- consider restoration of peatland habitats through appropriate water level management, removal of individual colonising trees and phasing out peat cutting - applies particularly to formerly intact bogs affected by recent mechanical cutting
- monitor use of cut-over bogs to ensure that important micro-habitats are not lost, that the large tracts of land required by predator birds are not broken up by planting and other uses, and that the needs of over-wintering and breeding wetland birds are met

WETLANDS AND LAKES

Issue: a small number of lakes are present in the LCA

Actions:

- carefully assess any proposals for arterial and field drainage near to former peatlands so that the water table is not lowered to the extent that these habitats are affected
- promote and ensure compliance with relevant guidelines and legislation so that lakes are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip; ensure that further eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants; monitor effects of recreation, including fishing, on shoreline communities (reedbeds, fens etc.)

COASTAL

Issue: significant coastal areas of high biodiversity value are reflected in a number of national and international designated sites, Nature Reserves and National Trust properties; the NI Priority Habitat **coastal saltmarsh** is also featured in this LCA.

Actions:

- ensure that NI Priority Species, rare plants and Red List Species are protected from factors such as new development, erosion, waste tipping and pollution
- cliff areas are vulnerable to development which may cause erosion - any new development needs to be carefully considered
- protect rare **coastal saltmarsh** communities from sources of pollution and waste tipping in addition to damaging activities such as land-fill and construction.

Geological Characteristics

Overview

This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly

PENINSULA FARMLAND LCT Ballyquintin (92)

folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged example of a 'drumlin swarm'.

The LCA is underlain by sedimentary rocks with numerous Dolerite dykes aligned in a NE direction. It occupies the southern tip of the Ards Peninsula below Cloughy and the eastern section of Down District. This is a predominantly coastal landscape and its character is influenced by its extremely windswept position. The flat coastal topography becomes gently undulating towards Downpatrick where it meets the North Lecale Hills. Throughout the area, there are low drumlins with wide open inter-drumlin hollows, often with fen and wetland. Much of the area is within the Strangford Lough and Lecale Coast AONBs. Geomorphologically, the most important element in the landscape is the Killard Moraine. This is a discontinuous belt of flat lying to undulating topography that runs for 10 km approximately parallel to the coast of east Co. Down south-westwards from Tara Fort, on the Ards Peninsula, to Killard Point and Ardglass. The ice-contact, glaciomarine apron occurs 1km to the southeast (seaward) of the Co. Down drumlin swarm that dominates the regional topography. The landscape is largely undisturbed by excavation or construction and is located in a largely rural area. The morainic belt and raised beach complex which truncates the gravel deposits occurs along the coastal zone. The subdued, undulating topography contrasts with the strong lineation of the drumlin swarm to the northwest and forms a stark topographic contrast with the rock outcrops that form an irregular framework along the coast.

The extension of the Outer Ards coastline in the north of the LCA has been described by Orford (in Whalley et al. 1985) as a series of crenelated bays hinging on eroding drumlins or Tertiary dykes that normally open to the north. A number of sediment cells can be recognised along the coast defined by littoral drift reversals related to shifts in wave energy. Good examples of swash ridge welding under fair weather conditions can be seen in the bays. The Silurian basement crops out along the nearshore and acts as a 'reef' type barrier to wave attack. A number of sites, such as the raised beaches on the headland at Ballyquintin Point, have been used to understand post-glacial sea level fluctuations. In the area to the south of The Narrows, Orford (1985) has described glacial sediment along the length of the coastline as the only barrier to the marine extension of Dundrum Bay into Strangford Lough. There are few drumlins along the coast and the numerous low cliffs are cut into glaciomarine till. The cliff sections often show basal exposures of an ice-moulded abrasion platform cut into the underlying Palaeozoic strata.

Solid Geology

Predominantly Lower Palaeozoic greywackes and shales with numerous minor igneous intrusions. 99% of the LCA comprises Lower Palaeozoic (Silurian) Hawick Group with Moffat Shale inliers: the northern 10% of the LCA comprises Gala Group, the remainder being Tertiary intrusives.

Tieveshilly ASSI (099) comprises a graptolite-bearing succession of shales that span the late Ordovician to early Silurian. The Tara Sandstone Formation and Kearney Siltstone Formation occur above. Exposures of siltstone and deformed lamprophyre occur at Kearney Point (ESCR Site 423).

The greywackes vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. They are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. The Hawick Group also have numerous NE-SW faults. In the central fault zone, there occur slivers of the predominantly Ordovician (and thus older) Moffat Shale Group. The NE -SW strike of the beds at outcrop is produced by faulting and belies the fact that minor folds occur within each fault tract. The greywackes are of sandstone grade and vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. The greywackes are commonly quarried as a source of aggregate.

A Tertiary age (55 million years) basaltic dyke swarm is exposed at St. John's Point (ESCR Site 86), within Newry, Mourne and Down.

Drift Geology

The drift geology map for this LCA shows it to be predominantly underlain by Late Midlandian till associated with the large ice mass that was centred on the Lough Neagh Basin. This ice flowed south eastwards from an ice divide that lay approximately SW-NE along the line of the north Belfast Hills. Evidence for this flow direction is found in the orientation of the numerous drumlins that make up much of the landscape in the west of the LCA. However, within the LCA there are also significant outcrops of drift free bedrock that were scoured by the overriding ice. McCabe and Knight (in Knight 2002) have suggested that this area, and much of central Co. Down, was the site of an ice stream during the Drumlin Readvance that delivered a high sediment flux to the ice margin at areas such as the Lecale Coast to the south of this LCA. This may go some way to explain the partial drift cover in the region and the widespread occurrence of rock cored drumlins. Within Northern Ireland drumlins take a variety of forms; some are rounded in plan, although the majority are elongated in the direction of ice flow. Some have sharp crests, whereas others are more whaleback in profile. Although most drumlins are composed of glacial till or tills, a small number are 'drumlinoid features' and rock-cored and some are composed of sand and gravel. Where drumlins are rock cored there may have been significant frost shattering prior to their shaping by ice flow. It is possible therefore to see tails of shattered debris within till leading away from the feature in the direction of flow (Davies and Stephens 1978). It is generally accepted that the drumlins of Northern Ireland were formed by deposition beneath fast flowing ice. In most cases this has resulted in a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. This pattern has been observed across Northern Ireland, apart from a limited area in the north of County Down, where Hill (1971) observed drumlins composed only of Lower Till. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

It can be argued that an equally important component of any 'drumlin landscape' are the similarly numerous inter-drumlin hollows. The majority of these hollows would have held open water from local runoff at the end of the Pleistocene. Whilst some continue to exist as isolated small loughs, many have now been infilled by sediment washing off the surrounding drumlins. This has created typically flat-bottomed, marshy areas between the drumlins that are subject to seasonal inundation. Much of the infilling probably occurred early in the Holocene, as the landscape adjusted to increasingly temperate conditions. However, erosion may also have been accelerated in historical

PENINSULA FARMLAND LCT Ballyquintin (92)

times, when rural population densities were considerably higher and much of the lowland landscape of Northern Ireland was more intensively cultivated. Whatever the stimulus for erosion and deposition, the sediments within these hollows typically contain an important record of local environmental change.

The drift geology map highlights the presence along the coastal margin of the LCA, of a major deglacial complex either side of the entrance to Strangford Lough that is important scientifically and for its sand and gravel resources. The Killard point Moraine (13.5km^2) illustrates the internal geometry of a coarse-grained, glaciomarine apron which fronts the drumlin swarms of east Co. Down. The deposits indicate a high subglacial sediment flux associated with drumlinisation and variability in the processes that operated at a grounded, tidewater ice front. It demonstrates that deglaciation of the Irish Sea basin was influenced by fast ice flow, marine downdraw of the lowland ice sheet over north-central Ireland during the last glacial cycle and tidewater processes. High relative sea level at this time is associated with deep isostatic deflection in the northern part of the Irish Sea basin. Dating of red marine muds interbedded in the outwash sequence indicates that these events occurred around 15 kyr B.P.

LOWLAND HILLS LCT — Portaferry (93)

Portaferry Lowland Hills (LCA 93)

Return to LCA List

Settlements: Portaferry

Landscape Character

Portaferry viewed from Strangford, flanked by Windmill Hill and the Portaferry House Estate.

Location and Context

The ***Portaferry Lowland Hills*** are the northern part of the Lecale Hills which extend from Downpatrick, along the southern edge of Strangford Lough, to Portaferry on the Ards Peninsula.

Key Characteristics

- Undulating landform extending across 'the Narrows' from Strangford.
- Hills form a gateway entrance to Strangford Lough.
- Gorse scrub, pasture and woodland create a textured mosaic.
- Robust field pattern reinforced by stone walls and gorse hedgerows.
- Estate woodland to the lough shoreline.
- Numerous archaeological features.

LOWLAND HILLS LCT Portaferry (93)

Landscape Description

Landform

This landscape of small scale hills, together with those on the opposite side of the Strangford Lough 'Narrows', create a `gateway' at the mouth of Strangford Lough. Within Ards and North Down the character area comprises a series of low rounded hills, rising from the lower lying drumlin farmland to approximately 90m AOD at Ballywhite. Lower lying parts of the character area towards the north east include Ballyherly Lough and other wetland areas. From the higher ground the landform shelves gently to Strangford Lough, transitioning from pasture to stony coast within a short distance.

Landcover

The low hills support well-structured farmland used for grazing and arable production. The Portaferry House and Ballywhite House estates provide a framework of deciduous and mixed woodland to the farmland, while carr woodland in the wetter areas adds further diversity to the land cover. Woodland cover is therefore relatively high in comparison to most LCAs within the Borough Council area. Bushy hedgerows divide the pastures and arable fields, although stone walling is found at estate boundaries, for example along the Lough Shore Road. Estates and shoreline parkland are an important influence in the landscape contributing stone walls, deciduous woodland and buildings of stature.

Settlement

Portaferry is the largest settlement to the south of the Ards Peninsula, which is well contained between Windmill Hill to the south and the higher ground of the Portaferry House estate to the north. Pale rendered buildings at the sea front are less colourful than those opposite at Strangford, but the settlement sits well in its landscape and seascape setting, adding interest to views from the ferry and the opposite side of Strangford Lough. Otherwise development within the character area is limited by the large estate land holding, with farms and rural properties situated on drumlin sides and sheltered hollows. Hill top windmill stumps at Portaferry and Thomastown are distinct local landmarks.

Perception

There is a strong visual connection between Strangford and Portaferry, reinforced by the wooded estates on both shores and the link provided by the ferry moving between the two settlements. The landscape is perceived as a well-managed and attractive rural landscape. The relatively large area occupied by the Portaferry Estate promotes a sense of unity to the landscape, while Portaferry adds interest to the landscape through its Georgian architecture, maritime activity and ferry link. The LCA is perhaps best appreciated in views from the opposite shore of the Strangford Lough 'Narrows' or the ferry, rather than from inland locations where the low hills are relatively indistinct.

Landscape Condition and Forces for Change

Landscape Condition

The landscape is in good condition; stone walls at estate boundaries are continuous, woodland appear robust and farmland is in productive use.

Forces for Change

Agriculture

The farming landscape appears stable and not subject to significant change. The maintenance of traditional hedgerow field boundaries and stone walling will help maintain the character of the farming landscape. This may include replanting of hedges and adopting traditional management practices such as hedge laying to improve their robustness.

Trees and Woodland

Trees and estate woodland of the designed landscape at Portaferry House are an important feature of the landscape, also contributing to views from across the Strangford Lough narrows. Its designation will likely secure its retention into the future.

Settlement and Development

Pressure for development may arise at Portaferry, with the potential to compromise its currently well contained character. Elsewhere pressure for development may be limited largely because the Portaferry House Estate comprises a relatively large proportion of the land area, however locations with coastal views, such as along Lough Shore Road north of Portaferry, may be subject to development pressure.

Minerals

No significant minerals extraction has been undertaken in the LCA. There is no evidence that mineral development may be a force for change in the future.

Tall Structures

The area includes only one consented wind turbine (55m to blade tip). Elevated topography and a relatively exposed position may provide favourable conditions for wind energy development, however the designations of Historic Parks, Gardens and Demesnes and AONB may impose limits on development pressure. Hill top sites may be sought as locations for telecommunications masts.

Tourism and Recreation

Portaferry is the focus for tourism and recreation, including boating, kayaking, an aquarium and other visitor attractions, and is the southern gateway to the Ards Peninsula. This may result in some

LOWLAND HILLS LCT Portaferry (93)

pressures for development related to tourism and recreation and around the settlement, including potentially coastal development.

Climate Change and Coastal Erosion

Rising sea levels have the potential to affect coastal farmland, trees and woodland and coastal developments. This may include changes to the water table and increasing salinity. The general forces for landscape change relating to climate change and coastal erosion set out in Section 5.3, should also be referred to.

Landscape Management and Planning Guidelines

Key Sensitivities

The area falls within the Strangford Lough AONB and the landscape is therefore very sensitive to any change. Although the undulating topography and the presence of woodland provide screening opportunities, sensitivity is increased by the high visibility of the hills from surrounding lowlands, from Strangford Lough and the settlement of Strangford. Much of the coastline is designated as an ASSI, while Portaferry includes a Conservation Area designation.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	Medium/ High
Minerals:	High
Tourism:	Medium/ High

Guidance

Agriculture

- The continued maintenance of stone walls, including those associated with estates, will help retain the special character of this area.
- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- Selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).
- The visual impact of larger scales of agricultural buildings should be considered, particularly when they would affect views to or within the AONB, such as those across the Strangford Lough 'Narrows'.

Trees and Woodland

- The robust framework provided by the estate woodlands should be maintained and secured into the future by ongoing management. Other small woodlands could be accommodated in the landscape, although outward views toward the coast should be maintained.
- Ballyherly Lough may provide opportunities for the development of wet woodland habitats.

Settlement and Development

- The inland landscape is more suited to new development than the coast. A low degree of rural housing development can be accommodated if appropriately sited to take advantage of hollows in the landscape and enclosure by trees.
- Single housing development can be better accommodated in the landscape when utilising traditional materials such as pale harling, exposed stone and slate roofing, even when of modern design. Urban and suburban styles of housing designs or those incorporating non-traditional materials such as brick can undermine rural landscape character.
- The siting of new development should respect the settings of, and views to, local landmarks, in particular the hill top wind mill stumps.
- The coastal landscape outside of Portaferry should be protected from development in order to maintain the contained character of the settlement and its landscape setting.

Minerals

- It seems unlikely that any sizable minerals development could be accommodated without significant disturbance to the landform which characterises the area, and to views within the AONB.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- Limited capacity for wind energy exists towards the north and east of the LCA, away from the coast and where not significantly affecting the designed landscape of Portaferry House.
- Any wind energy development should be infrequent and of sufficiently small scale to be associated with existing farm and housing development.
- Wind turbines or other tall structures should not be sited on the higher landforms, and should not adversely affect views to the LCA across Strangford Lough.
- Tall structures should not be sited so as to detract from hill top heritage features.

Tourism and Recreation

- The coastline is very sensitive to tourism related development and there appears to be little capacity to accommodate coastal caravan parks or similar development types north of Portaferry.

LOWLAND HILLS LCT Portaferry (93)

- Tourism and recreation related development should ideally remain relatively small scale and low key, for example limited interventions to accommodate activities such as walking, cycling, kayaking and appreciation of local natural and cultural heritage.
- Small, rough surfaced car parks would be preferable to more engineered designs incorporating sealed surfaces, concrete kerbs and marked bays. Local materials and features such as stone walls and native planting could be used to construct and integrate any new development into the landscape.

Climate Change and Coastal Erosion

- Limiting the amount of coastal development will have benefits to landscape character and help mitigate against the possible future effects of coastal erosion and flooding.

Biodiversity Profile

Key Characteristics

- a spine of hills extending from Downpatrick to Portaferry which rise to over 100m; some with scrub and patches of trees giving diversity to the LCA
- lower ground in farmland, mainly pasture
- several demesnes, especially around the Strangford Lough shoreline where they give a wooded aspect

Key Sites

- SPA/Ramsar: Strangford Lough
- SAC: Strangford Lough
- ASSI: Strangford Lough Part 2, Lough Cowey
- SLNCI: Lough Cowey
- Historic Parks and Gardens: Portaferry House, Ballywhite House

Woodlands

Approximately 14.5% of the Portaferry section of the LCA is occupied by trees and woodland. The majority of the woodland is associated with demesnes (**parkland and wood pasture**). Portaferry House is a dominant feature, with the 176 ha estate taking up 25% of the land area. Although including specimen exotic trees and some conifer plantations, these demesne woodlands are dominated by broadleaves, in particular oak, sycamore, beech, ash and elm (though some of the latter have been lost to Dutch elm disease). In the woodlands **barn owl, song thrush** and **red squirrel** have been recorded - all of which are priority species. Wet woodland is found colonising a former peatland area near Ballyridley.

Grassland and Arable

Pasture is the dominant land cover in the LCA, accounting for approximately two-thirds of the area. North of Strangford Lough, arable constitutes over half of the land area within the council area and this land has records of bird species such as **linnet** and **starling** present. Outwith Ards and North Down, pasture is relatively high-quality improved pasture, and there are examples of species-rich dry grassland including Tullyratty ASSI.

Heaths and Bogs

In the past there were some small bogs between hills in the LCA, but today, as a result of past cutting, none remain. The former bog sites are now in carr (**wet woodland**) or have been reclaimed for agriculture.

Wetlands and Lakes

Marl lakes have a high base status, a specialised flora and are generally rare in Northern Ireland; there is one example within the Ards and North Down section of the LCA, Ballyherly Lough, which has also been found to contain lesser bearded stonewort, **a near threatened species**.

Fens have developed through past peat cutting or infill of small lakes. Most are small but nevertheless can be part of a rich mosaic of habitats - fen, swamp, open water, wet woodland, scrub and semi-natural grassland - and some in this LCA are particularly important for species rare to Northern Ireland. The habitats also support Priority Species such as the **reed bunting**. Within Ards and North Down and LCA 93 there are some patches of **fens** surrounding Ballyherly Lough.

There are few rivers of note in the LCA.

Coastal

LCA 93 is also characterised by its coastal position and there are significant areas, at the mouth of Strangford Lough, with a relatively high faunal biodiversity such as Green Island and Ballyhenry Bay. These areas are dominated by fucoids such as knotted wrack and feature excellent faunal diversity due mainly to underboulder habitats. Mud snails, which graze on microscopic algae and bacteria on the surface of the mudflats, are eaten by shelduck and other waterfowl. Lugworms, ragworms, catworms, tellin shells and burrowing amphipod 'shrimps' live within the sediment. These organisms exist in enormous numbers and form an important part of the diet of the 45,000 wading birds that winter on Strangford Lough. Strangford Lough was designated as Northern Ireland's first Marine Nature Reserve, and is now designated as an SPA, Ramsar, SAC and ASSI for its marine and intertidal habitats, breeding and wintering bird populations and common seal populations. Overall, around a quarter of the coast is built up, featuring piers and seawalls centred around the town of Portaferry. At Ballyhenry Bay, seagrass dominates the seabed, though it is patchy from moorings.

The sheltered waters, rocks and islands attract seabirds, particularly **terns**, **black-headed gulls**, black guillemots and eider duck all of which breed and feed within and close to the Lough.

LOWLAND HILLS LCT Portaferry (93)

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: NI Priority Habitat **parkland and wood pasture** with records of NI Priority Species **barn owl, song thrush** and **red squirrel**; **wet woodland** is found on peatland near Ballyridley

Actions:

- enhance the biodiversity value of demesne woodlands by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is not cleared
- enhance biodiversity through appropriate measures in agri-environment and forestry grant schemes to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species
- encourage control of grazing in demesne woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species
- further study of the history and ecology of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- ensure conservation of wet woodlands by allowing succession to take place and installing fencing to prevent trampling; ensure that loss does not occur through drainage, reclamation, landfill or dumping/tipping

GRASSLAND AND ARABLE

Issue: intensively managed pasture and arable dominate land cover in this LCA, but are of low biodiversity value

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland
- maintain and enhance any damp grassland by where possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of relevant measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying
- with fertilisers, slurry, herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

HEATHS AND BOGS

N/A

WETLANDS AND LAKES

Issue: this LCA features the NI Priority Habitats **marl lakes** (Ballyherly Lough) and **fens** which support NI Priority Species

Actions:

- promote and ensure compliance with relevant guidelines and legislation so that marl lakes and fens are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip; ensure that further eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor the nutrient status of eutrophic standing waters, Marl lakes and fens; monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants; monitor effects of recreation, including fishing, on shoreline communities (reedbeds, fens etc.)
- prevent further loss of fen through drainage, reclamation, land-fill, new woodland planting and encroachment by scrub woodland; prevent dumping and fly-tipping and encourage removal of rubbish; care should be taken to divert the flow of nutrient rich water from agricultural land away from fens, so that sites do not become damaged by a change in species composition
- carefully assess any proposals for arterial and field drainage near to fens so that the water table is not lowered to the extent that fens are affected

COASTAL

Issue: the entire coastline of this LCA lies within **Strangford Lough**, designated as an SPA, Ramsar, SAC and ASSI due to features of biodiversity conservation importance

Actions:

- protect coastal communities from sources of pollution and waste tipping, in addition to damaging activities such as land-fill and construction
- protect mudflats and mudflat communities such as lugworms, ragworms and amphipod shrimps, from potential impacts of nutrient enrichment, land claim, coastal defences, dredging and human disturbance
- ensure that NI Priority Species, rare plants and Red List Species are protected from factors such as new development, erosion, waste tipping and pollution

LOWLAND HILLS LCT Portaferry (93)

Geological Characteristics

Overview

This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged example of a 'drumlin swarm'.

The North Lecale Hills extend from Downpatrick, along the southern edge of Strangford Lough, to Portaferry on the Ards Peninsula, where they create a `gateway' at the mouth of Strangford Lough and provide a strong visual connection between Strangford and Portaferry. The hills form a highly visible undulating ridge that creates a setting for Downpatrick at one end and settings for both Portaferry and Strangford at the other. The hills rise to over 100m at Castlemahon Mountain and at Slieve Patrick. The coastline of Strangford Lough has been described by Orford (in Whalley et al. 1985) as a mixture of glaciomarine shelf sediments with a superimposed two unit drumlin cover, lying on a low undulating basement of Silurian greywacke and mudstones. Strangford Lough is tidal with a distinctive straight east coast and a highly irregular west coast morphology. The lough contains numerous drowned drumlin islands that have been removed completely from the eastern shore to leave remnant shoals or 'pladdies'. On the western shore the drumlin islands are largely retained and linked by limited shoreline deposition. The difference between the lough shores is because of the prevailing south-westerly waves that vigorously attack the eastern shore, whilst leaving the western shore largely untouched.

Solid Geology

This area predominantly comprises Lower Palaeozoic greywackes and shales with numerous minor igneous intrusions. 95% of the LCA comprises Lower Palaeozoic (Silurian) Hawick Group: the northern 10% of the LCA comprises Gala Group, the remainder being Tertiary intrusives.

The greywackes vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. They are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. The Hawick Group also have numerous NE-SW faults, breaking the stratigraphy into tracts. The NE -SW strike of the beds at outcrop is produced by faulting and belies the fact that minor folds occur within each fault tract. A fault-bounded sliver of Ordovician Moffat Shale occurs on the south-east of the LCA.

Drift Geology

The drift geology map for this LCA shows it to be predominantly underlain by Late Midlandian till associated with the large ice mass that was centred on the Lough Neagh Basin. This ice flowed south eastwards from an ice divide that lay approximately SW-NE along the line of the north Belfast Hills. Evidence for this flow direction is found in the orientation of the numerous drumlins that make up much of the landscape. However, within the LCA there are also significant outcrops of drift free bedrock that were scoured by the overriding ice. McCabe and Knight (in Knight 2002) have suggested that this area, and much of central Co. Down, was the site of an ice stream during the Drumlin Readvance that delivered a high sediment flux to the ice margin at areas such as the Lecale Coast to the south of this LCA. This may go some way to explain the partial drift cover in the region and the widespread occurrence of rock cored drumlins. Within Northern Ireland drumlins take a variety of forms; some are rounded in plan, although the majority are elongated in the direction of ice flow. Some have sharp crests, whereas others are more whaleback in profile. Although most drumlins are composed of glacial till or tills, a small number are 'drumlinoid features' and rock-cored and some are composed of sand and gravel. Where drumlins are rock cored there may have been significant frost shattering prior to their shaping by ice flow. It is possible therefore to see tails of shattered debris within till leading away from the feature in the direction of flow (Davies and Stephens 1978). It is generally accepted that the drumlins of Northern Ireland were formed by deposition beneath fast flowing ice. In the majority of cases this has resulted in a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. This pattern has been observed across Northern Ireland, apart from a limited area in the north of County Down, where Hill (1971) observed drumlins composed only of Lower Till. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

It can be argued that an equally important component of any 'drumlin landscape' are the similarly numerous inter-drumlin hollows. The majority of these hollows would have held open water from local runoff at the end of the Pleistocene. Whilst some continue to exist as isolated small loughs, many have now been infilled by sediment washing off the surrounding drumlins. This has created typically flat-bottomed, marshy areas between the drumlins that are subject to seasonal inundation. Much of the infilling probably occurred early in the Holocene, as the landscape adjusted to increasingly temperate conditions. However, erosion may also have been accelerated in historical times, when rural population densities were considerably higher and much of the lowland landscape of Northern Ireland was more intensively cultivated. Whatever the stimulus for erosion and deposition, the sediments within these hollows typically contain an important record of local environmental change.

LOWLAND HILLS LCT — Holywood (102)

Holywood Lowland Hills (LCA 102)

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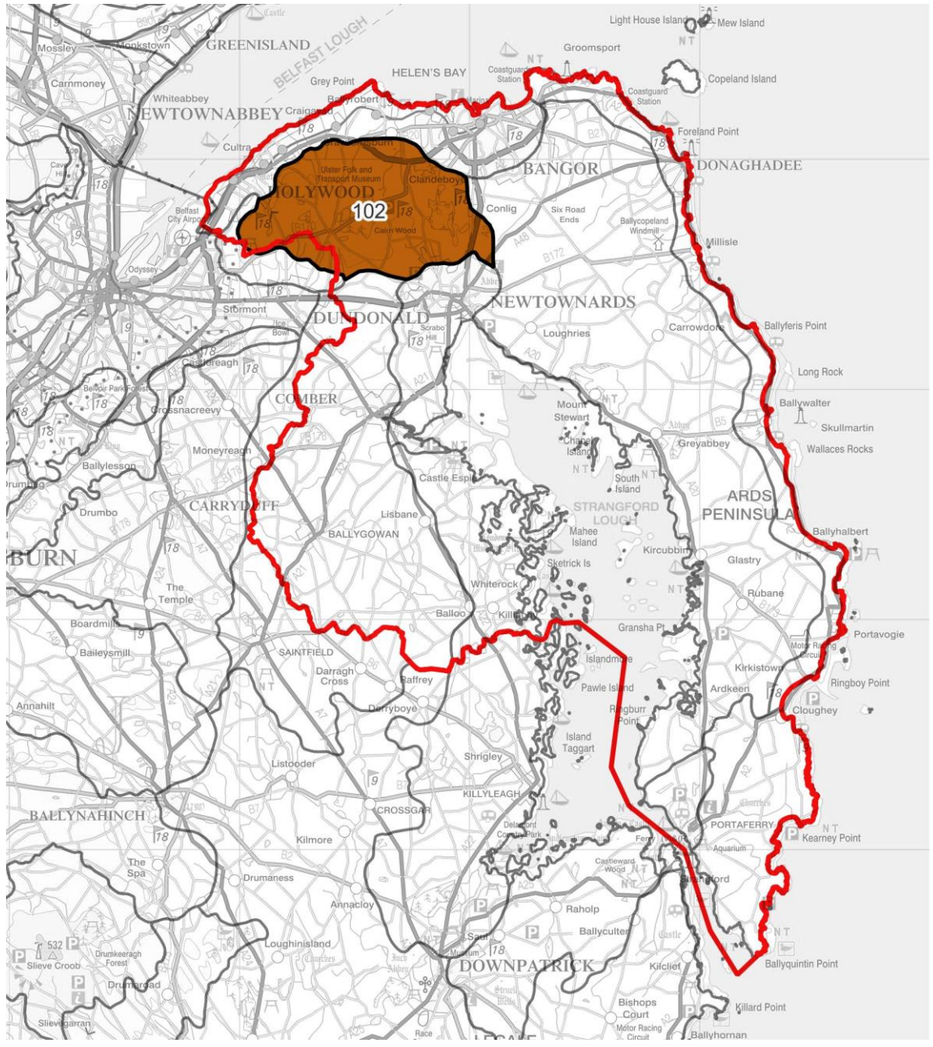


Settlements: No Main Settlements

Landscape Character

The Holywood Hills behind Newtownards, viewed from Scrabo Hill.

Location and Context

The ***Holywood Lowland Hills*** are a plateau of low hills located to the north of the Borough Council area overlooking Belfast Lough to the north, Belfast to the west, and providing views along Strangford Lough and the Ards Peninsula to the south. The area is the most elevated in the Borough Council.

Key Characteristics

- Hills rising to just over 200m, with steep, wooded escarpment slopes.
- Windswept summits with conifer plantations and gorse scrub.
- Reservoirs and sandstone quarries.
- Undulating pastures divided by hedgerows and shelterbelts with scattered farms and isolated houses.
- Historic estates contribute a strong woodland structure.
- Important recreational resource for surrounding settlements, providing landscape separation.
- Views over Belfast Lough to the north and Strangford Lough and Ards to the south.

LOWLAND HILLS LCT — Holywood (102)

Landscape Description

Landform

The Holywood Hills extend across the north west of the Ards and North Down Borough Council area, forming an area of undulating upland in the centre of a ring of settlement which includes Belfast, Holywood, Bangor, Newtownards and Dundonald. The landform rises steadily from the surrounding lowlands to its undulating plateau, but with higher and more pronounced rounded hills to the south above the steep Craigantlet escarpment. The highest point in the landscape area is 217m AOD at Cairngaver towards the south.

Landcover

The landscape is one of undulating improved pastures, small conifer plantations, deciduous shelterbelts, estate woodlands and small reservoirs. Woodland tends to be concentrated into larger area such as the large mixed woodlands of the Clandeboye Estate or Cairn Wood, with other parts of the landscape of an open pastoral character. Pastures are usually divided by low hedgerows, often devoid of trees. In higher areas these are often gappy and gorsey, in places replaced by wire fencing.

Settlement

The character area is fringed by the larger settlements on its lower slopes, with the enclosure formed by the character area contributing to their settings. There are no sizeable settlements within the character area itself other than the small settlement of Ballybarnes. Housing is however scattered along the minor roads which traverse much of the character area, including some newer housing at the outer edges to take advantage of elevated outward views. There are also some concentrations of housing, notably at Craigantlet where several roads meet. Farm houses and medium scaled farm buildings are regular features of the character area.

The main A21 passes through a low part of the character area providing a fast connection between Bangor and Newtownards, with the settlements separated by just over 1 mile.

Medium sized wind turbines (up to approximately 60m) are a feature of the landscape, while other vertical elements such as telegraph poles, masts and electricity transmission towers are also notable in more elevated areas. Sandstone quarrying is currently undertaken in the southern part of the character area, while the legacy of lead mining can be seen at Whitespots Country Park, including former workings, a chimney and windmill stump, in a landscape returned to nature.

Perception

While elevated, the landscape is of a lowland character, the undulating pastures having some commonality with the more lowland drumlin landscapes, albeit with a more exposed quality and a generally lower level of development. In some locations, with higher levels of housing and where busier roads meet there is a loss of tranquillity. Further south the more pronounced hills create a larger landscape scale. Outward views are largely only available from the higher points at the edge of the character area. To the south, from Cairngaver or Whitespots, almost the entirety of the Ards Peninsula, Strangford Lough and Scrabo Hill are seen in single view.

Landscape Condition and Forces for Change

Landscape Condition

The landscape has a good hedgerow and woodland network as well as a diverse range of vegetation cover from sheltered to exposed slopes. Some field boundaries are however degraded. The area includes estates and recreational areas which are actively managed. The area retains a strong rural character.

Forces for Change

Agriculture

Agricultural improvements or neglect may result in the loss of traditional field boundaries. There may be a trend for the construction of larger scales of agricultural buildings which may appear prominent in this relatively exposed part of the landscape.

Trees and Woodland

Depending upon economic conditions, changes to the viability of certain types of agriculture may result in parts of the landscape becoming more favourable for commercial forestry, resulting in changes to the predominantly pastoral and relatively open landscape.

Settlement and Development

The lower fringes of the character area may be subject to encroachment from neighbouring urban areas in the lowlands, leading to more developed lower slopes and a loss of distinction between the urban and rural landscapes. With the surrounding urban areas only a short distance from all parts of the character area, and with good road connections, pressure for rural housing development in the area is likely.

Minerals

Given the historical presence of minerals development in the area, it is possible that the area may be subject to pressure for similar developments in the future, with potentially adverse effects on landscape character and views if sited in more exposed parts of the landscape.

Tall Structures

The exposed nature of the landscape, and likely good wind resource, may result in further pressure for wind energy development. Higher parts of the landscape may be favourable for the siting of telecoms mast or transmission towers. Such development could adversely affect views to skylines and there is a risk of cumulative impacts.

LOWLAND HILLS LCT Holywood (102)

Tourism and Recreation

Close proximity to surrounding settlements makes the area an important recreational resource, and there may be ongoing demand for provision of facilities to accommodate recreational uses such as car parking, walking and cycle access.

Landscape Management and Planning Guidelines

Key Sensitivities

This rural area is sensitive to changes which may affect its character and function as an important wildlife haven and valuable recreational resource close to large urban areas. It is this proximity to large residential districts which renders it particularly sensitive to development or change. However, the undulating landform and woodland network provides opportunity to accommodate some development. The exposed summits and outer slopes are vulnerable to change as they are most visible from surrounding landscapes. The area includes various designations for natural and cultural heritage including ASSI, ASAI, and the registered park and garden at Clandeboye.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	Medium/ High
Rural Housing Development:	Medium/ High
Minerals:	Medium/ High
Tourism:	Medium

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- The integration of larger scales of agricultural building, particularly in more exposed parts of the landscape, should be aided with the inclusion of woodland planting.

Trees and Woodland

- Existing broadleaved and mixed woodlands should be maintained to ensure their viability into the future as important landscape features.
- There is some capacity for some further coniferous woodland planting in the landscape area. Species diversity, including the addition of broadleaved species, and good design to ensure landscape 'fit', would aid integration into the character area. However, plantation forestry should not be allowed to overwhelm open, pastoral landscape character.
- Woodland creation at the larger settlement edges on the lower slopes may help contain the urban areas and would contribute positively to their setting.

Settlement and Development

- Rural housing development in the area should be controlled to ensure that there is not a suburbanisation of the landscape. Further housing development should preferably be concentrated at existing settlements.
- Encroachment of housing development from nearby settlements, especially on more accessible ground on the edges of Bangor and Newtownards should be controlled. Rural housing development should be limited so that it does not proliferate on outer slopes overlooking settlements.
- An undeveloped buffer zone between Bangor and Newtownards should remain undeveloped, providing a rural resource and setting for the nearby settlements.

Minerals

- Minerals development on the exposed outer edges of the character area may be difficult to accommodate without adverse effects to views and to the settings of main settlements.
- Minerals developments should avoid disruption to the smoothly undulating landform of the character area.
- Substantial woodland planting may provide an effective mitigation for minerals development in this area.
- Due consideration should be given to the adverse effects of views to plant, equipment, gateways and other ancillary features associated with minerals development which can also exert an industrialising influence on landscape character.
- There is potential for the restoration of abandoned quarries and provision of access to provide opportunities for recreation and habitat creation.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high to medium' sensitivity to wind energy development.
- The mostly quite small landscape scale, its presence in views, and proximity to urban areas, allows only limited capacity for wind energy development.
- Wind turbines should not be sited so as to affect distinctive skylines and settings above Belfast Lough, Stormont and Newtownards and on open, windswept upper slopes. Care should be taken to avoid adverse impacts on key views to and from Scrabo and Strangford Lough and on the landscape interests and settings of natural, cultural and recreational features.
- Other tall structures, such as transmission towers, would be best accommodated if clustered on a limited number of hill tops, with the majority left free from development.
- The cumulative effects of masts, wooden poles, transmission towers, wind turbines and other tall features in views within and to the character area should be a key consideration in the siting of new development.

LOWLAND HILLS LCT Holywood (102)

Tourism and Recreation

- The provision of car parks, picnic facilities and marked footpaths will encourage recreational use of the landscape and its many features without detriment to landscape condition, provided they are designed to reflect the character and scale of the surrounding landscape.
- The impacts of car journeys to take advantage of recreation in the area could be limited to some extent by the provision of attractive facilities for walking/ cycling from main nearby urban areas, only a short distance away.

Biodiversity Profile

Key Characteristics

- undulating upland largely in agricultural use, principally improved pastures
- mixed broadleaved and coniferous forest occupy the central, higher parts
- extensive demesne woodlands occupy most of the northeast of the LCA

Key Sites

- ASSI: Whitespots, Craigantlet Woods
- SLNCI: Craigantlet Woods, Whitespots, Golden Glen, Cairngaver
- Historic Parks and Gardens: Cultura Manor, Clandeboye

Woodlands

Woodlands occupy over 16% of the LCA, which is a high percentage for Northern Ireland. However, much of this comprises estate woodland, including the Clandeboye Estate. The woodland within this estate features the largest area of broadleaved woodland in Northern Ireland, predominantly a broadleaf mixture with oak, birch, and beech. There are also areas of coniferous forest composed of Scots pine and Japanese larch and more scrubby woodland towards Conlig. This wooded estate has proved to be a valuable area for bird life; the Priority Species **tree sparrow, barn owl, yellowhammer** and **song thrush** have been recorded here. **Pipistrelle bat, red squirrel, marsh fritillary**, and **wall brown butterfly** have also been recorded as present on Clandeboye Estate. Portions of this estate have been designated as priority habitat and are also designated forestry areas. To the south of the estate is the broadleaved woodland of Whitespots ASSI (designated for its geological interest) and Country Park. In this area there have been signs of invasive Japanese knotweed; however funding has been recently announced for plans to enhance the visitor experience and protect existing biodiversity.

Golden Glen SLNCI has some demesne planting, but it is more significant for its semi-natural oak and hazel woodland. It is largely undisturbed and has a well-developed shrub layer and ground layer. A small section of Craigantlet Woods ASSI falls into this LCA but it is predominantly in LCA 104; a further small area of woodland east of the ASSI comprises Craigantlet Woods SLNCI.

Semi-natural scrub woodland is found at the priority woodland habitat Cairn Wood and is dominated by willow, alder, rowan, downy birch and ash. Broadleaved and mixed plantations also occur here along with conifer plantations in which priority species including **red squirrel** and **pine marten** have been recorded. Ballysallagh Forest is a managed woodland of broadleaved, mixed and conifer plantations, with most plantings undertaken around 1960. The core part is centred around Ballymenagh Reservoir and is mainly composed of Norway spruce and Scots pine**. Red squirrels** and **tufted duck** have been recorded here.

The estate woodland is largely managed well, with evidence of replanting and control of the understorey. However, the continued expansion of Bangor may pose a threat to marginal woodland areas.

Grassland and Arable

Grassland occupies over half of the LCA, the great majority in improved pastures. Arable land (including land prepared for rotational grass) accounts for a further fifth. These two land cover classes together occupy all but the central higher area (Cairn Wood) and the northeast (Clandeboye Estate). The biodiversity is generally low as a result of reseeded pastures and heavy use of slurry and inorganic fertilizers; the hedgerows that form most of the field boundaries provide habitats for farmland birds. Hedgerows are, in places, managed well, but there has been some field amalgamation. This area supports farm birds such as the **yellowhammer** and **lesser redpoll**, both NI priority species.

The surroundings of Whitespots ASSI are designated as an SLNCI, with a mosaic of dry heath and grassland communities of local importance - where they have not been damaged by tipping. The site is also of importance geologically and to the industrial archaeology of Northern Ireland (former lead mines). Similarly, Cairngaver SLNCI is a mixture of rough grassland and gorse scrub, uphill from a quarry site close to the summit.

Wetlands and Lakes

The lakes in this LCA are mainly man-made; they and the reservoirs are at least moderately phosphorus enriched, but of little conservation interest. There are no significant watercourses in the LCA.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: high woodland cover, mostly in estate woodland; the Clandeboye Estate has many NI Priority Species including **barn owl**, **pipistrelle bat** and **marsh fritillary**. Japanese knotweed has been recorded at the nearby Whitespots Country Park.

Actions:

- enhance the biodiversity value of demesne woodlands such as Clandeboye Estate and Golden Glen by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is retained
- encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species; removal of dense rhododendron and cherry laurel could increase the diversity of ground flora, especially where the canopy species are not beech
- further study of the history and biodiversity of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- enhance biodiversity through appropriate measures in agri-environment and forestry grants to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species; farmers and landowners could be encouraged to plant field corners or set-aside fields
- areas of scrub around old quarries should be left to develop; use as landfill sites should be prevented
- tackle invasive species that threaten biodiversity by carefully managing the removal of these plants to avoid spreading elsewhere

GRASSLAND AND ARABLE

Issue: improved pastures and intensively managed arable land are of relatively low biodiversity value

Actions:

- encourage (through participation in environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of relevant measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying with fertilisers, slurry, herbicides through a move to organic farming; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral land

WETLANDS AND LAKES

Issue: pollution of streams and lakes within the Holywood Hills LCA

Actions:

- promote and encourage adoption, and ensure compliance, of relevant guidelines and legislation so that pollution of rivers and lakes by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip is reduced; ensure that eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants

Geological Characteristics

Overview

The LCA extends across the western part of the former North Down Borough, forming an area of undulating upland in the centre of a ring of settlement that includes Belfast, Holywood, Bangor, Newtownards and Dundonald. The hills rise to 200m, with steep, wooded escarpment slopes. Proximity to a number of settlements makes the area an important recreational resource and its easy accessibility, rural identity and exposed character are important characteristics. The plateau drops steeply to Belfast/Lisburn to the south west, and to the Bangor coastline to the north.

Solid Geology

Predominantly Lower Palaeozoic greywacke sandstones and shales with minor igneous intrusions. A southern strip along the Dundonald Gap comprises Triassic Sherwood Sandstones, the remainder being Tertiary intrusives.

A NE - SW striking fault-bounded strip in the east of LCA102 brings the predominantly Moffat Shale Group to surface. The Gilnahirk Group is separated from the Gala - Moffat succession by the NE-SW Orlock Bridge Fault which continues east. The greywackes are of sandstone grade and vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. The greywackes are commonly quarried as a source of aggregate; they are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. Minor conglomerates and volcanic ash-beds (or bentonites) occur. Encroaches into Whitespots ASSI188 (continuation of Conlig Lead Mines).

Triassic sandstones comprise red, purple and brown cross-stratified sandstones, siltstones with minor clay beds and partings. The sandstones are usually soft and poorly-consolidated.

Whitespots is of geological interest on account of its mineralogy, including a range of commercially mined metallic ores. Minerals were deposited within a fault in the Silurian country rocks by hot, mineral-rich fluids. Minerals including galena, sphalerite, chalcopyrite, baryte, dolomite, calcite and chalcedony are present. This site is the only occurrence in Northern Ireland of the unusual barium zeolite, harmotone.

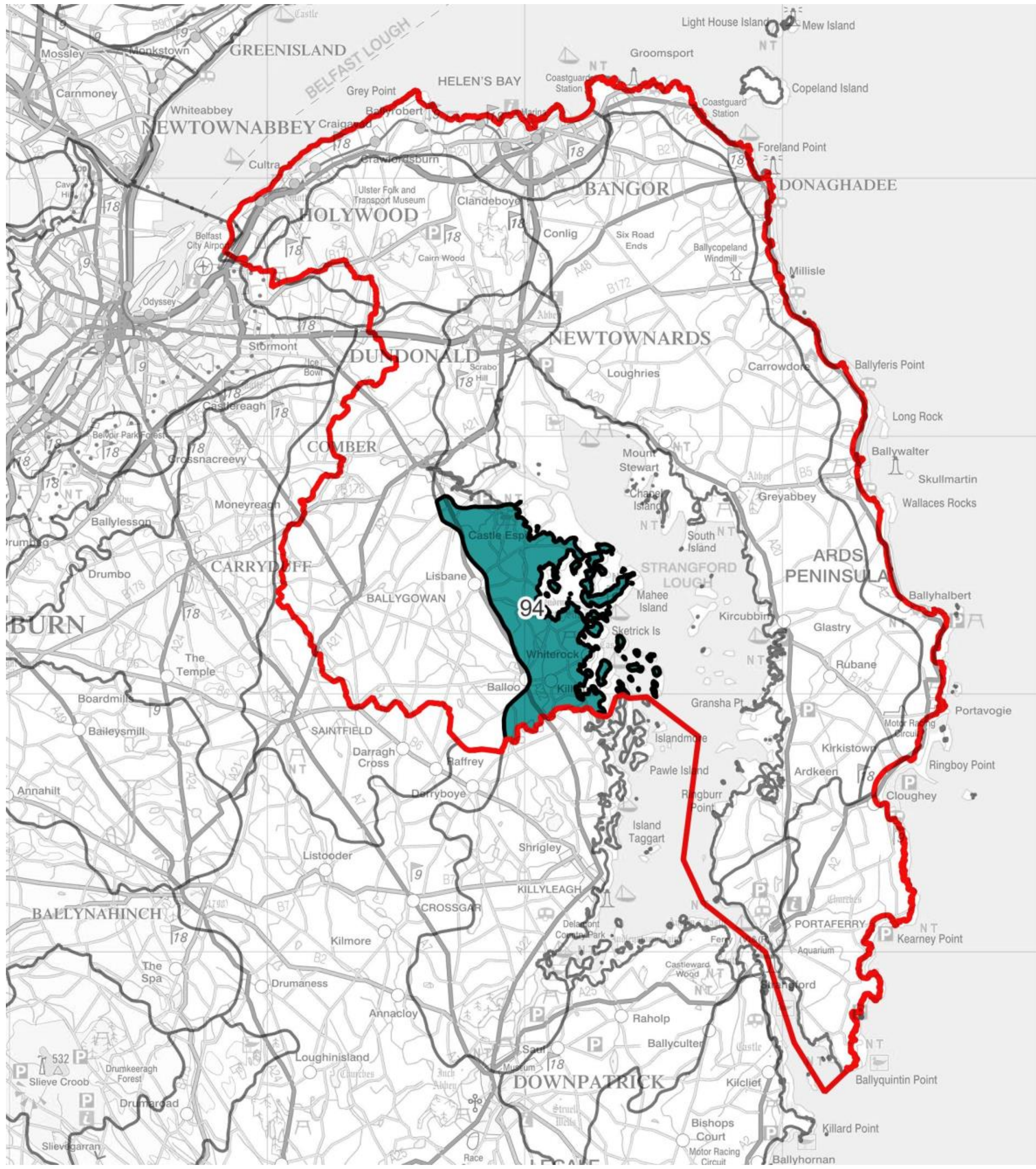
Drift Geology

Although there is a considerable area of drift free, ice scoured bedrock in the south of the LCA, the drift geology map for the area shows that most of it is underlain by Midlandian till. Topographically the till comprises an extensive suite of drumlins and inter-drumlin hollows (further information on drumlins and inter-drumlin hollows can be found in Appendix C).

DRUMLINS AND ISLANDS LCT Strangford (94)

Strangford Drumlins and Islands (LCA 94)

Return to LCA List



Settlements: Killinchy, Whiterock

Landscape Character

Strangford Drumlins and Islands seen from Mahee Island.

Location and Context

The ***Strangford Drumlins and Islands*** are at the eastern edge of the extensive drumlin field which descends from the high ground to the south east of Belfast, falling gradually towards, and becoming submerged by, the waters of Strangford Lough.

Key Characteristics

- Scenic landscape of drumlin pastures, wooded estates and islands leading to the shores of Strangford Lough.
- Stands of beech and pine.
- Stone bridges and causeways cross water and link islands.
- Dense network of winding roads.
- Castles, mottes, chambered graves and other archaeological sites.
- Views across the Lough with its numerous islands and inlets.

DRUMLINS AND ISLANDS LCT — Strangford (94)

Landscape Description

Landform

This waterside landscape of drumlins, islands and inlets, occupies the western shores of Strangford Lough. The influence of glacial action has produced a complex, convoluted coastline of sunken drumlins which is a haven for wildlife and provides a variety of landscape experiences, including long sweeping views, colourful quays, isolated islands and tranquil inlets. The drumlins form a dense pattern and are relatively high and steep, contributing to a small landscape scale. The Blackwater, one of the more distinct watercourses in the Borough Council area, enters Strangford Lough at Ardmillan.

Landcover

Inland, drumlin farmland with a robust network of hedges and occasional stone walls predominates. The hollows between the drumlins contain marshy pasture. There is patchy woodland cover, with small wooded estates contributing to the wooded character of the area. Towards the shores of Strangford Lough, the pattern is reversed with water dominating and the drowned drumlins rising out of the water as small round islands. Sheep grazing dominates, however there is also a significant proportion of arable farmland. Stone walls and stands of pine and beech are familiar features which enhance the experience of the undulating farmland and water's edge.

Settlement and Development

The isolated drumlin islands were favoured sites for churches, castles and chambered graves. The Nendrum Monastic Site at Mahee Island, including the oldest tide mill in Europe, is a particularly notable example, and easily accessed.

Inland, white-finished houses, some large and complex in form, stand out as features in the landscape. Some larger new houses, of varying design, have been sited to take advantage of the scenic landscape qualities. Whiterock is the largest coastal settlement, while a short distance inland is Killinchy, both of which are relatively modern in character, taking advantage of the good connections to Belfast via the nearby A22.

Leisure boating is accommodated at Whiterock, Sketrick Island and Cadew Point, but its scale is in keeping with that of the landscape, adding some animation and interest to parts of the coast.

Numerous small roads wind around and across the drumlins, linking small farms and coastal settlements. However, the main A22 cuts directly SE/SW across the landscape, traversing and cutting through drumlins, rather than winding around them.

Perception

The numerous small island and embayments create a disorientating, complex and interesting coastline which is highly scenic and tranquil in character. Inland the steep drumlins and areas of woodland create an intimate, enclosed character and Strangford Lough tends only to be perceived when close to the shoreline.

Landscape Condition and Forces for Change

Landscape Condition

The landscape is in good condition with well-structured farmland with further interest provided by its various historical sites, natural heritage interest and coastal location. In general the strongly rural character of the landscape is intact, although under pressure from the influence of rural housing development in some locations.

Forces for Change

Agriculture

There is a robust, consistent character to the farming landscape, but which would be susceptible to the loss of traditional features such as hedgerows, field boundary trees or stone walling as a result of field enlargements or other agricultural improvements. Because of the good quality farmland there may be pressure for larger scales of agricultural building which may be difficult to accommodate within the steeply undulating and relatively small scale landscape.

Trees and Woodland

Mature trees and woodlands contribute greatly to the landscape character, fringing the lough shore, topping drumlins and islands, and assist with integrating development into the countryside. Stands of Scots pines around older properties are a feature of the landscape. Ongoing development, changing farming practices or neglect may result in the loss of these important landscape features.

Settlement and Development

Good transport connections to Belfast, and the attractive qualities of the coastal landscape, mean that the area is subject to some pressure for housing development. There is the potential for the rural character of the landscape, and the special qualities of its coastline, to be undermined by inappropriate rural housing development and the expansion of settlements.

Minerals

There is no record of larger scales of minerals development in the landscape and no evidence to suggest this may be a force for change into the future.

Tall Structures

There is a very low level of existing and consented wind energy development within the LCA, but there may be ongoing pressure for small domestic or farm scale schemes.

DRUMLINS AND ISLANDS LCT Strangford (94)

Tourism and Recreation

The area has interest for tourism and recreation relating to waterborne activities, and appreciation of the natural and cultural heritage interest in the area. There is the potential for future development to affect the small scale, intimate character of the landscape if not appropriately sited and designed, especially if affecting the coast.

Climate Change and Coastal Erosion

Rising sea levels have the potential to affect coastal farmland, trees and woodland and coastal developments. This may include changes to the water table and increasing salinity. The general forces for landscape change relating to climate change and coastal erosion set out in Section 5.3, should also be referred to.

Landscape Management and Planning Guidelines

Key Sensitivities

This landscape is particularly vulnerable to changes which may have an impact on its small scale and tranquil character. Strangford Lough is the largest sea loughs in the UK and its inter-tidal mudflats are recognised for their nature conservation and earth science value by their designation as an ASSI, SAC and SPA. Strangford Lough was designated as Northern Ireland's first Marine Conservation Zone (MCZ), replacing the earlier Marine Nature Reserve designation. Almost the whole of the LCA falls within the Strangford and Lecale AONB.

The various historical sites and their settings are also highly sensitive parts of the landscape. The Department for Communities, Historic Environment Division, has recommended the Nendrum monastic site for designation as an Area of Special Archaeological Interest (ASAI) through the LDP process and have prepared a Statement of Significance to justify their recommendation. It would be the Borough's first ASAI, reflecting the importance of the wider landscape setting to the heritage features which include Scheduled Monument designation.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	Medium/ High
Minerals:	High
Tourism:	Medium/ High

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- Where they occur, stone walls should be maintained so as to continue contributing to the robust landscape pattern and to conserve these traditional rural features.
- Selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).
- The siting of new agricultural buildings on prominent drumlin tops should be avoided and consideration should be given to their scale and design so as to promote their integration with the landscape. Their effect on views from coastline and accessible offshore islands should be considered.

Trees and Woodland

- Small copses, woodlands and clumps of native trees around farms and houses should be retained and enhanced to maintain landscape structure and integrate development into the landscape.
- Stands of beech and Scots pine are features of the landscape which should be retained and their replacement planned for, ideally with these same species. Non-native coniferous plantings should be avoided.

Settlement and Development

- The coast is sensitive and housing development should be limited so as to appear infrequent in views to or along the coast.
- Inland, the undulating landform can accommodate a low degree of rural housing development if appropriately sited to take advantage of hollows in the landscape and enclosure by trees, but in general development should be concentrated at existing settlements and clusters of development rather than being allowed to extend along roads.
- Single housing development can be better accommodated in the landscape when utilising traditional materials such as pale harling, exposed stone and slate roofing, even when of modern design. Urban and suburban styles of housing designs or those incorporating non-traditional materials such as brick can undermine rural landscape character.
- The planting of native trees within gardens and the avoidance of prominent 'suburban' garden fences, rockeries and walls will also help to integrate buildings within this farmland landscape, retaining the distinction between rural and urban areas.
- The settings of historical features should be conserved, and their appreciation enhanced by providing views and access to monuments.

Minerals

- The small scale and sensitive its coastal context of the eastern part of the LCA would be very sensitive to intrusion from larger scales of mineral development. The western fringe of the LCA is of lower sensitivity, albeit such development would still likely have an industrialising influence on the AONB landscape.

DRUMLINS AND ISLANDS LCT Strangford (94)

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- Occasional turbines could be accommodated if small scaled, well separated, and associated with farms and houses at inland locations, with western part of the LCA of lower sensitivity than the east.
- Wind turbines should not be sited so as to affect the more intimate enclosed bays, islands and important drumlin skylines.

Tourism and Recreation

- Tourism and recreation related development should remain relatively small scale, in keeping with the character of the landscape, for example limited interventions to accommodate activities such as walking, cycling, kayaking and appreciation of local natural and cultural heritage.
- Pockets of marine leisure development can be accommodated if of a relatively small scale in keeping with that of the landscape and seascape. The cumulative impact of infrastructure such as slipways, jetties and boathouses should be considered.
- Holiday accommodation such as caravan parks or chalet developments could adversely affect the small scale and intimate quality of the coastal landscape. Any such development would be best accommodated if closely associated with larger coastal settlements rather than affecting more rural stretches of the coast, or sited in the more enclosed parts of the coast.
- Small, rough surfaced car parks would be preferable to more engineered designs incorporating sealed surfaces, concrete kerbs and marked bays. Local materials and features such as stone walls, gorse, Scots pine and beech could be used to construct and integrate any new development into the landscape.

Climate Change and Coastal Erosion

- Maintaining the integrity of natural coastal systems, such as salt marsh, may assist in mitigating the effects of any future coastal flooding.
- Limiting the amount of further coastal development will have benefits to landscape character and help mitigate against the possible effects of coastal erosion and flooding.

Biodiversity Profile

Key Characteristics

- In total, 28% of the LCA is within the council area
- To the south and west of Strangford Lough, the landscape is dominated by high drumlins
- Inter-drumlin hollows are occupied by loughs, marshy pastures and wet woodland
- The convoluted coastline is an intricate mix of inlets, drowned drumlins and rocky islets or pladdies which are a haven for wildlife
- Many small wooded estates help create an impression of a woodland landscape

Key Sites

- SPA/ Ramsar: Strangford Lough
- Ramsar: Strangford Lough
- SAC: Strangford Lough
- ASSI: Strangford Lough Part 3, Heron and Carrigullian Loughs
- SLNCI: Castle Espie

Woodlands

Just over 6% of the LCA that occurs within the bounds of Ards and North Down is occupied by trees and woodland. Larger areas of woodland are found mainly to the south of the bounds of Ards and North down and are associated with demesnes. Within Ards and North Down, wooded areas are typically small broadleaved patches in between agriculture with a few mixed broadleaved and conifer plantings, especially around Castle Espie and Mahee Island. There are additionally a few small patches of priority woodland scattered around the LCA, with concentrations around the Heron and Carrigullian Loughs ASSI.

On the whole, semi-natural broadleaved woodland is rare. **Wet woodlands** are scattered in occurrence and often found colonising former fen or marshy areas. For example, around the Heron and Carrigullian Loughs, dominated by alder and grey willow and elsewhere, the fens of inter-drumlin hollows are frequently fringed with these tree species. There are few conifer woodlands in this LCA.

Grassland and Arable

Pasture is the dominant land cover in the Strangford Drumlins and Islands LCA, accounting for over two-thirds of the area. The majority is improved pasture, but most is inter-mixed with arable fields, which are more concentrated within Ards and North Down and often produce vegetable crops. These arable lands contain priority bird species such as the **yellowhammer** and **bullfinch**.

More continuous grassland is concentrated between Ballygoskin and Whiterock. In this area, much of the grassland is of poorer agricultural quality, either because it is on thin, rocky soils or in damp, low-lying land. However, these grasslands are more diverse in plant species than the dominant, more improved pastures. Semi-natural grasslands are rare.

Heaths and Bogs

There are only a few patches of priority peatland habitat left, including patches in the far north of the LCA and around Ballymartin Lough. In the past there were some small inter-drumlin bogs in the LCA, but today, as a result of past cutting, only very small patches remain. Almost all the former bog sites are now in carr (**wet woodland**) or have been reclaimed for agriculture.

Wetlands and Lakes

Castle Espie Wetland Centre is managed by the Wildfowl and Wetland Trust and comprises 24ha of the shoreline of Strangford Lough. This site is internationally recognised as an example of best

DRUMLINS AND ISLANDS LCT Strangford (94)

practice in habitat restoration, in addition to being designated as an SLNCI. This site supports high numbers of migratory birds including almost the entire Nearctic population of **pale-bellied brent geese** – in addition to harbouring other key species including kingfisher, **otter**, and rare species of wildflowers and moths including the **buff ermine, garden tiger** and **mottled rustic**.

One example of a **mesotrophic lake**, an increasingly rare type of lake that has potentially the highest macrophyte diversity of any lake type, is found at Ballymartin Lough. **Marl lakes** have a high base status, a specialised flora and are generally rare in Northern Ireland, with most being located in Fermanagh. Heron Lough is an example of a **marl lake** in the east of Northern Ireland, and is within the Heron and Carrigullian Loughs ASSI which sits on the council boundary. The ASSI is a large area of semi-natural habitat containing woodland, peatland and **fens** priority habitats with a transitional mix of open water, swamp, fen, wet grassland and woodland. The site supports an excellent range of aquatic water beetles, the second highest number of species recorded for a single site in Northern Ireland, and other notable species.

Although there are a few small inter-drumlin fens and marshes throughout the LCA, their occurrence is concentrated in the area south of Ards and North Down, where they are a priority habitat. The most extensive area of wetland communities in the LCA lies in and around the Quoile Pondage ASSI and NR, outwith Ards and North Down.

There are few rivers of note in the LCA.

Coastal

The seaward boundary of the LCA is not a clear one because of the convoluted coastline with its many inlets, bays and islands. These form an important part of the LCA, through their contribution to the landscape and to the biodiversity. Sheltered inlets and bays, such as Ardmillan Bay, tend to have muddy shores, often with a fringe of **coastal saltmarsh**, a rare community in Northern Ireland, on their landward edge. Mud snails, which graze on microscopic algae and bacteria on the surface of the mudflats, are eaten by shelduck and other waterfowl. Lugworms, ragworms, catworms, tellin shells and burrowing amphipod 'shrimps' live within the sediment. These organisms exist in enormous numbers and form an important part of the diet of the 45,000 wading birds that winter on Strangford Lough. Strangford Lough was designated as Northern Ireland's first Marine Nature Reserve, and is now designated as an SPA, SAC and ASSI for its marine and intertidal habitats, breeding and wintering bird populations and common seal populations. The diversity of some mudflats and bays in the LCA, for example Ardmillan Bay and Ringneill Bay, are threatened by the growth of Spartina; an invasive species that forms an almost pure community and has low biodiversity.

The sheltered waters, rocks and islands attract seabirds, particularly terns, **black-headed gulls**, black guillemots and eider duck all of which breed and feed within and close to the Lough.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: low woodland cover of variable biodiversity value, but includes the NI Priority Habitat **wet woodland** at Heron and Carrigullian Loughs ASSI.

Actions:

- enhance the biodiversity value of demesne woodlands by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is not cleared
- enhance biodiversity through appropriate measures in agri-environment and forestry schemes to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species
- encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species
- further study of the history and ecology of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- ensure conservation of wet woodlands by allowing succession to take place and installing fencing to prevent trampling; ensure that loss does not occur through drainage, reclamation, landfill or dumping/tipping

GRASSLAND AND ARABLE

Issue: improved pastures and arable land of low biodiversity value

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland maintain and enhance damp grassland by where possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of appropriate measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying
- with fertilisers, slurry, herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

HEATHS AND BOGS

Issue: once existent inter-drumlin bogs have been lost to cutting, with only very limited patches remaining today

Actions:

- following the release of the Northern Ireland Peatland Strategy 2021 – 2040 support strategic efforts including the conservation of existing peatlands, restoration of degraded areas and supporting sustainable peatland management
- maintain the integrity of those small remaining inter-drumlin bogs by for example, preventing infilling, fly-tipping, fires, new drainage and mechanised peat cutting - applies particularly to intact bogs but cut-over bogs can provide important habitats for birds and invertebrates
- consider restoration of bog habitats through appropriate water level management, removal of individual colonising trees and phasing out peat cutting - applies particularly to formerly intact bogs affected by recent mechanical cutting
- monitor use of cut-over bogs to ensure that important micro-habitats are not lost, that the large tracts of land required by predator birds are not broken up by planting and other uses, and that the needs of over-wintering and breeding wetland birds are met

WETLANDS AND LAKES

Issue: the NI Priority Habitats **fens**, **mesotrophic lakes** and **marl lakes**, are threatened by nutrient enrichment

Actions:

- promote and ensure compliance with relevant guidelines and legislation so that fens and lakes are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip; ensure that further eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants
- prevent further loss of fens through drainage, reclamation, land-fill, new woodland planting and encroachment by scrub woodland; prevent dumping and fly-tipping and encourage removal of rubbish; care should be taken to divert the flow of nutrient rich water from agricultural land away from fens, so that sites do not become damaged by a change in species composition
- carefully assess any proposals for arterial and field drainage near to fens so that the water table is not lowered to the extent that fens are affected
- monitor effects of recreation, including fishing, on shoreline communities (reedbeds, fens etc.)

COASTAL

Issue: mudflats in this LCA are often fringed with the NI Priority Habitat **coastal saltmarsh**; inlets such as Ardmillan Bay and Ringneill Bay are threatened by the growth of Spartina, which has low biodiversity

Actions:

- protect rare **coastal saltmarsh** communities from sources of pollution and waste tipping, in addition to damaging activities such as land-fill and construction
- protect mudflats from potential impacts of nutrient enrichment, land claim, coastal defences, dredging and human disturbance
- ensure that NI Priority Species, rare plants and Red List Species are protected from factors such as new development, erosion, waste tipping and pollution
- monitor the spread of the invasive alien plant Spartina angelica, including in Ardmillan Bay and Ringneill Bay, and its impact on local biodiversity, to facilitate population control and conservation management
- monitor the effects of recreation in Strangford Lough, including boating and fishing, on those rocks and islands which attract breeding seabirds

Geological Characteristics

Overview

This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged example of a 'drumlin swarm'.

The Strangford Drumlins and Islands provide a waterside landscape of drumlins and loughs, islands and inlets that occupies the southern and western shores of Strangford Lough. The drumlins form a dense pattern and many of the hills are unusually high. Inland, drumlin farmland with a robust network of stone walls predominates. The hollows between the drumlins contain marshy pasture or loughs, which often have well wooded margins. Towards the shores of Strangford Lough, the pattern is reversed, with water dominating and the drowned drumlins rising out of the water as small round islands. Orford (in Whalley et al. 1985) has described the coastal lowlands around Strangford Lough as a mixture of glaciomarine shelf sediments with a superimposed two-unit drumlin cover, lying on a low undulating basement of Silurian greywacke and mudstones. Strangford Lough is tidal with a distinctive straight east coast and a highly irregular west coast morphology. The lough contains numerous drowned drumlin islands that have been removed completely from the eastern shore to leave remnant shoals or 'pladdies'. On the western shore the drumlin islands are largely retained and linked by limited shoreline deposition. The difference between the lough shores is because of prevailing south-westerly waves that vigorously attack the eastern shore, whilst leaving the western shore largely untouched. There are extensive intertidal mud and sand flats in the north of the lough that act as sinks for most of the sediment derived from the erosion of the east coast. Sites such as those at Rough Island (LCA 101) and Ringneill Quay have been important in documenting post-glacial sea level fluctuations. In particular, McCabe and Knight (in Knight 2002) have observed that at the head of Strangford Lough there are well defined late- and post-glacial wave-cut terraces at around 20m O.D.

Solid Geology

Predominantly Lower Palaeozoic greywackes (sandstones) and shales with numerous minor igneous intrusions. North-eastern tip covers the Carboniferous Castle Espie succession. Over 95% of the LCA comprises Lower Palaeozoic (predominantly Ordovician Gala Group) greywacke

sandstones and shales, the remainder being Carboniferous and Tertiary intrusives. The greywackes are commonly quarried as a source of aggregate; they are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. Minor conglomerates and volcanic ash-beds (or bentonites) occur.

The northern end of LCA 94 encroaches onto Carboniferous rocks. These comprise the fossiliferous limestones and thin shales of the Castle Espie Group. This is a unique location for rocks of this age and lithology, the only equivalent in the north of Ireland being the Blackwater Limestone Formation in the south of Northern Ireland. ESCR Site 250.

Drift Geology

The drift geology map for this LCA shows it to be predominantly underlain by Late Midlandian till associated with the large ice mass that was centred on the Lough Neagh Basin. This ice flowed south eastwards from an ice divide that lay approximately SW-NE along the line of the north Belfast Hills. Evidence for this flow direction is found in the orientation of the numerous drumlins that make up much of the landscape. However, in the north and south of the LCA there are also significant outcrops of drift free bedrock that were scoured by the overriding ice. McCabe and Knight (in Knight 2002) have suggested that this area, and much of central Co. Down, was the site of an ice stream during the Drumlin Readvance that delivered a high sediment flux to the ice margin at areas such as the Lecale Coast to the southeast. This may go some way to explain the partial drift cover in the region and the widespread occurrence of rock cored drumlins. Within Northern Ireland drumlins take a variety of forms; some are rounded in plan, although the majority are elongated in the direction of ice flow. Some have sharp crests, whereas others are more whaleback in profile. Although most drumlins are composed of glacial till or tills, a small number are 'drumlinoid features' and rock-cored and some are composed of sand and gravel. Where drumlins are rock cored there may have been significant frost shattering prior to their shaping by ice flow. It is possible therefore to see tails of shattered debris within till leading away from the feature in the direction of flow (Davies and Stephens 1978). It is generally accepted that the drumlins of Northern Ireland were formed by deposition beneath fast flowing ice. In the majority of cases this has resulted in a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. This pattern has been observed across Northern Ireland, apart from a limited area in the north of County Down, where Hill (1971) observed drumlins composed only of Lower Till. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

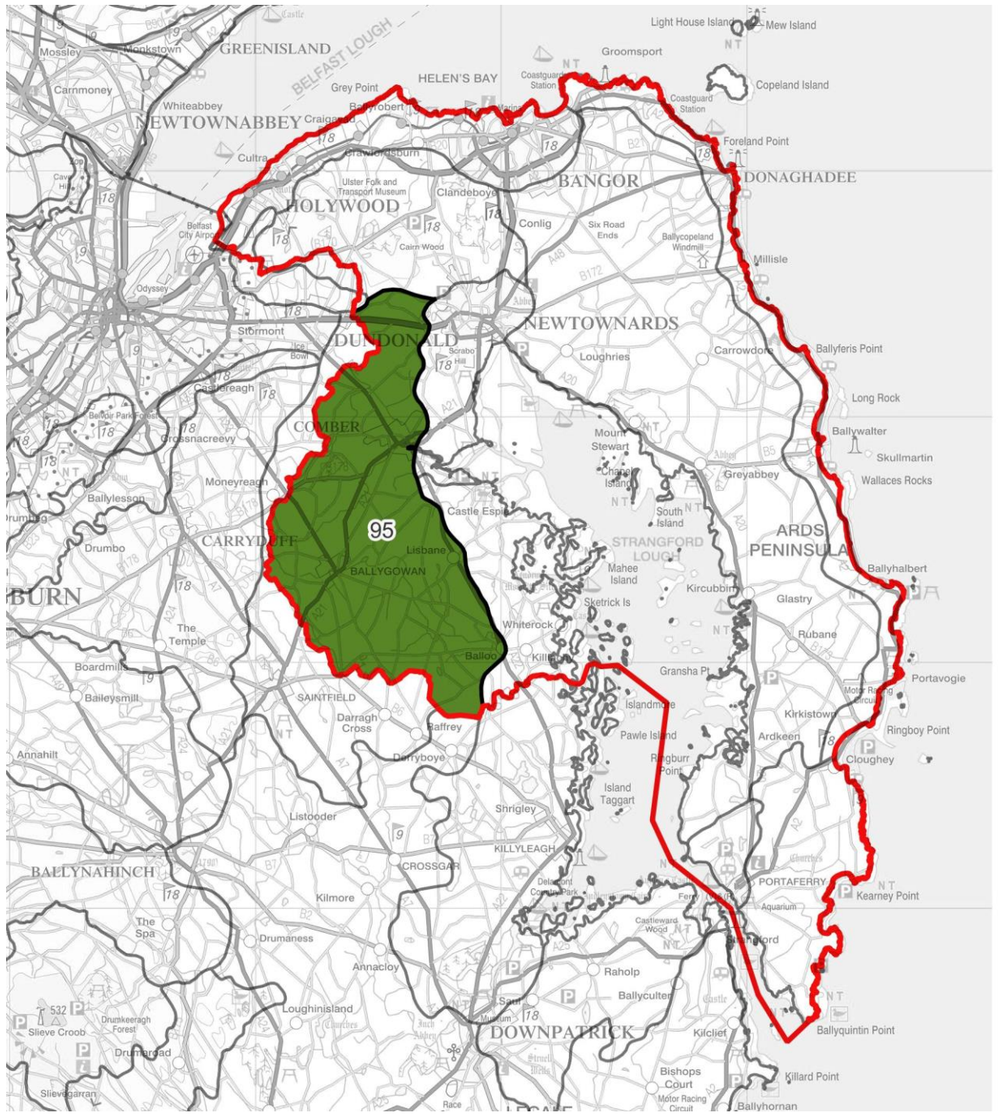
It can be argued that an equally important component of any 'drumlin landscape' are the similarly numerous inter-drumlin hollows. The majority of these hollows would have held open water from local runoff at the end of the Pleistocene. Whilst some continue to exist as isolated small loughs, many have now been infilled by sediment washing off the surrounding drumlins. This has created typically flat-bottomed, marshy areas between the drumlins that are subject to seasonal inundation. Much of the infilling probably occurred early in the Holocene, as the landscape adjusted to increasingly temperate conditions. However, erosion may also have been accelerated in historical times, when rural population densities were considerably higher and much of the lowland landscape of Northern Ireland was more intensively cultivated. Whatever the stimulus for erosion and deposition, the sediments within these hollows typically contain an important record of local environmental change.

The post-glacial inundation of the coastal drumlins along the western shore of Strangford Lough is particularly well illustrated in the south of the LCA along the Quoile estuary. This was filled with estuarine clays that accumulated to a height some 3m above present-day mean sea level. The record of sea level change is demonstrated by the depositional sequence at Woodgrange ASSI in LCA 91.

LOWLAND DRUMLIN FARMLAND LCT *Ballygowan (95)*

Ballygowan Lowland Drumlin Farmland (LCA 95)

Return to LCA List



Settlements: Ballygowan, Comber, Baloo, Lisbane

Landscape Character

The characteristic undulating drumlin pastures of the Ballygowan Lowland Drumlin Farmland.

Location and Context

The ***Ballygowan Lowland Drumlin Farmland*** is an inland pastoral landscape of drumlin pastures falling gradually from the higher ground of the Castlereagh escarpment to the west towards Strangford Lough to the east.

Key Characteristics

- Smooth, rolling landform.
- Drumlins support pasture with some arable fields.
- Marshy patches occupy low areas between drumlins.
- Streams and rivers wind between drumlins to the sea.
- Farms are densely scattered across rounded hills.
- Rich in historic and archaeological sites.

LOWLAND DRUMLIN FARMLAND LCT — Ballygowan (95)

Landscape Description

Landform

The Ballygowan Lowland Drumlin Farmland area is underlain by ancient Silurian rocks which have been covered by glacial deposits. The smooth, rolling drumlin landforms create a dynamic landscape pattern and the eye is constantly drawn to landmarks, such as prominent houses and hilltop features. Ground levels fall very gradually from the higher plateau east of Belfast towards Strangford Lough. In more low-lying areas, the drumlins exhibit a relatively waterlogged character, with a network of small watercourses within the inter-drumlin hollows.

Towards the north the area is bisected by the shallow valley of the Enler River, also carrying the major A22 road between Belfast and Comber, which has a more gently undulating and open landform, distinct from the more enclosed drumlin fields to the north and south.

Landcover

This is an undulating drumlin farmland landscape of pasture and arable fields divided by low, trimmed hedgerows or wire fences with occasional hedgerow trees, usually ash. The micro climate created by the shelter of the Mournes and the protection from frost provided by Strangford Lough allows the growing of 'Comber Early' potatoes, which have Protected Geographical Indication (PGI) status. Woodland cover is not substantial, limited to small clumps around farms and properties, and within inter-drumlin hollows, but which combine to provide the impression of a relatively well treed landscape. Loughs, including damp woodland, are found within lowland hollows between drumlins, providing an organic landscape element within a relatively regular landscape pattern. These marshy patches make a valuable contribution to the diversity of the landscape.

The Enler Valley has larger lush pastures and arable fields in comparison to most of the wider character area, with the watercourse inconspicuous within a narrow wooded corridor.

Settlement

The character area includes significant development, including the larger settlements of Ballygowan, Comber, Lisbane, and several others which are smaller. Housing in the countryside is common and from higher points it is usual to see housing along with frequent farm buildings. Houses are distributed along the many minor roads which traverse the character area, in places clustered to create informal settlements.

Large farmhouses of complex architectural form, with extensions and outbuildings, are scattered across the farmland. More traditional farm buildings, white painted with bright coloured doors and window frames, are occasionally visible.

Several A roads traverse the character area including the A21, A22 and A23, providing fast connections with Belfast from the main settlements. The former railway line linking Comber to Belfast is now in use as the Comber Greenway, providing a tranquil green corridor through the Enler Valley.

Some more industrial influences are present in the landscape, such as quarrying and wind energy development, but neither of which have a strong influence on landscape character.

Perception

The landscape is perceived as landscape of relatively uniform farmland, with its wider character revealed from higher or more open points in the landscape or along river corridors, but with views often curtailed by drumlins, hedgerows and woodland. In some locations higher densities of housing in the countryside tend to undermine the rural landscape character.

Landscape Condition and Forces for Change

The landscape condition is variable, in places degraded through the loss of traditional field boundaries or the presence of scrubby derelict pastures, while elsewhere farmland is apparently of better quality. The pressure for built development has resulted in a dense pattern of housing with a diverse mixture of building styles. In places the landscape resembles a 'rural suburbia' because of the frequent houses, including concrete road kerbing and roadside front gardens.

Forces for Change

Agriculture

There may be ongoing pressures for agricultural improvements which would result in the neglect or loss of traditional field boundaries. There may be ongoing pressure for the construction of larger scales of agricultural building which appear prominent on drumlin tops or within smaller scaled parts of the landscape. Some more marginal pastures may become derelict, adding a degraded quality to the landscape.

In parts of the landscape with higher densities of housing development, or close to settlements, other land uses, in particular equiculture, may change traditional rural characteristics.

Trees and Woodland

Hedgerows and roadside trees, small woodlands and tree clumps sheltering farms and houses, contribute to the structure of the landscape. Losses from tree disease, new development or agricultural practices are a possibility.

Settlement and Development

Good transport connections to major urban centres including Belfast mean that rural landscape character is under pressure at settlement edges and in locations where there is demand for rural housing development. This pressure is likely to continue into the future.

Minerals

There is a sandstone quarry to the north of the character area at Ballystockart. With the wider character area of similar underlying geology there is the possibility of expansion, or new minerals developments elsewhere in the character area.

LOWLAND DRUMLIN FARMLAND LCT Ballygowan (95)

Tall Structures

There is a low level of existing and consented wind energy development within the LCA, but there may be ongoing pressure for small domestic or farm scale schemes.

Tourism and Recreation

The eastern fringes of the character area fall within the boundary of the Strangford and Lecale AONB, however the character area is separate from the core of the AONB and its visitor attractions. Future pressure for facilities to accommodate tourism and recreation which may have an impact on landscape character appear limited.

Landscape Management and Planning Guidelines

Key Sensitivities

The AONB implies a somewhat higher sensitivity towards the eastern fringe of the LCA, but otherwise there are few parts of the LCA affected by landscape, natural heritage or cultural heritage related designation. The Enler Valley is an attractive part of the landscape, covered in part by a Local Landscape Policy Area (LLPA) north of Comber within the extant Ards and Down Area Plan 2015, which can be appreciated via the Comber Greenway. The character of the Greenway setting, and its views towards landmarks such as Scrabo Tower, should be protected. Elsewhere local river valleys, meadows, loughs and damp woodlands are valuable parts of this drumlin landscape.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	Medium/ High
Rural Housing Development:	Medium
Minerals:	Medium
Tourism:	Low

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- Selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).
- The siting of new agricultural buildings on prominent drumlin tops should be avoided and consideration should be given to their scale and design so as to promote their integration with the landscape.
- Incentives for the management of more marginal land for biodiversity, or woodland creation, may be preferable to allowing farmland to become derelict and may contribute to landscape structure.
- The establishment of buffer zones along the margins of river valleys will help to minimise the impact of pesticide runoff from adjacent fields and to conserve the scenic and ecological value of the valley floor landscapes.

Trees and Woodland

- Small copses, woodlands and clumps of native trees around farms and houses should be retained and enhanced to maintain landscape structure and integrate development into the landscape.
- Wet woodlands at lough fringes are important habitats which should be protected from browsing, drainage or other agricultural improvement.

Settlement and Development

- The undulating landform can accommodate a level of rural housing development if appropriately sited to take advantage of hollows in the landscape and enclosure by trees, but in general development should be concentrated at existing settlements and clusters of development rather than being allowed to extend along roads.
- The more open parts of the landscape, in particular the Enler Valley, have a lower capacity for development. Housing development here should not be allowed to adversely affect the setting to the Comber Greenway.
- Single housing development can be better accommodated in the landscape when utilising traditional materials such as pale harling, exposed stone and slate roofing, even when of modern design. Urban and suburban styles of housing designs or those incorporating non-traditional materials such as brick can undermine rural landscape character.
- The planting of native trees within gardens and the avoidance of prominent 'suburban' garden fences, rockeries and walls will also help to integrate buildings within this farmland landscape, retaining the distinction between rural and urban areas.
- Settlement expansion should be carefully managed to ensure that settlements are contained by landscape features, providing a strong distinction between urban and rural areas. Linear development along roads at settlement edges should be avoided.

Minerals

- A level of carefully sited and designed minerals development could be accommodated if taking advantage of screening provided by undulating terrain and with the inclusion of native planting and bunding to mitigate landscape and visual effects. The cumulative effects of multiple such development should not be allowed to undermine the overall rural character of the landscape.
- Due consideration should be given to the adverse effects of views to plant, equipment, gateways and other ancillary features associated with minerals development which can also exert an industrialising influence on landscape character.

LOWLAND DRUMLIN FARMLAND LCT Ballygowan (95)

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high to medium' sensitivity to wind energy development.
- Wind energy development should be infrequent and of sufficiently small scale to be associated with existing farm and housing development.
- There is lower capacity to site turbines in the more open parts of the landscape such as the Enler Valley.
- Turbines and tall structures should be sited so as not to interrupt views to important landmarks such as Scrabo Hill and tower.

Tourism and Recreation

- Demand for tourism and recreation related developments appears relatively low. The undulating landform appears to have capacity to accommodate such development if of a relatively small scale and designed in a manner sympathetic to a rural landscape context.

Biodiversity Profile

Key Characteristics

- 65% of this LCA is within the bounds of Ards and North Down (8,680 ha out of 13,400 ha)
- Rolling drumlin topography gradually falling eastward to Strangford Lough
- Pasture fields dominate in the south, arable and horticulture fields are abundant in the north
- Loughs, fens and wet woodlands occupy many of the inter-drumlin hollows

Key Sites

- SAC: Aughnadarragh Lough (part within Newry Mourne and Down)
- ASSI: Aughnadarragh Lough
- SLNCI: Ballyrainey, Ballyalloly Lough, Tullynagee, Carrickmannon Lough, Ballymacashen Bog

Woodlands

Woodlands occupy just under 5% of the LCA that falls within Ards and North Down. Demesne woodlands (**parkland and wood pasture**), such as at Ballyalloly House, have a planted history and although usually dominated by broadleaved species such as beech, oak, sycamore and ash, most have conifers intermixed, often of Scots pine. Some demesnes have small conifer plantations of Scots pine, larch or spruce. The largest patches of woodland are broadleaved and the remainder are small farm woodlands, shelterbelts or areas of **wet woodland**. There are plantings of young broadleaved woodland at Hollypark Wood in the southeast.

Wet woodlands comprise those growing at fen sites and those that have colonised cut-over bog, such as at Aughnadarragh Lough. Typically, alder and willow dominate these woodlands and they can form part of a complex of habitats that includes open water, reeds and fen.

Priority woodlands are mostly present north of Saintfield in the west of the LCA, with small pockets surrounding Florida Manor and Ballyalloly Lough SLNCI, with more than half falling within the bounds of Ards and North Down. In addition, there are a small number of TPOs (Tree Protection Orders) around the towns of Ballygowan and Comber surrounding existing urban areas.

Grassland and Arable

Improved grasslands comprise approximately three-quarters of the LCA but there is a marked difference between the northern and southern halves of the LCA. In the north within Ards and North Down at Ballystockart and to the north of Comber, there are extensive stretches of country under highly productive improved pasture as well as large parts where pasture is intimately mixed with arable fields.

Priority species such as the **European hedgehog** are present in grassland and suburban areas.

Heaths and Bogs

The part of the LCA extending south from around Ballygowan, contains a concentration of patches of **lowland raised bog**. These are some of the last remaining lowland bogs in Ards and North Down. All have been cut-over in the past, most have been colonized by birch, alder and willow and some have been converted to fen as a result of removal of the peat. Some have been used for dumping, in particular the once extensive Moneygreer Bog at Ballygowan. However, even here despite past cutting, draining, tree colonisation and dumping there are remnants of peat with heather in places. Examples of areas which have been designated as priority peatland and SLNCIs can be found at Ballyalloly Lough, Tullynagee, Carrickmannon Lough and Ballymacashen Bog. Two of the best remnants of raised bog, both with a cover of heather, are at Aughnadarragh Lough SAC and ASSI, near Darragh Cross, although the site and bog habitats are largely outwith the council boundary. The remnant raised bog and areas of cut-over bog merged with wetland habitats to provide a diverse range of plant communities.

Wetlands and Lakes

Inter-drumlin wetlands are characteristic of the southern half of the LCA; they comprise loughs, **fens** and **wet woodlands** - habitats that may be intermixed at one site - and some containing remnant patches of bog. These wetland sites are some of the most important nature conservation sites in the LCA and in Northern Ireland and are extremely significant in the biodiversity of the LCA.

Most loughs have been enriched by nutrients from surrounding farmland. Aughnadarragh Lough SAC and ASSI is an important nature conservation site in the LCA area; the northern portion of the lough is within Ards and North Down, with associated priority peatland and fen habitats. The site is an inter-drumlin wetland with a mosaic of vegetation communities fringing the **mesotrophic lake**, with a transition from open water, through swamp and **wet woodland**, to wet grassland creating a diverse mixture of wetland communities. **Mesotrophic lakes** are an increasingly rare type of lake in Northern Ireland and one which, relative to other lake types, contains a higher proportion of nationally scarce and rare aquatic plants. The site was designated as an SAC for the **marsh fritillary butterfly**, which has seen numbers decline in the British Isles and the rest of Europe.

LOWLAND DRUMLIN FARMLAND LCT Ballygowan (95)

Ballyalloly Lough is one of the few located in the northern half of the LCA; it is part of a large site with several wetland habitats including **fen** and **wet woodland**, as well as being an SLNCI. Small areas of fen are also found around other loughs (e.g. Aughnadarragh Lough).

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: low woodland cover of the NI Priority Habitat (**parkland and wood pasture**), with areas of **wet woodlands** growing at fen sites and at sites of colonised cutover bogs.

Actions:

- enhance the biodiversity value of demesne woodlands at Ballyalloly, by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is not cleared
- enhance biodiversity through appropriate measures to improve and extend woodland cover through agri-environment schemes; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species
- encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species
- further study of the history and ecology of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- ensure conservation of wet woodlands by allowing succession to take place and installing fencing to prevent trampling; ensure that loss does not occur through drainage, reclamation, landfill or dumping/tipping

GRASSLAND AND ARABLE

Issue: improved pastures, mixed with intensively managed arable land of relatively low biodiversity value

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland and protect unsown areas of grassland including dry, calcareous grassland
- maintain and enhance damp grassland by where possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of relevant measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying with fertilisers, slurry, herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

HEATHS AND BOGS

Issue: this LCA features some of the last remaining NI Priority Habitat **lowland raised bogs** in the council area, including **Aughnadarragh Lough SAC and ASSI**

Actions:

- following the release of the Northern Ireland Peatland Strategy 2021 – 2040 support strategic efforts including the conservation existing peatlands, restoration of degraded areas and supporting sustainable peatland management
- maintain the integrity of existing lowland raised bogs by for example, preventing infilling, fly-tipping, fires, new drainage, encroachment by trees and mechanised peat cutting - applies particularly to intact bogs but cut-over bogs can provide important habitats for birds and invertebrates
- consider restoration of lowland raised bogs through appropriate water level management, removal of individual colonising trees and phasing out peat cutting - applies particularly to formerly intact bogs affected by recent mechanical cutting
- prevent new forest planting on lowland raised bogs, especially that which could be restored to active growth
- monitor use of cut-over bogs to ensure that important micro-habitats are not lost, that the large tracts of land required by predator birds are not broken up by planting and other uses, and that the needs of over-wintering and breeding wetland birds are met

Issue: potential loss of heather cover at **Aughnadarragh Lough ASSI and SAC**

Actions:

- promote membership of agri-environment schemes through consultation with farmers and thereby
- control grazing intensity on existing heathland to encourage development of heathland and of heather of different ages
- discourage 'reclamation' to pasture fields around heathland margins

WETLANDS AND LAKES

Issue: this LCA contains some of the most important wetland conservation sites in Northern Ireland including the NI Priority Habitats **mesotrophic lakes**, **fens** and **wet woodland**

Actions:

- promote and ensure compliance with relevant guidelines and legislation so that remaining mesotrophic lakes, fen and wet woodland are not polluted by releases from silage effluent,

herbicides, pesticides, fertilisers or sheep dip; ensure that further eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland

- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants; monitor effects of recreation, including fishing, on shoreline communities (reedbeds, fens etc.)
- prevent further loss of fen through drainage, reclamation, land-fill, new woodland planting and encroachment by scrub woodland; prevent dumping and fly-tipping and encourage removal of rubbish; care should be taken to divert the flow of nutrient rich water from agricultural land away from fens, so that sites do not become damaged by a change in species composition
- carefully assess any proposals for arterial and field drainage near to fens so that the water table is not lowered to the extent that fens are affected
- ensure conservation of wet woodlands by allowing succession to take place and installing fencing to prevent trampling; ensure that loss does not occur through drainage, reclamation, landfill or dumping/tipping

Geological Characteristics

Overview

The LCA is underlain by Silurian rocks which have been covered by glacial deposits. The smooth, rolling drumlin landforms create a dynamic landscape pattern. Ground levels fall gradually towards Strangford Lough and in more low-lying areas, the drumlins exhibit a relatively waterlogged character (and with a more extensive network of watercourses than amongst the drumlins of the adjacent Castlereagh Plateau). Loughs and damp woodland are found within lowland hollows between drumlins, providing an organic landscape element within a relatively regular landscape pattern. These marshy patches make a valuable contribution to the diversity of the landscape.

Solid Geology

Predominantly Lower Palaeozoic greywackes and shales with numerous minor igneous intrusions. 80% of the LCA comprises Lower Palaeozoic (Ordovician) Gala Group: the northern 15% of the LCA comprises Permian and Triassic, the remainder being Tertiary intrusives. The NE -SW strike of the Lower Palaeozoic Ordovician and Silurian beds at outcrop is produced by faulting and belies the fact that minor folds occur within each fault tract. North - south faults crosscut and thus post-date earlier faults. The greywackes are of sandstone grade and vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. The greywackes are commonly quarried as a source of aggregate; they are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. Minor conglomerates and ash-beds (or bentonites) occur.

The Permian - Enler & Belfast Group comprises red-brown sandstones, conglomerates, siltstones. A basal breccia, equivalent to the "brockram" of northern England is found at the base (1 - 50cm thick), here termed the Newforte Breccia Formation, the only outcrop of which is Ballyrainey (ESCR Site 261). The Belfast Group comprise calcareous mud rocks with thin sandstone and anhydrite lenses resting conformably on Enler Group, a gradual transition between the two groups occurs.

The Triassic - Sherwood Sandstone Formation comprises red, purple and brown cross-stratified sandstones, siltstones with minor clay beds and partings. The sandstones are either soft and poorly consolidated or well-cemented where they are and have been exploited for building stones in the past. These sandstones are well-exposed in the quarries of Scrabo Country Park (ASSI 091).

NE - SW trending lamprophyre dykes and NW-SE trending dolerite dykes occur throughout the area. The age of some of the lamprophyres is not proven as Tertiary. A Tertiary sill occurs in the north of the area where it forms the top of the crag and tail hill of Scrabo itself (ASSI 091).

Drift Geology

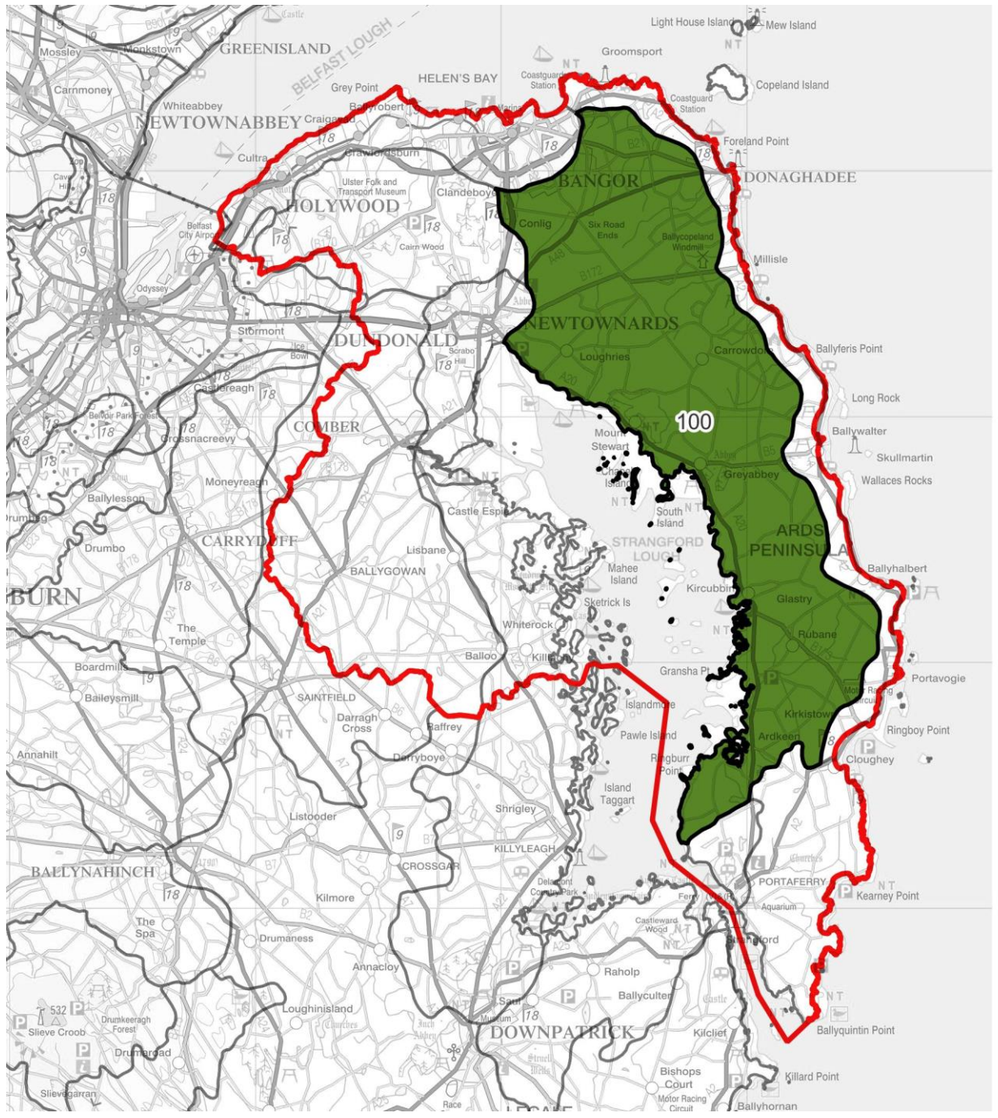
The drift geology map for this LCA shows it to be predominantly underlain by Late Midlandian till associated with the large ice mass that was centred on the Lough Neagh Basin. This ice flowed south-eastwards from an ice divide that lay approximately SW-NE along the line of the north Belfast Hills. Evidence for this flow direction is found in the orientation of the numerous drumlins that make up much of the landscape. However, within the LCA there are also significant outcrops of drift free bedrock that were scoured by the overriding ice. McCabe and Knight (2002) have suggested that this area, and much of central Co. Down, was the site of an ice stream during the Drumlin Readvance that delivered a high sediment flux to the ice margin at areas such as the Lecale Coast to the southeast. This may go some way to explain the partial drift cover in the region and the widespread occurrence of rock cored drumlins (further information on drumlins and inter-drumlin hollows can be found in Appendix C).

In the north of the LCA, the drift geology map highlights glaciofluvial deposits associated with late-glacial deposition by meltwater along the Enler Valley between Belfast and Comber - the so-called 'Dundonald Gap'. Smith et al. (1991) describe these deposits as mounded outwash that consists of laminated sand and gravel with subordinate red clays. The map also identifies alluvial sediments infilling inter-drumlin hollows and overlying the glaciofluvial deposits of the Enler Valley.

LOWLAND DRUMLIN FARMLAND LCT — Ards (100)

Ards Lowland Drumlin Farmland (LCA 100)

Return to LCA List



Settlements: Carrowdore, Glastry, Greyabbey, Kircubbin, Loughries, Rubane

Landscape Character

Gently undulating drumlin pastures of the Ards Peninsula.

Location and Context

The ***Ards Lowland Drumlin Farmland*** is the largest character area in Ards and North Down, comprising most of the land area of the Ards Peninsula, and with a coast to Strangford Lough.

Key Characteristics

- Smooth, undulating drumlins, with both pasture and arable farmland.
- Good hedgerow network but relatively few hedgerow trees.
- Waterlogged hollows between drumlins.
- Straight roads cross the peninsula, linking to the sinuous coastal road.
- Estates provide wooded backdrop to the Lough in some areas.
- Stands of trees, often seen in silhouette.
- Scattered houses of varying sizes and styles; remaining traditional dwellings are small scale and clustered in form.
- Historic and archaeological features.
- Sudden transition from the pastoral farmland to the Strangford Lough coast.

LOWLAND DRUMLIN FARMLAND LCT Ards (100)

Landscape Description

Landform

The Ards Lowland Drumlin Farmland character area comprises the great majority of the Ards Peninsula. The landform is of undulating drumlins, and very low lying to the south near Portavogie, where inland levels are no more than a few metres above sea level. To the north the landscape rises gently to approximately 60m AOD when transitioning to the Holywood Hills. Subtle differences in the size, steepness and separation between drumlins provide some variation in the landscape, with some areas appearing open and with longer views and others more contained. Numerous small watercourses drain between the drumlins, but these are barely distinguishable.

While to the east the landscape changes to a more distinct coastal transitional zone (LCA 99), to the west its drumlins and pastures often suddenly end at Strangford Lough, where there is a coast of stony beaches, rocky outcroppings, muddy bays and salt marsh.

Landcover

There is a consistent landscape pattern of small to medium scale undulating pastures and arable farmland. In places, particularly to the north between Newtownards and Donaghadee where the landscape is flatter and more open, the landscape scale is somewhat larger. There are scattered areas of heathland along the central spine of the peninsula, with clumps of gorse and prominent stands of Scots pine.

Fields are divided by hedgerows which are often neatly clipped, and low. Hedgerows lining roads and fields are often treeless, but where present the predominant tree species is ash. Outside of the main estates woodland coverage is low, with small pockets in folds in the landscape, on occasional drumlin tops, or in small stands surrounding farms and houses.

The farmland extends to the edge of Strangford Lough, where large, wooded estates, such as Mount Stewart and Rosemount at Greyabbey, have an important influence on landscape character and pattern. They provide a woodland backdrop along parts of the Lough edge and may often be visible from one side of the peninsula to the other.

Settlement

Development is scattered evenly throughout the character area, comprising rural housing and small to medium scaled farm complexes distributed along a network of small roads and lanes. In general housing and other development are accommodated well in the undulating landscape, with the landscape retaining a strongly rural character. Larger scales of more modern agricultural buildings are sometimes present in the landscape, occasionally prominently sited on drumlin tops. Small to medium sized wind turbines are distributed quite evenly throughout the character area, frequently visible in ones or twos when moving through the landscape.

Housing is of a variety of styles and traditional vernacular buildings are scarce but sometimes seen, such as the collection buildings at Cunningburn Milltown, or elsewhere as a complex of farm buildings. Exposed stonework or pale harling, slate or very occasional thatched roofs are characteristic of the traditional building style. Settlements are small, some of which have attractive historical centres such as Greyabbey. The Ballycopeland Windmill, a working example of the traditional windmills which were once common in the landscape, is a striking local landmark to the north east of the character area.

The A20 is the main transport route from Newtownards to Portaferry connecting the small settlements on the Strangford Lough coastline, with the road passing close to the water's edge allowing attractive views to a rural lough-side landscape studded with estates. The coastal road corridor has a somewhat more developed and busier character than inland, with small settlements, frequent rural housing, car parking, and small scale leisure development, but retains a rural character.

Perception

From inland locations there is usually little indication of this being a coastal landscape as the undulating landform tends to restrict longer distance view. Until very close to Strangford Lough the landscape is, by and large, perceived as a typical drumlin farmland landscape. However from the coast there are attractive views along the coast and across Strangford Lough, including to views to the landmark Scrabo Hill and its tower.

Landscape Condition and Forces for Change

Landscape Condition

The landscape is generally in a good condition and in productive use. Agricultural improvement appears to have resulted in some field enlargement and the loss of traditional hedgerow boundaries, and some boundaries are neglected, replaced or supplemented with post and wire fencing. The rural character and landscape structure remains, but has been subject to some development pressures from larger scales of agriculture, wind energy and housing development. However, the estates and large farm holdings contribute to a relatively high quality landscape in areas where they have an influence.

Forces for Change

Agriculture

Because of the apparent productivity of the farmland there may be ongoing pressures for agricultural improvements which would result in the neglect or loss of traditional field boundaries. There may be ongoing pressure for the construction of larger scales of agricultural building.

Trees and Woodland

Beyond the large estate landscapes tree cover is generally low. However hedgerow and roadside trees, small woodlands and tree clumps sheltering farms and houses, contribute to the structure of the landscape. Losses from tree disease, new development or agricultural practices are a possibility.

LOWLAND DRUMLIN FARMLAND LCT Ards (100)

Settlement and Development

There is some demand for new housing development outside of the main settlements, with the potential for a suburbanising effect on rural landscape character. Western parts of the LCA, where there are views to the coast and across Strangford Lough and also good transport connections provided by the A20, may be an attractive location for such development. Expansion of settlements, particularly the larger settlements of Newtownards and Donaghadee, may affect parts of the LCA.

Minerals

There is a sizeable sandstone quarry at Carrowdore, and given the relative uniformity of the bedrock geology across the LCA there may be some pressure for other minerals developments of this type. While historical records show quarrying for slate and building stone, there is no evidence to suggest this to be a force for change into the future.

Tall Structures

Small to medium scale single wind turbines, typically up to approximately 60m in height, have some characterising effect on the landscape at present. The exposed location of the LCA, with a likely good wind resource, may make the LCA attractive for continued wind energy development in future as demand for renewable energy increases.

Tourism and Recreation

The western coast of the LCA, within the AONB designation, is most likely to be subject to the greatest pressure for development from tourism and recreation. This may include, for example, holiday accommodation, marine leisure and car parking.

Climate Change and Coastal Erosion

Rising sea levels have the potential to affect coastal farmland, trees and woodland and coastal developments. This may include changes to the water table and increasing salinity. The general forces for landscape change relating to climate change and coastal erosion set out in Section 5.3, should also be referred to.

Landscape Management and Planning Guidelines

Key Sensitivities

The relative lack of trees in some farmland areas makes them more sensitive to change, although these areas are generally less sensitive than the coastal edge. The landscape has a variety of archaeological and historic sites, including castles, churches, mottes, abbeys and raths. The area is also known for its windmills, which are unique in Northern Ireland. Strangford Lough is the largest sea lough in the UK and its inter-tidal mudflats are recognised for their nature conservation and earth science value by their designation as an ASSI; the waters are a Marine Conservation Zone (MCZ). The lough and shoreline areas are designated as an AONB.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	Medium
Minerals:	Medium/ High
Tourism:	Medium

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- Selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).
- The siting of new agricultural buildings on prominent drumlin tops should be avoided and consideration should be given to their scale and design so as to promote their integration with the landscape. These considerations apply especially to the more sensitive western part of the LCA within the AONB designation.

Trees and Woodland

- The management and creation of small farm woodlands would help to maintain landscape diversity and integrate new development into the landscape.
- Existing mature specimen trees and stands should be maintained. Native successor trees should be encouraged either through planting or appropriate management of emerging saplings.
- Wooded estates are an important feature of the west coast of the landscape area. Their ongoing management should ensure their survival into the future. Woodland expansion on the western coast would be possible when maintaining views from and along the coast, and ensuring that a balance between areas of woodland and pasture is maintained.

Settlement and Development

- Coastal locations are the most sensitive to development. The urbanisation of stretches of roads at beaches or accessible parts of the coast should be avoided.
- Inland, the undulating landform can accommodate a low degree of rural housing development if appropriately sited to take advantage of hollows in the landscape and enclosure by trees, but in general development should be concentrated at existing settlements and clusters of development rather than being allowed to extend along roads.
- Single housing development can be better accommodated in the landscape when utilising traditional materials such as pale harling, exposed stone and slate roofing, even when of

LOWLAND DRUMLIN FARMLAND LCT Ards (100)

modern design. Urban and suburban styles of housing designs or those incorporating non-traditional materials such as brick can undermine rural landscape character.

- The planting of native trees within gardens and the avoidance of prominent 'suburban' garden fences, rockeries and walls will also help to integrate buildings within this farmland landscape, retaining the distinction between rural and urban areas.
- The settings of archaeological features and sites of historical interest should be conserved and public access provided and managed to help prevent damage to the monuments or their settings.

Minerals

- The AONB is very sensitive to minerals development, which could have an industrialising effect on the landscape or adversely affect important views.
- Outside of the AONB a level of carefully sited and designed minerals development could be accommodated if taking advantage of screening provided by undulating terrain and with the inclusion of native planting and bunding to mitigate landscape and visual effects. The cumulative effects of multiple such development should not be allowed to undermine the overall rural character of the landscape.
- Due consideration should be given to the adverse effects of views to plant, equipment, gateways and other ancillary features associated with minerals development which can also exert and industrialising influence on landscape character.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- Wind energy development should be infrequent and of sufficiently small scale to be associated with existing farm and housing development.
- The AONB and Strangford Lough coast is particularly sensitive to intrusion from wind energy development. Turbines should not be sited close to the coast or affect adjacent hill tops or skylines.
- Tall structures should not be sited so as to detract from hill top heritage features, such as the Ballycopeland Windmill.

Tourism and Recreation

- The coastline is very sensitive to tourism related development and there appears to be little capacity to accommodate coastal caravan parks or similar development types in more rural locations. Any such development should be closely associated with existing coastal settlements and designed carefully to integrate with the landscape, including native planting.
- Marinas and other facilities to accommodate leisure boating activity should remain of relatively small scale, also associated with existing coastal settlements.

Climate Change and Coastal Erosion

- Maintaining the integrity of natural coastal systems, such as salt marsh, may assist in mitigating the effects of any future coastal flooding.
- Limiting the amount of further coastal development will have benefits to landscape character and help mitigate against the possible effects of coastal erosion and flooding.

Biodiversity Profile

Key Characteristics

- a drumlin dominated landscape mainly of improved pastures
- a few cut-over lowland bogs and fens in inter-drumlin hollows, occasionally with wet woodland
- woodlands generally sparse and limited mainly to large estates
- important coastal communities on Strangford Lough

Key Sites

- SPA/Ramsar: Strangford Lough
- SAC: Strangford Lough
- ASSI: Strangford Lough Part 1, Strangford Lough Part 2, Strangford Lough Part 3, Blaeberry Island Bog, Lough Cowey
- National Nature Reserve: North Strangford Lough
- SLNCI: Willy's Wood Island, Gregstown, Cunningburn, Mount Stewart, Rosemount, Inishargy Bog, Lough Cowey
- Nature Reserve: The Dorn
- Historic Parks and Gardens: Mount Stewart, Greyabbey House, Rubane, Ballywater Park (about a fifth of this site lies within the LCA), Ballywhite House, Carrowdore Castle,
- AONB: Strangford & Lecale (covers 31% of this LCA)

Woodlands

Woodland occupies 4% of the LCA, most of which is associated with estates. Prominent among these are Mount Stewart, Rosemount/Greyabbey and Carrowdore Castle, the former two of which are SLNCIs. Many of these woodlands have also been designated as priority woodland. The broadleaved woodland (**parkland and wood pasture**) in these estates is predominantly beech with oak, sweet chestnut, sycamore, wych elm, lime, ash and alder. Occasional conifers are sometimes intermixed and, usually near the house, there are some specimen exotic conifers. The understorey and ground flora are not usually of great diversity, being relatively open and grazed, or of bracken and brambles, or dense thickets of rhododendron and cherry laurel. Most of the trees are mature and whilst some of the estate woodlands are well managed, with evidence of recent planting of hardwood saplings, in others there is little sign of regeneration of the main canopy trees; any regeneration is often of sycamore. Mount Stewart harbours a range of priority species, including the **red squirrel** and **pine marten**, as well as insect species such as **buff ermine**, **white ermine** and **small phoenix**.

LOWLAND DRUMLIN FARMLAND LCT Ards (100)

Outside of the estates, broadleaved woodland is scarce. Small patches of **wet woodland** are found in damp, former peatland areas, for example alder-willow carr at Inishargy Bog SLNCI and Ballyfotherly Bog. Hazel-ash woodland with a relatively rich ground flora occurs in a steep sided river valley at Gregstown SLNCI. At its southern end it grades into dense scrub consisting of blackthorn, hawthorn and willow. Damp willow scrub, with diverse wetland flora, adds to the conservation value of the site. The Woodland Trust has planted hardwoods at Woodland View and Carrowood.

Coniferous woodland is mainly in the Mount Stewart estate and is predominantly Japanese larch and Norway spruce. Unfortunately, some of this replaced clear felling of hardwoods; it is to be hoped that when these are harvested, broadleaves will replace them.

Grassland and Arable

Grassland accounts for approximately two-thirds of the land cover and the majority of that is in improved pastures. Although the level of management varies from the frequently resown pastures with heavy inputs of fertilizers to those for which reseeding is at longer intervals and fertilizer is restricted to slurry or farmyard manure, the biodiversity is generally low. Hedgerows form the majority of field boundaries, but whereas on the larger farms they are maintained, in areas of smaller farms and poorer soils they have often become gappy. Throughout there is a lack of hedgerow trees and there is some evidence of field amalgamation.

Areas of rough grassland are scattered through the LCA and most are associated with inter-drumlin hollows. In many instances these hollows were drained and former peatlands converted to pasture, but have since become rushy. In other parts of the LCA, especially in the south, the underlying rock comes to the surface; here dry grassland is mixed with small patches of gorse. Rough grasslands have greater biodiversity than the pastures which surround them; for example, the damp grasslands and cut-over bogs alongside them, are a habitat for wetland birds including the **curlew**.

Arable land is scattered throughout the LCA, and much may in fact be grass reseeding, but there are concentrations of genuine arable land as for example inland of Ballywalter, around Rubane and on the east coastal strip north of Kirkcubbin. These areas tend to have large fields, often in cereals but also in oilseed rape. Hedgerows are generally well maintained and a habitat for farmland birds such as the **yellowhammer**.

Heath and Bogs

There is no intact lowland peat bog left in the LCA, indeed only a few patches of cut-over bog remain, many of which are designated as priority peatland habitat. The main concentration of these is in the north and comprises Ballyfotherly Bog, Blaeberry Island Bog, Willy's Wood Island SLNCI and Drumawhy Bog. Since 2010, Blaeberry Island has been declared an ASSI due to its physiographical features, peatland flora and associated fauna. Although mostly cutover and replaced with agricultural land, there are some areas of deep peat with a mosaic of bog, acid grassland, fens, and pools that have developed on the former cuttings. Promisingly, there is evidence of bog recovery in parts, with a typical bog topography of hummocks and pools and associated ericoid dwarf shrub and Sphagnum vegetation. The site supports royal fern and narrow buckler fern, both of which have declined in Northern Ireland, as well as the nationally rare golden bog-moss.

Overall, these bogs are remnants of once more extensive inter-drumlin bogs and have limited interest as lowland bogs, but as a result of cutting and colonisation there is species and habitat diversity - thus there are patches of wet woodland, heather, damp grassland and some bog species. Royal fern, uncommon in this part of Northern Ireland, has been recorded at Drumawhy Bog, as has the **marsh fritillary butterfly**. In the south of the LCA, Inishargy Bog is an inter-drumlin bog that has been designated as an Ulster Wildlife Trust nature reserve and SLNCI. The main area of the site consists of a mosaic of bog vegetation and scrub grassland with willow and alder carr to the west. This reserve also has royal fern. Another important plant is devil's-bit scabious, the host plant of the **marsh fritillary butterfly**. The **wall brown butterfly** and **barn owl** have also been recorded here.

Wetlands and Lakes

Small pockets of fen can be found in inter-drumlin hollows throughout the LCA; most of these have probably originated through removal of peat. However, many of the former fens have been drained and reclaimed to pastures and those that remain are of limited biological interest. As with the patches of bog, they are under threat from land-fill and, being surrounded by improved pastures or arable land which have added fertilizers, they can become nutrient enriched.

Of the standing waters, the Glastry ponds display a rich aquatic flora including two species of water milfoil and the thread-leaved water crowfoot. Elsewhere, ponds are moderately enriched by overland flow or are man-made; both have little biodiversity interest. Lough Cowey ASSI and SLNCI is an inter-drumlin lough designated in 2011 for its extensive reedbeds that provide habitat for **otter** and for wetland birds such as the mute swan, moorhen and water rail, as well as small passerine species such as the sedge warbler and reed warbler.

Coastal

Strangford Lough is designated as an SPA, Ramsar, SAC and ASSI for its marine and intertidal habitats, breeding and wintering bird populations and common seal populations. Several boulder and bedrock shores along the coast have been found to possess good species diversity of flora and fauna and to have a range of habitats. For example, coarse gravel, sandy sediment and muddy sediment are found along the Newtownards coast, Greyabbey Bay, Herring Bay, areas of Mid Island Bay and Ringburr Point. These areas are largely dominated by lugworms, sand masons and other polychaetes.

The Dorn NR overlaps with Strangford Lough ASSI Part 1, and consists of an extensive area of mudflats, sheltered bays, pladdies and sea-bed on the eastern side. The variety of shore types supports an exceptional diversity of marine life. Unusually large sponges, anemones and sea squirts are abundant, and deeper water species, such as starfish, sunstars and brittle stars, are able to survive in shallower areas of The Dorn. The foreshore has large numbers of wintering wildfowl and waders including **curlew**, **goldeneye** and red-breasted mergansers. Brent geese, shelduck and teal are frequent. Common seals frequently bask on the rocks below Castle Hill and may be seen with pups on nearby pladdies in July.

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Two small areas of **coastal saltmarsh** in this LCA are Black Neb Inlet and Horse Island. Saltmarshes are an important resource for wading birds and wildfowl. They act as high tide refuges for birds feeding on adjacent mudflats, as breeding sites for waders, gulls and terns and as a source of food for passerine birds particularly in autumn and winter.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: low woodland cover of mostly broadleaved trees in estates (parkland and wood pasture); also small areas of NI Priority Habitat wet woodland

Actions:

- enhance the biodiversity value of demesne woodlands at Mount Stewart, Greyabbey and Carrowdore Castle by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is not cleared
- encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species; removal of dense rhododendron and cherry laurel could increase the diversity of ground flora, especially where the canopy species are not beech
- further study of the history and biodiversity of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- ensure conservation of wet woodlands such as Ballyfotherly Bog, by allowing succession to take place and installing fencing to prevent trampling; ensure that loss does not occur through drainage, reclamation, landfill or dumping/tipping
- enhance biodiversity through appropriate measures in agri-environment and forestry schemes to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species; farmers and landowners could be encouraged to plant field corners or set-aside fields

GRASSLAND AND ARABLE

Issue: improved pastures and intensively managed arable land of low biodiversity value, but including scattered areas of rough grassland of greater biodiversity

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland and protect scattered areas of rough grassland as a valuable habitat for wetland birds
- maintain and enhance damp grassland and cut-over bogs alongside them by where, possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of appropriate measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying
- with fertilisers, slurry, herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

HEATHS AND BOGS

Issue: further damage to remaining cut-over lowland bogs, which exhibit good species and habitat diversity as a result of colonisation and cutting; NI Priority Species have been recorded at Inishargy Bog

Actions:

- following the release of the Northern Ireland Peatland Strategy 2021 – 2040, follow strategic efforts including conserving existing peatlands, restore degraded areas and supporting sustainable peatland management.
- maintain the integrity of remnant cut-over lowland bogs by for example, preventing infilling, fly-tipping, fires, new drainage, encroachment by trees and mechanised peat cutting - cut-over bogs can provide important habitats for birds and invertebrates
- consider restoration of lowland bogs habitats through appropriate water level management, removal of colonising trees and phasing out peat cutting - applies particularly to formerly intact bogs affected by recent mechanical cutting
- prevent new forest planting on bogs, especially those which could be restored to active growth

WETLANDS AND LAKES

Issue: NI Priority Habitat fens have developed on previous lowland bog sites and are under threat from landfill and nutrient enrichment

Actions:

- prevent further loss of fens through drainage, reclamation, land-fill, new woodland planting and encroachment by scrub woodland; prevent dumping and fly-tipping and encourage removal of rubbish; care should be taken to divert the flow of nutrient rich water from agricultural land away from fens, so that sites do not become damaged by a change in species composition
- carefully assess any proposals for arterial and field drainage near to fens so that the water table is not lowered to the extent that fens are affected
- promote and ensure compliance with relevant guidelines and legislation so that rivers are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip; ensure

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that eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants

COASTAL

Issue: this LCA features mudflats at The Dorn NR and NI Priority Habitat **coastal saltmarsh** at Black Neb Inlet and Horse Island

Actions:

- protect rare **coastal saltmarsh** communities from sources of pollution and waste tipping, in addition to damaging activities such as land-fill and construction
- protect mudflats from potential impacts of nutrient enrichment, land claim, coastal defences, dredging and human disturbance
- ensure that NI Priority Species, rare plants and Red List Species are protected from factors such as new development, erosion, waste tipping and pollution

Geological Characteristics

Overview

This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged example of a 'drumlin swarm'.

The LCA extends across much of the Ards peninsula. The area has a gently undulating landform, with shallow drumlins and there is a scattering of farms on the higher, drier land. Orford (in Whalley et al. 1985) has described the coastal lowlands around Strangford Lough as a mixture of glaciomarine shelf sediments with a superimposed two unit drumlin cover, lying on a low undulating basement of Silurian greywacke and mudstones.

Strangford Lough is tidal with a distinctive straight east coast and a highly irregular west coast morphology. The lough contains numerous drowned drumlin islands that have been removed completely from the eastern shore to leave remnant shoals or 'pladdies'. On the western shore the drumlin islands are largely retained and linked by limited shoreline deposition. The difference between the lough shores is because of the prevailing southwesterly waves that vigorously attack the eastern shore, whilst leaving the western shore largely untouched.

There are extensive intertidal mud and sand flats in the north of the lough that act as sinks for most of the sediment derived from the erosion of the east coast. Sites such as those at Rough Island and Ringneill Quay have been important in documenting post-glacial sea level fluctuations. In particular, McCabe and Knight (in Knight 2002) have observed that at the head of Strangford Lough there are well defined late- and post-glacial wave-cut terraces at around 20m O.D.

Solid Geology

Predominantly Lower Palaeozoic greywackes and shales with numerous minor igneous intrusions. 95% of the LCA comprises Lower Palaeozoic (predominantly Ordovician Gala Group) greywacke sandstones and shales. An inner strip along the Strangford Coast comprises Triassic Sherwood Sandstones, the remainder being Tertiary intrusives.

The NE-SW Orlock Bridge Fault (which continues into LCA 98) occurs in this area. The greywackes are of sandstone grade and vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. The greywackes are commonly quarried as a source of aggregate; they are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. Minor conglomerates and volcanic ash-beds (or bentonites) occur.

Triassic sandstones comprise red, purple and brown cross-stratified sandstones, siltstones with minor clay beds and partings. The sandstones are usually soft and poorly-consolidated. These sandstones are well-exposed at low tide on the Strangford Lough foreshore.

Drift Geology

The drift geology map for this LCA shows it to be predominantly underlain by Midlandian till. However, within the LCA there are also significant outcrops of drift free bedrock that were scoured by the overriding ice. The drift map clearly shows these bedrock areas as a series of SW-NE orientated ridges that are clearly influenced by the structure of the underlying rocks that show a series of faults with the same direction. South of a line between approximately Newtownards and Donaghadee, the till is of Late Midlandian age and was associated with the large ice mass that was centred on the Lough Neagh Basin. This ice flowed southeastwards from an ice divide that lay approximately SW-NE along the line of the north Belfast Hills. Evidence for this flow direction is found in the orientation of the numerous drumlins that make up much of the landscape. Within Northern Ireland drumlins take a variety of forms; some are rounded in plan, although the majority are elongated in the direction of ice flow. Some have sharp crests, whereas others are more whaleback in profile.

Although most drumlins are composed of glacial till or tills, a small number are 'drumlinoid features' and rock-cored and some are composed of sand and gravel. Where drumlins are rock cored there may have been significant frost shattering prior to their shaping by ice flow. It is possible therefore to see tails of shattered debris within till leading away from the feature in the direction of flow (Davies and Stephens 1978). It is generally accepted that the drumlins of Northern Ireland were formed by deposition beneath fast flowing ice. In the majority of cases this has resulted in a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. The exception to this combination off tills can be seen in the north of this LCA, where Hill (1971) observed drumlins aligned approximately north to south that are composed only of Lower Till and that formed in response to ice that flowed southwards from the North Channel. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the

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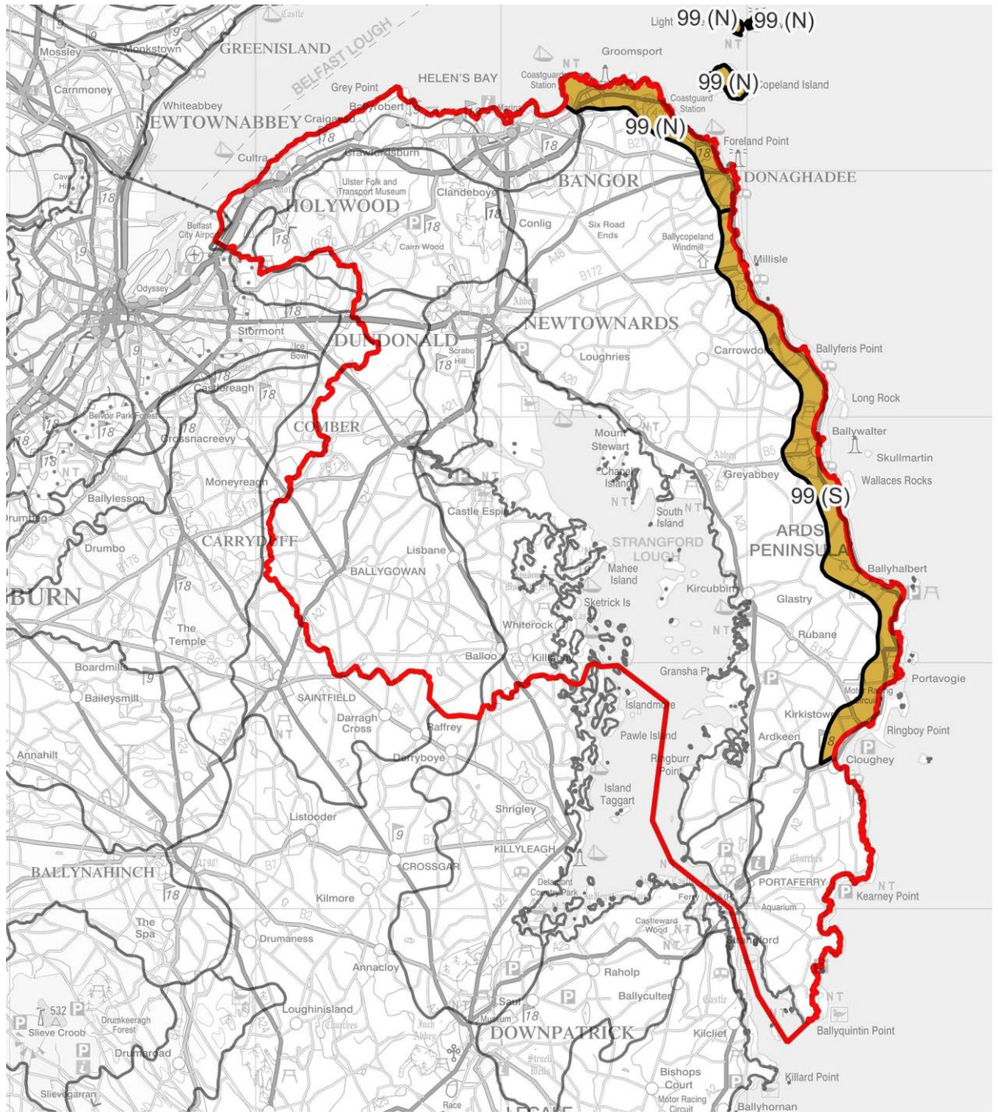
tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

COASTAL FRINGE LCT **Outer Ards (99)**

Outer Ards Coastal Fringe (LCA 99)

North and South

Return to LCA List



Settlements: Ballyhalbert, Ballywalter, Donaghadee, Groomsport, Millisle, Portavogie.

Landscape Character

The coastline near Ballyhalbert.

Location and Context

The ***Outer Ards Coastal Fringe*** forms the edge of the Ards Peninsula where it meets the Irish Sea, incorporating the more developed sections of the coast at, and around, Donaghadee and the quieter stretches further south. Its includes the most easterly point on the island of Ireland at Burr Point, near Ballyhalbert.

The distinction between the more settled coast to the north, and the less urbanised section to the south is recognised through subdivision of the LCA, albeit both areas are of the same broad landscape type.

Key Characteristics

- Open, windswept gently sloping shoreline.
- Rocky coastal edge to the north with stands of pine and beech.
- Sandy bays to the south.
- Large houses and hotels in landscaped grounds.
- Estates with stone walls and landmarks.
- Prominent static caravan parks on exposed headlands.

COASTAL FRINGE LCT — Outer Ards (99)

- Coastal road winds close to water's edge.
- Colourful harbour towns.
- Churches, mottes, standing stones, raths and castles.
- Panoramic coastal views, including to Scotland and the Isle of Mann.

Landscape Description

Landform

The Outer Ards Coast is a long, narrow strip of coastal land extending along the east coast of the Ards Peninsula from Groomsport to Cloughy. The landform is gently sloping with small exposed rocky headlands, extending into the sea as small off-shore rocky islands and reefs, interspersed with sandy bays. The north facing coastline, west of Orlock Point, has a somewhat more exposed and rugged character. The intertidal foreshores provide a wide range of habitats and support a high diversity of wildlife. The low lying Copeland islands, included within this LCA, feature in views from the north of the character area.

Landcover

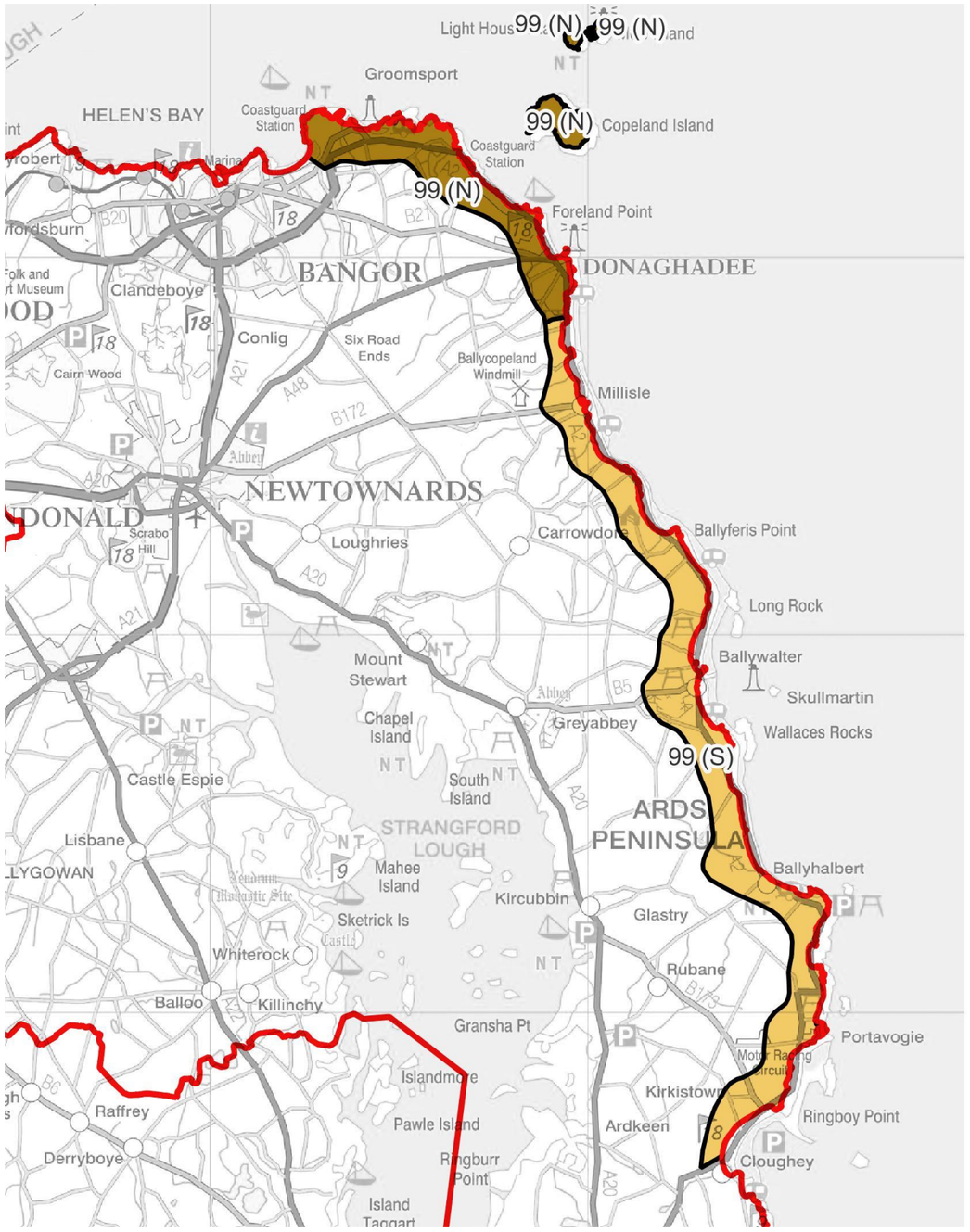
The character of the coastal edge landscape is predominantly that of pastoral farmland and some arable cropping, but there are several estates which give the coastal landscape a more wooded character in places. The estates contribute features such as stone walls, towers or large houses and often form settings to more recent settlements. Stands of pine and beech are recurring landscape elements, which stand out as distinctive silhouettes against the pale sky and expansive seascape. Farmland often extends to the shoreline, although in places there are sand dunes.

Settlement

Colourful harbour towns are found at regular intervals along the shoreline; these traditional settlements have a clustered form but there has been extensive linear development along the coastal road and around some settlements. This is particularly prevalent towards the north where from Donaghadee northwards the levels of urbanisation are such that the coast has a predominantly urbanised or suburbanised character, interspersed by more natural areas. This, along with the somewhat rockier north facing coast, is reflected in a subdivision of the character area into two sub types.

Other coastal features include old windmills, occasional light houses and WW2 defence sites. There are also many static caravan sites along the coast. These are generally prominent and rarely sheltered by planting.

Regular parking places and lay-bys provide opportunities to stop and admire the long sea views which this landscape offers. The A2 follows the coastline, wrapping tightly around the water's edge. This road links the main settlements and small roads extend inland from this major infrastructural element.



The division of LCA 99 into sub-areas reflecting how different levels of development characterise the coast.

COASTAL FRINGE LCT Outer Ards (99)

Perception

The coast is undramatic, experienced as a succession of low rocky headlands, sandy bays and settlements backed by pastoral farmland. There is a sense of tranquillity to the landscape, which increases towards the south. With no large landforms providing containment there are often wide seaward views to the horizon from the long, exposed coastline, from where Scotland and the Isle of Man are visible in good conditions.

Landscape Condition and Forces for Change

Landscape Condition

The pastoral farmland appears mostly to be in productive use, but the exposed coastal location has seemingly contributed to a weak field boundary structure of gappy hedgerows, wire fences and few trees. The managed estates contribute a stronger element to the landscape pattern. The cores of older towns often create colourful elements in the landscape, while some more modern settlements are bland and sprawling, with limited relationship to the sea. To the north the coast has a more strongly suburbanised character because of the linear development of settlement along the coastal road.

Forces for Change

Agriculture

There may be further loss of field structure through the neglect of traditional field boundaries and their replacement with wire fencing.

Trees and Woodland

Much of the woodland in the character area is in large estates where it is likely to be relatively secure into the future. Elsewhere the small stands of Scots pine and beech which are features of the landscape may be vulnerable to future development and loss without replacement by successor trees.

Settlement and Development

The landscape character is vulnerable to rural housing extending along the coast in rural areas or from the main settlements. Housing development located between the coastal road would be particularly disruptive to views.

Minerals

The area has not been subject to any significant minerals development, and there is no evidence to suggest that such development would be a force for change into the future.

Tall Structures

There are very few wind turbines in the landscape at present. The exposed location of the LCA, with a likely good wind resource, may make the LCA attractive for wind energy development in the future as demand for renewable energy increases.

Tourism and Recreation

The LCA has a variety of interests for recreation and tourism, including small coastal towns, coastal caravan parks, designated cycle and walking routes, picnic sites and car parks. There may be further demand for facilities, particularly caravan parks, which may have adverse effects to landscape character and views.

Climate Change and Coastal Erosion

While the coastline is quite rocky, studies indicate that parts of the coastline may be susceptible to erosion, with the potential to impact upon the settlements and numerous properties situated close to the coastline. The general forces for landscape change relating to climate change and coastal erosion set out in Section 5.3, should also be referred to.

Landscape Management and Planning Guidelines

Key Sensitivities

The long tracts of open coastal landscape are sensitive to change, and especially to built development which would alter its exposed and largely undeveloped character, particularly towards the south. A number of sites along the outer Ards coast are recognised for their importance to earth science. Important geomorphological features include the storm ridge system and raised beaches on headlands along the coast (Ballymacormick Point and Ballyquintin Point). These sites are also important for their rare flora, which is found on the maritime cliffs and inter-tidal areas. In addition, the coastline as a whole provides a valuable habitat for wintering and breeding birds.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	Medium/ High
Minerals:	High
Tourism:	Medium/ High

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management

COASTAL FRINGE LCT Outer Ards (99)

practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.

Trees and Woodland

- Small stands of woodland should be retained. Planning for their succession through the planting of new stands, for example associated with new development, should be encouraged. Scots pine and beech are characteristic species.
- The management of estate woodlands, plus stone walls and other features of the estate landscapes, will help ensure these estates remain a feature of the landscape into the future.

Settlement and Development

- The settings of towns should be conserved by containing new development within the limits of landmark features or prominent landforms such as mottes, estates or ridges.
- New development on the edge of existing towns should take account of the individual character of each town, especially where development would form a gateway to the settlement and where there may be opportunities to promote the distinctiveness of settlements.
- Extensive scattered linear development along the coastal road should be avoided, especially between the coast road and the sea, where new development would detract from the distinctive visual character and interest of the exposed, rocky coastline.

Minerals

- Its seems unlikely that sizeable minerals development could be accommodated in this exposed, open landscape.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- The exposed coastline is sensitive to intrusion from wind energy development. Any such development would be best sited inland, and of sufficiently small scale to be associated with existing farm and housing development.
- The siting of other tall structures should take account of the impact of important coastal views, plus cumulative effects which may arise from extended visibility and views to multiple structures at a time.

Tourism and Recreation

- Coastal caravan developments should be limited both in their scale and frequency along the coast so as not to become a characterising feature. Those which are sheltered by local landform (or carefully designed earthworks) and which are screened by semi-natural vegetation will have the least visual impact. Their siting on prominent, exposed headlands should be avoided.
- Away from larger settlements, small, rough surfaced car parks would be preferable to more engineered designs incorporating sealed surfaces, concrete kerbs and marked bays. Local materials and features such as stone walls, gorse, Scots pine and beech could be used to construct and integrate any new development into the landscape.

Climate Change and Coastal Erosion

- Maintaining the integrity of natural coastal systems, such as salt marsh and dunes, may assist in mitigating the effects of any future coastal flooding.
- Limiting the amount of further coastal development will have benefits to landscape character and help mitigate against the possible effects of coastal erosion and flooding.

Biodiversity Profile

Key Characteristics

- narrow coastal strip predominantly of agricultural land
- improved pasture dominant, but significantly high proportion in arable
- notable large estates associated with arable farming and large fields of improved pastures
- woodland also associated with the large estates
- important coastal communities of flora and fauna, especially birds, including islands

Key Sites

- SPA: Outer Ards, Copeland Islands
- Ramsar: Outer Ards
- SAC: North Channel
- ASSI: Outer Ards, Ballymacormick Point, Copeland Islands
- SLNCI: Portavoe Reservoir
- Historic Parks and Gardens: Glenganagh, Donaghadee Manor, Ballywater Park

Woodlands

Woodlands occupy approximately 7% of the LCA; this is almost entirely in large estates (**parkland and wood pasture**) including Portavo House, Ballyrolly House and Ballywalter Park. Planting in these estates was extensive and although much of it dates from the middle and late nineteenth century, a considerable amount was already there at the time of the first edition of the 6" Ordnance Survey maps (1830s), notably at Portavo. Today, large, mature beech trees remain the dominant species in these estates, with oak, elm, sycamore and mixed conifers also present with a mix of forestry types surrounding Portavoe Reservoir, part of which has been designated as an SLNCI. In addition, the forestry around Portavo House itself is designated as priority woodland.

Specimen conifers, such as the Monterey pine at Ballywalter Park, also survive. In some parts, the large mature trees are absent and have been replaced by mixed stands of beech, sycamore and

COASTAL FRINGE LCT Outer Ards (99)

alder that show signs of piecemeal coppicing; in other areas there are recent plantings of pine and poplars.

There are some records of Priority Species from these woodlands, including **red squirrel** and **barn owl**, the former of which is concentrated in the woods around Ballyrolly House, and clearly there is a diversity of woodland habitats and tree species.

Grassland and Arable

Grassland covers around half of the LCA, the vast majority in improved pastures. These have limited biodiversity because of their generally intensive management. Arable land covers approximately one-fifth, a relatively high percentage for Northern Ireland; it is particularly evident between Donaghadee and Ballywalter and associated with large farms and estates. Many arable fields are in cereals and field boundaries are predominantly in well-maintained hedgerows.

Wetlands and Lakes

The only area of standing water in the LCA is Portavoe Reservoir, part of which is designated as an SLNCI; this has little biodiversity interest although in the woods and grasslands that surround it, **tree sparrow**, **bullfinch** and **barn owl** have been recorded. The reservoir and the lands that surround it have been sold by NI Water in spring 2021, with concerns raised that this may affect public rights of way and biodiversity in this area in the future.

Coastal

The coast is of major significance in the biodiversity of the LCA and much of it is under conservation designations. The intertidal zone of the Outer Ards Coast ASSI exhibits a classic algal zonation; the lower shore is particularly rich in red algae that form a dense understorey beneath wracks and kelps. The ASSI has several notable maritime vegetation communities and seventeen rare plant species have been recorded. The ASSI is also designated as a Ramsar and SPA due to its importance for breeding and wintering birds. There are internationally significant populations of light-bellied Brent geese and ringed plover, and nationally important populations of 11 other species of bird. The invertebrate shore fauna is rich for an open coast area.

Ballymacormick Point ASSI is also important for birds, including the tern colony on Cockle Island. **Golden plover** has also been recorded. The vegetation at Ballymacormick Point is dominated by maritime grassland and heathland occurs on the shallow soils and more exposed areas around the coastal rim of the site. **Coastal saltmarsh** and strandline communities occur extensively around the length of its shoreline. The saltmarsh within Ballymacormick Point ASSI contains several plant species with a restricted distribution in Northern Ireland, including salt-marsh flat sedge and sea purslane.

Orlock Point is a National Trust property with an impressive range of habitats - heath, unimproved neutral grassland, tall herb marsh, saltmarsh, maritime grassland, rock crevice communities and strand line vegetation. However, a lack of stock grazing has resulted in the spread of dense scrub or bracken over much of the site. A good range of common and widespread land birds breed on the property. Of particular interest are the sedge warbler and reed bunting. Other species recorded here include **tree sparrow**, **yellowhammer** and **curlew**.

Islands are a major feature of the coast and particularly important for birds; indeed, some have been given conservation designation: Copeland Island ASSI with its breeding sea birds and migrating passerines, and Burial Island ASSI, an important ternery. In addition Brigg's Rocks, Cockle Island and Lighthouse-Johns Island are important for several Priority Species, not only bird species but also **otter** and **wall brown butterfly**. Copeland Island currently has a management programme in place to deal with invasive Himalayan Balsam.

There are several areas along the shoreline of this LCA that are dominated by coarse gravel, sandy sediment and muddy sediment such as areas of Wallaces Rocks, Robins Rock, Cloughy and Sandy Bay. These areas are dominated by lugworms, sand masons and other polychaetes. At Burr Point there have been frequent observations of harbour seal, as well as many other points along the Outer Ards coastline.

Coastal sand dunes are relatively rare in Northern Ireland but are a feature of the south of the LCA around Cloughy Bay. At the northern end of the bay the dunes have been built over and used for caravan parks, but still the centre remains intact, although under pressure from recreational use.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: woodlands on the Outer Ards Coast are almost entirely NI Priority Habitat **parkland and wood pasture**; records from Portavo House, Ballyrolly House and Ballywalter Park contain include NI Priority Species.

Actions:

- enhance the biodiversity value of demesne woodlands by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is not cleared
- encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species
- further study of the history and biodiversity of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- enhance biodiversity through appropriate measures in agri-environment and forestry grant schemes to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species

COASTAL FRINGE LCT Outer Ards (99)

GRASSLAND AND ARABLE

Issue: intensively managed pastures and a relatively high percentage of arable land cover between Donaghadee and Ballywalter; these are of low biodiversity value

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland and protect unsown areas of grassland
- maintain and enhance damp grassland by where, possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of relevant measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying
- with fertilisers, slurry, herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds

WETLANDS AND LAKES

Issue: Portavoe Reservoir is the only area of standing water in this LCA and has been recently privatised

Actions:

- ensure that private landowners comply with the Reservoirs Act (NI) 2015 and that they are subject to the duties, liabilities and obligations of the act, as well as seek an agreement that would allow public right of way through the land to continue
- promote and ensure compliance with relevant guidelines and legislation so that rivers are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip; ensure that eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants

COASTAL

Issue: the coast of this LCA is of high biodiversity value and includes the NI Priority Habitats **coastal sand dunes** and **coastal saltmarsh**, in addition to many NI Priority Species

Actions:

- management of coastal sand dunes around Cloughy Bay should be directed toward protection from recreational pressures; restrict access from the road; provide boardwalks to prevent erosion of vegetation cover; exercise continued vigilance regarding the effects of trampling, erosion and expansion of facilities
- further research into the history and ecology of dune system communities, as a key to future management
- protect maritime heathland from becoming rank and invaded through controlled grazing, including the use of ponies; reduce the extent of sea buckthorn
- protect rare **coastal saltmarsh** communities around Ballymacormick Point ASSI from sources of pollution and waste tipping, in addition to damaging activities such as landfill and construction
- protect sub-littoral sands and gravel from potential impacts of aggregate extraction, fisheries and physical disturbance
- ensure that NI Priority Species, rare plants and RSPB Red List Species are protected from factors such as new development, erosion, waste tipping and pollution

Geological Characteristics

Overview

This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged example of a 'drumlin swarm'.

The LCA is a long, narrow strip of coastal land extending along the east coast of the Ards Peninsula from Groomsport to Cloughy. The landform is gently sloping, with an exposed rocky coastline which extends into the sea as small off-shore rocky islands. The intertidal foreshores provide a wide range of habitats and support a high diversity of wildlife. Orford (in Whalley et al. 1985) has described the outer coast along the Ards peninsula as a series of crenellate bays hinging on eroding drumlins or Tertiary dykes that normally open to the north. A number of sediment cells can be recognised along the coast defined by littoral drift reversals related to shifts in wave energy. Good examples of swash ridge welding under fair weather conditions can be seen in the bays. The Silurian basement crops out along the nearshore and acts as a 'reef' type barrier to wave attack. A number of sites along the outer Ards coast are recognised for their importance to earth science. Important geomorphological features include the storm Solid Geology ridge system and raised beach at Ballymacormick Point and a depositional site at Roddans Port that has been used to understand post-glacial sea level fluctuations.

Solid Geology

Palaeozoic greywackes and shales with numerous minor igneous intrusions. 99% of the LCA comprises Lower Palaeozoic (predominantly Ordovician Gala Group) greywacke sandstones and shales, the remainder being Tertiary intrusives. The structural features at Orlock, White House Port,

Kearney Point, Whiskin Rocks and Millin Bay; the igneous intrusives of Ballyferris and Ballyhalbert are covered by ASSI 105.

The Gilnahirk Group is separated from the Gala - Moffat succession by the NE-SW Orlock Bridge Fault which continues onto Copeland Island. The greywackes are of sandstone grade and vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. The greywackes are commonly quarried as a source of aggregate; they are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. Minor conglomerates and volcanic ash-beds (or bentonites) occur. Caledonian (undeformed) lamprophyre dykes occur, the best example being at Ballyhalbert Pier (ESCR Site 424). The excellent structural (faulted anticline), stratigraphic (Ordovician - Silurian) and palaeontological (graptolites) site of Coalpit Bay is in this LCA: ASSI 105.

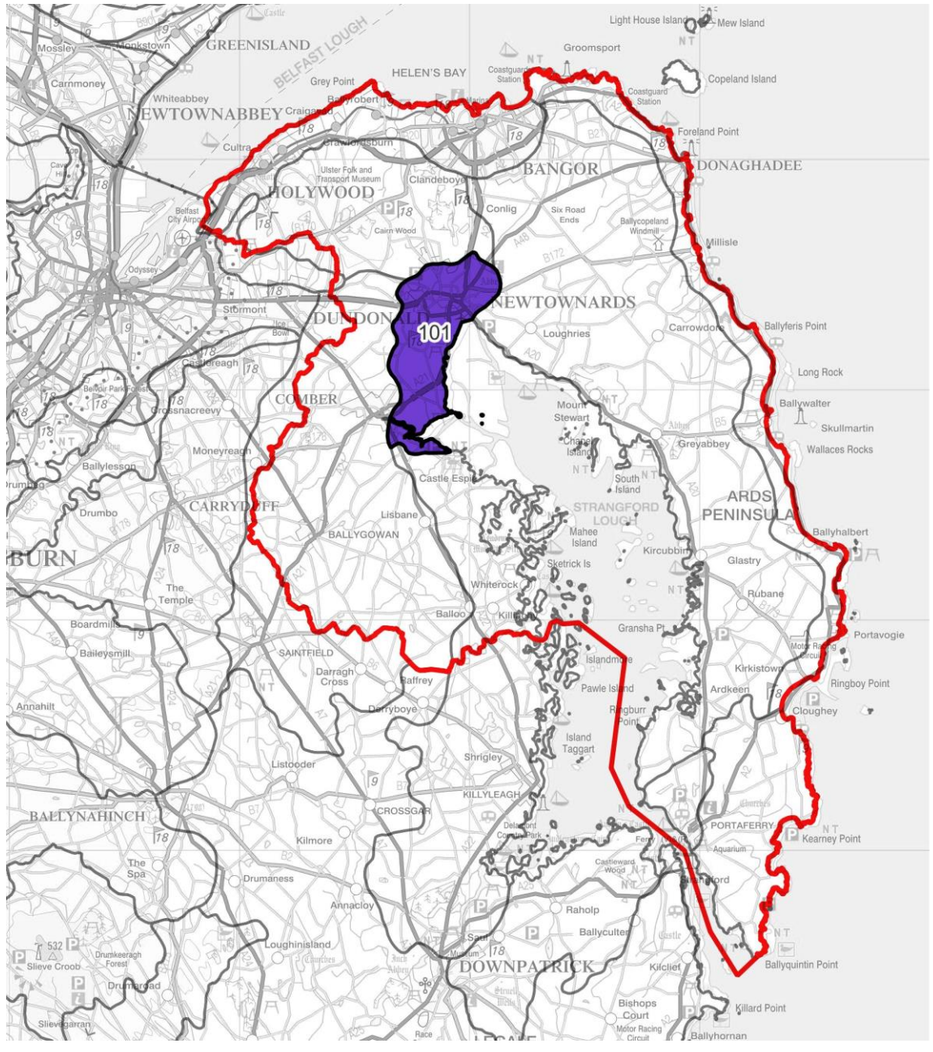
Drift Geology

The drift geology map for this narrow strip of land shows that most of it is underlain by till associated with fast flowing Late Midlandian ice that moved across the region at the time of the drumlin readvance. Over most of the LCA this left a cover of drumlins orientated approximately in a southeasterly direction. In the majority of cases this has resulted in a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. This pattern has been observed across Northern Ireland, apart from a limited area in the north of County Down, where Hill (1971) observed drumlins composed only of Lower Till. These occur in the very north of the LCA, to the west of Donaghadee, they are aligned approximately north to south and formed in response to ice that flowed southwards from the North Channel. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

COASTAL PLAIN LCT — Scrabo (101)

Scrabo Coastal Plain (LCA 101)

Return to LCA List



Settlements: Newtownards

Landscape Character

Scrabo Hill rising above the flat farmland and urbanisation of Newtownards at the head of Strangford Lough.

Location and Context

The ***Scrabo Coastal Plain,*** at the head of Strangford Lough, is a small character area, the mostly flat topography of which is distinct from surrounding hills and drumlin landscapes, and includes the urban area of Newtownards and landmark Scrabo Hill.

Key Characteristics

- Expansive, open farmland at the head of Strangford Lough.
- Scrabo Hill with the tower on its summit, is a dramatic landmark.
- Large houses and farms with extensive outbuildings.
- Expansive settlement including Newtownards.
- Major infrastructure, commercial and industrial development.
- Tranquil, secluded wetland landscape on banks of Comber estuary.

COASTAL PLAIN LCT Scrabo (101)

Landscape Description

Landform

The Scrabo Coastal Plain landscape is a diverse character area of flat, open land situated at the head of Strangford Lough. The flatness of most of its landscape distinguishes it from the more steeply undulating drumlins and low Holywood Hills nearby. It incorporates the town of Newtownards, the distinctive steep rocky outcrop of Scrabo Hill and the meandering tranquil landscape of the Comber Estuary. Scrabo Hill rises dramatically out of the sandstone plain, acting as a focus and landmark for miles around. This is reinforced by the tower which marks the highest point. Newtownards occupies the flat land at the head of Strangford Lough, expanding upwards into the lower slopes of the Holywood Hills. A number of sandstone quarries expose sections of the underlying rock through the vent and sills of this impressive landform.

Landcover

The lowland parts of the rural landscape have a relatively large-scale pattern, with large farms scattered evenly across the arable fields and pastures. The suitability of the farmland for a range of cropping and pastoral uses results in a patchwork of fields of differing colour, rather than the more uniform pastures found elsewhere in the Borough Council area. Field boundaries tend to be low clipped hedges or on arable farmland sometimes they are only banks or ditches.

To the north agricultural land runs right to the edge of Strangford Lough and a narrow stony coast, while at the Comber Estuary there is a more defined transition of salt marsh which is important for wading birds and recognised through ASSI designation.

The fields on the lower slopes of Scrabo Hill are particularly prominent, while higher up the slopes are textured by woodland and scrub, including Killynether Wood, high on the south western slopes of the Hill, which creates a more secluded landscape character in this area and provides a backdrop to the farmland. Much of the upper part of the hill is occupied by a golf course. The remainder of the character area is largely urbanised.

Settlement

Farm houses are often large with extensive outbuildings and complex architectural forms. Rural housing is relatively infrequent. Newtownards is the only settlement within the character area, although the outskirts of Comber intrude at the south western edge. The steep ground to Scrabo Hill provides a constraint to the expansion of Newtonards westwards into the character area, however there are fewer constraints along the flat coastal strip towards the south.

There are several large scale developments on the outskirts of the town close to the coast, including industry and a small airfield. A major road, the A21, cuts across the plain, linking Newtownards with the smaller town of Comber.

Perception

Scrabo Hill's designation as a Country Park enhances its recreational potential and allows panoramic views to be experienced from the hill top. The relative lack of trees or hedgerows adds to the open, expansive character of this area and allows long views across to Strangford Lough to the east.

Landscape Condition and Forces for Change

Landscape Condition

This expansive, productive farmland appears very productive and in good condition although traditional hedgerow field boundaries have all but disappeared in some areas. The landscape on the southern outskirts of Newtownards has been extensively developed for commercial and industrial uses and shows a degree of degradation in character and quality.

Forces for Change

Agriculture

Ongoing improvements for productive agriculture and changes to farming practice may result in the further loss of features such as hedgerows at field boundaries and along road sides.

Trees and Woodland

Tree cover in lowland parts of the landscape is low, with trees mostly clumped around properties. Trees in hedgerows and along roads are few, and there may be further losses because of neglect, disease and a lack of replacement specimens.

Settlement and Development

Development pressure mostly exists at the urban edges. There are few physical constraints to the further southward expansion of Newtownards or the eastward expansion of Comber. Pressures for rural housing appear relatively low in the agricultural parts of the landscape.

Minerals

The northern and eastern slopes of Scrabo Hill have historically been subject to quarrying for sandstone, but quarries are now disused and part of Scrabo Country Park. The likelihood of future quarrying activity in the area seems low.

Tall Structures

There is one consented wind turbine to the north west of the character area close to Scrabo Hill. It is possible that there may be demand for smaller farm scale development in the future.

COASTAL PLAIN LCT Scrabo (101)

Tourism and Recreation

Scrabo Country Park, including its hill top views, and the golf course, are a draw for recreational users. There could potentially be pressure for accommodation at, and greater access to, the coast.

Climate Change and Coastal Erosion

Rising sea levels have the potential to affect coastal farmland, trees and woodland and coastal developments. This may include changes to the water table and increasing salinity. The general forces for landscape change relating to climate change and coastal erosion set out in Section 5.3, should also be referred to.

Landscape Management and Planning Guidelines

Key Sensitivities

Landscape sensitivity is increased by the open character and the presence of Scrabo Hill Country Park which overlooks the area; vertical elements such as towers, hedgerow trees, pylons, masts and buildings stand out clearly in this open landscape. There are stunning views along Strangford Lough from this vantage point which are sensitive to change. In addition to the visual importance of this landscape, shoreline areas are designated as an ASSI and National Nature Reserve (NNR) and parts of Scrabo Hill have nature conservation and earth science value (the quarries have important sandstone and fossil exposures, together with a record of volcanic activity). Much of the area also falls within the Strangford Lough AONB.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	Medium/ High
Minerals:	High
Tourism:	High

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- While this is not a landscape of tall hedgerows, selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).
- While the flat landscape has a larger landscape scale than more intimate areas of drumlin, large scaled agricultural buildings or groups of buildings would be prominent in this open landscape. Their impact could be mitigated through including broadleaved woodland planting.

Trees and Woodland

- Substantial woodland is not a characteristic of the lowland landscape, nevertheless small patches of woodland, and planting around agricultural buildings and houses, would contribute to the landscape structure.
- The mosaic of land covers on Scrabo Hill contributes to its character, and it's partial woodland coverage should be broadly maintained, with other areas left to pasture or scrub.

Settlement and Development

- The scale of the landscape allows larger scale development to be integrated at the urban edge of Newtownards, provided it is carefully sited to prevent obstruction of views and to avoid sprawl.
- New development sites will be most effectively integrated into the landscape and setting of Newtownards if they are restricted to the flat lowland areas (including regeneration of some existing central urban areas) rather than adjacent hills.
- There are opportunities to enhance the degraded commercial and industrial landscape at the southern outskirts of Newtownards, through robust planting and boundary treatments.
- Settlement limits at Comber and Newtownards should be defined by robust landscape buffers, providing physical containment and mitigation of landscape and visual effects.
- In the rural landscape houses of varying architectural styles and colours would add confusion in such a simple and open landscape; the use of traditional materials and colour schemes would promote a unity of character.
- The siting and density of existing dwellings in the rural landscape should be considered when selecting new sites for development; houses which are built too close together may distract the eye, especially where there is also a clash of architectural styles.
- The stunning views along Strangford Lough from Scrabo Country Park should be taken into account in planning and designing new development.

Minerals

- It seems unlikely that any sizeable minerals development could be accommodated in the landscape without significantly affecting important characteristics and features.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- The siting of tall structures on the flat agricultural lowland plain should be avoided, as they would likely appear very prominent across open landscape.
- There should be no siting of tall structures on Scrabo Hill.

COASTAL PLAIN LCT Scrabo (101)

- The flat, more industrialised land at the southern part of Newtownards has the greatest capacity for wind energy development.

Tourism and Recreation

- Coastal developments for tourism, such as caravan parks or chalets, would likely be very obtrusive across the flat landscape, and in views from Scrabo Hill. There appears limited capacity to accommodate such development in rural areas without undue changes to the character of the coast.

Climate Change and Coastal Erosion

- Maintaining the integrity of natural coastal systems, such as salt marsh at the Comber Estuary, may assist in mitigating the effects of any future coastal flooding.

Biodiversity Profile

Key Characteristics

- divided into a northern half predominantly under urban land use (Newtownards) and a southern half, predominantly horticulture.
- little woodland or treed hedgerows
- isolated inland sites of biodiversity interest, especially Scrabo Hill
- Adjacent to internationally important coastal communities

Key Sites

- SPA & Ramsar: Strangford Lough
- SAC: Strangford Lough
- ASSI: Strangford Lough Part 1, Strangford Lough Part 3, Scrabo
- National Nature Reserve: North Strangford Lough
- SLNCI: Golden Glen, Kiltonga, Ballyharry, Killynether Wood
- Nature Reserve: Kiltonga
- Country Parks: Scrabo Country Park

Woodlands

Woodland occupies approximately 2% of the LCA and is limited to a small number of locations. Scrabo Country Park includes the woodlands of Killynether Wood SLNCI and the disused stone quarries. The quarries are surrounded by disturbed ground that is being colonised by thorns, scrub and gorse. This contrasts with the beech plantation at Killynether (some small areas of ash/birch are found in the eastern part of the wood) and the hazel wood on the western flank of Scrabo Hill. In spring, the hazel woodlands display a rich ground flora. A wide range of bird life can be observed in the woodlands and adjacent grasslands of the Park. Jackdaws nest in the quarry, together with kestrels and ravens. Other birds include swift, dunnock, stonechat, whitethroat, chiff-chaff, **spotted flycatcher**, **linnet**, **barn owl**, **yellowhammer** and redpoll. The **wall brown butterfly** has also been recorded here. The adjoining Scrabo ASSI - although designated for its geological features - regularly supports breeding peregrine falcons.

Other patches of woodland in the LCA are small and include some wet woodland trees around Kiltonga SLNCI and Nature Reserve, woodland around the small lakes at Golden Glen SLNCI, and plantings around some of the larger houses. The only area of priority woodland is located north of Scrabo next to Glen Dam and is mixed broadleaved and conifers. Ballyharry SLNCI comprises woodland and scrub along a small stream on the fringes of Newtownards, where in addition, various TPOs have been placed around the settlement to protect existing scattered patches of trees.

Grassland and Arable

Unusually for Northern Ireland, there is a relatively high proportion of the LCA in arable land, around one-third to a half, consisting of rotational horticulture; some cereal and pasture fields form part of this rotation. This land, lying between Comber and Newtownards, is intensively managed and many of the fields are bounded by ditches or poor, heavily trimmed hedgerows; biodiversity is low. In addition, the area, which has some of the best soils in Northern Ireland, is under threat from urban expansion of both towns of Newtownards and Comber, the latter of which is beginning to expand into Scrabo LCA.

Rough pasture is associated particularly with the urban fringe and represents 'blighted' land that may go into urban expansion; being a transient land cover, it has little biodiversity interest.

Heath and Scrub

Small areas of gorse heath and scrub are found on the old quarries and steep slopes of the southern and eastern flanks of Scrabo Hill. **Common lizard** has been recorded in this area.

Wetlands and Lakes

The lakes at Kiltonga SLNCI and Nature Reserve are managed for wildfowl and attract a wide variety of duck species and are particularly noted for regular gadwall. **Bullfinch** and **song thrush** have also been recorded here. The small lakes at Golden Glen are also designated as part of the SLNCI. There are no rivers of note in this LCA.

Coastal

Strangford Lough is designated as an SPA, Ramsar, SAC and ASSI for its marine and intertidal habitats, breeding and wintering bird populations and common seal populations. In addition, all but the most southerly portion of the coast is within the North Strangford Lough National Nature Reserve. The NNR is the most extensive and least altered mud and sheltered sandflats in Northern Ireland. Dominant species within the mudflats include polycheates such as, lugworms and catworms and bivalves such as the Baltic tellin and cockles. The **intertidal mudflats** are an internationally important site for **pale-bellied brent geese**, with 60% of the world's population supported over winter by this site as they feed on the abundant eel-grass as well as providing important breeding

COASTAL PLAIN LCT Scrabo (101)

sites for birds. Ogilby Island features a significant breeding ground for sandwich terns while also having a high number of **black-headed gulls**.

Coastal saltmarsh is included in this LCA. Saltmarsh occurs at the Comber Estuary and also a narrow coastal strip that extends for nearly 1.5km from Newtownards airport. At the Comber estuary there is a sequence of saltmarsh communities; annual sea blite marsh colonises the mud, common saltmarsh grass occurs in the lower saltmarsh backed by a red fescue - saltmarsh rush community, with common couch in the upper saltmarsh vegetation. There are also small stands of common cord-grass marsh. Common reed beds are present in the zone between the arable land and the marsh. At Newtownards the saltmarsh is dominated by common saltmarsh grass, red fescue - saltmarsh rush, with common couch. **Otter** has been sighted in this area.

Saltmarshes are an important resource for wading birds and wildfowl. They act as high tide refuges for birds feeding on adjacent mudflats, as breeding sites for waders, gulls and terns and as a source of food for passerine birds particularly in autumn and winter. Saltmarshes are a rare feature in Northern Ireland due to past land reclamation for agriculture.

Urban

Urban land occupies around a third of the LCA, principally in the northern half around the town of Newtownards and this proportion is increasing. There are few sites of biological interest, but opportunities exist, especially with new estates, to leave small areas that can be managed as wildlife reserves. There have been confirmed sightings of **red squirrel** around Newtownards.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: woodland cover is limited to a beech plantation at Killynether Wood and hazel woodland on the western flank of Scrabo Hill, as well as a small priority woodland north of Newtownards; a number of NI Priority Species have been recorded in this LCA

Actions:

- enhance the biodiversity value of broadleaved woodlands by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is not cleared
- encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species; monitor visitor pressure on woodlands to ensure that ground flora is not lost through trampling
- further study of the history and biodiversity of broadleaved woodlands within Scrabo Country Park, particularly any ancient and long-established, as a key to future management
- ensure conservation of patches of wet woodland around Kiltonga bird sanctuary by preventing trampling by stock and allowing succession to take place; ensure that loss does not occur through drainage, reclamation, landfill or dumping/tipping
- enhance biodiversity through appropriate measures including agri-environment and forestry grant schemes to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species; farmers and landowners could be encouraged to plant field corners or set-aside fields

GRASSLAND AND ARABLE

Issue: a relatively high proportion of this LCA is in arable land but is intensively managed and of low biodiversity value; the area between Comber and Newtownards is under threat from urban expansion

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland and areas of rough pasture along the urban fringe
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of agri-environment schemes including correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying with fertilisers, slurry, herbicides through a move to organic farming; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

HEATHS AND BOGS

Issue: areas of gorse heath and scrub should be retained

Actions:

- following the release of the Northern Ireland Peatland Strategy 2021 – 2040 support strategic efforts including the conservation of existing peatlands, restoration of degraded areas and supporting sustainable peatland management
- promote membership of ESA or other agri-environment schemes through consultation with farmers and thereby
- control grazing intensity on existing heathland to encourage development of heathland and of heather of different ages
- discourage reclamation to pasture fields of heathland margins
- allow tree colonisation to take place

COASTAL PLAIN LCT Scrabo (101)

WETLANDS AND LAKES

Issue: the NI Priority Species **bullfinch** and **song thrush** have been recorded around the Kiltonga Nature Reserve lakes

Actions:

- promote and ensure compliance with relevant guidelines and legislation so that lakes are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip; ensure that eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor rivers within the LCA in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants
- monitor effects of visitors on shoreline communities at Kiltonga Nature Reserve

COASTAL

Issue: NI Priority Habitats **coastal saltmarsh** and **intertidal mudflats** are important resources for wading birds and wildfowl, but are under threat from disturbance, particularly at Island Hill. This area contains the largest saltmarsh in Northern Ireland.

Action:

- protect rare **coastal saltmarsh** communities from sources of pollution and waste tipping, in addition to damaging activities such as land-fill, construction and disturbance (windsurfing, dogs, jet skis, horse riding)
- protect mudflats from potential impacts of nutrient enrichment, land claim, coastal defences, dredging and human disturbance
- ensure that NI Priority Species, rare plants and Red List Species are protected from factors such as new development, erosion, waste tipping and pollution
- an integrated coastal zone management policy is required to achieve a balance between public enjoyment of Strangford Lough and conservation

URBAN

Issue: potential for new nature reserves within urban areas, endangered mammal species such as **red squirrel** sighted.

Action:

- leave small areas within new development to be managed as wildlife areas
- old quarries provide potential as ponds and wetlands where natural succession can take place
- planning new urban areas in such a way as to reduce the impacts of habitat loss and fragmentation

Geological Characteristics

Overview

This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged example of a 'drumlin swarm'.

The Scrabo landscape is an area of flat, open land situated at the head of Strangford Lough. It incorporates the town of Newtownards, the distinctive steep rocky outcrop of Scrabo Hill and the meandering tranquil landscape of the Comber Estuary. Scrabo Hill rises dramatically out of the sandstone plain, acting as a focus and landmark for miles around; this is reinforced by the tower that marks the highest point. A number of sandstone quarries expose sections of the underlying rock through the vent and sills of this impressive landform.

Orford (in Whalley et al. 1985) has described the coastal lowlands around Strangford Lough as a mixture of glaciomarine shelf sediments with a superimposed two unit drumlin cover, lying on a low undulating basement of Silurian greywacke and mudstones. Strangford Lough is tidal with a distinctive straight east coast and a highly irregular west coast morphology. The lough contains numerous drowned drumlin islands that have been removed completely from the eastern shore to leave remnant shoals or 'pladdies'. On the western shore the drumlin islands are largely retained and linked by limited shoreline deposition. The difference between the lough shores is because of the prevailing southwesterly waves that vigorously attack the eastern shore, whilst leaving the western shore largely untouched. There are extensive intertidal mud and sand flats in the north of the lough that act as sinks for most of the sediment derived from the erosion of the east coast. Sites such as those at Rough Island and Ringneill Quay (LCA94) have been important in documenting post-glacial sea level fluctuations. In particular, McCabe and Knight (in Knight 2002) have observed that at the head of Strangford Lough there are well defined late- and post-glacial wave-cut terraces at around 20m O.D.

Solid Geology

The area predominantly comprises the Triassic Sherwood Sandstone Group. The northeastern tip covers the Lower Palaeozoic, southern area the Permian and Carboniferous Castle Espie succession, the remainder being Tertiary intrusives.

The northern 15% of the LCA is underlain by Lower Palaeozoic greywacke sandstones and shales. The greywackes are of sandstone grade and vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. The greywackes are commonly quarried as a source of aggregate; they are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. Similar strata are found at the southern end of LCA 101.

COASTAL PLAIN LCT Scrabo (101)

The southern part of the LCA encroaches onto Carboniferous rocks. These comprise fossiliferous limestones and thin shales. This is a unique location for rocks of this age which are in faulted contact with older strata at the western limit to the Carboniferous sediments.

Permian Enler & Belfast Group strata rest unconformably and also in faulted contact with various older rocks in the south of the LCA. The estuary extending from Comber to Strangford Lough has eroded preferentially into Enler Group strata. The Enler Group comprise red-brown sandstones, conglomerates, siltstones. The Belfast Group comprise mudrocks the topmost 1-4 metres of the Belfast Group comprises the Magnesian Limestone Formation, a dolomitic, fossiliferous limestone.

Triassic Sherwood Sandstone Group sandstones comprise red, purple and brown cross-stratified sandstones, siltstones with minor clay beds and partings. The sandstones are exposed in the quarries of Scrabo Country Park (ASSI 091), where they were formerly extracted for building stone. Here, a Tertiary sill and dykes have caused local mineralisation and hardening of the sandstones.

Tertiary dolerite dykes occur throughout the area with most oriented NW-SE. A Tertiary dolerite sill, intruded into Sherwood Sandstone, caps the crag and tail of Scrabo Hill (ASSI 091).

Drift Geology

The drift geology map of the LCA identifies a cover of Midlandian till over much of the area, apart from limited drift free areas around Scrabo and in the north where the land rises towards Bangor. In his study of drumlins in north Co. Down, Hill (1971) identified drumlins across most of the region that consisted of a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. This Younger Till was associated with the large ice mass that was centred on the Lough Neagh Basin and ice that flowed southeastwards from an ice divide that lay approximately SW-NE along the line of the north Belfast Hills. The exception to this combination off tills can be seen in the north of this LCA, where Hill observed drumlins aligned approximately north to south that are composed only of Lower Till and that formed in response to ice that flowed southwards from the North Channel. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

Superimposed on the tills are areas of glaciofluvial deposits either side of the Scrabo upland that derive late-glacial deposition by meltwater along the Enler Valley between Belfast and Comber - the so-called 'Dundonald Gap'. Smith et al. (1991) describe these deposits as mounded outwash that consists of laminated sand and gravel with subordinate red clays. The map also identifies extensive 'reclaimed' land around the head of the Lough and, more interestingly, it shows a series of raised beach deposits in the south of the LCA. The most notable of these are to be found at Rough island. Rough Island, southeast of Comber, is an erosional remnant of the flat upper terrace surface of a wave-cut terrace at about 20m O.D. The drumlins in this area have also been draped by a red marine clay that feathers out at a height of 16m O.D. This clay is similar to that observed at Roddans Bay on the outer Ards Coast (LCA 99), but it is better preserved in the more sheltered environment of Strangford Lough.

URBANISED COASTAL FRINGE LCT — Bangor (103)

Bangor Urbanised Coastal Fringe (LCA 103)

Return to LCA List

Settlements: Ballyrobert, Bangor, Crawfordsburn, Helen's Bay, Holywood.

Landscape Character

Wooded estate landscape dropping to the rocky shoreline

Location and Context

The ***Bangor Urbanised Coastal Fringe*** comprises the northern coastline of the Borough Council area at Belfast Lough and includes substantial areas of urban development including the main settlements of Holywood and Bangor.

Key Characteristics

- Undulating, rocky shoreline topography.
- Well wooded and densely settled coastal edge to the south of Belfast Lough.
- Wild, rocky shoreline with gorse scrub, stands of Scots pine and steep, narrow glens.
- Estates with mixed woodlands overlooking the sea.
- Large houses and hotels set in ornamental grounds.
- Good infrastructure linking settlements with many recreational facilities.
- Views restricted by extent of woodland.

URBANISED COASTAL FRINGE LCT Bangor (103)

Landscape Description

Landform

The Bangor Urbanised Coastal Fringe forms a linear shoreline strip extending from the edge of Belfast, at the head of Belfast Lough, to Ballyholm Bay to the east of Bangor. Towards the west it comprises the undulating lower hill slopes of the Holywood Hills as they drop to the coast. To the east Bangor has expanded inland to occupy flatter ground north east of the hills. The coast is low with rocky headlands and sandy bays.

Landcover

The character area is substantially urbanised. To the east the town of Bangor has expanded inland from the coast in all directions, and is the fifth largest settlement in Northern Ireland by population. Its urban area characterises the whole of the eastern part of the LCA. Further west, while heavily urbanised, the landscape still retains areas of farmland and estates, with pasture extending up to the Holywood Hills. Holywood has an elongated form, developing along the coast to make use of its flatter and more easily accessed land.

Between Holywood and Bangor are a series of smaller settlements such as Helen's Bay and Crawfordsburn, and which retain some separation from the nearby larger urban areas by the presence of pastoral farmland, golf courses and wooded estates such as Clandeboye and Crawfordsburn. The presence of many estates has created a local landscape of large fields, stone walls and woodland with a sequence of landmarks glimpsed in views along the coastal roads. A series of narrow, wooded glens wind down the steeper slopes towards the Lough shore; a notable example is Crawfordsburn Glen, which lies within a Country Park. Woodland cover in the LCA is relatively high.

Settlement

The urban centres of Holywood, Helen's Bay and Bangor are linked by a good communication network comprising the main A2 dual carriageway and the Belfast to Bangor railway line as well as many minor roads and the Ulster Way/ North Down Coastal Path. Development outside of settlements is common and there are several large houses and hotels, for example the Culloden Hotel. The provision of footpaths, parking places and picnic sites provides recreational opportunities along the coast. To the far west, the landscape between the main A2 and the coast is of a more industrial character approaching the George Best, Belfast City Airport and Belfast Harbour.

Perception

Inland, views are generally short due to the well wooded character of the landscape. Views to the nearby coast and more rural parts of the landscape are limited. The exposed coast line has an open rocky edge and patches of low growing gorse and scrub; it provides opportunities for long panoramas across the Lough.

Inward views to the LCA are a feature of views from Belfast Lough, the substantial woodland and trees of which are able to absorb a relatively high level of development. The wooded landscape here contrasts with the more industrialised northern coast of Belfast Lough.

Landscape Condition and Forces for Change

Landscape Condition

The character area has a largely either urban or suburban character. The rural landscape is fragmented however its remaining parts are often in good condition, actively managed as farmland, estates, Country Parks or the grounds of large properties. The rural parts of the Bangor coastline are attractive, with access facilitated by the Ulster Way/ North Down Coastal Path.

Forces for Change

Agriculture

The remaining parts of the farmed landscape generally appear in good condition and actively managed, albeit development pressures may result in further fragmentation.

Trees and Woodland

There is a robust woodland framework in the character area. The presence of many of these within larger managed estates should help secure their future, subject to good woodland management practices.

Settlement and Development

The remaining rural parts of the landscape may come under pressure for development at settlement edges, for rural housing and other development types, with further fragmentation. The loss of effective separation between settlements is a possibility, with the character area becoming predominantly urbanised.

Minerals

There are no significant minerals developments in the character area. Given the existing high levels of urbanisation and relatively few areas where such development may be possible, minerals development seems an unlikely force for landscape change.

Tall Structures

The LCA includes only a very small number of consented wind turbines. There may be a favourable wind resource for wind energy development due to the coastal location, resulting in some ongoing pressure for smaller scales of wind energy development.

Tourism and Recreation

The area is already well developed for tourism and recreation, including several golf courses, hotels, jetties, a marina at Bangor, Crawfordsburn Country Park and shore line access to the North Down

URBANISED COASTAL FRINGE LCT Bangor (103)

Coastal Path/ Ulster Way. Additional development may not be a significant pressure, but new attractions and facilities, or modifications to those that already exist, may occur in the future.

Climate Change and Coastal Erosion

While the coastline is quite rocky, studies indicate that parts of the coastline may be susceptible to erosion, with the potential to impact upon the settlements and numerous properties situated close to the coastline. The general forces for landscape change relating to climate change and coastal erosion set out in Section 5.3, should also be referred to.

Landscape Management and Planning Guidelines

Key Sensitivities

The landscape is extensively settled and has almost fulfilled its development potential. Further change may lead to loss of important rural areas and valuable recreational resources. However, the well wooded character and robust landscape pattern of the area allows development to be well integrated into the fabric. The estates at Crawfordsburn, Clandeboye, Guincho, Lorne, and Cultra Manor are all included in the register of Historic Parks, Gardens and Demesnes.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	Medium/ High
Minerals:	High
Tourism:	Medium

Guidance

Agriculture

- The fabric of the remaining parts of the agricultural landscape should be retained. Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- Selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).

Trees and Woodland

- The wooded character of the landscape should be retained through the appropriate management of existing estate woodlands and those in Country Parks.
- Woodland creation on hill slopes above existing areas of settlement, and at other settlement boundaries to discourage the merging of settlements, may help retain and reinforce rural landscape character.

Settlement and Development

- Further built development should not spread into areas of rural character between settlements, which form an invaluable recreational resource and important green break between individual settlements.
- Coalescence of developments along the coast is a significant pressure, encouraged by the strong linear communication pattern; there is a need to recognise buffer zones, such as those provided by dBMAP Landscape Wedges, which separate settlements and help to conserve their individual landscape setting.
- Further rural housing development, beyond larger settlements, should in general be avoided.

Minerals

- The landscape has little capacity to accommodate minerals development. The nature of such development is likely to be incompatible with both the settled and more rural parts of the landscape. The sloping nature of the landform which tend to promote visibility. Industrialising development may undermine the attractiveness of the LCA for tourism and recreation.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- The small scale of the landscape, its relative complexity, and high value landscapes significantly constrain its capacity for wind energy development. The more industrialised area to the west may have the greatest capacity for wind energy development.
- Wind energy developments, or other tall structures should avoid the rural coastline, respecting views along the shore and inward views.
- Sizeable wind turbines should not be sited on the landforms above existing settlement where they have the potential to appear out of scale with existing forms of development.

Tourism and Recreation

- The provision and upkeep of visitor facilities will help to reduce erosion and pressure on the more sensitive parts of the landscape, such as the scenic glens, woodlands and open shores.
- In rural locations access to the shore should be enabled on foot/ cycle with parking provided inland rather than on the coast itself to help maintained the character of the coastline.

Climate Change and Coastal Erosion

- Maintaining the integrity of natural coastal systems, such as dunes and salt marsh, may assist in mitigating the effects of any future coastal flooding.

URBANISED COASTAL FRINGE LCT Bangor (103)

- Limiting the amount of further coastal development will have benefits to landscape character and help mitigate against the possible effects of coastal erosion and flooding.

Biodiversity Profile

Key Characteristics

- dominated by urban development
- coastal location with both rocky shores and sandy bays
- woodland found mainly around estates and Crawfordsburn Country Park
- grassland mostly improved and located around Crawfordsburn and Craigavad

Key Sites

- SPA: Outer Ards, Belfast Lough, Belfast Lough Open Water
- Ramsar: Outer Ards, Belfast Lough
- ASSI: Inner Belfast Lough, Outer Belfast Lough, Outer Ards
- Historic Parks and Gardens: Cultra Manor, Lorne, Guincho, Clandeboye, Crawfordsburn House, Bangor Castle

Woodlands

Over 11% of this LCA is comprised of woodland, the majority of which is broadleaved and exists as wooded headlands, glens and parkland around estates such as that at the Ulster Folk and Transport Museum and Cultra Manor. These contain priority woodland areas (parkland and wood pasture) and harbour species such as **pine martin** and **red squirrel**.

Crawfordsburn Country Park is an important feature of the landscape and comprises several areas of woodland including wooded headlands and riverside woodlands such as "the glen" which was first planted in the early 19th century. Many of the older trees that make up this wooded area are not native, such as beech, larch, Monterey cypress or Californian redwood but more recent planting has concentrated on native trees such as oak, ash and hazel. Wood anemones, primroses, dog violets and wild garlic can also be found in the ground flora. This area is important for its fauna as well as flora. Birds such as the willow warbler, goldcrest, treecreeper and **golden plover** can be sighted as well as stoats, **red squirrels** and **bats**. Sections of the woodlands have furthermore been designated as priority habitat (**parkland and wood pasture**).

Edith of Lorne's Glen is another glen woodland in this LCA. This site comprises a mixture of semi-natural and planted, mature deciduous woodland as well as some regenerating shrubby woodland. The most natural area of woodland is located on the steep slopes in the western half of the valley where ash with downy birch, wych elm, beech and sycamore are to be found with an understorey of hawthorn, blackthorn and holly. Flowers such as bluebell and wood anemone occur in the woodland floor with ivy, soft shield fern and broad buckler-fern.

There is also an area of new woodland in this LCA located next to the Clandeboye Estate. Kilcooley Wood is a suburban Woodland Trust site composed predominantly of oak and ash with also some hazel and cherry.

There are also many Historic Parks and Gardens consisting of parkland, small plantations and semi-natural woodland. TPOs feature significantly in this LCA covering approximately 5.8% of the total land surface.

Grassland and Arable

Grassland comprises around one-fifth of land cover in this LCA. The vast majority of this is improved grassland which is found predominantly in the centre of the LCA around Crawfordsburn and Craigavad. There are some small areas of rough and acid grassland found scattered throughout the LCA.

Crawfordsburn Wildflower Meadow, located in Crawfordsburn Country Park, is an especially important area for its flora as it was sown with a wildflower mix. Ox-eye daisies, ragged robin, bird's-foot trefoil and common knapweed are common and butterflies like the common blue and meadow brown have been attracted to the area. Other areas of grassland in the meadow are managed as hay meadows. These were not resown but are just left to grow. Grasslands around the Country Park have been listed as priority habitats.

There are some pockets of arable land in this area mainly concentrated in the centre of the LCA. This habitat is important for many decreasing farmland birds.

Coastal

LCA 103 is also characterised by its coastal location and the full coastline is within either the Outer Belfast Lough ASSI or Outer Ards ASSI. To the west of Grey Point towards Cultra, the coast is more exposed and is rocky and rugged, and is generally of lower biodiversity interest due to the unstable nature of the substrata. On the eastern side are more sandy beaches such as Helen's Bay and Ballyholme Bay. These areas are largely dominated by lugworms, sand masons and other polychaetes. Swinley Point has good species diversity of flora and fauna with a range of habitats such as rock pools, and under boulder habitats. Birds from the Inner Belfast Lough ASSI regularly feed at the Outer Belfast Lough ASSI and so the two are closely connected. Around the north shore of the Outer Ards ASSI, **otters** are present along the coastline around Crawfordsburn House. Notable maritime vegetation can be found here including seventeen rare plant species.

Across the whole coastline, many birds such as **curlew**, **golden plover**, cormorants, shags, eider ducks and red breasted mergansers are attracted to this area as well as other fauna such as the **wall brown butterfly**, common blue butterfly and the six-spot burnet moth.

Urban

This LCA is largely urbanised with urban/suburban and garden covering approximately three-quarters of the land surface, predominantly comprising the town of Bangor and the string of settlements that run along the rest of the Bangor coastline towards Belfast. There are few sites of

URBANISED COASTAL FRINGE LCT Bangor (103)

biological interest, but opportunities exist, especially with new estates, to leave small areas that can be managed as wildlife reserves.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: high woodland cover in NI Priority Habitat parkland and wood pasture; Crawfordsburn Country Park is important for the NI Priority Species **red squirrels** and **golden plover**

Actions:

- enhance the biodiversity value of demesne woodlands by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is retained
- encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species; removal of invasive species could increase the diversity of ground flora, especially where the canopy species are not beech
- further study of the history and biodiversity of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- enhance biodiversity through appropriate measures in agri-environment schemes to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species; farmers and landowners could be encouraged to plant field corners or set-aside fields
- retain and develop Nature in the City sites containing woodland and continue to retain TPOs

GRASSLAND AND ARABLE

Issue: low grassland cover of poor biodiversity value, predominantly around Crawfordsburn and Craigavad; also small scattered areas of rough and acid grassland

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland such as Crawfordsburn Wildflower Meadow
- maintain and enhance rough damp grassland by, where possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of relevant measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of good farming practice in relation to spraying with fertilisers, slurry or herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

COASTAL

Issue: the sandy beaches east of Grey Point are of relatively high biodiversity value, particularly for polychaetes, butterflies and birds, including the NI Priority Species **curlew** and **golden plover**

Actions:

- further research into the history and ecology of flora and fauna at Swinley Point, as a key to future management
- ensure that NI Priority Species, rare plants and Red List Species are protected from factors such as new development, erosion, waste tipping and pollution
- protect heath from becoming rank and invaded through controlled grazing; reduce the extent of sea buckhorn

URBAN

Issue: potential for new nature reserves within urban areas

Actions:

- leave small areas within new development to be managed as wildlife areas
- old quarries provide potential as ponds and wetlands where natural succession can take place
- plan new urban areas in such a way to reduce the impacts of habitat loss and fragmentation

Geological Characteristics

Overview

This LCA lies at the northern boundary of the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged example of a 'drumlin swarm'.

The LCA forms a linear shoreline strip extending from the edge of Belfast, at the head of Belfast Lough, to Groomsport at its mouth. It is a strip of land with a gently undulating topography that supports a patchwork of pasture, mature deciduous woodland and dense urban development. Views are generally short due to the well wooded character of the coast, but the exposed coast line has an open rocky edge and patches of low growing gorse and scrub; it provides opportunities for long

URBANISED COASTAL FRINGE LCT Bangor (103)

panoramas across the Lough. Orford (in Whalley et al. 1985) has described Belfast Lough as the fault-guided boundary between the Palaeozoic basement to the south and the Tertiary lava plateau to the north. There has been considerable man made modification of the shoreline over the last one hundred years. And most of the coastal road system and the northern edge of Belfast is on 'made ground'. Some minor sea level falls have accompanied this landfill. Sediment supply to the Lough is now very limited and in some cases, as at Carrickfergus, shoreline extensions have overstepped existing sediments and have required the construction of coastal defences. Tertiary dyke swarms orthogonal to the lough shore have acted as natural groynes and have led to the limited development of crenellate bays.

Solid Geology

The easternmost area south of Bangor encroaches upon the Lower Palaeozoic outcrop of Gala Group greywackes. To the north and extending along the southern margin of the LCA the older Gilnahirk Group forms the lower slopes of the Craigantlet Hills. The greywackes vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. Both units are commonly quarried as a source of aggregate. Minor conglomerates and volcanic ash-beds (or bentonites) and pillow lavas (e.g. at Helen's Bay) occur: these, and the enclosing black shales, make the exposure unique – ASSI 104 or the Craigavad - Grey Point succession of ESCR Site 453 and ASSI 104. The southeastern area of Gala Sandstones includes the abandoned lead mine workings at Conlig. The Carboniferous ‘Holywood Group’ succession at Cultra has a total thickness of about 280m and comprises sandstones, greenish calcareous mudstones and shales.

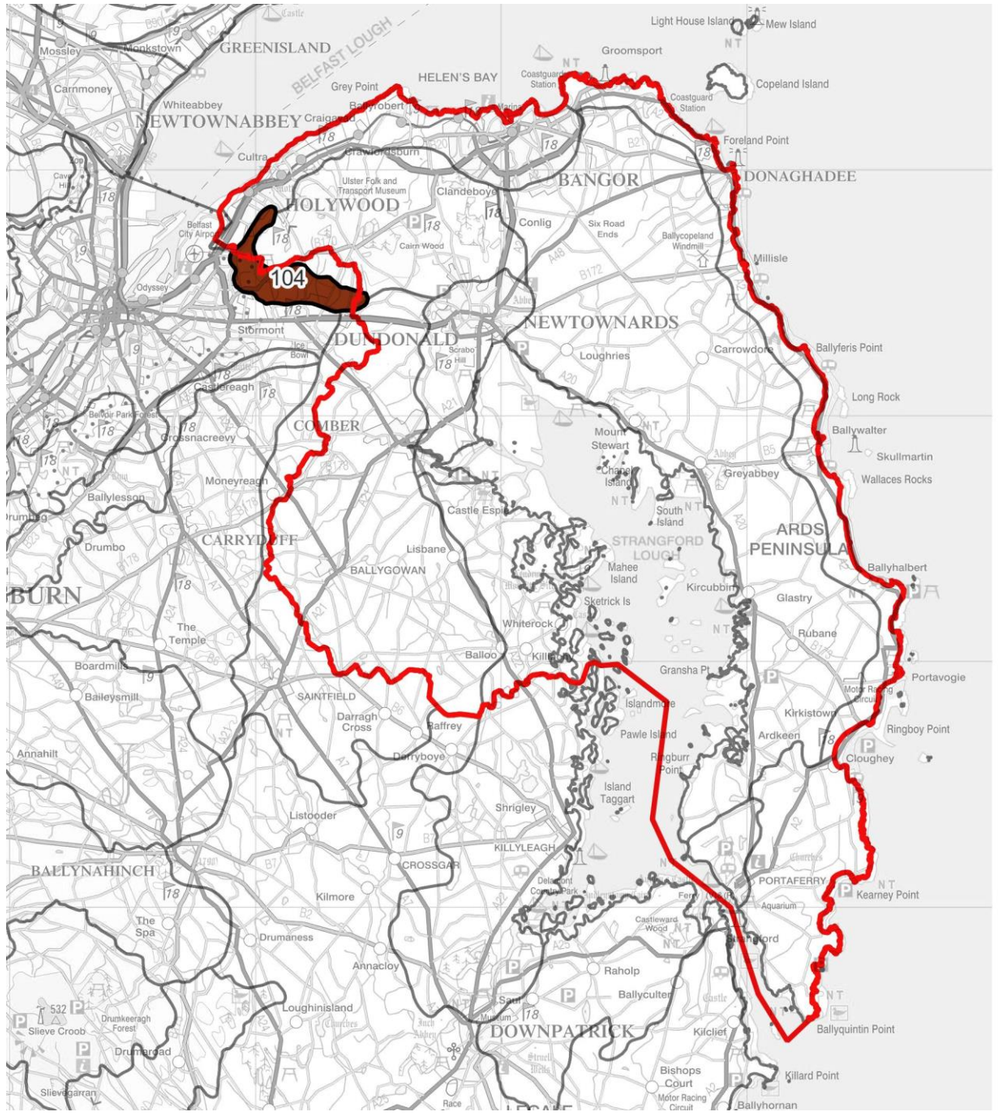
The Permian comprises red-brown sandstones, conglomerates, siltstones. The topmost 1-4 metres of the Belfast Group comprises the Magnesian Limestone Formation (8.5m), a dolomitic, fossiliferous limestone, quarried in Norman times for the cornerstones of Carrickfergus Castle. This unique exposure falls in ASSI 104. Triassic sandstones comprise ~350m of red, purple and brown cross-stratified sandstones, siltstones with minor clay beds and partings.

NW-SE trending dolerite dykes occur throughout the area and are especially obvious in the northern coastal area within the Gilnahirk Group.

Drift Geology

The drift geology map for the area shows that most of it is underlain by Midlandian till. Topographically the till comprises an extensive suite of isolated drumlins, some with rock cores, which are orientated approximately north to south. The majority of drumlins across Northern Ireland comprise a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. The exception to this rule occurs in North Down, where Hill (1971) observed drumlins composed only of Lower Till. These are thought to have formed in response to ice that flowed southwards from the North Channel. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

In the southwest of the LCA at the head of Belfast Lough an area of 'reclaimed' land is mapped, although the boundary of this must constantly change as more of the Lough is infilled. Behind this is an expanse of glaciofluvial deposits that for part of the Lagan Valley Deglacial Complex. This is a discontinuous belt of glaciofluvial and glaciolacustrine deposits that occurs for 40km along the axis of the Lagan valley from Belfast WSW to Aghalee, Co. Antrim.



Craigantlet Escarpment (LCA 104)

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Settlements: None

Landscape Character

The wooded slopes of the Craigantlet Escarpment behind Holywood.

Location and Context

The ***Craigantlet Escarpment*** partially intrudes into Ards and North Down forming the steep western edge to the Holywood Hills.

Key Characteristics

- Steep ridge containing the eastern urban edge of Belfast.
- Robust landscape structure provided by woodland, shelterbelts and hedgerows.
- Pastures predominate.
- Stormont Castle, set within wooded grounds and avenues, stands out as a distinctive feature.
- Radio masts on the ridge-top are prominent.
- Encroachment of housing from the outskirts of Belfast.

ESCARPMENT LCT Craigantlet (104)

Landscape Description

Landform

The Craigantlet Escarpment is a prominent ridge of Silurian rocks which forms the escarpment to the western end of the Holywood Hills. The escarpment encloses and shelters the urban edge of east Belfast which pushes up against the ridge. The eastern part of the LCA is incised by wooded glens, which form a series of ridges extending to the lowland areas, while the topography to the west, within Ards and North Down is very steep.

Landcover

The lower slopes are settled, extending from the urban areas of Belfast and Dundonald and here there is a framework of woodland which provides the landscape with a robust structure, particularly around Stormont, with fingers of woodland extending upwards into the character area. Pastures divided by hedgerows and shelterbelts predominate. However, the more westerly area, at Redburn Country Park within Ards and North Down, is extensively wooded, the steepness of the terrain making other land uses difficult, with a golf course located on the lower slopes.

Settlement

While settlement encroaches into the lower fringes of the LCA there is a strong division between the rural and urban landscape. The government buildings at Stormont stand out as a major landmark. Elsewhere farms and rural properties are scattered throughout the LCA, and a number of minor roads take a direct route up the escarpment to traverse the Holywood Hills.

Perception

The rural/urban interface is strong and well defined. There are clear views to the ridge from the surrounding lowlands and adjacent escarpments, including an important view across Belfast Lough from the M2 at Newtownabbey; any development on the ridge is highly visible.

Landscape Condition and Forces for Change

Landscape Condition

The landscape is mostly in good condition, with robust hedges and woodland providing a recognisable landscape structure, although field enlargements and neglect of some field boundary hedges is apparent. Encroachment of development from the edges of Belfast threatens to alter the rural character of the lower escarpment in the locations where there are no features to contain the settlement edge.

Forces for Change

Agriculture

The agricultural landscape is relatively sensitive to change due to its importance as the setting to the urban area of Belfast. Loss of landscape structure through removal or neglect of field boundaries would adversely affect the setting of parts of the city. Newer larger scales of agricultural building also have the potential to be prominent on the steeply sloping, open landscape.

Trees and Woodland

Woodland features such as small valleys, estate landscapes, woodland areas and shelterbelts are important both as landscape features and as woodland habitats. They are vulnerable to adjacent farming activities such as browsing by animals, scrub clearance or felling.

Settlement and Development

Due to the prominence of the escarpment the landscape is sensitive to new developments. Urban expansion onto the lower parts of the escarpment also risks undermining rural characteristics, while there may be pressure for rural housing along roads extending up the escarpment.

Minerals

There is no significant minerals development within the character area and no evidence to suggest this to be a force for change in the future.

Tall Structures

The upper slopes of the escarpment, within LCA 102 Holywood Hills, include a number of masts, and it is possible that the LCA may be identified as a suitable location for further tall structures, including wind turbines on the exposed upper slopes.

Tourism and Recreation

Redburn Country Park is a focus for recreation, however the LCA is not considered likely to be subject to significant pressures relating to tourism and recreation.

Landscape Management and Planning Guidelines

Key Sensitivities

There is a robust landscape structure and woodland helps to integrate development into the landscape on lower slopes. However, the prominence of the escarpment and its proximity to Belfast

ESCARPMENT LCT Craigantlet (104)

and other main settlements make it extremely sensitive to built development, including encroachment from the south. This area has been defined as an `Area of High Scenic Value' (AoHSV), with Stormont Castle a registered Historic Garden, Park and Demesnes.

Sensitivity Assessments (Refer to Appendix A for Detail)

Wind Energy and Tall Structures:	High
Rural Housing Development:	High
Minerals:	High
Tourism:	High

Guidance

Agriculture

- Traditional field boundaries of hedgerows would benefit from ongoing maintenance to ensure their future viability. This may include replanting and adopting traditional management practices such as hedge laying to improve their robustness. Their replacement with post and wire fencing should be discouraged.
- Selected hedgerow saplings should remain uncut to develop into the next generation of hedgerow trees. The selection of tree species other than ash may be appropriate in light of the threat to ash trees from *Hymenoscyphus fraxineus* (ash die back).
- Larger scales of agricultural buildings should include deciduous screening to reduce their prominence on the sloping, exposed landform.

Trees and Woodland

- The extension of existing shelter belts, woodlands and hedgerows to encompass a wider area would enhance woodland structure and wildlife links. Broadleaved woodland should be favoured over coniferous forestry.
- The planting of small copses and woodland clumps around farm buildings and along road sides should be encouraged.
- Small wooded valleys should be protected from encroachment by agricultural activity.
- Woodland cover at Redburn Country Park should be maintained through appropriate woodland management.

Settlement and Development

- Woodland planting along the urban edge would enclose and contain the eastern edge of Belfast; planting should follow contours, emphasising the local topography.
- The rural wooded character of the escarpment slopes will be conserved by strict control of all built development and in particular, by confining buildings to the foot of the slope.

Minerals

- The exposed and visual prominent qualities of this area mean that it is unlikely that significant minerals development could be accommodated.

Tall Structures

- The SPG *Wind Energy Development in Northern Ireland's Landscapes* (2010) describes the area to have 'high' sensitivity to wind energy development.
- It is likely that only small scaled and infrequent wind turbines could be accommodated without affecting views to the area and its skylines, or without affecting the setting to Stormont Castle.
- Communication masts are prominent elements on the ridge-top; siting masts in groups will be less visually intrusive than scattering a large number of individual masts, resulting in undesirable cumulative effects.
- The height of masts, turbines or other tall structures should be limited so not to appear out of scale or dominant in comparison to the height of the escarpment top.

Tourism and Recreation

- Outside of Redburn Country Park, demand for tourism and recreation related developments appears limited, but development should generally aim to be integrated into the landscape with trees and woodland, retaining the existing structure of the pastoral landscape on exposed slopes.

Biodiversity Profile

Key Characteristics

- upland area forming escarpment to Holywood Hills
- contains some of the most important woodland areas for North Down
- dominated by improved pasture

Key Sites

- ASSI: Craigantlet Woods
- Historic Parks and Gardens: Stormont Castle*

(* falls outside the bounds of Ards and North Down)

Woodlands

Woodlands in this LCA and within Ards and North Down account for approximately a third of land cover, most of which is at Redburn Country Park. Redburn Country Park is one of the largest remaining intact blocks of woodland in the North Down area. This woodland is predominantly of planted origin indicated by the presence of beech, sycamore and conifers. The canopy is composed of beech, sycamore and ash with downy birch being locally dominant in the more semi-natural areas.

ESCARPMENT LCT Craigantlet (104)

Hazel, hawthorn, holly and rowan are common in the understorey with areas of elder in the planted sections. Birds observed in this area include the **light-bellied brent goose**.

Outwith the borders of Ards and North Down there are some examples of **upland mixed ashwoods**, a priority habitat for Northern Ireland, including in Craigantlet ASSI.

The total area of woodlands in this LCA is comparatively greater than in surrounding areas and includes examples of Northern Ireland Priority Habitats. It is essential for the landscape character of the LCA and for its biodiversity that these woodlands should be retained as some of the largest intact blocks of woodland in North Down.

Grassland and Arable

Grassland is the dominant land cover in this LCA, covering more than half, with improved grassland constituting the majority of this. Within Ards and North Down, there are scattered patches of rough grassland found around the edges of Redburn Country Park. Arable fields make up the majority of the southeast. This habitat is important for decreasing farmland birds such as the **yellowhammer**. There are no priority grassland areas in this LCA. The remainder of the LCA is primarily improved grasslands, which have little biodiversity; however **hedgerows** are a common feature and, in many cases, form a valuable wildlife network.

Wetlands and Lakes

There are no significant wetlands within the Borough Council boundary. The upper reaches of the Enler River arise within Ards and North Down (in LCA 102) and flow through the portion of this LCA outwith the council boundary. The Enler River contains **river water-crowfoot**, a priority species for Northern Ireland.

Key Issues

General actions for Priority Habitats and Priority Species are detailed in the Ards and North Down Biodiversity Action Plan.

WOODLANDS

Issue: some of the largest intact blocks of woodland in North Down, including the NI Priority Habitat **parkland and wood pasture**

Actions:

- enhance the biodiversity value of broadleaved woodlands by discouraging any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); ensure that hazel scrub is not cleared
- encourage control of grazing within remaining forested areas to foster herb layer and regeneration and if necessary, encourage replanting of canopy species; removal of invasive species could increase the diversity of ground flora, especially where the canopy species are not beech
- further study of the history and biodiversity of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management
- enhance biodiversity through appropriate measures in agri-environment and forestry grant schemes to improve and extend woodland cover; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species; farmers and landowners could be encouraged to plant field corners or set-aside fields

GRASSLAND AND ARABLE

Issue: high grassland cover in improved pastures and intensively managed arable land of low biodiversity value; also scattered areas of rough grassland

Actions:

- encourage (through participation in agri-environment schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland and protect any unsown areas of
- maintain and enhance rough damp grassland by where possible, restricting field or arterial drainage
- maintain and improve field boundaries, especially hedgerows where they occur through adoption of relevant measures in agri-environment schemes, for example correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying with fertilisers, slurry, herbicides through a move to organic farming; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds
- ensure that further clearance of boulders does not occur on pastoral or arable land

WETLANDS AND LAKES

Issue: the Enler River contains the NI Priority Species **river water-crowfoot**

Actions:

- promote and ensure compliance with relevant guidelines and legislation so that rivers are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip; ensure that eutrophication does not occur as a result of nutrient-rich surface waters from surrounding farmland
- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants
- monitor effects of recreation, including fishing, on riparian communities

ESCARPMENT LCT Craigantlet (104)

Geological Characteristics

Overview

This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. The Craigantlet Escarpment is a prominent ridge of Silurian rocks that forms the escarpment to the Holywood Hills. The escarpment encloses and shelters the urban edge of east Belfast that pushes up against the ridge, extending into the woodlands at Stormont.

Solid Geology

Lower Palaeozoic greywacke sandstones and shales form about 60% of the outcrop in this LCA. The arcuate eastern edge of LCA 104 is formed of Gilnahirk Group which forms the lower slopes of the Craigantlet Hills: exposed in the stream/road cutting of Ballymiscaw (ESCR Site 441) where tectonically deformed turbidites may be observed. The far eastern end of this outcrop includes a fault-bounded outcrop of younger Ordovician Gala Group greywackes.

Triassic sandstones comprise red, purple and brown cross-stratified sandstones, siltstones with minor clay beds and partings. The sandstones are mostly soft and poorly-consolidated or more rarely well-cemented where they are and have been exploited for building stones in the past. They unconformably overly and are also in faulted contact with the Lower Palaeozoic groups.

NW-SE trending dolerite dykes occur throughout the area: mapped locations include the far western end of the LCA north of Stormont. Other dyke orientations do occur (e.g. in the Craigantlet Hills in the south of LCA 104.

Drift Geology

The drift geology map for this LCA shows it to be predominantly underlain by Late Midlandian till associated with the large ice mass that was centred on the Lough Neagh Basin. This ice flowed southeastwards from an ice divide that lay approximately SW-NE along the line of the north Belfast Hills. Evidence for this flow direction is found in the orientation of the numerous drumlins that make up much of the landscape to the south of the LCA. Along the southern margin of the LCA, the drift geology map shows a limited extent glaciofluvial deposits. These are the product of late-glacial deposition by meltwater along the Enler Valley between Belfast and Comber - the so-called 'Dundonald Gap'. Smith et al. (1991) describe these deposits as mounded outwash that consists of laminated sand and gravel with subordinate red clays. Small areas of peat can be found in the in the east along the border with LCA 103.

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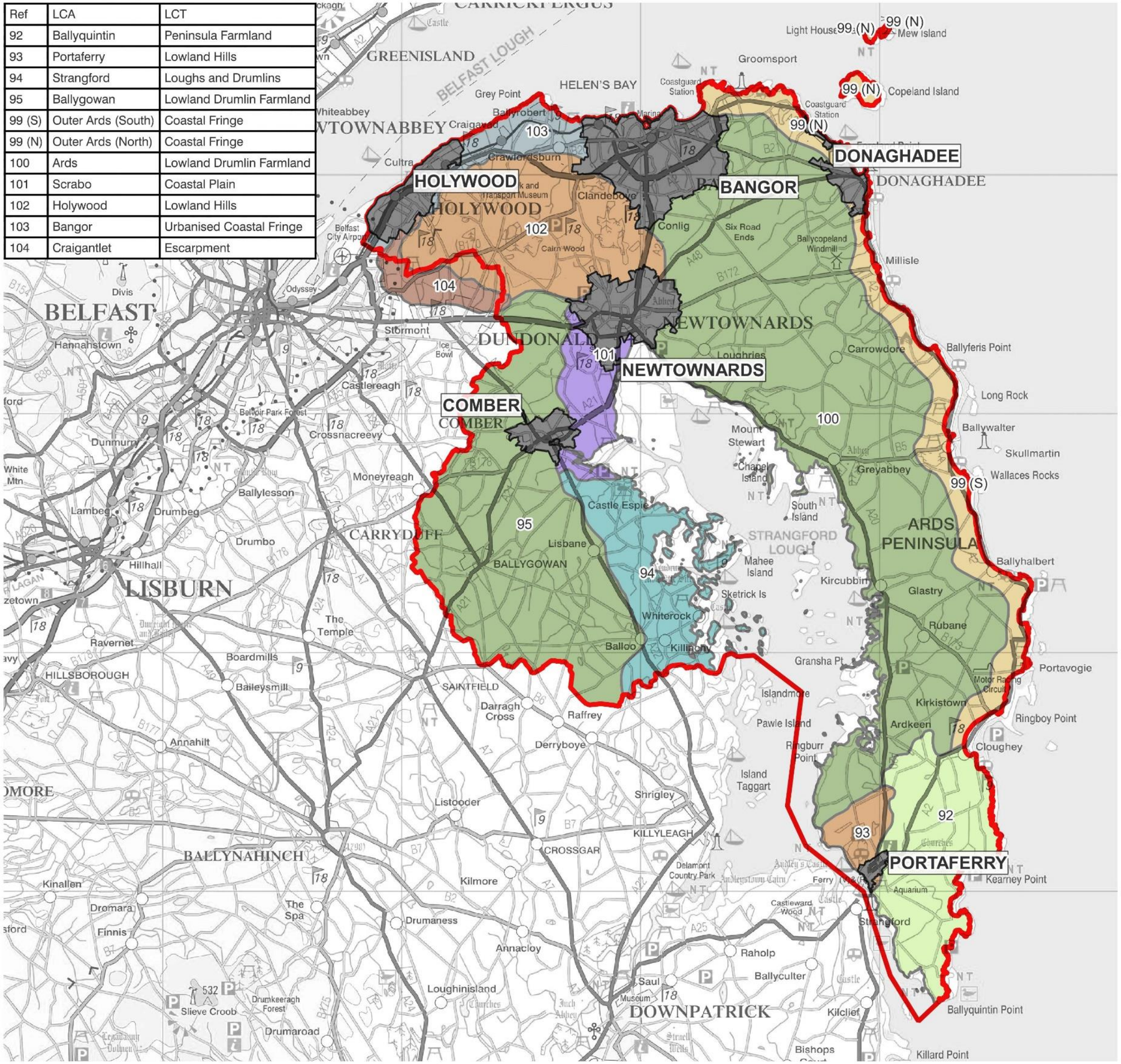
Ref	LCA	LCT
92	Ballyquintin	Peninsula Farmland
93	Portaferry	Lowland Hills
94	Strangford	Loughs and Drumlins
95	Ballygowan	Lowland Drumlin Farmland
99 (S)	Outer Ards (South)	Coastal Fringe
99 (N)	Outer Ards (North)	Coastal Fringe
100	Ards	Lowland Drumlin Farmland
101	Scrabo	Coastal Plain
102	Holywood	Lowland Hills
103	Bangor	Urbanised Coastal Fringe
104	Craigantlet	Escarpment



Legend

- A&NDBC Boundary
- Principal Settlements

Landscape Character Types

- Coastal Fringe
- Coastal Plain
- Escarpment
- Drumlins and Islands
- Lowland Drumlin Farmland
- Lowland Hills
- Peninsula Farmland
- Urbanised Coastal Fringe

Settlement limits are those of the Draft Belfast Metropolitan Area Plan (BMAP).

Ards and North Down Borough Council

Ards and North Down Landscape Character Review

Figure 8

Principal Settlements

Scale 1:160,000 at A3

0 2 4 6 8 km

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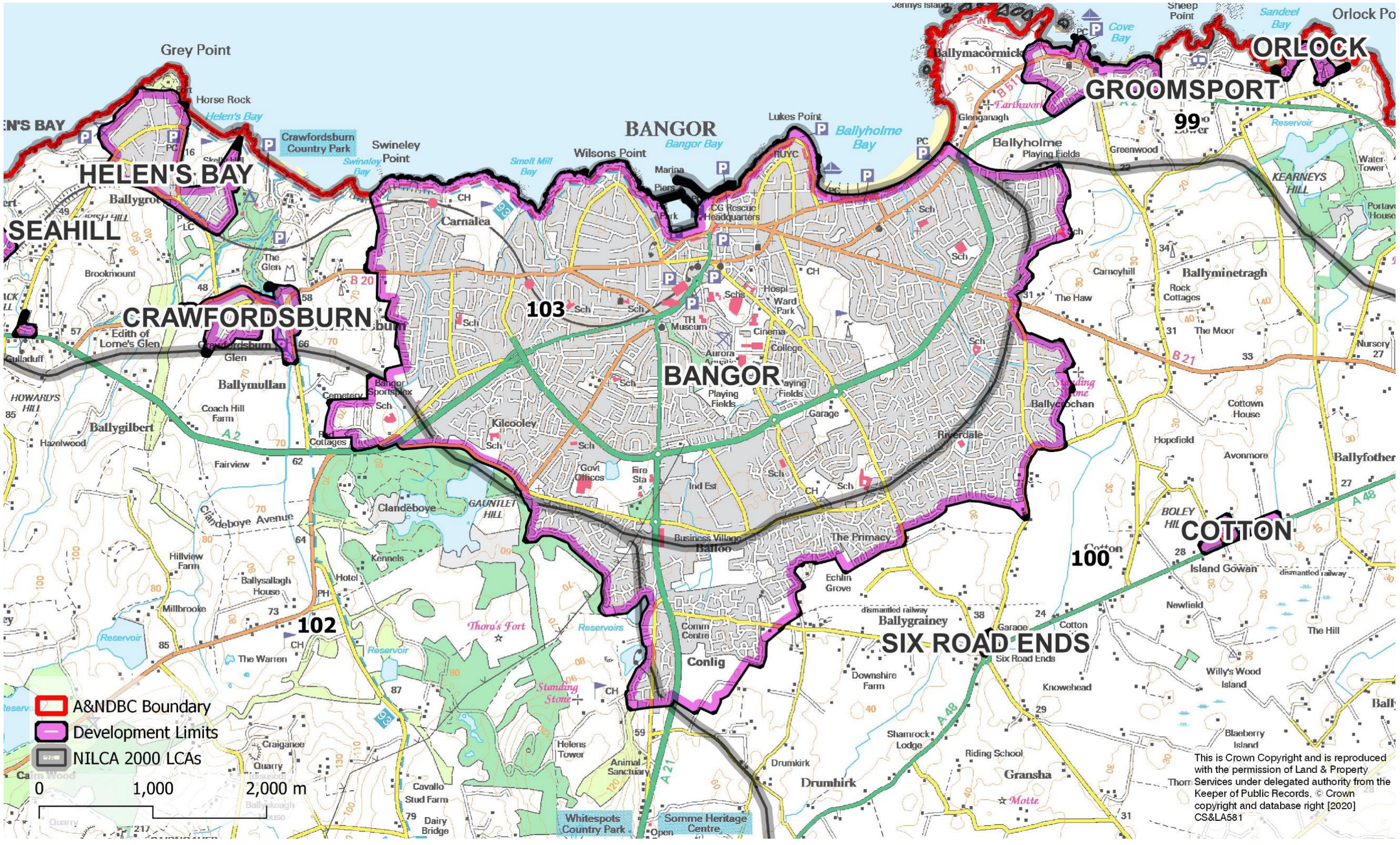
9.0 SETTLEMENT ASSESSMENTS

Bangor



Bangor viewed from the coast to the east of the settlement.

Landscape Setting

The town centre is concentrated around a wide sheltered bay on the southern shoreline of Belfast Lough on a gently undulating but overall relatively flat coastal plain. While the Holywood Hills are located to the south west of the settlement, their gentle upward gradient provides minimal topographic containment and the settlement has developed evenly inland from its historical coastal centre.

The Clandeboye Estate and adjacent golf course at the settlement edge to the south west provides a constraint to settlement expansion in this direction, as will the estate of Crawfordsburn House a short distance west of the current settlement edge closer to the coast. To the south and east the undulating drumlin farmland landscape provides few barriers to further expansion of the settlement in these directions. There has been some expansion of the settlement south along the A21 towards Newtownards.

Most settlement edges are very weakly defined by the timber garden fences of the outermost houses. Gateways to the settlement are mostly nondescript, often just a simple transition from countryside to suburban housing development. The western approach along the A2 is more defined with woodland and walling of the Clandeboye Estate and the cemetery, however the wide A2 dual carriageway is the dominant feature here.

Principles for the Siting and Design of New Development

- The farming landscape to the east and south east is of relatively low sensitivity to further urbanisation, and with few physical barriers this would be a logical area for settlement expansion if required, although expansion here would add further to the sprawling character of the settlement.

- New urban areas at the outskirts of the settlement may benefit from development as more distinct, and more self-sufficient neighbourhoods rather than simply expanded suburban housing. This may provide opportunities to create areas of more distinct identity, improving the settlement edge and its gateways. Carefully planned concentrations of development in new neighbourhoods may be preferable to a general piecemeal settlement expansion.

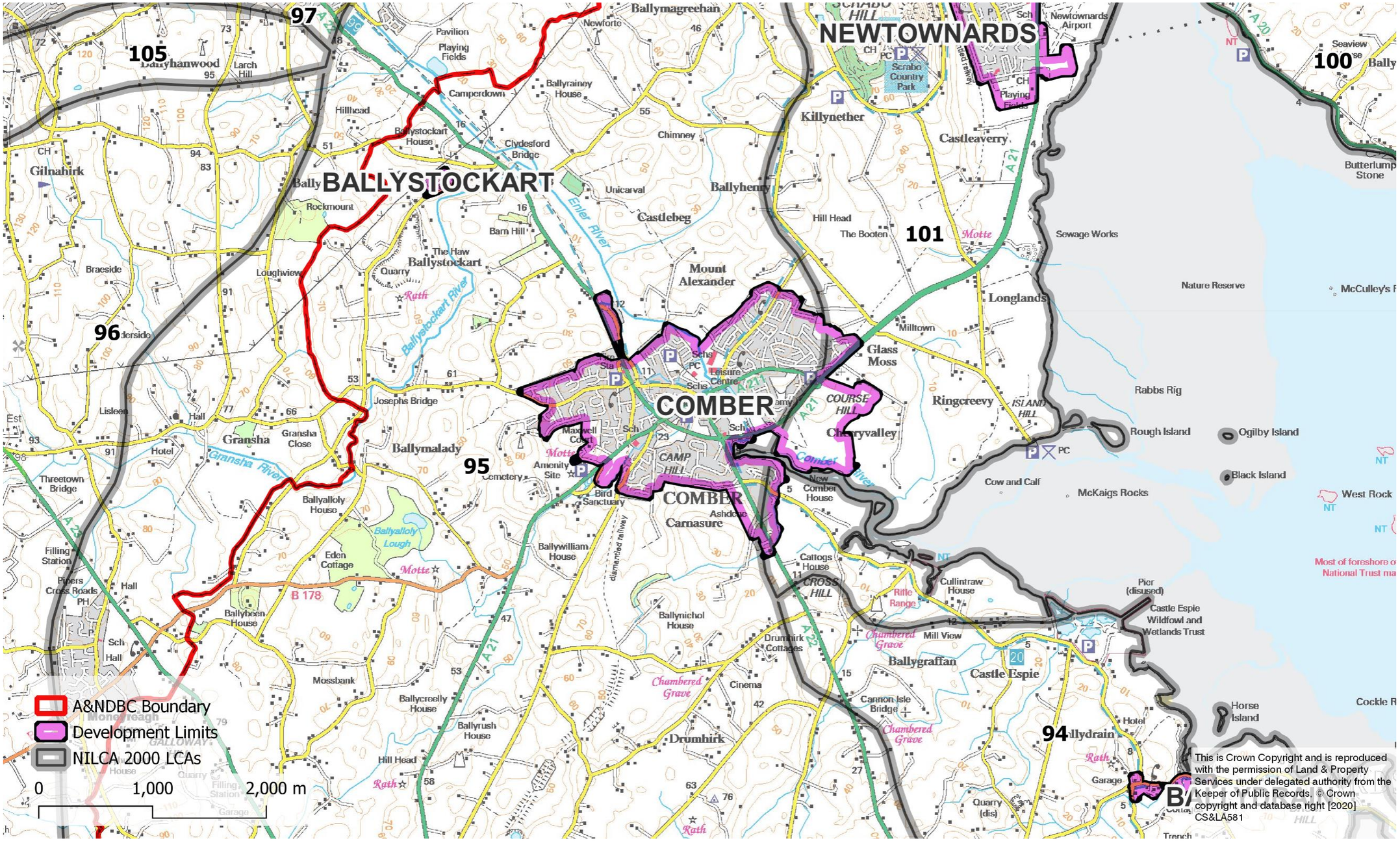
- The presence of the Crawfordsburn House and Country Park should limit further westward expansion. The reinforcement of the existing western settlement edge towards the coast with tree planting, integrated with that of the nearby estate landscape would assist with this objective. Separation between Bangor and the distinctive small settlement of Crawfordsburn should be maintained. This would include limiting housing development beyond the urban edge to maintain the character of the rural landscape between the two settlements.

- There are opportunities to create gateways (with walls, individually designed buildings and tree planting) to form welcoming entrances to Bangor, rather than views to the backs of houses from the approach roads.

- The coastline east of the settlement should be protected from further development to maintain the character of an attractive section of coastline contributing to the settlement setting, and also to maintain separation from the nearby settlement of Groomsport. This could be achieved by policy measures, such as the retention of Rural Landscape Wedges contained within the draft Belfast Metropolitan Area Plan (dBMAP)

- Further expansion along the A21 corridor south of the settlement towards Newtownards, including the development of housing beyond existing settlement limits, would likely form the impression of a single urban area comprising Bangor and Newtownards. While this busy road corridor is not of particular landscape sensitivity, it would be desirable to retain the distinction between the settlements and promote their separate identities.

Comber



The north eastern edges of Comber as seen from Scrabo Hill.

Landscape Setting

The market town of Comber is set amongst the shallow drumlins west of Strangford Lough. The Enler River flows through the settlement, and was the basis for industrial development including distilleries, a paper mill and bleaching. The river enters Strangford Lough as the Comber River at the Comber Estuary a short distance east of the town. The settlement had an important linen industry, with Andrews Mill to the south west of the town now redeveloped for housing. An earlier settlement, based on fishing, is to the south east of the existing settlement, designated as a Scheduled Monument.

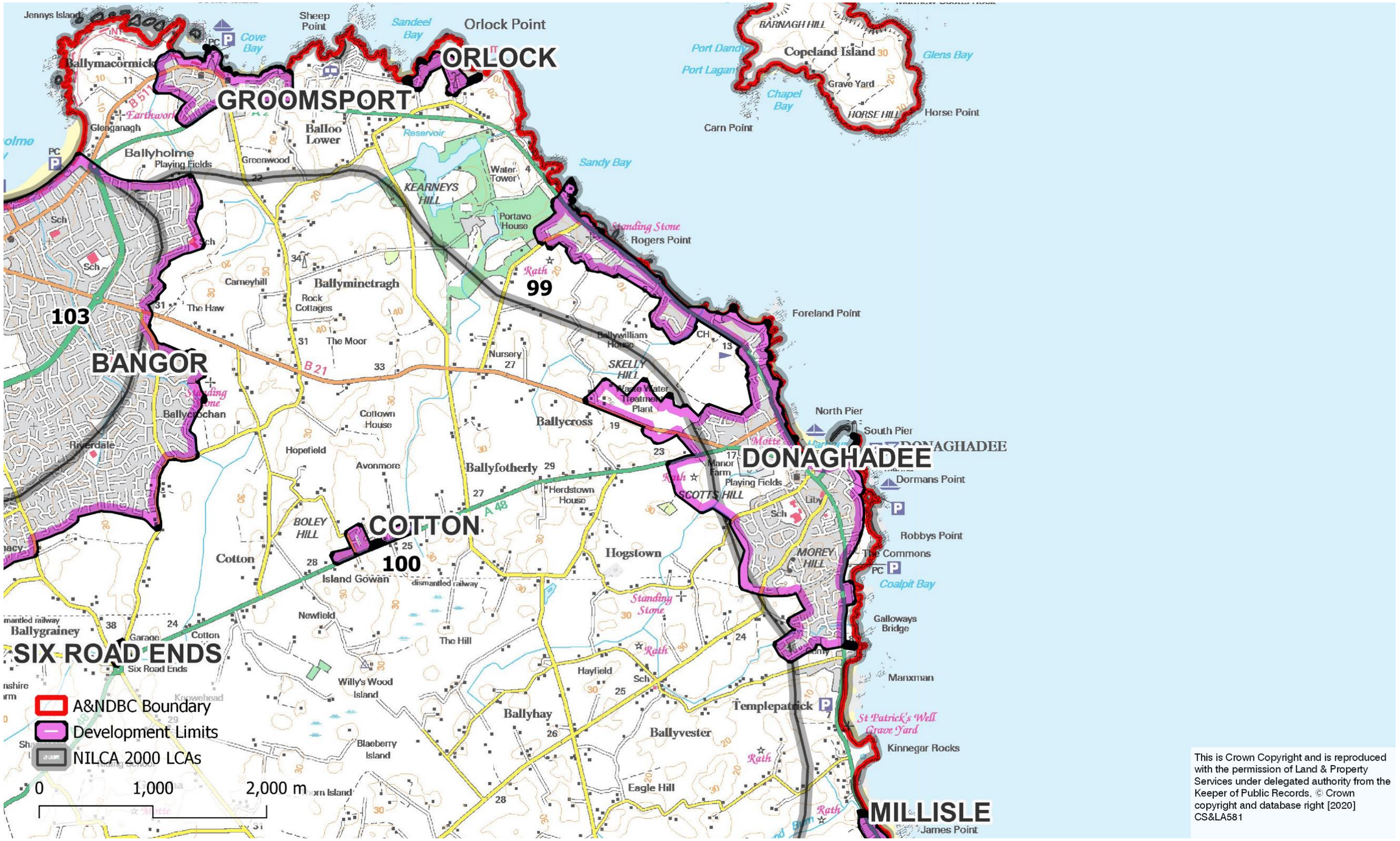
The attractive market square remains the heart of the settlement on low lying ground just west of the river. More modern development has extended the settlement in all directions, with large housing estates spread across the drumlins. The main A22 and A21 roads meet at Comber, providing connections to Belfast and other main settlements, and which, along with other roads, have drawn development out from the more central parts of the settlement.

Two branches of the former Belfast and County Down railway met at Comber Junction, the lines of which have long since close and their alignments have been integrated into the road network or form the Comber Greenway, part of the National Cycle Network, and linking to Belfast.

Principles for the Siting and Design of New Development

- The undulating landform, its trees and hedgerows, can largely accommodate the settlement without undue effects to the wider landscape character.
- The landscape east of the settlement is generally of greater sensitivity to development than in other directions. In part this is because of the AONB designation towards the fringes of Strangford Lough, but additionally the landscape here is flatter and more open, with a lower capacity to accommodate settlement expansion.
- The settlement is easily visible from Scrabo Hill, approximately 2.5km to the north east. From this important viewpoint the settlement should not be seen to encroach into the farmland between the hill and the town, which forms part of the setting to Strangford Lough. Woodland creation at the north eastern settlement edge would aid with the integration of the settlement into the landscape.
- It may be preferable for development to avoid drumlin tops, which could be retained as open space or for woodland creation. Landscape buffers of woodland planting at settlement edges would help further to contain the settlement and preserve the distinction between the rural and urban parts of the landscape.
- The settlement remains well separated from other settlements, however, in general, linear development at the settlement edges should be avoided. This includes limiting single housing beyond settlement edges to minimise any creeping suburbanisation of the adjacent farming landscape.
- Exposed sandstone and pale harling are characteristic of the area, and which should be taken into account in the design of new housing developments.

Donaghadee



Sea frontage at Donaghadee.

Landscape Setting

Donaghadee was a once important port and fishing town with an interesting history as the main landing point for travellers between Scotland and Northern Ireland. The establishment of the regular packet service between the town and Portpatrick in Scotland resulted in the construction of a harbour in the 17th century, with the current harbour constructed in 1821, including its distinctive white lighthouse. 'The Moat' is another distinctive landmark in the town, of castellated form at the site of an ancient motte, it was built to store explosives for construction of the harbour in the early 19th century.

While shipping between Scotland and Northern Ireland transferred to Stranraer and Larne in the latter part of the 19th century, the town developed for tourism, including hotels along its sea frontage. Colourfully painted properties remain a feature of The Parade and Shore Street.

The harbour and coast have therefore been a key influence on the development of the settlement, which had a relatively elongated form along the coast until the latter half of the 20th century when housing estates were developed in more inland locations.

Other than the coast, there are no real constraints to the expansion of the settlement and few features which might define a settlement edge. To the north, the rocky headland of Foreland Point is a natural enclosing feature beyond which the coast has a more north easterly aspect and which might have once provided a logical settlement extent. However linear development along the current A2 had extended way past this point by the early 20th century.

Principles for the Siting and Design of New Development

- Linear development characterises the A2 north of Donaghadee until the grounds of Portavo House. Development along this road is of a range of sizes, scale and types, but the width of the road and the wide seascape setting is suited to larger scales of building separated by generous garden and grounds, rather than smaller bungalows and houses. This may be a relevant consideration when existing larger sites become available for redevelopment.

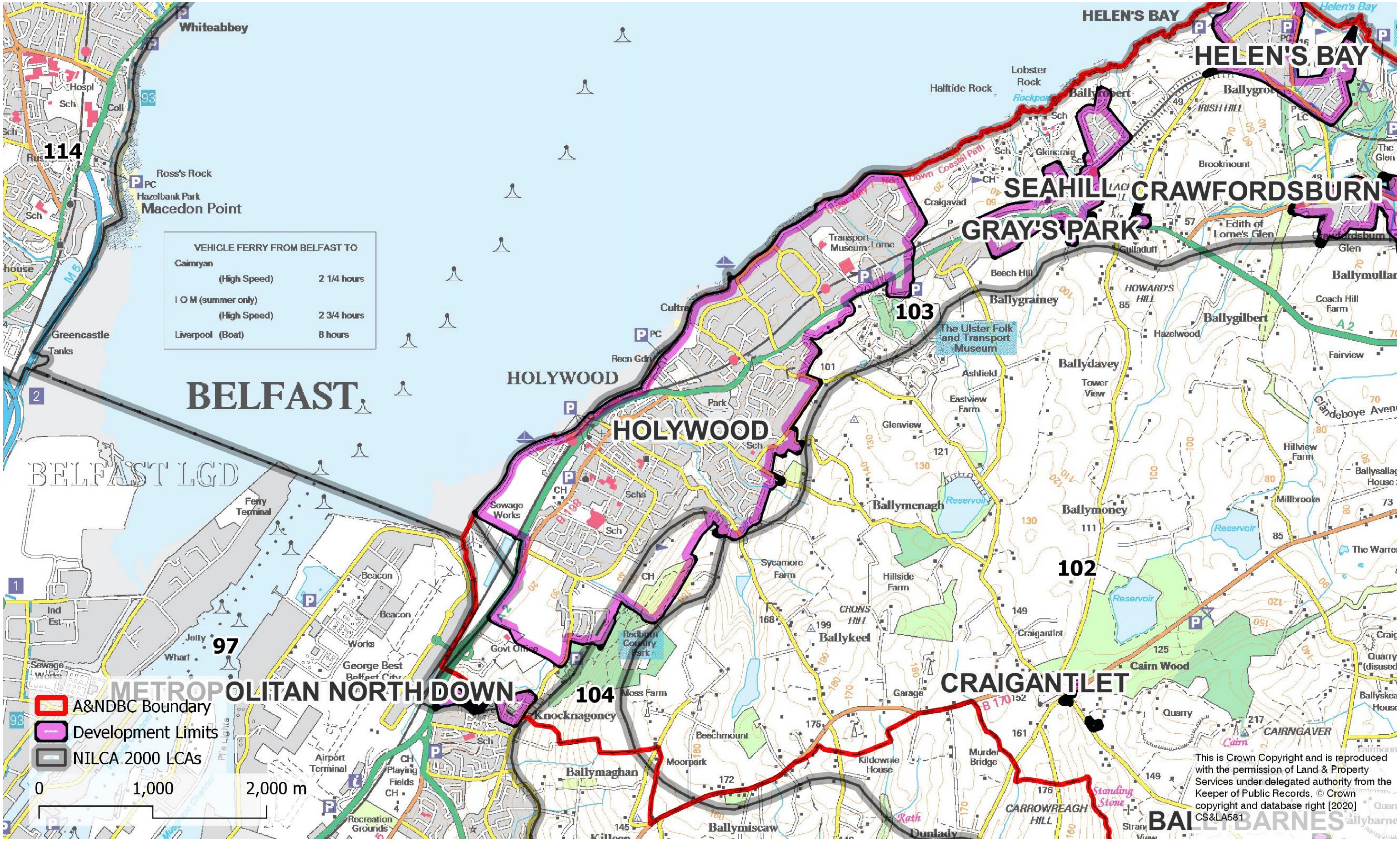
- The further northward expansion of Donaghadee should be avoided so as to avoid the almost total urbanisation of this stretch of coastline.

- There is currently good separation between Donaghadee and Millisle to the south. This should be retained, including through the limiting of single housing development along this stretch of road.

- Rather than settlement expansion there may be scope for some redevelopment, of a relatively high density, within the town centre and on the waterfront. Donaghadee has a distinctive urban character and only high quality development (especially of terraced and courtyard buildings) should be considered.

- The spread of housing estates at the settlement edge should be kept in proportion to the town as a whole to avoid sprawl and to conserve its character and diversity; any additional pockets of residential development should be used as an opportunity to create a more attractive edge, with higher quality development and extensive tree planting which is designed to integrate with the surrounding field patterns.

Holywood


HOLYWOOD
HELEN'S BAY
SEAHILL
CRAWFORDSBURN
GRAY'S PARK
CRAIGANTLET
METROPOLITAN NORTH DOWN
BELFAST LGD
BELFAST
114
97
103
102
104
A&NDBC Boundary
Development Limits
NILCA 2000 LCAs
0
1,000
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VEHICLE FERRY FROM BELFAST TO
Cairnryan
(High Speed) 2 1/4 hours
I O M (summer only)
(High Speed) 2 3/4 hours
Liverpool (Boat) 8 hours
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Holywood and seen from Belfast Lough.

Landscape Setting

Holywood occupies a narrow strip of land immediately inland from the coast, before the landform rises to the Holywood Hills and steep wooded Craigantlet Escarpment, forming a backdrop to the settlement. The settlement developed significantly in the 19th century as a desirable residence for wealthy Belfast merchants, and as a coastal resort, easily accessible by rail.

The historical core is towards the south, including the distinctive St Colmcille's church spire, but over time the settlement expanded northwards along the coast, with more recent 20th century housing development inland which extended up hill.

Much of the town is characterised by its architecture of large villas extending to the coast where there is the large Sea Park and sandy beach. Mature grounds of larger properties result in a high tree cover into which housing is absorbed. Newer housing on the higher sloping ground is more prominent in views, but appears mostly contained by the topography and woodland.

The southern part of the settlement, including industrial development and government offices, is barely separated from Belfast, while to the north continuous urbanisation extends beyond settlement limits to Ballyrobert. The A2 and railway cut through the settlement, dividing it north to south.

Principles for the Siting and Design of New Development

- Further upwards expansion of the settlement onto the higher slopes of the Holywood Hills risks compromising its setting. Development here should be limited so that the upper enclosure of the settlement by woodland and pasture is retained.

- Urbanisation north of Holywood is largely contiguous with adjacent settlements. The focus here should be to ensure that the framework of woodland, the golf course, and other undeveloped land which forms the setting to the settlement is retained to ensure that the coastline north of the settlement does not appear overly urbanised.

- The prominence of larger buildings on the sloping ground at the settlement should be considered, particularly in views from Belfast Lough and the Antrim coast. Larger scales of building, if appropriately designed, are more suited to the lower slopes nearer the coast rather than more exposed elevations.

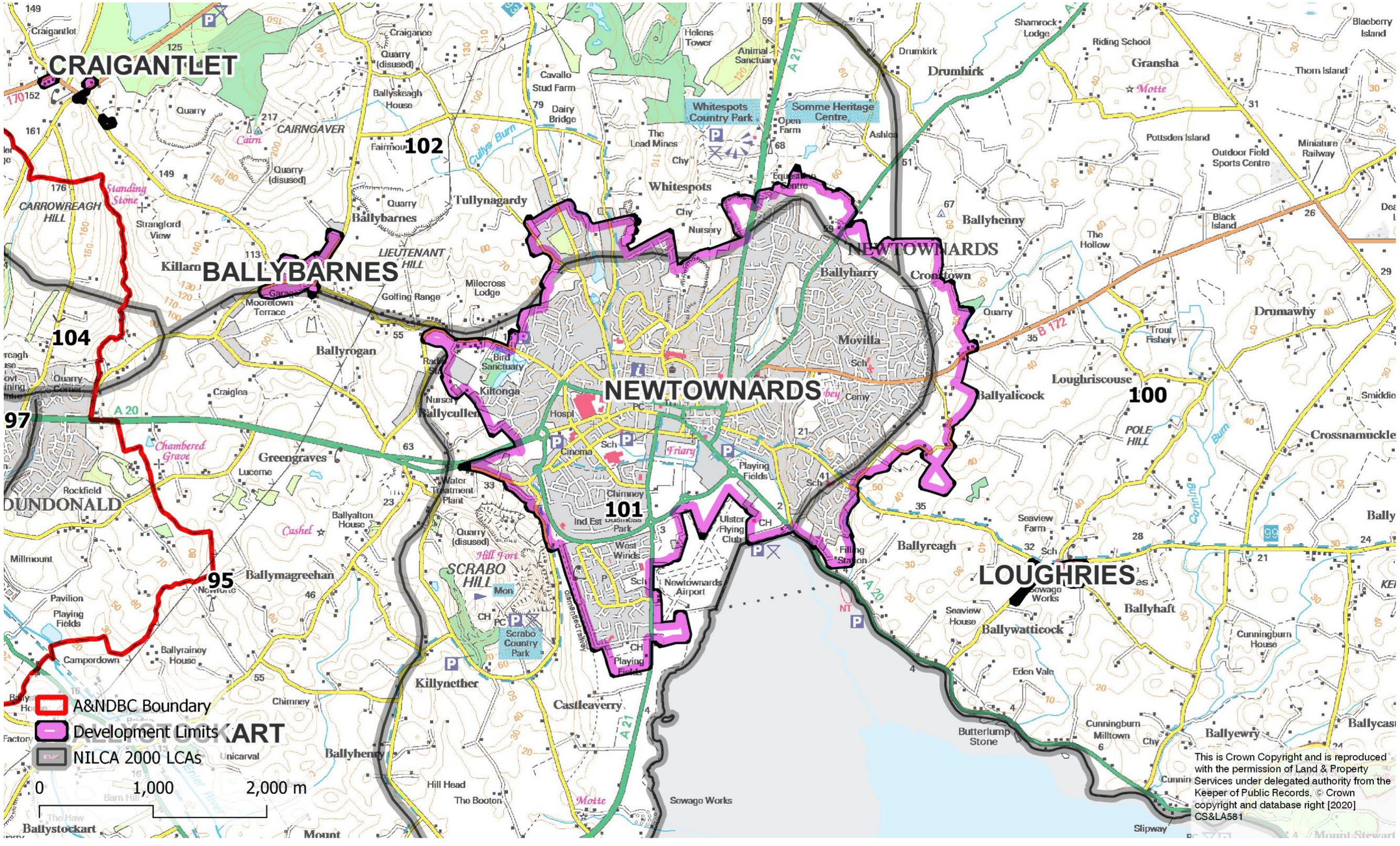
- Consideration should be given to the impact of tall structures on the ridgeline above the settlement in views from the Antrim coast and from Belfast Lough, in terms of their scale in relation to the landform and development, and their frequency along the ridgeline. Tall structures would be better concentrated in selected locations rather than being allowed to proliferate.

- The wooded grounds of government offices located to the south of the settlement help create a sense of separation between Holywood and Belfast. The character of this buffer should be retained, including if the site or parts of it are redeveloped for alternative uses in the future.

- The wooded slopes of Redburn Country Park should be retained through appropriate woodland management. The existing recreational access to the Holywood Hills and the Redburn Country Park should be protected and improved.

- The well treed character of the area should be conserved and managed. Views across the lough and to landmarks (such as churches) should be retained.

Newtownards



Newtownards from Whitespots Country Park.

Landscape Setting

Newtownards is situated within a saucer shaped depression on the flat land at the head of Strangford Lough contained by the lower slopes of the Holywood Hills, while the more pronounced slopes of Scrabo Hill provide a strong containing feature to the west, with views to the hill and tower a feature of views from many parts of the town.

While close to Strangford Lough, mudflats and the shallowness of the lough meant that the settlement did not develop on the coast, but rather inland as a market town. Over time the settlement has spread out in all directions to occupy most of the available flat ground at the head of the lough, the lower slopes of the Holywood Hills and spilling into the drumlin farmland to the east. The edges of the settlement are typically weakly defined by timber garden fence boundaries.

The settlement area extends to the Strangford Lough coast, including a small airport, retail warehouse units, industrial development and pockets of housing. This part of the landscape is very open, contributing to a degraded landscape quality, and the larger buildings in this area are eye-catching with adverse effects on inward views to the settlement from the south.

The settlement features in views from the surrounding higher ground including from Scrabo Hill and Whitespots Country Park north of the town.

Principles for the Siting and Design of New Development

- The town is sited in a natural depression, constrained by topography and the sea. The greater capacity for development lies towards the east, into the undulating drumlin farmland where there are no significant physical constraints to development. Expansion here may provide opportunities to create areas of more distinct identity, improving the settlement edge and its gateways, albeit at the risk of settlement sprawl.

- Development should remain contained by the higher landforms, and not extend above the lower slopes of the Holywood Hills and Scrabo Hill. Landscape buffers of woodland at settlement edges would contain development and may discourage development beyond these limits, and which would be consist with the farming landscape beyond.

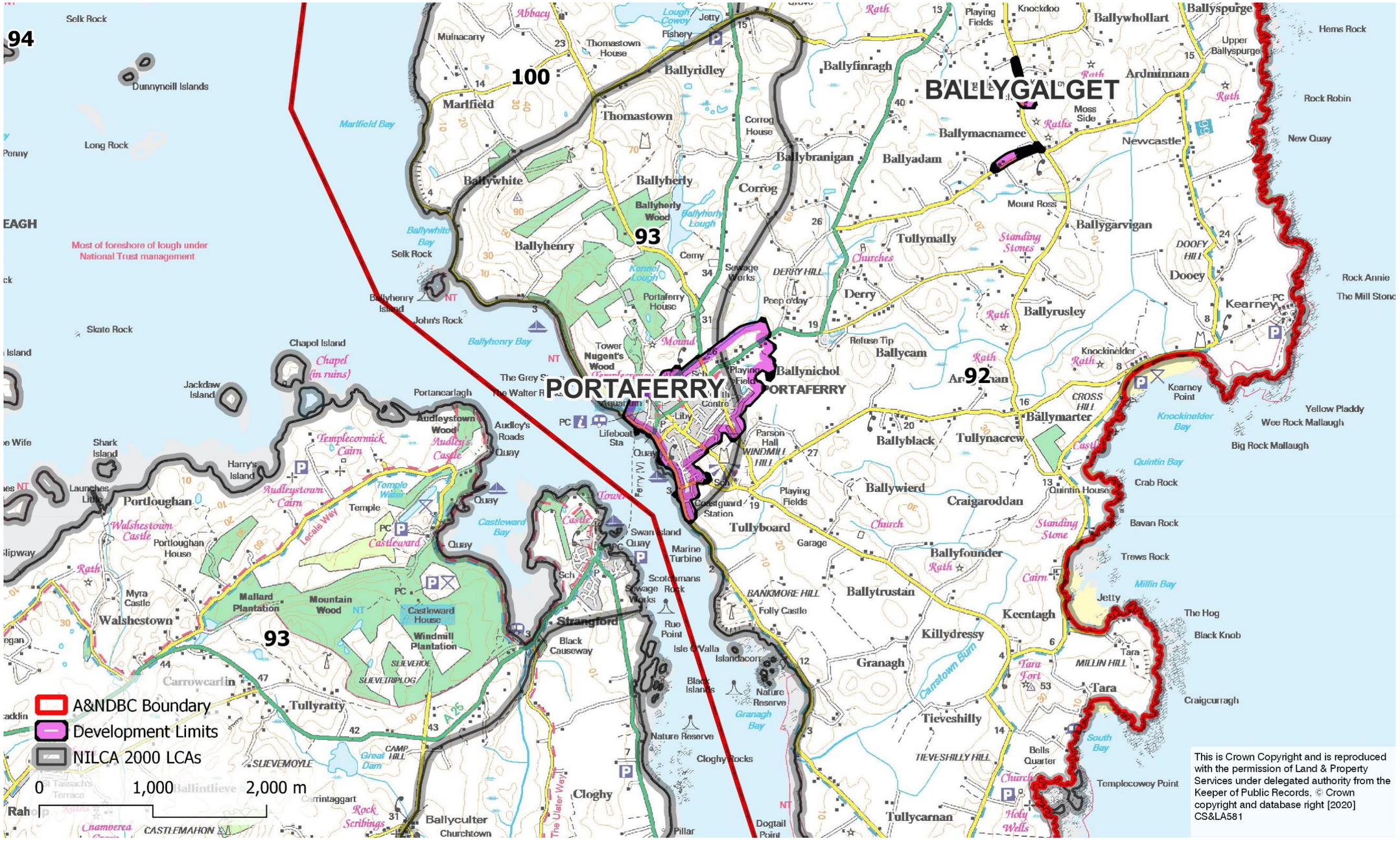
- The coastal landscapes are sensitive in terms of their prominence from important locations such as the AONB, and currently built development is prominent. A robust framework of woodland screening would aid the integration of development here into the landscape.

- Further development southwards either side of Strangford Lough should be limited so as to avoid affecting the setting to Scrabo Hill and the upper reaches of Strangford Lough.

- The settlement is quite disconnected from the coast and its views. Opportunities for enhancing access to the coast from the town centre and suburbs should be a consideration when planning for new development or recreational access. However disturbance to sensitive coastal habitats, including ASSI and NNR, resulting from increased public access should be avoided.

- Buffer zones to the north and west of the town, preventing coalescence with Dundonald/Belfast to the west and Bangor to the north, should be maintained by limiting ribbon development along connecting roads. This could be achieved by policy measures, such as Rural Landscape Wedges contained within the draft Belfast Metropolitan Area Plan (dBMAP)

Portaferry



Portaferry seen from Strangford.

Landscape Setting

Portaferry is a coastal settlement with a vibrant waterfront and a distinctive urban character on the steep slopes falling to the shores of Strangford Lough. The wooded, hilly estate of Portaferry House is an important landscape feature to the north and Windmill Hill is prominent to the south. Both of these landforms provide strong containment to the settlement, which has spread inland on the flatter ground in between. The painted sea front buildings, castle, churches and lifeboat building are distinctive when viewed from 'The Narrows' separating the settlement from Strangford.

The settlement is important as the southern gateway to the Ards Peninsula via the ferry crossing from Strangford, with the main A2 and A20 converging at the town.

Principles for the Siting and Design of New Development

- Opportunities for further development are mainly limited to inland locations as the town is constrained by its distinctive and important natural setting. Significant inland development risks disconnection from the core of the settlement, changing the compact settlement form. Linear development along the roads into the settlement should be avoided to retain the distinction between the town and its rural setting.

- Along the coast there appears little scope for expansion of the settlement. Over time the settlement has spread southwards along Shore Road, and there is a risk that continuation of this development pattern would adversely affect the contained character of the settlement and the scenic coast to its south.

- Development on the steep, prominent slopes of Windmill Hill to the south east of the town should be restricted so that the hill continues to form a backdrop to the settlement in inward views, and also remains as a viewpoint within the settlement.

- The overall character of the seafront with its distinctive painted and stone buildings is an important asset to be retained and enhanced. Gateways to the settlement along roadsides, which are currently indistinct, could be enhanced to contribute to the identity of the settlement.

10.0 LOCAL LANDSCAPE DESIGNATIONS

Area of High Scenic Value (AoHSV)

Only one local landscape designation is included within the Ards and North Down Borough Council area, at the Craigantlet Escarpment, designated as an Area of High Scenic Value (AoHSV). The designated area falls largely within the Lisburn and Castlereagh City Council area, with only very small parts of its northernmost and eastern most extents within the Ards and North Down Borough Council area. This designated area is identified in the original NILCA 2000 assessment and has been taken forward into subsequent development plans.

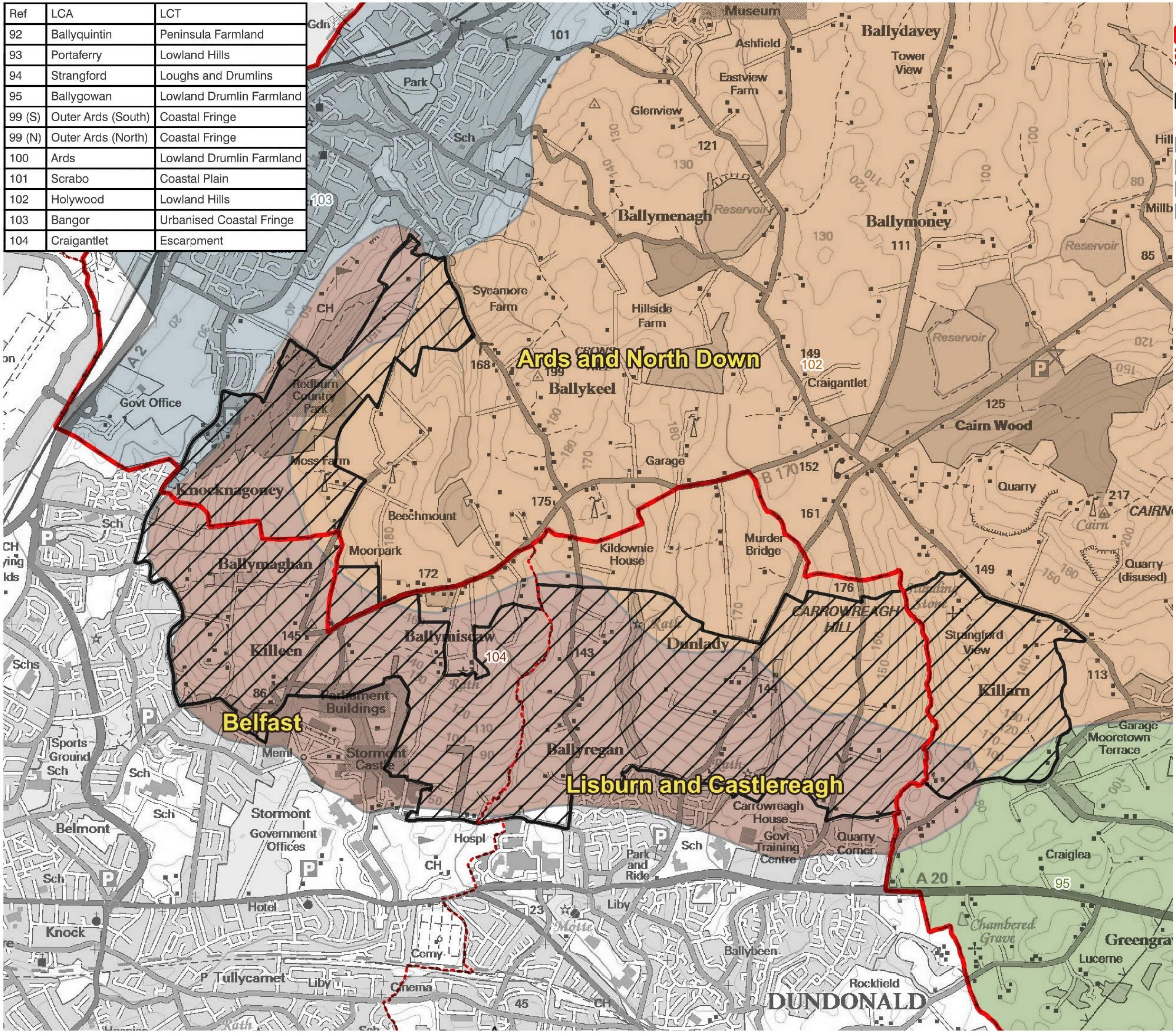
The Craigantlet Escarpment forms a distinctive, steep backdrop to Belfast and Dundonald. Within Ards and North Down it also forms part of the backdrop to Holywood, including the wooded Redburn Country Park. The parts of the designated area included within Ards and North Down are very small, limited to approximately 120ha of farmland to the east, and 150ha of farmland and woodland to the north west. The boundaries of the designated areas follow field boundaries and roads, albeit in places not always precisely.

No strong reasons are identified for removing the designated area within Ards and North Down, or for amending its boundaries, with the landscape areas concerned generally conforming and contributing to the character of the wider designated area.

The designated area is shown on Figure 9.

Ironside Farrar

Ref	LCA	LCT
92	Ballyquintin	Peninsula Farmland
93	Portaferry	Lowland Hills
94	Strangford	Loughs and Drumlins
95	Ballygowan	Lowland Drumlin Farmland
99 (S)	Outer Ards (South)	Coastal Fringe
99 (N)	Outer Ards (North)	Coastal Fringe
100	Ards	Lowland Drumlin Farmland
101	Scrabo	Coastal Plain
102	Holywood	Lowland Hills
103	Bangor	Urbanised Coastal Fringe
104	Craigantlet	Escarpment



Legend
- A&NDBC Boundary
- Other Local Authority Boundaries

AoHSV
- 1

Landscape Character Types
- Escarpment
- Lowland Drumlin Farmland
- Lowland Hills
- Urbanised Coastal Fringe

Ards and North Down Borough Council

Ards and North Down Landscape Character Review

Figure 9

Craigantlet AoHSV Designation

Scale 1:25,000 at A3

0 500 1,000 m

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Appendix A: Landscape Sensitivity Assessments

Introduction

The following provides assessments of landscape sensitivity for the landscape character areas (LCAs) of Ards and North Down for selected generalised development types.

Sensitivity assessments are undertaken in accordance with the principles set out in the guidance *An approach to landscape sensitivity assessment – to inform spatial planning and land management (2019, Christine Tudor/ Natural England).*

The guidance describes landscape sensitivity as:

> *'...a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types or land management practices, without undue negative effects on the landscape and visual baseline and their value – such as changes to valued attributes of baseline landscape character and the visual resource. Landscape sensitivity assessment is a process that assesses the resilience / robustness of landscape character and the visual resource – and what we value – to a defined change, or changes.'*

Sensitivity assessments are undertaken for development types in a notional sense, i.e. not specific development proposals. As such, some generalised assumptions about the attributes of the development types under consideration are made in terms of, for example, their likely scale, form and appearance. Assessments are undertaken at the scale of the LCA units, in line with the scale of the landscape character assessment. This means that the assessment applies across each LCA as a whole, but in fact there may be variations in sensitivity within a LCA unit, and which can be ascertained from the LCA character assessments or through separate smaller scaled sensitivity assessments.

Individual development proposals, and their receiving landscapes, will have their own specific attributes which must be considered on their own merits through project specific landscape and visual impact assessments. Nevertheless the sensitivity assessment aims to inform the development planning process through describing how key landscape characteristics might be affected by development, and informing general development management guidance.

Methodology

Sensitivity is assessed according to the landscape character, visual characteristics and landscape value of the LCA in question. Criteria are identified from aspects of the landscape which are likely to contribute to its key characteristics. Published guidance[16] for landscape character assessment is used as the basis for identification of these criteria. Landscape value is determined from formal designation or other indicators suggesting particular significance or value. The assessment follows a staged approach as follows:

[16] *An Approach to Landscape Character Assessment* (2014, Christine Tudor/ Natural England)

Stage 1 Assessment Criteria

Criteria against which sensitivity is assessed are identified below. The selected criteria are considered relevant to all development types, but some may be of more relevance than others depending on the development type in question, which is addressed in Stage 2 below.

The following criteria are used in the assessment:

- Landscape character
  - Scale
  - Landform
  - Pattern/ Landcover/ Landuse
  - Development
  - Quality/ Condition
  - Elements and Features
  - Perceptual Qualities
- Visual characteristics
  - Receptors
  - Internal Views
  - External Views
- Landscape Value
  - Designations or Other Indicators
  - Value of Views

Development Categories

Sensitivity assessments are undertaken for the following development types, corresponding to the development categories included in the guidance of the landscape character assessment:

- Development – principally housing development in rural locations or settlement edges.
- Minerals – hard rock quarrying or sand and gravel extraction.
- Tourism – caravan parks, chalets, glamping/ camping sites.

Note the character assessments also include sensitivity assessments for tall structures. These are the assessments of the Supplementary Planning Guidance (SPG) *Wind Energy Development in Northern Ireland's Landscapes.*

Stage 2 Indicators of Landscape Senstivity

Indicators of landscape sensitivity describe how a landscape may be more or less susceptible to certain types of change. Indicators will vary according to development type, for example the presence of existing small scale housing development in a lowland landscape may indicate a low

susceptibility to further small scale housing development, but a high susceptibility to larger scales of development such as a wind farm.

Indicators of landscape sensitivity are described for each criteria identified in Stage 1 and for each development type in Tables A1 to A3 below.

Table A1 Development

Principally housing development in rural locations or settlement edges

	Indicators of Higher Susceptibility	Indicators of Lower Susceptibility
Landscape character		
Scale	Small scaled landscapes with intimate or intricate qualities which could be disrupted.	Large to medium scaled landscapes within which development can be absorbed.
Landform	Uniformly flat or sloping landforms which tend to promote visibility. Prominent hill tops or steeper slopes.	Undulating landforms providing topographic containment
Pattern/ Landcover/ Landuse	Landscapes with strong rural or semi natural characteristics, intricate field patterns. Open landscapes with little woodland cover.	Landscape with no distinct landscape pattern and a low range of land covers. Landscapes with high woodland cover.
Development	Landscapes with little or no development.	Smaller human scales of development i.e. rural properties and farms with which additional housing development can be accommodated.
Quality/ Condition	Well managed farmland or semi-natural landscapes	Degraded landscapes, derelict farmland
Elements and Features	Landscapes with more prominent naturalistic elements and features	Lacking in features.
Perceptual Qualities	Landscape with qualities of wildness, remoteness, to which an absence of development contributes.	Settled and farmed landscapes.
Visual characteristics		
Receptors	High numbers of visual receptors, near centres of population or concentrations of housing or others with high sensitivity.	Few receptors or those with low sensitivity (travellers, people at work places).
Internal Views	Open landscapes with little visual containment.	Landscapes where internal views are restricted by topography.
External Views	Affecting views to important or prominent features outside the LCA, such as distinctive ridgelines or hills, or views into the LCA.	Landscapes with no notable inward or outward views.
Value		
Designations or Other Indicators	Local and national landscape designations, Country Parks. Registered Gardens and Parks. Areas of cultural and natural heritage value. Other indicators, for example literary connections or recreational interest.	Undesignated landscapes or those with no informal value indicators.
Value of Views	Recognised viewpoints (e.g. on OSNI mapping). Views to important landscape features. Views to or from designated landscapes. Views from important routes or recreational assets where views are a feature of the user experience.	Landscapes without recognised views, or those with limited recreational or other interest to which views are likely to contribute.

Table A2 Minerals

Hard rock quarrying or sand and gravel extraction.

	Indicators of Higher Susceptibility	Indicators of Lower Susceptibility
Landscape character		
Scale	Small scaled landscapes with intimate qualities which could be disrupted	Large to medium scaled landscapes
Landform	Outer slopes or distinct ridge lines. Complex natural landforms which may be disturbed by extraction	Flat landforms or undulating with topographic enclosure. Landforms lacking in distinct features.
Pattern/ Landcover/ Landuse	Landscapes with strong rural or semi natural characteristics, intricate field patterns. Open landscapes with little	Landscape with no distinct landscape pattern and a low range of land covers. Landscapes with high woodland cover.

	woodland cover. Those with natural features e.g. water bodies.	
Development	Smaller human scales of development i.e. rural properties and farms. Minor roads.	More industrialised landscapes e.g. with road infrastructure, industrial or warehouse development.
Quality/ Condition	Well managed rural or semi-natural landscapes	Degraded landscapes
Elements and Features	Landscapes with more prominent naturalistic elements and features	Lacking in features.
Perceptual Qualities	Landscape with qualities of wildness, remoteness, to which an absence of development contributes.	Landscapes subject to modification, for example afforestation.
Visual characteristics		
Receptors	High numbers of visual receptors, near centres of population or concentrations of housing or others with high sensitivity.	Few receptors or those with low sensitivity (travellers, people at work places).
Internal Views	Open landscapes with little visual containment.	Landscapes where internal views are restricted by topography.
External Views	Affecting views to important or prominent features outside the LCA, such as distinctive ridgelines or hills, or views into the LCA	Landscapes with no notable inward or outward views.
Value		
Designations or Other Indicators	Local and national landscape designations, Country Parks. Registered Gardens and Parks. Areas of cultural and natural heritage value. Other indicators, for example literary connections or recreational interest.	Undesignated landscapes or those with no informal value indicators.
Value of Views	Recognised viewpoints (e.g. on OSNI mapping). Views to important landscape features. Views to or from designated landscapes. Views from important routes or recreational	Landscapes without recognised views, or those with limited recreational or other interest to which views are likely to contribute.

	assets where views are a feature of the user experience.	

Table A3 Tourism

Caravan parks, chalets, camping/ glamping sites

	Indicators of Higher Susceptibility	**Indicators of Lower Susceptibility**
Landscape character		
Scale	Small scaled landscapes with intimate or intricate qualities which could be disrupted.	Large to medium scaled landscapes within which development can be absorbed. Larger scaled coasts.
Landform	Uniformly flat or sloping landforms which tend to promote visibility. Exposed headlands. Prominent hill tops or steeper slopes.	Undulating landforms providing topographic containment. Sheltered bays.
Pattern/ Landcover/ Landuse	Open landscapes with little woodland cover.	Landscapes with high woodland cover contributing to a strong woodland structure
Development	Landscapes with little or no other forms of development.	Smaller human scales of development i.e. rural properties and farms with which development can be accommodated.
Quality/ Condition	Well managed farmland or semi-natural landscapes	Degraded landscapes, derelict farmland
Elements and Features	Landscapes with more prominent naturalistic elements and features	Lacking in features.
Perceptual Qualities	Landscape with qualities of wildness, remoteness, to which an absence of development contributes.	Settled and farmed landscapes.
Visual characteristics		
Receptors	High numbers of visual receptors, near centres of population or concentrations of housing or others with high sensitivity.	Few receptors or those with low sensitivity (travellers, people at work places).

Internal Views	Open landscapes with little visual containment.	Landscapes where internal views are restricted by topography.
External Views	Affecting views to important or prominent features outside the LCA, such as distinctive ridgelines or hills, or views into the LCA.	Landscapes with no notable inward or outward views.
Value		
Designations or Other Indicators	Local and national landscape designations, Country Parks. Registered Gardens and Parks. Areas of cultural and natural heritage value. Other indicators, for example literary connections or recreational interest.	Undesignated landscapes or those with no informal value indicators.
Value of Views	Recognised viewpoints (e.g. on OSNI mapping). Views to important landscape features. Views to or from designated landscapes. Views from important routes or recreational assets where views are a feature of the user experience.	Landscapes without recognised views, or those with limited recreational or other interest to which views are likely to contribute.

Stage 3 Sensitivity Assessment

For each development type, the susceptibility of each landscape character area is assessed against the criteria identified in Stage 1, making reference to the indicators of susceptibility identified in Stage 2. An overall evaluation of landscape sensitivity for each development type is made, on a 5 point scale from high to low, on the basis of landscape and visual susceptibility and value. It should be noted that there is no application of a consistent weighting for criteria, as it may be the case that one criteria is considered of overriding importance for the particular combination of LCA and development type. Rather the assessment is made on the basis of reasoned professional judgement.

Table A4 Landscape Character Area Sensitivity Assessments - Development

LCA	Comments	Sensitivity
92 Ballyquintin Peninsula Farmland	Open and exposed landscape in with farmland in good condition. Long views and good scenic qualities, some sense of remoteness. Relatively low levels of housing development. Mostly within the AONB designation.	Medium/ High
93 Portaferry Lowland Hills	Smooth, small scaled hills including estate landscape and farmland. Value through AONB and Historic Park and Garden designation. Settlement focused at Portaferry with lower levels of rural housing.	Medium/ High
94 Strangford Drumlins and Islands	Small scale, intricate landscape sensitive to disturbance especially on the coast. Within the AONB designation. Low levels of housing development are characteristic. Coastal locations are most sensitive.	Medium/ High
95 Ballygowan Lowland Drumlin Farmland	Relatively small landscape scale, but topographic enclosure and woodland/ tree cover provide screening. Relatively high levels of rural development and larger settlements. No landscape designations.	Medium
99 Outer Ards (North)	Landscape is partially urbanised even beyond settlement limits, however includes valued estate landscapes, exposed rocky headlands with wilder qualities. Relatively open landscape within internal views. Popular for tourism/ recreation.	Medium/ High
99 Outer Ards (South)	Exposed landscape with some remoteness to the south. Outside of AONB but includes heritage sites and some estates. Some long coastal views. Popular for tourism and recreation.	Medium/ High
100 Ards Lowland Drumlin Farmland	Undulating inland landscape provides topographic containment and screening from trees woodland within which housing development can be accommodated. Inland locations, outside AONB, are less sensitive	Medium
101 Scrabo Coastal Plain	Scrabo Hill would not be suited to housing, adjacent farmland is very open and flat. Within the AONB designation.	Medium/ High
102 Holywood Lowland Hills	The interior undulating plateau landform can absorb some housing development, but outer slopes are more sensitive to development where they form the settings to settlements.	Medium/ High
103 Bangor Urbanised Coastal Fringe	Coastline is significantly urbanised but also benefits from a high degree of woodland cover, able to absorb development. However capacity for further development is limited without altering key characteristics.	Medium/ High

LCA	Comments	Sensitivity
104 Craigantlet Escarpment	Highly exposed landscape, visible across Belfast. Includes local AoHSV designation.	High

Table A5 Landscape Character Area Sensitivity Assessments - Minerals

LCA	Comments	Sensitivity
92 Ballyquintin Peninsula Farmland	Open and exposed landscape in with farmland in good condition, some sense of remoteness. Long views and good scenic qualities. Mostly within the AONB designation.	High
93 Portaferry Lowland Hills	Smooth, small scaled hills including estate landscape and farmland. Value through AONB and Historic Park and Garden designation. Hills visible from AONB and across Strangford 'Narrows'.	High
94 Strangford Drumlins and Islands	Small scale, intricate landscape sensitive to disturbance especially on the coast. Within the AONB designation.	High
95 Ballygowan Lowland Drumlin Farmland	Relatively small landscape scale, but topographic enclosure and woodland/ tree cover provide screening. Relatively high levels of rural development and larger settlement. Scattered heritage designations.	Medium
99 Outer Ards (North)	Landscape is partially urbanised even beyond settlement limits, however includes valued estate landscapes, exposed rocky headlands with wilder qualities. Relatively open landscape within internal views. Popular for tourism/ recreation. Minerals development likely an intrusive, industrialising presence.	High
99 Outer Ards (South)	Exposed landscape with some remoteness to the south. Outside of AONB but includes heritage sites and some estates. Some long coastal views. Popular for tourism and recreation. Minerals development likely an intrusive, industrialising presence.	High
100 Ards Lowland Drumlin Farmland	Undulating inland landscape provides topographic containment and screening from trees woodland. Strangford Lough coast is sensitive to intrusion and including the AONB and cultural heritage designations.	Medium/ High
101 Scrabo Coastal Plain	Scrabo Hill highly exposed, while farmland is very open and flat. Within the AONB designation.	High
102 Holywood Lowland Hills	The interior undulating plateau landform could potentially accommodate minerals development, however the outer slopes are more visually prominent from surrounding settlements and further afield. The area also includes a large Registered Park and Garden and has recreational value.	Medium/ High
103 Bangor Urbanised Coastal Fringe	Coastline is either urbanised or includes important landscape elements such as estates, plus other farmland, providing the settings to settlements. Large numbers of high sensitivity visual receptors because of high resident population and large tourist numbers.	High
104 Craigantlet Escarpment	Highly exposed landscape, visible across Belfast. Includes local AoHSV designation.	High

Table A6 Landscape Character Area Sensitivity Assessments – Tourism

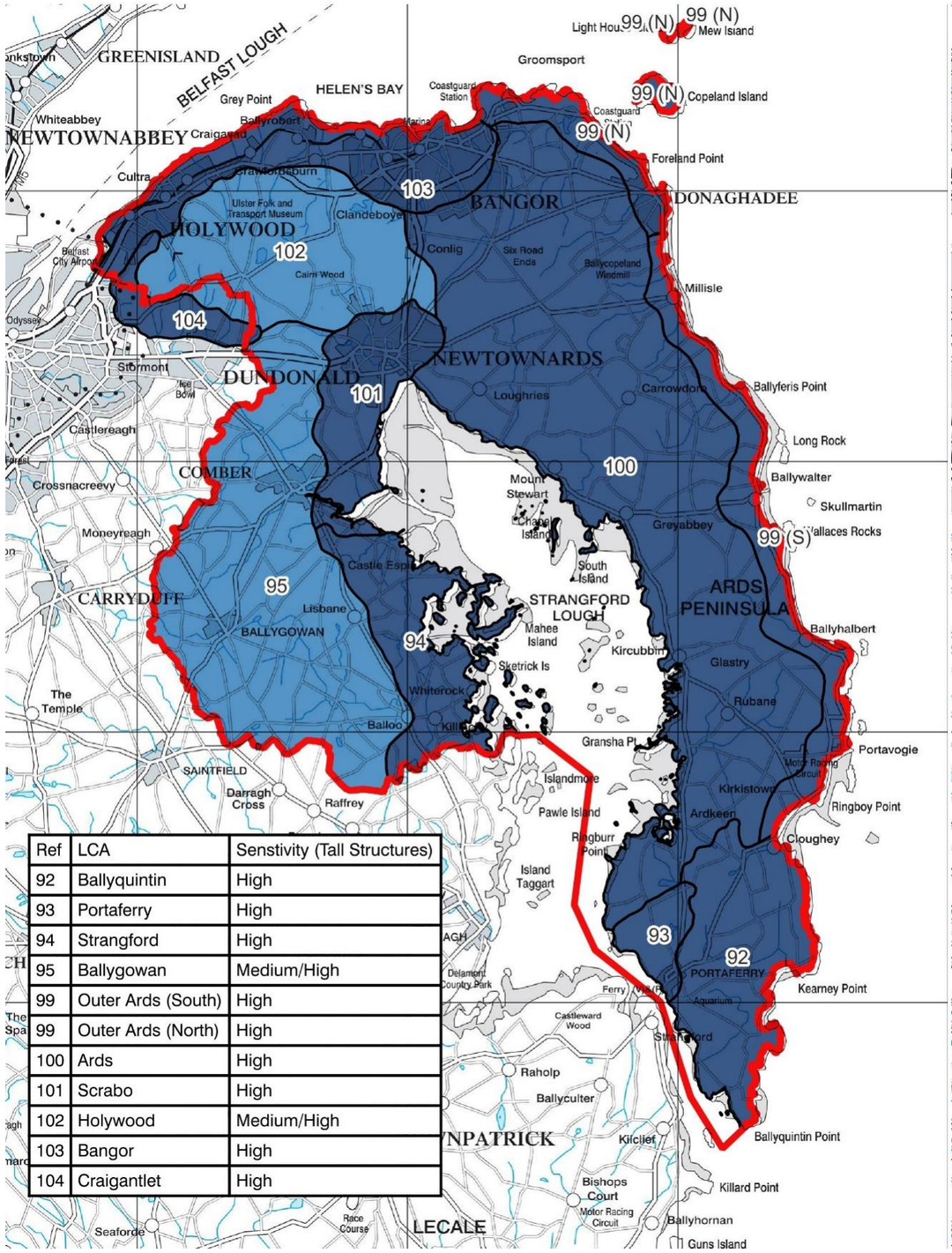
LCA	Comments	Sensitivity
92 Ballyquintin Peninsula Farmland	Open and exposed landscape in with farmland in good condition. Long views and good scenic qualities, some sense of remoteness. Mostly within the AONB designation. Scenic coast which is smaller scaled in Strangford Lough.	Medium/ High
93 Portaferry Lowland Hills	Smooth, small scaled hills including estate landscape and farmland. Value through AONB and Historic Park and Garden designation. Settlement focused at Portaferry. Coast is small scaled and sensitive to intrusion.	Medium/ High
94 Strangford Drumlins and Islands	Small scale, intricate landscape sensitive to disturbance especially on the coast. Existing small scale coastal development. Within the AONB designation. Coast is enclosed, potentially providing shelter to small scales of development.	Medium/ High
95 Ballygowan Lowland Drumlin Farmland	Relatively small landscape scale, but topographic enclosure and woodland/ tree cover provide screening.	Low

LCA	Comments	Sensitivity
	Relatively high levels of rural development and larger settlements. No landscape designations.	
99 Outer Ards (North)	Landscape is partially urbanised even beyond settlement limits, however includes valued estate landscapes, exposed rocky headlands with wilder qualities. Relatively open landscape within internal views. Popular for tourism/ recreation.	Medium/ High
99 Outer Ards (South)	Exposed landscape with some remoteness to the south. Outside of AONB but includes heritage sites and some estates. Some long coastal views. Popular for tourism and recreation.	Medium/ High
100 Ards Lowland Drumlin Farmland	Undulating inland landscape provides topographic containment and screening by trees and woodland within which housing development can be accommodated. Coastal locations, within AONB are more visually sensitive, potential to affect the character of the farming landscape adjacent to the coast.	Medium
101 Scrabo Coastal Plain	Scrabo Hill would not be suited to such development, adjacent farmland and coastline is very open and flat. Within the AONB designation.	High
102 Holywood Lowland Hills	The interior undulating plateau landform could absorb such development, but outer slopes are more sensitive to development where they form the settings to settlements.	Medium
103 Bangor Urbanised Coastal Fringe	Coastline is significantly urbanised but also benefits from a high degree of woodland cover, able to absorb development.	Medium
104 Craigantlet Escarpment	Highly exposed landscape, visible across Belfast. Includes local AoHSV designation.	High

Stage 4 Development Management Guidance

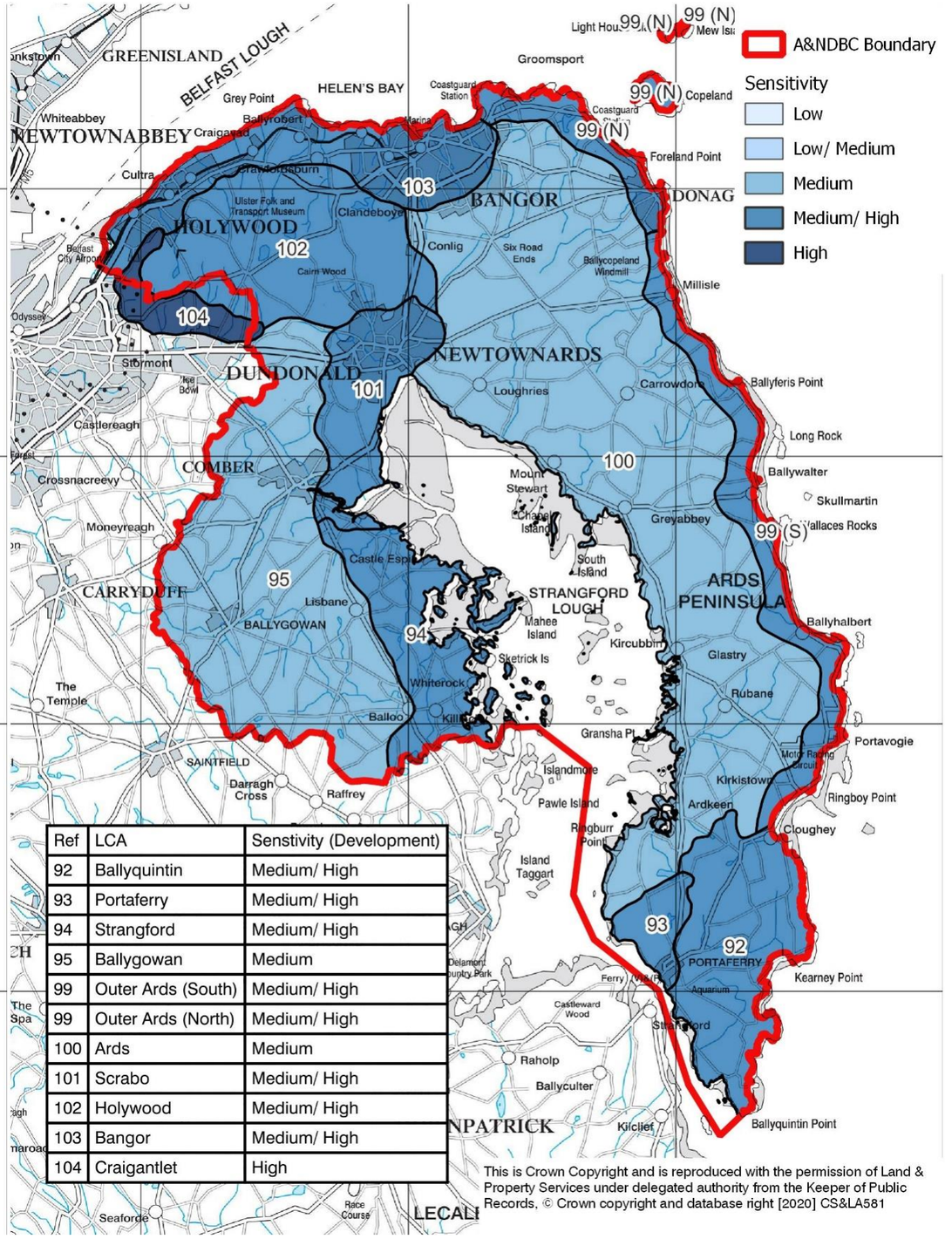
Summary development management guidance is provided in Section 8.0 for each development type in each LCA, the aim of which is to retain and/ or enhance to the distinct aspects of the LCAs landscape character.

Character Area Senstivity: Tall Structures



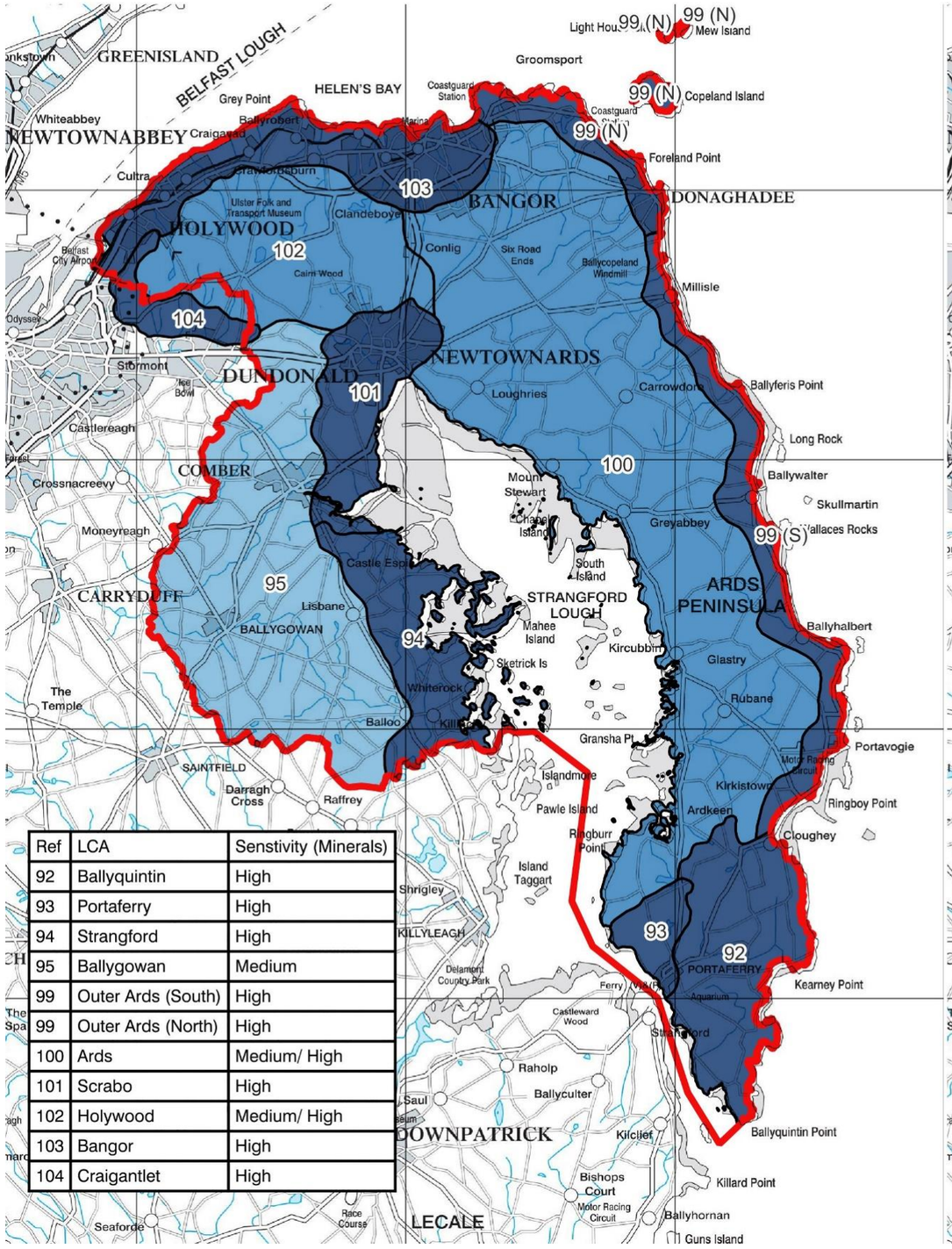
Ref	LCA	Senstivity (Tall Structures)
92	Ballyquintin	High
93	Portaferry	High
94	Strangford	High
95	Ballygowan	Medium/High
99	Outer Ards (South)	High
99	Outer Ards (North)	High
100	Ards	High
101	Scrabo	High
102	Holywood	Medium/High
103	Bangor	High
104	Craigantlet	High

Character Area Senstivity: Development



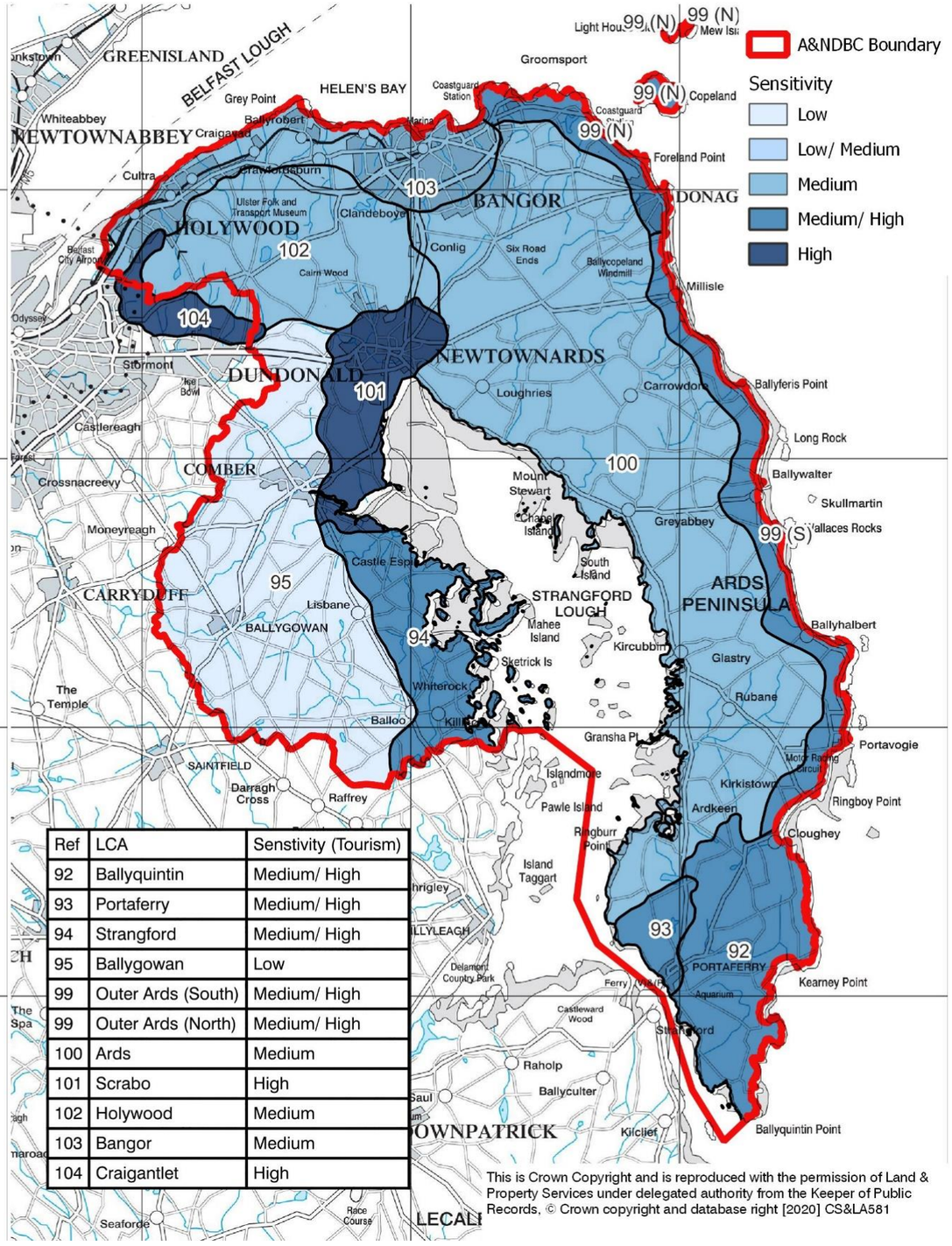
Ref	LCA	Senstivity (Development)
92	Ballyquintin	Medium/ High
93	Portaferry	Medium/ High
94	Strangford	Medium/ High
95	Ballygowan	Medium
99	Outer Ards (South)	Medium/ High
99	Outer Ards (North)	Medium/ High
100	Ards	Medium
101	Scrabo	Medium/ High
102	Holywood	Medium/ High
103	Bangor	Medium/ High
104	Craigantlet	High

Character Area Senstivity: Minerals



Ref	LCA	Senstivity (Minerals)
92	Ballyquintin	High
93	Portaferry	High
94	Strangford	High
95	Ballygowan	Medium
99	Outer Ards (South)	High
99	Outer Ards (North)	High
100	Ards	Medium/ High
101	Scrabo	High
102	Holywood	Medium/ High
103	Bangor	High
104	Craigantlet	High

Character Area Senstivity: Tourism



Ref	LCA	Senstivity (Tourism)
92	Ballyquintin	Medium/ High
93	Portaferry	Medium/ High
94	Strangford	Medium/ High
95	Ballygowan	Low
99	Outer Ards (South)	Medium/ High
99	Outer Ards (North)	Medium/ High
100	Ards	Medium
101	Scrabo	High
102	Holywood	Medium
103	Bangor	Medium
104	Craigantlet	High

Appendix B: References for the Geological Characteristics Review

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Appendix C: Information on Drumlins and Inter-Drumlin Hollows

Within Northern Ireland drumlins take a variety of forms; some are rounded in plan, although the majority are elongated in the direction of ice flow. Some have sharp crests, whereas others are more whaleback in profile. Although most drumlins are composed of glacial till or tills, a small number are 'drumlinoid features' and rock-cored and some are composed of sand and gravel. Where drumlins are rock cored there may have been significant frost shattering prior to their shaping by ice flow. It is possible therefore to see tails of shattered debris within till leading away from the feature in the direction of flow (Davies and Stephens 1978). It is generally accepted that the drumlins of Northern Ireland were formed by deposition beneath fast flowing ice. In the majority of cases this has resulted in a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. This pattern has been observed across Northern Ireland, apart from a limited area in the north of County Down, where Hill (1971) observed drumlins composed only of Lower Till. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at 30 500 ± 1170/1030 years B.P. and shelly material between the tills on the Ards Peninsula dated at 24 050 ± 650 years B.P. However, these deposits only indicate that the Lower Till is older than the dates obtained.

It can be argued that an equally important component of any 'drumlin landscape' are the similarly numerous inter-drumlin hollows. The majority of these hollows would have held open water from local runoff at the end of the Pleistocene. Whilst some continue to exist as isolated small loughs, many have now been infilled by sediment washing off the surrounding drumlins. This has created typically flat-bottomed, marshy areas between the drumlins that are subject to seasonal inundation. Much of the infilling probably occurred early in the Holocene, as the landscape adjusted to increasingly temperate conditions. However, erosion may also have been accelerated in historical times, when rural population densities were considerably higher and much of the lowland landscape of Northern Ireland was more intensively cultivated. Whatever the stimulus for erosion and deposition, the sediments within these hollows typically contain an important record of local environmental change.

Appendix D: Cultural Heritage Interests

The following table highlights key cultural heritage interests within each landscape character area of Ards and North Down.

(Landscape Character Area) LCA Reference	Name	Description
LCA 92 Portaferry and North Lecale	The White house Ballyspunge - Ardminnan Road, Cloughey, County Down, BT22 1QJ	This house was built in the 1640s probably by Patrick Savage, who acquired the land in 1641 and died in 1649 and is typical of the gabled house that about that time began to supplant the square tower house. It was enclosed by a defensive wall known as a bawn in a bawn of courtyard, of which little now remains but the gateway. The gables are thick and contain immense fireplaces and chimneys. Each face of the house is pierced with numerous gun loops.
LCA 92 Ballyquintin and Lecale Coast	Derry Churches	These ruined churches are situated one and a half miles northeast of Portaferry on the Tullymally Road, east of the A2 to Cloughey and are signposted from Portaferry. Evidence dates these two small churches as being pre-Norman or early Medieval and are associated with Saint Cumain. A small early cross and carved stone are set in the larger church and may be viewed.
LCA 93 Portaferry and North Lecale	The Portico Portaferry	The Portico of Ards, modelled on the Greek temple of Nemesis, has unique 'grade A listed' architecture. It was restored and reopened in 2016 as an Arts and Heritage Centre, retaining many original features including its pews and marbled columns. The pipe organ was also refurbished, with a new Greek-inspired case and a spectacular new console. The organ loft is now accessible and displays how the organ works.
LCA 93 Portaferry and North Lecale	Portaferry Castle	Portaferry Castle is a 16th-century tower-house, probably built by the Savage family and prominently located on the slope overlooking Portaferry harbour within sight of Strangford and Audley's Castles across the water. Simpler than the earlier 'gatehouse' tower house, it is square in plan with one projecting tower to the south where a turret rises an extra storey and contains the entrance and stair from ground floor to first floor.
LCA 93 Portaferry and North Lecale	Windmill Hill - Portaferry	Situated on the hill southeast of Portaferry below. The stump of Portaferry Windmill offers a view of Strangford Lough from the mouth of the Lough to Greyabbey, with the woods of Castle Ward, Portaferry Demesnes, and the picturesque village of Strangford.
LCA 93 Portaferry and North Lecale	St Cooey's Wells – SE of Portaferry	The recently restored wells near Tara Bay, around 2 miles southeast of Portaferry in the shadow of Tieveshilly Hill. No documentary evidence for St Cooey has been discovered, but he lends his name to several places in the local area, such as Lough Cowey. The church at St Cooey's Wells is thought to date from the 7th century but only the foundation stones now remain. In the mid 1970's the site was extensively restored by members of the local parish and a modern altar which houses some of the stones was built. Pilgrimage to the site takes place annually on the Sunday nearest to the feast of Saints Peter and Paul. The Washing, Eye and Drinking wells situated in this peaceful, wooded dell are reputed to have healing powers. Certainly, the number of "rags" attached to nearby thorn trees attests to the well's reputation for healing. A path from the wells leads through a reedbed to the shore where hollows in a slab of rock are said to mark where St Cooey knelt to pray.

LCA 94 Strangford Drumlins and Islands	Nendrum Monastic Site	Nendrum is thought to have been established by St Machaoi in the 5th Century and has links to St Patrick in later sources. The monastery consists of 3 round dry stone walled enclosures, one within the other. There is evidence of industrial works in the outer enclosure; a central enclosure with a church ruin and sundial, the remains of a round tower and a graveyard. The middle enclosure has the remains of huts and workshops. It may be the best example of a pre–Anglo Norman monastic site in Northern Ireland.
LCA 94 Strangford Drumlins and Islands	Sketrick Castle	Sketrick Castle is located on Sketrick Island is reached by a causeway on the west coast of Strangford Lough. This large tower house was built in the mid 15th century and was actively involved in warfare during the 16th century. Originally four storeys high with a boat bay and subterranean passage with four chambers at ground level. The largest had a vault built on wicker centring and two ovens. The small unlit room may have served as a prison. The tower-house had been relatively complete until half of it collapsed in a storm in 1896. Part of the bawn wall survives to the north and east of the castle.
LCA 94 Strangford Drumlins and Islands	Mahee Castle	This ruined Tower House commands a position at the north end of Mahee Island in Strangford Lough. The house was built in 1570 by an English soldier called Captain Browne.
LCA 95 Ballygowan Drumlins	Comber Potatoes	After achieving EU Protected Geographical Indication status in 2012, the Comber potato (Comber Earlies) became a global brand. The humble spud is now celebrated annually at the Comber Earlies Food Festival in June, together with the Comber Earlies Growers.
LCA 95 Ballygowan Drumlins	St Mary's Comber	St Mary's Parish Church can be found in a quiet corner of the town square and stands on the site of a Cistercian Abbey built in 1199. The abbey was of similar size and architecture to the one in Greyabbey and survived until 1543 when it was closed by order of Henry VIII. The present church dates from 1840.
LCA 99 Outer Ards Coast	Kirkistown Castle - Cloughey	Kirkistown Castle is believed to have been built by Roland Savage of Ballygalget in 1622, possibly reusing an earlier site. The castle comprises of a three-storey tower house within the remains of a bawn (fortified enclosed space) and a later barn. There has been gradual subsidence of the tower house over the centuries. In the late 19th century buttresses and two iron braces were added to halt movement in the walls. The tower has been subjected to numerous alterations over its history and was extensively remodelled in a neo-gothic style in the early 19th century.
LCA 99 Outer Ards Coast	Ballyrolly House	Ballyrolly House operated as a Refugee Resettlement Farm from 1938-1948. In the late 1930s, Jewish children escaping persecution in Europe came to live on the remote, disused farm on the Ards Peninsula. Along with these Kindertransport children were older members of Zionist youth groups and some adults. At any given time, up to 80 people lived on the Millisle refugee farm. Over 10 years between 1938 and 1948, around 300 adults and children passed through the farm. The Jewish Resettlement Farm at Ballyrolly House closed in May 1948.
LCA 99 Outer Ards Coast	Donaghadee Harbour and light house.	Donaghadee was the province's principal port before Belfast developed. The Harbour was built in 1820's to the design of John Rennie and is part built of limestone from Wales known as "Anglesea marble". Donaghadee's impressive lighthouse, on the harbour, was built in 1836 and was the first lighthouse in Ireland to be lit by electricity.

LCA 99 Outer Ards Coast	Donaghadee Motte	Known locally as The Moat, Donaghadee Motte was constructed by the Anglo-Normans in the late 12th century and is one of the largest in Ulster. The Motte and surrounding ground are protected as a Scheduled Monument.
LCA 99 Outer Ards Coast	Donaghadee Gunpowder Store	The Gunpowder Store was built on top of the Motte to store explosives during the building of the 'new' harbour. The Gunpowder Store is a Listed Building. The Gunpowder Store is now home to the only accessible Camera Obscura on the island of Ireland. Camera Obscura is an ancient optical device, it lets light in through a small opening on one side and projects a reversed and invested image on the other.
LCA 99 Outer Ards Coast	Ballywalter House Ballywalter Park	Ballywalter Park is the home of Lord & Lady Dunleath and it has been in their family for 170 years. The Mansion House was built in the Italianate Palazzo style by the eminent architect Sir Charles Lanyon and has been afforded Grade A * listing as being of exceptional architectural importance. The house is surrounded by 30 acres of pleasure grounds and is situated within the walled demesne of some 270 acres. The total Estate runs to over 1200 acres and is home to one of Northern Ireland's largest dairy herds and it also includes significant acreages of arable crops and mixed woodland.
LCA 99 Outer Ards Coast	Burr Point	Burr Point, the most easterly point in Ireland, is Burial Island, now a nesting site for terns. Burr Point is located south of Ballyhalbert. Just above Burr point stands a disused Coast Guard Tower, which was in use in 1863 and was one of twelve which made up the Donaghadee district.
LCA 100 Ards Farmlands and Estates	Ardkeen	In the late 1800's steam flax mills were established at Ardkeen and Glastry but by the turn of the century the growth of flax declined with pre scutched flax being imported from Belgium. However, the Ardkeen mill was opened temporarily to aid the war effort during WW1.
LCA 100 Ards Farmlands and Estates	Ballycopeland Windmill - Millisle	Ballycopeland Windmill is the only remaining working windmill in East Down. It was built in the late 18th or early 19th century and was worked until the First World War when it fell into disrepair. It was gradually restored between 1950 and 1978 to full working order. Ballycopeland windmill is now open to the public and the complex as a unique historical asset brings to life the stories of those who lived and worked in this last functional windmill in Northern Ireland.
LCA 100 Ards Farmlands and Estates	Mount Stewart – Portaferry Road	Mount Stewart a 19th- century house and gardens located on the shores of Strangford Lough in County Down. Voted as one of the top ten gardens in the world, Mount Stewart reflects a rich tapestry of design and planting artistry bearing the hallmark of its creator. Edith, Lady Londonderry's passion for bold planting schemes coupled with the mild climate of Strangford Lough allows rare and tender plants from across the globe to thrive in this celebrated garden. Mount Stewart contains a series of formal themed garden compartments around the house including The Italian, Spanish, Mairi and Shamrock Garden. There are also beautifully landscaped and informal grounds surrounding a picturesque lake walk, walled rose garden,

		and Fernery. The Shamrock Garden reflects Edith's love of Irish mythology and the topiary surmounting the Shamrock hedge is a beautifully depicted children's story.
LCA 100 Ards Farmlands and Estates	Mount Stewart	Fomorians were mythological half human, half sea monster creatures associated with the waters of the Celtic fringe including Strangford Lough. A sculpture of a fomorian has been installed within the gardens at Mount Stewart
LCA 100 Ards Farmlands and Estates	Greyabbey	Along with Inch Abbey, Greyabbey is the best example of Anglo-Norman Cistercian architecture in Ulster and was the daughter house of Holm Cultram (Cumbria). It was founded in 1193 by Affreca, wife of John de Courcy, the Anglo-Norman invader of East Ulster. Poor and decayed in the late Middle Ages, the abbey was dissolved in 1541 but in the early 17th century was granted to Sir Hugh Montgomery and the nave was refurbished for parish worship until the late 18th century. The remains, in the beautiful parkland setting of the nearby grand house of Rosemount, consist of the church with cloister and surrounding buildings to the south.
LCA 101 Scrabo	Fairy King Macananty	The 'fairy king' Macananty is said to have lived at Scrabo. The blacksmith craft has long been tied to superstition. Blacksmiths were believed to have been taught the secret of forging iron by the fairy folk and so have inherited supernatural powers. Greyabbey locals remember that the quenching water blacksmiths used to cool forged metal was collected as it was believed to be a cure for warts
LCA 101 Scrabo	Scrabo Tower	At the top of Scrabo Hill, overlooking Strangford Lough and the whole of North Down, is Scrabo Tower. The tower, which was built in 1857, is one of Northern Ireland's best-known landmarks and the views from the top are spectacular.
LCA 101 Scrabo	Scrabo Country Park	Scrabo Country Park is centred at the top of Scrabo Hill near Newtownards and boasts incredible views over Strangford Lough and the surrounding countryside. There are plenty of paths through the fine beech woodlands of Killynether Wood and around the disused quarries. Universal Pictures filmed several scenes of Dracula Untold at Scrabo Country Park & Killynether Wood. This was one of many of the locations used for filming across Northern Ireland.
LCA 101 Scrabo	The Priory - Newtownards	At the southeast edge of Newtownards these substantial remains of a Dominican (Black) Friary founded in 1244 may be viewed. They are the only surviving remains of a medieval Dominican priory in Northern Ireland. Built by the Savage family the buildings were destroyed by Sir Brian O'Neill to prevent English soldiers using them. Sir Hugh Montgomery restored the church in 1607 and added a small chapel but it fell into disrepair in the middle of the 18th-century. The Priory is currently not open to the public because of ongoing conservation work.
LCA 101 Scrabo	Market Cross - Newtownards	At the east of High Street in Newtownards, the Market Cross was built in 1636 but was destroyed by Commonwealth troops in 1653. The original building was less than 11 feet tall and octagonal in shape with a low door and staircase leading to the roof. The present replacement building was finished in 1666. Its conical roof was probably used as an office or shelter for the town's night watchmen. Towns people say that the Cross used to "flow with wine" at the birth of a royal baby.

		In its original form, it would have been where public announcements were made and was a symbol of the right granted to Newtownards to hold a regular market. The site was in constant use from 1636 until early 1770s when the new Market House was built on Conway Square
LCA 101 Scrabo	Movilla Abbey	As important as Bangor, Movilla was associated with Saint Finian in the 6th-century. As with many early monasteries, it was plundered by Vikings in the 9th century, but was refounded as an Augustinian abbey in the Norman 12th century and survived until the suppression of religious houses in the 1540s. It has the best collection of 13th Century coffin lids with foliate crosses in the province. These are built into the inside north wall. Only one stone from the Pre-Norman period survives; it is marked with “Or do Dertrend,” “pray for Dertrend.” Later structures include the ruins of a 13th-century church which was rebuilt in the 15th-century. Situated one mile east of Newtownards, on the south of the B172 to Millisle.
LCA 102 Holywood Hills	Clandeboye Estate/Helens Tower	Helen’s Tower was built in 1848 by Frederick Lord Dufferin in honour of his mother Helen Selina Blackwood. Designed by architect William Burn it had a dual purpose. The area had been affected by the Great Famine resulting in widespread poverty, and the construction was done in part with the objective to provide employment to local people. Poems were written in its honour by 19th century luminaries including Tennyson and Kipling.
LCA 103 Bangor Coastline	The Legend of Jenny Watts	According to legend Jenny Watts was the youngest daughter of Jack Watts owner of the Jolly Fisherman a tavern to the west of Bangor. Jack Watts was also involved in smuggling, coffee, tea, silk, and brandy from the Isle of Man and selling them in the expanding town of Belfast. The Isle of Man was widely used as a base for smuggling contraband into Ireland and Scotland as they did not pay the high duties levied in Great Britain and Ireland. While Jack Watts did not take an active part in the smuggling he did encourage and assist his daughter Jenny. Jenny became a local hero as she shared the proceeds of her activities among the poor in the local community. However, she did have several close encounters with the excise men, but because of her local popularity, she always managed to avoid capture.
LCA 103 Bangor Coastline	Jenny Watts Cave is located next to Brompton Bay on the North Down Coastal Path)	It is not clear how Jenny Watts pirating career had ended, but rumour has it that one dark November night while Jenny and her crew were storing kegs of brandy in the cave (now known as Jenny Watts Cave) they were surprised by a large number of excise men. The crew managed to escape at the time, but Jenny, who was deep in the cave when the excise men arrived, decided to hide rather than face a long term of imprisonment. Jenny was never seen again, and the locals believed she may have drowned when the tide came in and flooded the cave. It is also rumoured that she can be seen on Brompton Harbour on the last Friday of November every year. However, Jenny had anticipated that she may one day be caught and had hidden a map to show where she had stored her fortune. Despite many searches over the years, no one has been able to find it.
LCA 103 Bangor Coastline	Bangor Abbey	St Comgall founded the Abbey in 558AD, and it grew to become one of the most important seats of learning in Ireland, with almost 3,000 monks at the time of Comgall’s death in 601AD. Two of its most famous students, Columbanus and Gall, travelled throughout Europe setting up monasteries in Luxeuil, Bobbio and Breganz. The most celebrated literary work to come from the monastery is the seventh century Bangor Antiphonary, a collection of hymns,

		prayers and poems now kept in the Ambrosian Library in Milan. Bangor's vulnerability to attack from the sea resulted in the Abbey falling into disrepair, following many Viking raids. It was partially restored by Saint Malachy in the 12th Century when he was Abbot in Bangor. His work can be seen at what is known locally as Malachy's Wall, the oldest surviving remnant the Abbey, adjacent to the Old Gate Lodge. The main body of the building dates from the 1830's and 1840's but the tower is from the 15th century and the octagonal steeple dates from around 1693.
LCA 103 Bangor Coastline	Grey Point Fort	Completed in 1907, the fort was a key part of Belfast's defences against naval attack, however it proved to be of limited value during the 1941 German air attacks. There are two small museums on site featuring interesting exhibits of military memorabilia and radio equipment.
LCA 104 Craigantlet escarpment	Craigantlet Hill Climb	Craigantlet Hillclimb is a speed event organised by the Ulster Automobile Club, was first held in 1913. It is the only such venue in Northern Ireland to host a round (latterly two rounds) of the British Hill Climb Championship, which started in 1947.
	Columban Way	Born in Leinster in 543 AD, Columbanus and his disciples left Bangor in 591AD, to travel throughout Europe. According to Robert Schuman, one of the founding fathers of the European Union, he is *"the patron saint of all those who now seek to build a better Europe."* The term 'Europe' was first used to refer to a geographical entity in his writings. The Columban Way is a significant pilgrimage route in Europe, from Bangor to Dublin, across Cornwall, through France, Germany, Switzerland, Austria, Italy