

North Somerset Council

Landscape Sensitivity Assessment

Solar PV and wind energy development

Draft report

Prepared by LUC

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North Somerset Council

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Chapter 1

Introduction

This chapter gives an overview of the study

Background to this study

1.1 This report is designed to inform plan-making, development management and land use decisions within North Somerset, in support of the forthcoming Local Plan 2023-2038.

1.2 North Somerset Council commissioned LUC to undertake a landscape sensitivity assessment for solar PV and wind energy development, as part of a wider Renewable Energy Resources Assessment Study (RERAS) being undertaken by AECOM in collaboration with WECA (West of England Combined Authority).

1.3 The Landscape Sensitivity Assessments for wind energy and solar photovoltaic (PV) developments provide judgements on the landscape sensitivity of different parts of the North Somerset landscape to these forms of development. The findings of this study will allow the Council to identify broad areas for renewable energy development and establish a local policy framework for such development, in line with the National Planning Policy Framework (paragraph 151).

1.4 The method is described in **Chapter 2** and results presented in **Chapter 3**.

Policy context

European Landscape Convention

1.5 The European Landscape Convention (ELC) came into force in the UK in March 2007. It established the need to recognise landscape in law; to develop landscape policies dedicated to the protection, management and planning of landscapes; and to establish procedures for the participation of the general public and other stakeholders in the creation and implementation of landscape policies. The ELC remains relevant despite the UK's departure from the EU.

1.6 The ELC definition of 'landscape' recognises that all landscapes matter, be they ordinary, degraded or outstanding:

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

1.7 Signing up to the ELC means that the UK is committed to protect, manage and plan our landscapes for the future. The Convention also advocates work to raise landscape awareness, involvement and enjoyment amongst local and visiting communities. Landscape character is defined by the ELC as "a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse". Again, this reinforces the underlying message that 'all landscapes matter'.

National Planning Policy Framework (NPPF)

1.8 The UK Government published an updated and revised National Planning Policy Framework (NPPF) in February 2019, which sets out the environmental, social and economic planning policies for England. Central to NPPF policies is a presumption in favour of sustainable development; that development should be planned for positively and individual proposals should be approved wherever possible.

1.9 One of the overarching objectives that underpins the NPPF is set out in Paragraph 8: "an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment." Paragraph 170 states that "planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes" and "recognising the intrinsic character and beauty of the countryside".

1.10 The NPPF also makes explicit reference to the need for defined strategic policies that make sufficient provision for climate change mitigation and adaptation, landscape and green infrastructure (paragraph 20).

1.11 Paragraph 151 states that "to help increase the use and supply of renewable and low carbon energy and heat, plans should:

- a) *provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);*
- b) *consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development..."*

1.12 This national policy requirement, along with the council's climate emergency declaration, are the key drivers behind the landscape sensitivity assessments.

National Planning Policy Guidance (NPPG)

1.13 Further guidance is provided in the NPPG on how local planning authorities can identify suitable areas for renewable and low carbon energy. It states that:

1.14 "...when considering impacts, assessments can use tools to identify where impacts are likely to be acceptable. For example, landscape character areas could form the basis for considering which technologies at which scale may be appropriate in different types of location..."

1.15 This study uses the framework of Landscape Character Areas and Landscape Character Types for the landscape sensitivity assessment as set out in the 2018 North Somerset Landscape Character Assessment.

Local Plan Policy

1.16 The development of the Local Plan to cover 2023-2038 began in 2018, as part of the wider West of England Joint Spatial Plan. This was a shared strategic plan for North Somerset and South Gloucestershire, B&NES and Bristol Councils. The Joint Spatial Plan was halted at Examination stage, and the Plan was withdrawn in January 2020. Work is now underway on a West of England Combined Authority (WECA) Mayoral Spatial Development Strategy which will form the context for the new Local Plan.

1.17 Preparation of the new Local Plan 2038 is currently underway and consultation took place over the summer of 2020, with a publication version due in 2022.

1.18 The adopted Local Plan for North Somerset is made up of the Core Strategy (adopted April 2012, with amendments, re-adopted January 2017), Sites and Policies Plan Part 1: Development Management Policies (adopted July 2016) and Sites and Policies Plan Part 2: Site Allocations Plan (adopted April 2018).

Priority Objectives

1.19 There are six shared priorities in the Core Strategy 2008-2026 which provide a framework for the objectives and policies. These are:

- Tackling disadvantage and promoting equality of opportunity;
- Developing strong inclusive communities;
- Ensuring safer communities;
- Improving health and wellbeing;
- Developing a prosperous economy and enterprising community;
- Living within environmental limits.

1.20 Ten priority objectives summarise how North Somerset will address spatial planning issues. The priority objective relevant to the Council's stance on climate change, renewable energy and the protection of landscapes is:

- Continue to support North Somerset's existing Green Belt in order to prevent the sprawl of Bristol and its encroachment into valued countryside and to preserve the character of existing settlements; elsewhere, valued strategic gaps between settlements and characteristic green spaces and areas will be protected and enhanced.

Policies

1.21 Relevant policies within the Core Strategy 2008 – 2026 are:

- **Policy CS1 Addressing Climate Change and Carbon Reduction** states that development should demonstrate a commitment to reducing carbon emissions, utilising renewable energy where feasible. Developers are encouraged to incorporate site-wide renewable energy solutions.
- **CS2 Delivering Sustainable Design and Construction** states that new development should prioritise the use of sustainable low or zero carbon forms of renewable energy generation. New developments will require the use of on-site renewable energy sources, or linking with available off-site renewable energy sources.
- **CS5 Landscape and the historic environment** states that the character, distinctiveness, diversity and quality of North Somerset's landscape and townscape will be protected and enhanced by new development. New development should pay close regard to the North Somerset Landscape Character Assessment. Development proposals in the Mendip Hills AONB should conserve and enhance its natural beauty and respect its character.
- **CS12 Achieving high quality design and place making** states that development proposals should demonstrate sensitivity to the existing local character, and enhance the sense of place and local identity through good design.
- **CS19 Strategic Gaps** states that the identified strategic gaps will help retain the separate identity, character and/or landscape setting of settlement and distinct parts of settlements.

1.22 Relevant policies within the Sites and Policies Plan Part 1: Development Management Policies (adopted July 2016) are:

- **DM2 Renewable and Low Carbon Energy** states that proposals for renewable and low carbon energy

installations, excluding wind turbines will be supported if there is adequate mitigation for adverse impacts and the environmental, social and economic benefits outweigh any adverse impacts. Key considerations include visual impacts, including cumulative impacts, on the landscape and the quality and setting of the Mendip Hills AONB, including views to and from the AONB. Proposals which maximise opportunities for community-led renewable and low carbon energy, and take opportunities to integrate district heating and combined heat and power into new and existing development are encouraged. New developments will need to demonstrate the application of renewable and low carbon energy generation.

- **DM9 Trees and Woodlands** states that existing trees and wooded areas should be incorporated into the design of new development where practical, viewing trees as an asset. The future growth of tree canopy and roots should be considered in the design. Where practical there should be appropriate new tree planting and woodland creation, using local native species.
- **DM10 Landscape** states that development should not have an unacceptable adverse impact on the landscape character, as defined in the Landscape Character Assessment. New development should be integrated into the natural, built and historic environment, establishing a strong sense of place, responding to local character and reflecting the identity of local surroundings. Landscape impact should be minimised and the tranquillity of an area respected.
- **DM11 Mendip Hills AONB** states that new development needs to conserve and where possible enhance the landscape and scenic beauty of the AONB. Development which would have an adverse impact on the landscape, setting, scenic beauty and views into and out of the AONB will not be permitted unless in exceptional circumstances. Attention should be given to the siting, scale, size, character, design, materials and landscaping of developments.
- **DM32 High Quality Design and Place Making** states that development proposals should demonstrate sensitivity to the local character and setting, and seek to enhance local distinctiveness and contribute to a sense of place and identity.

Mendip Hills Area Outstanding Natural Beauty

1.23 Figure 1.1 shows which parts of the District fall within the Mendip Hills Area of Outstanding Natural Beauty (AONB). The AONB was designated in 1972 and covers a total of 190 square kilometres, of which 39.5 square kilometres (21%) lie within North Somerset. It is a range of limestone hills stretching from Weston-Super-Mare and the Bristol Channel to

the Frome valley. The 'special qualities' of the AONB include the distinctive limestone ridges and scarp slopes, views to and from the AONB, sparsely populated plateaux, dark skies and tranquillity and significant archaeology and history.

1.24 The latest Management Plan was published in 2019 and covers the period to 2024. Relevant objectives include:

- **L1** - ensure that the distinctive landscape is conserved and enhanced through appropriate management.
- **D3** - encourage reduction in carbon emissions within the AONB utilising renewable energy generation technologies of an appropriate type and scale for their setting.

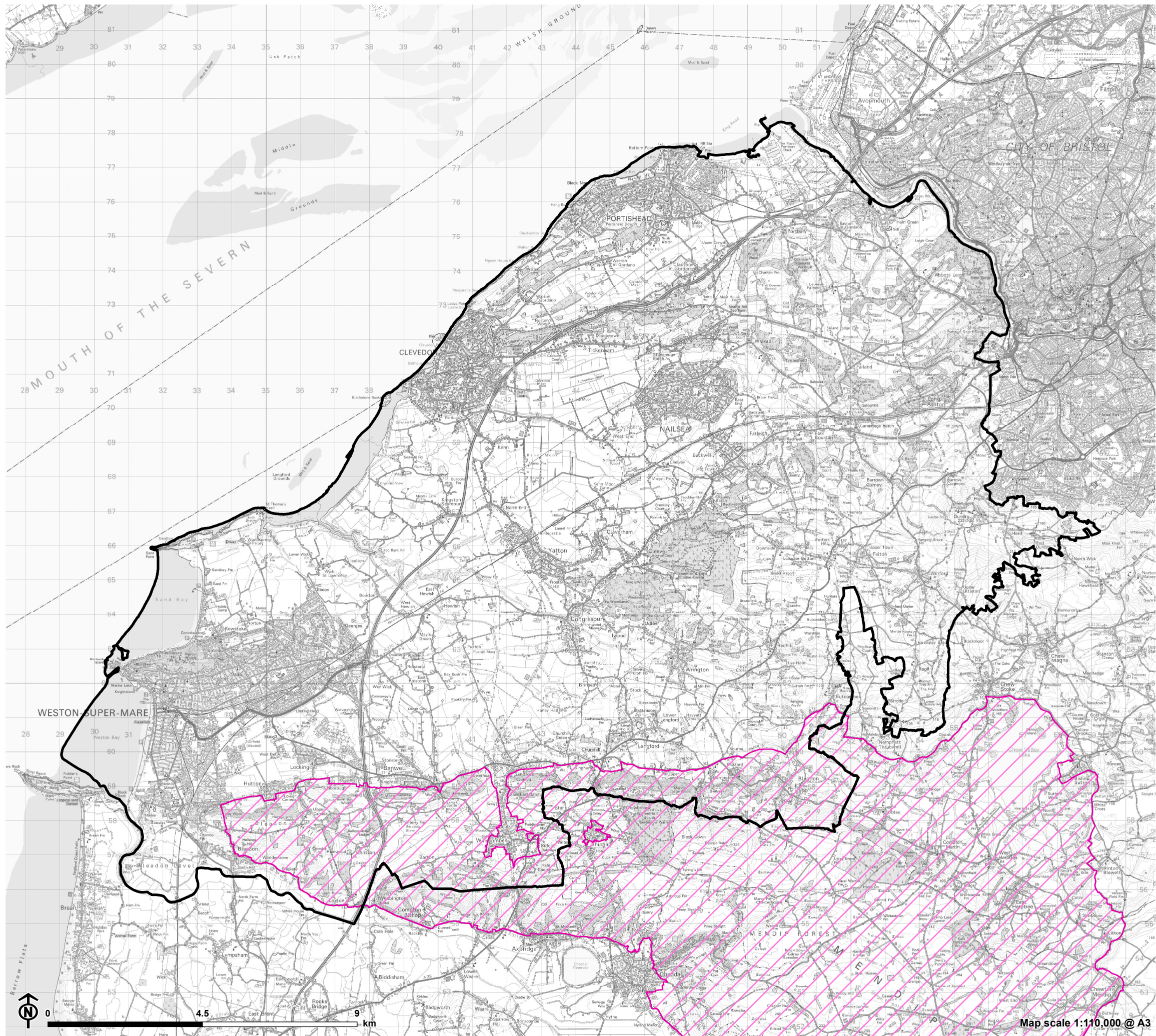


Figure 1.1: Coverage of statutory landscape
designations within and surrounding North
Somerset

- North Somerset district boundary
- Area of Outstanding Natural Beauty
- Mendip Hills

Chapter 2

Method

This chapter sets out the method for the Landscape Sensitivity Assessments for solar PV and wind energy

Scope of the assessments

2.1 The landscape sensitivity assessments focus on the landscape considerations associated with ground-mounted solar photovoltaic (PV) and wind energy developments at a strategic level.

2.2 The results of the assessment (see **Chapter 3**) provide an initial indication of the relative landscape sensitivity of different areas within North Somerset to accommodate solar PV and wind energy developments. The assessment uses an established methodology consistent with national guidance. These results should be interpreted alongside the detailed information provided in separate assessment profiles.

2.3 The assessment should not be interpreted as a definitive statement on the suitability of certain locations for development. It is also important to note that this assessment does not provide guidance on the wide range of other planning issues that need to be considered as part of the preparation and determination of planning applications for renewable energy developments.

Spatial framework for the assessment

2.4 The assessment uses the spatial framework of Landscape Character Types (LCTs) and components Landscape Character Areas (LCA) identified by the existing North Somerset Landscape Character Assessment (2018)¹ which identifies 11 LCTs and 31 component LCAs.

2.5 The LCTs and component LCAs which form the spatial framework for this study are shown in **Figure 2.1**.

2.6 The assessment considered those areas which are suitable for onshore renewable energy development. A small number of LCA were excluded from the study including those in the urban areas or offshore.

¹ North Somerset LCA (2018) is available [here](#)

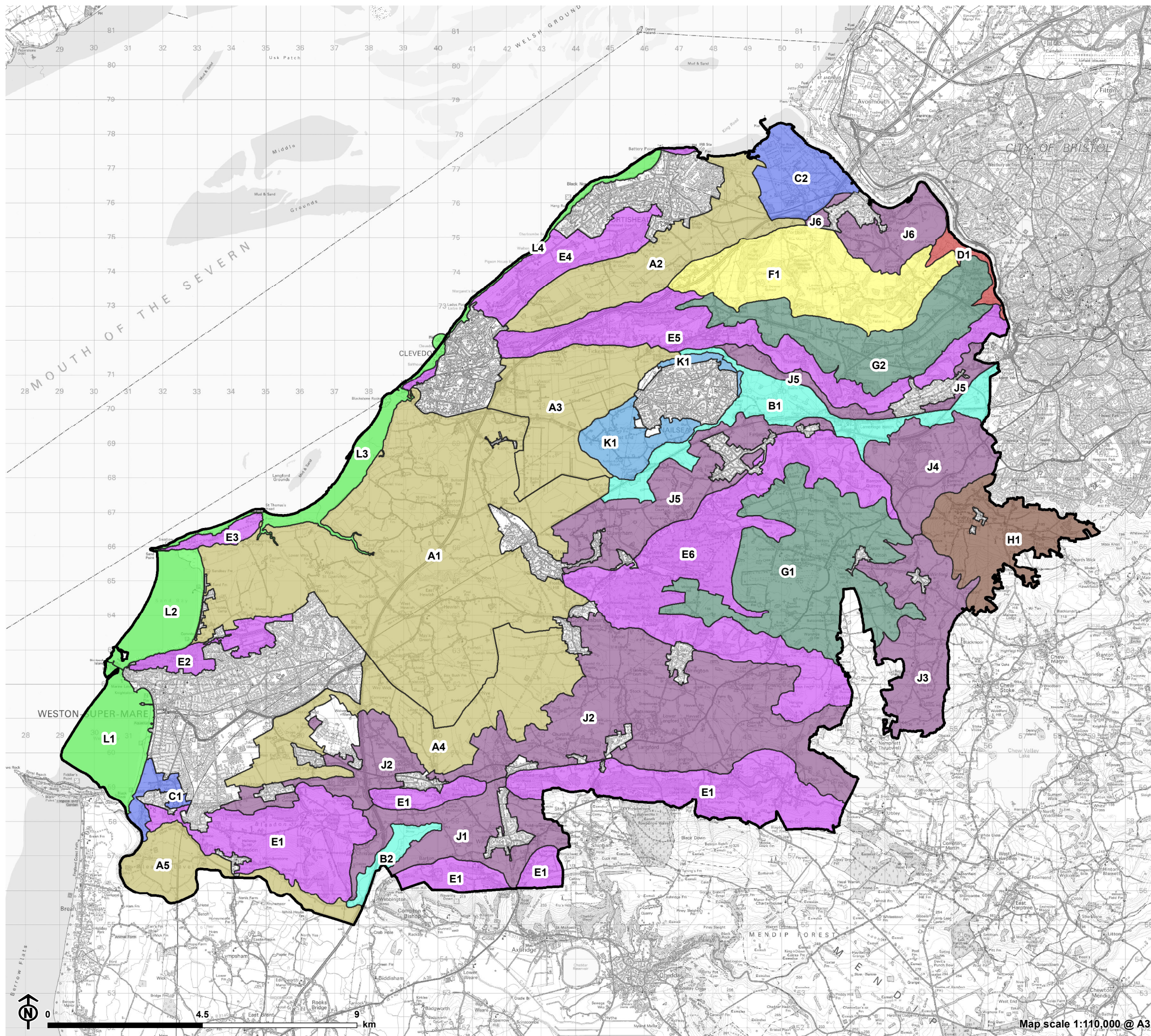


Figure 2.1: Landscape Character Types and Areas
within North Somerset

North Somerset district boundary

**North Somerset Landscape Character Types and
Areas (North Somerset LCA 2018)**

- A. Moors**
 - A1. Kingston Seymour and Puxton Moors
 - A2. Clapton Moor
 - A3. Kenn and Tickenham Moors
 - A4. Locking and Banwell Moors
 - A5. Bleadon Moor
- B. River Flood Plain**
 - B1. Land Yeo and Kenn River Flood Plain
 - B2. Lox Yeo River Flood Plain
- C. Settled Coastal Edge**
 - C1. Weston Bay Settled Coastal Edge
 - C2. Portbury Settled Coastal Edge
- D. Limestone Gorges**
 - D1. Avon Gorge
- E. Limestone Ridges and Combes**
 - E1. Mendips Ridges and Combes
 - E2. Worlebury Ridges and Combes
 - E3. Middlehope Ridges Combes
 - E4. Portishead Ridges and Combes
 - E5. Tickenham Ridges and Combes
 - E6. Cleeve Ridges and Combes
- F. Sandstone Uplands**
 - F1. Abbots Leigh Sandstone Uplands
- G. Settled Limestone Plateau**
 - G1. Bradfield Down Settled Limestone Plateau
 - G2. Failand Settled Limestone Plateau
- H. Settled Hills**
 - H1. Dundry Hill
- J. Rolling Valley Farmland**
 - J1. Lox Yeo Rolling Valley Farmland
 - J2. River Yeo Rolling Valley Farmland
 - J3. Chew Rolling Valley Farmland
 - J4. Colliters Brook Rolling Valley Farmland
 - J5. Land Yeo and Kenn Rolling Valley Farmland
 - J6. Avon Rolling Valley Farmland
- K. Farmed Coal Measures**
 - K1. Nailsea Farmed Coal Measures
- L. Inter-tidal Bays**
 - L1. Weston Bay
 - L2. Sand Bay
 - L3. Woodspring Bay
 - L4. Clevedon-Portishead Bays

Type and scale of solar PV developments considered

2.7 The assessment considers the landscape sensitivity of the landscape within North Somerset and to ground-mounted solar PV developments. Such developments consist of 'arrays' of solar PV panels, usually around three metres in height and mounted on aluminium / stainless steel frames, with associated infrastructure including inverters, on-site powerhouse, security fencing and CCTV. Solar PV developments in domestic gardens or roof mounted panels are outside the scope of this study.

2.8 The assessment judges the suitability of different scales of solar PV developments, based on bandings that reflect those that are most likely to be put forward by developers. The sizes² used for the assessment are set out in **Table 2.1**.

Table 2.1: Solar PV development sizes

Solar PV Development Banding	Area
Band A	≤5ha
Band B	>5 to 10ha
Band C	>10 to 15ha
Band D	>15 to 30ha

2.9 Proposed solar PV developments larger than 30ha have not been considered in this assessment. Landscape sensitivity to these very large schemes would be categorised as "high" sensitivity regardless of location, requiring developers to pay particular attention to this issue in their specific applications.

Type and scale of wind energy developments considered

2.10 The wind energy landscape sensitivity assessment applies to all forms of wind turbines, although it has been based on the most common horizontal axis three-bladed turbine.

2.11 The assessment considers the suitability of different turbine heights (to blade tip), based on bandings that reflect those that are most likely to be put forward by developers (now and in the future). These are set out in **Table 2.2** below.

Table 2.2: Wind turbine development sizes

Wind Energy Development Banding	Turbine Height (to blade tip)
Band A	18 – 25m
Band B	26 – 60m
Band C	61 – 99m
Band D	100 – 150m

Evaluating landscape sensitivity

2.12 This assessment draws on advice contained in Natural England's 'Approach to landscape sensitivity assessment' (2019)³ which supersedes 'Techniques and criteria for judging capacity and sensitivity' (Natural England, 2002). This describes the term 'landscape sensitivity', within the context of spatial planning and land management, as follows:

"Landscape sensitivity may be regarded as a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types or land management practices, without undue negative effects on the landscape and visual baseline and their value."

2.13 It is a term applied to landscape character and the associated visual resource, combining judgements of their susceptibility to the specific development type / development scenario or other change being considered together with the value(s) related to that landscape and visual resource.

Assessment criteria

2.14 Landscape sensitivity assessment requires judgements on both landscape susceptibility (how vulnerable the landscape is to change from the type being assessed, in this case solar PV and wind energy developments) and landscape value (consensus about importance, which can be recognised through designation as well as through descriptions within the 2014 Landscape Character Assessment).

2.15 The selection of landscape sensitivity indicators ('criteria') for this study is informed by the attributes of landscape that could be affected by solar and wind energy development. These consider the 'landscape', 'visual' and 'perceptual' aspects of sensitivity. Their selection is also based on current best practice and experience of LUC in undertaking similar studies elsewhere in the UK.

² The sizes of solar PV developments indicate the areas taken up by solar PV panels only.

³ Natural England's 2019 approach document is available [here](#)

2.16 The following five criteria headings are used for this study:

- Landform and scale (including sense of openness / enclosure);
- Landcover (including field and settlement patterns);
- Historic landscape character;
- Visual character (including skylines); and
- Perceptual and scenic qualities.

2.17 Tables 2.4 and 2.5 at the end of this chapter provide guidance and examples of higher and lower sensitivity features/attributes for applying the criteria in North Somerset, for solar PV and wind energy, respectively. The assessments present a commentary against each criterion to inform the judgements on levels of sensitivity. It is important to note that the relative importance of each criterion varies between landscapes (due to differences in landscape character). The initial stage of the assessment involved a thorough desk-based study drawing on sources of spatial and descriptive information regarding the landscape (see **Appendix A**). This was supplemented by field survey work undertaken by a team of landscape professionals to verify the findings.

Making overall judgements on landscape sensitivity

2.18 Once the landscape sensitivity criteria were assessed individually, the results were translated into overall scores of landscape sensitivity (see **Table 2.3**) for the different bandings of solar PV and wind energy developments. This was undertaken for every LCT and the results are shown in the individual assessment profiles. If any component LCAs within the LCT were judged to be of higher/lower landscape sensitivity (due to local variations), this is accounted for in the assessments and results.

Table 2.3: The five-point scale landscape sensitivity scale

Sensitivity Level	Definition
High (H)	Key characteristics and qualities of the landscape are highly vulnerable to change from wind and solar energy development. Such development is likely to result in a significant change in character.
Moderate - High (M-H)	Key characteristics and qualities of the landscape are vulnerable to change from wind and solar energy development. There may be some limited opportunity to accommodate wind turbines/ solar panels without significantly changing landscape character. Great care would be needed in siting and design.
Moderate (M)	Some of the key characteristics and qualities of the landscape are vulnerable to change. Although the landscape may have some ability to absorb wind and

Sensitivity Level	Definition
	solar energy development, it is likely to cause a degree of change in character. Care would be needed in siting and design.
Low - Moderate (L-M)	Fewer of the key characteristics and qualities of the landscape are vulnerable to change. The landscape is likely to be able to accommodate wind and solar energy development with limited change in character. Care is still needed when siting and designing to avoid adversely affecting key characteristics.
Low (L)	Key characteristics and qualities of the landscape are robust in that they can withstand change from the introduction of wind turbines and solar panels. The landscape is likely to be able to accommodate wind and solar energy development without a significant change in character. Care is still needed when siting and designing these developments to ensure best fit with the landscape.

2.19 The five defined levels of landscape sensitivity form stages on a continuum, rather than clearly separated categories. Any given landscape may or may not fit neatly into one category, and an element of professional judgement is required.

2.20 As with all assessments based upon data and information which is to a greater or lesser extent subjective, some caution is required in its interpretation. This is to avoid the suggestion that certain landscape features or qualities can automatically be associated with certain sensitivities – the reality is that an assessment of a landscape's sensitivity to development is the result of a complex interplay of often unequally weighted variables (or 'criteria').

2.21 There may be one criterion that has a strong influence on landscape sensitivity in a particular LCT (or LCA) which increases the overall landscape sensitivity score (an example for solar PV might be a landscape with a prominent/highly visible ridgeline, or significant coverage of semi-natural habitats). There may also be criteria that produce conflicting scores. For example, a small-scale landscape with historic field patterns may also afford greater screening of panels from topography and a dense network of hedgerows. A conflicting example for wind could be in the context of a settled landscape. While it would have a greater human influence (indicating a lower sensitivity to new development), it would also contain more human scale features that could be affected by large-scale wind turbines (indicating a higher sensitivity). Conversely, a more remote landscape is likely to lack human-scale features but is likely to present a higher sensitivity from a perceptual point of view.

2.22 In these situations, a professional judgement is made on overall landscape sensitivity, taking all criteria into account in the context of their importance to the landscape character and quality of the individual LCT/LCA.

Presentation of results

2.23 The full landscape sensitivity assessments for each of the LCTs are presented in **separate assessment profiles**.

These are structured as follows:

- A map of the LCT, with component Character Areas and representative photographs
- A summary description of the LCT against each of the assessment criteria, giving a landscape sensitivity assessment rating for both development types (following the approach set out at **Tables 2.4** and **2.5**).
- An overall discussion on the landscape sensitivity of the LCT to new solar PV and wind energy developments, referencing particular features, attributes or locations which may be more or less sensitive.
- Landscape sensitivity scores for new solar PV and wind energy development within each of the different bandings, using the five-point scale shown at **Table 2.3**.
- Discussion of any variations to the overall LCT scores at the LCA level.

2.24 The next chapter sets out the overall results of the assessments.

Table 2.4: Criteria and guidance for assessing landscape sensitivity to solar PV development

Landform and scale (including sense of openness/ enclosure)				
<p>A flat or gently undulating lowland landscape or extensive plateau is likely to be less sensitive to solar PV development than a landscape with prominent landforms and visible slopes. This is because arrays of solar PV panels will be less easily perceived in a flat landscape than on a slope (including hills and knolls), especially higher slopes.</p> <p>A landscape with a strong sense of enclosure (e.g. provided by land cover such as woodland, tree cover or high hedges) is likely to be less sensitive to solar PV development than an open and unenclosed landscape because these features will be able to provide screening.</p>				
Low	Low-Moderate	Moderate	Moderate-High	High
<p>An extensive lowland flat landscape or plateau, often a larger scale landform.</p> <p>A very well enclosed landscape – e.g. with fields bounded by high hedges and dense tree/woodland cover.</p>	<p>A simple gently rolling landscape, likely to be a medium-large scale landform.</p> <p>Some enclosure provided by hedges and tree/woodland cover.</p>	<p>An undulating landscape, perhaps also incised by valleys, likely to be a medium scale landform, with hidden areas as well as some visible slopes.</p> <p>Some areas lacking screening by field boundaries or tree cover, whilst others might have a greater sense of enclosure owing to a denser occurrence of these features.</p>	<p>A landscape with distinct landform features, and/or irregular in topographic appearance (which may be large in scale), or a smaller scale landform. The landscape may contain prominent, visible slopes with little sense of enclosure (low, few or no hedges or trees/areas of woodland).</p>	<p>A landscape with a rugged landform or dramatic landform features (which may be large in scale), or a small scale or intimate landform. The landform may be very steep with exposed, visible slopes and no field boundaries or tree cover to provide screening.</p>
Landcover (including field and settlement patterns)				
<p>Since solar PV panels introduce a new land cover (of built structures), landscapes containing existing hard surfacing or built elements (e.g. urban areas, brownfield sites or large-scale horticulture) are likely to be less sensitive to field-scale solar PV development than highly rural or naturalistic landscapes. Landscapes with small-scale, more irregular field patterns are likely to be more sensitive to the introduction of solar PV development than landscapes with large, regular scale field patterns because of the risk of diluting or masking the characteristic landscape patterns. This would be particularly apparent if development takes place across a number of adjacent fields where the field pattern is small and intricate (bearing in mind that the height of panels could exceed that of a hedge or stone wall).</p>				
Low	Low-Moderate	Moderate	Moderate-High	High
<p>A landscape with large-scale, regular fields of mainly modern origin.</p> <p>An urban or 'brownfield' landscape.</p>	<p>A landscape which is mainly defined by large, modern fields or those sub-divided for non-traditional uses, e.g. horse keeping.</p> <p>An area of large-scale horticulture or some urban or brownfield influences.</p>	<p>A landscape with a mixture of large-scale, modern fields and some smaller, more historic enclosure.</p> <p>A rural landscape, perhaps with some brownfield sites or urban influences.</p>	<p>A landscape dominated by ancient, small-scale field patterns with a few isolated areas of modern enclosure and / or with some areas of semi-natural land cover.</p>	<p>A landscape characterised by small-scale, ancient field patterns and/ or a landscape dominated by semi-natural land cover.</p>

Historic landscape character				
<p>Landscapes which contain important archaeological or historic features or historic associations are likely to have a higher level of sensitivity to solar PV development. Historical features may be in the form of historic land cover types and field systems, areas of buried archaeology, historic landscapes such as Registered Parks and Gardens or buildings/structures designated for their historical significance.</p> <p>Areas which make a significant contribution to the setting of a historical feature or landscape may also have higher sensitivity to solar PV development. Landscapes that are primarily of modern influence and origin will have a lower sensitivity to solar PV development.</p>				
Low	Low-Moderate	Moderate	Moderate-High	High
A landscape with relatively few historic features important to the character of the area and little time depth (i.e. large intensively farmed fields).	A landscape with a small number of historic features important to the character area and some time depth.	A landscape with some visible historic features of importance to character, and a variety of time depths.	A landscape with many historic features important to the area and a strong sense of time depth.	A landscape with a high density of historic features important to the character of the area and great time depth
Visual character (including skylines)				
<p>The relative visibility of a landscape may influence its sensitivity to solar PV development. An elevated landscape such as a hill range or plateau, which is viewed from other landscapes, may be more sensitive than an enclosed landscape, since any solar panels will be more widely seen. Landscapes which have important visual relationships with other areas, for example where one area provides a backdrop to a neighbouring area (which may be a designated landscape such as the Mendip Hills AONB), are considered more sensitive than those with few visual relationships. The extent of inter-visibility may be modified by the importance of these views to appreciation of the landscape, and whether adjacent landscapes provide a setting for one another.</p> <p>Prominent and distinctive and/or undeveloped skylines, or skylines with important landmark features, are likely to be more sensitive to solar PV development because panels may detract from these skylines as features in the landscape, or draw attention away from existing landform or landmark features on skylines if not sited appropriately. Important landmark features on the skyline might include historic features or monuments as well as landforms. Where skylines are affected by development, e.g. through the presence of electricity pylons, the addition of solar panels may lead to visual confusion due to differences in scale. Therefore, developed skylines might not necessarily indicate lower sensitivity.</p>				
Low	Low-Moderate	Moderate	Moderate-High	High
<p>An enclosed, self-contained landscape, or one with weak connections to neighbouring areas.</p> <p>A landscape in which skylines are not prominent, and there are no important landmark features on the skyline.</p>	<p>A landscape with limited connections to neighbouring areas, and/or where adjacent landscapes are not visually related.</p> <p>A landscape in which skylines are simple, flat or gently convex and/or there are very few landmark features – other skylines in adjacent LCTs may be more prominent.</p>	<p>A landscape which has some inter-visibility with neighbouring areas.</p> <p>A landscape with some prominent skylines, but these are not particularly distinctive – there may be some landmark features on the skyline.</p>	<p>A landscape which is intervisible with several areas, and/or where adjacent areas are strongly interrelated.</p> <p>A landscape with prominent skylines that may form an important backdrop to views from settlements or important viewpoints, and/or with important landmark features.</p>	<p>A landscape which has important visual relationships with one or more neighbouring areas. It or the landscape(s) it is visible from is designated as AONB.</p> <p>A landscape with prominent or distinctive undeveloped skylines, or with important landmark features on skylines.</p>

Perceptual and scenic qualities

Landscapes that are relatively remote or tranquil tend to be more sensitive to solar PV development, since solar panels may be perceived as intrusive. Landscapes which are relatively free from overt human activity and disturbance, and which have a perceived naturalness or a strong feel of traditional rurality, will therefore be more sensitive. Qualities such as tranquillity can be found even in settled areas, where the influence of overtly modern development is reduced. Solar PV development will generally be less intrusive in landscapes which are strongly influenced by modern development, including settlement, industrial and commercial development and infrastructure.

Landscapes that have a high scenic quality (including those within Mendip Hills AONB) will be more sensitive. Scenic qualities can include contrasts and combinations of landform and landcover. Scenic qualities are recorded in the Landscape Character Assessment, AONB Management Plans and noted from fieldwork.

Low	Low-Moderate	Moderate	Moderate-High	High
<p>A landscape without attractive character, with no pleasing combinations of features, visual contrasts and/or dramatic elements, such as industrial areas or derelict land.</p> <p>A landscape with much human activity and modern development, such as industrial areas.</p>	<p>A landscape of limited attractive character, with few pleasing combinations of features, visual contrasts and/or dramatic elements.</p> <p>A rural or semi-rural landscape with much human activity and dispersed modern development, such as settlement fringes.</p>	<p>A landscape of intermittently attractive character, with occasional pleasing combinations of features, visual contrasts and/or dramatic elements. Some may be within AONB.</p> <p>A rural landscape with some modern development and human activity, such as intensive farmland.</p>	<p>A landscape of attractive character, with some pleasing combinations of features, visual contrasts and/or dramatic elements. Most or all maybe be designated as AONB.</p> <p>A more naturalistic landscape and/or one with little modern human influence and development.</p>	<p>A landscape of consistently attractive character, with pleasing combinations of features, visual contrasts and/or dramatic elements. All or the vast majority is designated for its scenic qualities.</p> <p>A tranquil landscape with little or no overt sign of modern human activity and development.</p>

Table 2.5: Criteria and guidance for assessing landscape sensitivity to wind energy development

Landform and scale (including sense of openness/ enclosure)				
A flat or gently sloping landform is likely to be less sensitive to wind energy development than a landscape with a dramatic rugged landform, distinct landform features (including prominent hills and valleys) or pronounced undulations. Larger scale landforms are likely to be less sensitive than smaller scale landforms - because turbines may appear out of scale, detract from visually important landforms or appear visually confusing (due to turbines being at varying heights) in the latter types of landscapes. Landscapes with frequent human scale features ⁴ , such as settlements, farmsteads, small farm woodlands, trees and hedges may be particularly sensitive to larger turbines. This is because large features such as wind turbines may dominate smaller scale features within the landscape.				
Low	Low-Moderate	Moderate	Moderate-High	High
An extensive lowland flat landscape or plateau with few/no human-scale features; often a larger scale landform.	A simple gently rolling landscape with occasional human-scale features such as trees and domestic buildings; likely to be a medium-large scale landform.	An undulating landscape, perhaps also incised by valleys, likely to be a medium scale landform, with hidden areas as well as some visible slopes.	A landscape with distinct landform features, and/or irregular in topographic appearance (which may be large in scale), or a smaller scale landform. The landscape may contain prominent, visible slopes and frequent human-scale features.	A landscape with a rugged landform or dramatic landform features (which may be large in scale), or a small scale or intimate landform often with a dense distribution of human-scale features, such as woodland. The landform may be very steep with exposed, visible slopes.
Landcover (including field and settlement patterns)				
Simple, regular landscapes with extensive areas of consistent land cover are likely to be less sensitive to wind energy development than landscapes with more complex or irregular land cover patterns, smaller and / or irregular field sizes.				
Low	Low-Moderate	Moderate	Moderate-High	High
An open, continuous landscape with uniform land cover, or an urban or 'brownfield' landscape.	A landscape of large open fields of modern enclosure, with little variety in land cover. A landscape which contains areas of brownfield sites or urban influences.	A landscape with medium sized fields (or a mix of modern and historic enclosure) and some variations in land cover. A rural landscape which may contain some brownfield sites or urban influences	A landscape with irregular or small-scale fields and a variety in land cover. A rural landscape, perhaps with some areas of semi-natural land cover.	A landscape with a strong variety in land cover, complex field patterns and / or semi-natural land cover. The field pattern may be characterised by small-scale, ancient fields.

⁴ Human scale features are aspects of land cover such as stone walls, hedges, buildings which give a 'human scale' to the landscape.

Historic landscape character				
<p>Landscapes which contain important archaeological or historic features or historic associations are likely to have a higher level of sensitivity to wind energy development. Historical features may be in the form of historic land cover types and field systems, areas of buried archaeology, historic designed landscapes such as a Registered Park and Garden, or buildings/structures designated for their historical significance. Areas which make a significant contribution to the setting of a historical feature or landscapes may also have higher sensitivity to wind energy development. Landscapes that are primarily of modern influence and origin will have a lower sensitivity to wind energy development.</p>				
Low	Low-Moderate	Moderate	Moderate-High	High
A landscape with relatively few historic features important to the character of the area, and little time depth (i.e. large intensively farmed fields).	A landscape with a small number of historic features important to the character area and some time-depth.	A landscape with some visible historic features of importance to character, and a variety of time depths.	A landscape with many historic features important to the area and a strong sense of time depth.	A landscape with a high density of historic features (many designations) important to the character of the area and great time depth.
Visual character (including skylines)				
<p>The relative visibility of a landscape may influence its sensitivity to wind development. An elevated landscape such as a hill range or plateau, which is viewed from other landscapes, may be more sensitive than a landscape with limited visibility. Landscapes which have important visual relationships with other areas, for example where one area provides a backdrop to a neighbouring area (which may be a designated landscape such as an AONB), are considered more sensitive than those with few visual relationships. The extent of inter-visibility may be modified by the importance of these views to appreciation of the landscape, and whether adjacent landscapes provide a setting for one another.</p> <p>Prominent and distinctive and/or undeveloped skylines, or skylines with important landmark features, are likely to be more sensitive to wind energy development because turbines may detract from these skylines as features in the landscape, or draw attention away from existing landform or landmark features on skylines. Important landmark features on the skyline might include historic features or monuments as well as landforms. Where skylines are affected by development, e.g. through the presence of electricity pylons or existing turbines, the addition of turbines of a different scale may lead to visual confusion. Therefore, the presence of existing development cannot always assume a lower sensitivity to new development.</p>				
Low	Low-Moderate	Moderate	Moderate-High	High
<p>An enclosed, self-contained landscape, or one with weak connections to neighbouring areas.</p> <p>A landscape in which skylines are not prominent, and there are no important landmark features on the skyline.</p>	<p>A landscape with limited connections to neighbouring areas, and/or where adjacent landscapes are not visually related.</p> <p>A landscape in which skylines are simple, flat or gently convex and/or there are very few landmark features on the skyline – other skylines in adjacent LCTs may be more prominent.</p>	<p>A landscape which has some inter-visibility with neighbouring areas, and/or where relationships between adjacent landscapes are of more importance.</p> <p>A landscape with some prominent skylines, but these are not particularly distinctive – there may be some landmark features on the skyline.</p>	<p>A landscape which is intervisible with several areas, and/or where adjacent areas are strongly interrelated.</p> <p>A landscape with prominent skylines that may form an important backdrop to views from settlements or important viewpoints, and/or with important landmark features.</p>	<p>A landscape which has important visual relationships with one or more neighbouring areas. It or the landscape(s) it is visible from is designated as AONB.</p> <p>A landscape with prominent or distinctive undeveloped skylines, or with important landmark features on skylines.</p>

Perceptual and scenic qualities

Landscapes that are relatively remote or tranquil tend to be more sensitive to wind energy, since turbines may be perceived as intrusive. Landscapes which are relatively free from overt human activity and disturbance, and which have a perceived naturalness or a strong feel of traditional rurality, will therefore be more sensitive. Qualities such as tranquillity can be found even in settled areas, where the influence of overtly modern development is reduced. Wind energy development will generally be less intrusive in landscapes which are strongly influenced by modern development, including settlement, industrial and commercial development and infrastructure.

Landscapes that have a high scenic quality (including those within the Mendip Hills AONB) will be more sensitive to wind energy development. Scenic qualities can include contrasts and combinations of landform and landcover. Scenic qualities are recorded in the Landscape Character Assessment, AONB Management Plan and noted from fieldwork.

Low	Low-Moderate	Moderate	Moderate-High	High
<p>A landscape without attractive character, with no pleasing combinations of features, visual contrasts and/or dramatic elements, such as industrial areas or derelict land.</p> <p>A landscape with much human activity and modern development, such as industrial areas.</p>	<p>A landscape of limited attractive character, with few pleasing combinations of features, visual contrasts and/or dramatic elements.</p> <p>A rural or semi-rural landscape with much human activity and dispersed modern development, such as settlement fringes.</p>	<p>A landscape of intermittently attractive character, with occasional pleasing combinations of features, visual contrasts and/or dramatic elements. Some may be within AONB.</p> <p>A rural landscape with some modern development and human activity, such as intensive farmland.</p>	<p>A landscape of attractive character, with some pleasing combinations of features, visual contrasts and/or dramatic elements. Most or all may be designated as AONB.</p> <p>A more naturalistic landscape and/or one with little modern human influence and development.</p>	<p>A landscape of consistently attractive character, with pleasing combinations of features, visual contrasts and/or dramatic elements. All or the vast majority is designated for its scenic qualities.</p> <p>A tranquil landscape with little or no overt sign of modern human activity and development.</p>

Chapter 3

Landscape Sensitivity Assessment Results

This chapter presents the overall results of the assessment

3.1 The LCTs within North Somerset contain areas of higher and lower landscape sensitivity that vary from the overall scores. It is therefore very important to take note of the content of the individual assessment profiles, including any commentary which highlights areas which could be more sensitive to solar PV or wind energy developments.

3.2 The overall results of the landscape capacity assessment are set out in **Tables 3.1 and 3.2**.

3.3 **Figures 3.1 to 3.4** present a spatial representation of the landscape sensitivity of North Somerset to new solar PV development (by the four different size bandings). These are followed by **Figures 3.5 to 3.8** for wind energy.

3.4 These maps should always be referred to alongside the individual assessment profiles which set out the scores and reasonings behind them.

Table 3.1: Landscape sensitivity to new solar PV development: North Somerset

LCT	LCA	Landscape sensitivity to solar PV development			
		BAND A (≤5ha)	BAND B (>5 to 10ha)	BAND C (>10 to 15ha)	BAND D (>15 to 30ha)
A: Moors	A1: Kingston Seymour and Puxton Moors	L	L-M	M	M-H
	A2: Clapton Moor	L-M	M	M-H	H
	A3: Kenn and Tickenham Moors	L-M	M	M-H	H
	A4: Locking and Banwell Moors	L-M	M	H	H
	A5: Bleadon Moor	L-M	M	H	H
B: River Flood Plain	B1: Land Yeo, Kenn River and River Avon Flood Plain	M	M-H	H	H
	B2: Lox Yeo River Flood Plain	M	H	H	H
C: Settled Coastal Edge	C1: Weston Bay Settled Coastal Edge	L-M	M-H	H	H
	C2: Portbury Settled Coastal Edge	L	L-M	M	H
D: Limestone Gorges	D1: Avon Gorge	H	H	H	H
E: Limestone Ridges and Combes	E1: Mendip Ridges and Combes	M-H	H	H	H
	E2: Worlebury Ridges and Combes	M	M-H	M-H	H
	E3: Middlehope Ridges and Combes	M-H	H	H	H
	E4: Portishead Ridges and Combes	M	M-H	M-H	H
	E4: Portishead Ridges and Combes Coastal outliers	M-H	H	H	H
	E5: Tickenham Ridges and Combes	M	M-H	H	H
	E6: Cleeve Ridges and Combes	M	M-H	H	H
F: Sandstone Uplands	F1: Abbots Leigh Sandstone Uplands	L-M	M	H	H
G: Settled Limestone Plateau	G1: Broadfield Down Settled Limestone Plateau	L	L-M	M	M-H
	G2: Failand Settled Limestone Plateau	L-M	M	M-H	H
H: Settled Hills	H1: Dundry Hill	M	M-H	M-H	H

LCT	LCA	Landscape sensitivity to solar PV development			
		BAND A (≤5ha)	BAND B (>5 to 10ha)	BAND C (>10 to 15ha)	BAND D (>15 to 30ha)
J: Rolling Valley Farmland	J1: Lox Yeo Rolling Valley Farmland	M	M-H	H	H
	J2: River Yeo Rolling Valley Farmland	L	L-M	M	M-H
	J2: River Yeo Rolling Valley Farmland AONB	M	M-H	H	H
	J3: Chew Rolling Valley Farmland	L-M	M	H	H
	J4: Colliters Brook Rolling Valley Farmland	L	L-M	M	M-H
	J5: Land Yeo and Kenn Rolling Valley Farmland	L	L-M	M	M-H
	J6: Avon Rolling Valley Farmland	L	L-M	M	M-H
K: Farmed Coal Measures	K1: Nailsea Farmed Coal Measures	L-M	M	H	H

Table 3.2: Landscape sensitivity scores to new wind energy developments: North Somerset

LCT	LCA	Landscape sensitivity to wind energy development			
		BAND A (18-25m)	BAND B (26-60m)	BAND C (61-99m)	BAND D (100-150m)
A: Moors	A1: Kingston Seymour and Puxton Moors	L	L-M	M-H	M-H
	A2: Clapton Moor	L-M	M	M-H	H
	A3: Kenn and Tickenham Moors	L-M	M	M-H	H
	A4: Locking and Banwell Moors	L-M	M-H	H	H
	A5: Bleadon Moor	L-M	M-H	H	H
B: River Flood Plain	B1: Land Yeo, Kenn River and River Avon Flood Plain	M	M-H	H	H
	B2: Lox Yeo River Flood Plain	M-H	H	H	H
C: Settled Coastal Edge	C1: Weston Bay Settled Coastal Edge	L-M	M-H	H	H
	C2: Portbury Settled Coastal Edge	L	L	L-M	M
D: Limestone Gorges	D1: Avon Gorge	H	H	H	H

LCT	LCA	Landscape sensitivity to wind energy development			
		BAND A (18-25m)	BAND B (26-60m)	BAND C (61-99m)	BAND D (100-150m)
E: Limestone Ridges and Coombes	E1: Mendip Ridges and Coombes	M-H	H	H	H
	E2: Worlebury Ridges and Coombes	L-M	M-H	H	H
	E3: Middlehope Ridges and Coombes	H	H	H	H
	E4: Portishead Ridges and Coombes	L-M	M-H	H	H
	E4: Portishead Ridges and Coombes Coastal outliers	H	H	H	H
	E5: Tickenham Ridges and Coombes	M	M-H	H	H
	E6: Cleeve Ridges and Coombes	M	M-H	H	H
F: Sandstone Uplands	F1: Abbots Leigh Sandstone Uplands	L-M	M	M-H	H
G: Settled Limestone Plateau	G1: Broadfield Down Settled Limestone Plateau	L-M	M	M-H	H
	G2: Failand Settled Limestone Plateau	L-M	M-H	H	H
H: Settled Hills	H1: Dundry Hill	M-H	M-H	H	H
J: Rolling Valley Farmland	J1: Lox Yeo Rolling Valley Farmland	M-H	M-H	H	H
	J2: River Yeo Rolling Valley Farmland	L-M	M	M-H	H
	J2: River Yeo Rolling Valley Farmland AONB	M-H	M-H	H	H
	J3: Chew Rolling Valley Farmland	M	M-H	H	H
	J4: Colliters Brook Rolling Valley Farmland	L-M	M	M-H	H
	J5: Land Yeo and Kenn Rolling Valley Farmland	L-M	M	M-H	H
	J6: Avon Rolling Valley Farmland	L-M	M	M-H	H
K: Farmed Coal Measures	K1: Nailsea Farmed Coal Measures	L-M	M-H	H	H

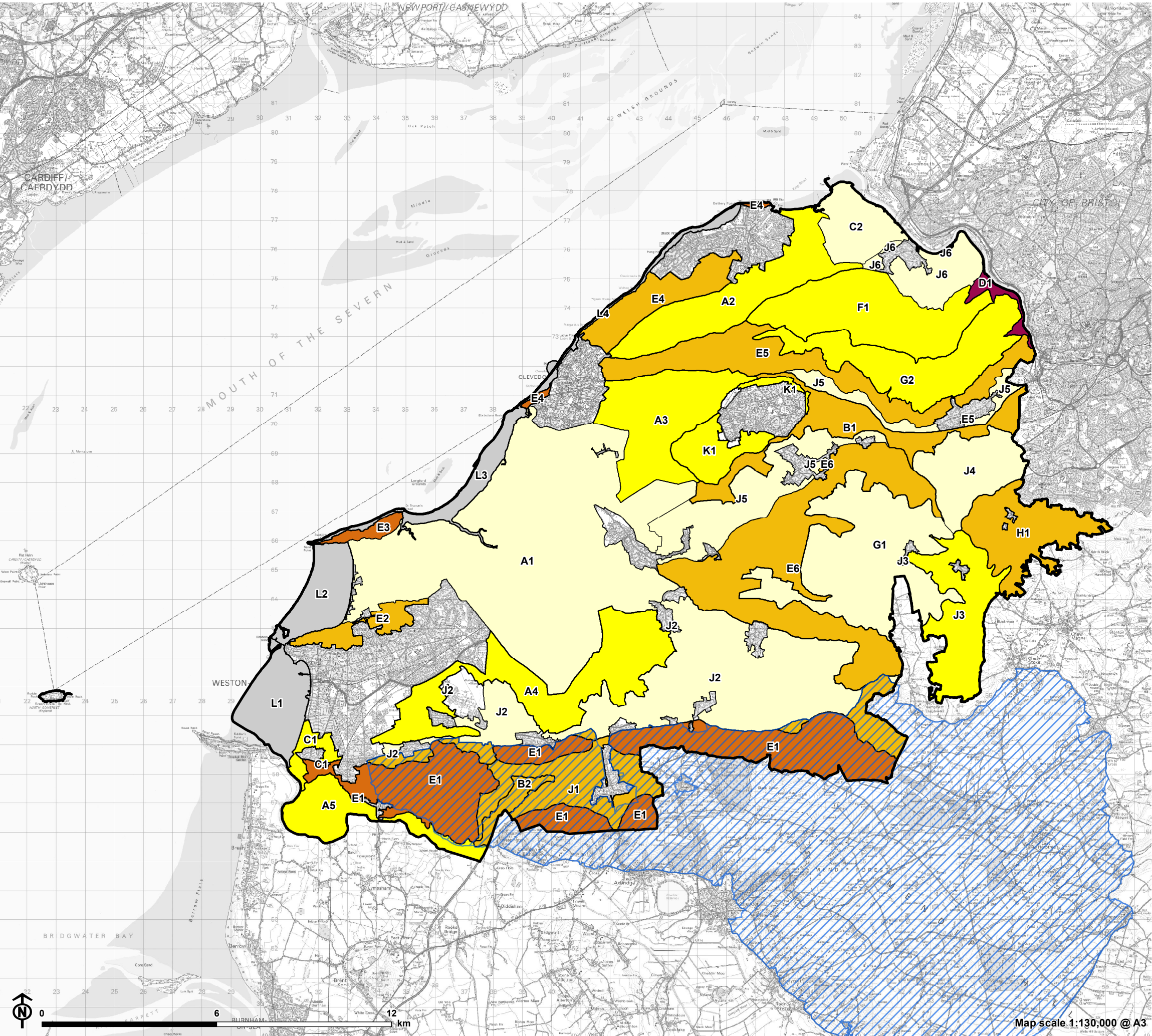


Figure 3.1: Landscape potential for future Band A
(≤5ha) solar energy development

- North Somerset district boundary
- Area of Outstanding Natural Beauty**
- Mendip Hills
- Solar Band A**
- Low
 - Low - Moderate
 - Moderate
 - Moderate - High
 - High
 - N/A
- North Somerset Landscape Character Types and Areas (North Somerset LCA 2018)**
- A. Moors**
- A1. Kingston Seymour and Puxton Moors
 - A2. Clapton Moor
 - A3. Kenn and Tickenham Moors
 - A4. Locking and Banwell Moors
 - A5. Bleadon Moor
- B. River Flood Plain**
- B1. Land Yeo and Kenn River Flood Plain
 - B2. Lox Yeo River Flood Plain
- C. Settled Coastal Edge**
- C1. Weston Bay Settled Coastal Edge
 - C2. Portbury Settled Coastal Edge
- D. Limestone Gorges**
- D1. Avon Gorge
- E. Limestone Ridges and Combes**
- E1. Mendips Ridges and Combes
 - E2. Worlebury Ridges and Combes
 - E3. Middlehope Ridges Combes
 - E4. Portishead Ridges and Combes
 - E5. Tickenham Ridges and Combes
 - E6. Cleeve Ridges and Combes
- F. Sandstone Uplands**
- F1. Abbots Leigh Sandstone
- G. Settled Limestone Plateau**
- G1. Bradfield Down Settled Limestone Plateau
 - G2. Failand Settled Limestone Plateau
- H. Settled Hills**
- H1. Dundry Hill
- J. Rolling Valley Farmland**
- J1. Lox Yeo Rolling Valley Farmland
 - J2. River Yeo Rolling Valley Farmland
 - J3. Chew Rolling Valley Farmland
 - J4. Colliters Brook Rolling Valley Farmland
 - J5. Land Yeo and Kenn Rolling Valley Farmland
 - J6. Avon Rolling Valley
- K. Farmed Coal Measures**
- K1. Nailsea Farmed Coal Measures
- L. Inter-tidal Bays**
- L1. Weston Bay
 - L2. Sand Bay
 - L3. Woodspring Bay
 - L4. Clevedon-Portishead Bays

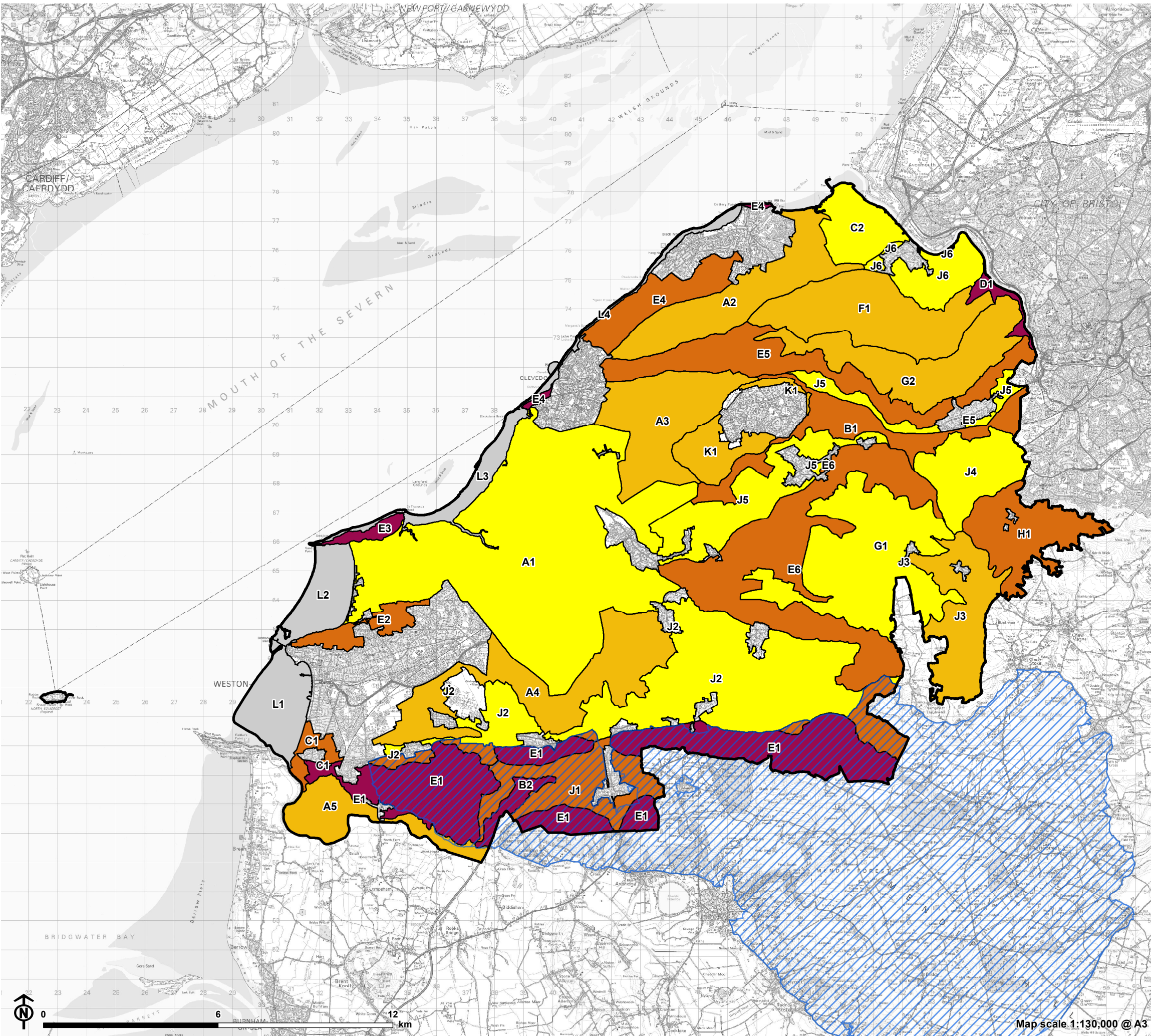


Figure 3.2: Landscape potential for future Band B
(<5ha to 10ha) solar energy development

North Somerset district boundary

Area of Outstanding Natural Beauty

Mendip Hills

Solar Band B

- Low - Moderate
- Moderate
- Moderate - High
- High
- N/A

North Somerset Landscape Character Types and
Areas (North Somerset LCA 2018)

A. Moors

- A1. Kingston Seymour and Puxton Moors
- A2. Clapton Moor
- A3. Kenn and Tickenham Moors
- A4. Locking and Banwell Moors
- A5. Bleadon Moor

B. River Flood Plain

- B1. Land Yeo and Kenn River Flood Plain
- B2. Lox Yeo River Flood Plain

C. Settled Coastal Edge

- C1. Weston Bay Settled Coastal Edge
- C2. Portbury Settled Coastal Edge

D. Limestone Gorges

- D1. Avon Gorge

E. Limestone Ridges and Combes

- E1. Mendips Ridges and Combes
- E2. Worlebury Ridges and Combes
- E3. Middlehope Ridges Combes
- E4. Portishead Ridges and Combes
- E5. Tickenham Ridges and Combes
- E6. Cleeve Ridges and Combes

F. Sandstone Uplands

- F1. Abbots Leigh Sandstone Uplands

G. Settled Limestone Plateau

- G1. Bradfield Down Settled Limestone Plateau
- G2. Failand Settled Limestone Plateau

H. Settled Hills

- H1. Dundry Hill

J. Rolling Valley Farmland

- J1. Lox Yeo Rolling Valley Farmland
- J2. River Yeo Rolling Valley Farmland
- J3. Chew Rolling Valley Farmland
- J4. Colliters Brook Rolling Valley Farmland
- J5. Land Yeo and Kenn Rolling Valley Farmland
- J6. Avon Rolling Valley Farmland

K. Farmed Coal Measures

- K1. Nailsea Farmed Coal Measures

L. Inter-tidal Bays

- L1. Weston Bay
- L2. Sand Bay
- L3. Woodspring Bay
- L4. Clevedon-Portishead Bays

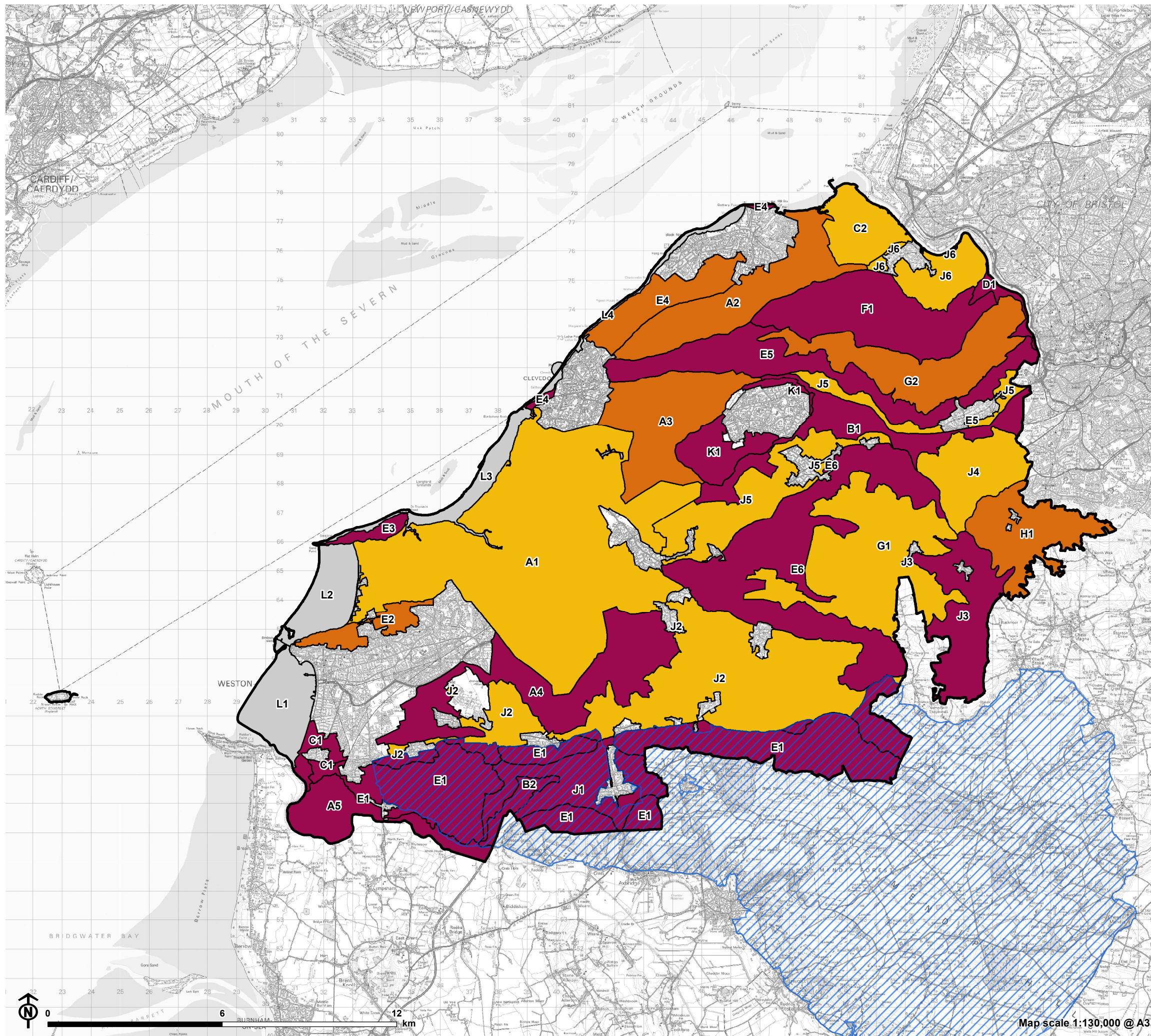


Figure 3.3: Landscape potential for future Band C
(<10ha to 15ha) solar energy development

North Somerset district boundary

Area of Outstanding Natural Beauty

Mendip Hills

Solar Band C

Moderate

Moderate - High

High

N/A

North Somerset Landscape Character Types and
Areas (North Somerset LCA 2018)

A. Moors

A1. Kingston Seymour and Puxton Moors

A2. Clapton Moor

A3. Kenn and Tickenham Moors

A4. Locking and Banwell Moors

A5. Bleadon Moor

B. River Flood Plain

B1. Land Yeo and Kenn River Flood Plain

B2. Lox Yeo River Flood Plain

C. Settled Coastal Edge

C1. Weston Bay Settled Coastal Edge

C2. Portbury Settled Coastal Edge

D. Limestone Gorges

D1. Avon Gorge

E. Limestone Ridges and Combes

E1. Mendips Ridges and Combes

E2. Worlebury Ridges and Combes

E3. Middlehope Ridges and Combes

E4. Portishead Ridges and Combes

E5. Tickenham Ridges and Combes

E6. Cleeve Ridges and Combes

F. Sandstone Uplands

F1. Abbots Leigh Sandstone Uplands

G. Settled Limestone Plateau

G1. Bradfield Down Settled Limestone Plateau

G2. Failand Settled Limestone Plateau

H. Settled Hills

H1. Dundry Hill

J. Rolling Valley Farmland

J1. Lox Yeo Rolling Valley Farmland

J2. River Yeo Rolling Valley Farmland

J3. Chew Rolling Valley Farmland

J4. Colliters Brook Rolling Valley Farmland

J5. Land Yeo and Kenn Rolling Valley Farmland

J6. Avon Rolling Valley Farmland

K. Farmed Coal Measures

K1. Nailsea Farmed Coal Measures

L. Inter-tidal Bays

L1. Weston Bay

L2. Sand Bay

L3. Woodspring Bay

L4. Clevedon-Portishead Bays

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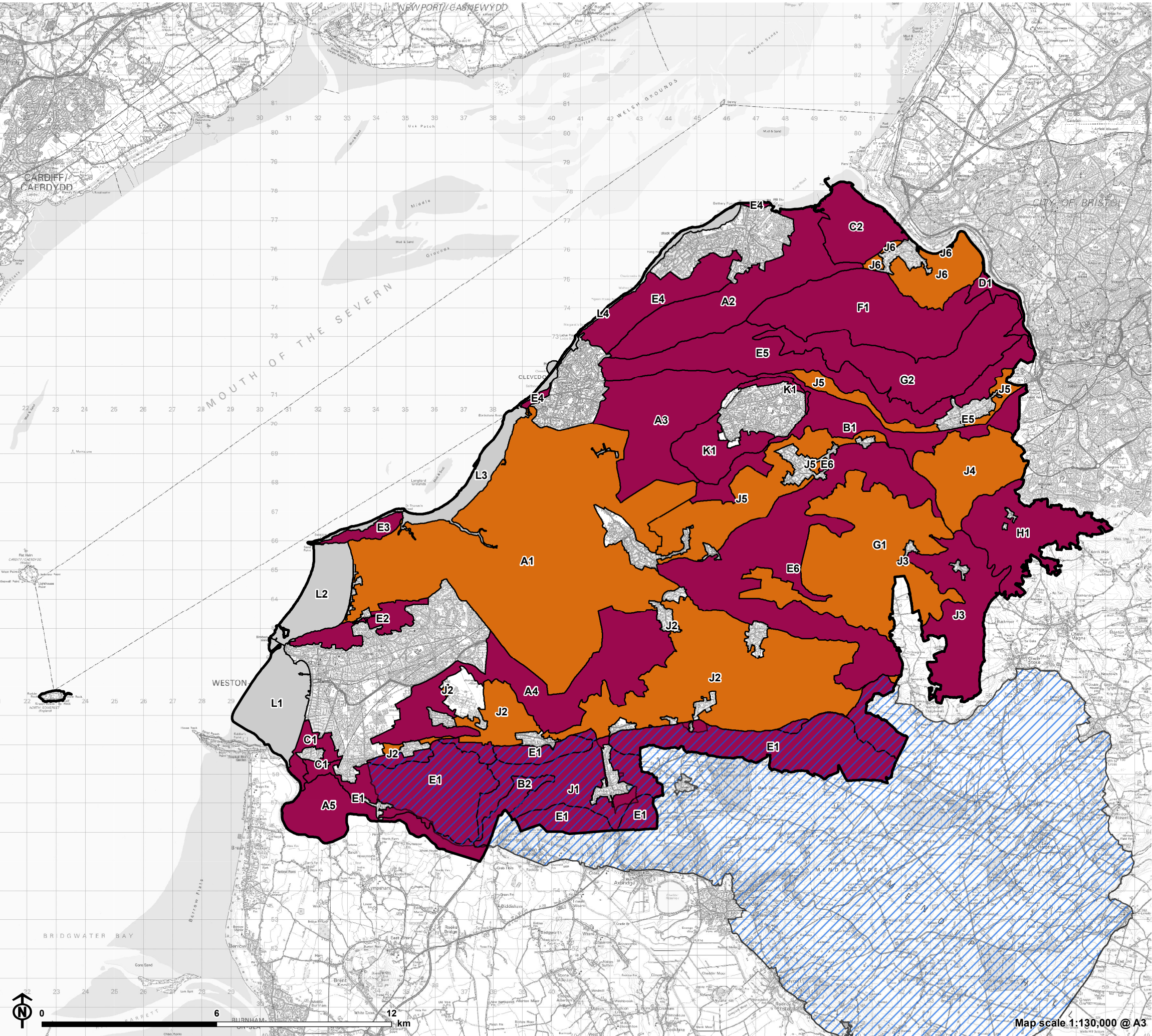


Figure 3.4: Landscape potential for future Band D
(<15ha to 30ha) solar energy development

North Somerset district boundary

Area of Outstanding Natural Beauty

Mendip Hills

Solar Band D

Moderate - High

High

N/A

North Somerset Landscape Character Types and
Areas (North Somerset LCA 2018)

A. Moors

A1. Kingston Seymour and Puxton Moors

A2. Clapton Moor

A3. Kenn and Tickenham Moors

A4. Locking and Banwell Moors

A5. Bleadon Moor

B. River Flood Plain

B1. Land Yeo and Kenn River Flood Plain

B2. Lox Yeo River Flood Plain

C. Settled Coastal Edge

C1. Weston Bay Settled Coastal Edge

C2. Portbury Settled Coastal Edge

D. Limestone Gorges

D1. Avon Gorge

E. Limestone Ridges and Combes

E1. Mendips Ridges and Combes

E2. Worlebury Ridges and Combes

E3. Middlehope Ridges Combes

E4. Portishead Ridges and Combes

E5. Tickenham Ridges and Combes

E6. Cleeve Ridges and Combes

F. Sandstone Uplands

F1. Abbots Leigh Sandstone Uplands

G. Settled Limestone Plateau

G1. Bradfield Down Settled Limestone Plateau

G2. Failand Settled Limestone Plateau

H. Settled Hills

H1. Dundry Hill

J. Rolling Valley Farmland

J1. Lox Yeo Rolling Valley Farmland

J2. River Yeo Rolling Valley Farmland

J3. Chew Rolling Valley Farmland

J4. Colliters Brook Rolling Valley Farmland

J5. Land Yeo and Kenn Rolling Valley Farmland

J6. Avon Rolling Valley Farmland

K. Farmed Coal Measures

K1. Nailsea Farmed Coal Measures

L. Inter-tidal Bays

L1. Weston Bay

L2. Sand Bay

L3. Woodspring Bay

L4. Clevedon-Portishead Bays

Map scale 1:130,000 @ A3

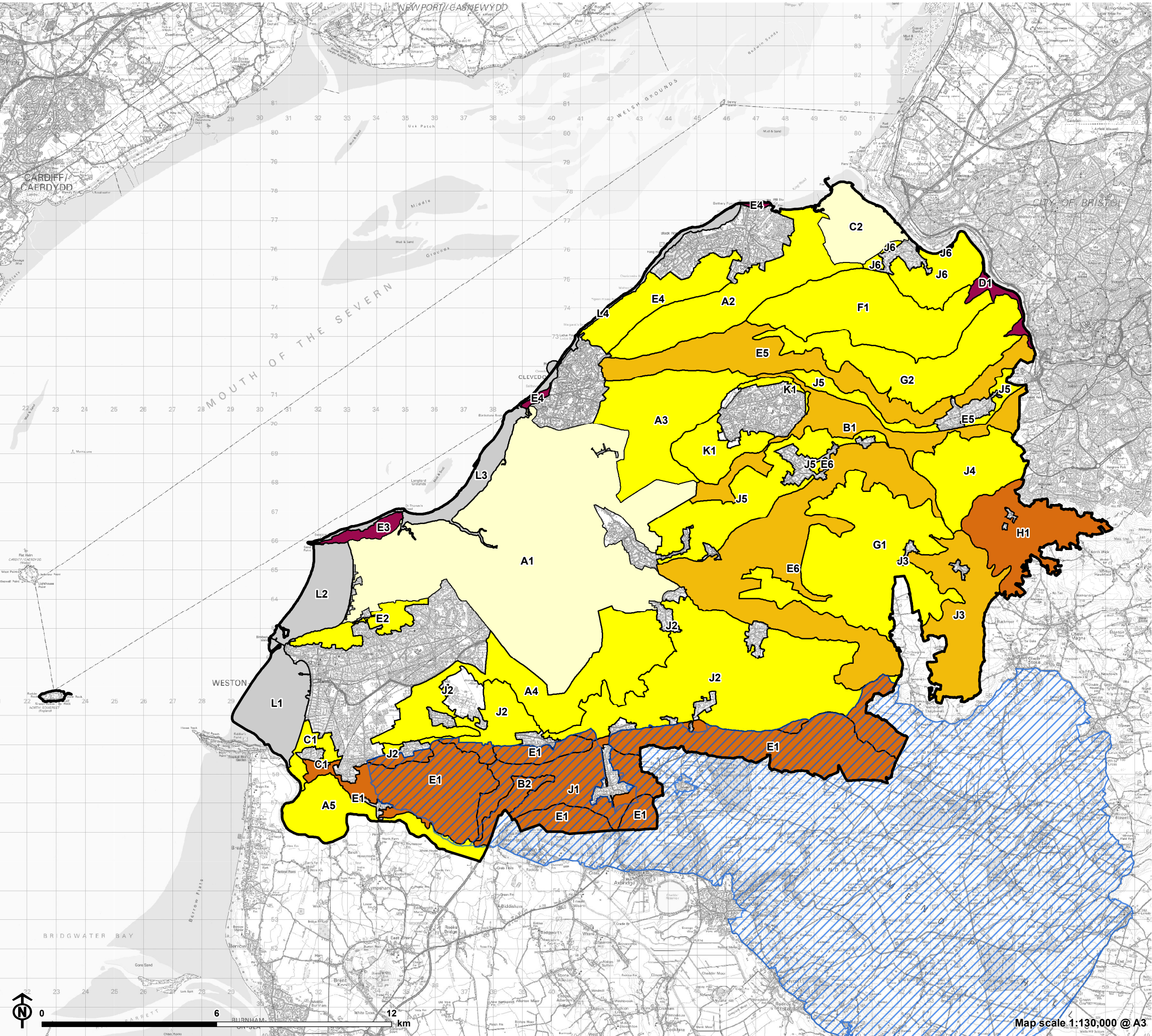


Figure 3.5: Landscape potential for future Band A (18-25m) wind energy development

North Somerset district boundary

Area of Outstanding Natural Beauty

Mendip Hills

Wind Band A

- Low
- Low - Moderate
- Moderate
- Moderate - High
- High
- N/A

North Somerset Landscape Character Types and Areas (North Somerset LCA 2018)

A. Moors

- A1. Kingston Seymour and Puxton Moors
- A2. Clapton Moor
- A3. Kenn and Tickenham Moors
- A4. Locking and Banwell Moors
- A5. Bleadon Moor

B. River Flood Plain

- B1. Land Yeo and Kenn River Flood Plain
- B2. Lox Yeo River Flood Plain

C. Settled Coastal Edge

- C1. Weston Bay Settled Coastal Edge
- C2. Portbury Settled Coastal Edge

D. Limestone Gorges

- D1. Avon Gorge

E. Limestone Ridges and Combes

- E1. Mendips Ridges and Combes
- E2. Worlebury Ridges and Combes
- E3. Middlehope Ridges Combes
- E4. Portishead Ridges and Combes
- E5. Tickenham Ridges and Combes
- E6. Cleeve Ridges and Combes

F. Sandstone Uplands

- F1. Abbots Leigh Sandstone Uplands

G. Settled Limestone Plateau

- G1. Bradfield Down Settled Limestone Plateau
- G2. Failand Settled Limestone Plateau

H. Settled Hills

- H1. Dundry Hill

J. Rolling Valley Farmland

- J1. Lox Yeo Rolling Valley Farmland
- J2. River Yeo Rolling Valley Farmland
- J3. Chew Rolling Valley Farmland
- J4. Colliters Brook Rolling Valley Farmland
- J5. Land Yeo and Kenn Rolling Valley Farmland
- J6. Avon Rolling Valley Farmland

K. Farmed Coal Measures

- K1. Nailsea Farmed Coal Measures

L. Inter-tidal Bays

- L1. Weston Bay
- L2. Sand Bay
- L3. Woodspring Bay
- L4. Clevedon-Portishead Bays

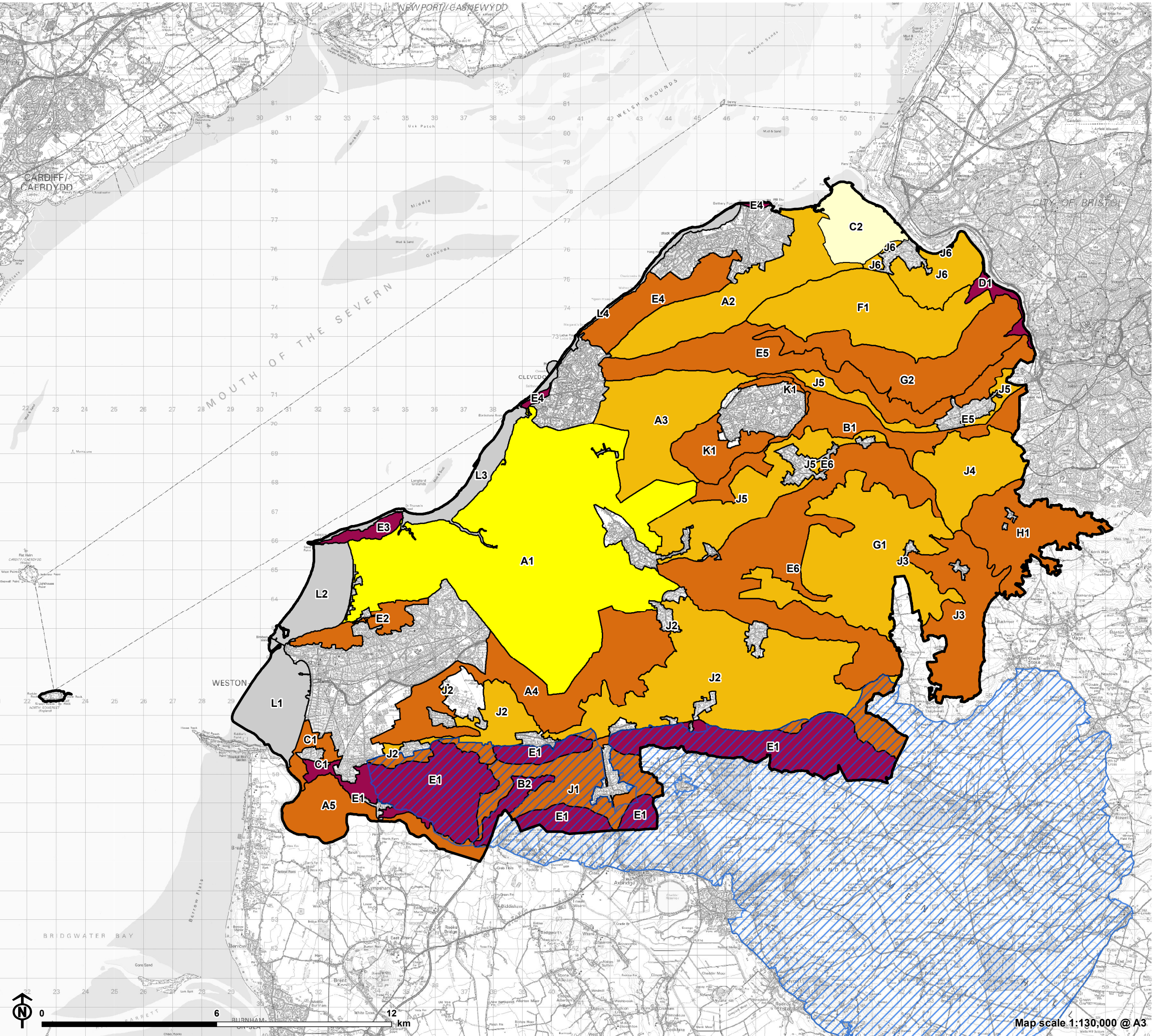


Figure 3.6: Landscape potential for future Band B (26-60m) wind energy development

North Somerset district boundary

Area of Outstanding Natural Beauty

Mendip Hills

Wind Band B

Low

Low - Moderate

Moderate

Moderate - High

High

N/A

North Somerset Landscape Character Types and
Areas (North Somerset LCA 2018)

A. Moors

A1. Kingston Seymour and Puxton Moors

A2. Clapton Moor

A3. Kenn and Tickenham Moors

A4. Locking and Banwell Moors

A5. Bleadon Moor

B. River Flood Plain

B1. Land Yeo and Kenn River Flood Plain

B2. Lox Yeo River Flood Plain

C. Settled Coastal Edge

C1. Weston Bay Settled Coastal Edge

C2. Portbury Settled Coastal Edge

D. Limestone Gorges

D1. Avon Gorge

E. Limestone Ridges and Combes

E1. Mendips Ridges and Combes

E2. Worlebury Ridges and Combes

E3. Middlehope Ridges Combes

E4. Portishead Ridges and Combes

E5. Tickenham Ridges and Combes

E6. Cleeve Ridges and Combes

F. Sandstone Uplands

F1. Abbots Leigh Sandstone Uplands

G. Settled Limestone Plateau

G1. Bradfield Down Settled Limestone Plateau

G2. Failand Settled Limestone Plateau

H. Settled Hills

H1. Dundry Hill

J. Rolling Valley Farmland

J1. Lox Yeo Rolling Valley Farmland

J2. River Yeo Rolling Valley Farmland

J3. Chew Rolling Valley Farmland

J4. Colliters Brook Rolling Valley Farmland

J5. Land Yeo and Kenn Rolling Valley Farmland

J6. Avon Rolling Valley Farmland

K. Farmed Coal Measures

K1. Nailsea Farmed Coal Measures

L. Inter-tidal Bays

L1. Weston Bay

L2. Sand Bay

L3. Woodspring Bay

L4. Clevedon-Portishead Bays

Map scale 1:130,000 @ A3

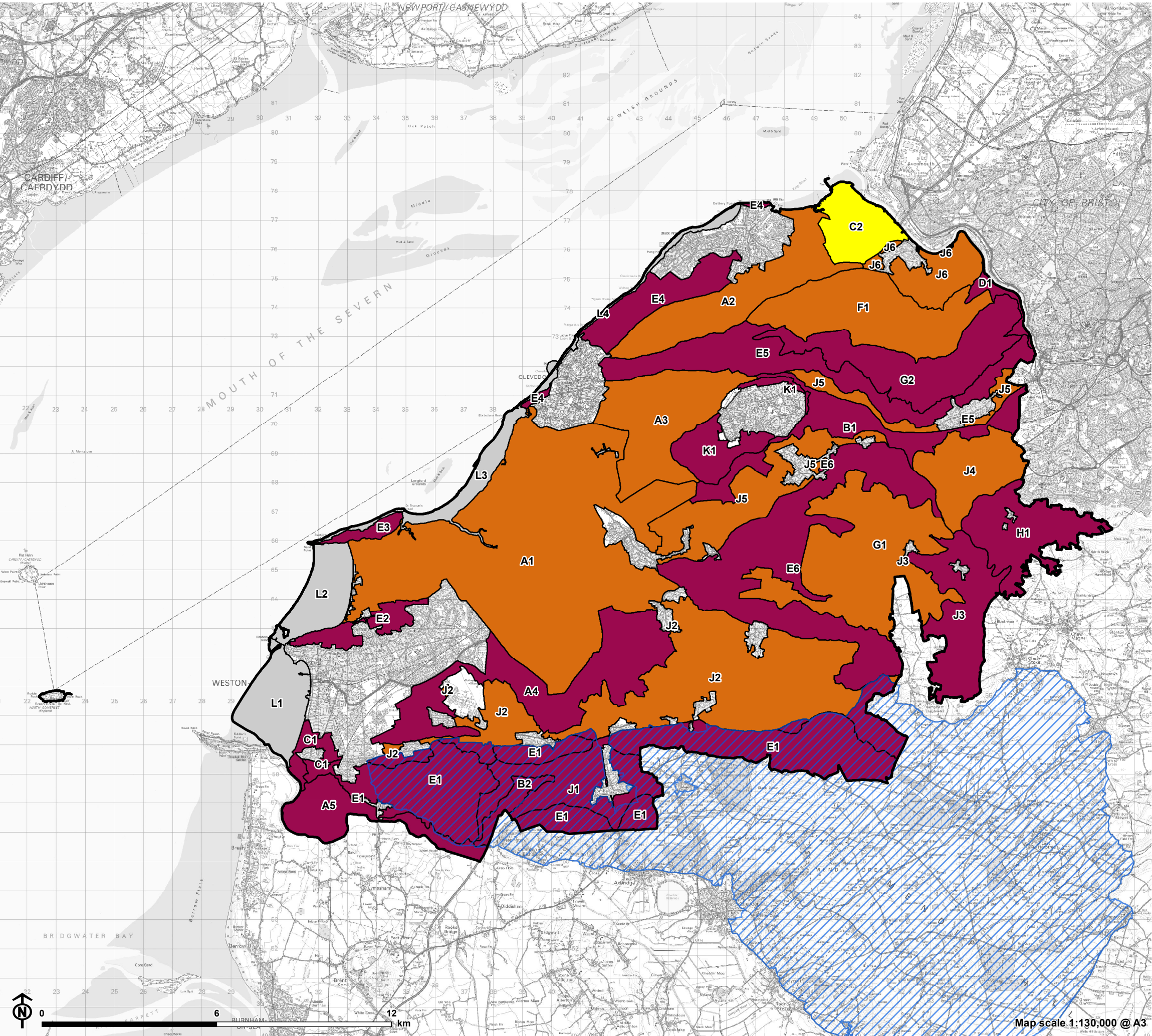


Figure 3.7: Landscape potential for future Band C (61-99m) wind energy development

North Somerset district boundary

Area of Outstanding Natural Beauty

Mendip Hills

Wind Band C

Low - Moderate

Moderate - High

High

N/A

North Somerset Landscape Character Types and
Areas (North Somerset LCA 2018)

A. Moors

A1. Kingston Seymour and Puxton Moors

A2. Clapton Moor

A3. Kenn and Tickenham Moors

A4. Locking and Banwell Moors

A5. Bleadon Moor

B. River Flood Plain

B1. Land Yeo and Kenn River Flood Plain

B2. Lox Yeo River Flood Plain

C. Settled Coastal Edge

C1. Weston Bay Settled Coastal Edge

C2. Portbury Settled Coastal Edge

D. Limestone Gorges

D1. Avon Gorge

E. Limestone Ridges and Combes

E1. Mendips Ridges and Combes

E2. Worlebury Ridges and Combes

E3. Middlehope Ridges Combes

E4. Portishead Ridges and Combes

E5. Tickenham Ridges and Combes

E6. Cleeve Ridges and Combes

F. Sandstone Uplands

F1. Abbots Leigh Sandstone Uplands

G. Settled Limestone Plateau

G1. Bradfield Down Settled Limestone Plateau

G2. Failand Settled Limestone Plateau

H. Settled Hills

H1. Dundry Hill

J. Rolling Valley Farmland

J1. Lox Yeo Rolling Valley Farmland

J2. River Yeo Rolling Valley Farmland

J3. Chew Rolling Valley Farmland

J4. Colliters Brook Rolling Valley Farmland

J5. Land Yeo and Kenn Rolling Valley Farmland

J6. Avon Rolling Valley Farmland

K. Farmed Coal Measures

K1. Nailsea Farmed Coal Measures

L. Inter-tidal Bays

L1. Weston Bay

L2. Sand Bay

L3. Woodspring Bay

L4. Clevedon-Portishead Bays

Map scale 1:130,000 @ A3

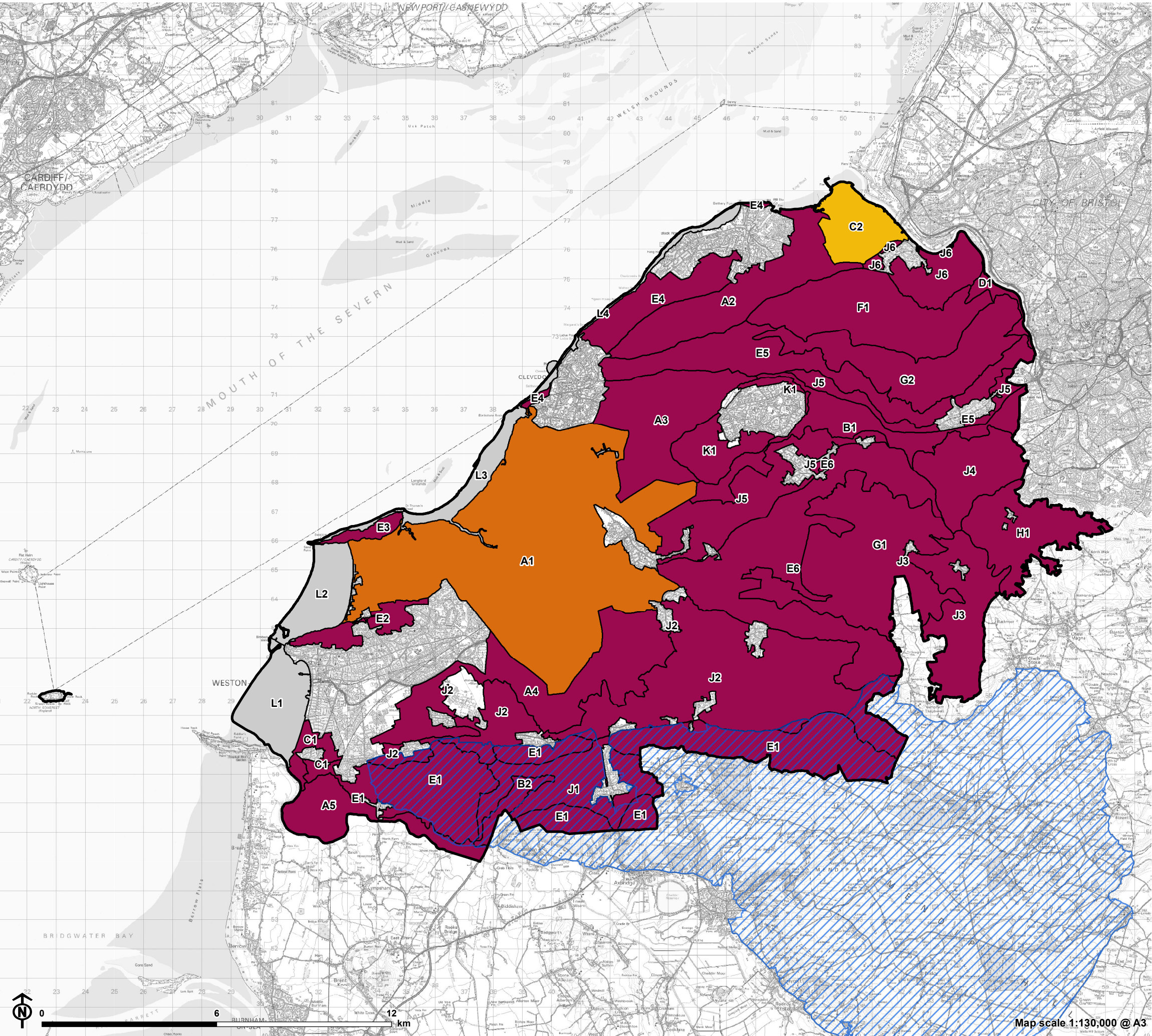


Figure 3.8: Landscape potential for future Band D
(100-150m) wind energy development

North Somerset district boundary

Area of Outstanding Natural Beauty

Mendip Hills

Wind Band D

Moderate
Moderate - High
High
N/A

North Somerset Landscape Character Types and
Areas (North Somerset LCA 2018)

A. Moors

A1. Kingston Seymour and Puxton Moors
A2. Clapton Moor
A3. Kenn and Tickenham Moors
A4. Locking and Banwell Moors
A5. Bleadon Moor

B. River Flood Plain

B1. Land Yeo and Kenn River Flood Plain
B2. Lox Yeo River Flood Plain

C. Settled Coastal Edge

C1. Weston Bay Settled Coastal Edge
C2. Portbury Settled Coastal Edge

D. Limestone Gorges

D1. Avon Gorge

E. Limestone Ridges and Combes

E1. Mendips Ridges and Combes
E2. Worlebury Ridges and Combes
E3. Middlehope Ridges Combes
E4. Portishead Ridges and Combes
E5. Tickenham Ridges and Combes
E6. Cleeve Ridges and Combes

F. Sandstone Uplands

F1. Abbots Leigh Sandstone Uplands

G. Settled Limestone Plateau

G1. Bradfield Down Settled Limestone Plateau
G2. Failand Settled Limestone Plateau

H. Settled Hills

H1. Dundry Hill

J. Rolling Valley Farmland

J1. Lox Yeo Rolling Valley Farmland
J2. River Yeo Rolling Valley Farmland
J3. Chew Rolling Valley Farmland
J4. Colliters Brook Rolling Valley Farmland
J5. Land Yeo and Kenn Rolling Valley Farmland
J6. Avon Rolling Valley Farmland

K. Farmed Coal Measures

K1. Nailsea Farmed Coal Measures

L. Inter-tidal Bays

L1. Weston Bay
L2. Sand Bay
L3. Woodspring Bay
L4. Clevedon-Portishead Bays

Appendix A

Data / information sources

Key sources of information used to inform the study

- North Somerset Landscape Character Assessment SPD (Wardell Armstrong 2018)
- The special qualities and spatial boundaries of the Mendip Hills AONB, as outlined in the Management Plan
- The Mendip Hills AONB Landscape Character Assessment (LDA, 2004)
- Nature Conservation designations (international, national and local)

A.1 In addition, the following table lists the main datasets collated and analysed in Geographic Information System (GIS) software as a key part of the evidence base for this study.

Table A.1: GIS considered in the assessment

GIS layer	Source
Base maps	
Local authority boundaries	Ordnance Survey
Ordnance Survey 1: 25K	North Somerset Council
Ordnance Survey 1: 50K	North Somerset Council
Ordnance Survey 1:250k	Ordnance Survey
Aerial imagery	ESRI
Landscape	
National Character Areas	Natural England
Areas of Outstanding Natural Beauty	Natural England
Agricultural Land Classification	Natural England
Light pollution	CPRE
Tranquillity	CPRE

GIS layer	Source
CORINE Land Cover	EEA
Historic environment	
Conservation areas	North Somerset Council
Listed buildings	Historic England
Registered Parks and Gardens	Historic England
Scheduled Monuments	Historic England
Registered battlefields	Historic England
Locally listed buildings	North Somerset Council
Ecological environment	
Sites of Nature Conservation Importance (SNCI)	North Somerset Council
Priority Habitat Inventory (PHI)	Natural England
Local Nature Reserves (LNR)	Natural England
National Nature Reserves (NNR)	Natural England
Ramsar	Natural England
Special Areas of Conservation (SAC)	Natural England
Special Protection Areas (SPA)	Natural England
Sites of Special Scientific Interest (SSSI)	Natural England
Ancient Woodland Inventory (AWI)	Natural England
Access and recreation	
Country Parks	Natural England
National Trails	Natural England
National and Regional Cycle Routes	Sustrans
Ordnance Survey Open Greenspace	Ordnance Survey

GIS layer	Source
CRoW Act Open Access Land / Open Country	Natural England
National Trust Land – Always Open / Limited Access	National Trust