



Local Development Plan 2030

# draft Plan Strategy Response Form

September 2019

[www.midandeantrim.gov.uk/planning](http://www.midandeantrim.gov.uk/planning)



**Mid & East  
Antrim**  
Borough Council

## Mid and East Antrim draft Plan Strategy 2030

### Overview

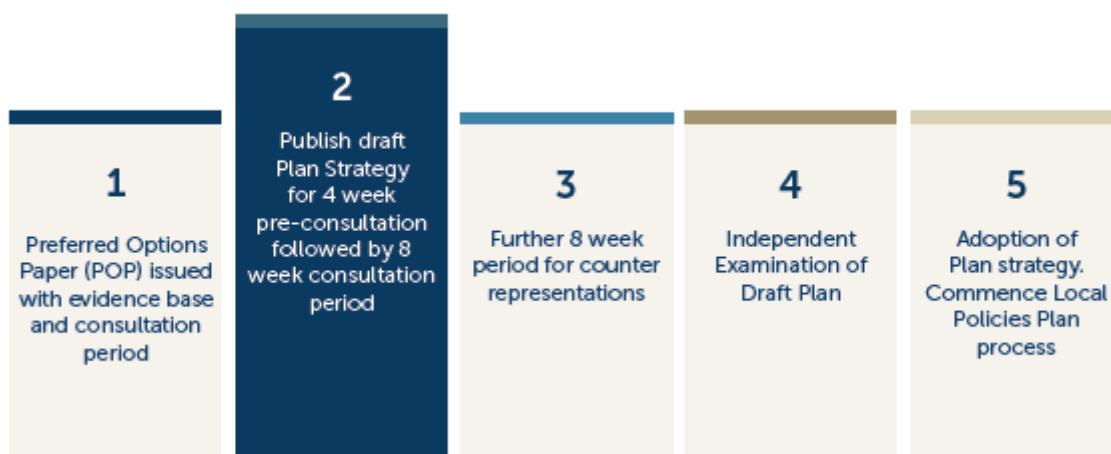
The Local Development Plan is primarily about delivering sustainable development and improving the quality of life and wellbeing of communities in Mid and East Antrim. It sets out a Spatial Growth Strategy underpinned by other strategic policies and proposals as a means of ensuring that development is high quality, meets local needs and is located in the appropriate places convenient to jobs and public services.

The Local Development Plan will also balance competing demands ensuring that new development respects our quality landscapes and our precious natural and historic environment, all of which expresses the unique identity of our Borough and underpins our growing tourism sector. Through guiding future development and use of land in our towns, villages and rural areas, the Local Development Plan will provide certainty as, under the new Plan-led system, it will be the first thing to be taken into account by Council when taking planning decisions. The Local Development Plan is a powerful tool for place-shaping and will assist in the delivery of our Community Plan 'Putting People First'.

The draft Plan Strategy sets out how our Borough will grow and change up to the year 2030. It puts forward our Plan vision and strategic objectives for the future. It also contains a Spatial Growth Strategy and supporting Strategic Spatial Proposals indicating where growth should be directed in the Borough. It also sets out a range of Strategic Subject Policies under the five key themes of Sustainable Economic Growth; Building Sustainable Communities; Transportation, Infrastructure and Connectivity; Stewardship of our Built Environment and Creating Places and Safeguarding our Natural Environment, which together will support the Spatial Growth Strategy and inform future planning decisions.

### How we got here

The draft Plan Strategy is the first of two documents, which comprise the Local Development Plan. Once adopted, it will be followed by the Local Policies Plan which will set out our detailed site-specific proposals such as land use zonings and local designations such as settlement limits and town centre boundaries. The draft Plan Strategy has been developed following extensive engagement with the public, stakeholders and our elected Members and follows on from the publication of our Preferred Options Paper in June 2017. The key stages in this phase of the plan making process are shown below



## How We Are Consulting

The easiest and quickest way to comment is by completing our online response form:  
[consult.midandeastantrim.gov.uk](https://consult.midandeastantrim.gov.uk)

Alternatively, complete this draft Plan Strategy Response Form and either return by email to [planning@midandeastantrim.gov.uk](mailto:planning@midandeastantrim.gov.uk) or download a copy and post to:

Local Development Plan  
Team, County Hall, 182  
Galgorm Road,  
Ballymena,  
BT42 1QF.

The draft Plan Strategy is published for formal public consultation for a period of eight weeks beginning on **Wednesday 16 October and closing at 5pm on Wednesday 11 December 2019**. Please note that in order for comments to be considered valid you must include your contact details. We will use these details to confirm receipt of comments and to seek clarification or request further information. Anonymous comments or comments which do not directly relate to the draft Plan Strategy will not be considered as part of the consultation process. For further details of how we handle representations, please refer to our Policies Notice which can be accessed here [https://www.midandeastantrim.gov.uk/downloads/privacy\\_notice\\_ldp.pdf](https://www.midandeastantrim.gov.uk/downloads/privacy_notice_ldp.pdf).

## Section A. Data Protection

### Local Development Plan Privacy Notice

Mid and East Antrim Borough Council is a registered data controller (ZA076984) with the Information Commissioner's Office and we process your information in accordance with the General Data Protection Regulation and Data Protection Act 2018.

Mid and East Antrim Borough Council collects and processes personal information about you in order to fulfil our statutory obligations, to provide you and service users with services and to improve those services.

Our Privacy Notice relates to the personal information processed to develop the Council's Local Development Plan (LDP) and can be viewed at [https://www.midandeastantrim.gov.uk/downloads/privacy\\_notice\\_ldp.pdf](https://www.midandeastantrim.gov.uk/downloads/privacy_notice_ldp.pdf). It contains the standards you can expect when we ask for, or hold, your personal information and an explanation of our information management security policy. All representations received will be published on our website and made available at our Local Planning Office, County Hall, 182 Galgorm Road, Ballymena, for public inspection and will be forwarded to the Department of Infrastructure in advance of Independent Examination.

If you wish to find out more about how the Council processes personal data and protect your privacy, our corporate privacy notice is available at [www.midandeastantrim.gov.uk/privacy-notice](https://www.midandeastantrim.gov.uk/privacy-notice).

### Why are we processing your personal information?

- To enable the preparation of the Council's Local Development Plan;
- To consult your opinion on the Local Development Plan through the public consultation process as well as other section functions;
- To ensure compliance with applicable legislation;
- To update you and/or notify you about changes; and
- To answer your questions.

If you wish to find out more information on how your personal information is being processed, you can contact the Council's Data Protection Officer:

Data Protection Officer  
Mid and East Antrim Borough Council  
The Braid  
1-29 Bridge Street  
Ballymena  
BT43 5EJ

Section B. Your Details

**Q1. Are you responding as individual, as an organisation or as an agent acting on behalf of individual, group or organisation? (Required)**

**Please only tick one**

- ☐ Individual *(Please fill in the remaining questions in the section, then proceed to Section F.)*
- ☐ Organisation *(Please fill in the remaining questions in the section, then proceed to Section D.)*
- ☐ Agent *(Please fill in the remaining questions in the section, then proceed to Section E.)*

**Q2. What is your name?**

Title

Mrs

First Name **(Required)**

Sara

Last Name **(Required)**

Tinsley

Email

sara.tinsley@turley.co.uk

**Q3. Did you respond to the previous Preferred Options Paper?**

- ☐ Yes ☒ No ☐ Unsure

Section C. Individuals

Address Line 1 **(Required)**

Line 2



Line 3

Town **(Required)**

Postcode **(Required)**

## Section D. Organisation

If you have selected that you are responding as an organisation, there are a number of details that we are legally required to obtain from you.

If you are responding on behalf of a group or organisation, please complete this section, then proceed to Section F.

Organisation / Group Name **(Required)**

Your Job Title / Position **(Required)**

Organisation / Group Address (if different from above)

Address Line 1 **(Required)**

Line 2

Line 3

Town **(Required)**

Postcode **(Required)**

## Section E. Agents

If you have selected that you are responding on behalf of another individual, organisation or group there are a number of details that we are legally required to obtain from you.

Please provide details of the individual, organisation or group that you are representing.

RES UK & Ireland

Client Contact Details

Title

First Name (Required)

Last Name (Required)

Address Line 1 (Required)

Willowbank Business Park

Line 2

Millbrook

Line 3

Town (Required)

Larne

Postcode (Required)

BT40 2SF

Q4. Would you like us to contact you, your client or both in relation to this response or future consultations on the LDP?

Please only select one.

☐ Agent ☐ Client ☒ Both

## Section F. Soundness

The draft Plan Strategy will be examined at Independent Examination in regard to its soundness. Accordingly, your responses should be based on soundness and directed at specific strategic policies or proposals that you consider to be unsound, along with your reasons. The tests of soundness are set out below in Section M.

Those wishing to make representations seeking to change the draft Plan Strategy should clearly state why they consider the document to be **unsound** having regard to the **soundness tests** in Section M. It is very important that when you are submitting your representation that your response reflects the most appropriate soundness test(s) which you believe the draft Plan Strategy fails to meet. There will be no further opportunity to submit information once the consultation period has closed unless the Independent Examiner requests it.

Those who make a representation seeking to change the draft Plan Strategy should also state whether they wish to be heard orally.

## Section J. Type of Procedure

**Q5. Please indicate if you would like your representation to be dealt with by:**  
**(Required)**

Please select one item only

- ☐ Written (Choose this procedure to have your representation considered in written form only)
- ☒ Oral Hearing (Choose this procedure to present your representation orally at the public hearing)

Unless you specifically request a hearing, the Independent Examiner will proceed on the basis that you are content to have your representation considered in written form only. Please note that the Independent Examiner will be expected to give the same careful consideration to written representations as to those representations dealt with by oral hearing.

## Section K. Is the draft Plan Strategy Sound?

Your comments should be set out in full. This will assist the Independent Examiner understand the issues you raise. You will only be able to submit further additional information if the Independent Examiner invites you to do so.

### Sound

If you consider the Plan Strategy to be Sound and wish to support the Plan Strategy, please set out your comments below.

**(Required)**

## Section L. Unsound

In this section we will be asking you to specify which part(s) of the draft Plan Strategy you consider to be unsound.

**Note:** If you wish to inform us that more than one part of the draft Plan Strategy is unsound each part should be listed separately. Complete this page in relation to one part of the draft Plan Strategy only.

**Q6. If you consider that the draft Plan Strategy is unsound and does not meet one or more of the tests of soundness below, you must indicate which test(s) you consider it does not meet, having regard to Development Plan Practice Note 6 available at:**

[https://www.planningni.gov.uk/index/news/dfi\\_planning\\_news/news\\_releases\\_2015\\_onwards/development\\_plan\\_practice\\_note\\_06\\_soundness\\_version\\_2\\_may\\_2017.pdf](https://www.planningni.gov.uk/index/news/dfi_planning_news/news_releases_2015_onwards/development_plan_practice_note_06_soundness_version_2_may_2017.pdf)

**Please note if you do not identify a test(s) your comments may not be considered by the Independent Examiner.**

Continued on next page.



## Section M. Tests of Soundness (Required)

### Procedural tests

- ☒ P1. Has the plan been prepared in accordance with the Council's timetable and the Statement of Community Involvement?
- ☐ P2. Has the Council prepared its Preferred Options Paper and taken into account any representations made?
- ☒ P3. Has the plan been subject to Sustainability Appraisal including Strategic Environmental Assessment?
- ☒ P4. Did the Council comply with the regulations on the form and content of its plan and on the procedure for preparing the plan?

### Consistency tests

- ☐ C1. Did the Council take account of the Regional Development Strategy?
- ☐ C2. Did the Council take account of its Community Plan?
- ☒ C3. Did the Council take account of policy and guidance issued by the Department?

### Coherence and effectiveness tests

- ☒ CE1. The plan sets out a coherent strategy from which its policies and allocations logically flow and where cross boundary issues are relevant is it in conflict with the plans of neighbouring Councils.
- ☒ CE2. The strategy, policies and allocations are realistic and appropriate having considered the relevant alternatives and are founded on a robust evidence base.
- ☒ CE3. There are clear mechanisms for implementation and monitoring.
- ☐ CE4. The plan is reasonably flexible to enable it to deal with changing circumstances.

## Section N. Which part(s) of the draft Plan Strategy are you commenting on?

This should relate to only one section, paragraph or policy of the draft Plan Strategy. If you wish to inform us that you consider more than one part of the draft Plan Strategy is unsound, you can submit further representations by completing and submitting additional copies of this section.

### Relevant Policy number(s)

See Enclosed Representation

(and/or)

### Relevant Paragraph number(s)

See Enclosed Representation

(and/or)

### District Proposals Map

See Enclosed Representation

Please give full details of why you consider the draft Plan Strategy to be unsound having regard to the tests(s) you have identified above. Please be as clear and concise as possible.

See Enclosed Representation

If you consider the draft Plan Strategy to be unsound, please provide details of what changes(s) you consider necessary to make the draft Plan Strategy sound.

See Enclosed Representation



**Mid & East  
Antrim**  
Borough Council

**Local Development Plan Team**  
County Hall  
182 Galgorm Road  
Ballymena  
BT42 1QF

Tel: 0300 124 5000  
[planning@midandeantrim.gov.uk](mailto:planning@midandeantrim.gov.uk)

[www.midandeantrim.gov.uk/planning](http://www.midandeantrim.gov.uk/planning)

# Representations to Mid and East Antrim Borough Council Draft Plan Strategy

On behalf of RES UK & Ireland

December 2019

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**Client**

RES UK & Ireland

**Our reference**

RESB3002

December 2019



## Executive Summary

1. This representation is submitted behalf of RES UK & Ireland in response to consultation on the Mid and East Antrim Borough Council Local Development Plan 2030 draft Plan Strategy (dPS).
2. The dPS is unsound as the legal compliance tests have not been met.
3. Furthermore, the Sustainability Assessment (SA) provided in support of the dPS is flawed. These flaws render the dPS in its entirety unsound as soundness test P3 cannot be met.
4. The following table summarises the draft policies which are unsound, for the reasons specified:

### Schedule of key draft Policy Comments

Policy	Comment	Cross ref.
Draft Policy RE1	This draft policy seeks to introduce more control over the development of renewable energy schemes but is in conflict with the main objectives of the plan  This policy fails soundness test CE1, CE2, CE3 and C3	Section 5
Draft Policy TOC1	This draft policy fails to recognise that there are exceptions where development will be accepted within the proposed SCA's. The draft policy should reflect these exceptions.  We object to this draft policy as it is unsound and it fails tests CE2 and CE3.	Section 4
Draft Policy CS2	The council is proposing restriction of development with no exceptionality for renewable development.  This policy therefore fails soundness tests CE2.	Section 7
Draft Policy CS3	The Council is proposing to introduce an Area of Constraint on High Structures.  The draft policy conflicts with and is inconsistent with the approach set out in the SPSS and PPS18 and is not based on a robust evidence base.  We object to this draft policy as it is unsound and it fails tests CE1, CE2, CE3 and C3.	Section 4
Draft Policy CS5	This draft policy by cross association to RE1 is unsound. Additionally it conflicts with the provisions of the SPSS and PPS18.  This policy fails against soundness test CE2 and C3	Section 7
Draft Policy HE1	The Council seeks to extend the KnockDhu ASAI.  The Council fails to identify the particular features of	Section 6

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the ASAI to be protected and fails to provide evidence of the harmful effects of wind turbines and high structures on ASAs.

The Council also fails to identify the particular features of the ASAI to justify the proposed area of extension.

Therefore this policy fails soundness test CE2 and CE3.

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# 1. Introduction

- 1.1 This representation is submitted on behalf of RES UK & Ireland Ltd ('RES') in response to the consultation on the Mid and East Antrim Borough Council draft Plan Strategy (dPS).

## **The Importance of Renewable Energy to Northern Ireland**

- 1.2 The UK government in June 2019 set out amendments to the Climate Change Act 2008 to ensure net greenhouse gas emissions in 2050 are at least 100% lower than the 1990 baseline.<sup>1</sup> The targets set out in the Act, which cover all sectors of the economy, are legally binding and came into effect on 27 June 2019.
- 1.3 The updated Act reflects UK and Northern Ireland's commitment to targeting ambitions in line with the requirements of the Paris Agreement.
- 1.4 NI's contribution requires at least a 35% reduction of greenhouse gases emissions against 1990 levels by 2030, and the Committee for Climate Change have identified policy measures that have potential to reflect a 40% reduction by 2030 in NI.
- 1.5 The Strategic Energy Framework (Department for Trade and Investment) 2010 – 2020 sets out a target of 40% of electricity consumption in NI to be met from renewables by 2020.
- 1.6 Locally, the System Operator for Northern Ireland (SONI) launched a consultation document - Tomorrow's Energy Scenarios Northern Ireland 2019 (TESNI 2019) in September 2019. This sets out scenario planning as a means to create a range of possible energy futures that capture the impact of changes in moving to low carbon electricity for NI.
- 1.7 The central role of renewable energy in the delivery of sustainable development is recognised by national policy. Para 6.214 of the Strategic Planning Policy Statement for Northern Ireland (SPPS): Planning for Sustainable Development(1) explains Northern Ireland has significant renewable energy resources and a vibrant renewable energy industry that makes an important contribution towards sustainable development as well as being a significant provider of jobs and investment across the region.
- 1.8 An 2017 analysis by NIRIG 'Onshore wind: Economic benefits in Northern Ireland' estimated that onshore wind created 500 jobs and £32 million in gross value added (GVA) in the Northern Irish economy in 2014.
- 1.9 Planning Policy Statement 18 (PPS18) Renewable Energy explains how greater use of renewable energy will also reduce dependence on imported fossil fuels, bring diversity and security of supply to our infrastructure, and help Northern Ireland achieve its targets for reducing carbon emissions.

<sup>1</sup> UK Government, Climate Change Act 2008 (2050 Target Amendments) Order 2019

## About RES

- 1.10 RES is one of the world's leading independent renewable energy project developers with operations across Europe, the Americas and Asia-Pacific. At the forefront of renewable energy development for over 30 years, RES has developed and/or built almost 12,000 MW of renewable energy capacity worldwide. In the UK alone, RES currently has more than 1,000 MW of projects either constructed, under construction or consented. RES is active in a range of renewable energy technologies including onshore and offshore wind, solar, as well as enabling technologies such as energy storage.
- 1.11 RES has developed 16 onshore wind farms in Northern Ireland totalling 229 MW, which equates to 36% of Northern Ireland's onshore wind capacity. RES currently operates over 83 MW of wind capacity across Northern Ireland, has secured planning permission for a further 112 MW awaiting construction and has 92 MW in the planning system.
- 1.12 RES is involved in a range of renewable energy technologies, including onshore wind, solar, offshore wind, wave and tidal, as well as enabling technologies such as energy storage and demand side management. Across all of these, their reputation for quality and reliability is second to none.
- 1.13 RES aims to be at the leading edge of the transition to a low-carbon economy across the UK and Ireland by generating renewable energy and supporting the technology that creates it. They also provide development, engineering, construction, and asset operation and maintenance services for utility-scale onshore and offshore wind, solar, and energy storage installations.
- 1.14 RES is fully supportive of sustainable development and committed to exploring opportunities for wind energy development to deliver positive impacts to the local community and economy whilst addressing environmental considerations.
- 1.15 This representation focuses on the interests of RES within Mid and East Antrim Borough Council and whilst some specific locations are identified, the comments apply to the relevant policies across the District.
- 1.16 RES is currently advancing application proposals for a wind energy development at Ballygilbert and accordingly this representation includes some specific references to development proposals. The proposal is located approximately three kilometres north west of Cairncastle and is anticipated to yield in the region of 14 no. turbines. The site location map is at **Appendix 1**.
- 1.17 A Proposal of Application Notice (LA02/2019/0568/PAN) was submitted to Department for Infrastructure ('DfI') on 19 July 2019 relating to the following site:  
  
*'In the townlands of Ballycoos, Ballygawn, Ballygilbert, Lisnahay North and Lisnahay South and is approximately 3km North west of the village of Cairncastle, Larne, Co Antrim'*
- 1.18 The proposal is as follows:

*A proposed wind farm development comprising up to 14 three bladed horizontal axis wind turbines, each up to a maximum of 149.9 to tip height, with a total installed capacity of up to 50.4MW, associated external electricity transformers; underground cabling; an upgraded site entrance; access tracks; turning heads; crane hardstandings; control building and substation compound, a number of off-site areas of widening to the public road. During construction and commissioning there would be a number of temporary works including a construction compound with car parking, an enabling works compound, temporary parts of a crane hardstandings, welfare facilities and temporary guyed meteorological masts.*

- 1.19 A copy of the PAN is at **Appendix 2**.
- 1.20 The Department for Infrastructure has confirmed in correspondence dated 9 July 2019 that the proposals are of Regional Significance and therefore subject to the provisions of Section 26 of the Planning Act (Northern Ireland) 2011. A copy of the correspondence is at **Appendix 3**.
- 1.21 Preparations for submission of the planning application are underway which include an accompanying Environmental Impact Assessment. The Environmental Statement will address Landscape and Visual Impact, assessment undertaken by Shanti McAllister and Archaeology and Cultural Heritage, assessment undertaken by Orion. As a result RES has an in depth understanding of the forthcoming application site and surrounding study area. Relevant details are considered in subsequent Sections of this submission.
- 1.22 The proposal site is affected by the following proposed dPS designations:
- Areas of Constraint on High Structures (Northern Section Name - Eastern Garron Plateau and Scarp Slopes/ Southern Section Name - Knockdhu, Sallagh Braes, Scawt Hill to Glenarm Headland)
  - Area of Significant Archaeological Interest (Knockdhu)
  - AONB Antrim Coast and Glens
  - Area of Constraint on Minerals Development
- 1.23 The structure of the submission is as follows:
- Section 2: Provides an assessment of how the draft Plan Strategy addresses the legislative compliance tests;
  - Section 3: Details our representations to the Strategy Environmental Assessment (SEA) and Sustainability Appraisal (SA);
  - Section 4: Details our representations to Telecommunications, Overhead Cables, High Structures and Other Utilities policies;
  - Section 5: Details our representations to Renewable Energy Policies;
  - Section 6: Details our representations to Built Heritage Policies;

- Section 7: Details our representations to Natural Heritage Policies; and
- Section 8: Provides a conclusion.



## 2. Legislative Compliance

2.1 In preparing their draft Plan Strategy (dPS), Mid and East Antrim Borough Council ('the Council') is required to adhere to the provisions of the Planning Act (Northern Ireland) 2011 ('Act') and the Planning (Local Development Plan) Regulations (Northern Ireland) 2015 ('Regulations').

2.2 This section identifies issues in the compliance of the dPS with the Act and the Regulations.

### **Planning Act (Northern Ireland) 2011**

2.3 Part 2 of the Act stipulates that the Plan Strategy should be prepared in accordance with the Council's timetable, as approved by the Department for Infrastructure ('DfI') and in accordance with the Council's Statement of Community Involvement.

2.4 The Council's Timetable, as approved and published on the Council's website is dated 2019. We note that the Council did publish the dPS within the third Quarter of 2019 as indicated in the approved timetable as it is made public on 17 September 2019. However, we would highlight that the timetable shows that this timeframe will include:

- An 8 week statutory public consultation period; and
- An 8 week statutory consultation on counter representations.

2.5 We note that the formal consultation period on the dPS did not commence until the 16 October 2019 and therefore falls outside of the broad timeframe set out in the timetable. This also means that the counter-representation stage falls outwith the agreed timeframe and could result in further conflict with the timetable.

2.6 In preparing a Plan Strategy, the Council must take account of:

- the Regional Development Strategy;
- The Council's current Community Plan;
- Any policy or advice contained in guidance issued by the Department;
- Such other matters as the Department may prescribe or, in a particular case, direct, and may have regard to such other information and considerations as appear to the council to be relevant.

2.7 This representation identifies specific instances where, in particular, policy issued by the Department has not been adequately assessed.

2.8 The Act also requires that the Council:

*“(a) carry out an appraisal of the sustainability of the plan strategy; and*

*(b) prepare a report of the findings of the appraisal.”*

- 2.9 We have identified significant flaws with the Council's Sustainability Assessment and identify them in this representation in Chapter 3.

### 3. Strategic Environmental Assessment and Sustainability Appraisal

- 3.1 These representations to the Mid and East Antrim Local Development Plan Draft Plan Strategy have been prepared by Turley Sustainability on behalf of RES UK & Ireland. They relate to the Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA) process undertaken in support of the each LDP preparation stage.
- 3.2 DPP Note 04 (para 3.1) states “the purpose of SA is to promote sustainable development through the integration of social, environmental and economic considerations into the preparation of plans and programmes such as local development plans.”
- 3.3 Given their commitment to sustainable development and the function of the SEA/SA process in relation to the emerging Mid and East Antrim Local Plan, RES wishes to engage positively in the local plan process. Representations are made in relation to proposals currently under preparation for the development of a 14 turbine wind farm at Ballygilbert in Co Antrim and also the wider policy context across the Council borough. This will ensure the emerging Mid and East Antrim Local Development Plan accords with national policy and SA/SEA guidance and appropriately reflects the significant environmental, social and economic benefits of wind energy.
- 3.4 The documents that have been reviewed are;
- Mid and East Antrim District Council Local Development Plan 2030, Draft Plan Strategy, September 2019 (hereafter referred to as the dPS).
  - Mid and East Antrim District Council Local Development Plan, Sustainability Appraisal (hereafter referred to as The Draft SA Report) of the LDP Draft Plan Strategy Incorporating the Strategic Environmental Assessment, September 2019.
- 3.5 For Northern Ireland the relevant guidance with respect to Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) is;
- Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (the EAPP Regulations); and
  - Development Plan Practice Note. Sustainability Appraisal incorporating Strategic Environmental Assessment. April 2015.
- 3.6 Given the complexity of the SA process and the experience (including relevant case law referenced in these representations) of its application in England, Scotland and Wales, it is also recommended by the guidance above<sup>2</sup> refer to the following guidance where necessary;

<sup>2</sup> [https://www.planningni.gov.uk/index/advice/practice-notes/dp\\_practice\\_note\\_4\\_sa.pdf](https://www.planningni.gov.uk/index/advice/practice-notes/dp_practice_note_4_sa.pdf). Page 42.

- A Practical Guide to SEA. Department of Communities and Local Government, September 2005;
  - National Planning Practice Guidance. Strategic environmental assessment and Sustainability appraisal. (<http://planningguidance.communities.gov.uk/>).
  - SEA and SA; Planning Practice Guidance (PPG); Ministry of Housing, Communities & Local Government (HCLG); February 2015;
  - Strategic Environmental Assessment: Improving the effectiveness and efficiency of SEA/SA for land use plans; RTPI; January 2018; and
  - SEA & Climate Change: Guidance for Practitioners; Environment Agency; 2011.
- 3.7 RES are fully supportive of the principles of sustainable development and the need to positively tackle the climate crisis by radically increasing the percentage of energy we generate from renewable sources and reducing the combustion of fossil fuels.
- 3.8 Indeed Paragraph 6.216 of the SPSS states that:

*Renewable energy reduces our dependence on imported fossil fuels and brings diversity and security of supply to our energy infrastructure. It also helps Northern Ireland achieve its targets for reducing carbon emissions<sup>50</sup> and reduces environmental damage such as that caused by acid rain. Renewable energy technologies support the wider Northern Ireland economy and also offer new opportunities for additional investment and employment, as well as benefitting our health and well-being, and our quality of life.*

### **The Importance of Renewable Energy to Northern Ireland**

- 3.9 The central role of renewable energy in the delivery of sustainable development is recognised by national policy. Para 6.214 of the Strategic Planning Policy Statement for Northern Ireland (SPPS): Planning for Sustainable Development<sup>3</sup> explains Northern Ireland has significant renewable energy resources and a vibrant renewable energy industry that makes an important contribution towards sustainable development as well as being a significant provider of jobs and investment across the region.
- 3.10 Indeed, a 2017 analysis by NIRIG 'Onshore wind: Economic benefits in Northern Ireland'<sup>4</sup> estimated that onshore wind created 500 jobs and £32 million in gross value added (GVA) in the Northern Irish economy in 2014.
- 3.11 Planning Policy Statement 18 (PPS18) Renewable Energy<sup>5</sup> explains how greater use of renewable energy will also reduce dependence on imported fossil fuels, bring diversity and security of supply to our infrastructure, and help Northern Ireland achieve its targets for reducing carbon emissions.

<sup>3</sup> [https://www.planningni.gov.uk/index/policy/spps\\_28\\_september\\_2015-3.pdf](https://www.planningni.gov.uk/index/policy/spps_28_september_2015-3.pdf)

<sup>4</sup> <http://149.255.57.18/~nirigweb/wp-content/uploads/2017/03/Onshore-Wind-Economic-Benefits-NI.pdf>

<sup>5</sup> [https://www.planningni.gov.uk/index/policy/planning\\_statements\\_and\\_supplementary\\_planning\\_guidance/planning\\_policy\\_statement\\_18\\_renewable\\_energy.pdf](https://www.planningni.gov.uk/index/policy/planning_statements_and_supplementary_planning_guidance/planning_policy_statement_18_renewable_energy.pdf)

- 3.12 At a strategic policy level, RES UK and Ireland agrees with the introductory paragraphs within the dPS 9.32 - 9.33 which states that:

*Renewable energy reduces our dependence on imported fossil fuels and brings diversity and security of supply to our energy infrastructure. It also helps Northern Ireland achieve its targets for reducing carbon emissions<sup>50</sup> and reduces environmental damage such as that caused by acid rain. Renewable energy technologies support the wider Northern Ireland economy and also offer new opportunities for additional investment and employment, as well as benefitting our health and well-being, and our quality of life.*

*With the growth anticipated in our Borough over the Plan period, the provision of renewables is vital to meet the greater energy demands of the future. Renewable energy developments must therefore be accommodated in order to meet this demand and regional targets, whilst also protecting our environment and our sensitive landscapes.*

- 3.13 The dPS contains several policies which, directly and indirectly control the feasibility, viability and location of renewable energy infrastructure and particularly wind turbines. These policies are:

- Draft Policy CS1 – Sustainable development in the Countryside (cross refers to Draft Policy RE1)
- Draft Policy CS2 – Special Countryside Areas
- Draft Policy CS3 - Areas of Constraint on High Structures
- Draft Policy CS5 – Antrim Coast and Glens Area of Outstanding Natural Beauty
- Draft Policy RE1 – Renewable Energy Development; and
- Draft Policy TOC1 – Telecommunications Development and Overhead Cables

- 3.14 These policies have been reviewed by RES for both soundness and legal compliance with the SPSS and SEA Regulations.

### **Concerns relating to the SA process**

- 3.15 RES's overriding concern with the dPS and the SA process is that the policies significantly restrict the development of Wind Turbines in the M&EA plan area. The application of the policies above in effect create a presumption against large scale wind turbine development throughout the M&EA Borough.
- 3.16 This is explained in greater detail below as part of the review of the individual policies listed above.

### **Draft Policy CS1 – Sustainable development in the Countryside (cross refers to Draft Policy RE1)**

- 3.17 Draft Policy CS1 has been scoped out of the SA review on the basis that it is in effect a signpost to spatial policies specifically addressing renewable energy development.

Representations made by Turley Planning conclude that this Policy is unsound on the basis that it relies upon Policies such as RE1 (Renewable Energy Development) which in itself is considered unsound.

- 3.18 From an SA perspective, Policy CS1 will be amended through amendments to supporting policies such as RE1. Once this occurs, Policy CS1 should be re-screened for appraisal within the SA.

**Draft Policy CS2 – Special Countryside Areas**

- 3.19 Draft Policy CS2 creates Special Countryside Areas (SCAs) with a presumption against all new development in these areas unless there is an exceptional circumstance. The evidence that underpins this policy is contained within the Landscape Character Assessment (LCA) within Technical Supplement 10 Countryside.
- 3.20 Representations submitted by Turley Planning confirm that the methodology within this LCA is flawed and that the designations are not justified from a planning perspective. Furthermore there is no criteria for a project to demonstrate regional significance and to justify an application. This wording is unclear as it is not clear whether this relates to all development which would fall under Section 26 of the Planning Act (Northern Ireland) 2011. No further clarification is provided within the supporting text. It is unclear how the Council will implement this consideration.
- 3.21 Given these flaws in the plan and the fact that the designation of Areas of Outstanding Natural Beauty (AONB) exists as a sensitive landscape designation means that Policy CS2 is flawed and not required to ensure protection of the landscape.
- 3.22 From an SA perspective, Policy CS2 is assessed within Section 3.2.11 of the draft SA for which RES would like to make the following comments:
- 3.23 No other reasonable alternatives to the preferred option (Policy CS2) appear to have been considered. The SEA Regulations and Development Plan Practice Note (DPPN) require the consideration of reasonable alternatives to policies that are practical and deliverable.
- 3.24 Given the existence of the AONB designation as a mechanism to protect sensitive landscapes then a reasonable alternative should have been to retain this designation and not introduce a further landscape classification based upon flawed evidence.
- 3.25 Page 177 of the draft SA presents the detailed SA scoring of Policy CS2 against the SA objectives. Given that the policy is based upon flawed evidence and that it effectively precludes any new development within the SCAs, RES have identified the following flaws in the SA Scoring:
- SA Objective 5 - Enable Sustainable Economic Growth - Given the presumption against any development (such as buildings or infrastructure) within the SAC then we do not believe that the policy can achieve a minor positive impact upon the local economy. Without new buildings and infrastructure to support economic growth there can only be a **significant negative impact** upon the local economy in the SACs.



- Several significant positive environmental effects are noted against SA Objective 7 (physical resources) 10 (climate change), 11 (water resources), 12 (biodiversity) and 13 (landscape character). These scores are recorded simply by virtue of the Policy preventing any new development in the SAC which is not in the pursuit of sustainable development and contrary to Paragraph 6.65 of the SPSS which states:

*The aim of the SPSS with regard to the countryside is to manage development in a manner which strikes a balance between protection of the environment from inappropriate development, while supporting and sustaining rural communities consistent with the RDS.*

- 3.26 From a sustainability perspective Policy CS2 is unsound as it does not facilitate sustainable developing in the Countryside as required by the SPSS.

### **Draft Policy CS3, Areas of Constraint on High Structures**

- 3.27 RES have reviewed draft Policy CS3 and have significant concerns that the policy effectively restricts the deployment of any large scale wind turbines above 15m in height in the Areas of Constraint on High Structures (ACHS) as designated in Policy CS3.
- 3.28 Turley Planning have made representations which state that the ACHS are an additional land character designation not permitted under the SPSS without a policy compliant and robust evidence base.
- 3.29 Paragraph 5.9.18 of the dPS confirms that the areas designated under this policy are supported by the evidence contained in the Landscape Character Assessment within Technical Supplement 10 (Countryside Assessment). RES have reviewed this evidence base and cannot identify any justification for the selection of the 15m and 25m heights contained within Policy CS3.
- 3.30 Should this policy be found sound then only small, farm scale wind turbines will be allowed within the ACHS's.
- 3.31 Section 3.2.12 of the SA presents the assessment of Policy CS3 against the SA objectives to which RES have the following comments:
- 3.32 The policy confirms that no reasonable alternatives have been considered in drafting this policy with the justification for the preferred option being the need to protect sensitive landscapes. RES do not believe that this is a suitable justification for the selection of this reasonable alternative and, more importantly, believe that this policy has failed to meet the requirements of the SEA Regulations by identifying reasonable alternatives to this policy.
- 3.33 Given that there is no technical evidence or policy precedent to support the identification of a 25m ceiling on new development in an ACHS, then it is entirely reasonable for the policy to consider other heights which apply to large scale wind turbines. For example turbines can reach in excess of 100m and therefore it would have been appropriate for this policy to test heights above this figure. Turbine technology continues to evolve and is likely to increase further during the Plan timeframe.

- 3.34 Furthermore, there is established SEA Case Law which confirms the need for the SA to test all reasonable alternatives to a policy or allocation. Whilst it is acknowledged that the selection of these reasonable alternatives are the responsibility of the plan maker (M&EA) there is a clear obligation to test more than one reasonable alternative.
- 3.35 By failing to identify any alternatives to the height restrictions within Policy CS3 the SA has failed to meet the legal requirements of the SEA Regulations.
- 3.36 Page 181-182 of the draft SA presents the scoring of Policy CS3 against the SA objectives to which RES make the following comments:

- SA objective 10 (reducing the impacts of climate change) secures a minor positive score as a result of Policy CS2. Given that the policy effectively stops all wind turbine development greater than 15m within an ACHS, wind energy deployment will be minimal at best and given the wind resource available in this area the policy should secure a **significant negative** objective.
- SA objective 12 (protection of natural resources and biodiversity) secures a minor positive score from Policy CS3. RES firmly believe that there is substantial evidence to demonstrate that large scale wind turbine development has a minimal (if any) impact on biodiversity and land take and so it is unsound to assume a positive impact from the restriction of wind turbines in these areas.
- An uncertain impact was recorded for Objective 5 (sustainable economic growth) however given the potential economic boost from renewable energy generation, RES believe that this policy should secure a major negative impact from restricting all wind energy generation.
- A minor negative impact is recorded for SA Objective 6 (manage natural resources sustainably) because it restricts the deployment of wind turbines. RES believe that this should be reduced to a **significant negative** impact given the fact that Policy CS3 will only allow the sporadic development of small wind turbines with minimal generating capacity.

- 3.37 In summary, Policy CS3 is flawed from a planning perspective and does not meet the requirements of the SEA Directive by failing to identify and test reasonable alternatives to the minimum height identified in the policy.
- 3.38 Furthermore the SA scoring does not reflect the true impact of Policy CS3 which, if corrected will result in a greater number of significant negative impacts and a greater impact upon the district's ability to reduce the effects of climate change.

**Draft Policy CS5 – Antrim Coast and Glens Area of Outstanding Natural Beauty**

- 3.39 Representations from Turley Planning confirm that Policy CS5 is flawed because it presumes no development in the AONB is acceptable, however this is contrary to the SPPS which states that development is possible if any adverse impacts are outweighed by the wider benefits with impact determined on a site by site basis.

3.40 From an SA Perspective, Section 3.2.14 of the draft SA presents the results of the assessment of Policy CS5 against the SA Framework to which RES make the following comments:

- A positive score is recorded against SA Objective 5 (Sustainable Economic Growth) despite a presumption against development in the AONB. Under this presumption a **significant negative impact** is the only reasonable conclusion on the basis that new services, facilities and jobs will be severely restricted.

**Draft Policy RE1 – Renewable Energy Development**

3.41 Policy RE1 is the principal policy that guides the spatial distribution of renewable energy infrastructure. It brings together the requirements from policies CS2, CS3, and CS5 which, in combination create a presumption against any wind turbine development in the M&EA district greater than 25m in height.

3.42 Representations from Turley Planning also confirm that the Policy does not confirm with the SPSS with respect to the proximity of wind turbines to occupied, temporarily unoccupied or approved dwellings.

3.43 It is noted however that the policy does facilitate the installation of solar development although removes the permission for large scale solar arrays.

3.44 Section 3.6.11 of the draft SA Report summarises the assessment of Policy RE1 against the SA objectives to which RES have the following comments:

- No reasonable alternatives to this Policy have been considered with the justification being to maintain the policy approach of the SPSS. RES disagree with this justification given that the SPSS fully supports the development of wind energy provided that it meets the individual tests. Given that the district has one of the best wind resources within Northern Ireland, RES believe that a reasonable alternative to test for this Policy would have been the support in principle for large scale wind turbines provided that it met the requirements of the SPSS.
- The policy scores a **significant positive** impact against the SA Objective 10 (reducing the impacts of climate change). Given that Policy RE1 effectively removes the potential for large scale wind and solar from the M&EA district (with wind being the most cost effective form of large scale renewable energy generation) then the policy cannot be deemed to have an effective impact upon the causes of climate change. RES believe that this policy should receive a **significant negative** impact against this SA Objective.
- The policy scores a minor positive impact against SA objective 6 (managing resources sustainably) despite the removal of large scale solar and wind which are the districts key natural resources. RES believe that the policy should receive a **significant negative** impact against this SA objective.
- A significant positive impact is recorded for this Policy against SA Objective 13 (landscape protection) with the justification being the prevention of large scale wind development. RES believe that this score is unsound on the basis that

negative landscape impacts from wind turbines cannot automatically be assumed and must be judged on a case by case basis. Given that wind turbine projects have been consented in the district it is reasonable to assume that some projects are clearly acceptable. RES believe that the correct SA scoring would be an **uncertain** effect.

- 3.45 In summary, RES believe that Policy RE1 is unsound and ineffective as it does not encourage the development of renewable energy to ensure a positive impact upon the causes of climate change.

**Draft Policy TOC1 – Telecommunications Development and Overhead Cables.**

- 3.46 Policy TOC1 guides the development of telecommunications equipment and overhead cables with the latter typically required to transport power from large scale wind energy development. It has many aspects which includes the introduction of a height limit of 25m upon such equipment. It also restricts development in Special Countryside Areas.

- 3.47 Section 3.6.12 of the draft SA presents the results of the assessment of this policy by the SA to which RES have the following comments:

- As with Policy CS3, Policy TOC1 has failed to meet the requirements of the SEA Regulations by considering alternatives to the 25m height barrier given that this will effectively restrict all wind turbine development through the restriction of vital energy transmission infrastructure. Policy TOC1 should have tested different heights of infrastructure such as that typically achieved through energy transmission pylons.
- The policy records a no overall effect against SA objective 10 (reducing the impacts of climate change) yet in practice it severely restricts the ability to generate and transmit renewable energy across the district. The SA should therefore amend this score to a **significant** negative impact upon this SA Objective.

**Policy HE1 Archaeological Remains and their Settings**

- 3.48 Policy HE1 restricts new development (such as wind turbines) if it is close to archaeological remains. RES have reviewed section 3.7.1 of the SA which assesses the effects of this policy upon the SA Framework and have the following comments:

- The Policy records no significant effect against SA Objective 10 (reducing the impacts of climate change) yet records a minor negative effect upon SA Objective 3 (provision of sustainable housing) on the basis that the assessment and preservation of archaeological remains will create an additional cost for house builders. RES believe that the policy should have scored a minor negative effect against SA Objective 10 (reducing the impacts of climate change) on the basis that this policy will have a negative effect upon the deployment of wind energy although this would only occur if archaeological remains were present.

## **Summary of representations to the draft Mid and East Antrim Sustainability Appraisal**

- 3.49 RES have reviewed the draft SA supporting the M&EA plan and have a number of significant concerns which result in an unsound SA which does not meet the requirements of the SEA Regulations. These are:
- The draft Plan effectively introduces a presumption against large scale wind energy in the district which is contrary to the SPSS and removes the ability for the plan to effectively tackle the cause of the climate change crisis.
  - The draft SA fails to identify and assess reasonable alternatives the height restrictions imposed though policies CS3 and TOC1 despite there being clear alternatives to consider and assess
  - The draft SA fails to recognise the true sustainability impacts (many of them significantly negative) of the policies which severely restrict wind energy development.
- 3.50 To ensure the SA is sound and legally compliant the council must undertake remedial action to amend the policies and SA scoring prior to any independent examination.

## 4. Telecommunications, Overhead Cables, High Structures and Other Utilities Policies

### Draft Policy CS3 – Areas of Constraint on High Structures

- 4.1 Draft Policy CS3 is proposed to restrict the development of tall structures within areas which the council have deemed sensitive to high structures. As a starting point the SPPS does not make any provisions for the introduction of an area of constraint for high structures associated with telecommunications and renewable energy developments.
- 4.2 Instead the SPPS, paragraphs 6.223, advocates a cautious approach to renewable developments within designated landscapes. Paragraph 6.250 of the SPPS also sets out that proposals for telecommunications will be considered having regard to potential impact on amenity and should avoid areas of landscape sensitivity. This does not endorse the creation of additional designations to restrict such forms of development. Had the SPPS intended for such designations to be introduced it would have specifically identified the use of such designations, as it has done in the case of areas of constraint on minerals development.
- 4.3 For this reason the proposal to introduce an area of constraint is in conflict with the SPPS and therefore fails against soundness test C3.
- 4.4 The policy amplification text to draft Policy CS3 sets out that the extent of the areas of constraint identified has been informed by evidence contained within the Landscape Character Assessment (LCA) within Technical Supplement 10 Countryside Assessment.
- 4.5 At the outset, the LCA sets out that the 2018 assessment has been based on the Northern Ireland Landscape Character Assessment (NILCA) 2000 containing additional information about the cultural, historic and perceptual characteristics of the areas. The LCA has been used to identify a number of Candidate Sensitive Landscape Areas which are then considered further in Appendix E of Technical Supplement 10.
- 4.6 The LCA identifies that renewable energy and infrastructure are two of eight key factors contributing to the changes noted in landscape. In particular the LCA states at paragraph 3.7 that:  
  
*“New overhead power lines and pylons can cause substantial visual disruption leading to loss of tranquillity and erosion of rural character.”*
- 4.7 Whilst renewable energy is identified as a key factor, this is not considered in further detail within Chapter 3. This would appear to be a significant gap in the evidence provided in support of the draft Policy and therefore would fail against soundness test CE2. Renewable energy development and the pressure for wind energy and the impact on the countryside is considered by the Council in Appendix B of Technical Supplement 10. This assessment concludes that paragraph 3.76 that:



*“Given the high environmental and/or visual sensitivity of some areas of the Borough, it may be considered reasons to provide these quality landscape with ‘additional’ policy protection whether or not these areas have experienced pressure for wind energy development. Such a ‘proactive’ policy approach may be considered necessary as such landscapes have limited capacity to absorb high structures and can take only one turbine to compromise the quality of such landscapes.”*

- 4.8 It appears from the evidence that the council is seeking to further protect sensitive landscapes from development that it sees as obtrusive. Given that the areas proposed already benefit from landscape designations, including AONB, ASSI and SPAs it is not considered appropriate to apply a further policy protection. Given the status of the environmental designations already in place sufficient protection is already afforded to these areas and each development can be considered on its own merits.

- 4.9 What the LCA fails to consider is that renewable proposals often have locational requirements which lead to development being located within particular areas. The approach endorsed by the introduction of the area of constraint assumes that high or obtrusive structures are inappropriate in these areas as the landscape sensitivity limits the capacity for development in such locations. Paragraph 7.12 of Technical Supplement 10 considers draft Policy CS3. It states:

*“These are landscapes that are of exceptional scenic quality and/or are important for the setting of landmark features or settlements. These areas are considered highly vulnerable to the adverse impacts of high structures or other types of energy infrastructure that are visually prominent or obtrusive in the landscape. Therefore, within these designated policy areas, there is a presumption against the development of wind turbines, electricity pylons or telecommunications masts/equipment that exceed 15 metres in height or any other forms of energy infrastructure development that will adversely impact on the landscape character by virtue of their visual prominence and/or the environmental integrity of the designated area. However, in recognition of the need to accommodate rural needs and to facilitate regional energy strategies, the policy does allow for exceptions to this policy approach if certain criteria are met. These areas coincide with areas of the Antrim Coast and Glens AONB or Areas of Scenic Quality (NILCA 2000).”*

- 4.10 However, the SPPS sets out at paragraph 6.230 that:

*“it will not necessarily be the case that the extent of visual impact or visibility of windfarm development will give rise to negative effects. Wind farm development are by their nature highly visible, yet this in itself should not preclude them as unacceptable features in the landscape.”*

- 4.11 The proposal by the council to restrict structures of height is therefore in conflict with the SPPS and fails against soundness test C3.
- 4.12 The Council has sought to undertake a more detailed assessment of the areas that they deem are of an exceptional landscape quality and should be afforded further protection. These areas are then identified in various additional designations within the draft Plan Strategy, including the area of constraint on high structures. Section four of

Technical Supplement 10 Appendix E sets out the methodology adopted by the Council.

- 4.13 It is concerning that the assessment of sensitive locations has only been undertaken 'broadly' in accordance with the 2006 HS/SNH Guidance on Local Landscape Designations. Given the use of this guidance as an evidence base to support the addition of further designations within the emerging plan and the scrutiny which the evidence will be under from the Department and the PAC a more robust approach would be to fully align with best practice guidance from elsewhere. In this regard the approach undertaken by the Council would conflict with soundness test CE2.
  
- 4.14 Draft Policy CS3 establishes a height restriction of 15m, or over 25m in exceptional circumstances. No evidence is provided in the supporting information to demonstrate that development above this height will be harmful to the landscape. Therefore the policy fails against soundness test CE2.
  
- 4.15 Whilst the policy seeks to introduce a height restriction of 15 to 25m in most cases, even those cases the applicant is required to demonstrate that the development is not visually prominent. If this is the case then why apply a threshold if all forms of development will be required to meet the same policy test? This undermines the need for the area of constraint and is in conflict with soundness test CE2. It is noted that draft Policy CS1, CS2, CS4 and CS5 relating to the other environmental designations all reference the requirement to demonstrate there is no adverse harm to views and landscape character. In this regard draft policy CS3 is duplicating other policy requirements and is therefore incoherent. 15m/25m is not an appropriate height for modern wind turbines and it would be very difficult to even source a turbine of this scale. The Council has also failed to provide any justification for the arbitrary 15m restriction and therefore the policy fails soundness test CE1 and CE2.
  
- 4.16 For structures above 25m the applicant will be required to demonstrate that the proposal is of such regional significance as to outweigh any detrimental impact. This wording is unclear as it is not clear whether this relates to all development which would fall under Section 26 of the Planning Act (Northern Ireland) 2011. No further clarification is provided within the supporting text. It is unclear how the Council will implement this consideration and therefore the policy conflicts with soundness test CE2 and CE3.
  
- 4.17 As set out in paragraph 5.9.22 of the draft Plan Strategy, the draft policy permits small wind turbines less than 15 in areas of constraint, subject to policy provisions. Within the Council's Technical Supplement 12 they identify that since 2002 269 single turbines have been proved and only 10 wind farm developments have been approved in the same period. This would suggest that the proliferation of turbines that are concerning the Council is as a result of the dispersement of single turbines. Since transfer of Planning Powers to Local Council's in 2015 the Council has granted planning permission for approximately 17% of these single turbines. Draft Policy CS3 would permit the ongoing proliferation of small, single turbines across the borough which could be more harmful to the landscape character than carefully selected and designed wind farm schemes. This would appear to run contrary to the intent of the draft Policy and therefore conflict with soundness test CE2 and CE3.

- 4.18 Again this highlights the view taken by the Council, that tall structures are more harmful to the character. Whilst the SPPS does not endorse this approach.
- 4.19 Finally it is unclear how a policy approach endorsing smaller scale turbines with a lower energy output would ensure that the Council makes a continued contribution towards the environmental objectives of the plan and the Regional Energy Strategy, namely tackling climate change. In this regard the approach endorsed by draft Policy CS3 would conflict with soundness test C3 and CE1.

## **Draft Policy TOC1 – Telecommunications Development and Overhead Cables**

- 4.20 As with draft Policy RE1, this draft policy fails to recognise that there are exceptions where development will be accepted within the proposed SCA's. Draft Policy TOC1 should reflect these exceptions.
- 4.21 The draft Policy sets four criterion for the consideration of proposals relating to telecommunication development and overhead cables as follows:
- (a) There is a need for the proposed development at that location;
  - (b) The proposal minimises visual intrusion;
  - (c) The proposal avoids sensitive locations or features, unless it is clearly demonstrated to the satisfaction of the Council as to why this cannot be achieved; and
  - (d) The proposal meets the ICNIRP guidelines for public exposure to electromagnetic fields.
- 4.22 The draft Policy also requires that the applicant demonstrates that consideration has been given to the sharing of existing masts or infrastructure. We note that this is not reflective of the prevailing policy contained within the SPPS and therefore conflicts with soundness test C3. Furthermore, in the case of proposals relating to renewable energy developments, the applicant will be reliant upon the utilities provider to determine what network capacity is available and to determine the route for network connections. It is therefore considered that this policy requirement could not be met in any event and therefore fails soundness test CE2 and CE3.
- 4.23 The draft policy cross refers to the provisions of draft Policy CS3 and as set out in the response to that policy we consider that the policy is unsound. We also consider that this policy is unsound for the same reasons by cross reference. Draft Policy TOC1 sets a height restriction of 15m for structures within the areas of constraint on high structures; however there is no evidence provided to support this restriction, particularly given that the policy goes on to state that up to 25m would be acceptable in exceptional circumstances. This approach is inconsistent.
- 4.24 It is unclear from the draft policy wording whether 25m high structures will be needed to be exceptional and relate to 'hot spot' locations. Furthermore the draft policy wording states that structures exceeding 25m will only be permitted where it is considered to be of such regional significance as to outweigh any impact on the landscape. The

generating capacity of a 25m high turbine would be very far removed from the regionally significant thresholds for a windfarm as described within the Planning Act (Northern Ireland) 2011. The policy and amplification text does not provide clarity on what is meant by regional significance. It is unclear whether this would relate solely to developments considered to be of regional significance Section 26 of the Planning Act (Northern Ireland) 2011. The draft policy therefore conflicts with soundness test CE2 and CE3. Further clarification on this could be included within the amplification text.

## 5. Renewable Energy Policies

### Draft Policy RE1 – Renewable Energy Development

- 5.1 Draft Policy RE1 sets out the proposed policy criteria for the assessment of proposals for all forms of renewable energy development and then goes on to identify policy criteria specific to wind energy developments.
- 5.2 At the outset the draft policy states:
- “Outside of Special Countryside Areas, a proposal for a renewable energy development together with any associated buildings and infrastructure will be permitted where it meets the General Policy and accords with other provisions of the LDP.”*
- 5.3 This wording indicates that within the SCA, no renewable energy development will be permitted, however the draft policy for SCA’s (draft Policy CS2) allows for development in exceptional circumstances. Taking into account the other policy designations and prescriptions proposed the dPS leaves little or no potential for areas that would be suitable for renewable energy within the Borough. This should be reflected within draft Policy RE1 to ensure consistency across policies within the plan and prevent a conflict with soundness test CE1.
- 5.4 The draft policy sets out eight criteria that will apply to all forms of renewable development. Existing policy for renewable energy development is set out in Planning Policy Statement 18 (PPS18) and paragraph 6.224 of the SPPS. Policy RE1 of PPS18 and the SPPS set out the following key considerations in relation to renewable energy development:
- Public safety, human health or residential character;
  - Visual amenity and landscape character;
  - Biodiversity, nature conservation or built heritage interests;
  - Local natural resources, such as air quality or water quality; and
  - Public access to the countryside.
- 5.5 These five considerations are well established in the consideration of renewable energy developments. The Council is proposing to carry forward three of the existing policy considerations, namely visual amenity and landscape character; nature conservation and biodiversity and air and water quality. Unlike PPS18 the Council has additional policy considerations which will be applied to all forms of renewable energy development. These are considered in turn below.
- b) it will not cause significant harm to the safety or amenity of any sensitive receptors (including future occupants of committed developments) arising from noise; shadow flicker; ice throw and reflected light.*

- 5.6 We note that this policy consideration is only applied to wind energy development under existing policy contained within PPS18. We offer no objection to the inclusion of this as a consideration for other forms of development, where relevant.

*c) It will not unacceptably restrict public access to the countryside, or recreational/tourist use of the area;*

- 5.7 We note that the council is proposing to introduce a new element to this existing policy test regarding access to the countryside by requiring that the development does not restrict the recreational or tourist use of any area. The inclusion of this additional test is not supported by any evidence to show that renewable development has the potential to have an adverse impact on recreational or tourism use of an area. There are many cases throughout the UK and Ireland where windfarms have had a positive impact on tourism, e.g. Whitelee in Scotland. As such the draft policy is considered unsound as it would fail against soundness test CE2.

- 5.8 In any event the Council is also proposing a draft policy to protect tourism assets (draft Policy TOU1) which would be a consideration for all proposals relating to both statutory and non-statutory tourism assets. Therefore the wording proposed within draft Policy RE1 is unnecessary.

*d) No part of it will have an unacceptable impact on roads, rail or aviation safety;*

- 5.9 We note that this policy consideration is only applied to wind energy development under existing policy contained with PPS18 but offer no objection to the inclusion of this consideration for all forms of renewable development where relevant including potential for repowering opportunities within the Borough.

*h) it will not prejudice the operational effectiveness of existing or approved energy infrastructure;*

- 5.10 It is unclear what is meant by this consideration and it does not appear to be reflective of the content of the existing policy contained within PPS18 or the provisions of the SPPS. As such it is considered that the policy is unsound as it fails against soundness test C3.

- 5.11 In addition to the main policy criterion to be applied to all renewable energy developments, draft Policy RE1 also identifies four additional policy considerations to be applied to wind energy proposals. These comprise:

- The development has taken into consideration the cumulative impact of existing wind turbines, including extant permissions and undetermined planning applications;
- The development will not create a significant risk of landslide or bog burst;
- No part of the development will give rise to unacceptable electromagnetic interference to communications installations; radar or air traffic control systems; emergency service communications; or other telecommunication systems; and

- A separation distance of 10 times rotor diameter to any occupied, temporarily unoccupied or approved dwelling outside the applicant's control can be achieved. A minimum distance of not less than 500m will generally apply to wind farms, with single turbines assessed on a case by case basis.

5.12 Whilst these considerations generally reflect the current policy position we are not content with the ambiguous wording included in criterion i) of the draft policy. As drafted it states:

*"The development has taken into consideration the cumulative impact of existing wind turbines, including extant permissions and undetermined planning applications"*

5.13 It is the use of the word 'including' which creates uncertainty around what should be considered within cumulative impact assessments. It is unclear how this element of the policy would be implemented in practice as it is currently worded openly and could lead to the inclusion of other development proposals which have not previously been included within cumulative assessments. This lack of clarity would fail against soundness test CE3. The existing policy contained within PPS18 is much clearer in its wording and we would propose that this element of the policy is reworded to state:

*That the development has taken into consideration the cumulative impact of existing wind turbines, those which have permissions and those that are currently the subject of valued but undetermined applications."*

5.14 Criterion J) of draft Policy RE1 states:

*A separation distance of 10 times rotor diameter to any occupied, **temporarily unoccupied or approved dwelling** outside the applicant's control can be achieved. A minimum distance of not less than 500m will generally apply to wind farms, with single turbines assessed on a case by case basis.*

5.15 Again we note that this policy consideration is only applied to wind energy development.

5.16 The Council sets out in Technical Supplement 12 that draft Policy RE1 has been informed by the regional direction set out in the SPPS, however we object to the proposed wording as it is not reflective of the current policy wording contained in both PPS18 and the SPPS.

5.17 Furthermore the policy does not clarify what is meant by 'temporarily' and therefore it would be difficult to implement the proposed wording. It is considered that the draft policy would therefore fail against soundness test C3 and CE3. The council has also failed to provide evidence to support the inclusion of temporarily unoccupied or approved dwellings and as such the policy also fails soundness test CE2.

5.18 Turbine design is advancing all the while. An increase in rotor size does not necessarily equate with impact. For example, machines in the market place offer 112m rotors on 125m tip machines that previously would have typically had 90m rotors.

- 5.19 We propose redrafting of the criterion to reflect the wording contained within the SPPS, as follows:

*“a separation distance of 10 times rotor diameter to occupied property, within a minimum distance not less than 500m.”*

- 5.20 Overall it is considered that draft Policy RE1 seeks to introduce more control over the development renewable energy schemes, and in particular wind energy. It is clear that the policy has been prepared in the context of the Council’s concerns regarding the proliferation of turbines in the area, as set out in Technical Supplement 12 on Public Utilities Infrastructure. This is despite two of the plan’s key economic and environmental objectives to:

*“Support the generation of energy, particularly from renewable sources in a balanced way that take due account of environmental impacts and on sensitive or vulnerable landscape.”*

*“contribute towards climate change mitigation and adaption measures, where practicable through the planning system.”*

- 5.21 It is considered that the draft Policy conflicts with these objectives and the plan is incoherent as the objectives are not carried through in to the implementation of draft policy. The plan therefore fails soundness text CE1.



## 6. Built Heritage Policies

### Draft Policy HE1 – Archaeological Remains and their Settings

- 6.1 The Council proposes this policy within the Plan Strategy which relates to Areas of Significant Archaeological Interest (ASAI) within the district, namely Knockdhu.
- 6.2 Draft Policy HE 1, sets out that development which would adversely impact on an asset of regional importance will only be permitted in exceptional circumstances and where it is determined to be of overriding regional importance and there is no alternative solution.
- 6.3 At dPS para 10.1.15 the text states of Knockdhu:

*This unique historic upland landscape contains a wide array of prehistoric and historic archaeological sites and monuments. The landscape of the ASAI is highly vulnerable to insensitive change.*

*In particular, the erection of masts, pylons, wind turbines and associated infrastructure, or other large-scale development including large agricultural buildings or quarrying and mining activities are likely to adversely impact on the distinctive landscape character and the historic environment assets, including the archaeological sites and monuments.*

- 6.4 This policy fails to identify the specific values and landscape merits of the ASAs and there is limited information with the justification and amplification text. As such it is unclear against what baseline development proposals will be considered and therefore the policy fails soundness test CE3.
- 6.5 The justification and amplification text of the draft policy specifically identify masts, pylons, wind turbines and large scale development as being the type of development that are likely to adversely impact on the distinctive landscape character and historic environment assets including archaeological sites and monuments.
- 6.6 The use of the word 'likely' within the proposed policy wording suggests that there is evidence that any of these forms of development will result in an adverse impact. There is no evidence of this provided within the Council's assessment of Landscape Capacity or the methodology for the establishment of Areas of Constraint on Wind Turbines and High Structures. There is no allowance within the proposed policy wording for mitigation measures that may change the potential impact of wind turbine development or specific siting and design measures that may reduce impacts.
- 6.7 The draft policies therefore fail soundness test CE2.
- 6.8 The approach proposed by the Council is based on their opinion that the visual appearance of a turbine or other high structure is adverse. Furthermore sensitivity to change does not correlate directly with no capacity for development or adverse impacts.

- 6.9 In ongoing work associated with forthcoming proposals in the area, extensive analysis of the receiving environment has been undertaken by both a suitably qualified Landscape Architect and Archaeological Consultant. An assessment of the ASAI by Orion is included at **Appendix 5**.
- 6.10 In this context it is inappropriate for the Council to assume that an impact on landscape capacity or character will have an impact on the ASAI. This has been demonstrated within a decision<sup>6</sup> by the Planning Appeals Commission (PAC). In this case it was concluded that the proposed wind farm development would have a detrimental impact on the landscape, however when assessing the impact on the ASAI, the Commissioner stated:

*"The historic landscape comprising the ASAI and the scheduled monuments is rugged in character, large in scale and has remained relatively unchanged. The proposed development would introduce an incongruous form of modern development into the landscape which, as I have already concluded, would have a detrimental visual impact on its character. The turbines however, would be dispersed over a wide area and because of their narrow elongated design, would not impede views of the wider landscape to such an extent as to prevent appreciation of its pre-existing scenic character of its historic context."*

*Consequently, while I accept that the proposed development would have a detrimental visual impact on the surrounding landscape, I do not consider that this would have an unacceptable adverse impact on the archaeological quality and integrity of the setting of either the ASAI or the scheduled monuments."*<sup>7</sup>

- 6.11 This position reinforces the importance of considering proposals on a case by case basis and the assumption that all wind turbine development within an ASAI is likely to be harmful, as set out in the dPS is incorrect and it not supported by evidence.
- 6.12 The draft policies therefore fail soundness test CE2.

### **Recommendation**

- 6.13 It is recommended that future work is carried out by the Council to provide justification for the statement that wind turbines 'are likely' to have an adverse impact on the ASAI.
- 6.14 The wording of the policy should be revised to 'could have' as this would make allowance for mitigation measures and more detailed site assessments carried out as part of the planning application process.

### **Proposed Extension to ASAI**

- 6.15 The proposed extension to the Knockdhu ASAI is presented in Technical Supplement 10, Map LCA 123 - National Designations as the Candidate Area of Significant Archaeological Interest. Further detail on the proposed extension to the ASAI is outlined in Technical Supplement 13 - Built Heritage.

<sup>6</sup> PAC Ref: 2014/A0285, decision dated 6 July 2016

<sup>7</sup> PAC Ref: 2014/A0285, paras 38 & 39

- 6.16 Para 3.9 outlines commentary on the Knockdhu ASAI, stating that the landscape is highly vulnerable to insensitive change. Para 3.10 goes on to set out that Historic Environment Division of the Department for Communities is proposing an extension to the existing Knockghu ASAI.
- 6.17 At Appendix C of the Technical Supplement further detail is provided on the Knockdhu Candidate ASAI. The commentary within this section of the appendix relates to the entirety of the ASAI and not solely the candidate area.
- 6.18 The introductory Statement of Significance outlines that ‘an additional area of land has been identified for inclusion within the Knockdhu Area of Significant Archaeological Interest, to the north (focused on Scawt Hill with its scheduled hilltop cairn) and along the northeast and east of the current designated area.’
- 6.19 The remaining details fail to outline any detailed analysis of the proposed extension area, with only a Map 6 at page 43 setting out the proposed extended area.
- 6.20 Within Appendix 3 of the DfC HED Report it is stated that the landscape of the ASAI is sensitive to development that would adversely affect its distinctive qualities. It is stated that turbine development in this area may adversely impact the landscape character, however no visual appraisal of the proposed extension is provided and therefore there is no justification for this statement.
- 6.21 The proposed extension to the ASAI within the dPS is not based on sound evidence. The draft policy therefore fails soundness test CE3.

**Recommendation**

- 6.22 In the absence of further evidence on the justification for an extension to the ASAI it should be deleted.

## 7. Natural Heritage Policies

### **Draft Policy CS2 – Special Countryside Areas**

- 7.1 The draft policy sets out that within Special Countryside Areas (SCAs) there will be a presumption against all forms of development. There is no exception listed for renewable development.
- 7.2 As with the Council's proposed AoCHS, the extent of the SCA has been determined on the basis of the Council's Landscape Character Assessment (Technical Supplement 10).
- 7.3 The assessment outlines that it is primarily based on the Northern Ireland Landscape Character Assessment (NILCA) 2000 but contains additional information on the on the cultural, historic and perceptual qualities of the landscape to complement the existing descriptions of the landscape's physical characteristics.
- 7.4 The boundaries for the extents of the SCAs have been defined based on a detailed landscape character assessment of the district. The update of the NILCA 2000 Assessment is welcomed however it is disappointing that in this assessment the following is stated in respect of Forces for Change, page 26:

*It is possible that certain locations in the more elevated parts of the Borough will be further targeted for the location of wind turbines and potential solar. Such structures are likely to be highly contentious due to their prominent location and the associated visual impact.*

- 7.5 The pre-emptive language foregoes the detailed consideration of an appropriate assessment on a case by case basis of any wind turbine or solar development. This is at odds with the provisions of the SPPS and PPS18 and presents flaws in the detailed analysis and commentary to the Landscape Assessment.
- 7.6 To rely upon such strategic evidence is flawed and the dPS fails against soundness test CE2.

### **Recommendation**

- 7.7 It is recommended that the proposed policy be amended to allow exceptionality to include renewable development.
- 7.8 The Council should also assess the cumulative impact of such designations on the deliverability of the dPS objectives to deliver renewable energy.

### **Draft Policy CS5 – Antrim Coast and Glens Area of Outstanding Natural Beauty**

- 7.9 The draft policy sets out that development will only be permitted if there is no adverse individual or cumulative impact on its exceptional quality, distinctive character, heritage and wildlife, which would prejudice its overall integrity. It goes on to refer to accordance with the General Policy and lists a set of criteria, all of which should be met.

- 7.10 The justification and amplification text also cross references Policy CS1 and CS3, of which RE1 is linked.
- 7.11 A number of weaknesses in draft policy RE1 have been identified and the soundness tests that it currently fails to meet. Until such times as those comments can be addressed the cross reference within the draft policy also renders this policy unsound.
- 7.12 Furthermore, the justification and amplification text for draft Policy CS5 sets out that account will be taken of landscape character assessments produced as part of the Development Plan process when considering proposals within the AONB. As set out in previous Sections of this representation the landscape evidence provided by the Council in support of the dPS is not considered to be robust. Therefore this fails soundness test CE2.
- 7.13 The approach proposed by the Council does not take account of any social or economic benefits that may arise from the proposed development. It prioritises environmental protection over social and economic benefit. This is contrary to the SPPS which identifies at paragraph 2.3 that:

*A key dimension of sustainable development for Northern Ireland is economic growth.*

- 7.14 The SPPS goes on to state that:

*Planning Authorities should delivery on all three pillars of sustainable development in formulating policies and plans...*

*The SPPS does not seek to propose any one of the three pillars of sustainable development over the other. In practice, the relevance of, and weight to be given to social, economic and environmental considerations is a matter of planning judgement in any given case. Therefore, in summary furthering sustainable development means balancing social, economic and environmental objectives, all of which are considerations in the planning for and management of development.*

- 7.15 The proposed policy conflicts with and is inconsistent with the SPPS approach. The draft policy fails against soundness text C3.

### **Recommendation**

- 7.16 Without prejudice to participation in subsequent proceedings in respect of alternative wording, the wording of Draft Policy CS5 should be amended to include the following statement:

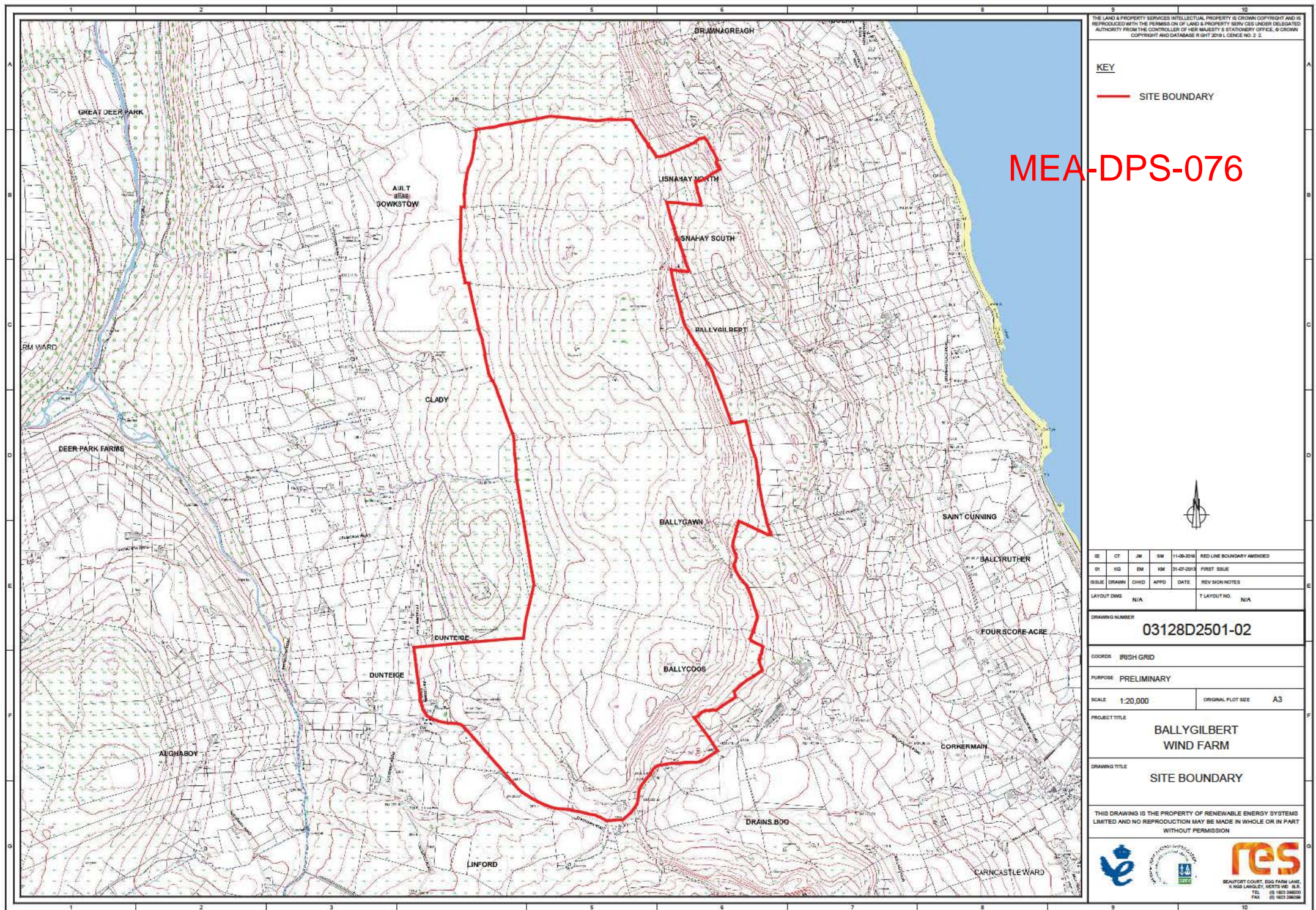
*Regard shall also be had to a development proposal's economic, social and other considerations.*

## 8. Conclusion

- 8.1 It can be concluded that the dPS is unsound as the legal compliance tests have not been met.
- 8.2 Furthermore, the Sustainability Assessment (SA) provided in support of the dPS is flawed. These flaws render the dPS in its entirety unsound as soundness test P3 cannot be met.
- 8.3 Specifically:
- Draft Policy RE1 which seeks to introduce more control over the development of renewable energy schemes is in conflict with the main objectives of the plan.
    - It fails soundness tests CE1, CE2, CE3 and C3.
  - Draft Policy TOC1 which fails to recognise that there are exceptions where development will be accepted within the proposed SCA's. The draft policy should reflect these exceptions.
    - It fails soundness tests CE2 and CE3.
  - Draft Policy CS2 which proposes restriction of development with no exceptionality for renewable development.
    - It fails the soundness test CE2.
  - Draft Policy CS3 which proposes to introduce an Area of Constraint on High Structures and conflicts with and is inconsistent with the approach set out in the SPSS and PPS18 and is not based on a robust evidence base.
    - It fails soundness tests CE1, CE2, CE3 and C3.
  - Draft Policy CS5 by cross association to RE1 is unsound. Additionally it conflicts with the provisions of the SPPS and PPS18.
    - It fails soundness tests CE2 and C3.
  - Draft Policy HE1 which fails to identify the particular features of the ASAI to be protected and fails to provide evidence of the harmful effects of wind turbines and high structures on ASAs. The policy also fails to identify the particular features of the ASAI to justify the proposed area of extension.
    - It fails soundness tests CE2 and CE3.

Appendix 1:    Site Location Map





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**KEY**  
— SITE BOUNDARY

MEA-DPS-076



ISSUE	DATE	BY	REV	NOTES
1	11-08-2016	SM		RED LINE BOUNDARY AMENDED
2	21-07-2012	DM		FIRST ISSUE
3				
4				
5				
6				
7				
8				
9				
10				

DRAWING NUMBER  
**03128D2501-02**

COORDS  
IRISH GRID

PURPOSE  
PRELIMINARY

SCALE  
1:20,000

ORIGINAL PLOT SIZE  
A3

PROJECT TITLE  
**BALLYGILBERT WIND FARM**

DRAWING TITLE  
**SITE BOUNDARY**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LIMITED AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION





## Appendix 2: Proposal of Application Notice

Form PAN1

DFI Planning  
RECEIVED

19 JUL 2019

File No. ....  
SPD 2

## Official Use Only

Reference No.:

Associate Application No.:

Registration date:

## Proposal of Application Notice

Planning Act (Northern Ireland) 2011

Planning (General Development Procedure) Order (Northern Ireland) 2015

To be completed for all developments within the major category of development

Please note that when you submit this form the information, including plans, maps and drawings, will appear on the Planning Register which is publicly available and, along with other associated documentation (with the exception of personal telephone numbers, email addresses or sensitive personal data), will also be published on the internet on the Public Access site ([www.planningni.gov.uk/public-access-info](http://www.planningni.gov.uk/public-access-info)). The Department for Infrastructure and the 11 Councils will process your information in line with the General Data Protection Regulations (GDPR) requirements. A copy of the full Privacy Statement is available at [www.infrastructure-ni.gov.uk/dfi-privacy](http://www.infrastructure-ni.gov.uk/dfi-privacy). To request a hard copy, please contact the relevant Data Protection Officer as listed in the statement.

## 1a. Applicant's name and address

## 1b. Agent's name and address (if applicable)

Name:	Renewable Energy Systems Ltd	Name:	
Address:	Unit C1 & C2 Willowbank Bus Park, Millbrook	Address:	
Town:	Larne	Town:	
Postcode:	BT40 2SF	Postcode:	
Tel:	028 2844 0595	Tel:	
E-mail:	jennifer.mccorrey@res-group.com	E-mail:	

**2. Address or Location of Proposed Development** Please state the postal address of the prospective development site. If there is no postal address, describe its location. Please outline the site on an OS base plan and attach it to this completed notice.

Ballygilbert Wind Farm in the townlands of Ballycoos, Ballygawn, Ballygilbert, Lisnahay North and Lisnahay South and is approximately 3km North west of the village of Carncastle, Larne, Co. Antrim

## 3. What is the area of the site in hectares?

approx 773 ha

**4. Description of Proposed Development** Please describe the development to be carried out, outlining its characteristics. Please also enclose appropriate drawings, including: plan, elevations and site layout of the proposal.

A proposed wind farm development comprising up to 14 three-bladed horizontal axis wind turbines, each up to a maximum of 149.9 to tip height, with a total installed capacity of up to 50.4MW, associated external electricity transformers; underground cabling; an upgraded site entrance; access tracks; turning heads; crane hardstandings; control building and substation compound, a number of off-site areas of widening to the public road. During construction and commissioning there would be a number of temporary works including a construction compound with car parking, an enabling works compound, temporary parts of a crane hardstandings, welfare facilities and temporary guyed meteorological masts

## 5. What is the total gross floorspace of the proposed development?

N/a

6. If the proposed development includes a renewable energy project, what is the total amount of power (in kilowatts or megawatts) expected to be generated per year?

approx 50.4 MW

7. Which type of planning permission does this Proposal of Application Notice relate to?  
(Please tick)

Full planning permission



Outline planning permission



8. Has a determination been made as to whether the proposed development would be of Regional Significance?

Yes



(Please enclose a copy of the determination made under Section 26 of the Planning Act (NI) 2011)

No



9. Has an Environmental Impact Assessment determination been made?

Yes



(Please enclose a copy of the determination made under Part 2 of the Planning [Environmental Impact Assessment] Regulations [NI] 2015)

No



10. Please give details of proposed consultation

Proposed public event	Venue	Date and Time
Public Exhibition including maps and visualisations of the proposal and the opportunity to ask questions and give feedback	Ballygally Castle Hotel, Coast Road, Ballygally Larne, Co. Antrim, BT40 2QZ	Wednesday 11th September 2019, 3pm-8pm
Name of publication(s) used: Larne Times and Ballymena Guardian		
Proposed newspaper advert date(s): Ballymena Guardian - Thursday 29th August 2019 Larne times -Thursday 29th August 2019		
Please specify details of any other consultation methods including distance from site for notifying neighbouring properties (e.g. 100m, 200m etc) and method of notification (please include date, time and with whom): The forms of consultation to be undertaken include: * Information leaflets delivered to all houses within 2km and community groups within 5km * Staffed public exhibition with information boards and feedback questionnaires * Meeting with Stakeholders such as MLAs, Councillor, Community Groups and other interested parties		
Details of any other publicity methods (such as leaflets, posters, etc): Project website which will go live prior to the advertisement being placed in the above named newspapers		

**11. Please state which other parties have received a copy of this Proposal of Application Notice (Please continue on a separate sheet if necessary)**

Elected member(s) for District Electoral Area Councillor Andrew Clarke (DUP) Councillor Angela Smyth (DUP) Mayor & Councillor Maureen Morrow (UUP) Alderman Geraldine Mulvenna (Alliance Party) Councillor James McKeown (Sinn Feinn)  (Coast Road Ward Councillors)	Date notice served 18th July 2019 18th July 2019 18th July 2019 18th July 2019 18th July 2019
Other	Date notice served

**12. Council Employee / Elected Member Interest**

Are you / the applicant / applicant's spouse or partner, a member of staff within the council or an elected member of the council?

Yes

☐

No

☒

Or are you / the applicant / the applicant's spouse or partner, a relative of a member of staff in the council or an elected member of the council or their spouse or partner?

Yes

☐


No

☒

If you have answered yes, please provide details (name, relationship and role):

--

**13. Declaration**

Signature:	
Print name:	JENNIFER MC CORRY
Date:	18th July 2019

**PLEASE NOTE:** A planning application for this development cannot be submitted less than 12 weeks from the date the Proposal of Application Notice is received and without the statutory requirements having been undertaken. The application must be accompanied by the Pre-Application Consultation report.

We will respond within 21 days of receiving the Notice. We will confirm whether the proposed pre-application community consultation is satisfactory, or if additional notification and consultation is required. The minimum statutory consultation activity includes holding one public event and its advertisement in a local paper. We also require this Notice to be sent to local councillors for the District Electoral Area in which the proposed development is situated, and evidence of additional publicity of the event.

## **Appendix 3: Correspondence from Department for Infrastructure**

Strategic Planning Directorate



Department for

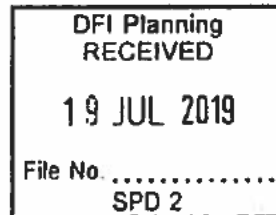
**Infrastructure**

An Roinn

**Bonneagair**

[www.infrastructure-ni.gov.uk](http://www.infrastructure-ni.gov.uk)

Jennifer McCorry  
Senior Development Project Manager  
Renewable Energy Systems Limited  
Willowbank Business Park  
Willowbank Road  
Millbrook  
Larne  
County Antrim  
BT40 2SF



Clarence Court  
10-18 Adelaide Street  
BELFAST  
BT2 8EG  
Tel: 02890 540637

Our Reference: S26-02-2019

9 July 2019

Dear Ms McCorry

**Location:** Lands near Cairncastle & Ballygally, approximately 10km north west of Larne, in the townlands of Lisnahay North, Lisnahay South, Ballygilbert, Ballygawn and Ballycoose, Co. Antrim.

**Proposal:** 14 three-bladed horizontal axis wind turbines, each up to 150m maximum height above ground level and with a maximum rotor diameter of 117m

I refer to your letter dated 14 June 2019 regarding the above proposal.

Having considered the information provided the Department is of the opinion that the proposed development would, if carried out, be of significance to the whole or a substantial part of Northern Ireland. In accordance with Section 26(4) of the above Act, the Department hereby notifies the prospective applicant that the development proposed is development to which Section 26 applies. Any planning application for the proposed development must therefore be made to the Department.

Please note that in accordance with Regulation 4 of the Planning (Development Management) Regulations (NI) 2015, a copy of this notice should accompany any proposal of application notice submitted to the Department.

Yours sincerely



Eamon Lynch  
Principal Planning Officer

## Appendix 4: Orion Environmental Assessment



## Orion Heritage

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Spinningfields, Manchester, M3 3EB

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County House, St Mary's Street, Worcester, WR1 1HB

+44 1905 697 990

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Ms Jennifer McCorry  
Senior Development Project Manager  
Renewable Energy Systems (RES)  
Beaufort Court  
Egg Farm Lane  
Kings Langley  
Hertfordshire  
WD4 8LR  
10 December 2019

Our ref: PN1910. Ballygilbert, Co Antrim

Dear Ms McCorry

### Re: Mid and East Antrim Draft Plan Strategy

Further to your request, I have reviewed the proposed extension to the Knockdhu Area of Significant Archaeological Interest proposed within the Mid & East Antrim Borough Council Local Development Plan 2030, and have come to the conclusion that this is not justified on the following grounds:

The proposed extension is not based on any published evidence. Significant features to the north of the existing ASAI already benefit from adequate statutory protection.

I will discuss these briefly in turn below.

#### The lack of published evidence

The proposed extension is set out in Technical Supplement 13 to the emerging local plan: Built Environment and Creating Places. This document asserts that the ASAI was "identified following desktop research and field survey carried out by Historic Environment Division" (Technical Supplement 13, appendix C, p37). However, it is not made clear whether this refers to the existing ASAI, or the new extension. Furthermore no bibliographic reference is provided for these surveys, nor is any adequate detail of their scope, methodology or appropriateness to inform the designation.

Without a published evidence base, it is not possible to determine if the extension is necessary, justified or appropriate. It is not clear, nor has it been demonstrated that the extension would protect any additional archaeological remains of significant interest than the





existing designation. The details of elements of the ASAI provided within appendix C to illustrate its significance, provide only details of archaeological remains located within the existing designation, and no evidence is provided for features within the extension area. The only published survey of the existing ASAI at present comprises a LiDAR investigation which identified a number of features, but these were focussed within the existing designation and no systematic survey of the proposed extension was undertaken (McNeary 2014).

As such it is not clear that the proposed extension is supported by adequate evidence. Areas of Significance Archaeological Interest are designated to protect remains of particular archaeological significance, and puts in place restrictions and protections against impacts. As such, the designation should be supported by clear evidence, which is published and can be scrutinised.

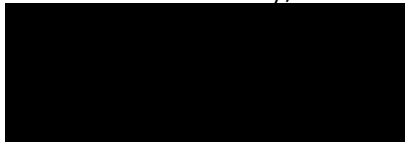
## Existing protections

The Northern Ireland Sites and Monuments Record (SMR) highlights two sites of archaeological interest within the proposed area extension. The first is a scheduled cairn on Scawt Hill (ANT035:053) and an oval enclosure known from aerial photographs (ANT035:044). The scheduled cairn already benefits from a higher level of protection both from physical impact and from its setting due to its designation as a scheduled ancient monument. The enclosure feature is recorded as an archaeological asset of local interest in the SMR, and as such benefits from appropriate protections in policy provided by policy BH 2 of Planning Policy Statement 6 and in paragraph 6.9 of the Strategic Planning Policy Statement for Northern Ireland (SPPS).

As such it is clear that the remains within the proposed extension already benefit from adequate protection, which is proportionate to their significance.

Based on the above, it is clear that the proposed extension of the Knockdhu ASAI is neither supported by adequate evidence, nor necessary to protect known archaeological remains. It is therefore recommended that this should be removed from the Local Plan unless clear published evidence to support the extension is produced and consulted upon. Without clear published evidence to justify the extension, the designation of the additional land would be arbitrary and unjustified.

Yours sincerely,



**pp William Bedford BA MCIfA**  
**Technical Director**  
**Orion Heritage Ltd**

# Lidar Investigation of Knockdhu Promontory and its Environs, County Antrim, Northern Ireland

**RORY W. A. MCNEARY\***

*School of Environmental Sciences, University of Ulster, Coleraine, BT52 1SA, Northern Ireland, UK*

**ABSTRACT** A high resolution aerial lidar survey (up to 40 points  $\text{m}^{-2}$ ) has been carried out in the environs of Knockdhu Promontory in the Antrim Uplands, which is recognized as one of Northern Ireland's most important relict multiperiod archaeological landscapes. This lidar survey was amongst the first such surveys commissioned specifically for archaeological purposes in Northern Ireland and has helped to re evaluate the archaeological landscape character of a 9  $\text{km}^2$  study area and inform future conservation studies. Sampled ground observation was undertaken in an attempt to provide a higher degree of interpretive integrity. These field observation exercises also highlighted the importance of the high vertical resolution of the data (0.05 m at  $2\sigma$  (95% confidence level)) in delineating extremely subtle upstanding earthwork features that had hitherto gone unnoticed. Much of the archaeological evidence identified can be broadly ascribed to the early post medieval period (AD 1599–1750); this includes field boundaries, cultivation furrows, enclosures, transhumance huts, abandoned settlements and associated pathways, but the higher ground of the Antrim Plateau in this locality is also characterized by evidence of prehistoric activities and substantial earthworks survive such as the 'Linford Barrows' and 'Knockdhu Promontory Fort'. The lidar study has identified as many as 285 previously unrecorded potential archaeological sites and amended existing records within the Northern Ireland Sites and Monuments Record (NISMR) and has proved transformational as a technique to 'open up' the Ulster uplands for archaeological study. Copyright © 2014 John Wiley & Sons, Ltd.

**Key words:** aerial archaeology; airborne laser scanning (ALS); geographical information systems (GIS); ground observation; Knockdhu; lidar

## Introduction

'Knockdhu' ('Black Mountain' in Gaelic) is the name given to a headland that commands views of the coastal plain, from Larne to Ballygalley, and across the North Channel to Scotland (Figure 1). The site comprises a triple rampart inland promontory fort, and excavations undertaken in 2008 dated the site to the Late Bronze Age, roughly 3000 years ago (Macdonald, 2010). Although these excavations shed new light on the promontory itself, a true appreciation and understanding of the surrounding landscape was still felt to be lacking by archaeologists within the Northern Ireland Environment Agency (NIEA). Inspired by the results achieved by the FLI-MAP lidar survey of the Hill of Tara, County Meath, undertaken by The Discovery Programme (Corns *et al.*, 2008; Corns and Shaw, 2009),

the NIEA commissioned Fugro-BKS Ltd in 2009 to carry out a similar survey in the environs of Knockdhu promontory, so as to afford greater insight into a recognized relict archaeological landscape and facilitate improved cultural heritage management (CHM).

## Geographical context

The study site is located in northeast County Antrim in Northern Ireland and is represented by a 9  $\text{km}^2$  area of lidar coverage, which includes the townland of Drains Bog and partly encompasses the townlands of Ballycoos, Ballygawn, Ballyhackett, Ballyruther, Ballywillin, Corkermain, Dunteige, Linford, Loughduff and Sallagh (Figure 2). A townland is a small landholding unit and the legacy of a medieval landscape assessment system (see McErlean, 1983, pp. 315–316; Nicholls, 2003, pp. 97–100; Smyth, 2006, p. 76). The lidar takes in an upland zone (Antrim plateau) and a lowland zone (the coastal strip), but the area of archaeological interest is very much focused on the transitional zone

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E mail: r.mcneary@ulster.ac.uk



Figure 1. Oblique aerial view of Knockdhu promontory (source: NIEA, Built Heritage). This figure is available in colour online at [wileyonlinelibrary.com/journal/arp](http://wileyonlinelibrary.com/journal/arp)

and the uplands themselves, where relict feature survival is highest and agricultural improvement and modern ploughing has had less impact on rates of survival. The uplands are characterized by a series of basalt plateau, which include the Knockdhu promontory. The study area is dominated by open pasture, with limited arable cultivation and woodland. The exposed summits are generally covered by tussocky moorland grasses and, in places, bracken where sheep grazing is the major land use. The low-lying eastern side of the study area is dominated by small and regular pasture fields and isolated farmsteads nestling in sheltered sites towards the foot of the slopes.

#### *Previous archaeological research*

Archaeological research in the study area has been primarily concerned with creating a baseline record of the archaeology for heritage management purposes. This archaeological survey work has been continued at different times over the past three decades by small teams of NIEA survey staff. Two of the most significant pieces of research outside of this government-led survey work have been Richard Hodges's interpretive overview of relict earthwork remains based on fieldwork he carried out in 1973 (Hodges, 1975) and the investigations undertaken by Queen's University Belfast (QUB) in 2008, which focused on Knockdhu promontory fort and formed the subject of a *Time Team* television programme broadcast in 2009 (see Macdonald, 2010). Despite this past work, little systematic earthwork mapping has been undertaken in the study area.

## Methodology

### *Data integration*

A geographical information systems (GIS) project was created to provide a platform for co-registering existing datasets, both historical and modern, with the acquired lidar data for the study area. Contemporary vector product, orthophotography and georeferenced historical mapping dating from the 1830s were added. In addition, digital historic environment records from the NIEA and high-resolution (0.1 m) vertical aerial orthophotography, also generated by Fugro-BKS Ltd in 2009, were incorporated into the project.

### *The lidar survey*

The lidar survey was carried out by Fugro-BKS Ltd on behalf of the NIEA in July 2009 using a helicopter-mounted laser mapping sensor (FLI-MAP 400 system). The average point density of the dataset was requested at approximately 40 points  $\text{m}^{-2}$ . In general this density was met but due to the very hilly terrain and strong winds encountered during the survey some parts of the study area were covered at a slightly lower density (30–38 points  $\text{m}^{-2}$ ; Fugro-BKS Ltd, 2009). The ground-sampling distance was specified by archaeologists from NIEA and their decision was again influenced by the quality of the imagery produced from similar specified surveys in the Republic of Ireland.

The relative merits of such high-resolution surveys versus traditional ground-based surveys in terms of cost and accuracy have been discussed in the literature (see Shaw and Corns, 2011, pp. 77–86). It is generally accepted that higher resolution lidar surveys do show a much greater degree of detail than coarser lidar surveys (Crutchley, 2010, pp. 15–16), and the higher accuracy of the FLI-MAP system in the z-field compared with other systems also allows more readily the detection of microtopographic features (Anthony Corns, pers. comm. 2013). These higher resolution surveys, however, come at the price of generally much smaller areas being flown due to the financial cost and it is widely believed that 0.5 m to 1 m ground resolution is often adequate to record most features of interest (Crutchley, 2010, pp. 15–16). By aggregating with random cells it is possible to simulate coarser lidar-data acquisition for a sample area from the study site and note a recognizable degradation in clarity in the imagery with less than 0.5 m resolution (Figure 3). In truth, however, there is little or no feature definition lost between the 0.25 m and 0.125 m resolution

*Lidar Investigation of Knockdhu Promontory and its Environs*

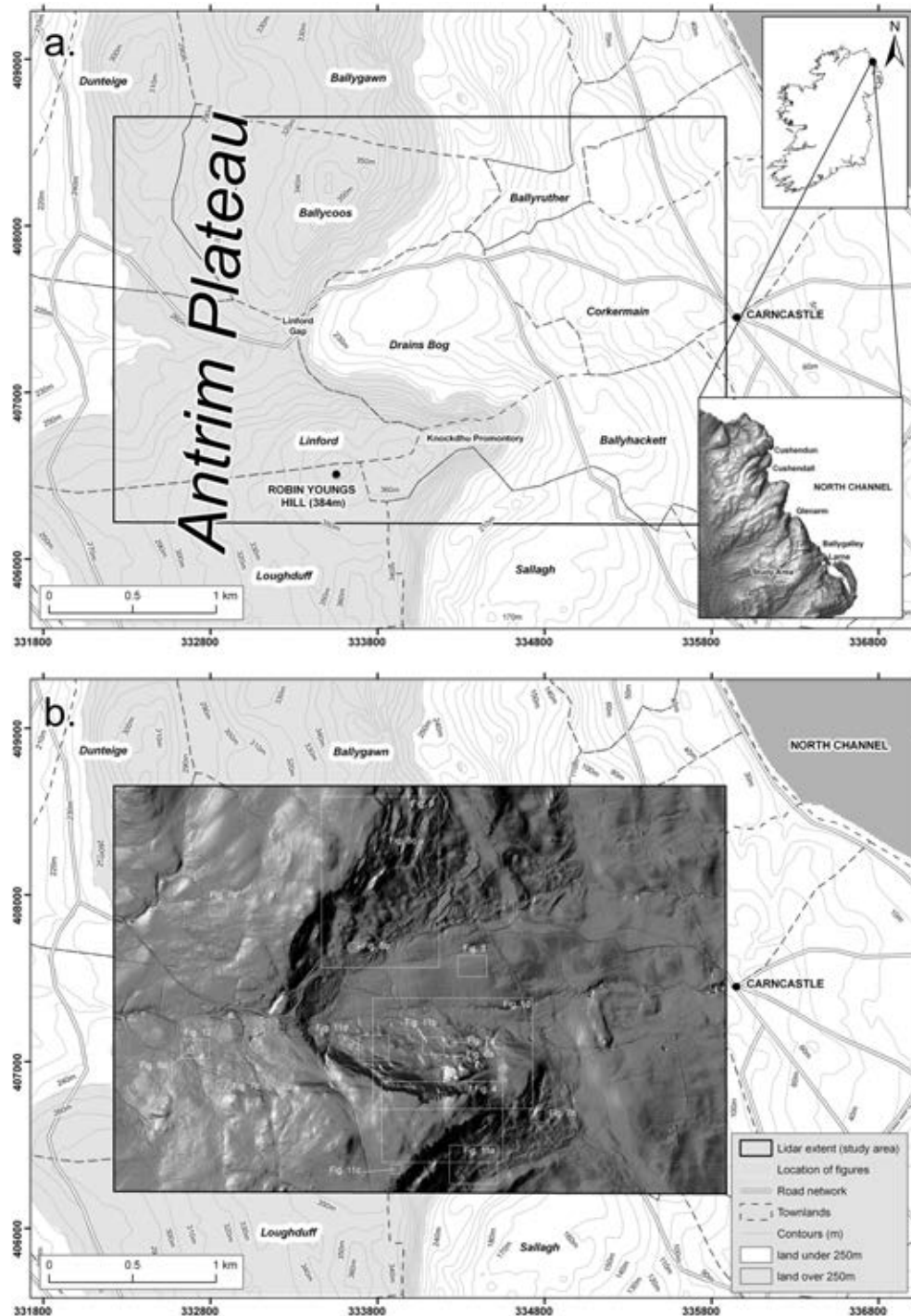


Figure 2. (a) Location of study area showing relief and townland boundaries. (b) Extent of lidar survey (hillshade) and location of figures.

imagery in this particular instance and the most recent NIEA lidar surveys to be commissioned for archaeological purposes are now being captured at a ground resolution of 0.25 m (Claire Foley, pers. comm. 2013).

*Lidar visualization, digital transcription and analysis*

For this study two principal techniques, hill-shading and local-relief modelling (Hesse, 2010), were used for the visualization and analysis of the airborne lidar



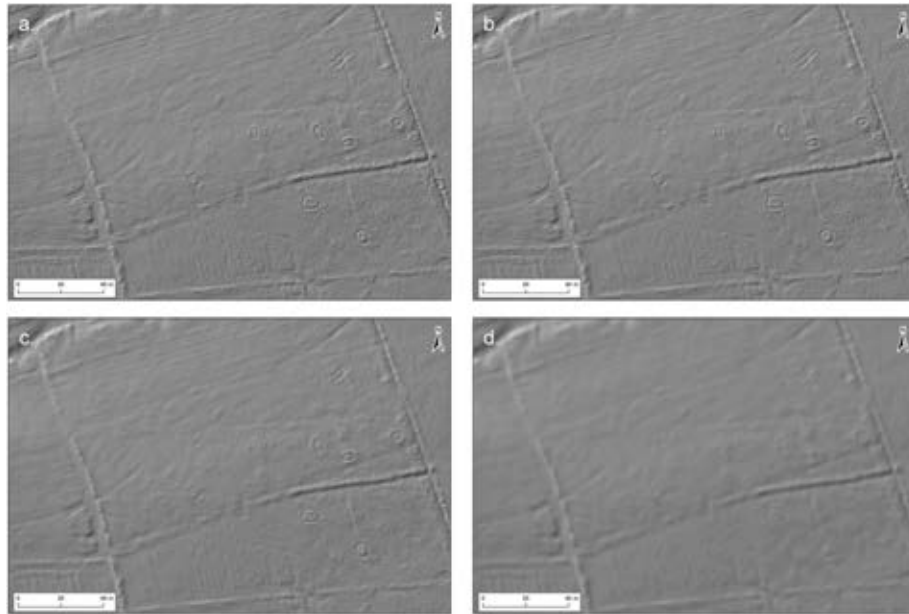


Figure 3. Archaeological features (SMR No. ANT035:066), extract of the site visualized with standard hillshade. Digital elevation models with grid sizes (a) 0.125 m, (b) 0.25 m, (c) 0.5 m and (d) 1 m are shown. Aggregating with random cells simulates coarser lidar data acquisition.

elevation data. For digital transcription of archaeological features, both established and previously unrecorded, the local-relief modelling technique proved to be the most expedient as there is negligible horizontal shift in the position of positive and negative features (Bennett *et al.*, 2012, p. 45). In this case the local relief model (LRM) was derived by resampling the original digital elevation model (DEM; 0.125 m) to a lower resolution of 5 m (the trend DEM), which was then

subtracted from the original DEM. This procedure separates local small-scale features from large-scale landscape forms (Štular *et al.*, 2012, p. 3356). This visualization was given context by comparing other raster visualization techniques (for an overview of these techniques see Devereux *et al.*, 2008; Challis *et al.*, 2011; Bennett *et al.*, 2012; Štular *et al.*, 2012), aerial observation from recent vertical orthophotographs and nineteenth and twentieth century historic maps.

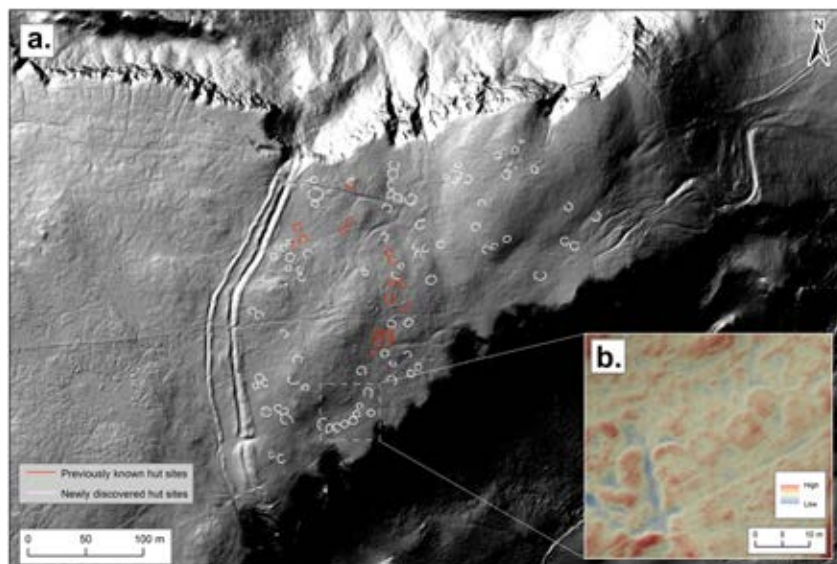


Figure 4. (a) Hut sites on Knockdhu promontory as identified from lidar analysis (hillshade) compared with number previously known. (b) Detailed view of huts (hillshade with local relief model at 50% transparency overlain). This figure is available in colour online at [wileyonlinelibrary.com/journal/arp](http://wileyonlinelibrary.com/journal/arp)

Three-dimensional visualizations were also created in order to provide further perspective.

The starting point for the archaeological analysis of the lidar was the existing NISMR database held by the NIEA. This database contains entries derived from field survey, excavations, published research, aerial photographs, historical documents and maps. In the first instance this record was cross-referenced with the lidar and for each recorded site a proforma was filled in. This proforma was based on the current NISMR entries as they appear online (see <http://apps.ehsni.gov.uk/ambit/Default.aspx>). In addition, a note of any positional disparity between the recorded grid reference in the NISMR and the actual position of the site as it appeared on the lidar was made. Any new potential archaeological sites revealed by the lidar analysis were digitized, and descriptive information and any interpretations entered into a linked GIS database.

*The field survey method*

The project used a traditional two-stage approach of desk-based assessment and feature transcription followed by sampled ground observation to confirm the accuracy of the desk-based interpretation and mapping (see e.g. Hoyle, 2005, 2011; Crutchley, 2010, 2013). Field visits

Table 1. Numbers of newly mapped potential archaeological features classified into broad categories.

Category of site	Number of sites
Hut site	167
Enclosure	40
Structure	33
Quarry	25
House site	15
Other	5

to the study area took place in May 2013 and 100 potential archaeological features were checked in the field. A variety of site types were chosen but with a bias towards potential settlement remains, as the author was keen to explore further the potential for medieval rural settlement survival in this landscape, the evidence for which is limited within the context of research in Irish archaeology as a whole (Barry, 2009, p. viii), and future research will target relict settlement remains for detailed field analysis.

The fieldwork allowed for a number of potential sites to be discounted as non-sites. For example, first analysis of the lidar had identified a great number of small pits with associated spoil on the slopes immediately below and to the northeast of the Linford Gap. These were thought to be perhaps the remains of flint quarrying; on visiting this area it was realized from a

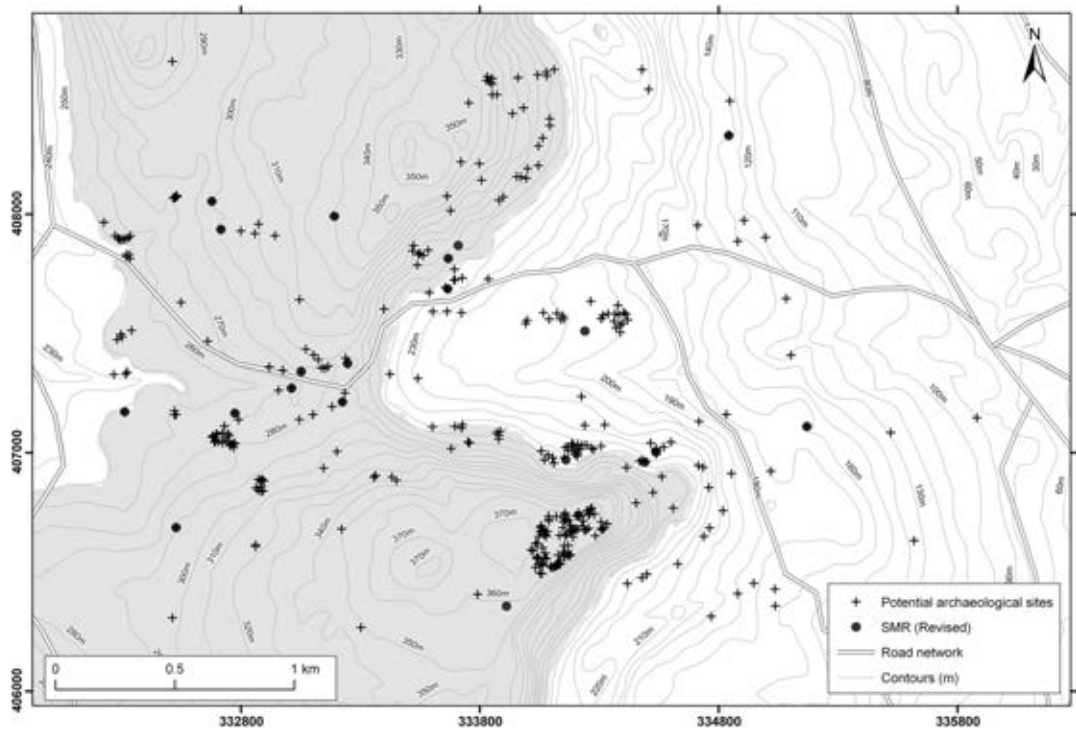


Figure 5. Distribution of potential archaeological features.

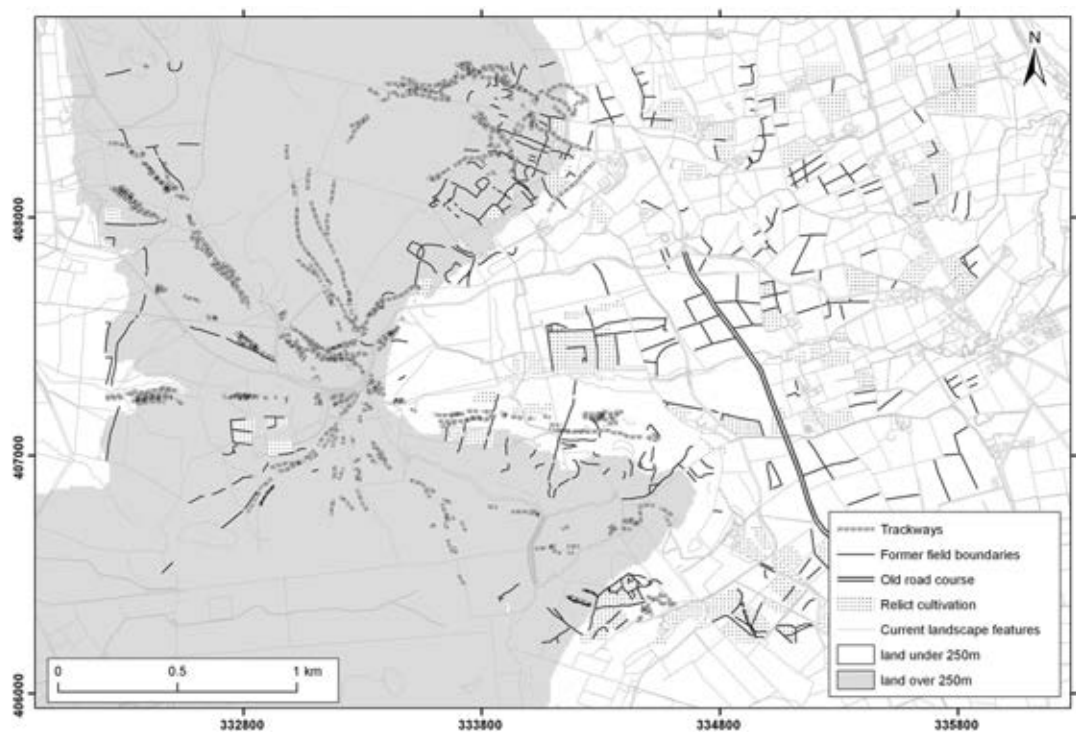


Figure 6. Distribution of trackways, former field boundaries and areas of relict cultivation.

visual inspection that these features were not anthropogenic but areas of natural slippage, which allowed for the removal of 36 of these sites from the project database. For the most part, however, the field visits confirmed the results of the lidar analysis, helped to clarify the nature of features in the field and led to further incidental discoveries, such as a potentially *in situ* scatter of flint knapping debitage; a type of site that would most definitely not be observed on lidar.

The results of the field validation exercise were fed back into overall analyses of the original datasets and allowed for a quality assessment of the lidar-based prospection.

Results

Improving the known record

The current NISMR lists 42 archaeological monuments, ranging from areas of neolithic (ca. 4500–2500 BC) flint working to post-medieval (ca. AD 1599–1960) settlements and field systems. Eleven of these monuments are considered of especial importance and are scheduled; these scheduled monuments include the Linford earthworks, the promontory fort at Knockdhu and an

Anglo-Norman (ca. AD 1170–1270) motte in Corkermain townland. The desk-based analysis revealed that 19 of the original 42 recorded sites were not discernible on the lidar. This may have been due to the fact that a site had been subsequently destroyed, its existence based on a documentary reference (rather than field evidence) or the feature was too small, for example, a wayside marker, or a subterranean feature, such as a souterrain; but, in 13 cases the lack of detailed field recording (and the suspected positional inaccuracy of the given grid coordinate) made it difficult to marry the given description in the NISMR with any apparent features in the immediate locality on the lidar. Of the remaining 23 sites identified a further 12 had notable positional

Table 2. Frequency of hut widths occurring amongst those newly mapped during the course of the lidar project.

Internal hut width (m)	Frequency
0.5–1.4	1
1.5–2.0	8
2.1–2.9	52
3.0–3.9	41
4.0–4.9	32
5.0–5.9	22
6.0–6.9	7
≥ 7	4



inaccuracies (ranging from 13 m to 57 m), but it was possible to match the site in the database to a signature on the lidar based on the sketches and descriptive notes contained in the SMR file. Given that the NISMR is a curatorial tool for the management and protection of cultural heritage this inaccuracy would potentially have serious ramifications in a planning and development context.

The lidar analysis has allowed for the correction of these positional errors; the accurate mapping of more complex and spatially extensive features, such as field boundaries and trackways, that have up until now been recorded only as a point in the NISMR; and revealed further insights into the already recorded monuments in this landscape. For example, the lidar analysis has allowed for the digitizing of 104 potential hut sites on Knockdhu promontory, whereas before only 18 were recorded (Figure 4).

#### *New discoveries: augmenting the record*

In total 373 'potential archaeological features' were mapped during the course of the lidar desk-based study. At least 285 (76%) are not recorded in the current NISMR (Figure 5). A breakdown of these sites, classified into broad categories, is presented in Table 1.

This breakdown of potentially new archaeological features does not include the numerous braided trackways (ca. 23.5 km), former field boundaries (ca. 29.4 km) and areas of relict cultivation (ca. 50 ha) also recorded from the lidar data; features that previously had only ever been recorded incidentally in the NISMR as point locations (rather than polylines and polygons), and in only a very few instances (see Figure 6). Hut sites represent the predominant site type defined by the lidar data (59%), followed by enclosures (14%) and less determinable features classified as 'structures' (12%). Structures may include further hut or house sites, small animal folds, clearance cairns and other small mounds, but cannot be categorized with the same level of certainty. Hut and house sites have been differentiated based on plan-shape. Roundhouses have been described as 'hut sites' and oval-shaped (rounded rectangular) and/or rectangular-shaped structures have been described as 'house sites' (after Gardiner, 2012).

The usage of the advisory term 'potential archaeological features' rather than 'archaeological site' follows Hesse (2013), as this study encountered similar issues with regard to 'lack of chronological control'; 'scale', that is, differentiating between discrete features versus sites comprising of interrelated sets of features

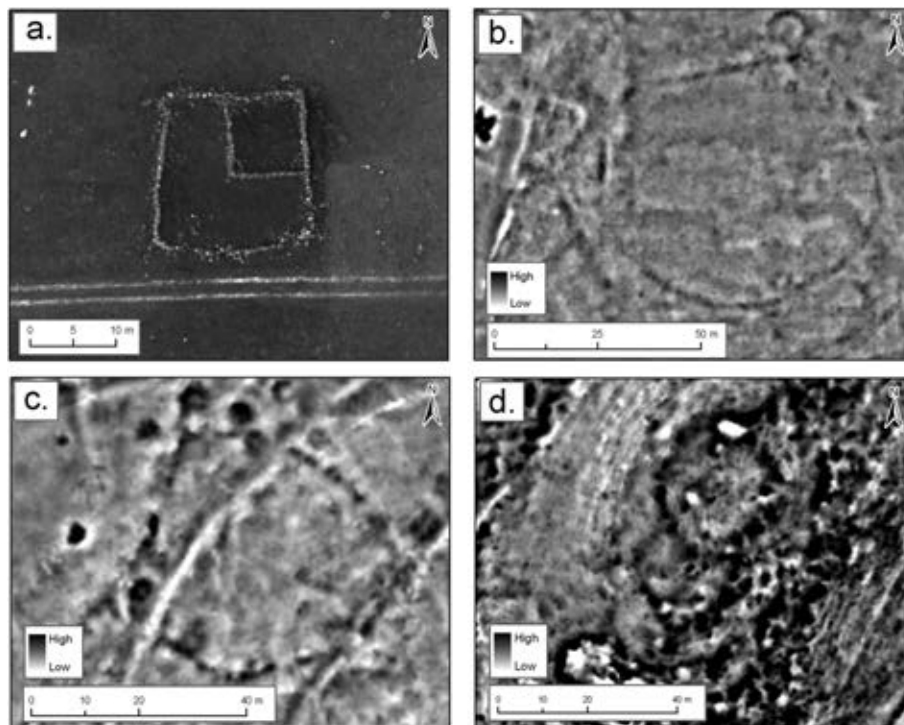


Figure 7. Examples of enclosure types found in the study area: (a) small stone built sheepfold (vertical aerial photograph); (b) large circular enclosure or corral (local relief model, LRM); (c) circular enclosure associated with settlement remains (LRM); (d) possible conjoined enclosure (LRM).



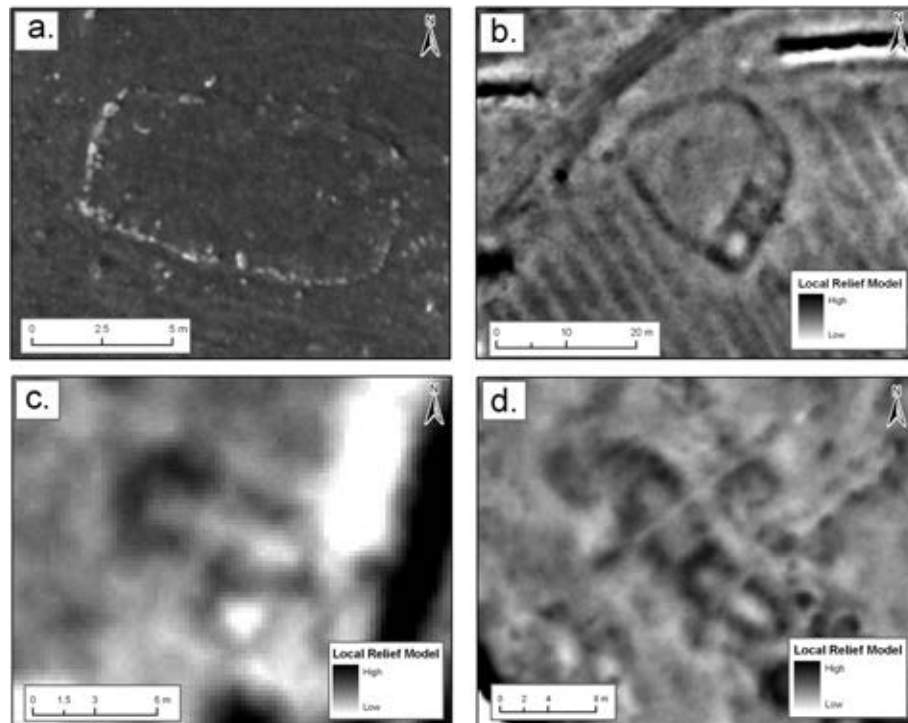


Figure 8. Examples of house sites found in the study area: (a) ovoid house site in Drains Bog townland associated with herding activities (vertical aerial photograph); (b) subrectangular house site and associated yard in Ballycoos townland and associated with infield outfield mixed farming (local relief model; LRM); (c) subrectangular house with annex in Ballycoos townland, located above the head dyke (LRM); (d) two celled longhouse located on the plateau in Linford townland and associated with a circular enclosure and hut sites (LRM).

and the propensity of perceived 'no or low heritage value sites', such as, post-medieval cultivation ridges, field boundaries and quarries (see Hesse, 2013, p. 177). The following examples (hut sites, enclosures, house sites, field boundaries, cultivation and trackways) will give an impression of the diversity of archaeological sites detected principally from the lidar analysis.

#### *Hut sites*

The majority of the newly discovered hut sites (86%) are found on the open ground of the plateau itself, and of these 60% relate to the settlement on Knockdhu promontory, while the remainder are found singly, in loose groupings and lying inside (and sometimes abutting) circular and subcircular walled compounds (similar in many respects to settlement evidence being discovered on the Garron plateau, also in the Antrim uplands; see Gardiner, 2012). Table 2 shows the frequency distribution of internal hut widths (m) for the newly discovered hut sites in the study area. The predominance of narrow internal widths, outside of Knockdhu promontory, suggests that the majority of these huts were never more than temporary structures associated with seasonal herding activities.

#### *Enclosures*

The enclosures identified from the desk-based study are largely located on the plateau summit (37.5%), and/or on the slopes immediately below (50%). They range in size from the small 5 m<sup>2</sup> stone-built sheepfolds (Figure 7a), a great many of which are marked on the OS maps of the nineteenth century, and which tend to be square in plan, to the larger circular enclosures found on the plateau summit, the largest of which has an internal area of ca. 0.18 ha (Figure 7b). Two of these larger circular enclosures on the plateau are found in proximity to concentrations of hut sites and probably served as overnight enclosures for livestock (see Figure 7c by way of example).

Given the location of these enclosures, on or close to the plateau, it is proposed that the majority of these features relate to livestock management and served as folds or corrals. There are, however, a couple of notable exceptions, including a possible conjoined enclosure (Figure 7d) situated on a raised knoll ca. 340 m to the east of Knockdhu promontory, which may have served as a free-standing gateway bastion controlling the most direct approach to the promontory.

*House sites*

Thirty-five house sites are interpreted on the lidar data. Twenty-one of these have previously been recorded and 95% of these house sites can be associated with the prominent clustered settlement in Drains Bog townland and first described by Hodges (1975, p. 22) as follows:

On a N-facing spur beneath the N. cliff of Knockdhu are ten elliptically shaped structures...Their walls

are two-stones thick and 2 ft across, and there is regularly one entrance about 2 ft wide. This must be the summer settlement of a group of shepherds or cattle-herders working on the top of the Sallagh Braes.

An example of one of these house sites is provided in Figure 8a. A further recorded house site, situated at the juncture between Drains Bog and Ballycoos townland, is subrectangular in plan with an associated ovoid yard, see Figure 8b. This house site, along with six other newly

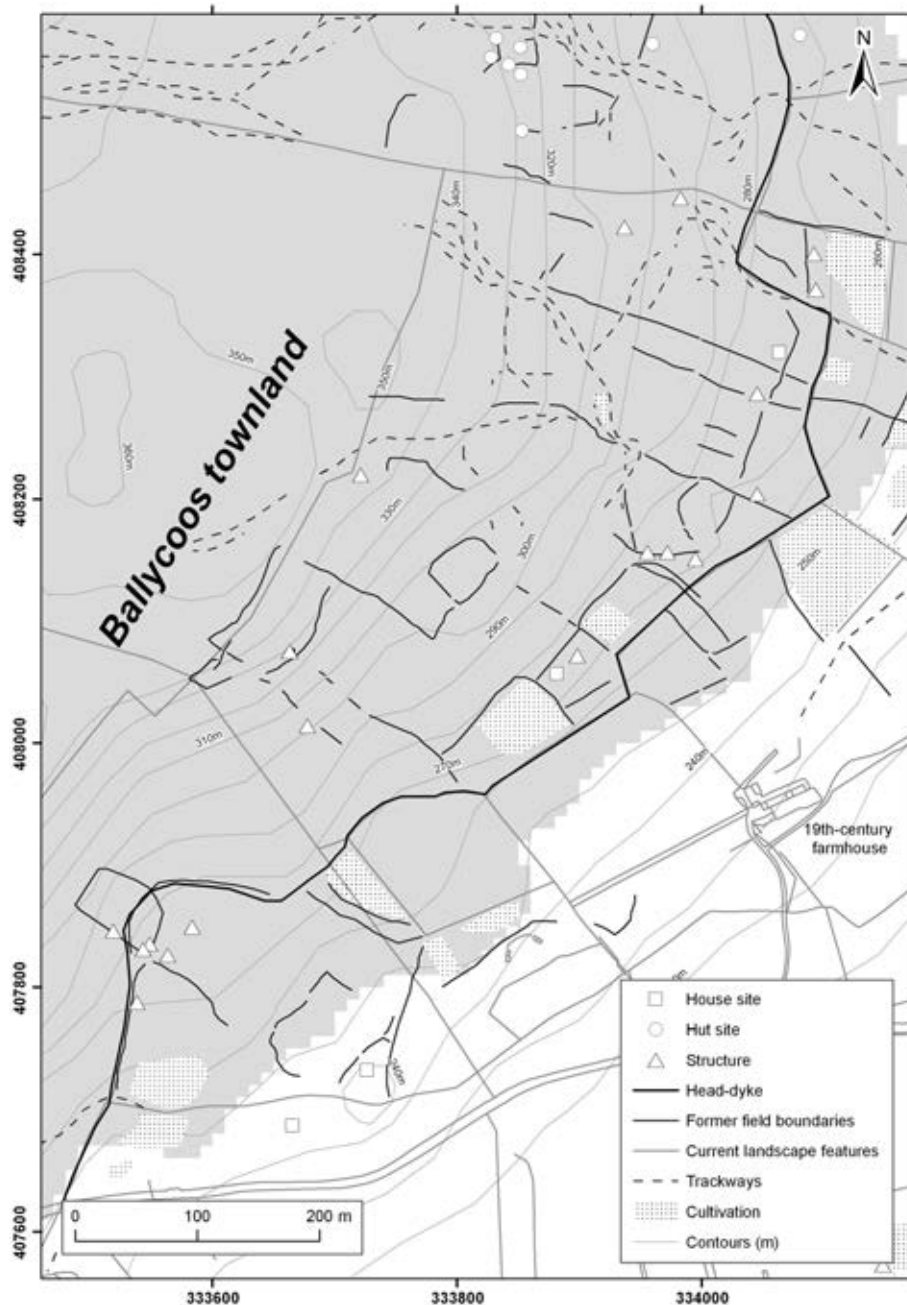


Figure 9. Relict landscape features in Ballycoos townland.

discovered sites, can be associated with a more settled farming community operating an infield–outfield system on the slopes below the plateau in Ballycoos townland (see Figure 8c for an example of one of these newly imaged house sites). The remaining newly discovered house sites are for the most part outliers associated with these two concentrations, however, three house sites appear on the plateau itself. One is located in isolation at the western limits of the study area; a second two-celled longhouse (Figure 8d) is associated with a circular enclosure and hut sites, while the third is situated 10 m to the north of the prominent prehistoric cairn that stands overlooking the Linford Gap.

### Field boundaries

The former field boundaries identified from the lidar data predominate (63%) in the eastern half of the study area, where land enclosure is more pronounced than the largely open upland. These former boundaries represent the remains of post-medieval field boundaries (as depicted in the OS maps of the nineteenth century) that have been systematically removed from the 1940s onwards to accommodate new and more intensive farming regimes (such as silage monoculture) over hay-making and small-scale rotational cropping.

Outside of this pattern of field boundary removal exists two notable concentrations of relict field boundaries associated with the farm settlements in Ballycoos (Figure 9) and Drains Bog townland (Figure 10). The former field boundaries in Ballycoos relate to an early post-medieval infield–outfield model of farming that can be associated with a small number of farm units as marked on the OS maps of the nineteenth century. The field boundaries form part of a coherent system of fields that demark both property division and modes of farming activity in terms of grazing and cultivation. In contrast the relict field boundaries in Drains Bog townland are associated with a stock-focused farming zone.

### Cultivation

The relict cultivation remains, like the former field boundaries identified, predominate in the eastern half of the study area on the better drained soils of the lower-lying coastal strip (62%). These cultivation remains also respect the post-medieval field pattern depicted on the OS maps of the nineteenth century and can be associated with arable farming and pasture reseeding in the eighteenth to twentieth centuries. Outside of this pattern there is evidence for cultivation occurring on the lower slopes of the plateau in

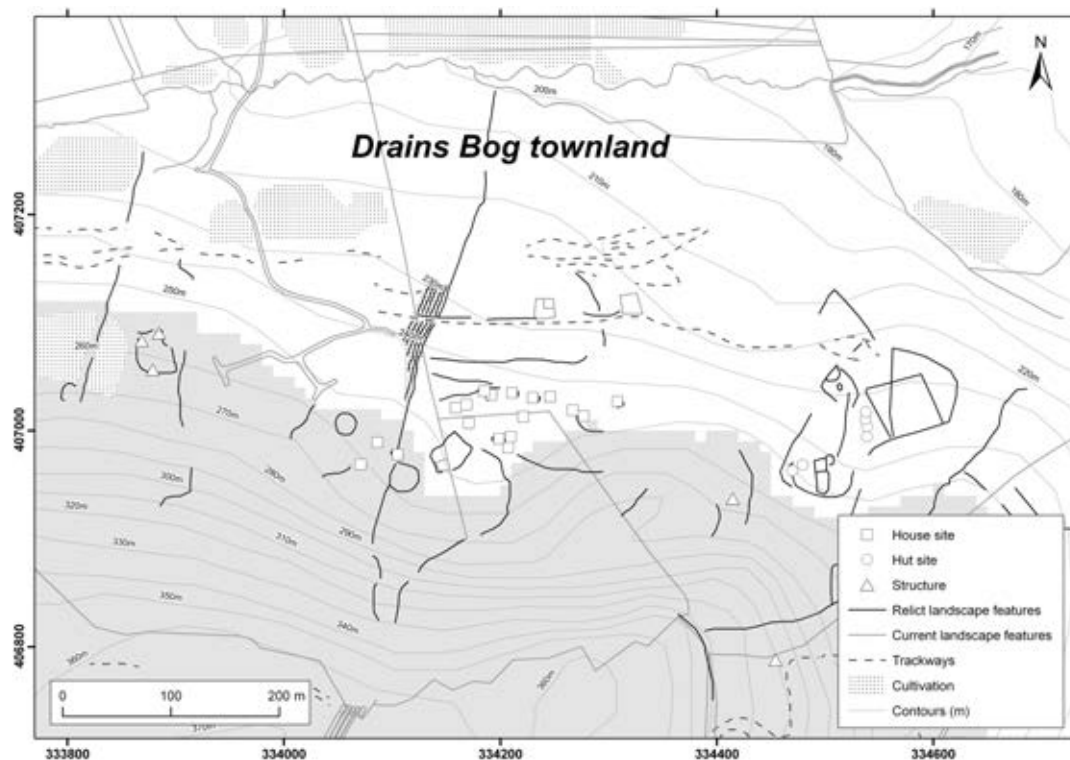


Figure 10. Relict landscape features in Drains Bog townland.



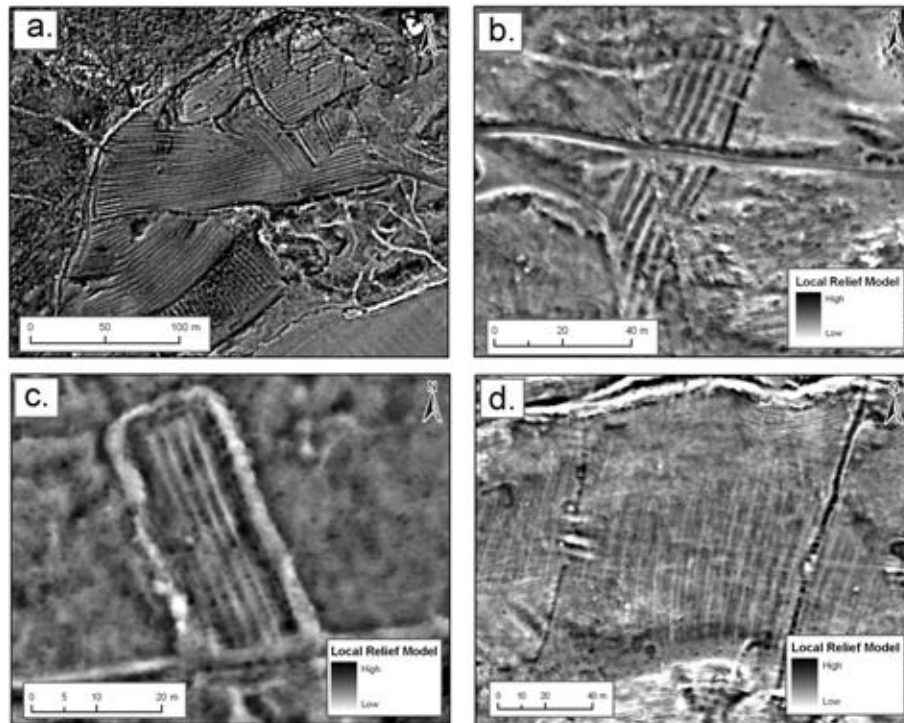


Figure 11. Examples of cultivation remains in the study area: (a) nineteenth century tillage in the vicinity of a post medieval farmstead in Sallagh townland (local relief model; LRM); (b) cultivation associated with herders' huts in Drains Bog townland (LRM); (c) spade dug potato garden located on the plateau in Ballyhackett townland (LRM); (d) possible prehistoric cultivation distinguished by its very narrow ridge and furrow (LRM).

Ballycoos, Drains Bog and Sallagh townlands; some limited evidence on the plateau itself and on the low-lying ground at the centre of the study area. This cultivation evidence reflects: short-lived periods of tillage expansion and contraction in the nineteenth century (Figure 11a); supplementary arable production carried out in conjunction with seasonal dairying activities (Figure 11b); as well as examples of small-scale spade-dug cultivation plots associated with house and/or hut sites (Figure 11c). There are some possible examples of much earlier cultivation based on the ephemeral nature of the remains and the very narrow ridge and furrow (Figure 11d).

### Trackways

The cartographic evidence reveals that before the OS 6-inch map of 1853–1858 there was no formal road giving access to this part of the plateau or the hinterland beyond; although a series of footpaths, or trackways, are marked on this edition and later maps. The modern road from Carncastle to Feystown was laid out sometime between the OS 6-inch map of 1853–1858 and the 1903–1906 map edition. Before the construction of this road, access to the plateau was provided by two distinctive concentrations of trackways, and for the first time

the lidar has allowed for these braided tracks to be accurately mapped (see Figure 6).

### Discussion

The new archaeological discoveries made during the course of this project include various categories of evidence, such as, hut sites, boundaries, trackways, enclosures and cultivation ridges. These relict features must have worked as a farming system, albeit one that was flexible and capable of change, reflective of the vagaries of settlement contraction and expansion over the centuries as a result of economic and/or climatic factors, changing modes of farming and landlord-driven 'improvements'. Most of the remains discussed are linked in some way to the past utilization of this landscape for agricultural purposes and can conservatively be associated with a *terminus ante quem* sometime in the early post-medieval period. The high level of feature survival in the areas immediately below the plateau is reflective of them having been left largely unaffected and untouched by the more mechanized farming practiced increasingly after the 1940s and evidenced on the lower lying coastal strip in terms of pasture reseeding and field consolidation.

While there are vestiges of these agricultural remains portrayed on the OS maps of the nineteenth century and early twentieth century the majority of these relict features pre-date the earliest OS cartography commissioned in the 1830s and thus have the potential to provide important insights into the evolution, changing nature and demise of this farming landscape in preceding centuries and offer a window on farming practice and settlement in the late medieval and early post-medieval periods.

The newly identified potential hut sites identified above 250 m above OD point to the very real possibility of medieval (ca. AD 400–1599) and prehistoric (ca. 4500 BC–AD 400) components encompassed in this relict farming landscape. Aside from the hut sites on the promontory, which can be presumed to date to the Bronze Age (ca. 2200–500 BC) based on recent excavation evidence (see Macdonald, 2010), the remaining hut sites identified might also be relics of the warmer and drier climates of the Early (ca. 2200–1600 BC) and Middle (ca. 1600–1200 BC) Bronze Age, or alternatively herders' huts associated with the practice of booleying (transhumance) in the medieval and early post-medieval periods. These hut sites may have fallen out of use as the direct consequence of cattle being replaced by sheep, as the preferred stock type of the upland farmer, from the seventeenth century onwards (Rathbone, 2009, p. 123). Sheep tend to need less supervision than cattle and therefore the necessity of overnighting with livestock on the upland would have been removed (Evans, 1940, p. 178; Rathbone, 2009, p. 123). Regardless of their chronology, the hut sites, outside of those contained within Knockdhu promontory itself, are most likely the shelters of herders and point to the fact that this upland was part and parcel of a farming system

that involved the communal exploitation of pastures on the plateau by kin-groups more permanently settled on the foothills below the plateau.

## Conclusions

The results presented in this paper demonstrate the utility of low-altitude high point-density lidar survey for the examination of open-pasture upland landscapes containing extensive low-relief earthworks. These archaeological landscapes have hitherto proven difficult to survey and readily understand without intensive campaigns of fieldwork. The lidar-based desktop assessment has allowed for a major overhaul and critique of the existing NISM; the accurate mapping of more complex and spatially extensive features; and the generation of new archaeological information that can be added to the record and applied to improve the cultural historic understanding of this landscape and others like it across the Antrim plateau. Lidar should, therefore, be considered as a first-choice dataset for desk-based interpretation and mapping exercises in advance of future fieldwork in these types of uplands.

The lidar visualization technique of local relief modelling proved to be most useful, both as a means of prospecting for subtle low-relief earthworks and also for facilitating expedient and accurate vector digitizing. It clearly identified positive and negative features in both low- and high-relief landscapes within the study area, and even subtle earthworks, such as cultivation ridges, could be readily delineated and digitized. Sampled field verification exercises were also worthwhile, allowing for false monument detections to be eliminated and observations to be made about the archaeological landscape that go beyond the limitations of remotely sensed data, and which reinforce the necessity of a dual approach, incorporating both desk- and field-based studies, in the analysis of archaeological landscapes. Perhaps the greatest revelation to the field team was just how subtle some of the earthwork signatures were in terms of their elevation when viewed in the field, sometimes less than 0.1–0.2 m in height, and easily missed unless guided by transcribed lidar plots and a hand-held global positioning system (GPS) device. In many cases, ground-level photography as a means of recording was rendered virtually useless by the low-level earthworks. More often than not lidar data users in the archaeological community are chiefly concerned with the spatial resolution and/or point density of the lidar data they are using and less often about its vertical accuracy. In this case the high vertical accuracy of the data (0.05 m at  $2\sigma$  (95% confidence level)) acquired by

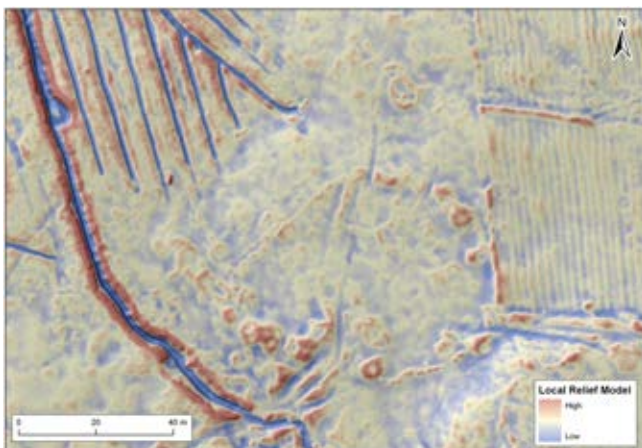


Figure 12. Evidence of arterial drainage, at NW of image, encroaching upon previously unrecorded archaeological remains' (hillshade with LRM at 50% transparency overlain). This figure is available in colour online at [wileyonlinelibrary.com/journal/arp](http://wileyonlinelibrary.com/journal/arp)

a system normally designed for very detailed applications ('engineering quality data'), such as, transmission lines, railways, levees, roads and pipelines, proved its worth in successfully delineating subtle earthwork features in an open pasture landscape that had hitherto gone unnoticed in the field by past fieldworkers relying solely on aerial photographs and/or field observation.

Beyond straightforward archaeological prospection, and the research questions arising, this lidar dataset also has a useful role to play in any future conservation-led initiatives. For example, it has been possible to identify threats (both natural and anthropogenic) to monuments and map erosion features, such as gullies and animal and vehicular wear-paths, as well as more intrusive landscape management practice, such as arterial drainage; thus highlighting the importance of this type of landscape analysis for cultural heritage management as well as wider environmental agendas (Figure 12). It is hoped that this present work will form the basis for more robust planning and management for this archaeological landscape and help guarantee its ongoing preservation.

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