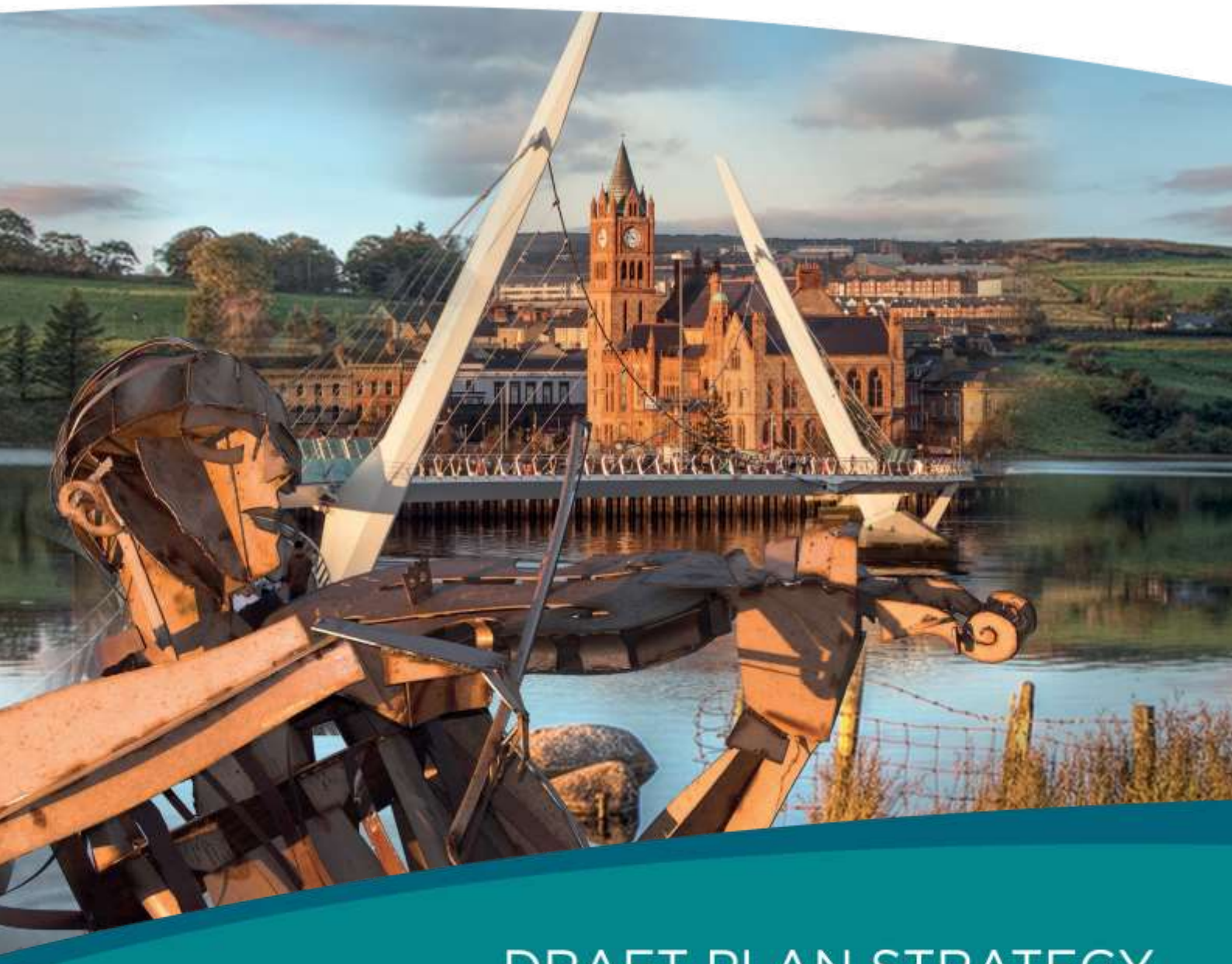
Derry City & Strabane District Council

Comhairle Chathair Dhoire & Cheantar an tSratha Báin

Derry Cittie & Stràbane Destrick Cooncil

DERRY CITY & STRABANE DISTRICT COUNCIL

LOCAL DEVELOPMENT PLAN (LDP) 2032



DRAFT PLAN STRATEGY

EVB 6b: Landscape & Seascape Character Review - December 2019

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Evidence Base Paper EVB 6b

Landscape & Seascape Character Review

December 2019

This Document is one in a series which comprises the evidence base that informs the preparation of the Derry City and Strabane District Local Development Plan (LDP 2032) Plan Strategy.

The Evidence Base is published as a 'supporting document' in accordance with Article 15(a) of the Planning (LDP) Regulations (NI) 2015.

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Content:

1.0 Introduction to Landscape / Seascape Review

1.1 The European Landscape Convention ((March 2007) defines 'Landscape' as *an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.* This complex interaction is illustrated in Figure 1 below. Landscape Character Assessment (LCA) is a recognised approach to identifying character and distinctiveness through the examination of these interactions. LCA is an important tool in planning for sustainable development. Its role is to help ensure that change and development does not undermine whatever is characteristic or valued about any particular landscape, and that ways of improving the character of a place can be considered.

Figure 1 – What is Landscape?

1.2 Derry City and Strabane District comprises a mixture of landscapes and seascapes. Our landscapes vary from mountains, including much of the Sperrins AONB to river valleys and rolling farm land. Similarly, our seascapes include the gently meandering River Foyle and part of the shallow, but extensive and exposed Lough Foyle.

1.3 These landscapes provide a rich resource of productive agricultural land, habitats for nature conservation, archaeological and historical features and remains which illustrate ways in which the land has provided for human occupation and activity in the past. Our countryside remains the home and livelihood for a considerable part of our population, farmers and non-farming families, living in our many rural communities. Additionally, our countryside provides for many recreational needs including activities such as fishing, photography, walking and festivals and has the potential to become an increasingly important tourist asset.

1.4 Landscapes of national importance have merited designations as Areas of Outstanding Natural Beauty (AONB). The landscapes within the District include part of the Sperrin Mountains, re-designated as an AONB in 2008.

The purpose of the designation is to protect and conserve the scenic qualities of the area and promote their enjoyment. The AONB forms a backdrop to much of the district in the centre and east, with the mountain valleys of the Glenelly and Owenkillew rivers lying below an expanse of open moorland.

1.5 As well as considering our District's impressive landscape, we also need to consider our short stretch of coastal seascape and how it interacts with our landscape. Best Practice Guidance (An Approach to Seascape Character Assessment - Natural England 2012) defines seascape as *an area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/or human factors.* Seascape Character Assessment, likewise, is the process of identifying, mapping and describing variation in the character of the seascape. It seeks to identify and explain the unique combination of elements and features that makes seascape distinctive.

1.6 Our District has always had a close connection with the sea, through the River Foyle and Lough Foyle into which it flows. Our shoreline and marine environment are some of our greatest assets. Our seascapes are subject to change as a result of both natural and manmade influences including climate change; recreational activity and land management changes. With ever continuing change, understanding what makes the seascape so special and its strong sense of place is therefore an important step in safeguarding its future through promoting sensitive planning and management.

1.7 The consideration of landscape and seascape character is an integral part of land-use planning, and was integrated into the preparation of the Local Development Plan (LDP). We are bound by the European Landscape Convention (ELC), which came into force in the UK in 2007 and other relevant Guidance, which encourages the protection, management and planning of landscapes. In Planning terms, landscape issues can vary in scale from loss of field boundaries or perceived inappropriate rural design associated with housing applications to large scale consideration when developing possible new rural policy as part of the LDP Plan Strategy (PS) preparation or when considering wind farm or solar applications in upland areas or within our AONB boundaries.

1.8 The LDP PS sets out how Derry City and Strabane District Council will positively plan to accommodate growth within the District by seeking to deliver more sustainable development in line with Council's Strategic Growth Plan. Central in this will be securing high quality design, taking account of the different roles and character of different areas and recognising and protecting the intrinsic character and beauty of the countryside. Landscape recognition and protection are core planning principles as set out in the Programme for Government, Regional Development Strategy (RDS) 2035 and the Strategic Planning Policy Statement (SPPS) for NI. Our landscape is one of the key reasons why people come to visit our District. Their visits underpin many

livelihoods within our communities. We must carefully balance these livelihoods and any landscape impacts when considering development proposals.

1.9 This Landscape Character Review, undertaken as part of the preparation of the LDP PS is not intended to be a detailed, technical landscape / seascape character assessment utilising associated LCA best practice methodology. Rather it is a review of our District landscape / seascape and a clarification of whether previous LCA studies undertaken by DOE, NIEA and more recently DAERA are still relevant and valid since the introduction of landscape character assessment into Northern Ireland some 18 years ago. The review will also highlight any new emerging forces of change in our landscape / seascape that need to be considered as part of the LDP PS preparation.

1.10 This Review contributes to the achievement of these principles and the environmental dimension of sustainable development by identifying opportunities for protecting and enhancing the intrinsic character of the landscape and seascape of our District.

1.11 The Landscape Character Review is intended to be a simple, easy reference document written in clear, non-technical language with a range of readers in mind. It provides information to those who live or work in the District, visitors to it, and those with an interest in our District's rich and diverse landscape. It sets out their considered current significance and provides a basis for their ongoing protection and enhancement during the lifetime of this LDP to 2032.

2.0 Relevant Landscape & Seascape Policy / Guidance for LDP

European Landscape Convention / NI Landscape Charter

2.1 The European Landscape Convention (ELC – October 2000) is a Europe-wide initiative to encourage the protection, management and planning of landscapes. The ELC gives the following definition:

"*'Landscape' means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*"

2.2 It came into force in the UK in March 2007, and applies to all landscapes, regardless of condition or quality. Northern Ireland, recognising its obligations under the ELC, published a Landscape Charter in 2014 containing a Single Vision and Six Guiding Principles in Decision Making for NI's landscapes. Of direct relevance to planning is the following specific principle:

"Change is continuous but we can manage it by using evidence to inform policy and decisions that respect and enhance the character and value of our landscapes."

Regional Development Strategy (RDS) 2035

2.3 The RDS is the spatial strategy of the NI Executive and provides an overarching strategic planning framework to facilitate and the public and private sectors. In terms of landscape, the RDS states that one of its eight aims is to:

"Support our towns, villages and rural communities to maximise their potential. ….They offer opportunities in terms of….highly valued landscapes."

Regional Guidance (RG) 11 within the RDS states *Conserve, protect and, where possible, enhance our built heritage and our natural environment*. Specifically within the accompanying text, the RDS further directs on the need to:

- *Recognise and promote the conservation of local identity and distinctive landscape character; &*
- *Conserve, protect and where possible enhance areas recognised for their landscape quality.*

Strategic Planning Policy Statement for NI (SPPS) 2015

2.4 The SPPS reiterates our landscape obligations, arising from the ELC, as part of the LDP development and stresses the need for careful planning to avoid potential effects on landscape and the undeveloped coast, including the cumulative effect of development. The SPPS specifically recognises the distinctive special character of AONBs and the quality of their landscape,

heritage and wildlife. It stresses that development proposals in AONBs must be sensitive to their distinctive special character and in accordance with relevant plan policies and that in assessing proposals, account must also be taken of relevant Landscape Character Assessments and any other relevant guidance.

2.5 The SPPS states that the LDP process will play an important role for Councils in identifying key features and assets of the countryside and balancing needs of rural areas and communities with the protection of the environment. It also states that in plan-making councils should take full account of the implications of proposed land use zonings, locations for development and settlement limits on natural heritage features and landscape character within or adjoining the plan area.

PPS21 (2010) - Sustainable Development in the Countryside:

2.6 sets out planning policies for development in the countryside. The objectives of PPS 21 are:

- to manage growth in the countryside to achieve appropriate and sustainable patterns of development that meet the essential needs of a vibrant rural community;
- to conserve the landscape and natural resources of the rural area and to protect it from excessive, inappropriate or obtrusive development and from the actual or potential effects of pollution;
- to facilitate development necessary to achieve a sustainable rural economy; including appropriate farm diversification and other economic activity; and
- to promote high standards in the design, siting and landscaping of development in the countryside.

Strabane Area Plan (SAP) 2001

2.7 A stated aim in the SAP Rural Strategy is to maintain the essential character of the rural area by protecting and where possible, enhancing natural landscapes. The SAP deferred on landscape issues to the 1987 Department of the Environment (DOE) publication “Location, Siting and Design in Rural Areas”. This provided a statement on the standards to be applied to new development in the countryside, including the Green Belt and AONB. The SAP further directs that the degree to which individual buildings can be satisfactorily located in any particular rural setting will be dependent on the nature of the existing landscape and the amount of existing development.

2.8 The SAP notes that a substantial portion of the Sperrin Area of Outstanding Natural Beauty (AONB) is located within the former Strabane Council area and references its future re-designation during the plan period under The Nature Conservation and Amenity Lands (NI) Order 1985. It was, at the time

of the SAP, designated under the Amenity Lands Act (NI) 1965. The practical effect in planning terms of the AONB designation is to ensure that in the consideration of development proposals within the designated area, particular attention is given to the protection of the area's visual amenity and landscape character.

2.9 In terms of mineral extraction within the AONB, the SAP protects the landscape of the Sperrin AONB with a degree of constraint greater than it would consider to be reasonable in areas of lesser scenic value. It states that permission is less likely to be granted to proposed mineral developments where it is considered that a proposal will have a substantial impact on the landscape. Where permission is granted the stringency of control exercised over operations and site restoration to protect the landscape will be greater than will be the case for mineral developments outside of the AONB. The SAP however considered that the landscape of the Glenelly Valley within the AONB required more rigorous protection from the environmental consequences of mineral development. Accordingly the Glenelly Valley was designated as an Area of Constraint on Mineral Development.

Derry Area Plan (DAP) 2011

2.10 The Development Strategy of the DAP, in support of sustainable development, promoted an appreciation of the natural, man-made and cultural reserves to ensure that development neither degrades nor irreversibly damages them. The DAP undertook a Landscape Assessment as part of the plan preparation. The aim was to identify the capacity of the landscape within each area to absorb further development and the manner in which such development might best be integrated into the particular landscape setting.

2.11 Landscape was one of the stated major determinants on the future strategic physical growth of the City. The DAP directs that general urban growth will be restricted along the River Foyle and the River Faughan and states that this policy will safeguard the unique setting of the City in relation to these river valleys and their associated landscapes of outstanding amenity interest.

2.12 The DAP designated two Countryside Policy Areas (CPAs) at;

- Bonds Glen / Ness Woods / Ervey Woods and;
- The Foyle Estuary.

The Bonds Glen / Ness Woods / Ervey Woods CPA is characterised by attractive relatively well wooded and steep river valleys and are within easy access of the A6 Road. The Ness and Ervey Woods were also declared Areas of Special Scientific Interest (ASSI) at the time of the DAP preparation.

2.13 The Foyle Estuary CPA is characterised by large relatively flat and open fields with few boundary features on the shores of Lough Foyle. The DAP noted that while there has been limited development pressure in this area, its character

is such that there is little potential for additional development without adverse impacts on the landscape.

2.14 Both these CPAs were intended to protect these areas of countryside which were under pressure or were likely to come under pressure from development which would adversely affect the rural character of their landscapes. The CPA at Bonds Glen/Ness Woods / Ervey Woods also protected part of the valley of the River Faughan, an important river corridor. The DAP stated that within the Foyle Estuary CPA greater emphasis will be placed on the visual impact of proposals on the coastal zone.

2.15 The DAP stressed in its Natural Environment Chapter that an important element of the Plan will be to balance the need for economic growth with the requirement to protect, conserve and enhance wildlife and natural beauty.

2.16 Arising from the DAP Landscape Assessment the following Proposals / Policies were brought forward to protect the following specific areas:

- **Proposal ENV 1 Areas of High Scenic Value (AoHSV):** The DAP defined Areas of High Scenic Value on both banks of the Foyle north and south of the City and the Faughan Valley south east of Drumahoe to Burntollet Bridge

2.17 The quality, character and importance of these areas derived from the contribution they make to the setting of the City; their relatively unspoilt nature and their relationship with the Rivers Foyle and Faughan in providing an attractive setting for the enjoyment of the rivers; their proximity to the urban area and their contribution in providing a high quality environmental image along the major approach roads to the City; and their intrinsic landscape quality based on the inter-relationship between river, riverbank, large country houses, many of considerable historic character set in mature parkland / woodland and well maintained agricultural land uses.

- **Policy ENV 1 Areas of High Scenic Value (AoHSV):** Proposals for development which would adversely affect or change either the quality or character of the landscape within the Areas of High Scenic Value will not normally be permitted.

2.18 The above policy was applicable to the defined AoHSV. The AoHSV were also identified as Areas of Mineral Constraint.

- **Policy ENV 2 Design within AoHSV:** Where development is permitted within the Areas of High Scenic Value, it must have special regard to siting, massing, shape, design, finishes and landscaping in order that it may be integrated into the landscape.

2.19 The above policy required the highest standards in design within the AoHSV.

- **Policy ENV 3 Informal Uses within AoHSV:** Within the Areas of High Scenic Value, favourable consideration will normally be given to the provision of pathways and informal recreational facilities of an appropriate scale and in a suitable location provided they are visually integrated with the landscape.

2.20 The above policy recognised that Areas of High Scenic Value can provide new opportunities for informal recreational activities and quiet enjoyment of the countryside.

2.21 In addition to the above proposals and policies directly relevant to landscape, the DAP also proposed, defined and set policies for Areas of Local Nature Conservation and Amenity Importance. Trees, Hedgerows, Rivers and water bodies were also covered. The landscape relevance to each of these is set out in the following summary of the proposals and policy:

- **Proposal ENV2 - The Department defines the following areas as Areas of Local Nature, Conservation and Amenity Importance: Castle River, Cumber, Enagh Loughs, Foyle Park, Gransha Intake, Learmount and Prehen Wood:** These areas are of particular local importance as they are found close to where development pressures are normally greatest and where there is a relative lack of other nearby nature conservation and amenity areas. Some of the areas contain important historic buildings, monuments and important stands of woodland.

- **Policy ENV 4 - Development within Areas of Local Nature Conservation and Amenity Importance (AoLNCAI). New development will not normally be permitted within the AoLNCAI:** In assessing development proposals, the Department will have particular regard to the existing character and interests of the area and proposed changes to that character. Development which is likely to increase noise significantly, or detract from the quiet enjoyment of the areas will be resisted.

- **Policy ENV 6 Trees and Woodland - In order to protect the amenity value of trees and woodland, the DAP will where appropriate make Tree Preservation Orders on woodlands, groups of trees and individual specimens which contribute to the visual amenities and character of the surrounding area;**

- **Policy ENV 7 Retention of Trees and Hedges and Landscape Requirements - Development proposals will be expected to take account of existing trees and hedges which in the interests of visual amenity or wildlife habitat should be retained. Proposals will be expected to provide appropriate landscaping as an integral part of the design.** The DAP will seek to increase the amount of tree cover by ensuring that where development occurs, new tree planting is

secured and that as many existing landscape features as possible are retained by sympathetic design and layout.

- **Policy ENV 9 Development adjacent to Rivers and Open Water Bodies Development will only be permitted adjacent to major rivers and open water bodies where it can be demonstrated that proposals meet the following provisions: will have no permanent adverse impacts on their landscape character or setting; and will not involve a loss of significant views of, and from the rivers and water bodies;** The policy is primarily aimed at protecting the landscape adjacent to the River Foyle, the Faughan and its tributaries, Enagh Loughs and the water bodies along the Foyle Estuary.

2.22 As part of the preparation of the LDP Plan Strategy, the various environmental / amenity designations contained within the extant Derry and Strabane Plans will be considered and reviewed with a view to bringing forward suitable designations which are appropriate and fit for purpose for the entire District.

Relevant NI Landscape Character Assessments

NI Landscape Character Assessment Series (NILCA 1999)

2.23 The study was carried out at a relatively detailed scale across NI and defined 130 separate landscape character areas (LCAs). The 130 LCAS's highlight the variations in landscape across NI in dramatic contrasts and subtle transitions.

2.24 For each of the identified 130 landscape character areas, a description of key characteristics and an analysis of landscape condition and sensitivity to change was prepared. This material was then presented in greater detail along with supporting maps in the Environment and Heritage Service (EHS) Landscape Character Assessment Research Report for each of the 26 former Local Government Districts.

2.25 As well as describing landscape character and sensitivity, these reports review forces for change at a local level. They represent specific principles for landscape management and principles for accommodating new development, in recognition of the fact that each landscape requires a tailored approach which reflects and responds to its particular character. They also identify and map particular parts of the landscape that fulfil important functions, for instance areas of scenic quality, distinctive landscape settings to settlements, buffer zones that separate adjacent settlements, ridges that are prominent visually, key views, landmarks and locally degraded landscapes in need of enhancement.

2.26 Additional to highlighting the significance of the Sperrin AONB in the former Derry and Strabane Districts, the NILCA 1999 series in addition identified a further tier in the NI hierarchy of special landscapes – Areas of Scenic Quality

(ASQ) on account of their landscape importance at a regional level. These were then considered for potential designation in subsequent Area Plans as Areas of High Scenic Value (AoHSV) and were included in the DAP 2011. It is important to note that AONB, ASQ and AoHSV are recognised not only for their special scenic qualities but also for their natural and cultural heritage value.

NI Landscape Assessment 2000 – An Appreciation and Analysis of the Landscapes of the Region

2.27 This report addressed the diversity of local landscape character, key components and forces for change and included strategic advice on how to tackle the effects of development and land use change both in the countryside and in the urban fringe. It should be read in conjunction with the 1999 LCA Series to provide a comprehensive overview of NI landscape.

2.28 Relevant details of the NILCA 1999 series and the NI LCA 2000 Assessment for this District are set out in Chapter 4.

Wind Energy Development in NI's Landscape (2010) (Supplementary Planning Guidance to Accompany Planning Policy Statement 18 'Renewable Energy')

2.29 In 2010, the NI Environment Agency (NIEA) published the above Supplementary Planning Guidance (SPG) for PPS18 'Renewable Energy' which provided landscape guidance for wind energy development for the whole of Northern Ireland based on landscape character variations throughout the region. The SPG used the same Landscape Character Areas (LCAs) that were previously identified and described in the Northern Ireland Landscape Character Assessment 2000.

2.30 The SPG provides broad, strategic guidance in relation to the landscape and visual impacts of wind energy development. It stresses that every development proposal is unique, and there remains a need for detailed consideration of the landscape and visual impacts of individual applications on a case by case basis, as well as for consideration of other issues referred to in PPS18 and other regional policy. The guidance promotes the protection, management and planning of landscapes as advocated in the European Landscape Convention (2000) and contributes to commitments in the Northern Ireland Sustainable Development Strategy.

2.31 The SPG shares the aim of PPS18 to facilitate the siting of renewable energy generating facilities in appropriate locations within the built and natural environment in order to achieve Northern Ireland's renewable energy targets and to realise the benefits of renewable energy. The guidance is based on the sensitivity of Northern Ireland's landscapes to wind energy development and

contains an assessment of each of the 130 LCAs in Northern Ireland by referencing the characteristics and values associated with each LCA.

2.32 Landscape sensitivity to wind energy development is the extent to which the inherent character and visual amenity of a landscape are vulnerable to change due to wind energy development. It is primarily a function of landscape character sensitivity (ie the degree to which a landscape character area is vulnerable to change which will affect its character); and visual sensitivity (ie the degree to which a particular view or visual landscape experience is vulnerable to change).

2.33 For each LCA a description of sensitivity against each of the criteria was prepared. The LCA was then given an overall sensitivity level using a five point scale as follows: High sensitivity Landscape is very vulnerable to change and would be adversely affected by wind energy development, which would result in a significant change in landscape and visual characteristics and values. High to medium sensitivity; medium sensitivity; medium to low sensitivity and low sensitivity landscape is not vulnerable to change and would not be adversely affected by wind energy development.

2.34 It should be noted that within many LCAs there is considerable variation in sensitivity level across the area, reflecting the fact that the LCAs are broad character or identity areas. The overall sensitivity level is therefore the level that prevails over most of the LCA's geographic area. A high sensitivity level does not necessarily mean that there is likely to be no capacity for wind energy development within the LCA and conversely a low sensitivity level does not mean that there are no constraints to development.

2.35 Relevant details of the Wind Energy Development for each of the LCA's in our District are set out in Appendix 1.

NI Regional Seascape Assessment (2014)

2.36 The key objectives of this NI Environment Agency study were to:

- Identify and map the different regional seascape character areas (SCAs);
- Describe the key features and characteristics of each seascape character area; and
- Relate the description of each seascape character area to its neighbouring terrestrial landscape character areas (as described in the Northern Ireland Landscape Character Assessment, 2000) and take account of boundaries identified in relation to neighbouring seascape areas for the British and Irish coastline.

2.37 As stated earlier in the introduction to this Review, Seascape Character Assessment is the process of identifying, mapping and describing variation in the character of the seascape. It seeks to identify and explain the unique combination of elements and features that makes seascape distinctive. It can

be seen as a natural progression to the programme of Landscape Character Assessment undertaken by NIEA in 1999/2000.

2.38 Given the range of terrestrial policy direction that relates to the coast and the marine environment, the Seascape Character Assessment provides an evidence base to inform policy development and other land use planning activity that may be undertaken in this District. The Seascape Assessment usefully also included a consideration of those relevant terrestrial Landscape Character Areas identified in 1999/2000 which have an important visual and landscape relationship to intertidal and marine areas.

2.39 The Assessment included the marine, intertidal and coastal terrestrial parts of the entire 650 km of the Northern Ireland coastline and extended up to 12 nautical miles offshore and 5 km inshore. It also included estuaries, islands and sea loughs and takes into account adjacent areas with the Republic of Ireland, Scotland and the Isle of Man that were integral to its setting.

2.40 24 Seascape Character Areas were defined by the Assessment. The relevant ones for this District are as follows;

- SCA No 1 – Foyle Estuary
- SCA No 2 – Lough Foyle

2.41 As well as relevant descriptions for each of the SCAs, specific forces for change were identified, but were limited to those that have potential to notably change the whole area's seascape character in the future. 'General forces' that are relevant to most, if not all, of the SCAs were also identified. These were separated into:

- Natural Forces – e.g. flooding exacerbated by sea level rise. Effects of climate change / natural erosion and potential need to upgrade sea defences.
- Human - induced – e.g. changes in water quality from terrestrial land management. Increases in visitor numbers and pressure for visitor / recreational facilities. Pressure for expansion of residential settlement and individual dwellings along the coast.

2.42 The relevant coastal Landscape Characters Areas considered in the SCA are:

- LCA No 32 – Derry Slopes
- LCA No 33 – Lough Foyle Alluvial Plain.

NI Regional Landscape Character Assessment 2016

2.43 The purpose of the Northern Ireland Regional Landscape Character Assessment (NIRLCA) was to provide an evidence base which could be used by planners, developers and the public. Its requirement and publication coincided with the Review of Public Administration and the 2015 launch of the

11 new Council Areas across NI which also had the majority of planning powers now devolved to them.

2.44 The purpose of the NIRLCA was to provide a regional overview of landscape character, which will form a framework for updating of local-scale assessments that could replace the 1999 study – such as those landscape character reviews emanating out of LDP preparation. As such, the NIRLCA did not draw directly from the 1999 study, though this served as a valuable source of detailed information on the landscape.

2.45 The draft NIRLCA divides Northern Ireland 26 discrete areas, referred to as Regional Landscape Character Areas (RLCA). It is intended that each of these areas is a recognisable landscape, with its own distinct character and sense of place. The NIRLCA stressed that the boundaries between character areas should not be interpreted as sudden changes from one landscape to another. Rather, the boundary lines on the maps indicate the location of broad transitional zones between different landscapes. The regional-scale boundaries identified in the NIRLCA may not relate to changes in character at a local scale as previously defined in the 1999 LCA series.

2.46 The 2016 NIRLCA recognises that landscape character does not stop at the Irish border. There are broad areas of landscape on both sides of the border which share common characteristics. This was an area of study not covered in the 1999 LCA series. This is especially important for this District for example along the Foyle or in the Killeter Uplands.

2.47 The NIRLCA provides descriptions for each of the 26 RLCAs. These are set out under a range of headings developed in accordance with general principles set out in the Natural England document ‘An approach to Landscape Character Assessment’ (2014). The headings include Past, Present and Future Forces for Change; Indicators of Change, and Ecosystem Services.

2.48 Forces for change are the issues and opportunities which have worked to change the landscape in the past, or may do so in the future. They include changes in policy and attitudes to the landscape as well as resources which may be developed. Indicators of Change seeks to identify those factors which could be monitored in future to provide a picture of how the landscape is changing. Ecosystem Services are services which are provided by landscapes or the habitats within each RLCA. Often taken for granted, ecosystem services are increasingly recognised as being under pressure and meriting greater protection.

2.49 The following table sets outs the relationship, in terms of overlap, between the RLCAs (2016); the LCAs (1999) and the NI Regional Seascape CAs (2014) are set out in Table 1 below:

Table 1: NI Landscape Study comparisons

NI LCA 1999 description	NI RLCA 2015 description	NI R Seascape CA 2014
14-Lough Braddon 19 – Killeter Uplands 20 – Derg Valley 21-Fairy Valley Water 26-Bessy Bell & Gortin	5-West Tyrone Hills (approx. 70% within DC&SDC)	
20- Derg Valley 26- Bessy Bell & Gortin 27 – Foyle Valley 29- Sperrin Mountains 30- Sperrin Foothills 31 – Burngibbagh & Drumahoe 32- Derry Slopes	6-Foyle Valley (100%)	
24-South Sperrin 26-Bessy Bell & Gortin 27-Foyle Valley 28-Glenelly Valley 29-Sperrin Mountains 30-Sperrin Foothills	7-Sperrins (approx. 50%)	
27- Foyle Valley 29- Sperrin Mountains 30-Sperrin Foothills 31- Burngibbagh & Drumahoe 33- Lough Foyle Alluvial Plain 34-Loughermore Hills	8-North Sperrins Hills & Valleys (approx. 60%)	
31- Burngibbagh & Drumahoe 32-Derry Slopes 33-Lough Foyle Alluvial Plain 34- Loughermore Hills	9-Lough Foyle Coast & Dunes (approx. 25%)	32 correlates to Foyle Estuary RSCA 33 correlates to Lough Foyle RSCA

2.50 Relevant details of the NI RLCAs for this District are set out in Appendix 1.

3.0 Climate Change and our Landscape / Seascape Character

3.1 Climate change is one of the most serious global threats. The Earth's climate has already become warmer, and the change will continue. The amount of warming will depend on our greenhouse gas emissions, and how quickly we can reduce them. We need to adapt society to the climate of today and the future. For example, the average sea level is set to increase with Derry cited as one of the European cities at highest risk of coastal and river flooding.

3.2 Climate change leads to changes in the frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, such extreme weather events often lead to disruption to business, agriculture, services and daily life. Within the city and district the effects are being increasingly felt with instances of severe flooding, heatwaves and disruption from wind and severe cold.

3.3 Response to the challenge of climate change is often divided into mitigation and adaptation:

Mitigation – measures to reduce emissions and mitigate against further global warming

Adaptation – actions to adapt and create a resilient society to current and projected climate change and severe weather events.

3.4 Key international and national climate change policy and legislation ranges from the Kyoto Protocol in 1997 to the 2008 UK Climate Change Act, 2015 Paris Agreement and the 2017 UK Climate Change Risk Assessment. The 2019 NI Climate Adaptation Program outlines the priority areas for action across the region.

3.5 Effective development planning and design has a central role to play in future proofing our city and district in order to address climate change and improve adaptive capacity and resilience. Our response to climate change should be to improve the landscape and the benefits it provides to people by reflecting existing landscape character or alternatively, creating new, high quality landscapes. Climate change is likely to impact on our landscape / seascape character as follows:

Rivers, Water Bodies & Coast

Impact

3.6 The impacts of increased precipitation and temperatures could gradually change the character of local rivers and tributaries through:

- An increase in river flooding leading to erosion and slope instability

- Impact on existing road and rail infrastructure
- Climate adaptation such as flood defence measures

3.7 Unpredictable flooding associated with increased winter rainfall and rainfall intensity could change the composition and extent of wetlands with the city and district. Hotter, drier summers could lead to the drying out or eutrophication of wetlands / water bodies. An increase in invasive alien species (both plans and animals) may alter our existing habitat composition, biodiversity and landscape character.

3.8 The shape of the coastline may change due to:

- Flooding
- Accelerated erosion
- Loss of low lying areas of land to the sea as a result of sea level rise, larger waves and storm surges
- Development of sea defences

3.9 In addition, the protected habitats of the Foyle Estuary are vulnerable to coastal squeeze. Saltmarsh and mudflats are also vulnerable to potential changes to sedimentary processes resulting from climate change.

Objectives

3.10 Future priorities will be to develop a strategic and long term approach to flood defence which reflects the importance of conserving and enhancing the landscape character and also to support and encourage integrated approaches to water management and flood protection which restore natural processes and reinforce landscape character. These can include:

- River and floodplain restoration
- Restoration of peatland
- Woodland expansion and riparian planting
- Sustainable Drainage Systems
- Wetland creation to provide additional flood storage

Peatlands

Impact

3.11 Hotter, drier summers could lead to drying out of peatlands as well as increased risk of fire. Climate mitigation and adaptation measures may lead to an increase in peatland restoration which would serve to reinforce the existing landscape character. Should our mountain top peatlands dry out and begin to erode, we face the potential for highly visible landscape change – our mountain summits losing their ‘blankets’ of peat and heather and reverting back to a solid rock covering. This has associated implications for biodiversity, water quality and flooding.

Objectives

3.12 It will be important to protect peatlands as an important carbon store and flood alleviation measure while actively considering the impacts of ongoing peat extraction and drainage of bogs and the need for delivering restoration measures.

Forestry & Tree Cover

Impact

3.13 Climate change impacts may alter the structure and composition of woodland cover through changing rainfall patterns, increased temperature, extreme storms and introduction of pests, diseases and invasive species. Hedgerow, trees and other vegetation may suffer stress from summer drought and we may see an increase in the incidence of forest and peatland fires.

3.14 The combination of more frequent storms and waterlogged ground arising from increased rainfall may cause damage to trees and woods. Tree cover could increase due to the implementation of the Council's Green Infrastructure Plan and wider NI climate action plans e.g. flood alleviation (planting upland valleys) and renewable energy initiatives.

3.15 Careful siting and design, including boundary treatment of new woodlands and biomass crops is required to ensure they provide landscape, biodiversity and recreational benefits in addition to their role in supporting climate change mitigation. Careful management of our native woodlands is required to maximise their resilience to drought, storms, flooding and an increase in pests, diseases and invasive species.

Species & Habitats

Impact

3.16 Changes in plant and animal species will alter the existing landscape character:

- New species moving into certain areas and habitats while others may be lost if they are unable to adapt to changing conditions
- More frequent occurrences of extreme weather resulting in some habitats not being able to recover to the same extent as they may have done in the past
- Shrinking or drying of wetlands like blanket bog, ponds, seasonal watercourses and wet woodlands, and a decline in the extent of wet grasslands
- Increased coastal erosion from rising sea levels may threaten coastal habitats like dune systems

Objectives

3.17 Improving habitat management and restoring connectivity at a landscape scale may increase species resilience to changing conditions through:

- Development of habitat networks to help plant and animal species adapt to climate change and the effects of habitat fragmentation through the creation of new and enhanced green space

Agriculture

Impact

3.18 Impact of severe weather events and changing agricultural practices as a result of climate change will alter the landscape character, these include:

- Increase in soil erosion from extremes of flooding and summer drought and from changing patterns of cultivation
- Changes in the timing of seasonal events such as flowering, fruit production, breeding and migration patterns, increases in the length of the growing season and changes in sowing and harvesting times
- Changing patterns of rainfall may lead to an increase in arable cultivation in the uplands and upland fringes as they become warmer, and a decrease in cultivation, or increased use of irrigation, in the lowlands as they become drier during increased temperatures.
- Introduction of new crops or crop varieties
- Changes in the management of livestock
- Arrival of invasive species, new pests and diseases affecting existing species and habitats

3.19 Changes in landscape character and local distinctiveness are likely to arise from future agricultural land use or management. The review of the Common Agricultural Policy places greater emphasis on environmentally friendly practices. Climate change will bring changing physical conditions which will change the markets for agricultural produce.

Built Heritage

Impact

3.20 Increased precipitation and temperatures, rising sea levels, and severe weather events have the following effects on heritage features within our Districts landscape:

- Damage from flooding and wind – structural, erosion, removal of historic features e.g. bridges
- Repeated extreme wetting and drying can also lead to ground instability issues, through the destabilisation of soils
- Changing climatic conditions such as increased precipitation can alter and accelerate decay processes of historic monuments and sites e.g. deterioration of stone work

- Changing water table and / or drying of archaeological depositions under top soil can lead to chemical changes and or erosion
- Damage to landscape and heritage assets from wildfires
- Longer growing season – increased vegetation growth on historic properties
- Archaeological sites preserved in peat and other wetland environments may suffer more rapid decay as a result of drying and erosion.
- Agricultural intensification and expansion into currently marginal areas will increase pressure on sites and monuments in farming areas.

Land Use & Building Design

Impact

3.21 Changing climate is likely to have an impact on patterns of tourism and recreation, as people adapt to warmer and drier summers. This may result in:

- Expansion in recreation activity will mean that open space is likely to come under greater demand for recreation activity; particularly in more accessible areas around settlements and in protected landscapes
- Increased demand for additional tourism developments, including caravan sites, campsites, hotels and visitor attractions
- Increasing numbers of visitors could weaken the sense of remoteness currently experienced for example in parts of the Sperrins AONB

3.22 Measures designed to mitigate climate change are already influencing landscape change and may in the future include:

- Building designs, materials and techniques may include energy efficiency measures, and features such as solar, wind, green roofs and walls. (May have particular impact on vernacular architecture and heritage buildings)
- Changing patterns of energy production, including further development of renewable sources such as wind, tidal, wave and biomass energy, and the requirement for upgraded grid connections
- Transport infrastructure may be upgraded to cope with flooding and erosion
- Implications for coastal infrastructure including harbours, ports and ferry terminals, and coastal transport routes
- Increased tree cover, wetland creation and peatland restoration

3.23 Measures to adapt to climate change which may result in changes to landscape character include:

- Engineered responses to the threat of coastal and riparian flooding
- Sustainable flood management responses, including restoring natural floodplains, increasing woodland planting in river catchments, and allowing coastlines to change as sea levels rise

- Changing patterns of woodland and forest management, and the expansion of habitat networks
- Intensification of agricultural production in lowland areas, with changes in crops, new buildings and greater use of irrigation
- Policies designed to steer development away from locations where there is an increased risk of flooding or storm damage

Objectives

3.24 Careful planning and design of new tourism and recreation developments will help ensure that they respect the character of the landscape. A key focus will be sustainable tourism design and practice.

3.25 The adaptation of buildings to cope with higher temperatures, more intense rainfall or to provide locally generated heat and power, should be carried out in ways that conserve their historic character and significance. A priority will be to ensure that new renewable energy development demonstrates a consideration of and respect for the character of the landscape.

4.0 The Landscape of the Sperrin AONB

4.1 The first Areas of Outstanding Natural Beauty (AONB) designations in NI were made under the Amenity Lands Act 1965 (ALA). These designations permitted additional scrutiny of planning proposals but made little provision for encouraging positive management or enjoyment of the countryside.

4.2 The Sperrin AONB was designated in 1968 and encompasses a largely mountainous area of great geological complexity. At 101,000ha, it is currently the largest AONB in NI by some margin. This reflects the sheer size and complexity of the mountain complex. Extending from the Strule valley in the west to the edge of the Lough Neagh Lowlands in the east, this area is characterised by vast expanses of moorland penetrated by narrow glens and deep valleys.

4.3 In 1985, the Nature Conservation and Amenity Lands Order (NCALO) provided a new impetus for the management of countryside and scenic areas. The status and role of AONBs was altered and widened as the then Department of the Environment (DOE) was given powers to make proposals for the conservation of landscape, wildlife and heritage and the promotion of their enjoyment by the public.

4.4 In 2003, DOE published a statement of policy on protected landscapes for NI under the title of Shared Horizons. While primarily setting out the issues associated with the protection and sustainable use of NI's finest areas of rural landscape, this document indicated that the Department would proceed with the designation of AONBs under the NCALO, including areas that were designated under the ALA but had not yet been reviewed or re–designated.

4.5 The Sperrin AONB was subsequently re-designated in 2008 under the 1985 Nature Conservation and Amenity Lands Order (NCALO) with a revised boundary, now covering some 118,206 hectares. The boundary review:

- Excluded areas that no longer met the AONB criteria – having been degraded by development or land use change;
- Included additional areas – particularly outstanding valley landscapes – that do meet the AONB criteria; and
- Considered change to be required if existing boundaries were ill-defined on the ground.

4.6 The new areas to be added included extra land within the Sperrin foothills along the northern boundary. This included substantial additional sections of the Burn Dennet and Faughan River systems on account of their having been identified as an Area of Scenic Quality in the 1999 LCA series and the significant valley landscape systems comprising outstanding views, fascinating and varied glacial morphology and dense wooded valleys. Other inclusions included north of Newtownstewart where the previously ill-defined boundary on the ground was shifted eastwards to follow the moorland edge

above the Foyle valley and at the northern of this section at Strabane, it was extended westward to include the scenic valley of the Cavanalee River and the top of Knockavoe.

4.7 Counties Derry / Londonderry and Tyrone are dominated by the massive mountainous summits of the Sperrins, which form a distinctive backdrop for views throughout the North West. In Irish the name Cnoc Speirin means 'pointed hills'. The Sperrins have broad, rounded profiles rising to knife-like ridges and pointed peaks (LCA 29). The mountains are underlain by some of the oldest rocks in the Province and have an ancient, timeless quality. At close quarters, the simple composition of the upland views draws attention to minor details of landform such as the shadows thrown by jagged gullies, the cones of broken grey scree and the rocky outcrops.

4.8 The steep slopes of the upland ridges are carpeted with closely-cropped grey-green moorland grasses, wrinkled with tiny terracettes and crossed by sheep tracks. Straight earth banks of the ancient townland boundaries divide some of the slopes into broad, elongated rectangular plots. There are some conifer plantations, but the overriding impression is of an impenetrable, empty wilderness, with only occasional isolated barns and narrow, open roads.

4.9 To the south of Sawel Mountain (676m), the Glenelly, Owenkillew and Owenreagh Rivers flow within a series of linear glens along some of the principal fault-lines in the Sperrins (LCAs 24, 25 and 28). The picturesque, verdant landscape of these valleys is a striking contrast to the wilderness of the expansive, open moorland above. The ancient ladder pattern of pastures on the upper valley slopes dates back to the early Christian period and the journey up the long Glenelly Valley is like a trip back in time. The remote clachans, stone bridges, scattered ancient woodlands and steep earthbanks suggest a traditional, slower pace of life.

4.10 Further west, and near Newtownstewart, the long southern ridges of the Sperrins extend southwest to the pointed summit of Mullaghcarn and the outlying twin peaks of Bessy Bell and Mary Gray. Together these summits, separated by the deep wooded Strule River Valley (LCA 26), form a memorable gateway landscape at the confluence of many different landscape character areas. This is the western entrance to the high Sperrins along the Glenelly valley (LCA 28), but it is also the bridging point between the Foyle/Mourne valley to the north (LCA 27) and the Omagh farmland basin to the south (LCA 22). To the west, the wide River Derg valley leads on to the remote upland moors and forests of west Tyrone (LCAs 19 and 20).

Sperrin AONB – Physical and human Influences

4.11 The Sperrin Mountains form a broad ridge of high hills, at the heart of which lies a core of ancient Dalradian rocks. These were laid down as diverse sediments, subsequently metamorphosed into schists and thrust upwards as a continuation of the Caledonian Mountains of south-west Scotland.

4.12 The landscape that we see today within the AONB has been heavily influenced by more recent geomorphological processes, notably glaciation. It seems likely that in Pleistocene times the Sperrins were totally submerged beneath great thicknesses of ice moving northwards across the range, and therefore were subject to intense glacial erosion., giving them their mainly rounded form.

4.13 The distinctive, hummocky valley landscapes of the Sperrins are also a direct result of fluvio-glacial deposition. Deposits choked most of the valleys and modern streams have cut deep, often thickly wooded gorges into the drift. Along the northern foothills of the Sperrins is a particularly complex pattern of linked meltwater channels.

4.14 The Sperrins were colonised from the Neolithic period onwards and early settlements were mainly in the uplands. Bronze Age monuments such as standing stones, cairns and stone circles are especially abundant here. Many Bronze Age burial sites are concentrated in areas of glacial sands and gravels, where drier soils may have acted as early routeways. Forest clearance in the uplands eventually caused soil degradation which encourage the widespread formation of heath and blanket bog, and the gradual expansion of settlement onto lowland areas.

4.15 Subsequently, Iron Age settlements, of raths, cashels and crannogs, expanded within the valleys, with raths (circular bank and ditch enclosures) being particularly characteristic of Sperrin valleys such as Glenelly. Later communal large enclosures appeared, based around clustered settlements known as clachans, each at the centre of a townland. In mountainous areas such as the Sperrins, townlands typically ran up the hillsides in elongated rectangular form, a system known as ‘rundale’ or, following enclosure, as ‘ladder farms’ still incorporating the principal of shared resources. The medieval and plantation periods also left their mark upon the Sperrins in the form of castles, such as Harry Avery’s castle outside Newtownstewart and Donemana Castle. However in many areas traditional farming and land use have remained relatively unchanged to this day.

Sperrin AONB – its Landscape character and Distinctiveness

4.16 The Sperrin Mountains form a dark spine across the North West and a significant backdrop to views within this District. They extend roughly east-west between Tyrone and Derry and have a dramatic mountainous appearance. The ridges are broad and rounded, leading in some cases to rocky summits. Glacial deposits form mounds and terraces along the lower slopes, softening and varying the natural break of slope. Running of the hills are straight, fast flowing moorland streams, sometimes eroding deep gullies and channels in the glacial moraine at the hill foot. The summits have extensive areas of acid grassland, heath and bog, punctuated by small rounded loughs. Conifer woodlands feature in some areas as dark, geometric blocks on the slopes.

4.17 Stone walls on the upper slopes often follow historic townland boundaries. The lower valley slopes have a linear settlement pattern with clachans strung out along the valley bottom roads; they also retain historic field patterns with hedges, earth banks and stone walls. At the heart of the AONB lies Glenelly valley, regarded as one of the most idyllic in NI. The river flows westwards along a linear glen to the south of Sawel mountain, following one of the principal fault lines in the Sperrins. The verdant valley contrasts with the windswept moor above and has a hidden, secretive character. Here the river has carved deep channels within the soft glacial deposits. The pastures, woodlands and copses form a varied, diverse patchwork and there are many traditional buildings and settlements as well as a wealth of archaeological sites, often clearly visible on the valley sides.

4.18 These areas of core character are ringed by a series of peripheral character areas that share the core character to varying degrees and in many cases are also stunningly attractive. To the north are a series of lower, rounded summits within the Sperrin foothills, including the river valley systems of the Burn Dennet and Faughan River. This is a landscape of neat, rolling farmland with steep, wooded valleys and caps of moorland on the summits of the higher hills. It clearly reads as part of the Sperrins in views from the north, and the valleys share many characteristics with those at the heart of the AONB. Glacial moraines often form complex, steeply undulating landforms on the valley sides, frequently clothed in dense deciduous woodland. Local roads, often with steep hedge banks, generally follow the contours and are lined with small settlements.

4.19 To the west of the AONB, and at the southern edge of the District, while the Strule Valley and the twin peaks of Mary Gray and Bessy Bell form an important gateway to the Sperrins, and the lower slopes of Bessy Bell offer some outstanding views into the heart of the area, the sense of coherent identity progressively weakens, especially west of the river.

Why is the Sperrin AONB landscape outstanding?

4.20 There are many reasons why the landscape of the Sperrins is outstanding, Firstly, the Sperrins are widely recognised as the largest, most unspoilt and least explored mountain range in NI and include a particularly diverse range of landscape types. The relative isolation of the area has meant that it is a region of cultural survivals where innovations, particularly agricultural changes have been slow to appear, and where the landscape has largely been bypassed by main roads and modern developments. This isolation also brings a strong sense of wildness to the core AONB areas, and tranquillity to the AONBs many remote and seemingly timeless valley landscapes.

4.21 Scenically, the area has much to offer; its high tops are prominent as backdrops in stunning long range views and it provide the landscape setting for many settlements within our District. The landscape provides the basis for a growing range of outdoor activities including walking, cycling, canoeing, and

angling and increasingly it is recognised that the economy of the area is, to a large degree, dependent on its natural and cultural heritage.

4.22 Due to the great complexity of both the solid and drift geology, the Sperrins are seen by earth scientists as an area of outstanding geological interest. Special features of interest include: the ancient Dalradian rocks, which are more than 6000 million years old and veined in places by gold another precious metals; and perhaps most importantly, the widespread glaciofluvio complexes which make a vital contribution to our understanding of the recent glacial history of NI.

4.23 In terms of biodiversity, the Sperrins AONB includes a number of highly valued resources. The heart of the area is dominated by vast stretches of blanket bog of great complexity, with rare montane communities occurring on the highest slopes of Sawel Mountain. Elsewhere, there are important valley woodland (including important pockets of ancient and long established woodland). Historically too, the area is extremely special. Examples of distinctive and special features include Stone Age megalithic tombs, for which the Sperrins AONB is particularly well-known; historic townland boundaries and boundary patterns, closely related to the area's distinctive landform. In architectural terms, the Sperrins AONB are known for their distinctive rural cottages, including 'stepped' cottages found in hilly areas where the cottage and farm buildings are literally stepped down the slope.

Sperrin AONB – a Need for Management.

4.24 The Sperrin AONB currently does not have a Departmental 'AONB Management Plan' in place. However, as part of the Sperrins Future Search Conference in 2017, the relevant Sperrin AONB Councils (Derry City & Strabane, Fermanagh & Omagh, Causeway Coast & Glens and Mid Ulster) are currently engaged in the development of co-ordinated thematic action plans for the Sperrin AONB. The four Councils regularly meet as a Sperrins Forum with the aim of ensuring consistency in emerging Local Development Plan (LDP) designations and policy across the AONB.

4.25 The 2005 Sperrin AONB boundary review highlighted the following important landscape issues:

- The extreme sensitivity to change of the open mountain landscape, which is especially vulnerable to wind farm and telecommunication development and also vulnerable to smaller incremental changes such as those resulting from poorly sited housing on the hill slopes;

- The ongoing pressures for mineral extraction - principally sand and gravel, but also hard rock and potentially gold, and the need for effective restoration of existing sand and gravel workings and abandoned hard rock quarries (including the removal of derelict plant);

- The creeping influence of development on those landscapes near main roads and towns where suburbanisation is undermining the special character and qualities of the Sperrins;

- Decline and abandonment of hill farms on the moorland fringes with associated adverse habitat impacts; and

- The cumulative visual impact of conifer plantations in certain areas, particularly on the lower hillsides and summits around the edges of the Sperrins.

4.26 Of particular relevance to planning in the 2005 boundary review document is the noted significant rate of increase in building within the AONB. It is stated that the Sperrins, between 1991– 98 had the highest rate of increase in buildings and roads (20%) of any AONB in Northern Ireland, a rate of increase that also exceeds that of the wider countryside outside of the AONBs. Coupled with significant increases in improved grassland cover (+27%), conifer plantations (+55%) similar decreases in semi-natural habitats and losses (11%) of earth banks and an 18% increase in fencing, the 2005 boundary review concluded that significant and rapid changes were clearly occurring in the Sperrins landscape.

Sperrin AONB – LDP PS review

4.27 A review of the Sperrin AONB for our District presents a hidden gem; a sensitive landscape and the largest and least explored mountain range in NI that requires careful strategic management and protection to broadcast, yet still safeguard, its intrinsic appeal. The establishment of the new District Councils in 2015 divided the 1181kms2 AONB total area up as follows:

- Derry City & Strabane District Council – 447kms2 (38%)
- Fermanagh & Omagh District Council – 301kms2 (25%)
- Mid Ulster District Council – 256kms2 (22%)
- Causeway Coast & Glens Borough Council – 177kms2 (15%)

4.28 The AONB still provides an attractive destination for a wide range of outdoor activities including cycling, walking golfing, parachuting, micro-light flying and quad biking.

4.29 The 2015 Reform of Local Government has presented an opportunity for the new respective councils to lead and co-ordinate discussions with the various stakeholders with a view to realising the potential of the Sperrins while protecting and enhancing the natural heritage and landscape of the region. This is being actively pursued through this Council's participation in The Sperrins – Future Search Conference. Future Search is a unique planning method used world-wide by hundreds of communities and organisations. The method enables large diverse groups to validate a common mission, to take responsibility for action and to develop commitment to implementation.

4.30 The first Future Search Conference in 2017 identified landscape as a key issue amongst all attendees. Conflicts emerged between economic, social and environmental priorities e.g. gold mining, wind turbines and mineral abstraction. It became clear that in the absence of a strategic approach, including the active involvement of Central Government, to tourism or the AONB, development through community initiatives has had an important impact. All this implies the need for a more joined up and strategic approach.

4.31 From a Planning perspective, arising from the first Conference was the stated desire for the development of a common approach to planning policy for the Sperrins across the four Council areas. All four Council LDP teams have liaised as part of the preparation of their respective LDP's. While individual Councils may perceive situations within their Sperrin area with differing priorities, it is anticipated that ongoing participation in the Sperrin Future Search process will endeavour to harmonise a complimentary approach to planning across the AONB. Annual LDP monitoring and the 5 year Review process will be important to ensure that all the Sperrins LDP's are reflective of the vision and objectives of the ongoing Sperrins Future Search project.

4.32 It has been 50 years since the Sperrin AONB was first designated. The designation acknowledged the nationally important landscape while understanding that the AONB had also to provide for those communities who lived and worked in the area and for visitors, keen to enjoy its attractions.

4.33 From a planning perspective, the 'living' status of the AONB requires flexible planning policy. Once the principle for development has been established for a proposal under the relevant policy consideration, a specific consideration is also required under Policy NH 6 (PPS2 – Natural Heritage). This policy requires requires that new development within an Area of Outstanding Natural Beauty will only be granted where it is of an appropriate design, size and scale for the locality and all specified criteria are met.

4.34 The 2018 review undertaken as part of the preparation of the LDP PS revealed an AONB landscape experiencing pressure from:

- Inappropriate development - design, size and scale for the locality;
- Cumulative impact, including varying sizes and designs, from single turbines- particularly in the northern foothills of the Sperrins
- Sand and gravel extraction in prominent locations which could threaten the specific glacial landscape which underpinned parts of the AONB boundary revision undertaken in 2008;
- Ongoing climate change, including those specific infrastructural impacts of the recent flooding events in August 2017.
- Future forces for change are likely to include the ongoing prospecting / potential extraction of high value minerals within the AONB and visual impacts from windfarms (new or repowering) / emerging renewable

energy proposals that may seek to locate themselves within the wilder upland areas of the AONB.

4.35 The LDP PS will seek to drive and facilitate sustainable development in our District whilst recognising that there are certain locations which warrant protection to retain their intrinsic character. Within the AONB, the LDP approach will be to retain the overarching current AONB as currently set out in PPS 2 whilst introducing specific protection and tighter policy through Special Countryside Area designations for the more sensitive and remote upland areas of the AONB. This will seek to maintain the inherent wildness and appeal of these mountainous / valley landscapes to all who live and visit the AONB.

4.36 PS policy, in line with the LDP's Tourism Strategy, will also facilitate sustainable development of tourism accommodation in the countryside and subject to specific criteria, within the AONB. The strategic policy direction for Tourism as set out in the LDP 2032 PS will also compliment and assist the delivery of the objectives in the Council's published Tourism Strategy – A New Level of Ambition 2018 - 25 which are there to promote access to the AONB to enable visitors to enjoy its various attractions while still retaining its unique appeal.

4.36 Whilst recognising and facilitating the economic benefits of sand and gravel extraction, policy and designations for Areas of Constraint on Mineral Development will be introduced to protect the most prominent areas of landscape that underpin the AONB designation. These will take the form of existing designations carried forward from the Strabane Area Plan (2001) and the Derry Area Plan (2011) as well as through new strategic designations brought forward in the PS such as Special Countryside Areas (SCA) and Areas of High Landscape Importance. Smaller area

4.37 Similarly, the PS will bring forward specific policy with regards to the future exploiting high value minerals – gold etc (LDP PS – MIN 4). Prospecting licences have already been issued for large parts of the District, including the Sperrins by the Department for the Economy (DfE). It is likely that at some point during the plan period to 2032, a licence to extract these high value mineral may be sought. The PS policy will seek to ensure that the widest possible environmental implications are considered and mitigated for when balancing economic benefits to the District.

5.0 LDP PS – 2018 Landscape Review

5.1 To inform the preparation of the LDP, a landscape review of the District was undertaken in 2018 to 'ground-truth' and, where necessary, update, the previous hierarchy of Landscape / Seascape Character studies published by the DOE between 1999 and 2014.

5.2 The review was undertaken by Derry City and Strabane District Council Planning officers in co-operation with landscape architects and other relevant officers from Council's Parks Development and Management Team.

5.3 The aim of the review was to highlight any significant landscape issues emerging within the District in the intervening years and to identify those that may possible arise in the future during the LDP up to 2032 and to consider an appropriate planning policy response as part of the preparation of the LDP. It has also been informed by the Development Pressure Analysis, produced as part of the LDP Plan Strategy preparation. With many uncertainties surrounding the finalities of Brexit in March 2019, it is impossible to say at this stage how Brexit may physically manifest itself on our landscape character and our numerous border crossings. This will be reviewed as part of the LDP annual monitoring and 5 year review process. The impacts on our landscape from recreational activity / tourism and associated development / infrastructure will also be similarly monitored. Walking, cycling and camping are increasingly popular within the District and the associated infrastructure required to support such activities will require careful planning consideration to allow such uses to evolve but still retain the specialness of our landscape.

5.4 As stated previously, this 2018 review is not intended to be a new technical landscape character assessment for this District or to replace the earlier studies. The landscape review is simply intended to provide a simple reference summary that updates on any significant forces for change that may now be exerting themselves on our landscape in recent years and to inform any subsequent Planning policy response as part of the LDP preparation. The existing data provided in the previous series of landscape / seascape studies provides much of the baseline data and should be read in conjunction with this LDP Landscape & Seascape Character Review.

Our District's Regional Landscapes:
West Tyrone Hills – NI RLCA 5

5.5 **Summary** - A distinct upland ridge extends into the District from Donegal, from Killeter Forest to Pollnalaght. The broad upland valleys of the Derg and Fairy Water are closely associated with these hills, forming a rural and relatively remote landscape of marginal farming. The ridge and the associated valleys are increasingly becoming the focus of wind turbine development.

5.6 Development pressure is restricted mostly to the eastern half of the RLCA along the lower valley side sand bottoms or along the dispersed road network.

The upland topography of the western side effectively precludes development opportunities. The main focus and pressure for rural applications in the last 10 years is around Spamount; to the north west of Castlederg and to the south west of Killeter along the upper reaches of the Derg Valley. Such rural development frequently 'urbanises' the countryside with suburban style detailing within front gardens – gates, pillars, ornate railings and lighting etc.

5.7 Single turbines are a prominent feature in this RLCA, analysis over the last 15 years records hotspots on the rising ground to the north of the Fyfin Rd / Strabane Rd from Victoria Bridge to Castlederg. Similar concentrations are recorded south of Killen and Garvetagh and on the valley sides from Garvetagh and Ardstraw. The varied nature in terms of height, size and construction of such turbines increases their visual significance in the landscape. They also read cumulatively in the landscape with the prominent operational windfarms along the southern edges of this RLCA.

5.8 The PPS18 SPG on Wind Energy Development in NI's Landscapes (PPS18 SPG) highlights, as previously detailed, the High – Medium sensitivity of the southern part of this open RLCA landscape to such development and stresses the need to consider cumulative impacts of further development, separation distances and the importance of avoiding visual linkage which could create a landscape dominated by windfarms.

5.9 Climate change impacts that may impact on this RLCA during the lifetime of this LDP could include;

- Increase conifer plantation coverage as warmer wetter conditions offer enhanced growing conditions;
- Vernacular infrastructure - integrity of traditionally designed local bridges etc. could be at risk to future extreme flooding occurrences;
- Potential for future forms of alternative energy – hybrid solar farms in association with existing windfarm infrastructure.

Foyle Valley – NI RLCA 6

5.10 **Summary** - The Foyle and the Foyle Valley RLCA forms the border with Co. Donegal. The Foyle flows through this broad valley which extends both sides of this boundary. The city of Derry has an essential setting in the wooded river valley. South of Strabane the valley narrows to Newtownstewart where its character changes to an upland valley in the Sperrins. The Foyle Valley system unites these landscapes, well known as a salmon river, and a key transport route.

5.11 Hotspots for rural development pressure were noted surrounding Strabane, particularly to the east and south west where the higher lands of Knockavoe, wooded grounds around Hollyhill and the setting of Craignagore provide attractive potential locations for dwellings. Concentrations of applications were

recorded around Sion Mills, Glebe, Victoria Bridge and Douglas Bridge demonstrating a desire for rural living but in close proximity to the A5 with its easy links to Strabane, Derry northwards or Omagh to the south. Suburban form and design is also impacting on the rural landscape within this RLCA. Visual intrusion was recorded from recent housing developments along Crescent Link in Derry on the skyline along the western valley ridge line of the Lower Faughan River which forms the setting of the city. Significant WW2 ordnance storage sites still remain in this valley setting at Fincarn and Kilnappy.

5.12 Single turbines are a common feature along this valley landscape and are readily visible along valley sides and summits. Hotspots were recorded to the south of Magheramason and to the south west of Sion Mills. Again the variety and style make them a prominent feature and careful consideration will be required about any future siting to avoid cumulative visual linkage on skylines and also in association with existing windfarms within the District or transboundary into Co Donegal.

5.13 The PPS18 SPG highlights the High – Medium sensitivity of this RLCA. Given its prominence in long views, links to the Sperrins, its key transport route (A5) and the significant setting it provides to Derry, Strabane and Newtownstewart, careful consideration needs to be given to avoid adverse detrimental visual impacts on the significant features. This will be particularly relevant to the rising landscape setting to both Derry and Strabane provided by Sheriff's Mountain and Knockavoe to ensure that there is no intensification of tall structures in these readily visible areas. Likewise important skylines and the cultural heritage setting around Sion Mills Conservation Area should also be respected.

5.14 The proposed future development of the A5 through this RLCA is likely to have a significant impact along its length with associated earthworks and mitigating planting. This will be particularly noticeable where the proposed new sections deviate from the long established current road corridor – e.g. along the low lying sides of the River Foyle. Such planting will take many years to mature before eventually softening the impact of this major road infrastructure project.

5.15 Climate change impacts that may impact on this RLCA during the lifetime of this LDP could include;

- Increase conifer plantation coverage as warmer wetter conditions offer enhanced growing conditions;
- Vernacular infrastructure - integrity of traditionally designed local bridges etc. could be at risk to future extreme flooding occurrences;
- Potential for future forms of alternative energy – hybrid solar farms in association with existing windfarm infrastructure.

- Increased possibility for enhanced flood protection / inundation measures around the key settlements of Derry, Strabane and Newtownstewart.

Sperrins – NI RCLA 7

5.16 **Summary** - The principal mountain range of the north-west, the Sperrins comprise some of the wildest and most rugged terrain in Northern Ireland. The main ridges, divided by the scenic Glenelly valley, are surrounded by a series of outliers including Bessy Bell and Mullaghcarn above the River Strule, Slieve Gallion in the east, and Benbradagh across the Glenshane Pass. The boundaries follow the main east-west ridges of the Sperrins, separating them from the lower hills to north and south. Much of the Sperrins RLCA, of which approximately 50% lies within this District, is covered by the Sperrins AONB designation. The Sperrins are a sparsely settled area with a high degree of remoteness and tranquillity. The mountains and upper glens have significant wildness character arising from their inaccessibility,

5.17 Over the past 15 years, the pressure for rural dwellings has been along the main road network which navigates the lower reaches and valleys of the Sperrins landscape. The thrust of applications were along the lower, more accessible northern fringe of the RLCA, although noticeable linear concentrations were also apparent along the roads radiating out from Plumbridge as follows:

- Lisnaragh Rd - north to Donemana;
- Dergbrough Rd - south west to Newtownstewart;
- Culvacullion Rd – south to Gortin;
- Glenelly Rd – west along the Glenelly Rd.

5.18 A number of these approvals are at the 'implemented' (foundations constructed) stage and have yet to fully make their true cumulative visual impact on the landscape. More recent planning permissions in this RCLA have broadly followed the same location pattern. Similarly, suburban form and design and linear development is also impacting on the rural landscape within this RLCA and careful consideration will be required to ensure that future rural housing demand and forms of development does not diminish the intrinsic character of this significant upland / valley complex.

5.19 Single turbine development pressure has mostly been restricted to the lower northern foothills and north western fringes of this RCLA. As a result, the cumulative impact of their siting often reads in long distance views with other single turbines / windfarms to compound their impact within the AONB setting. The very inaccessible and remote uplands of the Sperrins and the enclosed Glenelly Valley have remained virtually free of such development and maintain their natural character.

5.20 The PPS18 SPG considers this landscape to be of a very high sensitivity to future wind development, with slightly lesser sensitivity in the extreme west.

The significant recreation and tourism appeal of the landscape is considered iconic and its core landscapes, with their strong wild character are highly vulnerable to the introduction of wind turbines and associated access tracks and infrastructure. Similarly, the inherent scale, form and complexity of the Glenelly Valley with its visually significant skylines above make it highly sensitive to wind energy development. In addition, the elevated nature of this RLCA provide for long distance views into Donegal and growing cumulative transboundary windfarm impacts.

5.21 Climate change impacts that may impact on this RLCA during the lifetime of this LDP could include;

- Increase conifer plantation coverage as warmer wetter conditions offer enhanced growing conditions;
- Vernacular infrastructure - integrity of traditionally designed local bridges etc. could be at risk to future extreme flooding occurrences;
- Future flooding, associated landscape erosion and loss of agricultural lands in the riverside glacial sands and gravels complexes contained within the main valleys;
- Continuing pressure for renewables development;
- Increased possibility for enhanced flood protection / inundation measures – valley / riverside tree planting to alleviate future flood flows.

North Sperrins Hills & Valleys – NI RCLA 8

5.22 **Summary -** This complex series of hills, plateaux and valleys occupies the area between the Sperrins and Lough Foyle. The broad Roe Valley lies below the basalt ridge to the east, and gives access to the smaller and more intricate valleys around Claudy and Donemana. To north and west the hills overlook the Foyle with Donegal beyond. Approximately 60% of this RLCA lies within our District and a significant portion of the foothills of the Sperrins AONB comprises its southern boundary.

5.23 The North Sperrins Hills and Valleys is characterised by the series of varied hills and valleys which cover the area between the Foyle Valley in the west and the Binevenagh Ridge to the east. The landscape is interspersed with streams flow from the Sperrins through steep, narrow valleys that become broader to the north. Many of the upper valleys are wooded, with limited settlement. Small villages are located lower down, with an increase in settlement towards the north.

5.24 The elevated nature of the foothills to the AONB and the appeal of the east – west trending wooded valleys and their convenient road access has made such locations extremely popular for those seeking a rural, but accessible, location to live. Rural application hotspot analysis indicates a central clustering of applications over the past 15 years north and south of the A6, with a noticeable concentrations in the lands to the south focusing in the

Burngibbagh valley and to the west, along the Bigwood Rd and Ardkill Rd to the south of Armore. As in similar RLCAs, such development has brought a degree of urbanisation to the countryside with suburban style detailing within front gardens – gates, pillars, ornate railings and lighting etc.

5.25 Single turbines are common across this RLCA and are prominently sited on valley sides, and readily visible from adjacent roads. The variety of styles and heights adds to the visual clutter. Their prominence in the elevated landscape links them cumulatively with the existing prominent skyline windfarms at Curryfree, Carrickatane, SlieveKirk and Eglish. All are visually significant in long distance views across this RLCA and transboundary views of Co. Donegal windfarms add to the impact.

5.26 The PPS18 SPG considers RLCA 8 to possess a range of landscape sensitivity to future wind development. Not surprisingly, the rising lands and elevated peaks of the Sperrin foothills and Sperrin Mountains are considered to be of highest sensitivity. Future consideration is needed to avoid adverse impacts to skylines, views visual amenity, recreational value and the wild character of this RLCA.

5.27 Elsewhere it is considered that other landscapes within this RLCA are more suitable for wind energy development. Parts of the landscape around Loughermore Hills in the extreme west of the District are also considered suitable, given the large scale, rounded summits and extensive upland forestry.

5.28 The Woodland Trust community planted woods along the Faughan valley at Killaloo, Brackfield and the Oaks will continue to establish during the plan period. This should develop into a developing landscape feature adjacent to the A6 and will further enhance the well wooded nature of this location. The maturing woodland will be an attractive addition alongside the proposed A6 infrastructural improvements. Learmount Forest is a significant forestry feature and amenity resource within the North Sperrins Hills and Valleys RCLA.

5.29 The proposed A6 infrastructural upgrade is likely to have a significant long term impact as it cuts across this RLCA. Construction work has recently commenced, outside of this District, on the Dungiven bypass section of the A6 upgrade. In due course, construction work will significantly make its mark, within this District, across the North Sperrins Hills and Valleys. Initial work on the A6 approaches to Derry in 2018 was restricted to roadside tree felling / hedge removal. Effects will be greatest on the landscape where the proposed new road line deviates from the current well established route. While the associated planting will eventually soften the impact of the A6 upgrades, such mitigation is not likely to be felt for several years.

5.30 Ongoing sand and gravel extraction in this RLCA, while an important economic activity, has significant implications for landscape, particularly within

the Sperrins AONB boundaries. Significant glacial deposits form important landscape terraces, many prominent in views across the valleys in the Claudy and Donemana. Such extraction can easily and quickly remove these noteworthy features to the detriment of the local landscape and the AONB and often leave highly visible and long lasting scars in the landscape. Such sites can often become the focus for illegal dumping activities and potential sources of pollution.

5.31 To a lesser degree, hard rock quarrying takes place across at a number of locations across this RLCA. Those quarries in a valley location tend to be relatively screened in terms of visual impact, but access roads, noise, dust and associated infrastructure can all negatively impact on the immediate character and tranquillity. Those quarries in upland areas, along peaks are much more readily apparent in longer views, especially from elevated and adjacent roads. Such sites, where activity has currently stopped, often have their impact compounded by the presence of rusting and decaying quarry buildings and equipment.

5.32 The future landscape impact of all types of existing quarries, and the need for new sites, within this RLCA could increase if the proposed major road infrastructural improvements along the A2, A5 & A6 are implemented.

5.33 Climate change impacts that may impact on this RLCA during the lifetime of this LDP could include;

- Increase conifer plantation coverage as warmer wetter conditions offer enhanced growing conditions;
- Vernacular infrastructure - integrity of traditionally designed local bridges etc. could be at risk to future extreme flooding occurrences;
- Future flooding with associated landscape erosion and loss of agricultural lands in the riverside glacial sands and gravels complexes contained within the main valleys;
- Continuing pressure for renewables development;
- Increased possibility for enhanced flood protection / inundation measures – valley / riverside tree planting to alleviate future flood flows.
- Potential for increased production of Short Rotation Crops (SRCs) for Biomass production and associated landscape changes during growth / felling.

Lough Foyle Coast & Dunes – RLCA 9

5.34 **Summary -** The unique coastal flats fronting Lough Foyle include Magilligan Point and the reclaimed ‘polders’ around the lough shore. This area is defined by the lough and the backdrop of the Inishowen peninsula to the north, and by the Binevenagh Ridge which rises to the east forming an essential relationship recognised by AONB designation. A predominance of arable land makes this area stand out, as well as its use as a key route along the north

coast. Within our District, the 19th Century sea wall and farm tracks associated with the reclaimed lands act as a recreational resource.

5.35 The area is characterised by the extremely flat alluvial plain on the edge of Lough Foyle. Towards the west, closer to the city, the Foyle Valley becomes more prominent in the landscape. The area is tied to and is of economic and power generation importance to the city with multiple industrial sites, Lisahally Port, Coolkeeragh and the City of Derry Airport around the settlements of Maydown, Strathfoyle and Eglinton respectively. The dramatic shoreline railway line runs the length of the coastline to the city providing rail travel to Coleraine and Belfast. In this open setting, the careful consideration of future development location or industrial expansion will be key.

5.36 Development pressure for rural dwellings has been comparably modest over the last 15 years. The most prominent hotspot clusters occurs to the north of the A2 along the Donneybrewer Rd and the Station Rd to the west. Both of these roads are traditionally quiet in terms of volume of daily traffic. Station Rd has further benefitted from now being detached by the A2 Clooney Rd upgrade and re-alignment works. Such development pressure has mostly been for infill possibilities or farm related dwellings. Depending on the level of surrounding screening from vegetation or other structures, such development in an open landscape has the potential to be cumulatively intrusive. The coastal location with stunning lough views, particularly from the higher ground to the south of this RLCA, and the proximity of the A2 make this a potentially attractive place to live.

5.37 More recently, two model scale, social housing developments have been approved in the countryside to the north and west of Eglinton. Development has recently started on the scheme along Coolafinny Rd. The landscape effects of this scheme are yet to be fully felt, but both schemes are likely to blur the distinction between the developed form of Eglinton village and the surrounding countryside and intrude a degree of suburbanisation into this flat, open landscape.

5.38 Wind energy development has been minimal in this RCLA and are restricted to single turbines in Culmore and Ballyarnett. The potential for wind energy development in this RLCA is restricted due to restrictions in place around the City of Derry Airport to protect aircraft and their Line of Approach onto the runways. While the SPG considers there is potential for some turbine development on the flatter coastal plain around Campsie / Maydown, if it was very carefully sited and scaled, it is highly likely that the potential for such development will continue to be similarly restricted in the future.

5.39 The A2 dualling upgrade from Maydown to Derry was completed in 2011 and while still a very visible feature running through this RLCA, is beginning to soften in terms of its landscape setting. Maturing roadside planting is

lessening the impact of the prominent roadside infrastructure, particularly around the new road junctions.

5.40 Climate change impacts that may impact on this RLCA during the lifetime of this LDP could include;

- Infrastructure - integrity of transport links – road / air and rail could be at risk to future storm flooding occurrences / coastal flooding;
- Future coastal flooding with associated coastal erosion and loss of low lying agricultural lands.
- Increased possibility for enhanced flood protection / inundation measures – along River Faughan to alleviate future flood flows.
- Managed retreat / loss of coastal landscape / habitat to prepare as future coastal / river flood inundation areas

Potential for increased production of Short Rotation Crops (SRCs) for Biomass production and associated landscape changes during growth / felling.

Renewable Energy and Further Capacity in our District

5.41 The aim of the LDP's renewable energy policies are to facilitate the siting of renewable energy generating facilities in appropriate locations within the built and natural environment to contribute to Northern Ireland's renewable energy targets and to realise the benefits of renewable energy.

5.42 In relation to wind energy development, the siting of such development can often be contentious. Landscape sensitivity to wind energy development is the extent to which the inherent character and visual amenity of a landscape are vulnerable to change due to wind energy development.

5.43 Landscape sensitivity to wind energy development depends on many factors. Each landscape has it own sensitivities, depending on its landform and landcover as well as on a range of other characteristics and values including, for example, enclosure, visibility, condition, scenic and perceptual qualities, natural and cultural heritage features and cultural associations. Importantly, sensitivity depends on landscape character as well as on landscape values.

5.44 It should be noted that within many of our LCAs there is considerable variation in sensitivity level across the area, reflecting the fact that the LCAs are broad character or identity areas. The overall sensitivity level of a LCA is indicative of the relative overall sensitivity of each LCA. A high sensitivity level does not necessarily mean that there is likely to be no capacity for wind energy development within the LCA and conversely a low sensitivity level does not mean that there are no constraints to development.

Table 2 – LCA / RCLA / Seascape Comparator & Wind Energy Sensitivity

NI LCA 1999 description	NI RLCA 2015 description	PPS 18 SPG Sensitivity	NI R Seascape CA 2014
14-Lough Braddon 19 – Killeter Uplands 20 – Derg Valley 21-Fairy Water Valley 26-Bessy Bell & Gortin	5-West Tyrone Hills (approx. 70%)	14 19 20 21 26	
20- Derg Valley 26- Bessy Bell & Gortin 27 – Foyle Valley 29- Sperrin Mountains 30- Sperrin Foothills 31 – Burngibbagh & Drumahoe 32- Derry Slopes	6-Foyle Valley (100%)	20 26 27 29 30 31 32	
24-South Sperrin 26-Bessy Bell & Gortin 27-Foyle Valley 28-Glenelly Valley 29-Sperrin Mountains 30-Sperrin Foothills	7-Sperrins (approx. 50%)	24 26 27 28 29 30	
27- Foyle Valley 29- Sperrin Mountains 30-Sperrin Foothills 31- Burngibbagh & Drumahoe 33- Lough Foyle Alluvial Plain 34-Loughermore Hills	8-North Sperrins Hills & Valleys (approx. 60%)	27 29 30 31 33 34	
31- Burngibbagh & Drumahoe 32-Derry Slopes 33-Lough Foyle Alluvial Plain 34- Loughermore Hills	9-Lough Foyle Coast & Dunes (approx. 25%)	31 32 33 34	Equates to Foyle Estuary RSCA. Equates to Lough Foyle RSCA.

Sensitivity	Colour Coding	Sensitivity Descriptor
High		Landscape is very vulnerable to change and would be adversely affected by wind energy development which would result in a significant change in landscape and visual characteristics and values.
Medium		Landscape may be vulnerable to change and could possibly be adversely affected by wind energy development which could result in a significant change in landscape and visual characteristics and values.
Low		Landscape is not vulnerable to change and would not be adversely affected by wind energy development, and which would not result in significant change in landscape and visual characteristics and values.

The Sensitivity Descriptors (Table 2 above) indicate that:

5.45 **RCLA 5 West Tyrone Hills** are mostly medium sensitivity to wind development, rising to high sensitivity in parts of the Derg Valley, Fairy Water Valley and Bessy Bell & Gortin LCA's. The Derg Valley is sensitive due to the relatively low height of its hills and the tranquil unspoilt nature of the area as a whole. The height of the hills is likely to be a key constraint on turbine size as many turbines would be out of scale with these low hills. The Fairy Water Valley LCA is remote and provides a strong sense of contrast with surrounding upland and lowland areas and is sensitive to tall structures. The majority of Bessy Bell & Gortin LCA is highly sensitive to wind energy developments, however within our District the south-western slopes of Bessy Bell provide localised areas of somewhat lower sensitivity. Sensitivity is further increased by the LCA's popularity for outdoor recreation.

5.46 Overall, the avoidance of adverse impacts on skylines and cumulative impacts from existing windfarms will be key considerations in these areas.

5.47 **RCLA 6 Foyle Valley** is mostly medium to high sensitivity with three LCA's recorded as high sensitivity to wind energy development – Bessy Bell & Gortin; Sperrin Foothills and Sperrin Mountains. Along the Foyle Valley, the alluvial plain and steep valley sides on the western margins of the Sperrin Foothills and Sperrin Mountains are very sensitive to change, not only because of their complex and varied character, but because they form a backdrop to views along the valley. They are a key part of the landscape setting of the mountains as well as the settlements of Derry, Strabane and Newtownstewart.

5.48 The Sperrin Foothills are of a size and form that are theoretically suited to wind energy development, however the relatively small size of the convex hills, the intimate character of the adjoining valleys and the many sudden short range views tend to increase the landscape sensitivity. This LCA also

forms the foreground to some of the most important views into the Sperrin Mountains themselves. The most suitable areas for future development are on the north–eastern and north-western fringes of the LCA. The historically well wooded River Faughan Valley is considered a significant and prominent landscape within the District.

5.49 The Sperrin Mountains are of a sheer visual prominence within our District to warrant no further wind energy development. The uplands are an iconic landscape of immense appeal for tourism and recreation and its core landscapes are highly sensitive to any wind energy development. Its strong wild character and many natural and cultural features are highly vulnerable to windfarms and associated access tracks and infrastructure. It is considered that these highly significant uplands should be protected from wind energy development. Elswhere, future proposals should take care to avoid adverse impacts on skylines, views and the visual amenity, recreational value and wild character of this LCA. Cumulative impacts will be a significant consideration.

5.50 **RLCA 7 The Sperrins** contains, in addition to those LCA's described above, the Glenelly Valley LCA. The inherent scale, form and complexity to the intimate valley landscapes of this LCA, which are very strongly influenced visually by the skylines above, make Glenelly Valley highly sensitive to wind energy development. Any wind energy development on the slopes or skylines would be extremely intrusive and capacity is therefore considered low. In addition, the landscape is sensitive because it is highly valued for its scenic beauty, historic field patterns and significant archaeological sites.

5.51 **RLCA 8 North Sperrin Hills & Valleys** contains, in addition to those LCA's described above, the Lough Foyle Alluvial Plain LCA and the Loughermore Hills LCA. The Lough Foyle Alluvial Plain is of varied sensitivity. The low-lying open farmland to the east, within our District, is very sensitive with open views to the Binevenagh headland and ecologically important mud flat habitats which draw internationally significant numbers of waterfowl to over-winter. Potential capacity exists towards the western edge of the LCA where the more industrial area north of Derry offers scope for some form of wind energy development with careful attention to siting, scale and form relative to existing structures.

5.52 **RCLA 9 Lough Foyle Coast and Dunes** contains, in addition to those LCAs described above, contains the Derry Slopes LCA. This LCA's gateway role and proximity to the City and the Foyle increases its sensitivity to wind energy development, which could be highly visible. These western slopes frame the city and provide a scenic landscape setting. However, the undulating slopes and urban fringe areas, particularly where already affected by man-made influences, might be somewhat less sensitive to development that is carefully sited and appropriate in scale. It is recommended that any wind energy development reflects the scale of the relatively small surrounding hills and existing built features that lend a sense of scale in this LCA.

5.53 Care should be taken to avoid adverse impacts on the highly sensitive historic setting of Derry, its surrounding steep slopes and skylines, the River Foyle and its adjacent lands, and estates and estate woodlands. Although Holywell and Minkey Hills have a number of telecommunications masts, care should be taken to avoid adverse impacts on these hills as they are on a prominent skyline. Care should be taken to ensure that wind energy developments do not dominate or intrude unacceptably on the sensitive settings in this LCA.

Conclusion

5.54 At a strategic level, Sections 8 and 9 of the Planning Act (Northern Ireland) 2011 require that the Council must take account of the RDS and any policy or advice contained in guidance issued by the Department for Infrastructure.

5.55 One of the 8 stated aims in the Regional Development Strategy (RDS) is *'Take Action to reduce our Carbon footprint and facilitate adaptation to Climate change'*. This is subsequently supported by RG5: *Deliver a Sustainable and Secure Energy Supply* and RG9: *Reduce our Carbon footprint and facilitate Mitigation and Adaptation to Climate Change whilst Improving Air Quality*.

5.56 The Strategic Planning Policy Statement (SPPS) contains the aim in relation to renewable energy is to facilitate the siting of renewable energy generating facilities in appropriate locations within the built and natural environment in order to achieve Northern Ireland's renewable energy targets and to realise the benefits of renewable energy without compromising other environmental assets of acknowledged importance.

5.57 It further states that a regional strategic objective of the SPPS for all forms of renewable energy (wind, solar hydropower, geothermal and biomass) is to ensure that the environmental, landscape, visual and amenity impacts associated with or arising from renewable energy development or any subsequent repowering are adequately addressed.

5.58 Accordingly the Council will bring forward designations and relevant policy in its LDP Plan Strategy that will reflect the strategic direction and guidance contained within the RDS and the SPPS. While it is considered that renewable wind energy capacity exists, subject to all relevant policy consideration, for further development across much of our District, the Council will seek to protect our most important landscapes and those at or reaching capacity through a tier of appropriate landscape designations. The following are proposed and the relevant policy and supporting J&A can be found in the PS Natural Environment chapter:

- Wind Energy Capacity Areas (WECA's) - within these, there will be a presumption against further wind energy development unless it can be robustly demonstrated that proposals will not in any way intensify existing impacts on the visual amenity and landscape character of

WECAs. Enabling policy is set out in the PS and the LPP will indicate the location of individual WECAs;

- Special Countryside Area (SCA) – An SCA, in three parts, is being designated to safeguard the unique wilderness character and tranquillity of the remote, upper sections of the AONB. Within these, there will be a general presumption against development proposals with specified exceptions;
- Areas of High Landscape Importance (AHLIs) – within these there is a general presumption against development proposals unless demonstrated that the proposal would not adversely affect or adversely change either the quality or character of the designation.
- Area of Outstanding Natural Beauty (AONB) – within the remainder of the AONB, i.e. those parts beyond the SCA designation) there will be a presumption against individual or cumulative development unless demonstrated that the proposal would not adversely impact or erode the intrinsic appeal of the Sperrin AONB.

5.59 Existing LCAs, RCLAs and supplementary planning guidance on wind energy development provide broad strategic descriptions and guidance in relation to landscape character and specifically the visual impacts of wind energy development. The LDP PS recognises that every renewable energy development proposal, including wind energy, is unique, and there will remain a need for detailed consideration of the landscape and visual impacts of individual applications on a case by case basis, as well as for consideration of other issues as required under other relevant policy. However the Council's approach will be one of selective accommodation of future wind energy proposals to protect those areas specifically considered to be at or reaching landscape capacity.

6.0 LDP PS Marine Consideration and Review

6.1 The NI Regional Seascape Assessment (2014) identified 24 Regional Seascape Character Areas (RSCAs) along the NI coastline, each one being a distinct area with a unique sense of place. It is important to stress that the boundaries tend to represent indicative lines of gentle transition rather than an abrupt change in seascape character.

6.2 The 2000 Landscape Character Areas Report identified 130 terrestrial units, 31 of which have a coastline. The 2014 NI Regional Seascape Assessment, in defining Seascape Character Areas, also included those terrestrial LCAs where these have an important visual and landscape relationship to intertidal and marine areas. Within our District, the following two LCAs have a coastline:

- LCA 32 Derry Slopes;
- LCA 33 Lough Foyle Alluvial Plain

Both LCA 32 and LCA 33 are two of the four constituent LCAs that comprise the 2015 NI Regional LCA (No 9) Lough Foyle Coast & Dunes.

6.3 The relevant RSCAs for our District are the Foyle Estuary RSCA and the Lough Foyle RSCA. An overview of each and their importance in providing a setting to the District is as follows:

Foyle Estuary RSCA

6.4 The Foyle Estuary SCA is focused along the lower reaches of the River Foyle and the associated Lisahally Port. It extends north-eastwards from the Craigavon Bridge within Derry City, along the top of the river valley sides to Coolkeragh Power Station, where the river flows into the extensive Lough Foyle. Although the historic city of Derry is outside of the SCA, it has a major influence on the setting of the SCA.

6.5 Contained by valley sides, the gently meandering river is flanked by a series of historic navigational features with channel markers along its length. The constant flow of water and changing tides underpin a dynamic seascape, emphasised by occasional small boats and yachts moving up and down the river and commercial shipping activities at Lisahally, where large shipping containers import and export goods. The river valley sides to the north-east of Derry are heavily wooded which contrast with large-scale industrial and commercial land uses towards Derry and around the port. The Peace Bridge is a striking feature across the River Foyle which, along with the Foyle and Craigavon bridges, provide strategic connections across the river. The SCA also forms an important recreational resource and setting to the city.

6.6 **Perceptual Influences:**

- A dynamic and constantly changing seascape, with a diversity of land and sea uses.

- A high degree of modification with busy main roads and activity in and around Derry and at Lisahally Port.
- The wooded estates along the valley sides to the north-east of Derry provide pockets of seclusion and a sense of enclosure that contrast with busy and often noisy areas of industrial land use and areas of urban fringe development.
- The SCA has a medium scale with medium range views along the river. There are short range views across the river curtailed by steep valley sides, woodland and development. Views out to Lough Foyle are contained by valley sides and the development and infrastructure at Lisahally Port.
- The Peace Bridge and the numerous lighthouses and channel markers are key landmark/seamark features.
- The movement of boats and the ever changing textures and patterns of tidal flows and mudflats adds to the visual interest.
- At night, the lights of the city reflect across the water.
- Although outside of the SCA, the historic city has a dramatic elevated site and the massive defensive walls make a significant contribution to the historic setting of the river.

6.7 **Forces for Change:**

- Outside of Ireland's three main ports in Belfast, Dublin and Cork, Derry is the leading smaller port and growing.
- Possible increases in traffic along main roads.
- A decline in the viability of woodland management.
- Possible increase in recreational activity and access along the river.

Lough Foyle RSCA

6.8 The Lough Foyle SCA extends from Magilligan Point, which almost closes the entrance to the Lough on the Northern Ireland side to Greencastle on the Republic side, and to Culmore, where the Lough narrows and becomes the River Foyle SCA. To the west, the Lough is backed by the rolling hills of Inishowen that contrast with the flat Magilligan Lowlands along the eastern shore. Beyond the lowlands, the Binevenagh escarpment and Loughermore Mountain dominate the skyline and setting of the SCA where the plateau and steep cliffs extend across the Magilligan peninsula.

6.9 Lough Foyle is an extensive sea lough and has one of the largest catchments of all Irish sea loughs. At 3,700 km2 , it is the largest sea lough in Northern Ireland and several rivers run into it including the Foyle, Faughan and Roe. From the Donegal coast to the mudflats off Ballykelly, the Lough is approximately 10 km at its widest point. There is a well-marked channel down the Donegal side which is used by large ships visiting Lisahally Port opposite Culmore Bay.

6.10 The large expanse of water provides ever changing patterns of currents, waves and reflections of the sky. At low tide, there are extensive, textured

patterns of mudflats that are important feeding grounds for wintering bird populations. Magilligan Strand forms an extensive, peaceful beach along the eastern shore. The Lough is also an important resource for shellfish fisheries, aquaculture and recreational activity.

6.11 **Perceptual Influences:**

- A very large-scale expanse of water with a horizontal emphasis and an overriding simple composition.
- An exposed and windswept appearance with continuous changes in patterns of light across the water.
- At low tide, extensive patterns of textured sands, silts and mud add to the visual interest.
- From the eastern part of the SCA, panoramic views across the Lough to hills of Inishowen are experienced from the railway and coast road.
- From the western part of the SCA, there are panoramic views across the Lough towards the Binevenagh cliffs and Loughermore Mountain. · Views out to the wild Atlantic are contained by the Magilligan Strand and Magilligan Point at the narrow Lough mouth.
- A strong sense of remoteness can be experienced on a boat from many parts of the Lough.
- Predominantly tranquil and often inaccessible along the eastern shore but busier and more settled towards Derry/Londonderry.
- It is also comparatively busier along the western shore with the main road running alongside the Lough and the passing of occasional boats and ships along the main west navigational channel.
- Areas of natural intertidal and terrestrial habitat contrast with large stretches of managed shoreline and engineered features. Within our District, the 19th Century sea wall and farm tracks associated with the reclaimed lands act as a recreational resource.
- Key landmark and seamark features include Martello Tower and the series of channel markers along the west channel.
- At night, the lights from scattered developments reflect across the surface of the Lough.
- Although outside of the SCA, the basalt scarp of Binevenagh provides an impressive backdrop and on the Donegal side, the peat-covered hills of Inishowen are also prominent.

6.12 **Forces for Change:**

- Effects of climate change could result in additional / upgraded engineered coastal defences.
- Possible future increases in aquaculture.
- Possible increases in water-based recreation.
- Possible increase in turf growing and biomass crops across the Magilligan Lowlands.

Transboundary Seascape:

6.13 Donegal shares a large area of Seascape with our District along the tidal estuary of Lough Foyle that contains part of the international border. Donegal has a distinctive, spectacular and diverse coastline of some 1,134km, most of it fronts directly onto the Atlantic Ocean. The indented coast is the longest in Ireland and boasts a heterogeneous character comprising of cliffs, sheltered bays, caves, open coastal views and headlands. The coastal landscape and seascape is synonymous with the character and identity of the County, and inherent in the complex history of the County.

6.14 It has played an important part in the history and development of Donegal as a landing port for the first settlers, as a food source for its people, for transport and communications, for defence, for commercial fishing, enterprise and export and the local culture of the population amongst a wealth of others.

6.15 More recently, the coast and the sea have been the focus for tourism and leisure providing a significant asset as a recreational resource along with associated, considerable development pressures. Donegal's dynamic coastline has continuously changed physically, in its use and capacity over time and this change is destined to proceed with global warming, sea levels rising, new and evolving technologies and social and cultural changes.

6.16 Donegal County Council produced a Seascape Character Area Report in 2016. It classified and described 19 Seascape areas around the County Donegal coast. The relevant Donegal SCA adjacent to our District is Seascape Unit 1 - Lough Foyle. This SCA encompasses a vast area including all of Lough Foyle; beginning near the village of Muff south of the Lough and stretching as far as Inishowen Head to the north of the Lough. It also extends toward the eastern shore of Northern Ireland, and into the mouth of the River Foyle towards Derry City. This particular seascape unit affords a very strong visual and physical connection to Northern Ireland.

6.17 There is a degree of overlap seawards to the north out into Malin Waters across Seascape Unit (2) and across into Northern Ireland on the eastern side of Lough Foyle. Northern Ireland's Regional Seascape Character Assessment was published as Draft in August 2013 and identifies 2 seascape character areas on the eastern shore of the Lough; SCA 2 Lough Foyle and SCA 3 Portstewart Coast and one further along the north coast, LCA 4 Portrush Coast and the Skerries. Lough Foyle and the Northern Ireland coastline are inherently integral within the character of the Lough Foyle seascape unit and vice versa.

6.18 **Visual and Sensory qualities**

- Accessibility: the seascape unit is easily accessible by land and sea, and its location and topography make it very visible from the sea and from Northern Ireland on the opposite shore of Lough Foyle.

- Key views to sea and coast: extensive unobstructed view to sea and towards NI and beyond from long stretches along the regional road network both along the coast and due to the sloping nature of the land from the county road network laced throughout the area.
- There are important views to the north of the seascape unit across the Foyle and there is a viewing area at Magilligan Point.
- Key views to land: Lough Foyle is a relatively heavily trafficked water body facilitating many tourism, recreation and event craft, such as those participating in the popular Clipper Festival. The topography is generally mirrored on the NI side of Lough Foyle with a low coastal edge rising to higher ground behind that lends itself to extensive and unobstructed views over the Lough Foyle Coast LCA and beyond into County Donegal. The views from the sea into and within the seascape unit are therefore of significant importance.

7.0 Implications of the Landscape / Seascape Review for our LDP dPS

7.1 Having considered the previous NI landscape assessments relevant to this District which have been subsequently 'ground-truthed' by this LDP Landscape Review, it is readily apparent that several significant forces for change are operating in our District's landscape. These can be summarised as follows:

- The cumulative and transboundary impact of significant numbers of wind energy developments and single turbines, particularly in the West Tyrone Hills and Valleys RLCA and on those peaks adjacent to our main road infrastructure (A2, A5 and A6);
- The impact of development pressures for single dwellings in the countryside particularly along the boundaries of the AONB, our main valley landscapes and adjacent to the development limits of some towns and villages;
- The need to protect those truly remote upland areas of the AONB from built development, which by their wild character give so much by way of tourism and recreational activities;
- Climate change:
    - increased afforestation and loss of landscape detail,
    - damage through storm events of increased intensity and occurrence to vernacular infrastructure - rural bridges / roads
    - erosion / destruction of agricultural land in upland / valley settings through flooding;
    - coastal flooding and potential impacts on transport infrastructure;
    - changes in vegetation patterns / types linked with warmer drier conditions.
- The urbanisation of our countryside with suburban style detailing;
- Sand and gravel extraction within the AONB boundaries which is removing the pristine glacial features for which the AONB boundary was extended and re-designated to capture in 2008;
- The immediate landscape setting of our main settlements of Derry and Strabane and their respective backdrops of Sheriff's Mountain and Knockavoe;
- The loss of hedgerows and their associated non-replanting associated with sightline conditions;
- Potential major infrastructural improvements to the A5 and A6 with associated new stretches of dualling through significant pieces of our valley / riverside landscapes;

7.2 It is therefore proposed that in developing the LDP Plan Strategy the following should be considered to address the above noted landscape forces for change in this District whilst simultaneously acknowledging the richness and beauty of the varied landscape within our District.

Coordinated AONB Councils approach:

7.3 In conjunction with the other relevant AONB Councils, co-ordinate policy development to manage development within or affecting the setting of the Sperrin AONB. In developing policy, the Council will be pro-active in seeking the highest standards of design that positively enhances the unique scenic quality of the Sperrin AONB. The AONB does not currently have an AONB Management Plan but the Council is working with the adjoining Sperrin Councils, via the auspices of the Sperrin Forum and the ongoing Sperrin Future Search process to develop suitable future AONB management proposals.

7.4 The Council recognises that the AONB is a 'living landscape' and while requiring higher standards of design, will seek to accommodate the needs of our AONB communities. The Council is seeking, through this LDP PS, to raise standards in terms of protecting, enhancing and conserving the intrinsic appeal of our AONB and its associated heritage and nature conservation from future development.

Special Countryside Area (SCA) consideration:

7.5 In line with the SPPS, it is recommended that the dPS consider the need for designating SCAs within our District to protect those exceptional landscapes, such as our Sperrin summits, views and vistas from unnecessary and inappropriate development. Within such areas, the quality of the landscape and unique amenity value is such that development should only be permitted in exceptional circumstances. Such SCAs should be defined at a contour level to safeguard the more remote, exposed and undeveloped portions of the AONB which are significant in terms of views within and beyond our District. It is suggested that the open mountain landscape above the 310 m (approx.) contour within the Sperrin AONB be designated as SCAs. This will contain the summits of Sawel, Dart, the Moat etc.) Working to this contour level, the SCA designation will cover the central upland part of the AONB, a corresponding linear part running along the top of the southern side of the Glenelly valley and a third small outlier to the west of the main proposed designation. The 2005 Sperrin AONB boundary review highlighted the extreme sensitivity of the open mountain landscape. Accordingly, it is considered that development in the Sperrin SCA should be limited to maintain and enhance the strong sense of wilderness within the core AONB areas. It is recommended that SCAs are also designated as Areas of Constraint on Mineral Development. See Appendix 1: Map 3 for indicative locations of the proposed SCA designations.

Areas of High Landscape Importance (AHLI):

7.6 It is considered that there is merit in bringing forward a new LDP PS designation which consolidates previous DAP designation which were brought forward because of their landscape and / or visual amenity importance. It is proposed that a new LDP PS designation include both the 5 Areas of High Scenic Value (AHSV) as contained in the extant DAP 2011 and the 2 areas of CPA (west of Claudy and the coastal strip north of Eglinton) along with any additional inclusions to incorporate suitable areas of a similar landscape quality. Such landscape features could include significant river valleys and pristine glacial slopes. Within some of these river valleys, pockets of Ancient and Long Established woodland add a distinctive layer of character to their respective valley settings. It is proposed this tier of designations, beneath SCA level, are called Areas of High Landscape Importance (AHLIs). Within these it is recommended that an enhanced policy onus is required on development proposals to clearly demonstrate how the proposal either reflects or enhances the intrinsic landscape character of these areas.
It is recommended that AHLIs are also designated as Areas of Constraint on Mineral Development.

7.7 It is proposed that AHLIS be designated at the following locations based on previous DAP plan designations and to recognise the landscape importance of other areas in line with the LDP PS Vision and Objectives:

- Coastal strip – north of Eglinton;
- Foyle River banks (both sides) North and South of Derry City;
- Faughan Valley extending SE to Cumber Claudy Country Park. This will also take in parts of Bonds Glen to the SW and the Long Established Woodlands within Ness / Ervey Woods to the NE;
- The prominent and wooded pristine glacial terraces and snouts, to the W of Donemana; which formed part of the 2008 AONB boundary extension and are significant landscape features in views from key roads;
- The immediate landscape settings of Derry (Sheriff's Mountain) and Strabane (Knockavoe) require a buffer, particularly around their upland mountain settings to maintain a visual degree of separation between the hard edge of the built form of the development limit and the upper skyline and to protect them from further tall structures development
- The northern tip of the Strule Valley (between Newtownstewart and the District boundary)
- The highly tranquil, remote and 'hidden' landscape of the Glenelly Valley requires careful protection to absorb any future development while still retaining the intimate valley landscape.

See Appendix 1: Map 3 for indicative locations of the proposed AHLI designations.

Local Landscape Policy Areas:

7.8 **T**he Local Policies Plan will detail the specific designation for Local Landscape Policy Areas. LLPAs will be designated to help protect those areas within and/or adjoining settlements, which are considered to be of greatest amenity value, landscape quality or local significance and are therefore worthy of protection from undesirable or damaging development. They include:

- Archaeological sites and monuments and their surroundings;
- Listed and other locally important buildings and their surroundings;
- River banks and shore lines and associated public access;
- Attractive vistas, localised hills and other areas of local amenity importance; and
- Areas of local nature conservation importance, including areas of woodland and important tree groups.

7.9 In accordance with the requirements of the SPPS, the LDP Local Policies Plan (LPP) will identify the detailed boundaries of the LDP designations, namely the SCAs, the AHLIs and the LLPAs. In the transition period, until adoption of the LDP Plan Strategy and where relevant, the LDP Local Policies Plan, all the existing natural environment designations in the DAP 2011 and SAP 2001 will remain in place until they are replaced / superseded by new LDP designations. Further information and policy guidance can be found in the Spatial and Natural Environment chapters within the dPS.

Wind Energy Capacity Areas

7.10 It was noted that a number of sensitive locations within the District were under significant cumulative pressure from single turbine and wind farm development. This was informed by the findings of the Development Pressure Analysis undertaken as part of the LDP PS preparation (EVB 6c). It was considered that these areas were at or reaching landscape capacity in terms of significant turbine development. It is proposed that these sensitive areas be designated as Wind Energy Capacity Areas (WECAs). Within these areas, the strategic policy direction will be to protect these sensitive District landscapes considered to be under pressure from wind farms and / or single turbines. The likely locations of the WECAs are indicated on the dPS Proposals Map No. 2 but the actual locations and detailed boundaries will be shown at the LDP Local Policies Plan stage. It is suggested that strict consideration is given to the guidance contained within the PPS18 SPG for the siting of future energy developments to avoid the over-domination of these landscapes by future development. The consideration of future transboundary cumulative impacts with Donegal wind farm developments will also need to be considered.

7.11 Proposed WECA designations are as follows:

- 4 locations across along / within the northern boundary of the AONB, approximately located between Strabane and Claudy;
- Upland location to the NE of Castlederg adjacent to the Donegal uplands; &
- Upland location to the SW of Castlerderg, adjacent to the Donegal /. Fermanagh & Omagh uplands.

See Appendix 1: Map 3 for indicative locations of the proposed WECA designations.

Rural Design:

7.12 It is suggested that overarching Design Principles should be developed & enhanced to prevent the urbanisation of the countryside and the associated suburban style detailing that frequently accompanies such development. Such Principles should be in line with the PPS 21 policy thrust for rural integration, design and character. The use of Green Belts and / or specific development pressure area areas should also be considered where felt to be strategically appropriate to manage urban generated sprawl or localised areas experiencing significant forms of bespoke pressure.

Road Infrastructure upgrades:

7.13 The ongoing construction / upgrade of the A6 within the District, particularly the stretch running parallel with the Faughan Valley is likely to have a significant long term impact on the surrounding landscape. Associated tree felling and major landscape reshaping impacts will eventually soften, during the life of the LDP and the following years, as the proposed landscape replanting slowly matures.

7.14 The future construction of the A5 and A2 (when commenced and any future link roads) will also need to be carefully considered in terms of landscape impact. These are likely to have an impact on our significant Foyle Valley corridor as well as those urban stretches along the Buncrana Rd out to the border. Consideration will also need to be had for those settlements which will effectively be by-passed by the new routes. Landscape considerations as well as a range of other related Planning issues will need to be addressed during the LDP lifetime as these settlements respond to their changing circumstances relative to the new Strategic Transport Corridors.

8.0 Conclusions

8.1 Our District landscape comprises a wealth of landforms that have been shaped over thousands of years by human activity. It descends from remote upland peaks, through well wooded river valleys and out to sea at our expansive flat coastal plain and Lough Foyle.

9.2 Within this diverse landscape, our settlements have evolved and grown. Today these significant urban developments have the potential to impact on both our landscape and seascape character. This Council has ambitious plans for growth – these will be driven through both the LDP and the Strategic Growth Plan.

9.3 These ambitions will require careful Planning to ensure future growth does not bring with it, an erosion of our important landscape or seascape character in all its complicated forms across the District. Truly sustainable development, in all its facets, needs to be a key consideration in the Planning process to ensure that while our District prospers, our unique landscape and seascapes endures and improves along with its inherent natural and built heritage wealth.

9.4 The landscape review has indicated that there have been relatively modest built developments across our District since the publication of the existing suite of NI and District Landscape Character Assessments. It is considered that these modest developments are not of such significant impact that modifications to the existing suite of LCA documents and their associated findings are required.

9.5 However, the rapid development of the renewable energy sector and its landscape impacts has been a cause for concern in this District, as elswhere. Such impacts are often exacerbated when cumulative transboundary impacts are factored in from wind farm projects in Co Donegal, or indeed from within adjacent NI District Councils. However, given the recent ending of the subsidised payment scheme for wind related energy development (ROCs), it may well be the case that such schemes have reached their peak and for the foreseeable future, there will be little in the way of future development and, as such, landscape impacts within the District will not significantly increase.

9.6 The LDP PS stresses the requirement for strict adherence to the relevant guidance contained in the Supplementary Planning Guidance to Accompany PPS 18 – Renewable Energy.

9.7 The LDP proposals as set out in the PS are designed to protect and enhance existing landscape character while still permitting it to be a place which people can call home or provide a suitable location for employment or recreation. It is unclear as to what extent future development will locate or impact within its marine environment. The Council will continue to liaise with the appropriate

marine authorities in all matters pertaining to marine and coastal development within or adjacent to our District.

9.8 It is considered that the existing suite of LCA's (both District and Regional) can still be considered as being reasonably up-to-date and current for this District. Accordingly, the Council does not propose to alter any of the boundaries or the findings that they contain.

Appendix 1:

Previous Landscape Assessments relevant to our District

1.1 The following Appendix contains a description and review of all the Landscape / Seascape Character Assessments relevant to Derry City and Strabane District. They are set out under the named descriptions as set out in the overarching umbrella of the NI Regional LCA survey undertaken in 2015. Landscape sensitivity information arising from the 2010 PPS18 Supplementary Planning Guidance - Wind Energy Development in NI's Landscapes is also referenced.

NI RLCA 5 - West Tyrone Hills (approx. 70% within the District)

1.2 The West Tyrone Hills RLCA (No 5) encapsulates, all or in part, the following NI LCA 1999 descriptions: 14 Lough Braddon; 19 Killeter Uplands; 20 Derg Valley; 21 Fairy Valley Water and 26 Bessy Bell and Gortin.

RLCA 5 - Location and Setting

1.3 In the west of Northern Ireland, a spur of Donegal's Blue Stack Mountains extends eastward into Tyrone and northern Fermanagh. These low hills

include the headwaters of the River Derg and the Fairy Water, and these upland valleys form part of this landscape, distinct from the Foyle Valley and Sperrin mountains to the north. At their eastern end, Pollnalaght overlooks Omagh. The area encompasses Castlederg, and the villages of Killeter, Drumquin and Lack in the upland fringes. The hills around Lough Derg in Donegal to the south-west, and flanking the Finn Valley to the north, form part of this upland landscape.
This area is flanked by the Foyle Valley (RLCA 6) and by Bessy Bell, an outlier of the Sperrins (RLCA 7) to the north. To the east and south, the hills overlook the Omagh Basin (RLCA 4) and the fringes of the Lough Erne Lakelands (RLCA 2).

RCLA 5 - Landscape Character Description

1.4 The low hills which form the southern part of this landscape rise to gentle summits ranging in elevation between 250m and 350m. The most substantive peaks are Dooish (340m) to the south of Drumquin, and the ridge of Bin Mountain-Bolaght Mountain further west (345m). Further west, the hills are flatter and include the local landmark of Mullyfa (248m). To the north the land drops to the broad flat-bottomed valleys of the River Derg and the Fairy Water. The Derg rises from Lough Derg, just over the border in Donegal, and flows north-east through Castlederg to meet the Foyle system. To the north of the Derg a low range of hills marks the edge of this landscape, broadly corresponding with the Irish border. South of Castlederg a low ridge separates the Derg valley from the Fairy Water, which flows south-east towards Omagh. The north side of the Fairy Water valley is formed by the hills of Mullaghcroy and Bessy Bell.

1.5 Landcover comprises open peat bogs, rough grazing and large Forest Service conifer forests at Lough Bradan and Killeter Forest, the latter being Northern Ireland's largest forest, and continuing over the border into Donegal. The hills are divided by upland pastoral valleys carrying B roads and minor routes. Many of the hills now support wind farms and the power lines which connect them to the grid. Improved pasture becomes more dominant in the valleys, with a pattern of large fields and limited hedges across the Derg Valley, creating a notably open landscape. Large areas of the Fairy Water valley are occupied by lowland raised peat bogs, most of which are cut for fuel. Around the bogs, traditional patterns of small intricate fields and substantial hedges remain, for example around Drumquin. On higher ground ladder fields are found rising on to the sides of Dooish Mountain and other hills.

1.6 There are scattered houses along the valleys and outer foothills, with villages on the upland fringe such as Drumquin and Killeter. The local centre is Castlederg, a plantation town developed around the 17th-century castle, now in ruins. This is a remote and sparsely populated rural area, with a sense of isolation which becomes stronger to the west of Killeter. There are visitor facilities at Killeter and Lough Bradan Forests though these appear to be seldom used. Walking trails access the forests as well as features such as the Sloughan Glen waterfalls. The hills in the area offer wide views over this and

the adjacent landscape. The view from Pollnalaght overlooks Omagh and provides a visual connection to Mullaghcarn in the Sperrins.

RCLA 5 - Key Characteristics

1.7 Key characteristics are as follows:

- Low, broad and rounded moorland covered and afforested hills, occasionally merging into plateaux, with associated river valleys draining to the east.
- Occasionally more prominent hills adjoin lowland areas, such as Dooish, Mullyfa and Pollnalaght.
- A sparsely populated rural area, though with farmed and settled valleys.
- Exposed upland grazing and peat bogs.
- The most extensive coniferous plantations in Northern Ireland at Killeter and Lough Bradan Forests.
- A gold mining operation is active at Cavanacaw on the slopes of Pollnalaght.
- Remote and somewhat isolated western region of County Tyrone, associated with the pilgrimage to Lough Derg, where there are picnic and parking facilities in the commercial forest, within the Republic of Ireland.
- Wind farms and commercial forests reduce the sense of tranquillity in this otherwise undeveloped landscape.
- Extends across the border into the Republic.

RCLA 5 - Natural Influences

1.8 Key natural influences are as follows:

- Dalradian rocks of the Mullaghcarn Formation in the east, giving way to heavily faulted sedimentary rocks of the Carboniferous Period underlying Bin Mountain and Lough Bradan.
- In the west the area is underlain by Neoproterozoic metamorphic formations, over 500 million years old, including gneiss, schist and quartzite, which extend into Donegal.
- Relatively little glacial till deposited in this area, with the exception of the southern face of the hills, and the Drumquin area, where large drumlins were formed.
- Extensive peat deposits built up as blanket bog across the upland areas: with the western part of this area receiving particularly high rainfall, there are examples of ‘Atlantic’ bog at Mullyfamore, more typical of the Irish west coast.

RCLA 5 - Cultural Influences

1.9 Key cultural influences are as follows:

- The barrier presented by these hills is reflected in their role as the boundary between Donegal, Tyrone and Fermanagh.
- A small number of prehistoric ritual sites, including court tombs and standing stones, are found above Killeter and through the pass now occupied by the B72.
- Lough Derg in Donegal has been a major pilgrimage site from the Early Middle Ages to the present day, and the River Derg which flows from it forms a principal pilgrimage route to the lough.
- Now as in the past, settlement is limited to lower ground, with uplands used for rough grazing and peat cutting.
- Rectangular fields on low ground give way to much smaller hedged fields in upper valleys, with distinctive ladder field patterns running up the slopes of Dooish.
- Traditional thatched cottages survive in the upland fringes, several of which are listed.
- Extensive conifer forests established in the 20th century.
- Extraction industries include the large open-pit gold mine at Cavanacaw, as well as aggregate quarries.
- The ruins of the 17th-century Plantation castle at Castlederg stand on the site of a tower house built by the O'Neills in the 15th century.
- In recent years several wind farms have been built on the hills at Tappaghan, Lough Hill, Church Hill and Crighshane, which are seen from the valleys to the north. Large numbers of single turbines are located on lower ground in the Derg valley.

RCLA 5 - Perceptual Influences

1.10 Key perceptual influences are as follows:

- Attractive hidden features such as Sloughan Glen waterfalls.
- Distinct contrast between open upland and pastoral lowlands in some places, though blurred in others by marginal rushy pastures.
- Wide views over the Omagh Basin to the Sperrins from Pollnalaght.
- Accessible countryside via the extensive areas of Forest Service land, though relatively seldom visited.
- The village of Killeter was fictionalised in Benedict Kiely's novel of the early Troubles, "*Nothing Happens in Carmincross."*

- The upper Derg Valley at the western edge of Tyrone is one of the remotest parts of Northern Ireland, distant from the main towns and with few roads.
- A sparse, unsettled landscape, away from the main through roads, with a sense of remote timelessness.

RCLA 5 - Past, present and future forces for change

1.11 Key forces for change are as follows:

- Numerous wind farms have been constructed or consented in the hills to the south of this area, from Pollnalaght in the east to Barnesmore just over the border in Donegal. Pressure continues to site further large-scale renewables here. To the north, in the Derg and Fairy Water valleys, there are many single turbines, of varying scales, and again with continued pressure for more. The introduction of moving turbines into this area undermines its tranquillity, although the presence of numerous large turbines also serves to highlight the remoteness and lack of settlement in the landscape. Capacity studies may be required to determine the potential for the landscape to absorb further development of wind farms or single turbines.
- The area has outdoor recreation opportunities but remains a relatively seldom-visited part of Northern Ireland, which in itself is a part of its character. Intensification of access could alter the perceived remoteness of the area.
- Forests in the area include Killeter Forest, the largest commercial forest in Northern Ireland, which extends across the border into Donegal. This forest retains many of the straight-edged plantations characteristic of earlier forestry, although the Lough Bradan Forest has been restructured along more organic lines.
- Large areas of forest have been removed for wind farm development, with associated habitat management benefiting peat bogs and upland biodiversity. The introduction of access tracks, conversely, can harm peat bog integrity.
- Overhead power lines are required to export electricity generated by wind farms. Currently, wood pole lines lead eastward from the Killeter area, and further grid connections will be required for new wind farms.

RCLA 5 - Indicators of change

1.12 The following features and aspects in this area could be monitored to assist in understanding future landscape change:

- Number and scale of wind farms and wind turbines;
- Extent and integrity of peat bog habitats, particularly those which have been restored as part of wind farm habitat management plans; and
- Extent of single-species coniferous forests.

RCLA 5 - Ecosystem Services

1.13 The landscape of this area provides the following benefits:
Provisioning – forestry, peat, quarrying, windfarms.
Regulating – carbon storage
Cultural – literature

Donegal County Council Relevant LCA

1.14 In a cross –border capacity, relevant to the West Tyrone Hills RLCA 5 are Finn Valley LCA 14, Cashelnavern Uplands LCA 40, Croaghnameal Border & Uplands LCA 41, Lough Derg Uplands & Lakelands LCA 42, Pettigo Drumlins LCA 43.

Finn Valley LCA 14

1.15 Finn Valley LCA is dominated by the River Finn, its tributaries and associated valleys carved from the surrounding uplands. The LCA has 3 distinct areas within that change from west to east following the meandering River Finn through this LCA. In the west of this LCA the Rivers Finn and Reelan cut through highland bog areas creating 2 steep narrow river valleys that have an interesting rectilinear field pattern of strips extending from the river edge into the upland bog in a 'rundale' fashion. These smaller rivers converge as the River Finn close to Cloghan into a notably broader and more level valley of larger square agricultural fields overlooked by mountainous areas of upland bog. The landscape eastwards from Ballybofey Stranorlar towards Castlefinn is a fertile agricultural plain alongside the river within a wider gently undulating agricultural landscape of large square fields similar to the adjoining Laggan Valley and Foyle Valley LCAs.

1.16 Finn Valley LCA borders Derry City & Strabane District at its eastern extremity and abuts 2 separate LCAs within the District sharing a similar landscape type and character area. The local road network affords multiple physical linkages with the adjoining landscape in Northern Ireland. The eastern edge of this LCA borders the NI Landscape Character Areas Foyle Valley (27) and Derg Valley (20), a continuum of the landscape type of the Finn Valley, namely good quality agricultural riverine lands of semi-improved geometric fields, with scattered farms, farmsteads and one off rural dwellings served by a number of rural villages and towns.

Forces for change

1.17 • Linear development along the rural road network
• Renewable energy development (windfarms).
• Afforestation in upland areas.
• Telecommunications and infrastructural development
• Development within the floodplains.
• Windfarm development in Northern Ireland forms part of the views of and from this LCA.
• Expansion and development of the twin towns of Ballybofey and Stranorlar.

Cashelnavern Border & Uplands LCA 40

1.18 Cashelnavern Border & Uplands LCA is a vast, mountainous, remote and undeveloped upland area bordering Northern Ireland characterized by peat covered hills and the mountain lakes of Lough Mourne and Lough Carn. The N15, one of the major routes into and through the county travels along the valley floor of Barnesmore gap alongside the freshwater Lough Mourne which providing water to much of east Donegal. There are isolated areas of semi-improved farmland nestled with single rural dwellings throughout this LCA, contrasting greatly with the many large swathes of geometric commercial forestry plantations on the lower slopes and shoulders of the hills.

Forces for change

1.19 • Renewable energy development (windfarms).
• Afforestation
• Telecommunications and infrastructural development
• Extension to Lough Mourne to facilitate water supply

Croaghnameal Border & Uplands LCA 41:

1.20 Croaghnameal Border & Uplands LCA is a remote area of primarily upland mountainous blanket bog and mountain lakes with significant areas of commercial forestry, particularly along the eastern boundary with Northern Ireland. The northern part of the LCA forms half of the iconic 'Barnesmore Gap', a steep sided and wide river valley through which the N15 and the old Donegal Railway line runs, and one of the main vehicular routes into Donegal from the south.

Forces for change

1.21 • Renewable energy development (windfarms).
• Afforestation encroaching westwards in upland areas.
• Telecommunications and infrastructural development

Lough Derg Uplands & Lakelands LCA 42

1.22 Lough Derg Uplands and Lakelands LCA is a sparsely populated area of primarily upland mountainous blanket bog and a myriad of mountain lakes with significant areas of commercial forestry. The north east of this LCA is defined by Lough Derg, a large freshwater lake with over 30 small islands and an important location for Christian pilgrimage spanning over 1000 years, that has left a multitude of archaeological sites and structures both in the lake and the surrounding area. St Peter's Basillica and ancillary buildings sit on Station Island, and are an imposing focal point on this large lake when viewed from the shore.

1.23 West of Lough Derg is the Pettigo Plateau Nature Reserve; 900 hectares of Blanket Bog and Wet Heath formerly of the Leslie Estate. This uninhabited landscape is home to a range of native flora and fauna and accessed via a track providing access to the remains of 2 cottages and plots last used in the 1800s. In the south west of this LCA, south of the R232 is an area defined by

an open expanse of upland bog and small lakes; and adjacent to this are 'The Pullans' an underground stream and cave network.

1.24 This LCA shares an extensive boundary with Northern Ireland, bordering County Tyrone along the northeast and County Fermanagh along the south. As in the other border LCAs there is a seamless landscape character type and a great degree of intervisibility and shared and informed 'character'.

Forces for change

1.25 • Renewable energy development (windfarms).
• Afforestation.
• Telecommunications and infrastructural development

Pettigo Drumlins LCA 43

1.26 Pettigo Drumlins LCA is a low lying rolling landscape of high quality fertile agricultural lands forming part of a wider drumlin landscape flowing westwards towards Donegal Bay and continuing eastwards through the south of Ulster and Northern Ireland. The area is wedged below the higher bog covered landscape of the Lough Derg Uplands to the north west and the Northern Ireland border than runs along the southern length of this LCA. The border with Northern Ireland follows for the most part the river Termon which also creates an international border within the town of Pettigo.

Forces for change

1.27 • Farming structures
• One-off rural housing
• Renewable energy development (windfarms).
• Afforestation.
• Telecommunications and infrastructural development
• Opportunities for cross border tourism based on the history and landscape, considering proximity to Lower Lough Erne

RCLA 5 - PPS18 SPG Wind Energy Development Consideration: (RCLA 5 encompasses, all or in part, LCA 14, 19, 20, 21, & 26)

1.28 **LCA 14 - Lough Braddon:** The broad, convex, rounded summits of the upland areas within this LCA are relatively wellsuited to wind energy development. Sensitivity is further reduced, over wide areas, by the presence of extensive commercial forestry and other man-made influences. However areas of heather moorland and bog would be highly sensitive to wind farm development, especially to the impacts of access track construction, as would river valleys such as the Glendurragh and Kesh valleys. Overall, therefore, landscape sensitivity to wind energy development is medium.
Overall Sensitivity - Medium

Location, siting, layout and design considerations

1.29 The best locations for wind energy development are towards the tops of the broader, convex summits, where the rounded landform and – in the north and west – forestry provide partial screening. Existing forest access tracks could potentially be utilised for wind energy development. In this LCA wind energy development must be careful to avoid overwhelming the landscape. Care should be taken to avoid adverse impacts on the particularly sensitive northern edge of the plateau, as this edge is prominent and widely visible from the Derg valley.

At the time of assessment there were three operational wind farms in this LCA (Tappaghan, 13 turbines 88m high; Lough Hill, 6 turbines 83m high; and Bin Mountain, 6 turbines 92m high) and a further five application sites.

1.30 Cumulative impact is already an issue, affecting the setting of the Derg valley to the north. Ideally the strategy should be to seek to create distinct areas of wind energy development, clearly separated by areas of undeveloped landscape. Significant separation distances between clusters may be required to prevent the main ridgelines becoming dominated by turbines. Significant separation from wind farms in the Killeter Uplands LCA to the west is also desirable. There are also potential transboundary impacts in the west where the LCA borders County Donegal.

LCA 19 – Killeter Uplands:

1.31 The generally large scale and simple, homogenous character of this LCA, combined with the presence of rounded hills and extensive afforestation, indicate reduced landscape sensitivity to wind energy development. In visual terms sensitivity is also relatively low, as much of the area is isolated, inaccessible and not visible from public roads or settlements. In addition, there are relatively few scenic, natural or cultural heritage interests.

1.32 The south-western part of the LCA contains craggier landform of somewhat higher sensitivity as the rugged hill profiles in this area lend a sense of scale and form part of the scenic setting of Lough Derg in County Donegal. Open upland areas are also more sensitive than forested areas, as they retain the strongest sense of wildness.
Overall Sensitivity – Medium

Location, siting, layout and design considerations

1.33 The broken, undulating character of the main ridgeline suggests that inappropriate wind energy development could dominate and flatten the landscape. The more rounded, broader hills in the north and west may be best able to accommodate wind energy development, and minor ridgelines may afford some topographic screening.

1.34 The south-western part of the LCA contains rockier and craggier tops that are more sensitive, although the lower ridges may also provide suitable locations. Siting within or close to forestry plantations may be beneficial, reducing

impacts on the area's wild character. Existing forest tracks might prove useful to access wind energy development.

1.35 Care should be taken to avoid adverse impacts on important skylines at the head of the Derg valley and to the south above Lough Derg. Care should also be taken to avoid detrimental impacts on River Valleys and the wild character of intact moorland and bogs.

At the time of assessment there were two consented wind farm sites within this LCA (Crighshane, 14 turbines 100m high; and Churchill, 8 turbines 100m high) as well as a further three application sites.

1.36 There are issues of cumulative impact affecting the Derg valley to the north. There are also potential transboundary impacts in the west where the LCA borders County Donegal near Lough Derg. The recommended strategy in this LCA would be to create distinct areas of wind energy development, clearly separated by areas of undeveloped landscape. Adequate separation distances between wind energy developments or clusters will be a very important issue to help conserve its wild character.

LCA 20 – Derg Valley:

1.37 This LCA is generally broad in form and enclosed by rounded hills. There are relatively few important views or natural, cultural or recreational interests. These factors suggest reduced sensitivity to wind energy development. However the relatively low elevation of the hills and the fact that some of them have a distinctive form and provide local landmarks, as well as the unspoilt, tranquil character of the area as a whole, tend to increase sensitivity. The areas that are least sensitive to wind energy development are likely to be the flatter summits on the edges of the LCA; the more prominent outlier hills would be highly sensitive. The height of the hills is likely to be a key constraint on turbine size, as many turbines would be out of scale with these low hills. Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.38 The river valleys and distinctive outlier hills are the most sensitive parts of this LCA for wind energy development. The flatter, undulating hills north and south of Castlederg may have better capacity but nonetheless care will be needed to avoid adverse impacts on locally important skylines, especially to the north. It is recommended that wind energy development reflects the relatively low elevation of the hills in this LCA and the presence of small scale landscape features.

1.39 Care should be taken to avoid adverse impacts on the highly sensitive broad and open character of the central section of the valley, as development here could visually link the wind energy sites in the adjoining LCAs, creating a landscape dominated by wind farms. Skylines should be respected.

1.40 At the time of assessment there were no operational or consented wind farm developments within this LCA. However the three adjacent LCAs all contained operational and consented wind farms as well as further application sites. Hence cumulative impacts on this largely low-lying LCA are likely to become an issue in the future. Potentially there could also be transboundary issues as the LCA adjoins County Donegal north of Castlederg. It is recommended that wind energy developments be well-separated.

LCA 21 – Fairy Valley Water

1.41 This LCA, with its open character, its many small scale landscape features, and its sense of remoteness, is relatively sensitive to wind energy development, notwithstanding the sometimes degraded landscape quality and relatively few recreational interests. It provides a strong sense of contrast with surrounding upland and lowland areas, and is vulnerable to the introduction of tall structures.

1.42 There might be limited areas of lower sensitivity in the undulating foothills to the south and south-west where small coniferous plantations also provide enclosure, but open floodplain areas would be very sensitive to wind energy development, which could be widely visible.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.43 Wind energy development could easily overwhelm the small scale intimate landscape of this LCA. The more undulating foothills of the south and south-west of this LCA are least sensitive to turbine development, particularly where woodland plantations offer screening. It is recommended that turbine development be carefully integrated with and reflects the scale of landform and vegetation.

1.44 Care should be taken to avoid adverse impacts on the very sensitive broad, low river floodplain, the settings of the many small loughs, and the attractive setting of Drumquin and the Drumquin river valley. At the time of assessment there were no operational or consented wind farm developments within this LCA. However there were in total five existing or consented wind farms and a similar number of application sites within around 1-5km of this LCA. Cumulative impacts are an issue of growing importance and are a key consideration for wind energy development in this LCA.

LCA 26 – Bessy Bell and Gortin

1.45 The majority of this landscape is highly sensitive to wind energy development, notwithstanding the presence of existing and consented wind farms. This is an iconic and widely visible Sperrin landscape, whose summits and steep upper slopes are particularly sensitive to the introduction of any new structures. Sensitivity is further increased by the LCA's popularity for outdoor recreation.
Overall Sensitivity - High

Location, siting, layout and design considerations

1.46 The south-western hill shoulder of Bessy Bell may be the most suitable area for wind energy development. However, it is recommended that design and layouts are consistent between any adjacent sites and should ideally read as a cluster.

1.47 Care should be taken to avoid adverse impacts on skylines, views from the Strule valley, A5, Gortin Glen Forest Park and Mullaghcarn and on the setting of the Heritage Park at Baronscourt. At the time of assessment there was one existing wind farm at Bessy Bell (10 turbines of 60m on the south-western hill shoulder) and a further consented wind farm (6 turbines of 100m on the south-eastern hill shoulder). These give rise to issues of cumulative impact, both locally and over a wider area to the west, where there are two existing wind farms around 15km away in Lough Bradan LCA (LCA 14).

LCA 6 Foyle Valley (100% within the District)

1.48 The Foyle Valley RLCA (No 6) encapsulates, all or in part, the following NI LCA 1999 descriptions: 20 Derg Valley, 26 Bessy Bell & Gortin, 27 Foyle Valley, 29 Sperrin Mountain, 30 Sperrin Foothills, 31 Burngibbagh & Drumahow & 32 Derry Slopes.

Location and Setting

1.49 The Foyle Valley is located on the north-west edge of Northern Ireland and is bordered along its east boundary by the Sperrins and lower hills to the south. The valley continues southwards to Newtownstewart where the River Strule emerges from the Sperrins, and south-west along the River Derg. The western part of the valley extends into the County of Donegal in the Republic of Ireland. The Foyle Valley follows the course of the Foyle River upstream from Derry/Londonderry to Strabane where it branches into the River Finn and Mourne River: the former flows from Donegal, the latter splits again to form the Derg flowing towards Castlederg, and the Strule through Newtownstewart with the slopes of Sperrins enclosing the valley to the east.

1.50 The Derg Valley lies to the south-west of Victoria Bridge, within RLCA 5. This more open valley is separated from the Foyle Valley by higher ground where the Derg passes through a narrow gorge to join the Mourne. The enclosing hills of Bessy Bell, Owenreagh Hill and the glens between are part of the Sperrins (RLCA 7), and further north the lower hills framing the valley are characterised as the North Sperrin Foothills and Valleys (RLCA 8). Beyond Derry/Londonderry, the Foyle emerges into the flat landscape surrounding Lough Foyle (RLCA 9). The Foyle Estuary Seascape Character Area (SCA 1) is to the north of the Foyle Valley RLCA.1

1.51 County Donegal borders the entirety of this area. The Foyle Valley takes in the landscape on both sides of the border, and its character extends west along the Deele and Finn valleys. The western edge of the Foyle Valley borders the Inishowen uplands in the north, the lowlands of Lough Swilly, and moorlands to the south of the Finn. From the imposing setting of Sheriff's Mountain above Derry/Londonderry there are views of the city, the valley and Lough Foyle, as well as west into Donegal and Lough Swilly.

Landscape Character Description

1.52 The Foyle Valley comprises a broad valley running north from the hills of the Sperrins. The River Foyle forms the Donegal border in this location, although the valley character continues across the boundary, and this RLCA represents only the eastern half of this valley.

1.53 The valley around the city of Derry/Londonderry in the north is quite broad but slopes away steeply on either side meaning much of the development is set back on the more elevated grounds overlooking the River Foyle. The relatively uncluttered Sheriff's Mountain provides a dramatic visual backdrop to the setting of the city from many perspectives. The spires of St Columb's and St Eugene's Cathedrals and the Star Shirt Factory are important reference points on the skyline of the western bank, viewed on the approach to the city from

the south. The city dominates the landscape in this area, and its character benefits greatly from its setting within the valley. There are a number of views overlooking the city and the open spaces and important oak woodlands around it. The main routes south follow the valley, a long-established communication route.

1.54 To the south of the city towards Strabane and beyond to Sion Mills the valley area alongside the Foyle is formed of an alluvial plain and the landscape is dominated by open farmland with a geometric field pattern. Knockavoe (296ms) provides a rising landscape setting for the town of Strabane. The river embankments are a prominent features. Moving further to the south the landscape becomes more enclosed with hedgerows playing a more prominent role and a wooded character displayed along many of the water courses. To the east towards the slopes of the Sperrins this enclosed character is continued along the Foyle's tributaries.

1.55 The Mourne River and subsequently the River Strule becomes narrower to the south, flowing between steep wooded banks on mounds of moraine. The valley becomes enclosed by progressively steeper slopes of Slievekirk, Owenreagh Hill and Bessy Bell. These higher areas are characterised by forestry, moorland and a number of wind turbines which can be seen from the valley area.

1.56 To the south and to the west of Newtownstewart are the extensive plantations of the Baronscourt Estate. At more exposed places in these upper margins the overall sense of rurality displayed throughout the RLCA, away from the city, is replaced by a wilder character.

Natural Influences

1.57 Key natural influences are as follows:

- In common with the rest of the rest west region of Northern Ireland the Foyle Valley is underlain by the oldest rocks in the country. These rocks, belonging predominantly to the Proterozoic Dalradian supergroup and the early Ordovician Tyrone Igneous Complex, continue beneath the adjacent landscapes.
- The landscape is defined by extensive glaciofluvial landforms which have formed large undulating belts of sands and gravels.
- Glacial moraine has resulted in the River Foyle and River Strule following a deep tract of valley in certain areas, with the banks of the Strule in particular to the west of Newtownstewart being characterised by steep mounds of moraine.
- Limited woodland coverage of the valley although there is the presence of some of the best examples of priority types in Northern Ireland, with large areas of broadleaves near Cloghcor and Artigarvan, the latter of which has been identified as an area of Ancient Woodland.

- Much of the River Foyle and its tributaries (i.e. the section of the River Finn which is within Northern Ireland, the River Mourne and its tributaries the River Strule and the River Derg) have been designated as a Special Area of Conservation (SAC) and Area of Special Scientific Interest (ASSI). This system is protected for its population of Atlantic salmon, representing 15% of the spawning salmon in Northern Ireland.
- Important habitats for numerous species including waders, other wetland birds and Atlantic salmon are present amongst the wet grasslands which line the flatter northern part of the Foyle and the river network itself.
- Examples of intact lowland raised bogs and blanket bog which are now rare habitats in the UK and Europe respectively are found in the RLCA with McKean's Moss designated as an ASSI.

Cultural Influences

1.58 Key cultural influences are as follows:

- Land use within the valley is almost entirely pastoral, with some small areas of arable cultivation in the vicinity of Derry/Londonderry. Embankments have been constructed along lengths of the Foyle, opening up good quality land for cattle grazing. Rectilinear field patterns are medium in scale, becoming smaller and more irregular across adjacent slopes.
- The Foyle provides a key transport route from the north coast to the interior of Ulster, and is followed by major and minor roads. Railway lines once radiated out north, south, east and west from Derry/Londonderry, though only the eastward line remains in use.
- The river itself was a transport route from the earliest times, evidenced by finds of dugout canoes, with the Strabane Canal extending navigability to this town.
- The Foyle has long been Northern Ireland's most important salmon river. It remains an important salmon fishery, though salmon numbers are reported to be declining.
- The Grianan of Aileach, was a royal site of the O'Neill dynasty who presided over Ulster in the Early Medieval period, and commands views along the Foyle Valley.
- Significant WW2 Defence Heritage structures relating to ordnance storage still exist in the valley of the lower Faughan River at Fincarn and Kilnappy.

Perceptual Influences

1.59 Key perceptual influences are as follows:

- A varied, widely settled landscape dominated by the flatter more intensively farmed land along the banks of the Foyle which give way to hills and associated areas of forestry to the east and south.
- Regular, for the most part large field pattern at times coupled with lower hedgerows in the lower areas towards the banks of the Foyle gives the landscape a more open character, with a more enclosed character prevailing towards the steeper upper pastures along the tributaries with stone walls a more common feature.
- Views into Donegal are of particular influence towards the north of the area given the importance of the city of Derry/Londonderry as an economic centre for the surrounding settlements.
- Importance of the Sheriff's Mountain setting of Derry/Londonderry, with many dramatic views over the city and its setting on the broadening Foyle, and the open spaces around it. Knockavoe provides a similar backdrop setting for Strabane.
- The river landscapes are also key to the setting of Strabane and Newtownstewart on the edge of the Sperrins.
- The Strabane area is the setting of the traditional song, *The Moorlough Shore*, which refers to the *"hills and dales and flowery vales"* of the area. Strabane is also the childhood home of the novelist Flann O'Brien, in whose honour an annual literary festival is held.
- Mrs. Cecil Frances Alexander wrote her famous hymn, "*All Things Bright and Beautiful*", when she lived in Camus-juxta-Mourne Rectory which overlooks the River Mourne at Sion Mills.

Past, present and future forces for change

1.60 Key forces for change are as follows:

- The Foyle is a key transport corridor, and a major proposal to upgrade the A5 road is currently under consideration. The projected route begins at New Buildings, and runs between the existing road and the river to pass west of Strabane, Sion Mills and Victoria Bridge. Numerous bridges, cuttings, embankments and junctions will be built as part of the scheme, within a landscape of riparian pastureland, and contrasting with the relatively rural nature of the present A5.
- The western edge of this LCA around the Drumahoe area will also see significant landscape impacts from the proposed current terminating end of the A6 dualling. Work is currently ongoing and while the impacts will be initially harsh during the construction phase and immediately after, it is expected that the effects of this major infrastructure project will soon soften as associated landscaping matures.
- In the future, it is possible that this LCA – specifically around the southern and eastern edges of Derry may see further significant

landscape changes if future funding becomes available to enable the proposed A5/A6 and A6/A2 dualling links to be constructed. The principal objective of the A5/A6 link road is to provide a strategic link between the A5 south of Derry and the A6 east of Derry taking into account the proposed major road investments on both these key Transport Corridors. It would link these keys roads via the Burngibbagh valley.

- The A6/A2 dual carriageway link is a proposed route between Drumahoe and Stradreagh. This would provide a new strategic route between the A6 and A2 Key Transport Corridors and provide an alternative route to the existing A514 Crescent Link, which is becoming more heavily trafficked due to continuing development along the route.
- The new road between Drumahoe and Stradreagh will, in effect, create the north east quadrant of an outer route along the western side of the Faughan valley for strategic traffic between the A6 and the A2. The provision of a new link road between the A5 and the A6 Key Transport Corridors would provide the south-east quadrant of the outer ring road and complete the eastern half of a new strategic route around the city.
- Undoubtedly, such dualling upgrades and link roads when completed will create significant lasting impacts on the local landscape character of this RLCA. However, as with most major infrastructural works, the landscape impacts will soon become the ‘accepted norm’ and associated landscaping will soften their effects.
- The proposed dualling of the A2 Buncrana Rd between the Pennyburn Roundabout and the Border will impact to a degree on this RCLA in this location. The A2 runs through a mostly urban environment, before progressing through zoned, but as yet undeveloped housing lands towards the Border.
- The Foyle system may see further development of hydroelectric power generation, in addition to the operating plant at Sion Mills. Hydro schemes could alter the river flow and sedimentation/erosion characteristics. Also potentially affecting the river system are water abstractions and waste water treatment. Impacts on biodiversity and fish stocks may occur, particularly salmon, with knock-on effects for fishing and tourism.
- Power lines also run parallel to the Foyle and Mourne along the length of this RLCA, with an interconnector to Donegal at Ballymagorry. These lines are largely carried on wooden poles, with river crossings and some sections around Derry/Londonderry on steel towers. The lines link to Coolkeeragh power station north of Derry/Londonderry, as well as to renewable generators around the valley. Further changes to the energy mix in Northern Ireland could lead to the need to upgrade these lines with larger steel towers.

- Embankments line the lower sections of the Foyle, which is tidal as far as Strabane, holding back the river from flooding the low-lying meadows which form some of the best farmland in this area. Changes in weather patterns or sea levels could affect these embankments in the longer term, and consequently the nature of the farmed valley floor.
- The Foyle Valley is defined by the distinctive uplands which frame it, increasing in height to the south. Wind farms have been constructed on adjacent hill tops, including Bessy Bell above Newtownstewart and Curryfree by New Buildings. At present these have a limited effect on the Foyle Valley as it is a relatively busy landscape, although additional developments could give rise to sequential effects.
- Development pressure is a feature of large settlements, with likely demand for future commercial and residential development on the outer edges of Derry/Londonderry.

Indicators of change

1.61 The following features and aspects in this area could be monitored to assist in understanding future landscape change:

- Water quality, and rates of sedimentation and erosion, along the River Foyle system;
- Progress of the A5 upgrade and its impact on farmland and habitats, in relation to the predicted impacts set out in the Environmental Impact Assessment; and
- Number and extent of new sand and gravel quarries, and success of restoration schemes; and
- Extent of new development at the edges of Derry/Londonderry and Strabane.
- Number and nature of new tall structures (aerial masts / wind turbines) on Sheriff's Glen and Knockavoe which respectively form distinctive backdrop settings to Derry and Strabane.

Ecosystem Services

The landscape of this area provides the following benefits
Provisioning: Agriculture, Food processing.
Regulation: Flood regulation.
Cultural: Tourism, Angling & Farming.

Donegal County Council Relevant LCA

1.62 In a cross –border capacity, relevant to the Foyle Valley RLCA are South Inishowen Farmland LCA 10, Grianan Slopes & Lowlands LCA 11, Foyle Valley LCA 13; Finn Valley LCA 14.

South Inishowen Farmland LCA 10

1.63 South Inishowen farmland LCA spans the bottom of the Inishowen peninsula from Lough Swilly to Lough Foyle. It is characterized by good quality agricultural land in a pattern of medium to large sized fields separated by hedgerow and deciduous trees against the backdrop of Scalp Mountain to the north and the suburbs of Derry City (Northern Ireland) to the south-east. Inch Island is connected to the mainland by 2 embankments created to hold water drained from the adjoining flat agricultural re-claimed land that has, in turn, created Inch Lake. One of these causeways constitutes the only vehicular access into the island from the mainland. The area is well connected to adjoining areas by a Regional road that cuts right through the length of the LCA and a network of county roads that provide permeability throughout the area and linkages between the settlements. This area has been settled for millennia, and there are many remaining national monuments evident in the landscape.

Forces for change

1.64 • In the past there was considerable pressure for urban generated housing development from the city of Derry in neighbouring Northern Ireland; this LCA forms the natural rural hinterland of Derry city and abuts the border with Northern Ireland.
• Linear development along the rural road network
• Tourism related holiday home developments.
• Potential for further development of Sailing and water based tourism activities.
• Renewable energy development (windfarms).
• Afforestation on higher ground within the north and west of the landscape unit.
• Telecommunications and infrastructural development
• Coastal erosion
• Further tourism development – building on the history, culture, ecological and recreational qualities of the area.

Grianan Slopes & Lowlands LCA 11

1.65 Grianan Slopes and Lowlands LCA is a fertile green agricultural landscape of great environmental, historical and archaeological importance, with an extensive boundary along the border with Northern Ireland to the east and along the shores of Lough Swilly to the west. The topography is such that higher lands within the centre east of this area slope downwards on all sides to an undulating lower agricultural landform affording extensive and panoramic views out over the surrounding landscape and Lough Swilly, and

conversely this area is highly visible from a wide area of Donegal and adjoining County Derry in Northern Ireland.

1.66 A large swathe of low lying lands on the edge of Lough Swilly in the northwest of this area are of especially high ornithological value and these feeding and wintering grounds form part of Inch Wildlife reserve, an area designated as SPA. The range of landscape assets and the location along the Wild Atlantic Way with good transport connections by air and road make this landscape area a popular area for tourists to visit and stay. Similarly these same assets have fuelled recent rural and urban population expansion within this LCA.

Forces for change

1.67 • In the past there was considerable pressure for urban generated housing development from the city of Derry in neighbouring Northern Ireland; this LCA forms the natural rural hinterland of Derry city and abuts the border with Northern Ireland.
• Linear development along the rural road network
• Potential for further fishing tourism activities.
• Renewable energy development (windfarms).
• Telecommunications and infrastructural development
• Coastal erosion.
• Potential for development of further historical, cultural and ecology based tourism developments.

Foyle Valley LCA 13

1.68 Foyle Valley LCA is a broad river valley extending along the River Foyle from outside Lifford in the south of the area to the border with Northern Ireland on the outskirts of Derry City in the north of this LCA including the 'border villages' of Ballindrait, Carrigans, Lifford and St. Johnston. This LCA is characterised by undulating fertile agricultural lands with a regular field pattern of medium to large geometric fields, bound by deciduous trees and hedgerow. There is a dispersed scatter of rural residential development within this LCA comprising of farmsteads and one off rural dwellings along with areas of ribbon development along the county road network; there are a number of large detached historic houses and associated grounds within this landscape, particularly along the Foyle.

1.69 This LCA has a strong visual connection to its mirror landscape on the opposite side of the River Foyle in Northern Ireland in terms of the similar landscape type and also that the Northern Ireland landscape inherently informs the views within and without of this LCA. The River Foyle is an ecologically, strategically and historically (including the fishing economy) important feature in this landscape.

Forces for change

1.70 • In the past there was considerable pressure for urban generated housing development from the city of Derry in neighbouring Northern Ireland; this LCA

forms the natural rural hinterland of Derry city and abuts the border with Northern Ireland.
• Linear development along the rural road network
• Potential for fishing tourism activities.
• Potential for heritage and history tourism product development.
• Renewable energy development (windfarms).
• Afforestation on higher ground within the north and west of the landscape unit.
• Telecommunications and infrastructural development
• Coastal erosion

Finn Valley LCA 14

1.71 Finn Valley LCA is dominated by the River Finn, its tributaries and associated valleys carved from the surrounding uplands. The LCA has 3 distinct areas within that change from west to east following the meandering River Finn through this LCA. In the west of this LCA the Rivers Finn and Reelan cut through highland bog areas creating 2 steep narrow river valleys that have an interesting rectilinear field pattern of strips extending from the river edge into the upland bog in a 'rundale' fashion. These smaller rivers converge as the River Finn close to Cloghan into a notably broader and more level valley of larger square agricultural fields overlooked by mountainous areas of upland bog. The landscape eastwards from Ballybofey Stranorlar towards Castlefinn is a fertile agricultural plain alongside the river within a wider gently undulating agricultural landscape of large square fields similar to the adjoining Laggan Valley and Foyle Valley LCAs.

1.72 Finn Valley LCA borders Northern Ireland at its eastern extremity and abuts 2 separate LCAs within NI sharing a similar landscape type and character area. The local road network affords multiple physical linkages with the adjoining landscape in Northern Ireland. The eastern edge of this LCA borders Northern Ireland and the Northern Ireland Landscape Character Areas Foyle Valley (27) and Derg Valley (20), a continuum of the landscape type of the Finn Valley, namely good quality agricultural riverine lands of semi-improved geometric fields, with scattered farms, farmsteads and one off rural dwellings served by a number of rural villages and towns.

Forces for change

1.73 • Linear development along the rural road network
• Renewable energy development (windfarms).
• Afforestation in upland areas.
• Telecommunications and infrastructural development
• Development within the floodplains.
• Windfarm development in Northern Ireland forms part of the views of and from this LCA.
• Expansion and development of the twin towns of Ballybofey and Stranorlar.

RCLA 6 - PPS18 SPG Wind Energy Development Consideration:
(RCLA 6 encompasses, all or in part, LCA 20, 19, 26, 27, 29, 30, 31 & 32)

1.74 **LCA 20 – Derg Valley:** This LCA is generally broad in form and enclosed by rounded hills. There are relatively few important views or natural, cultural or recreational interests. These factors suggest reduced sensitivity to wind energy development. However the relatively low elevation of the hills and the fact that some of them have a distinctive form and provide local landmarks, as well as the unspoilt, tranquil character of the area as a whole, tend to increase sensitivity. The areas that are least sensitive to wind energy development are likely to be the flatter summits on the edges of the LCA; the more prominent outlier hills would be highly sensitive. The height of the hills is likely to be a key constraint on turbine size, as many turbines would be out of scale with these low hills.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.75 The river valleys and distinctive outlier hills are the most sensitive parts of this LCA for wind energy development. The flatter, undulating hills north and south of Castlederg may have better capacity but nonetheless care will be needed to avoid adverse impacts on locally important skylines, especially to the north. It is recommended that wind energy development reflects the relatively low elevation of the hills in this LCA and the presence of small scale landscape features.

1.76 Care should be taken to avoid adverse impacts on the highly sensitive broad and open character of the central section of the valley, as development here could visually link the wind energy sites in the adjoining LCAs, creating a landscape dominated by wind farms. Skylines should be respected.

1.77 At the time of assessment there were no operational or consented wind farm developments within this LCA. However the three adjacent LCAs all contained operational and consented wind farms as well as further application sites. Hence cumulative impacts on this largely low-lying LCA are likely to become an issue in the future. Potentially there could also be transboundary issues as the LCA adjoins County Donegal north of Castlederg. It is recommended that wind energy developments be well-separated.

1.78 **LCA 26 – Bessy Bell and Gortin:** The majority of this landscape is highly sensitive to wind energy development, notwithstanding the presence of existing and consented wind farms. This is an iconic and widely visible Sperrin landscape, whose summits and steep upper slopes are particularly sensitive to the introduction of any new structures. Sensitivity is further increased by the LCA's popularity for outdoor recreation.
Overall Sensitivity - High

Location, siting, layout and design considerations

1.79 The south-western hill shoulder of Bessy Bell may be the most suitable area for wind energy development. However, it is recommended that design and layouts are consistent between any adjacent sites and should ideally read as a cluster.

1.80 Care should be taken to avoid adverse impacts on skylines, views from the Strule valley, A5, Gortin Glen Forest Park and Mullaghcarn and on the setting of the Heritage Park at Baronscourt. At the time of assessment there was one existing wind farm at Bessy Bell (10 turbines of 60m on the south-western hill shoulder) and a further consented wind farm (6 turbines of 100m on the south-eastern hill shoulder). These give rise to issues of cumulative impact, both locally and over a wider area to the west, where there are two existing wind farms around 15km away in Lough Bradan LCA (LCA 14).

1.81 **LCA 27 – Foyle Valley:** The alluvial plain and steep valley sides on the western margins of the Sperrin Foothills and Sperrin Mountains are very sensitive to change, not only because of their complex and varied character, but because they form a backdrop to views along the valley. They are a key part of the landscape setting of the mountains as well as the towns of Strabane (Knockavoe) and Newtownstewart The western edge of the valley south of Strabane (where this lies in Northern Ireland) has less landscape and visual constraints to wind energy development.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.82 This LCA has relatively high sensitivity. The western edge of the valley south of Strabane would be the most suitable location for some form of wind energy development. It is recommended that wind energy developments reflect the complexity and sensitivity of the landscape setting and the relatively small landform scale. Within this LCA care should be taken to avoid adverse impacts on the settings of Derry, Strabane and Newtownstewart. Care should also be taken to avoid detrimental visual impacts on the Sperrins and the A5 tourist route. The settings of important natural and cultural heritage features (eg Sion Mills Conservation Area) should be respected as should important skylines and settings within the valley.

1.83 At the time of assessment there were no operational or consented wind farms within this LCA. However one operational and one consented site (total 16 turbines) could be found at Owenreagh in the Sperrin Mountains (LCA 29) around 8km east of Strabane. Other operational and consented sites (total 16 turbines) were at Bessy Bell, around 16km south of Strabane. In addition, there were three consented wind farms 10 to 18km west of Strabane in County Donegal. Hence there are growing cumulative and transboundary impacts that require consideration.

1.89 **LCA 29 – Sperrin Mountains:** This LCA lies at the heart of the Sperrins. The scale and landform of at least parts of the area are in theory well-suited to wind energy development. However, this is generally outweighed by the sheer visual prominence of the Sperrin Mountains over a wide area of Northern Ireland. This is an iconic landscape of immense appeal for tourism and recreation; its core landscapes are highly sensitive to any wind energy development. In addition, it has a strong wild character and many natural and cultural features that are highly vulnerable to the introduction of wind turbines and associated access tracks and infrastructure. Hence the majority of this landscape is highly sensitive to wind energy development, notwithstanding the presence of existing and consented wind farms.
Overall Sensitivity - High

Location, siting, layout and design considerations

1.90 Owenreagh, in the west of this LCA, is the specific area in this LCA that is most suited to wind energy development. Consideration could be given to siting turbines on hill flanks where they might be seen against a backdrop of land. Care should be taken to avoid adverse impacts on skylines, views and the visual amenity, recreational value and wild character of this LCA. Open exposed slopes and ridgelines should be respected as should natural and cultural heritage landscape interests. Care should be taken to ensure that wind energy developments do not dominate and flatten this topographically complex landscape. At the time of assessment there was one existing wind farm at Owenreagh Hill and further consented turbines (16 turbines in all, 60-66m high). Other operational and consented sites in adjacent LCAs were at Bessy Bell (total 16 turbines) 15km to the south; and there are three consented wind farms within 18 to 25km to the west in County Donegal. Hence there are growing cumulative/transboundary impacts in this LCA.

1.91 **LCA 30 – Sperrin Foothills:** Theoretically the simple, convex forms of some of the hills in this LCA are suited to wind energy development, and the widespread tree cover could provide screening. However the relatively small size of the hills, the intimate character of the adjoining valleys, the small scale field patterns on the hill slopes, and the many sudden, short range views tend to increase landscape sensitivity to wind energy development. A further constraint is the fact that the LCA forms a foreground to some of the most important views of the Sperrins: hence any wind energy development on this northern fringe of the Sperrins could have widespread and significant impacts on landscape character and visual amenity. The north-eastern and north-western fringes of the LCA might be of slightly lower sensitivity.
Overall Sensitivity – High

Location, siting, layout and design considerations

1.92 This LCA has a diverse, often intimate character and intrinsically high scenic quality. The areas most suitable for some form of wind energy development are on the north-eastern fringes of the LCA (north of the A6) and on outlying hills north-west of Slievekirk. It is recommended that wind energy developments reflect the fact that turbines may be seen in very close

juxtaposition with small scale field patterns and landscape features. Care should be taken to avoid adverse impacts on the highly sensitive prominent ridgelines such as those around Slievekirk or in views to the Sperrin Mountains (notably from the B74 and A6) as development in these locations could dominate the landscape. Care should also be taken to avoid adverse impacts on the setting of Learmount Castle, Dunnamanagh and Claudy and visual impacts on the Sperrins and the A5 tourist route. The settings of important natural and cultural heritage features should be respected.
At the time of assessment there were no operational or consented wind farms within this LCA but there were several outstanding applications. The nearest operational or consented wind farms were at Owenreagh (total 16 turbines) and at Altahullion (total 24 turbines) on the south-west and north-east fringes of the LCA respectively, around 25km apart. If any further wind energy developments were to be proposed in the area between these sites the issue of cumulative impacts would be a significant consideration. It is recommended that wind energy developments are visually well separated from each other and from existing development in adjoining LCAs.

1.93 **LCA 31 – Burngibbah & Drumahoe:** This LCA is generally very sensitive to wind energy development due to its strong form and field patterns extending high up the valley sides, its wide visibility, particularly from the south and west, and its proximity to the city of Derry. Its open summits and ridges are distinctive and characteristic landscape features; development on these summits could interrupt and diminish these characteristic skylines. The northern part is more degraded with pylons and former mineral workings so is somewhat less sensitive in that respect, although also more heavily settled. The southern part retains a remote, unspoilt intact character that would be highly sensitive to wind energy development.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.94 The northern part of this LCA, which has more rounded landform and a more degraded character, is more suitable for wind energy development than other locations in this LCA. Consideration could be given to setting turbines well back from the steep valley sides to reduce their prominence and to help contain visibility. It is recommended that wind energy development reflects the limited height of the hills and the importance of this area as part of the approaches to and setting of the Foyle estuary and Derry. Care should be taken to avoid adverse impacts on the more dramatic and scenic southern part of this LCA. Open skylines should be respected. At the time of assessment there was a wind farm application in this LCA, as well as others in nearby parts of the Sperrin Foothills LCA, creating potential for cumulative impacts on the intimate landscapes of the south of the LCA, especially since existing and consented wind farm sites at Owenreagh lie less than 10km away to the south. There might also be transboundary issues if wind farm development occurs west of the Foyle in County Donegal.

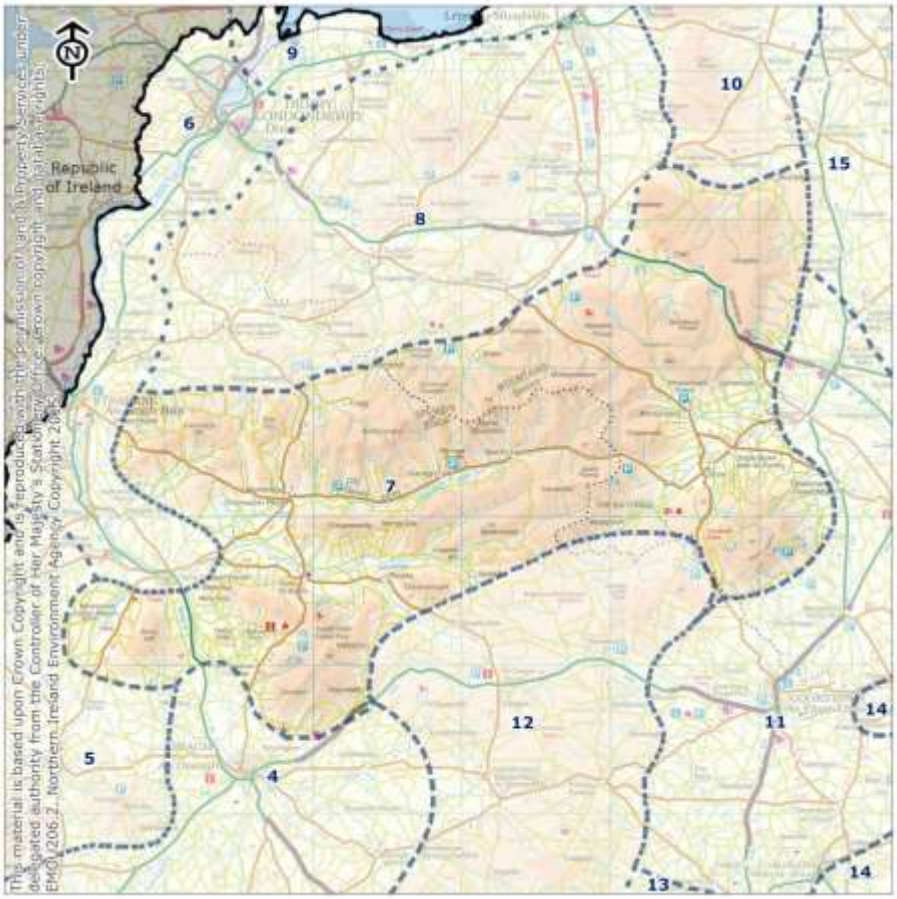
1.95 **LCA 32 – Derry Slopes:** This LCA's gateway role and proximity to the historic city of Derry and the Foyle increases its sensitivity to wind energy development, which could be highly visible. These western slopes of Sheriff's Mountain frame the city and provide a scenic landscape setting. The River Foyle waterside and the area's many small historic parks and estates are also highly sensitive.
However, the undulating slopes and urban fringe areas, particularly where already affected by man-made influences, might be somewhat less sensitive to development that is carefully sited and appropriate in scale.
Overall Sensitivity - High to medium

1.96 **Location, siting, layout and design considerations**
The undulating lower slopes in the southern part of this LCA are least sensitive to wind energy development. Consideration could be given to siting on mid-slope locations, particularly where topography could offer some screening. Care should be taken in relation to access roads which could be highly visible from across the river. Developed areas such as urban fringe industrial estates may also offer some opportunities for turbine development. It is recommended that any wind energy development reflects the scale of the relatively small surrounding hills and existing built features that lend a sense of scale in this LCA.

1.97 Care should be taken to avoid adverse impacts on the highly sensitive historic setting of Derry, its surrounding steep slopes and skylines, the River Foyle and its adjacent lands, and estates and estate woodlands. Although Holywell and Minkey Hills have a number of telecommunications masts, care should be taken to avoid adverse impacts on these hills as they are on a prominent skyline. Care should be taken to ensure that wind energy developments do not dominate or intrude unacceptably on the sensitive settings in this LCA.

1.98 At the time of assessment there were no operational or consented wind farms within this LCA. Transboundary issues might arise as this LCA shares a border with County Donegal.

RLCA 7 – Sperrins (approx. 50% within District)



1.99 The Sperrins RLCA (No 7) encapsulates, all or in part, the following NI LCA 1999 descriptions: 24 South Sperrin, 26 Bessy Bell & Gortin; Foyle Valley, Glenelly Valley, Sperrin Mountains, & 30 Sperrin Foothills

Location and Setting

1.100 The Sperrins are the principal mountain range of the north west of Northern Ireland. The RLCA covers the uplands and valleys focused on the spine of the Sperrin Mountains which runs from west to east. The mountains begin at the detached hill of Bessy Bell above Newtownstewart, and continue to the east and north east through the area surrounding Mount Sawel, the highest peak in the range, and across the Glenshane Pass to Benbradagh and Carntogher.

Landscape Character Description

1.101 The Sperrins are characterised by a spine of mountains which runs from Owenreagh Hill in the west to Carntogher in the north-east, along with outlying hills. Many of the peaks of the range are over 500m with the more dramatic summits towards the north including the highest, Sawel Mountain (678m) and Mullaghaneany (627m). The broad rounded ridges surrounding these higher peaks are prevalent throughout the entire RLCA with moorland features and

bog land also found extensively. Gortin Glen and the surrounding upland area towards Mary Gray and the outlying Bessy Bell act as a gateway to the Sperrins to the south west with the A5 the key route to the north west from Omagh to the south. The Strule cuts between these projections forming a scenic valley with Bessy Bell particularly prominent in the landscape despite its relatively diminutive stature (420m).

1.102 There are multiple fast running streams throughout the slopes and gullies have resulted in places sometimes becoming deep and branching. The Glenelly Valley cuts through the RLCA from east to west from Mullaghaneany to Plumbridge. The river has cut deep into the softer deposits and meanders between steep ridges which combine with to give the area a hidden quality which is at odds with the expansive nature of the uplands area surrounding on either side. Glenelly is recognised as a scenic route of particular quality.

Key Characteristics

1.103 The key characteristics are as follows:

- The more elevated Sperrin mountains are characterised by expansive swathes of moorland with coniferous forest plantations contrasting harshly with the windswept broad summits which give an open character to these areas. Hedgerows and stone walls become more prevalent moving away from the higher grounds giving a more interconnected feeling at these locations.

- The higher peaks to the northern part of the RLCA where the main ridge is formed are distinctively more mountainous with knife-like projections and rocky summits beyond broad ridges. These mountains provide the backdrop for many of the views from the lower hills in the area. Given the elevated position of the landform and the low-lying nature of much of the surrounding area particularly to the east and west expansive are provided over the Moyola Valley towards Lough Neagh and beyond the River Foyle into Donegal.

- Fast flowing streams throughout the RLCA have resulted in the formation of deep steeply sided gullies and valleys in places with tree cover becoming much denser along the floors of valleys.

- Main transport routes and settlements are confined to the valleys surrounding the mountains, including the Strule, Glenelly, Owenkillew, Douglas and Moyola Rivers and their tributaries. The Glenshane Pass is the main crossing of the Sperrins itself and is an extremely busy route.

- Bessy Bell the westward outlier of the Sperrins range is a distinctive landmark in the area given its isolated position beyond the main ridge and the deep wooded Strule Valley which separates it from Slieveard. Similarly Slieve Gallion is a major presence from the lowlands to the east.

- The Sperrins are a sparsely settled area with a high degree of remoteness and tranquillity. The mountains and upper glens have significant wildness character arising from their inaccessibility, and are a dark sky resource.

Natural Influences

1.104 The key natural influences are as follows:

- The Sperrins are formed of Dalradian rocks, and were pushed up some 450 million years ago during the Caledonian Orogeny. This period of mountain-building arose from the collision of European and North American landmasses, and is also responsible for much of the Scottish Highlands.
- The Glenelly River flows along one of the principal fault-lines of the Sperrins from east to west in the valley below the high peaks of Mullaghclogha, Sawel and Mullaghaneany.
- In places ridges of glacial moraine of varying steepness have been moved by the fast flowing streams throughout the Sperrins. The Owenkillew, Strule and Glenelly Rivers drain the mountains, flowing into the Foyle system to the south-west. They are all important spawning and nursery beds for Salmonid species.
- The area is characterised by large areas of moorland where extensive areas of blanket bog are still present, however much has been overcut or drained.
- Improved grasslands increase in prevalence away from the upland areas and hedgerows and hedge trees in particular become more evident in these areas away from the higher peaks of the Sperrins.
- Much of the Sperrins RLCA is covered by the Sperrins AONB identifying it as an area of high scenic quality which stretches from the Strule Valley in the west to the perimeter of the Lough Neagh lowlands in the east.
- Numerous woodland Areas of Special Scientific Interest (ASSI) include Drumlea and Mullan Woods, an important semi-natural broad-leaved woodland, Crockaghole Wood, Owenkillew and Glenelly Woods and Grange Wood. There are many other smaller areas of ancient woodland which are not designated, often along tributary streams.
- Mullaghcarn ASSI has been designated due to its identification as an important upland habitat composition of peatland, lakes and woodland. Owenkillew River ASSI is designated for its pearl mussels and other key species.

Cultural Influences

1.105 Key cultural influences are as follows:

- Concentrations of Neolithic megaliths and Bronze Age standing stones and stone circles are found across this area.
- Later settlement cover appears to have moved further downslope into the valleys with concentrations of raths found in the Glenelly River that forms the central valley in this area.
- The lower valley slopes retain the historic field pattern, with hedgerows, earth banks and stone walls enclosing a diverse patchwork of fields and woodlands. Stone walls on the upper slopes often follow the historic townland boundaries. In more remote areas to the north-east these historic field patterns are in pristine condition. Ladder fields are a locally distinct feature, and there are traces of the former rundale, or open-field systems.
- Large numbers of wallsteads – the remains of abandoned cottages – dot the upper valleys where farming has become uneconomic.
- Modern settlement is more developed at the outer edges of the landscape, in settlements such as Draperstown and Plumbridge. In the heart of the Sperrins settlement is limited to a dispersed pattern of farms and houses along Glenelly and the other main valleys.
- Baronscourt, the estate of Lord Abercorn, is located within the sheltered valley on the western foothills of Bessy Bell. The surrounding demesne features mature plantation woodland which is unusual within the upland context. Its parklands are considered to be an important example of 18th century landscape design in Ireland, and it is one of few demesnes in continuous private ownership. The estate controls large areas of surrounding upland and lowland, including the Bessy Bell wind farm.
- Large areas of coniferous forestry planted across the uplands in the later 20th century forming the Glenlark and Banagher Forests. The latter encloses the Banagher Dam built in the 1930 in order to hold the Altnaheglish Reservoir. Gortin Glen Forest Park, 'the western gateway to the Sperrins' opened in 1967, and is operated by the Forest Service, along with Banagher and plantations at Glenshane and Iniscarn.
- The hills of Bessy Bell and Mary Gray located within the southwest of this area were named the daughters of two Perthshire gentlemen; "*twa bonnie lassies*" who feature on of the famous Child Ballads. The ballad is reportedly based on the death of Bessie Bell and Mary Gray who died of the plague in 1645 caught from a mutual admirer.

Perceptual Influences

1.106 Key perceptual influences are as follows:

- Glenelly Valley and its associated secretive glen is seen as one of the most idyllic settings in Northern Ireland. The Sperrin range incorporates the wildest, most remote, landscapes in the six counties.
- The Sperrin mountain range particularly the higher more mountainous main ridge which defined by its rocky summits to the north surrounding Sawel Mountain dominates much of the surrounding landscape and provides the backdrop for many of the views.
- There are expansive views to the east and west over the lower lying lands surrounding Lough Neagh and the River Foyle respectively where it is possible to see into the Republic of Ireland.
- Settlements and main transport routes are mainly confined to the valley areas and the more elevated areas feel particularly desolate and isolated given the prevalence of windswept moorland and bogs at these locations.
- Given its inaccessible nature, many parts of the area are highly tranquil, especially the more sheltered areas towards Glenelly Valley. The higher peaks towards the east have a wilder character resulting from the rugged terrain, high level of exposure and remoteness.
- Field pattern becomes more apparent and regular beyond the slopes of the higher grounds with a return to the improved grasslands which dominates much of Northern Ireland as a whole.

Past, present and future forces for change

1.107 Key forces for change are as follows:

- A key characteristic of this area is its remoteness, representing one of the most extensive areas of tranquillity in Northern Ireland. Substantial development of any form could represent a significant change in this landscape.
- Among current pressures, wind farms may be the most pertinent. There is an operational wind farm at Owenreagh Hill in the north-west periphery, and a current large-scale proposal in the remote glens of the central Sperrins. Careful consideration is needed of the effects of wind turbines on the visual amenity and tranquillity of the area.
- There has been historical extraction of gold in the Sperrins, and exploratory work has been undertaken to investigate commercial mining. Should this be expanded into a large-scale operation, the impacts of industrial plant, noise, excavation and lorry movements would need to be very carefully considered.
- The population of this area has seen a historical decline, leading to the large number of wallsteads - empty and ruined houses - in the upland glens. These contribute to the perceptions of remoteness and time-depth so important in this landscape. New housing in this area should

ideally focus on restoration of these older buildings rather than uncharacteristic modern houses.

- Reducing population and changing farming practices could lead to the abandonment of marginal farmland, and the loss of characteristic ladder fields from upland glens.
- Large scale forestry includes the private commercial forests in Glenlark and Coneyglen, where the latter has been restructured to provide a varied outline, while the former remains blocky in form. Forest Service forests at Gortin Glen and Banagher have largely been restructured along modern guidelines.
- Blanket bogs have typically received less protection from peat cutting than lowland peat bogs. Increasing pressure for peat extraction, combined with the growing awareness of the importance of carbon-rich soils, may have implications for the level of protection and the types of peat cutting permitted.
- The lack of an AONB management plan to guide positive change in the Sperrin AONB could be addressed, potentially leading to benefits for a range of landscape characteristics.

Indicators of change

1.108 The following features and aspects in this area could be monitored to assist in understanding future landscape change:

- Extent and condition of upland blanket bog;
- Extent of active peat cutting;
- Numbers of consented wind farms, and their impacts as compared to the impacts predicted in Environmental Statements;
- Numbers and types of new buildings in the countryside;
- Condition and intactness of wallsteads and field boundary patterns; and
- Development and implementation of a Sperrin AONB Management Plan.

Ecosystem Services

1.109 The landscape of this area provides the following benefits:
Provisioning: Peat, Forestry, Windfarms, Hydro power.
Regulating: Carbon storage.
Cultural: Archaeological heritage, Farming.

RCLA 7 - PPS18 SPG Wind Energy Development Consideration: (RCLA 7 encompasses, all or in part, LCA 24, 26, 27, 28, 29, 30)

1.110 **LCA 24 – South Sperrin:** While the large scale and relatively simple landform and landcover of this LCA are in theory suited to wind energy development, most of the area of this LCA has an unspoilt character and many valued characteristics and features that make it highly sensitive to change. The dramatic, enclosed lower valley reaches are especially sensitive; wind energy development on the slopes or tops above could potentially have an overwhelming landscape impact.

1.111 Further east, where the valleys have a more open form and where there is extensive forestry, the character of the landscape appears better suited to wind energy development. However this is outweighed by the very wide visibility of this part of the South Sperrins. In views from the south particularly, Mullaghturk and Carnanelly appear as focal points, and the landscape is very sensitive to wind energy development.
Overall Sensitivity - High

Location, siting, layout and design considerations

1.112 This LCA has a sensitive landscape setting and wide visibility. Ideally turbines should be associated with and reflect the scale of groups of buildings and trees or forestry plantation. Care should be taken to avoid adverse impacts on the extremely sensitive skylines and the open, exposed and largely uninhabited landscapes of the upper slopes. Care should also be taken to avoid adverse effects on the character and setting of features of natural and cultural heritage landscape interest (as noted in this section), on the area's sense of wildness, and on views from the South Sperrins Way.

1.113 At the time of assessment there were no operational or consented wind farms in or near this LCA and there were no issues of cumulative impact.

1.114 **LCA 26 – Bessy Bell and Gortin:** The majority of this landscape is highly sensitive to wind energy development, notwithstanding the presence of existing and consented wind farms. This is an iconic and widely visible Sperrin landscape, whose summits and steep upper slopes are particularly sensitive to the introduction of any new structures. Sensitivity is further increased by the LCA's popularity for outdoor recreation.
Overall Sensitivity - High

Location, siting, layout and design considerations

1.115 The south-western hill shoulder of Bessy Bell may be the most suitable area for wind energy development. However, it is recommended that design and layouts are consistent between any adjacent sites and should ideally read as a cluster.

1.116 Care should be taken to avoid adverse impacts on skylines, views from the Strule valley, A5, Gortin Glen Forest Park and Mullaghcarn and on the setting of the Heritage Park at Baronscourt. At the time of assessment there was one existing wind farm at Bessy Bell (10 turbines of 60m on the south-western hill shoulder) and a further consented wind farm (6 turbines of 100m on the south-eastern hill shoulder). These give rise to issues of cumulative impact, both locally and over a wider area to the west, where there are two existing wind farms around 15km away in Lough Bradan LCA (LCA 14).

1.117 **LCA 27 – Foyle Valley:** The alluvial plain and steep valley sides on the western margins of the Sperrin Foothills and Sperrin Mountains are very sensitive to change, not only because of their complex and varied character, but because they form a backdrop to views along the valley. They are a key part of the landscape setting of the mountains as well as the towns of Strabane and Newtownstewart. The western edge of the valley south of Strabane (where this lies in Northern Ireland) has less landscape and visual constraints to wind energy development.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.118 This LCA has relatively high sensitivity. The western edge of the valley south of Strabane would be the most suitable location for some form of wind energy development. It is recommended that wind energy developments reflect the complexity and sensitivity of the landscape setting and the relatively small landform scale. Within this LCA care should be taken to avoid adverse impacts on the settings of Derry, Strabane and Newtownstewart. Care should also be taken to avoid detrimental visual impacts on the Sperrins and the A5 tourist route. The settings of important natural and cultural heritage features (eg Sion Mills Conservation Area) should be respected as should important skylines and settings within the valley.

1.119 At the time of assessment there were no operational or consented wind farms within this LCA. However one operational and one consented site (total 16 turbines) could be found at Owenreagh in the Sperrin Mountains (LCA 29) around 8km east of Strabane. Other operational and consented sites (total 16 turbines) were at Bessy Bell, around 16km south of Strabane. In addition, there were three consented wind farms 10 to 18km west of Strabane in County Donegal. Hence there are growing cumulative and transboundary impacts that require consideration.

1.120 **LCA 28 – Glenelly Valley:** The inherent scale, form and complexity to the intimate valley landscapes of this LCA, which
are in addition very strongly influenced visually by the skylines above, make Glenelly Valley highly sensitive to wind energy development. Any wind energy development on the slopes or skylines would be extremely intrusive. In addition, the landscape is sensitive because it is highly valued for its scenic beauty, historic field patterns and significant archaeological sites.
Overall Sensitivity – High

Location, siting, layout and design considerations

1.121 This LCA has very high landscape and visual sensitivity. It is recommended that any turbine development be closely associated with and reflects the scale of farm buildings and sheltering woodland. Care would have to be taken to avoid adverse impacts on the extremely sensitive open, exposed slopes and ridgelines and on the key landscapes and visual characteristics and values that were described in this section. At the time of assessment there were no operational or consented wind farms in this LCA. The nearest existing wind farm was at Owenreagh (total 16 turbines) 8km north-west of Plumbridge which is visible from some areas of higher ground around Plumbridge.

1.122 **LCA 29 – Sperrin Mountains:** This LCA lies at the heart of the Sperrins. The scale and landform of at least parts of the area are in theory well-suited to wind energy development. However, this is generally outweighed by the sheer visual prominence of the Sperrin Mountains over a wide area of Northern Ireland. This is an iconic landscape of immense appeal for tourism and recreation; its core landscapes are highly sensitive to any wind energy development. In addition, it has a strong wild character and many natural and cultural features that are highly vulnerable to the introduction of wind turbines and associated access tracks and infrastructure. Hence the majority of this landscape is highly sensitive to wind energy development, notwithstanding the presence of existing and consented wind farms.
Overall Sensitivity - High

Location, siting, layout and design considerations

1.123 Owenreagh, in the west of this LCA, is the specific area in this LCA that is most suited to wind energy development. Consideration could be given to siting turbines on hill flanks where they might be seen against a backdrop of land. Care should be taken to avoid adverse impacts on skylines, views and the visual amenity, recreational value and wild character of this LCA. Open exposed slopes and ridgelines should be respected as should natural and cultural heritage landscape interests. Care should be taken to ensure that wind energy developments do not dominate and flatten this topographically complex landscape. At the time of assessment there was one existing wind farm at Owenreagh Hill and further consented turbines (16 turbines in all, 60-66m high). Other operational and consented sites in adjacent LCAs were at Bessy Bell (total 16 turbines) 15km to the south; and there are three consented wind farms within 18 to 25km to the west in County Donegal. Hence there are growing cumulative/transboundary impacts in this LCA.

1.124 **LCA 30 – Sperrin Foothills:** Theoretically the simple, convex forms of some of the hills in this LCA are suited to wind energy development, and the widespread tree cover could provide screening. However the relatively small size of the hills, the intimate character of the adjoining valleys, the small scale field patterns on the hill slopes, and the many sudden, short range views tend to increase landscape sensitivity to wind energy development. A further constraint is the fact that the LCA forms a foreground to some of the most important views of the Sperrins: hence any wind energy development on this

northern fringe of the Sperrins could have widespread and significant impacts on landscape character and visual amenity. The north-eastern and north-western fringes of the LCA might be of slightly lower sensitivity.
Overall Sensitivity – High

Location, siting, layout and design considerations

1.125 This LCA has a diverse, often intimate character and intrinsically high scenic quality. The areas most suitable for some form of wind energy development are on the north-eastern fringes of the LCA (north of the A6) and on outlying hills north-west of Slievekirk. It is recommended that wind energy developments reflect the fact that turbines may be seen in very close juxtaposition with small scale field patterns and landscape features. Care should be taken to avoid adverse impacts on the highly sensitive prominent ridgelines such as those around Slievekirk or in views to the Sperrin Mountains (notably from the B74 and A6) as development in these locations could dominate the landscape. Care should also be taken to avoid adverse impacts on the setting of Learmount Castle, Dunnamanagh and Claudy and visual impacts on the Sperrins and the A5 tourist route. The settings of important natural and cultural heritage features should be respected.

1.126 At the time of assessment there were no operational or consented wind farms within this LCA but there were several outstanding applications. The nearest operational or consented wind farms were at Owenreagh (total 16 turbines) and at Altahullion (total 24 turbines) on the south-west and north-east fringes of the LCA respectively, around 25km apart. If any further wind energy developments were to be proposed in the area between these sites the issue of cumulative impacts would be a significant consideration. It is recommended that wind energy developments are visually well separated from each other and from existing development in adjoining LCAs.

RLCA 8 – North Sperrins Hills & Valleys (approx. 60% within District)

1.127 The North Sperrins Hills & Valleys RLCA (No 8) encapsulates, all or in part, the following NI LCA 1999 descriptions: 27 Foyle Valley, 29 Sperrin Mountains, 30 Sperrin Foothills, 31 Burngibbagh & Drumahoe, 33 Lough Foyle Alluvial Plain, & 34 Loughermore Hills.

Location and Setting

1.128 The North Sperrin Hills and Valleys RLCA is located in the north west of Northern Ireland beginning in the east towards the settlement of Limavady and the Roe Valley progressing westerly over the lower hills of the Sperrins towards the edge Foyle Valley. The RLCA falls mainly within County Londonderry with the south westerly corner passing into County Tyrone. The central area of the area is defined by the hills surrounding Loughermore which is bounded to the west and south by the Rivers Faughan and Foreglen respectively and to the east, by the River Roe. To the north the hills overlook the low lying flood plain of Lough Foyle.

1.129 The North Sperrins Hills and Valleys RLCA adjoins the Foyle Valley (RLCA 6) to the west where the landform falls away towards the river valley. The Sperrins (RLCA 7) climb higher than the relatively low peaks of the surrounding foothills surrounding Loughermore to the south of the RLCA. Binevenagh Ridge (RLCA 10) and the beginning of the Antrim Plateau is to the east of the North Sperrins Hills and Valleys RLCA which rises beyond the Roe Valley. To the north of the RLCA the area surrounding Lough Foyle (RLCA 9) is much flatter and more low-lying where the River Foyle empties into the North Atlantic.

Landscape Character Description

1.130 The North Sperrins Hills and Valleys is characterised by the series of varied hills and valleys which cover the area between the Foyle Valley in the west and the Binevenagh Ridge to the east. The landscape is interspersed with streams flow from the Sperrins through steep, narrow valleys that become broader to the north. Many of the upper valleys are wooded, with limited settlement. Small villages are located lower down, with an increase in settlement towards the north. A patchwork of small fields and dense broadleaf tree cover lines these valleys. To the east, the broader valley of the River Roe is shallow, and dominated by the basalt hills to its east. This more open settled landscape moves gradually from upland character to an open pastoral valley with limited tree cover and man-made embankments.

1.131 Between the valleys, and more so to the north of the RLCA, the landform becomes upland in character. The rounded hills become broader and more plateau-like, less dramatic than those of the Sperrin fringes further south. Woodland cover is restricted to extensive Forest Service plantations, contrasting with the open moorland around them.

Key Characteristics

1.132 Key characteristics are as follows:

- Southern part of the RLCA is defined by lower foothills of the Sperrins where steeper narrower valleys have been formed by the fast running streams in the area.
- In the north the upland areas of the Loughermore Hills convey a sense of isolated moorland interspersed intermittently with coniferous plantations and bog land.
- In contrast to the higher number of small settlements nestled in the valleys to the south, these upland areas display little evidence of being populated with small holdings limited towards the margins.
- The summits of the hills throughout the RLCA are for the most part rounded, becoming slightly broader and plateau-like across the Loughermore area.
- The meandering River Roe flows through a broad flattish valley where the floodplain field pattern changes from small marginal plots in the

upper valley to large, geometric fields downstream. Hedgerows are prevalent throughout the valley though few trees and little enclosure.

- Other valleys are narrower and more wooded, such as the Burntollet and River Faughan, which have an intimate character.

- Country parks in the area provide recreational access to the countryside, though more frequented by locals than visitors.

Natural Influences

1.133 Key natural influences are as follows:

- The extensive plantations of coniferous forests in the Loughermore Hills area to the north of the RLCA have resulted in much of the area being covered by this type of forestry which is of low biodiversity value.
- The Loughermore Hills also display large areas of blanket bog however much of this feature has been lost due to overcutting and the proliferation of coniferous forests.
- The lower foothills of the Sperrins are mainly covered by improved grasslands however upland heathland is evident on the elevated grounds of the rounded summits.
- The Roe Valley basin area is dominated by pastures of improved grasslands with some small copses of hazel and important oak woods throughout the broad flat valley.
- The Atlantic Salmon makes use of the tributaries of the Foyle and Roe (where 8% of the Northern Irish salmon population spawns) which are of international importance to this species.
- The alluvial floodplain of the River Roe is banked by uplands fringed with rounded ridges of glacial moraine and the slopes here contain numerous streams which empty into the river as it transitions from a deep gorge from north where is it bedded in more resistant metamorphic rock to the south.
- The North Sperrin Hills and Valleys RLCA is covered by a small area of the Binevenagh AONB to its north east corner and by a portion of the Sperrins AONB to the south where the foothills of the Sperrins begin to rise.
- The River Faughan and the River Roe and their respective tributaries have been designated as ASSIs and SACs. Other important ASSIs within the RLCA include Ness and Ervy Woods, Altmover Glen, Lisnaragh and Loughermore Mountain.

Cultural Influences

1.134 Key cultural influences are as follows:

- Megalithic tombs indicate Neolithic settlement in this area and standing stones and stone circles show continuity into the Bronze Age. Particular concentrations can be found within the upland areas of Slieve Buck and Ness Wood (Ballygroll prehistoric complex).
- Later settlement appears have moved down slope represented by numerous raths located within the valleys and lower slopes, illustrating dispersed settlement in Early Christian times. Banagher and Bovevagh church sites were (and still are) important foci for this population.
- A number of small settlements are scattered across the area. Limavady and Dunnamanagh are both plantation settlements, founded in the early 17th century, although both have older origins.
- Agriculture is now restricted to lower land represented by scattered farm buildings and small-holdings on fringes of the peatland, lower slopes and bordering the valley pastures.
- The upper slopes and summits are now a remote landscape, with few roads and virtually no settlements. Coniferous forestry, such as the Loughermore forest, covers significant upland areas with the plantation edges contrasting sharply with the exposed open moorland.
- Peat-cutting is evident on the more accessible areas, leaving geometric cuts and ridges, lowering the level of small blocks of moorland in relation to the surrounding land.
- The remains of an older church at Tamlaghtard, close to St Aidans, date from the 13th century. St Aidans is reputedly the final resting place for St Aidan whose remains were returned here from Lindisfarne but also has associations with St Patrick.
- Romantic ruined landmarks of Dunnamanagh and Altinaghree Castles.
- The Roe powered Northern Ireland's first hydroelectric generator in the late 19th century, currently under restoration at Roe Valley Country Park. There are plans to restore this as well as other hydro proposals in the area. The Roe is also well-used for fishing, including salmon.

Perceptual Influences

1.135 Key perceptual influences are as follows:

- The north section of Loughermore provides views to Lough Foyle to the north with the flat alluvial plain of around the lough extending in front of it and the mountain is visible from the Lough Foyle area.
- Slievekirk to the west allows for views along and across the River Foyle, into Donegal and to the south over the Sperrins as well as acting as a prominent feature on the A6 route from the city of Derry/Londonderry.

- The more remote upland areas of the Loughermore Hills to the north and west of the RLCA are more sparsely settled and the broad rounded hills are increasingly windswept.
- This remoteness is replaced by a greater sense of tranquillity, particularly amongst the more intimate sheltered valleys of the Faughan and its tributaries, away from the main transport routes. There are important areas of dark skies in the less settled upper valleys.

Past, present and future forces for change

1.136 Key forces for change are as follows:

- The North Sperrin Foothills represent an area of significant pressure for wind farm development. There are several operational wind farms in this area, and the Roe Valley to the west is also overlooked by turbines on the Binevenagh Ridge. Further development of wind farms in this area could lead to the perception of a landscape where turbines are a key characteristic.
- Large-scale forestry has extended across open upland areas, with sections of Loughermore Forest comprising more traditional straight-edged single-species plantations, in contrast to more recent mixed plantings.
- Glacial outwash deposits in the Burndennett valley have been exploited for sand and gravel, and this use is likely to continue, introducing uncharacteristic industrial uses into this quiet side valley and the area around Dunnamanagh on the fringes of the Sperrin AONB.
- The lack of an AONB management plan to guide positive change in the Sperrin AONB could be addressed, potentially leading to benefits for a range of landscape characteristics.

Indicators of change

1.137 The following features and aspects in this area could be monitored to assist in understanding future landscape change:

- The number and scale of wind farm and wind turbines;
- Extent of single-species conifer forests; and
- Development and implementation of a Sperrin AONB Management Plan.

Ecosystem Services

1.138 The landscape of this area provides the following benefits:
Provisioning: Peat, Forestry, Windfarms, Hydro Power & Drinking Water
Regulating: Carbon Storage
Cultural: Archaeological heritage, Farming.

RCLA 8 - PPS18 SPG Wind Energy Development Consideration: (RCLA 8 encompasses, all or in part, LCA 27, 29, 30, 31, 33 & 34)

1.139 **LCA 27 – Foyle Valley:** The alluvial plain and steep valley sides on the western margins of the Sperrin Foothills and Sperrin Mountains are very sensitive to change, not only because of their complex and varied character, but because they form a backdrop to views along the valley. They are a key part of the landscape setting of the mountains as well as the towns of Strabane and Newtownstewart. The western edge of the valley south of Strabane (where this lies in Northern Ireland) has less landscape and visual constraints to wind energy development.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.140 This LCA has relatively high sensitivity. The western edge of the valley south of Strabane would be the most suitable location for some form of wind energy development. It is recommended that wind energy developments reflect the complexity and sensitivity of the landscape setting and the relatively small landform scale. Within this LCA care should be taken to avoid adverse impacts on the settings of Derry, Strabane and Newtownstewart. Care should also be taken to avoid detrimental visual impacts on the Sperrins and the A5 tourist route. The settings of important natural and cultural heritage features (eg Sion Mills Conservation Area) should be respected as should important skylines and settings within the valley.

1.141 At the time of assessment there were no operational or consented wind farms within this LCA. However one operational and one consented site (total 16 turbines) could be found at Owenreagh in the Sperrin Mountains (LCA 29) around 8km east of Strabane. Other operational and consented sites (total 16 turbines) were at Bessy Bell, around 16km south of Strabane. In addition, there were three consented wind farms 10 to 18km west of Strabane in County Donegal. Hence there are growing cumulative and transboundary impacts that require consideration.

1.142 **LCA 29 – Sperrin Mountains:** This LCA lies at the heart of the Sperrins. The scale and landform of at least parts of the area are in theory well-suited to wind energy development. However, this is generally outweighed by the sheer visual prominence of the Sperrin Mountains over a wide area of Northern Ireland. This is an iconic landscape of immense appeal for tourism and recreation; its core landscapes are highly sensitive to any wind energy development. In addition, it has a strong wild character and many natural and cultural features that are highly vulnerable to the introduction of wind turbines and associated access tracks and infrastructure. Hence the majority of this landscape is highly sensitive to wind energy development, notwithstanding the presence of existing and consented wind farms.
Overall Sensitivity - High

Location, siting, layout and design considerations

1.143 Owenreagh, in the west of this LCA, is the specific area in this LCA that is most suited to wind energy development. Consideration could be given to siting turbines on hill flanks where they might be seen against a backdrop of land. Care should be taken to avoid adverse impacts on skylines, views and the visual amenity, recreational value and wild character of this LCA. Open exposed slopes and ridgelines should be respected as should natural and cultural heritage landscape interests. Care should be taken to ensure that wind energy developments do not dominate and flatten this topographically complex landscape. At the time of assessment there was one existing wind farm at Owenreagh Hill and further consented turbines (16 turbines in all, 60-66m high). Other operational and consented sites in adjacent LCAs were at Bessy Bell (total 16 turbines) 15km to the south; and there are three consented wind farms within 18 to 25km to the west in County Donegal. Hence there are growing cumulative/transboundary impacts in this LCA.

1.144 **LCA 30 – Sperrin Foothills:** Theoretically the simple, convex forms of some of the hills in this LCA are suited to wind energy development, and the widespread tree cover could provide screening. However the relatively small size of the hills, the intimate character of the adjoining valleys, the small scale field patterns on the hill slopes, and the many sudden, short range views tend to increase landscape sensitivity to wind energy development. A further constraint is the fact that the LCA forms a foreground to some of the most important views of the Sperrins: hence any wind energy development on this northern fringe of the Sperrins could have widespread and significant impacts on landscape character and visual amenity. The north-eastern and north-western fringes of the LCA might be of slightly lower sensitivity.
Overall Sensitivity – High

1.145 **Location, siting, layout and design considerations**
This LCA has a diverse, often intimate character and intrinsically high scenic quality. The areas most suitable for some form of wind energy development are on the north-eastern fringes of the LCA (north of the A6) and on outlying hills north-west of Slievekirk. It is recommended that wind energy developments reflect the fact that turbines may be seen in very close juxtaposition with small scale field patterns and landscape features. Care should be taken to avoid adverse impacts on the highly sensitive prominent ridgelines such as those around Slievekirk or in views to the Sperrin Mountains (notably from the B74 and A6) as development in these locations could dominate the landscape. Care should also be taken to avoid adverse impacts on the setting of Learmount Castle, Dunnamanagh and Claudy and visual impacts on the Sperrins and the A5 tourist route. The settings of important natural and cultural heritage features should be respected.

1.146 At the time of assessment there were no operational or consented wind farms within this LCA but there were several outstanding applications. The nearest operational or consented wind farms were at Owenreagh (total 16 turbines) and at Altahullion (total 24 turbines) on the south-west and north-east fringes

of the LCA respectively, around 25km apart. If any further wind energy developments were to be proposed in the area between these sites the issue of cumulative impacts would be a significant consideration. It is recommended that wind energy developments are visually well separated from each other and from existing development in adjoining LCAs.

1.147 **LCA 31 – Burngibbah & Drumahoe:** This LCA is generally very sensitive to wind energy development due to its strong form and field patterns extending high up the valley sides, its wide visibility, particularly from the south and west, and its proximity to the city of Derry. Its open summits and ridges are distinctive and characteristic landscape features; development on these summits could interrupt and diminish these characteristic skylines. The northern part is more degraded with pylons and former mineral workings so is somewhat less sensitive in that respect, intact character that would be highly sensitive to wind energy development.although also more heavily settled. The southern part retains a remote, unspoilt
Overall Sensitivity - High to medium

1.148 **Location, siting, layout and design considerations**
The northern part of this LCA, which has more rounded landform and a more degraded character, is more suitable for wind energy development than other locations in this LCA. Consideration could be given to setting turbines well back from the steep valley sides to reduce their prominence and to help contain visibility. It is recommended that wind energy development reflects the limited height of the hills and the importance of this area as part of the approaches to and setting of the Foyle estuary and Derry. Care should be taken to avoid adverse impacts on the more dramatic and scenic southern part of this LCA. Open skylines should be respected. At the time of assessment there was a wind farm application in this LCA, as well as others in nearby parts of the Sperrin Foothills LCA, creating potential for cumulative impacts on the intimate landscapes of the south of the LCA, especially since existing and consented wind farm sites at Owenreagh lie less than 10km away to the south. There might also be transboundary issues if wind farm development occurs west of the Foyle in County Donegal.

1.149 **33 – Lough Foyle Alluvial Plain -** This LCA is of varied sensitivity to wind energy development. In the west the strongly industrial character with many large industrial structures suggests lower than average levels of sensitivity, especially given the presence of existing screening woodland along the A2. Further east, however, the low-lying, open farmland and coastal land is very sensitive, not least as any wind energy development could intrude upon iconic views to Binevenagh headland. Moreover, the ecological resources of this area are very significant with extensive mud flats and internationally important waterfowl present on Lough Foyle.
Overall Sensitivity - High to medium

1.150 **Location, siting, layout and design considerations**
The part of the LCA with most potential for some form of wind energy development is the industrial area north of Derry at the western end of the LCA, given careful attention to siting, scale and form relative to existing structures. The very open, exposed and low-lying coastal plain might also be able to accommodate some turbine development if it is very carefully sited and scaled in association with buildings and trees. Wind energy development would be less appropriate at the eastern side of this LCA. Care should be taken to avoid significant impacts on views to Binevenagh. At the time of assessment there were no operational or consented wind farms in this LCA. The nearest existing or consented wind farm sites were around 9km to the south in the Loughermore Hills LCA and are unlikely to be intervisible with any wind farm development in this LCA. However, there were a number of existing and proposed wind farm sites 8-10km to the north in County Donegal and these could give rise to cumulative, transboundary impacts. Seaward impacts may be a relevant issue in the future.

1.151 **34 – Loughermore Hills -** Much of this landscape is of low sensitivity and well-suited to wind energy development, having large scale, rounded, convex summits; simple, relatively homogeneous landcover; extensive upland forestry; and other man-made influences. The broad, central massif of the eastern part of the LCA, centred on Loughermore, is of lowest sensitivity to wind energy development. The lower margins of the upland, and some of the land further west which has a more distinctive landform, are of medium sensitivity. This is because these areas are more widely visible, and have a wider range of natural, cultural and amenity interests.
Overall Sensitivity - Medium to low

Location, siting, layout and design considerations

1.152 The large scale and horizontal form of this LCA indicates that parts of this LCA are well suited to wind energy development. The landscapes around Loughermore in the eastern part of the LCA are the most suited area to wind energy development. The creation of a large compact cluster of turbines, (possibly through expansion of the existing Altahullion wind farm), is likely to be the most successful solution in landscape and visual terms for this LCA, and would help minimise cumulative impacts on surrounding areas.

1.153 Consistent site layouts and turbine sizes and designs would be desirable within the cluster. It is recommended that attempts be made to minimise visual clutter where turbines would be seen in the context of electricity transmission lines. Consideration could be given to utilising forestry plantations for screening and access tracks.

1.154 However, open views to Loughermore summit itself from the north-east should be respected. The lower margins of the upland and land to the west, particularly the more prominent outlier hills, are less suited to wind energy development. The north side of the upland area might also be more sensitive because of views from Lough Foyle. Care needs to be taken to avoid

adverse impacts on skylines, particularly near the A6 and on the natural, cultural and recreational landscape interests in this LCA. At the time of assessment this LCA already had an operational and consented wind farm development at Altahullion (24 turbines in total, 82-83m high). There were other applications nearby and another existing wind farm at Rigged Hill (10 turbines) around 15km to the northeast. Hence there is potential for cumulative impacts. There is also some potential for transboundary impacts due to several existing and proposed wind farms on the southeastern edge of Inishowen in County Donegal. Adequate separation distances will be an issue. Ideally any additional wind energy development in this LCA would lie outside the zone of visual influence of these developments.

LCA 9 – Lough Foyle Coast & Dunes (approx. 25% within District)

1.155 The Lough Foyle Coast & Dunes RLCA (No 9) encapsulates, all or in part, the following NI LCA 1999 descriptions: 31 Burngibbagh & Drumahoe, 32 Derry Slopes, 33 Lough Foyle Alluvial Plain & 34 Loughermore Hills.

Location and Setting

1.156 Lough Foyle Coast and Dunes RLCA is located on the north-west coast of Northern Ireland beginning at the edge of the city of Derry/Londonderry in the west and taking in the coastal area which surrounds Lough Foyle up to the extremely flat alluvial plain around Magilligan Point. The area is bounded to the south by the Loughermore Hills extending between Derry/Londonderry and Limavady, and by the cliff edge of Binevenagh further to the east. The Roe Estuary divides the Magilligan Strand area in the east from rest of the coastline around Lough Foyle.

1.157 The Lough Foyle Coast and Dunes RLCA adjoins the Foyle Valley (RLCA 6) at the north of the settled area around the city of Derry/Londonderry. To the south the Loughermore Hills and Roe Valley form part of the North Sperrin Hills and Valleys (RLCA 8). Further to the east the cliff edge of Binevenagh dominates the surrounding landscape, and forms the northern edge of a volcanic ridge (RLCA 10).

1.158 The Lough Foyle Seascape Character Area (SCA 2) is to the north of the Lough Foyle Coast and Dunes RLCA, taking in the Lough and coastal land on either side, as far as Magilligan Point. From the point the coast is classified as the North Coast Strands & Dunes Seascape Character Area (SCA 3), which continues to Benone Strand.2 The north shore of Lough Foyle, in Donegal, contrasts strongly with the southern coast, being a steep sided rise to the uplands of Inishowen with limited foreshore. The line of these uplands forms a continuous backdrop to the areas within this RLCA.

Landscape Character Description

1.159 The area is characterised by the extremely flat alluvial plain on the edge of Lough Foyle. Towards the west, closer to the city of Derry/Londonderry, the Foyle Valley becomes more prominent in the landscape. The area is tied to and is of economic importance to the city with multiple industrial sites, Lisahally Port, and the City of Derry Airport around the settlements of Maydown, Strathfoyle and Eglinton respectively. The coastal region remains relatively populous and developed through the settlements of Greysteel and Ballykelly, becoming less so to the east as the coast curves around to the point at Magilligan.

1.160 Away from the city, the field pattern is open and the low hedgerows have been removed, with reclaimed land supported by flood defences allowing for large fields of arable workings. The field pattern becomes more enclosed and smaller in character moving away from the coast towards the Loughermore Hills. The Roe Estuary consists of extensive mud flats when the tide is low.

Binevenagh rises to the east, providing a dramatic backdrop to the lowlands of Magilligan which are almost entirely flat. The strand itself is bounded by rugged sand dunes, most evident at the Umbra sand-dune system above Benone.

1.161 The railway line runs the length of the coastline to the city of Derry providing rail travel to Belfast in the east. The route is particularly dramatic as it crosses towards Binevenagh and passes through the cliff face under the Mussenden Temple at Downhill. The A2 Coastal Route follows a similar route along the curve of Lough Foyle. While this route is not as important economically as the Glenshane Pass through the Sperrins, it provides access to important tourist destinations at Portrush and Portstewart and along the Antrim Coast. This route also provides scenic views on to the cliffs of Binevenagh and across the low lying flat plain of Magilligan towards Donegal. Magilligan Point, with its exposed strand and dunes, forms an integral part of the Binevenagh AONB, providing the essential setting to the striking mountain and cliffs to the east.

Key Characteristics

1.162 Key characteristics are as follows:

- An open, flat coastal landscape, formed of alluvial deposits and sand dunes, creating a low-lying exposed character. The sea itself is an enclosed lough and thus generally sheltered, with much more powerful waves on the outer coast of Magilligan.
- Reclaimed land with long 19th-century sea walls enclosing open arable farmland with large fields. Within our District, the 19th Century sea wall and farm tracks associated with the reclaimed lands act as a recreational resource.
- Well-developed sand dune systems along Magilligan strand, echoed in the distinctive curving pattern of field boundaries between the dunes and the Roe Estuary.
- Extensive mud flats within the tidal lough attract large numbers of seabirds and are protected accordingly.
- Site of important industrial sites to the west at Maydown, Strathfoyle and Eglinton towards the city of Derry/Londonderry due to interconnectivity and the flat nature of the landscape.
- The main transport corridors in the area run parallel to the coastline connecting the more populous west from Derry/Londonderry through to Ballykelly to the more remote east surrounding Magilligan.
- The dramatic cliff edge of Binevenagh dominates the landscape above the low lying coastal plains, being prominent in views across the lough

from the Foyle. The relationship between Magilligan and Binevenagh is essential to the perception of both areas.

- To the north, the backdrop of the Inishowen uplands is less distinctive but remains ever-present in views, containing and sheltering the lough.

Natural Influences

1.163 Key natural influences are as follows:

- The geology of the Lough Foyle basin is formed from Triassic, Permian and Carboniferous sandstones, in contrast to the volcanic Binevenagh and the Dalradian Loughermore Hills. The volcanic Magilligan Sill, though not visible on the surface, has given rise to the sand spit of Magilligan Point.
- The beaches of Magilligan have been raised through postglacial actions and the foreland below Binevenagh at this location displays multiple exposed sand dunes. The point has developed as the strand has built up northwards in a series of layers, which are clearly visible in the landscape.
- The RLCA consists mainly of improved grasslands and arable land of low biodiversity with sections of sand dunes to the east at Magilligan and damp coastal pastures which are important locations for breeding waders to the west around Lough Foyle.
- There is insignificant forest coverage, though a portion of Ballykelly Forest crosses into the area by the settlement of Ballykelly. The forest consists of Douglas fir and other conifer species, with a limited number of oaks. There are smaller mixed woodlands towards the River Roe, and the fringes of the state owned Binevenagh Forest extends onto the plain.
- The River Faughan and River Roe are of importance to salmon and trout and the estuaries and Lough Foyle have been designated as a Special Protection Area (SPA) given the areas importance to whooper swan, light-bellied Brent goose and bar-tailed godwit. Extensive mud flats exhibited at the Roe Estuary contrast the flood defences which protect much of the reclaimed land along the lough itself.
- The Magilligan dunes and Roe Estuary are incorporated in the Binevenagh Area of Outstanding Natural Beauty (AONB), recognised for its high scenic value. These flat landscapes provide the essential foreground to the dramatic coastal and inland cliffs of Eagle Rock and Binevenagh Mountain.
- The Lough Foyle Area of Special Scientific Interest (ASSI) and Magilligan ASSI have been designated within the RLCA due to interest in the intertidal and upper beach functions of the shore and river around the lough, as well as the network of sand dunes in the area.

Cultural Influences

1.164 Key cultural influences are as follows:

- Settled since Mesolithic times, the area around both the Foyle estuaries has a rich archaeological heritage. Evidence of prehistoric sites, including court tombs and standing stones, are found in this area particularly around the mouth of the Foyle, suggesting an important and relatively well populated area during the Neolithic and Bronze Ages.
- The distinctive curved field boundaries across Magilligan reflect the shape of the current strand, and follow the historical line of the shore as the sand built up and the point advanced northward. These curved lines are clearly seen from Binevenagh.
- Reclamation of the lough shores, starting in the 19th century to enable railway development, and erection of massive concrete revetments has created an artificial coastline. These modern 'polders' have regular large open fields in contrast to the smaller irregular subdivisions of the older landscape.
- One of the few areas of extensive arable cultivation in Northern Ireland, with very large fields separated by post and wire fences and hedges. Crops in this area include cereals and rapeseed, as well as turf cultivation and the growing of trees for short-rotation coppicing. Formerly an area of market gardening, the growing of vegetables is making a reappearance in the area.
- The measured baseline for the initial Ordnance Survey mapping of Ireland was laid out along the Lough Foyle coast in 1824. The 8-mile baseline linked four base stations between Ballykelly and Magilligan, three of which survive in the landscape.
- Much of the land at Magilligan is in use for military exercises and firing practice with restricted access for the public. The landscape has a rich defence heritage ranging from the Martello Tower at Magilligan Point to the numerous 20th century naval defences on the Lough and several RAF stations. Much built heritage remains from this latter period.
- During the 20th century, the west of this area has seen the development of industry, including Coolkeeragh power station and chemical plants. The area also accommodates the modern port at Lisahally and the City of Derry Airport.

Perceptual Influences

1.165 Key perceptual influences are as follows:

- Dominated by flat alluvial plain along Lough Foyle framed by higher grounds and contrasting more enclosed field pattern of the Loughermore Hills and Binevenagh to the south and east.

- The sense of remoteness of the area increases towards the north-east, particularly along the road out to Magilligan Point, providing for expansive views across the flat undeveloped land towards Lough Foyle. Linear back roads have low interconnectivity, with several roads ending at the shore.
- Important views including those across Lough Foyle to Greencastle and Moville in Donegal from Magilligan and those towards the cliff edge of the mountain of Binevenagh which dominates the surrounding low lying plains. These instil a sense of wildness in the north of the area which is lost in the more developed areas with a more distinct connection to the city of Derry/Londonderry.
- The low-lying landscape is viewed from Binevenagh and other high points to the south-west, and forms a key foreground to these hills contributing to their setting as part of the Binevenagh AONB.
- This area was one of the last places in Northern Ireland where the Irish language was commonly spoken, finally falling out of use in the 1950s.

Past, present and future forces for change

1.166 Key forces for change are as follows:

- The most significant past change has been the drainage and reclamation of large areas of foreshore in the 19th century, partly to accommodate the railway link to Derry. Further expansion of these reclaimed areas is unlikely given the high biodiversity value now attached to the Lough Foyle mudflats. The maintenance of the sea walls may become an issue in future, if sea level rises occur.
- The floodplain north of Derry is a key area of economic development, with large-scale buildings located between Strathfoyle and Eglinton. City of Derry Airport is also in this area, and has aspirations for growth.
- The A6 / A2 dual carriageway link is a proposed route between Drumahoe and Stradreagh. If constructed, there would be a significant impact on this RCLA through the infrastructural development as well as from the increased vehicle traffic movement and noise in this traditionally quieter valley system.
- The A6 / A2 dualling link would provide a new strategic route between the A6 and A2 Key Transport Corridors and provide an alternative route to the existing A514 Crescent Link, which is becoming more heavily trafficked due to continuing development along the route.
- The new road between Drumahoe and Stradreagh will, in effect, create the north east quadrant of an outer route along the western side of the Faughan valley for strategic traffic between the A6 and the A2. The provision of a new link road between the A5 and the A6 Key Transport

Corridors would provide the south-east quadrant of the outer ring road and complete the eastern half of a new strategic route around the city.

- Undoubtedly, such dualling upgrades and link roads when completed will create significant lasting impacts on the local landscape character of this RLCA. However, as with most major infrastructural works, the landscape impacts will soon become the 'accepted norm' and associated landscaping will soften their effects.

- Cultivation of lawn turf and large-scale short-rotation coppice (SRC) willow are relatively new land uses in the very flat reclaimed floodplain. Extremely large fields are given over to turf, with strips of bare earth where it has been lifted. Willow coppice introduces uncharacteristic woodland of single species into the landscape. Miscanthus has been trialled in the area as an energy crop. Increases in such cultivation, particularly of energy crops which is supported by Forest Service grants, could alter the distinctive pattern of arable fields in the Lough Foyle basin.

- The dune systems which are a major feature of Magilligan Point are a fragile ecosystem, and vulnerable to relatively small changes which could upset the balance of natural processes. This could arise from recreational pressures as well as development. The dunes, and also the low-level farmland alongside, would be vulnerable to long term changes in sea level.

- Strong tidal flows through the narrows of the lough at Magilligan Point could power electricity generators, with a number of tidal stream generators having been trialled elsewhere in the UK and Ireland.

Indicators of change

1.167 The following features and aspects in this area could be monitored to assist in understanding future landscape change:

- Extent of new large-scale commercial development, including airport expansion at the City of Derry Airport.

- Integrity of the dune systems, in terms of their structure and ecology;

- Extent of cultivation of turf and/or energy crops, including SRC willow and potentially miscanthus grass; and

- Within the AONB area, reference to the Management Plan and Action Plan documents.

Ecosystem Services

1.168 The landscape of this area provides the following benefits:
Provisioning: Arable production, Agriculture and food processing, Aquaculture
Regulating: Cycling of Nitrogen, Waste disposal

Cultural: Angling & Farming.

Donegal County Council Relevant LCA

1.169 In a cross –border capacity, relevant to the Lough Foyle Coast and Dunes RLCA is LCA 10 – South Inishowen Farmland as defined in the 2016 Donegal Co. Co. LCA. Its key characteristics are as follows:

1.170 South Inishowen farmland LCA spans the bottom of the Inishowen peninsula from Lough Swilly to Lough Foyle. It is characterized by good quality agricultural land in a pattern of medium to large sized fields separated by hedgerow and deciduous trees against the backdrop of Scalp Mountain to the north and the suburbs of Derry City (Northern Ireland) to the south-east. Inch Island is connected to the mainland by 2 embankments created to hold water drained from the adjoining flat agricultural re-claimed land that has, in turn, created Inch Lake. One of these causeways constitutes the only vehicular access into the island from the mainland. The area is well connected to adjoining areas by a Regional road that cuts right through the length of the LCA and a network of county roads that provide permeability throughout the area and linkages between the settlements. This area has been settled for millennia, and there are many remaining national monuments evident in the landscape.

Forces for change

1.171 • In the past there was considerable pressure for urban generated housing development from the city of Derry in neighbouring Northern Ireland; this LCA forms the natural rural hinterland of Derry city and abuts the border with Northern Ireland.
• Linear development along the rural road network
• Tourism related holiday home developments.
• Potential for further development of Sailing and water based tourism activities.
• Renewable energy development (windfarms).
• Afforestation on higher ground within the north and west of the landscape unit.
• Telecommunications and infrastructural development
• Coastal erosion
• Further tourism development – building on the history, culture, ecological and recreational qualities of the area.

RCLA 8 - PPS18 SPG Wind Energy Development Consideration: (RCLA 8 encompasses, all or in part, LCA 31, 32 33 & 34)

1.172 **LCA 31 – Burngibbah & Drumahoe:** This LCA is generally very sensitive to wind energy development due to its strong form and field patterns extending high up the valley sides, its wide visibility, particularly from the south and west, and its proximity to the city of Derry. Its open summits and ridges are distinctive and characteristic landscape features; development on these summits could interrupt and diminish these characteristic skylines. The

northern part is more degraded with pylons and former mineral workings so is somewhat less sensitive in that respect, although also more heavily settled. The southern part retains a remote, unspoilt intact character that would be highly sensitive to wind energy development.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.173 The northern part of this LCA, which has more rounded landform and a more degraded character, is more suitable for wind energy development than other locations in this LCA. Consideration could be given to setting turbines well back from the steep valley sides to reduce their prominence and to help contain visibility. It is recommended that wind energy development reflects the limited height of the hills and the importance of this area as part of the approaches to and setting of the Foyle estuary and Derry. Care should be taken to avoid adverse impacts on the more dramatic and scenic southern part of this LCA. Open skylines should be respected. At the time of assessment there was a wind farm application in this LCA, as well as others in nearby parts of the Sperrin Foothills LCA, creating potential for cumulative impacts on the intimate landscapes of the south of the LCA, especially since existing and consented wind farm sites at Owenreagh lie less than 10km away to the south. There might also be transboundary issues if wind farm development occurs west of the Foyle in County Donegal.

1.174 **32 – Derry Slopes -** This LCA's gateway role and proximity to the historic city of Derry and the Foyle increases its sensitivity to wind energy development, which could be highly visible. These western slopes frame the city and provide a scenic landscape setting. The River Foyle waterside and the area's many small historic parks and estates are also highly sensitive. However, the undulating slopes and urban fringe areas, particularly where already affected by man-made influences, might be somewhat less sensitive to development that is carefully sited and appropriate in scale.
Overall Sensitivity - High to medium

Location, siting, layout and design considerations

1.175 The undulating lower slopes in the southern part of this LCA are least sensitive to wind energy development. Consideration could be given to siting on mid-slope locations, particularly where topography could offer some screening. Care should be taken in relation to access roads which could be highly visible from across the river. Developed areas such as urban fringe industrial estates may also offer some opportunities for turbine development. It is recommended that any wind energy development reflects the scale of the relatively small surrounding hills and existing built features that lend a sense of scale in this LCA. Care should be taken to avoid adverse impacts on the highly sensitive historic setting of Derry, its surrounding steep slopes and skylines, the River Foyle and its adjacent lands, and estates and estate woodlands. Although Holywell and Minkey Hills have a number of

telecommunications masts, care should be taken to avoid adverse impacts on these hills as they are on a prominent skyline. Care should be taken to ensure that wind energy developments do not dominate or intrude unacceptably on the sensitive settings in this LCA. At the time of assessment there were no operational or consented wind farms within this LCA. Transboundary issues might arise as this LCA shares a border with County Donegal.

1.176 **33 – Lough Foyle Alluvial Plain -** This LCA is of varied sensitivity to wind energy development. In the west the strongly industrial character with many large industrial structures suggests lower than average levels of sensitivity, especially given the presence of existing screening woodland along the A2. Further east, however, the low-lying, open farmland and coastal land is very sensitive, not least as any wind energy development could intrude upon iconic views to Binevenagh headland. Moreover, the ecological resources of this area are very significant with extensive mud flats and internationally important waterfowl present on Lough Foyle.
Overall Sensitivity - High to medium

1.177 **Location, siting, layout and design considerations**
The part of the LCA with most potential for some form of wind energy development is the industrial area north of Derry at the western end of the LCA, given careful attention to siting, scale and form relative to existing structures. The very open, exposed and low-lying coastal plain might also be able to accommodate some turbine development if it is very carefully sited and scaled in association with buildings and trees. Wind energy development would be less appropriate at the eastern side of this LCA. Care should be taken to avoid significant impacts on views to Binevenagh. At the time of assessment there were no operational or consented wind farms in this LCA. The nearest existing or consented wind farm sites were around 9km to the south in the Loughermore Hills LCA and are unlikely to be intervisible with any wind farm development in this LCA. However, there were a number of existing and proposed wind farm sites 8-10km to the north in County Donegal and these could give rise to cumulative, transboundary impacts. Seaward impacts may be a relevant issue in the future.

1.178 **34 – Loughermore Hills -** Much of this landscape is of low sensitivity and well-suited to wind energy development, having large scale, rounded, convex summits; simple, relatively homogeneous landcover; extensive upland forestry; and other man-made influences. The broad, central massif of the eastern part of the LCA, centred on Loughermore, is of lowest sensitivity to wind energy development. The lower margins of the upland, and some of the land further west which has a more distinctive landform, are of medium sensitivity. This is because these areas are more widely visible, and have a wider range of natural, cultural and amenity interests.
Overall Sensitivity - Medium to low

1.179 **Location, siting, layout and design considerations**
The large scale and horizontal form of this LCA indicates that parts of this LCA are well suited to wind energy development. The landscapes around Loughermore in the eastern part of the LCA are the most suited area to wind energy development. The creation of a large compact cluster of turbines, (possibly through expansion of the existing Altahullion wind farm), is likely to be the most successful solution in landscape and visual terms for this LCA, and would help minimise cumulative impacts on surrounding areas.

1.180 Consistent site layouts and turbine sizes and designs would be desirable within the cluster. It is recommended that attempts be made to minimise visual clutter where turbines would be seen in the context of electricity transmission lines. Consideration could be given to utilising forestry plantations for screening and access tracks.

1.181 However, open views to Loughermore summit itself from the north-east should be respected. The lower margins of the upland and land to the west, particularly the more prominent outlier hills, are less suited to wind energy development. The north side of the upland area might also be more sensitive because of views from Lough Foyle. Care needs to be taken to avoid adverse impacts on skylines, particularly near the A6 and on the natural, cultural and recreational landscape interests in this LCA. At the time of assessment this LCA already had an operational and consented wind farm development at Altahullion (24 turbines in total, 82-83m high). There were other applications nearby and another existing wind farm at Rigged Hill (10 turbines) around 15km to the northeast. Hence there is potential for cumulative impacts. There is also some potential for transboundary impacts due to several existing and proposed wind farms on the southeastern edge of Inishowen in County Donegal. Adequate separation distances will be an issue. Ideally any additional wind energy development in this LCA would lie outside the zone of visual influence of these developments.

Appendix 2 – 2018 Landscape Review – District Photographs

a) NIRLCA 5 West Tyrone Hills

Rolling landscape with strong hedgelines and single turbines.

Looking south between Victoria Bridge and Castlederg.

Looking southwest approaching Castlederg with distinctive saw-back skyline

Multi arched stone bridge at Killeter.

b) NIRLCA 6 Foyle Valley

View across River Foyle Valley and Donegal Hills beyond from Artigarvan

Agricultural land adjacent to River Foyle (Bready) looking towards Strabane.

Waterside approaches & setting viewed from Cityside.

City side viewed from Top of the Hill, Waterside.

Views across Enagh Lough towards Derry.

Views northwest from Hollyhill, Artigarvan

Setting of Newbuildings from Cityside

View towards Slievekirk from Newbuildings

Bessy Bell provides a backdrop for Newtownstewart.

Looking across the Owenkillew River at Newtownstewart with Mary Gray in the background.

Economic enterprise in the countryside.

Knockavoe is prominent in cross border views for the setting for Strabane.

c) NIRLCA 7 Sperrins

The Owenkillew River, south west of Plumbridge still showing the scars of the 22nd August 2017 flood event.

Glenelly Valley landscape – western end – wider and more open.

Glacial valley moraines midway along the Glenelly Valley

Conifer plantations breaking the skyline along the eastern end of the Glenelly Valley.

Vernacular bridge on the Glenelly Valley

Derelict vernacular property alongside the Glenelly River

Imposing southern ridgeline of the Glenelly Valley

More ‘wilder’, enclosed character of the eastern end of the Glenelly Valley

Flood damage adjacent to the Glenelly River still visible after 22nd August 2017 flood event

Long distance views to the northwest from beneath Sawel and Dart.

Derelict vernacular farmhouse near Sawel & Dart.

The Sperrin ridgeline is prominent in long distance views between Newtownstewart and Plumbridge.

d) NIRLCA 8 North Sperrins Hills and Valleys

Slievekirk Windfarm on the northern side of Bonds Glen.

Brackfield Bawn dating back to the early 17th Century.

Lettermire Hill (247ms) and The Highland Hill (294ms) provide a backdrop to Claudy.

Sand and Gravel extraction in Donemana on glacial slopes within the AONB boundary.

Donemana Castle – a fortified farmhouse dating back to the early 17th Century.

The well wooded glacial slopes provide a significant setting to Donemana.

Power cables are very significant in views across the Faughan Valley which has historically been considerably shaped by sand and gravel extraction.

Derry settlement limit development appearing on Faughan Valley skyline

Remains of Second World War bomb dump buildings, Kilnappy, Faughan Valley.

The well wooded landscape around Learmount Castle provides an attractive setting to Park

Standing stone, Longland Rd between Claudy and Donemana

The 19th Century Ogilby's Castle is a significant historical architectural feature on the Longland Rd approaching Donemana.

Sawel and Dart within the Sperrins are prominent in long distance views across the North Sperrins Hills and Valleys.

The River Faughan Valley adjacent to the busy A6 approaching Derry is a prominent, well wooded feature.

The well wooded nature continues in the adjoining Burntollet River Valley where the ancient and long established Oak woodlands provide a significant recreational facility at the Ness and Ervey Woodland Parks.

The future upgrading of the A6 is likely to have significant landscape impacts, although associated landscaping and planting will soften the impact through time.

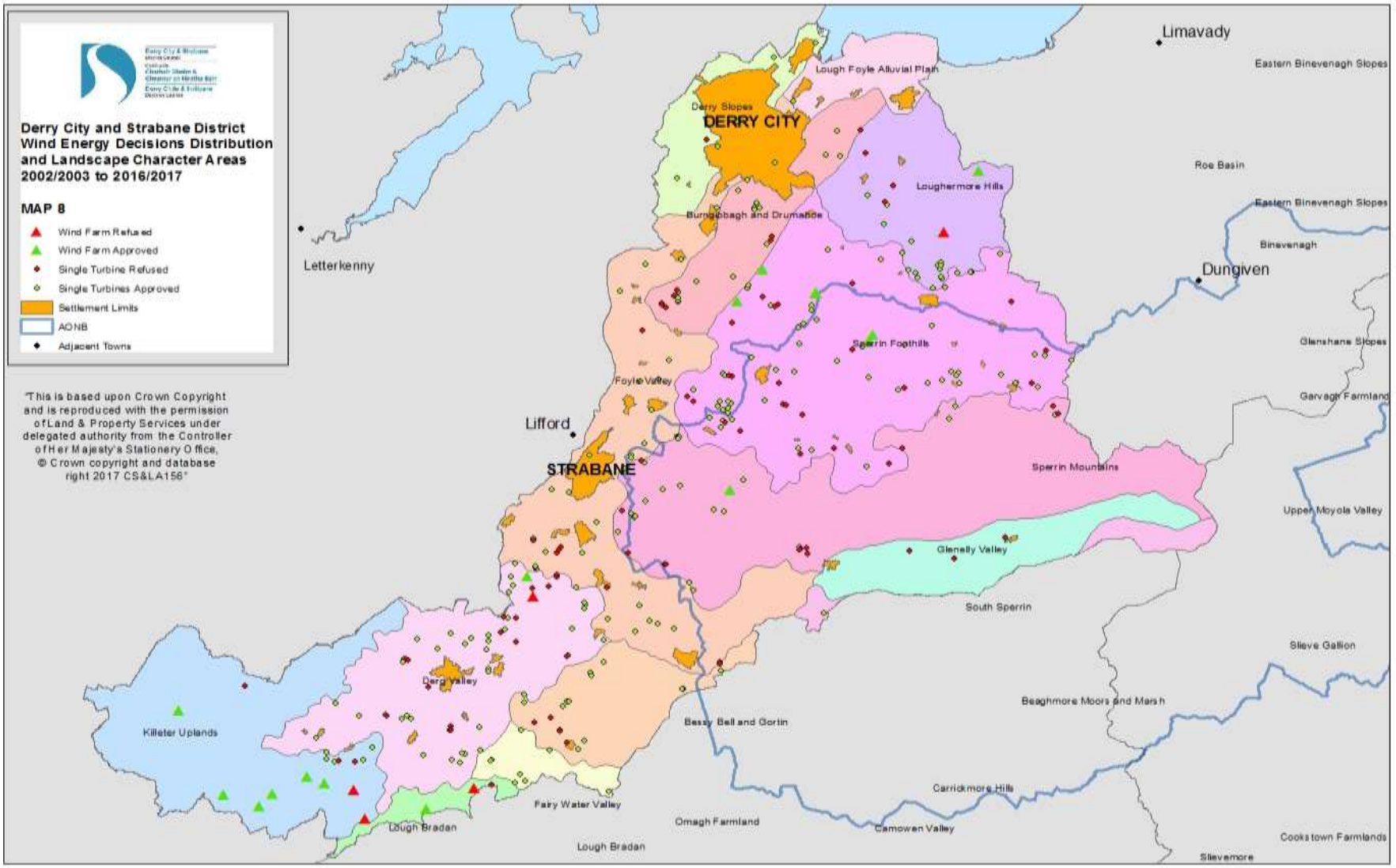
The linear style development of Straidarran along the B74 is prominent in long distance views from the Sperrin foothills, particularly when lit up at night.

e) NIRLCA 9 Lough Foyle Coast and Dunes

The Donnybrewer and Longfield Levels provide an expansive flat setting to the City of Derry Airport, with the Donegal Hills beyond.

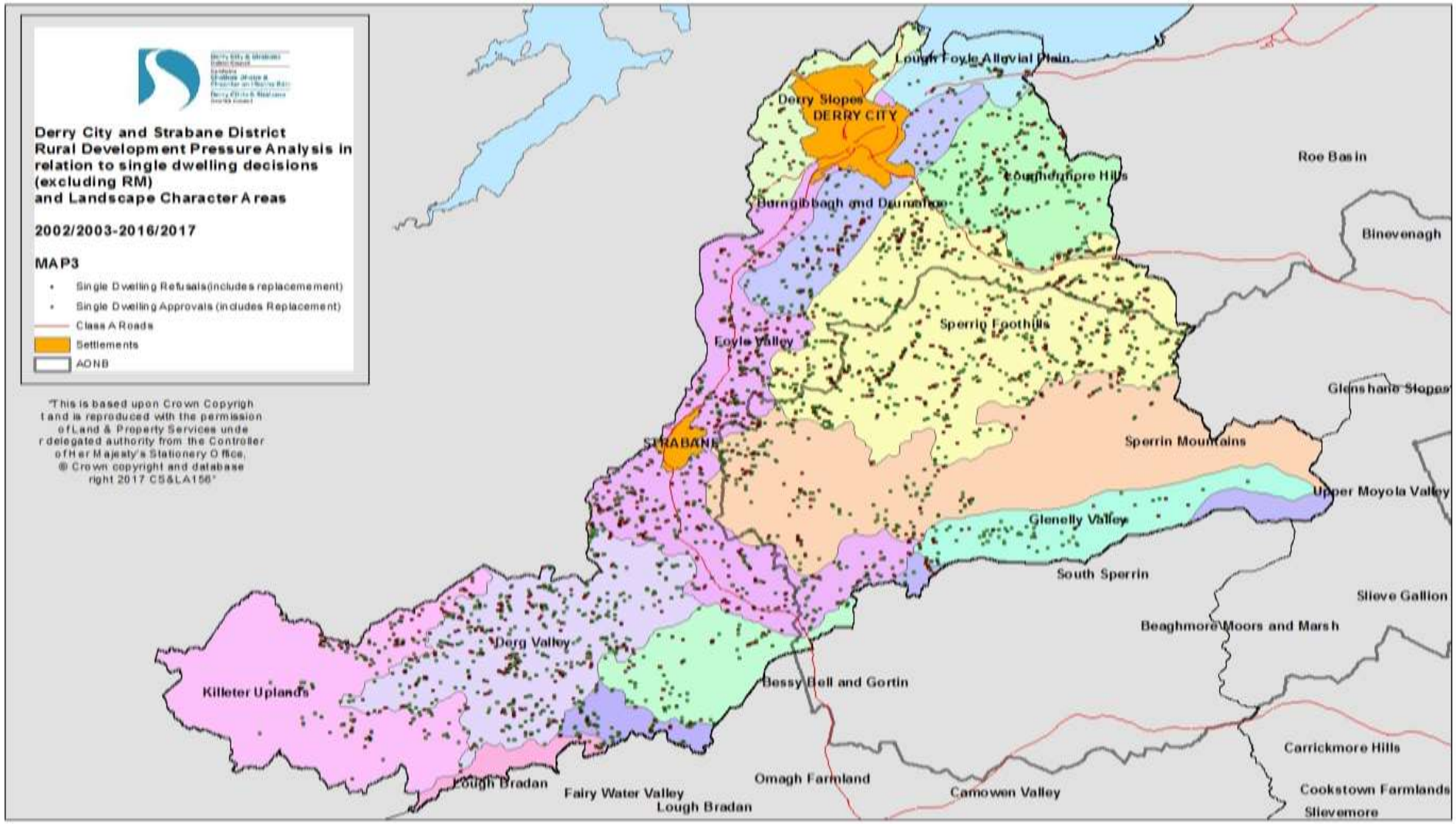
The flat coastal plain contains key economic sites such as the Port, Coolkeeragh Power Station and Dupont / Invista at Maydown.

The remains of the Second World War jetties where the German U-boats were moored after their surrender in 1945, are a prominent historical feature adjacent to the train line in and out of the city.



Appendix 1 - Map 1: Wind Energy Decision Distribution & Landscape Character Areas

Map 2: Rural Development Pressure Analysis (Single Dwellings) & Landscape Character Areas



Appendix 1: Map 3 SCA, AHLI & WECA Designations proposals