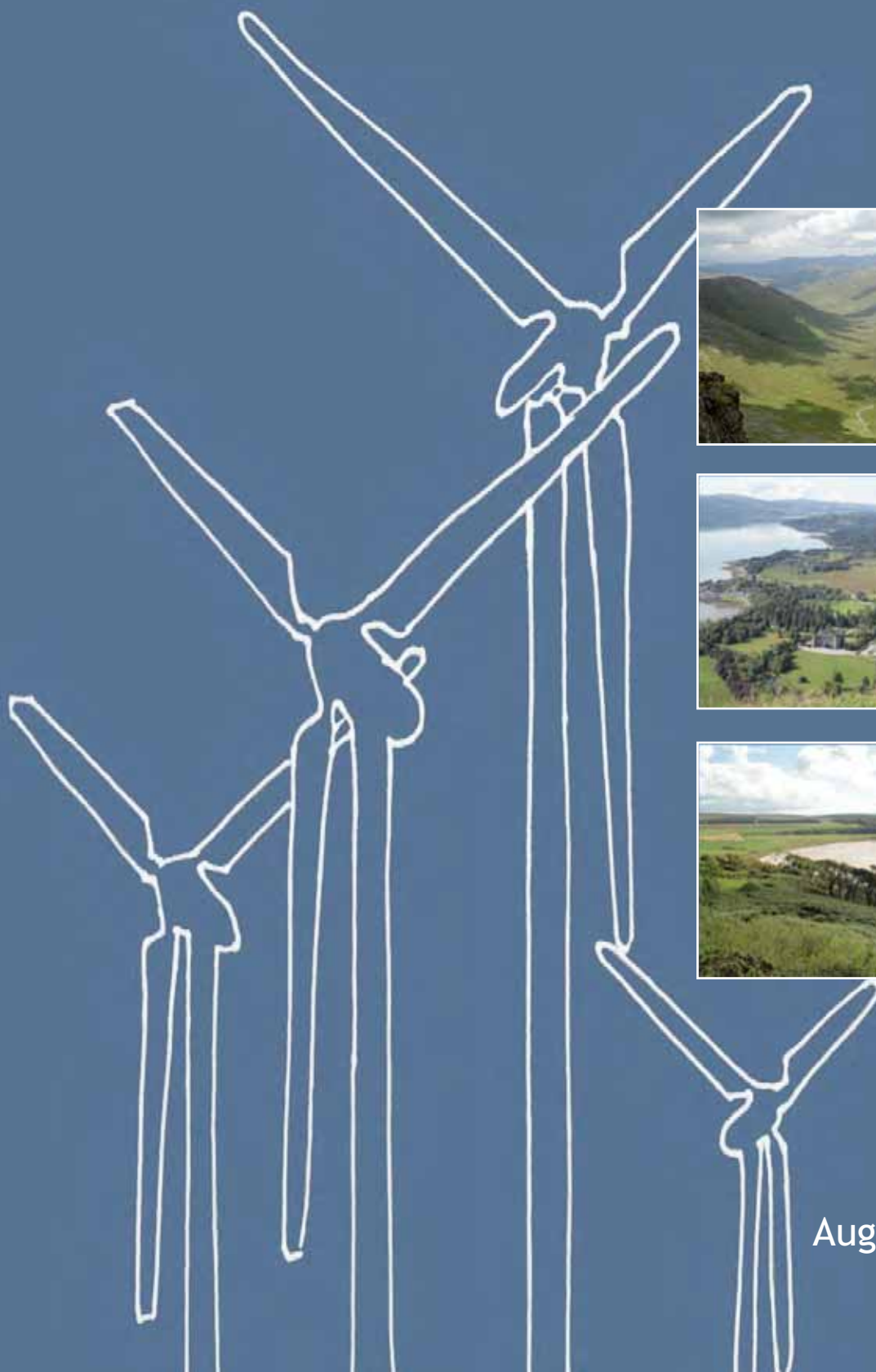


Argyll and Bute Landscape Wind Energy Capacity Study

VOLUME ONE



August 2017

Argyll and Bute Landscape Wind Energy Capacity Study

Volume One

August 2017

Carol Anderson Landscape Associates

Executive Summary

The Argyll and Bute Landscape Wind Energy Capacity Study (ABLWECS) assesses the sensitivity of landscape character types and National Scenic Areas (NSAs) to different sizes of wind turbine development. The aim of the study is to inform strategic planning for wind energy development and to provide guidance to be used when considering specific development proposals. The study was originally undertaken in 2012 but revised and updated in 2017.

The methodology follows best practice guidance on preparing landscape capacity studies. The landscape baseline set for the study is informed by Scottish Natural Heritage's regional landscape character assessment for Argyll and Bute and takes into account operational and consented wind energy developments. Guidance on the constraints and opportunities for wind energy development within each landscape character type/NSA is set out in the study. Areas accommodating concentrations of wind energy development are additionally analysed in greater detail to provide strategic guidance. The study also assesses sensitivity to very large wind turbines (turbines >130m) in selected upland landscapes and also considers scope for the repowering of existing wind farms involving replacement with substantially larger turbines in these landscapes.

Summary of Findings

Operational and consented wind farm developments in Argyll and Bute generally occupy less sensitive sparsely settled and relatively simple upland areas. While many older wind farms have relatively limited visibility from more settled loch and coastal fringes, more recently constructed and consented developments, although still sited in similar upland areas, feature taller turbines which often lie on the outer edges of upland areas and have a greater impact on views from more sensitive areas.

The Kintyre peninsula and parts of the uplands either side of Loch Awe already accommodate a number of operational and consented wind energy developments. Remaining undeveloped parts of these upland landscapes are often more constrained as they lie closer to more sensitive settled coastal areas and valleys. Cumulative effects are also a key constraint to accommodating additional wind energy development in Argyll and Bute.

- There is no scope for wind turbines >150m to be accommodated in Argyll and Bute. This is principally due to the limited extent of less sensitive upland areas and the effect of much larger wind turbines on surrounding smaller scale and/or diverse landscapes.
- There is very limited scope for additional large wind turbines (80-130m high) to be accommodated in the uplands of Kintyre and either side of Loch Awe. Some turbines between 130-150m may also be able to be accommodated within parts of the Kintyre peninsula. Any development would need to be set well back from the outer edges of these uplands to minimise effects on surrounding more sensitive landscapes.
- There is some scope for repowering of existing well sited wind farms principally in the *Craggy Uplands* (7) and *Upland Forest Moor Mosaic* (6) landscape character types. Turbine heights are likely to be constrained by landscape and visual sensitivities, including views from surrounding settled landscapes.

- There is no scope to accommodate turbines above 50m height within the smaller scale, settled coastal/loch fringes due to their increased landscape sensitivity to tall turbines, including in some cases potential cumulative effects with wind farm development located in adjacent upland areas. Some coastal and island landscapes would be highly sensitive even to turbines below 20m and these are identified in the study.
- The islands of Tiree, Islay and Coll already accommodate larger wind turbines >50m high. Some of these developments comprise community-led initiatives. The study considers potential for further island wind energy projects. Potential areas of lower landscape and visual sensitivity have been identified on Coll, Colonsay, Tiree, Mull and Islay for turbines <80m high.

How to use the study

The study report comprises two volumes. Volume One sets out key strategic recommendations and summary sensitivity assessment and guidance for each landscape character type/NSA. Volume Two contains the more detailed sensitivity assessment undertaken for each landscape character type/NSA.

The detailed sensitivity assessments are based on defined landscape character types. However, potential indirect effects on landscape character and/or on views can extend over a wide area, including other nearby landscape character types or in some cases adjacent authorities. As a result, sensitivity assessments for individual proposals may need to consider both the 'host' landscape character type and adjoining or close-by landscape character types where wider sensitivities may apply.

The study considers the sensitivity of landscape character types/areas to a limited number of pre-determined turbine typologies, principally based on height. Some flexibility on turbine heights may need to be applied when considering individual applications. Where turbines are slightly above the height threshold of the typologies assessed in this study or proposed within more sensitive landscapes, they should be subject to careful and thorough consideration with the developer being requested to demonstrate how they have dealt with potential effects on the constraints identified in the sensitivity assessment.

The ABLWECS only considers landscape and visual sensitivity and a range of environmental and other factors will need to be considered in determining the overall acceptability of wind energy development.

CONTENTS

1	INTRODUCTION	8
1.1	POLICY CONTEXT	8
1.2	STUDY AIMS	8
1.3	THE STUDY AREA	2
1.4	STRUCTURE OF THE REPORT.....	2
2	STUDY METHODOLOGY.....	3
2.1	LANDSCAPE CAPACITY STUDIES.....	3
2.2	DEFINITION OF TERMS.....	4
2.3	GENERAL APPROACH TO THE STUDY	4
2.4	BASELINE OPERATIONAL AND CONSENTED WIND FARMS AND TURBINES.....	5
2.5	BASELINE LANDSCAPE CHARACTER	6
2.6	DEVELOPMENT TYPOLOGIES	6
2.7	DEVELOPMENT TYPOLOGIES CONSIDERED IN LCTs/NSAs.....	7
2.8	THE SENSITIVITY ASSESSMENT	9
2.9	SENSITIVITY RATINGS	9
2.10	REPOWERING OF EXISTING WIND FARMS.....	10
2.11	CUMULATIVE ISSUES AND STRATEGIC CAPACITY ASSESSMENT.....	10
2.12	THE SIGNIFICANCE OF LANDSCAPE AND VISUAL EFFECTS.....	11
3	SUMMARY OF FINDINGS AND RECOMMENDATIONS	12
3.1	INTRODUCTION.....	12
3.2	THE SENSITIVITY ASSESSMENT	12
3.3	SENSITIVITY TO LARGER TURBINE TYPOLOGIES AS ADDITIONAL NEW DEVELOPMENTS	12
3.4	SENSITIVITY TO MEDIUM SCALE TURBINES	13
3.5	SENSITIVITY TO SMALLER WIND TURBINES.....	14
3.6	OPPORTUNITIES FOR REPOWERING EXISTING WIND FARM DEVELOPMENTS.....	14
3.7	DESIGNATED LANDSCAPES AND WILD LAND AREAS.....	18
3.8	STRATEGIC LANDSCAPE ISSUES	19
3.9	CUMULATIVE ISSUES IN AREAS WITH SCOPE FOR LARGE TURBINES OVER 80M HIGH.....	20
3.10	THE KINTYRE PENINSULA.....	20
3.11	THE LOCH AWE AREA.....	24
3.12	THE LOCH FYNE AREA	25
3.13	OPPORTUNITIES FOR WIND ENERGY DEVELOPMENTS ON THE ISLANDS	27
3.14	A RECOMMENDED LANDSCAPE STRATEGY FOR ARGYLL AND BUTE	27
4	SENSITIVITY ASSESSMENT OF LANDSCAPE CHARACTER TYPES	29
4.1	INTRODUCTION.....	29
4.2	HOW TO USE THE STUDY.....	29
4.3	STEEP RIDGELAND AND MOUNTAINS (1)	31
4.4	HIGH TOPS (2)	34
4.5	GUIDANCE ON DEVELOPMENT	35
4.6	MULL HIGH TOPS (2A)	36
4.7	HIDDEN GLENS/MOUNTAIN GLENS (3/4)	38
4.8	OPEN RIDGELAND (5)	41
4.9	BUTE OPEN RIDGELAND (5A)	43
4.10	UPLAND FOREST MOOR MOSAIC (6)	45
4.11	LOCH FYNE UPLAND FOREST MOOR MOSAIC (6A)	50

4.12	KNAPDALE UPLAND FOREST MOOR MOSAIC (6B)	54
4.13	MULL OF KINTYRE UPLAND FOREST MOOR MOSAIC (6C)	57
4.14	Craggy Upland (7)	60
4.15	Craggy Upland with Settled Glens (7A)	64
4.16	Craggy Coast and Islands (7B)	66
4.17	North Loch Awe Craggy Upland (7c)	68
4.18	Lorn Craggy Upland (7D)	70
4.19	Mull Craggy Upland (7E)	72
4.20	Moorland Plateau (8)	74
4.21	Moorland Plateau with Farmland (8A)	77
4.22	Rocky Moorland (9)	80
4.23	Small Island Rocky Moorland (9A)	83
4.24	Low-lying Rocky Moorland (9B)	86
4.25	'Cnoc and Lochan' Rocky Moorland (9C)	88
4.26	Upland Parallel Ridges (10)	89
4.27	Boulder Moors (11)	91
4.28	High Stepped Basalt (12)	93
4.29	Rolling Farmland and Estates (13)	95
4.30	Bute Rolling Farmland and Estates (13A)	97
4.31	Bay Farmland (14)	99
4.32	Lowland Bog and Moor (15)	102
4.33	Less Extensive Lowland Bog and Moor (15A)	105
4.34	Marginal Farmland Mosaic (16)	107
4.35	Small Island Marginal Farmland Mosaic (16A)	110
4.36	Mull Basalt Lowlands (17)	112
4.37	Bute Basalt Lowlands (17A)	114
4.38	Lowland Ridges and Moss (18)	116
4.39	Kintyre Coastal Plain (19)	118
4.40	Bute Coastal Plain (19A)	120
4.41	Rocky Mosaic (20)	122
4.42	Low Coastal Hills (21)	125
4.43	Coastal Parallel Ridges (22)	128
4.44	Flat Moss and Mudflats (23)	131
4.45	Sand-Dunes and Machair (25)	133
4.46	Inland Machair and Moss (26)	135
4.47	Focal Hills (27)	137

5 SENSITIVITY ASSESSMENT OF NATIONAL SCENIC AREAS 139

5.1	INTRODUCTION	139
5.2	KNAPDALE	140
5.3	LYNN OF LORN	144
5.4	JURA	147
5.5	LOCH NA KEAL	150
5.6	KYLES OF BUTE	153

APPENDIX A: REFERENCES

APPENDIX B: GLOSSARY OF TERMS

APPENDIX C: LANDSCAPE CHARACTER REVIEW

APPENDIX D: SENSITIVITY CRITERIA

APPENDIX E: NSA ASSESSMENT METHOD

APPENDIX F: OPPORTUNITIES FOR REPOWERING EXISTING WIND FARMS

1 INTRODUCTION

1.1 Policy context

The Scottish Government is committed to increasing the amount of electricity generated from renewable sources. The current target is to meet the equivalent of 100% of Scotland's electricity requirement from renewable sources by 2020. Most of this capacity is likely to be met from hydro-electric and on-shore wind power, but in due course there is expected to be a wider range of productive renewable technologies, including off-shore wind power as well as biomass, solar, energy from waste and landfill gas and wave and tidal power.

1.1.1 *Scottish Planning Policy 2014*

Scottish Planning Policy 2014 (SPP) seeks to support the initiatives set out above. It requires local authorities to ensure that an area's full potential for electricity and heat from renewable resources is achieved, while giving due regard to relevant environmental, community and cumulative impact considerations.

SPP stresses the need for the planning system to guide development to appropriate locations and local development plans are required to set out the issues that will be taken into account when considering specific proposals for energy developments. SPP states that planning authorities... " *should identify where there is strategic capacity for wind farms, and areas with greatest potential for wind development, considering cross-boundary constraints and opportunities*" (SPP paragraph 162). Potential cumulative effects should be made clear by planning authorities.... " *recognising that in some areas the cumulative impact of existing and consented energy development may limit capacity for further development*".

1.1.2 *The role of landscape capacity studies for wind energy development*

Scottish Natural Heritage (SNH) provides further guidance on the use of landscape capacity studies in the document *Spatial Planning for Onshore Wind Turbines – natural heritage considerations* (June 2015). This guidance states that landscape capacity studies are a material development management consideration that will underpin supplementary guidance and inform good decision making. These studies can support the requirements of SPP by identifying landscape sensitivities early in the process and capacity for further development, considering cumulative landscape and visual effects. Landscape capacity studies can also provide advice on general design, such as turbine height and layout, and on the scope for change to existing wind farm development, for example, through the replacement of turbines (commonly known as 'repowering').

1.2 Study Aims

This study revises and updates the 2012 Argyll and Bute Wind Farm Landscape Capacity Study (ABWELCS) in response to changes in baseline conditions and to reflect current planning policy and guidance. The study provides:

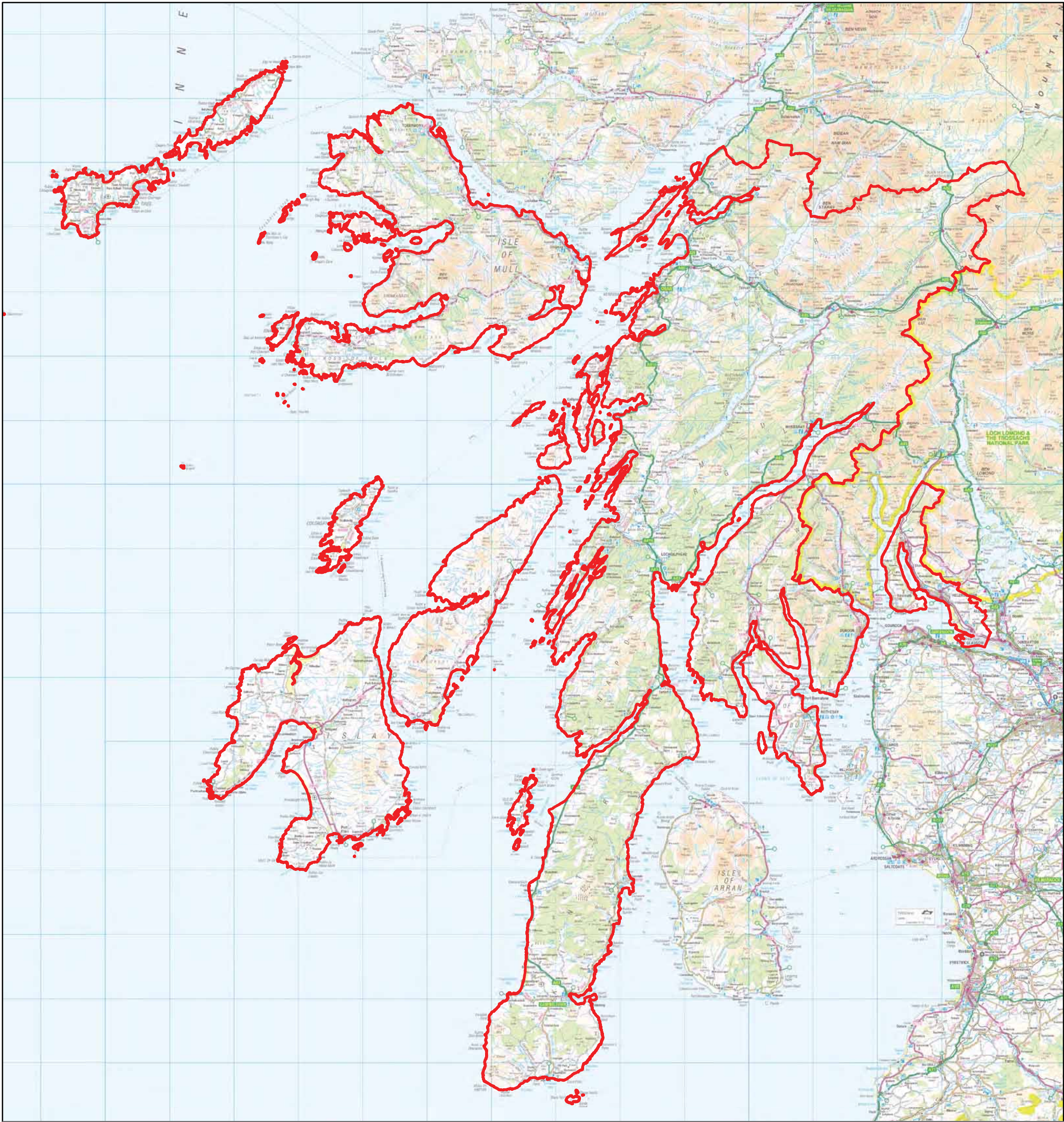
- A detailed landscape and visual sensitivity assessment for wind turbine/wind farm developments based on landscape character types defined in the SNH Landscape Character Assessment for Argyll and the Firth of Clyde.
- Recommendations as to what size of wind energy development would be appropriate, in landscape and visual terms, within the different landscape character types considered in the study.
- Guidance on which areas are unsuitable in landscape terms for wind energy development.
- Consideration of scope for very large turbines up to around 200m high and for repowering of operational wind farms.
- Information on potential cumulative landscape and visual impacts, identifying where cumulative thresholds for development have been/are close to being reached.
- General siting and design guidance for landscape character types identified as having some potential for development and detailed guidance for the siting of smaller turbines <50m high.

1.3 The Study Area

The study provides detailed assessment of all of Argyll and Bute. The study area is shown in Figure 1.

1.4 Structure of the report

The methodology adopted for the study is set out in section 2 of the report followed by the key findings and recommendations of the study in section 3. Landscape and visual sensitivity assessments have been produced for landscape character types and sub-types identified within Argyll and Bute and for National Scenic Areas. These are summarised in sections 4 and 5 of this report with more detailed assessment information contained in the Volume Two Report. Detailed guidance for siting and designing smaller turbines is also contained in the Volume Two Report.

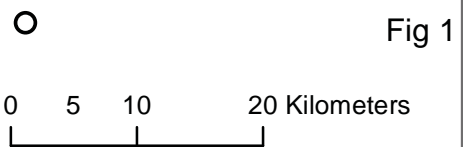


©crown copyright & database right (2016). All rights reserved. Ordnance Survey Licence number 100023368

 Study Area

Argyll & Bute Landscape
Wind Capacity Study

Study Area



2 STUDY METHODOLOGY

The study considers the sensitivity of key characteristics of different landscapes within Argyll and Bute to changes that would be brought about by new wind energy development. Although the focus is on landscapes within Argyll and Bute, landscape and visual sensitivities and potential cumulative issues associated with surrounding authorities are also considered.

The sensitivity assessment within this study assesses landscape and visual aspects only and a range of environmental and other factors also need to be considered in the strategic planning and appraisal of wind energy development proposals.

2.1 Landscape capacity studies

Landscape capacity is described as *'the degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character, or overall change of landscape character type. Capacity is likely to vary according to the type and nature of change being proposed'*¹

There is currently no formally agreed approach or methodology for assessing the sensitivity or capacity of different landscapes to wind energy development. Scottish Natural Heritage (SNH) Commissioned Report 385 *Landscape Capacity Studies in Scotland – Review and Guide to Good Practice* was issued in 2010 and this study accords with the guidance set out in this document (and the online Toolkit which was informed by it). More detailed guidance is also provided by SNH in the document *Siting and Designing Wind Farms in the Landscape* (2014) which includes advice on strategic planning for wind farms, and in the *Siting and Design of Single and Groups of Small Turbines in the Landscape* (2012). A full list of reference material used in the study is set out in Appendix A.

Most landscape capacity studies consider the potential sensitivity of key characteristics of landscape character types and areas to a given development. The particular characteristics defined as key sensitivity criteria may change according to the nature of the development being considered, although the methodological approach between studies is generally similar. Visibility and views may be considered as a separate issue or may form part of the assessment of landscape sensitivity as a criterion together with key landscape characteristics.

Landscape values (which include designated or valued landscapes) may be considered as a separate criterion in the sensitivity assessment although this will largely depend on the background information available on the reasons for designation and the brief from the commissioning body. The brief for this study required that landscape designations and other recognised values should be considered in the sensitivity assessment.

The Guidelines for Landscape and Visual Impact Assessment Version 3 (GLVIA3) sets out a methodology for appraising landscape sensitivity which considers susceptibility and value. While this methodology is similar to the methodology used in the ABLWCS, GLVIA3 makes it clear that the purposes of assessing sensitivity in the wider arena of

¹ Swanwick, Carys and Land Use Consultants, *Landscape Assessment Guidance for England and Scotland*, 2002, Countryside Agency and Scottish Natural Heritage.

landscape planning is different to that undertaken as landscape and visual impact assessment which is specific to a particular project or development and its location.

2.2 Definition of terms

The following definitions of terms apply to this study:

Landscape character assessment

Landscape character assessment is a standard methodology for identifying, classifying and mapping which is distinctive about landscapes. It helps to understand what makes one landscape different from another. Landscape character relates not only to the physical attributes of the land, such as landform, land cover and settlement pattern, but also to perceptual responses to the landscape.

Landscape sensitivity

Sensitivity relates to landscape character and how susceptible this is to change. In this study, change relates to wind energy development and any findings on landscape sensitivity are restricted to this. Landscapes may have different sensitivities to other forms of change or development. Sensitivity is assessed by considering the effect of different heights of wind turbine development on the physical and perceptual characteristics of landscapes. In this study, the nature of views and visibility and the value associated with a landscape are also considered in determining sensitivity.

Landscape capacity

The terms landscape sensitivity and capacity are often used interchangeably in Scotland to refer to landscape studies that assess a landscapes susceptibility to a particular form of development. Capacity relates to the extent to which a landscape is able to accommodate development without significant adverse impacts occurring on its character. In this study, landscape capacity is determined by the nature and degree of effects likely to occur on key characteristics and on the value of the landscape. This is explained in more detail in 2.8 of this report.

A glossary of further terms used in this report is set out in Appendix B.

2.3 General approach to the study

The approach to the study has been informed by guidance on the potential impacts and landscape sensitivities associated with wind energy development and on the practical application of methodologies used in landscape capacity studies we have undertaken. The study has involved the following key tasks:

- Identification of existing and consented wind farm and turbine developments in Argyll and Bute and surrounding authorities to inform the baseline for this study.
- Identification of the different wind turbine development typologies to be assessed in the study in collaboration with the Steering Group which comprises representatives of Argyll and Bute Council and SNH.
- Definition of the landscape and visual sensitivity criteria to be used in the assessment.
- Field work to assess the sensitivity of landscape character types to the agreed development typologies using identified sensitivity criteria and considering operational and consented wind energy developments.

- Consideration of potential 'repowering' of existing wind farms, principally assessing the potential landscape and visual effects of introducing larger wind turbines to the Argyll and Bute landscape. This assessment has been undertaken in the field using computer-generated Zone of Theoretical Visibility (ZTV) mapping and visualisations.
- Identification of broad areas where the number, extent and proximity of operational and consented wind farm developments has resulted in cumulative landscape and visual impacts. A more detailed assessment of cumulative effects and capacity has been undertaken in these areas.
- An overview of landscape and visual sensitivities across the study area with recommendations on strategic landscape and visual considerations for siting wind energy developments within Argyll and Bute.

2.4 Baseline operational and consented wind farms and turbines

The following operational and consented wind farm developments (turbines >50m high to blade tip) listed in Table 1 have formed the baseline for the landscape and visual sensitivity. A cut-off date of the 30th June 2017 was set for the study. These developments are shown in Figure 2.

Table 1: Wind Farm/turbine baseline for the study

Windfarm	Turbines	Height to blade tip	Landscape Character Type/Authority
Operational and under-construction wind farms and turbines > 50m high			
Beinn Ghlas	16	61m	Craggy Upland (7)
Clachan Flats	9	93m	Steep Ridgeland and Mountains (1)
An Suidhe	24	83m	Craggy Upland (7)
Cruach Mhor	35	71m	Steep Ridgeland and Mountains (1)
Deucheran Hill	9	76m	Upland Forest Moor Mosaic (6)
Beinn an Tuirc I	46	66m	Upland Forest Moor Mosaic (6)
Beinn an Tuirc II	19	100m	Upland Forest Moor Mosaic (6)
Tangy I and II	22	75m	Upland Forest Moor Mosaic (6)
Carraig Gheal	24	127m	Craggy Upland (7)
A'Chruach	21	126.5m	Loch Fyne Upland Forest Moor Mosaic/Craggy Upland (6a/7)
Allt Dearg	12	81m	Knapdale Upland Forest Moor Mosaic (6b)
Ruag Sliabh, Tiree	1	75m	-
Cour	10	110m	Upland Forest Moor Mosaic (6)
Freasdail	11	100m	Upland Forest Moor Mosaic (6)
Gallanach, Coll	1	77m	-
Kelburn	14	100m	North Ayrshire
Wardlaw/Dalry	6	125m	North Ayrshire
Millour Hill	6	125m	North Ayrshire
Ardrossan	15	100m	North Ayrshire
Hunterston	2	177/193m	North Ayrshire
Srondoire	3	100/125m	Knapdale Upland Forest Moor Mosaic (6b)
Islay Community	1	61m	Moorland Plateau (8)
Consented wind farms and turbines >50m high			
Tangy III (repowered)	15	125m	Upland Forest Moor Mosaic
Auchadaduie	3	100m	Upland Forest Moor Mosaic

A' Chruach II	2	135m	Loch Fyne Upland Forest Moor Mosaic (6a)
Beinn an Tuirc III	18	110/126m	Upland Forest Moor Mosaic (6)
Blary Hill	14	110m	Upland Forest Moor Mosaic (6)

2.4.1 *Smaller wind turbine developments*

A relatively limited number of operational single and small groups of turbines below 50m high are located in Argyll and Bute. The majority of these are associated with farms on the islands of Coll, Tiree and Mull and on the coastal fringes of the Kintyre peninsula, especially in the area surrounding Campbeltown. A community development is also present on the island of Gigha.

2.5 **Baseline landscape character**

The 1996 SNH Argyll and Firth of Clyde Landscape Character Assessment (LCA) forms the basis for the assessment set out in this study. Some minor revisions to classification and boundaries were made to this character assessment for the purposes of the ABLWECS and these are summarised in Appendix C.

The SNH 1996 Landscape Character Assessment is in the process of being revised with this likely to be available on SNH's website in early 2018. The revisions that will be made are relatively minor and principally involve some amendment to the boundaries of landscape character units (with many of these taking on board the changes to classification made in the 2012 ABLWECS) and redrafting of character type descriptions. Landscape character units will also be renamed to fit with SNH's new national convention. An addendum note will be issued in 2018 once the details of the review are available to clarify how the landscape character types defined in the ABLWECS fit with the revised SNH classification and naming convention.

Separate sensitivity assessments have been undertaken for the National Scenic Areas (NSAs) lying wholly within Argyll and Bute in accordance with the requirements of the study brief.

Landscape designations are shown in Figure 3. The landscape character types and sub-types (LCTs) considered in the sensitivity assessment are shown in Figures 4 to 6.

2.6 **Development typologies**

2.6.1 *Smaller typologies*

The height of turbines relative to other structures in the landscape is a key consideration in terms of landscape 'fit'. Different sensitivities come into play once turbines exceed the height of other common landscape features, for example trees and small wood pole lines. We have found during our field assessments (and observations of existing smaller turbines in the landscape) that there is a noticeable threshold at around 30-35m height to blade tip where over this height a turbine will quickly become a dominant feature in many lowland/more settled landscapes.

Guidance has been produced for siting turbines below 50m high and this is contained in the Volume Two Report.

2.6.2 *Larger typologies*

In terms of larger developments (turbines 50m +) we have principally considered the height of turbine within the sensitivity assessment as this is a critical factor in determining landscape and visual sensitivity. We have not specifically considered pre-determined numbers of turbines within the typologies assessed as this would make the sensitivity assessment complex and potentially difficult to follow. Some indication is given however of the likely extent of development that may be accommodated where the sensitivity assessment indicates some capacity within the guidance set out for each landscape character area. The assessment therefore is applicable to both single, small groups and larger groups of turbines comprising 'wind farm' developments.

2.6.3 *Development typologies considered in this updated capacity study*

The following development typologies are considered in the study:

- ***Small turbines 20-35m high***
- ***Small-medium turbines 35m to 50m high***
- ***Medium turbines 50m to 80m high***
- ***Large turbines 80-130m high***
- ***Very Large turbines over 130m high***

The sensitivity assessment for Very Large turbines has been undertaken only for landscape character types where some scope for larger turbines was identified in the 2012 Argyll and Bute Wind Landscape Capacity Study or landscapes which already accommodate operational wind farms.

The study has focussed on assessing the relationship between the height of the turbine and the landscape and visual sensitivity criteria. In undertaking this analysis, it has been assumed that the small, small-medium and medium typologies (turbines 20-80m) are more likely to comprise single and small groups of turbines rather than more extensive commercial wind farms. The assessment considers scope for multiple developments located across the character area. The number of turbines that can be accommodated within a wind farm development will be influenced by the relative extent of the landscape character type/area (or less sensitive part of a landscape character area) and potential effects on key landscape and visual constraints outlined in the assessment.

2.7 **Development typologies considered in LCTs/NSAs**

A summary of sensitivity to **all** typologies is set out in this report (Volume One), the detailed sensitivity assessment tables contained in Volume Two consider the following typologies in different landscapes as set out in Table 3 below.

Table 3: Typologies assessed in detail in different landscape character types/NSAs

<p>LCT's that may be suitable for very large turbines >130m:</p> <p>Detailed sensitivity assessments for the Very Large typology (turbines >130m high) were only undertaken for landscape character types judged to have a medium or lower sensitivity to large turbines (turbines 80-130m) in the 2012 ABLWECS and/or landscapes where operational wind farms are already located. These are:</p> <ul style="list-style-type: none"> • <i>Steep Ridgeland and Mountains (2)</i> • <i>Upland Forest Moor Mosaic (6)</i> • <i>Loch Fyne Upland Forest Moor Mosaic (6a)</i> • <i>Knapdale Upland Forest Moor Mosaic (6b)</i> • <i>Craggy Upland (7)</i>
<p>Upland landscapes (LCTs 1,2, 2a,6a-c, 7, 6b, 6c,7,7c,7d and 10):</p> <p>Only the Large and Medium typologies (turbines >50m) are assessed in detail for upland landscapes within Argyll and Bute.</p>
<p>Small scale valleys, glens and coastal moss (LCTs 3, 4, 23):</p> <p>Detailed sensitivity assessments for larger turbines (>50m high) are not provided for these areas since demand for wind energy developments is very low. However, a summary of sensitivity to all typologies is included in Volume One.</p>
<p>National Scenic Areas (NSAs)</p> <p>Detailed sensitivity assessments have been undertaken for smaller turbines <50m high only. This accords with Scottish Planning Policy guidance on spatial frameworks which classifies NSAs as falling in Group I - areas where wind farms will not be acceptable.</p>
<p>Mull, Islay, Jura and Bute</p> <p>These islands were subject to detailed sensitivity assessment in the 2012 study although the brief at that time only required turbines up to 50m high to be considered. Turbines up to 130m have been additionally assessed in 2017 in landscape character types judged to have some scope to accommodate the small-medium typology (turbines 35-50m) in 2012. These landscapes are:</p> <ul style="list-style-type: none"> • <i>Bute Open Ridgeland (5a)</i> • <i>Moorland Plateau (8 – Islay)</i> • <i>Moorland Plateau with Farmland (8 – Islay)</i> • <i>Rocky Moorland (9 -Islay)</i> • <i>High Stepped Basalt (12 - Mull)</i> • <i>Lowland Bog and Moor (15- Islay)</i> • <i>Mull Basalt Lowlands (17)</i> <p>Detailed assessment of turbines up to 130m has been undertaken for the islands of Coll, Colonsay and Tiree which were added to the study area for the 2017 revised and updated study.</p>
<p>All other LCTs:</p> <p>Detailed assessments are provided for the Large, Medium, Small-medium and Small typologies for all other LCTs:</p>

2.8 The sensitivity assessment

The study considers the sensitivity of key landscape and visual characteristics of different landscape character areas within Argyll and Bute to the development typologies outlined above. The field assessment used a series of computer generated visualisations showing different heights of turbine to inform the judgements made on landscape and visual sensitivities. Where relevant, key sensitivities in relation to landscapes lying outside Argyll and Bute's boundaries in adjacent authorities are also noted in the assessment.

2.8.1 *Landscape and visual sensitivity criteria*

The sensitivity assessment considers the following criteria in assessing the potential effects of wind turbines and associated infrastructure on landscape character types:

- The context of the landscape character type
- Landscape scale
- Landform
- Land cover pattern
- The built environment
- Perceptual qualities
- Visual amenity
- Landscape values

A detailed description of the factors considered within the sensitivity assessment is set out in Appendix D.

2.8.2 *Assessing the sensitivity of the National Scenic Areas*

The study brief required the National Scenic Areas (NSAs) to be subject to a separate sensitivity assessment. SPP states that wind farm development will not be acceptable in NSAs and this assessment therefore only considers sensitivity to turbines <50m high. The methodology for this assessment considers the special qualities of the NSA and is explained in more detail in Appendix E. NSAs and other designated and formally valued landscapes are shown on Figure 3.

2.9 Sensitivity ratings

Each of the sensitivity criterion set out in paragraph 2.8.1 has been scored using a five-point scale. An overall landscape and visual sensitivity rating is also set out considering all landscape and visual criteria with the exception of the criterion of landscape values. Landscape values is given a separate score in the assessment because designated landscapes and other recognised landscape interests are usually not evenly spread across landscape character types and it is therefore more useful to separately identify sensitivity in respect of this criterion.

The overall landscape and visual sensitivity rating has been arrived at by considering the combined weight of evidence set out in the sensitivity assessment using professional judgement, rather than using a numerical scoring system. This is interpreted in the following table:

Table 4: Explanation of Sensitivity Ratings

Overall Sensitivity rating	Definition
Low	The development typology relates well to key landscape characteristics and change is able to be accommodated without significant adverse impacts on landscape character or visual amenity.
Medium - low	Some limited sensitivities although there are opportunities to accommodate the development typology in most locations.
Medium	Some key landscape characteristics or aspects of visual amenity are sensitive but there is still some ability to accommodate development in some locations with acceptable character change and/or visual impact; the development typology relates to some aspects of landscape character.
High-medium	A number of key landscape characteristics are vulnerable to change. Development would undermine some important defining aspects of landscape character and/or visual amenity and/or may result in significant cumulative effects with other wind farm developments. A limited amount of development may be able to be accommodated in very small parts of some landscape character types/areas however.
High	The majority or all of the key landscape characteristics are vulnerable to change. Development would conflict with key aspects of landscape character and visual amenity with widespread and significant adverse impacts likely to arise.

2.10 Repowering of existing wind farms

An assessment has been undertaken to consider opportunities for repowering existing wind farms (assumed to principally comprise replacement with larger turbines) and for very large wind turbines (>130m high to blade tip). The assessment has been informed by computer-generated visibility mapping and visualisations based on selected operational and consented wind farms and showing replacement with larger turbines. The assessment of scope for very large turbines >130m high (as new developments or repowering projects) has been undertaken for selected landscape character types as listed in Table 4 above. An assessment of scope for repowering existing wind farms is set out in Appendix F and summarised in Section 3 of this report.

2.11 Cumulative issues and strategic capacity assessment

The sensitivity assessment undertaken for each landscape character type considers key cumulative effects that could arise in conjunction with operational and consented wind farms, located both in the subject character type and other nearby landscapes. Potential landscape and visual cumulative impacts considered include:

- Changes to landscape character – i.e. where an addition to operational and consented wind farms and turbines is likely to result in wind turbines becoming a recognisable and consistent characteristic associated with a specific landscape

character type, rather than a one-off feature (this may not necessarily be a negative impact);

- Significant alteration to a defining characteristic of that landscape character – i.e. where a characteristic which is recognised as contributing to the distinctive identity of the character of an area is likely to be lost or significantly diminished by the addition of one or more wind farms/ wind turbines to multiple operational and consented wind farms or turbines;
- Loss of recognisable development pattern – i.e where wind farms or turbines are introduced into a landscape where operational wind farms or turbines already create a recognisable pattern of development which relates strongly to particular landscape characteristics but additional development diminishes the integrity and robustness of the pattern leading to fragmentation of landscape character;
- Visual dominance – i.e where wind farms or turbines become a visually dominant feature because of their combined presence as multiple or merged developments affecting a skyline as viewed from a significant viewpoint, or encountered sequentially as a series of focal points from a road or stretch of coast which is a definable journey;
- Visual clutter – where different types of turbines, including noticeably different heights and styles of design, and varied densities of turbines or radically different layouts of individual developments come together to create a muddled visual distraction from the landscape or from key features.

2.11.1 *Concentrations of existing development*

A review has also been undertaken of broad areas within Argyll and Bute where the number and extent of operational and consented wind farm developments has already incurred significant change to landscape character and to views. The findings of this review are set out in section 3 of this report. Zone of Theoretical Visibility (ZTV) mapping for operational and consented wind farms in Argyll and Bute is presented in Figures 7 to 11.

2.12 **The significance of landscape and visual effects**

Most large-scale wind energy developments are likely to incur significant adverse landscape and visual effects. This study sets out guidance on the likely nature, extent and severity of potential effects and proposes a strategy aimed at identifying scope for additional wind energy development while protecting the most sensitive landscapes within Argyll and Bute from inappropriate development. The ABLWECS only considers landscape and visual sensitivity and a range of environmental and other issues need to be considered in determining the overall acceptability of wind energy development.



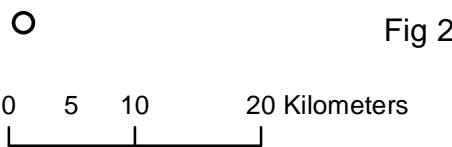
©crown copyright & database right (2016). All rights reserved. Ordnance Survey Licence number 100023368

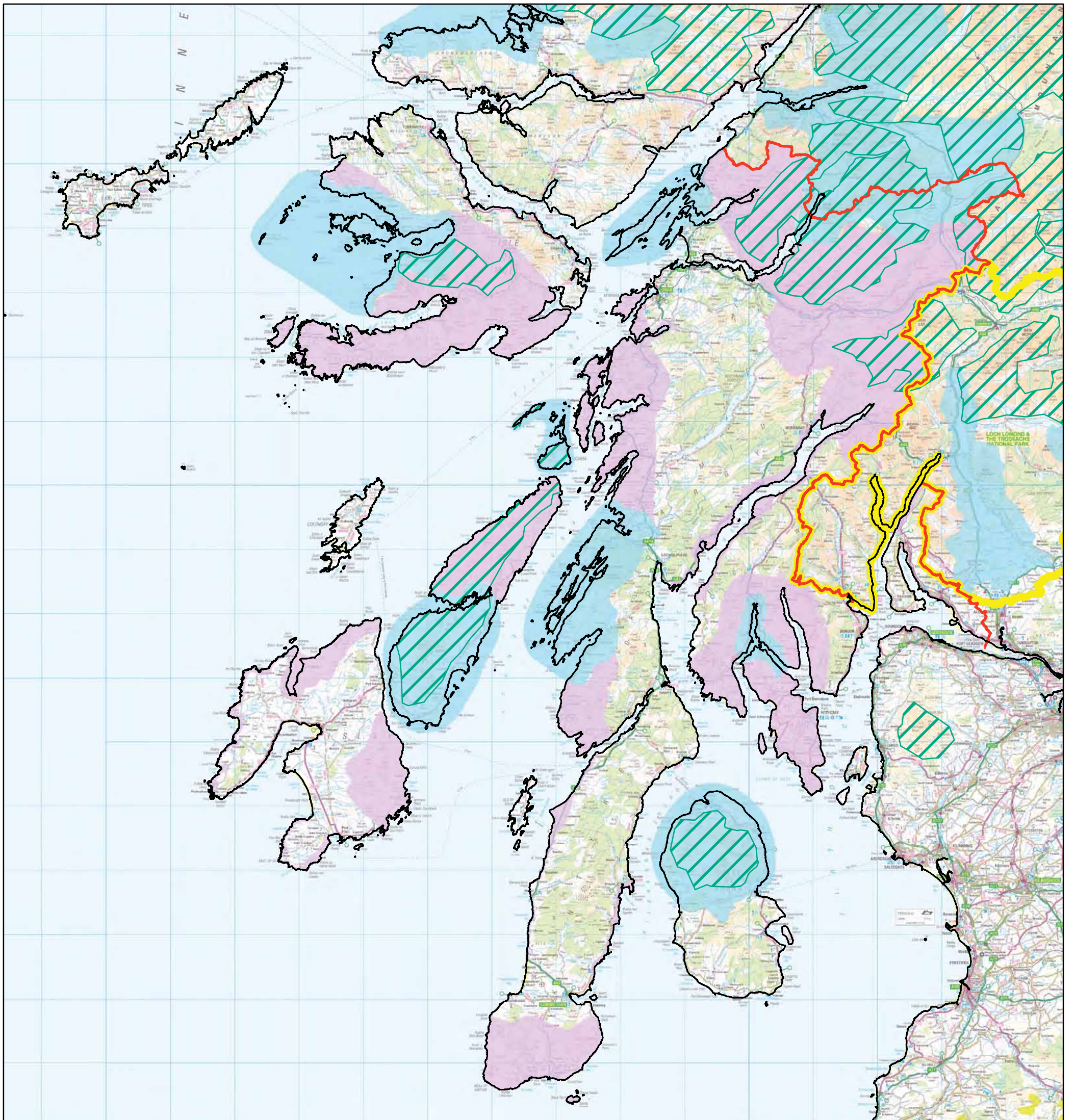
- | | | | | | |
|---|--------------------|---|-----------------|----|--------------------|
| A | A'Chruach I | L | Carraig Gheal | W | Ruag Sliabh, Tiree |
| B | A'Chruach II | M | Clachan Flats | X | Srondaire |
| C | Allt Dearg | N | Cour | Y | Tangy I & II |
| D | An Suidhe | O | Cruach Mhor | Z | Tangy III |
| E | Ardrossan | P | Deucheran Hill | AA | Wardlaw |
| F | Auchadaduie | Q | Freasdail | | |
| G | Beinn an Tuirc I | R | Gallanach, Coll | | |
| H | Beinn an Tuirc II | S | Hunterston | | |
| I | Beinn an Tuirc III | T | Isle of Gigha | | |
| J | Beinn Ghlas | U | Kelburn | | |
| K | Blary Hill | V | Millour Hill | | |

(Consented Windfarms
(Operational Windfarms

Argyll & Bute Landscape
Wind Capacity Study

Operational Wind Farms
& Larger Turbines





©crown copyright & database right (2016). All rights reserved. Ordnance Survey Licence number 100023368

Legend

- Boundary with Highland Council & Loch Lomond & Trossachs National Park
- Loch Lomond & Trossachs National Park
- Wild Land Areas
- Areas of Panoramic Quality
- National Scenic Area

Argyll & Bute Landscape
Wind Capacity Study

Landscape Designations

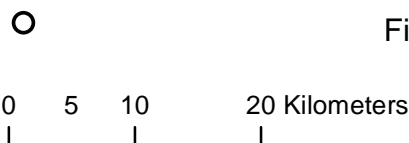
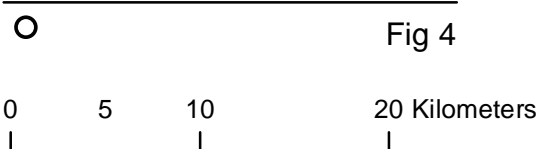


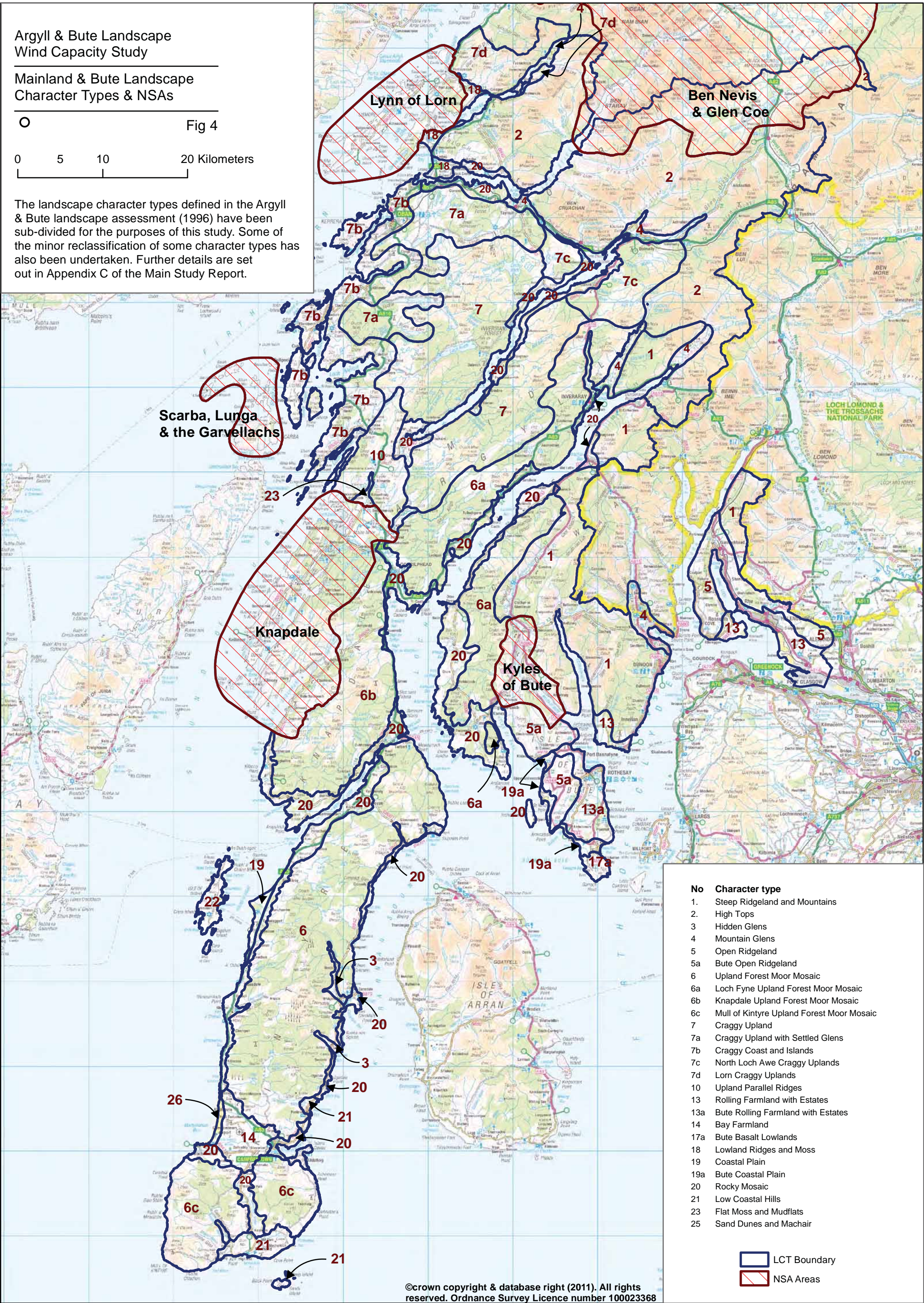
Fig 3

Argyll & Bute Landscape
Wind Capacity Study

Mainland & Bute Landscape
Character Types & NSAs

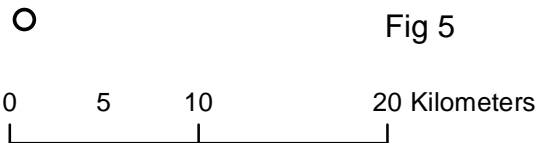


The landscape character types defined in the Argyll & Bute landscape assessment (1996) have been sub-divided for the purposes of this study. Some of the minor reclassification of some character types has also been undertaken. Further details are set out in Appendix C of the Main Study Report.

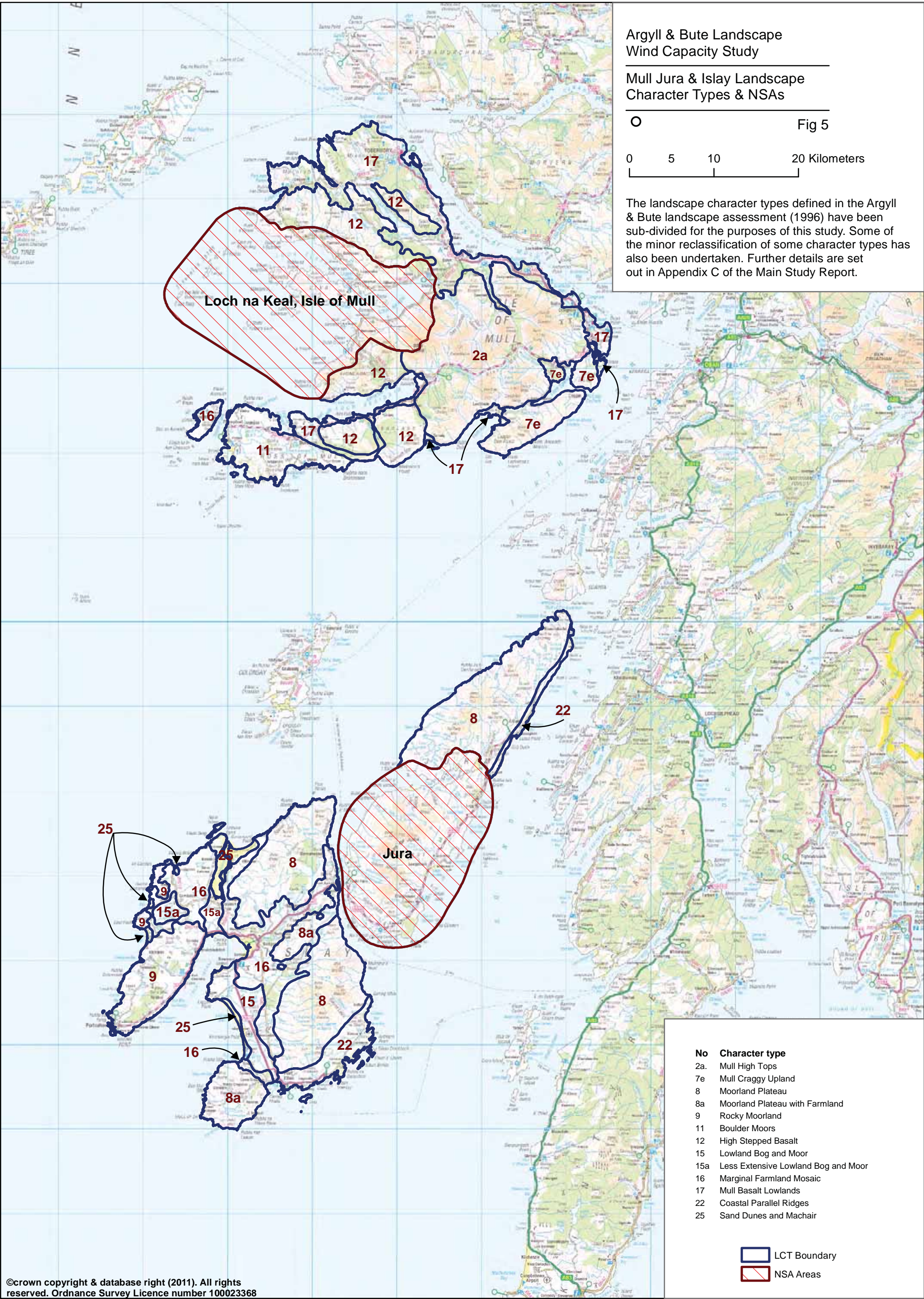


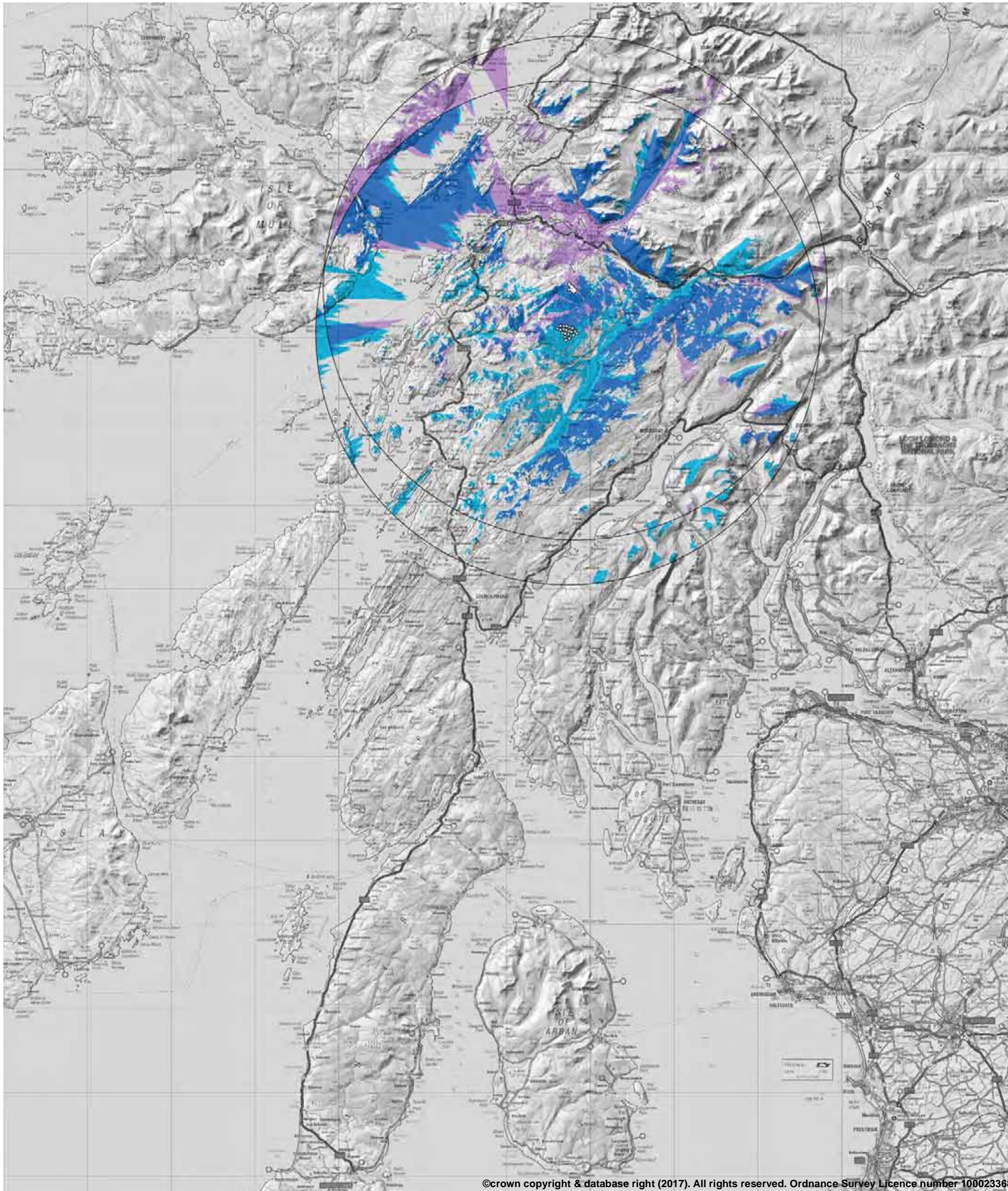
Argyll & Bute Landscape
Wind Capacity Study

Mull Jura & Islay Landscape
Character Types & NSAs



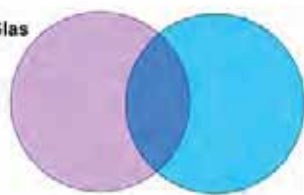
The landscape character types defined in the Argyll & Bute landscape assessment (1996) have been sub-divided for the purposes of this study. Some of the minor reclassification of some character types has also been undertaken. Further details are set out in Appendix C of the Main Study Report.





©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

Beinn Glas



Carraig Gheal

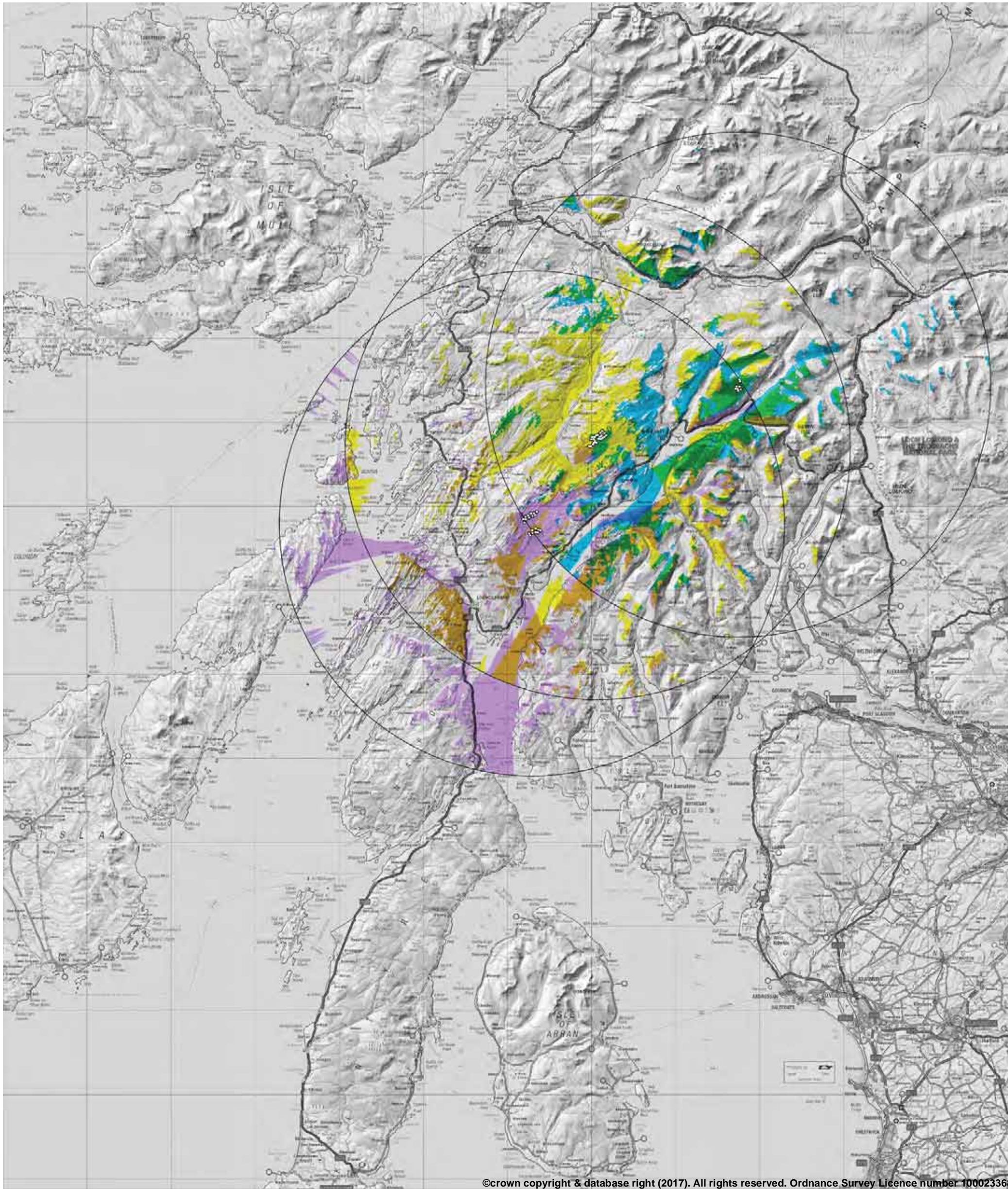
Argyll & Bute Landscape
Wind Capacity Study

Operational & Consented Wind Farms -
Zone of Theoretical Visibility - Far North

O

Fig 7

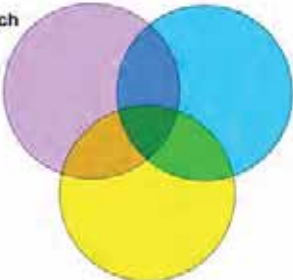
Not to Scale



©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

A Chruach

Clachan Flats



An Suidhe

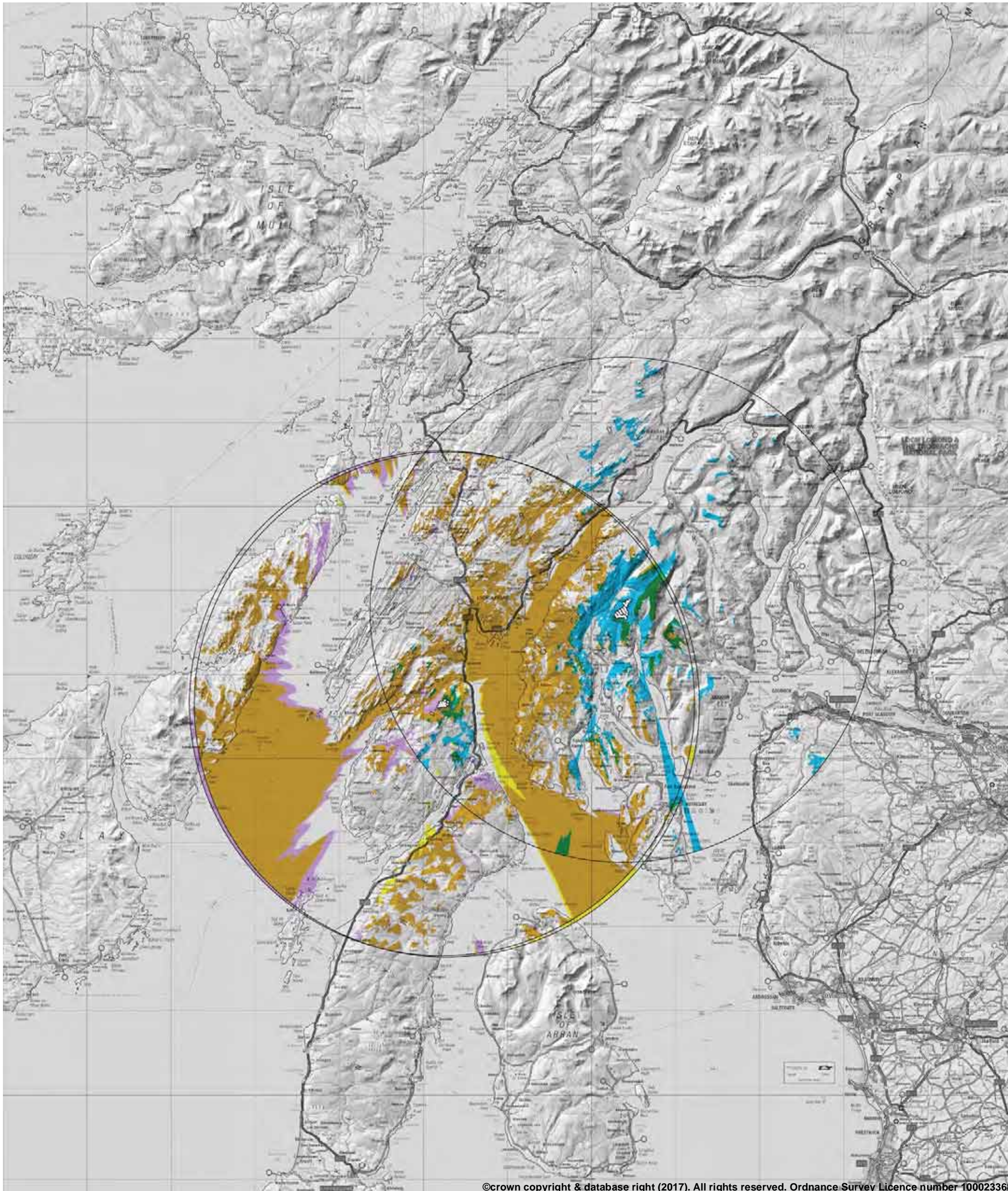
Argyll & Bute Landscape
Wind Capacity Study

Operational & Consented Wind Farms -
Zone of Theoretical Visibility - North

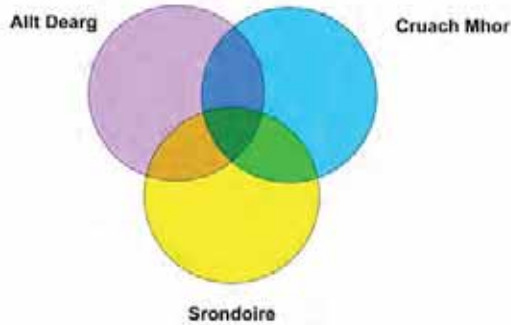
O

Fig 8

Not to Scale



©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368



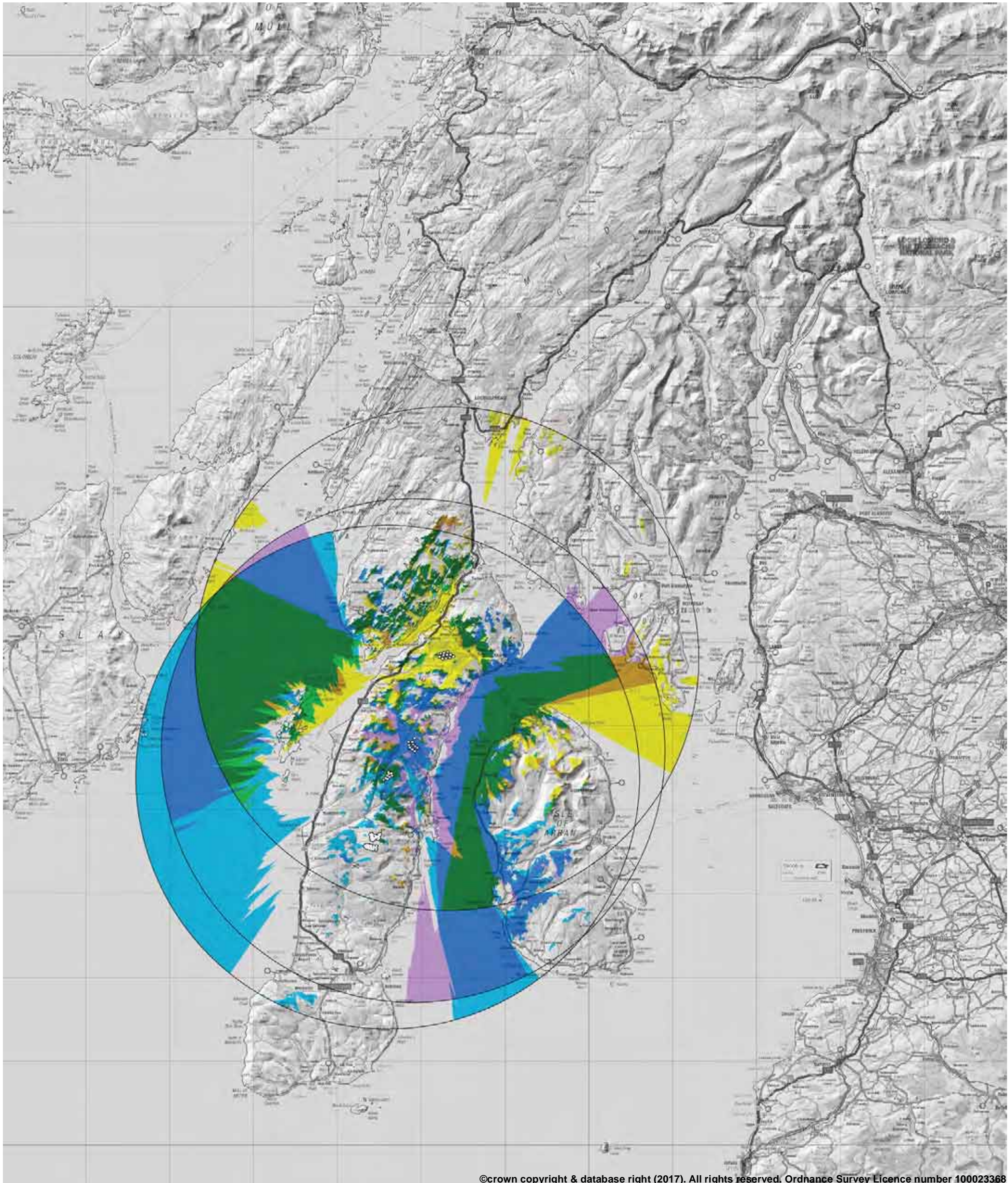
Argyll & Bute Landscape
Wind Capacity Study

Operational & Consented Wind Farms -
Zone of Theoretical Visibility - Centre

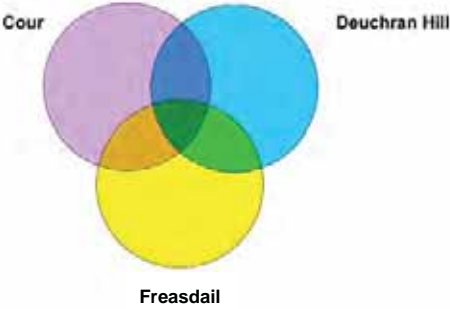
O

Fig 9

Not to Scale



©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

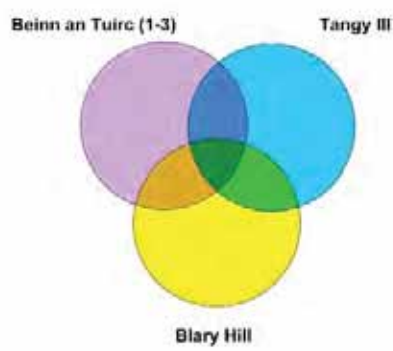
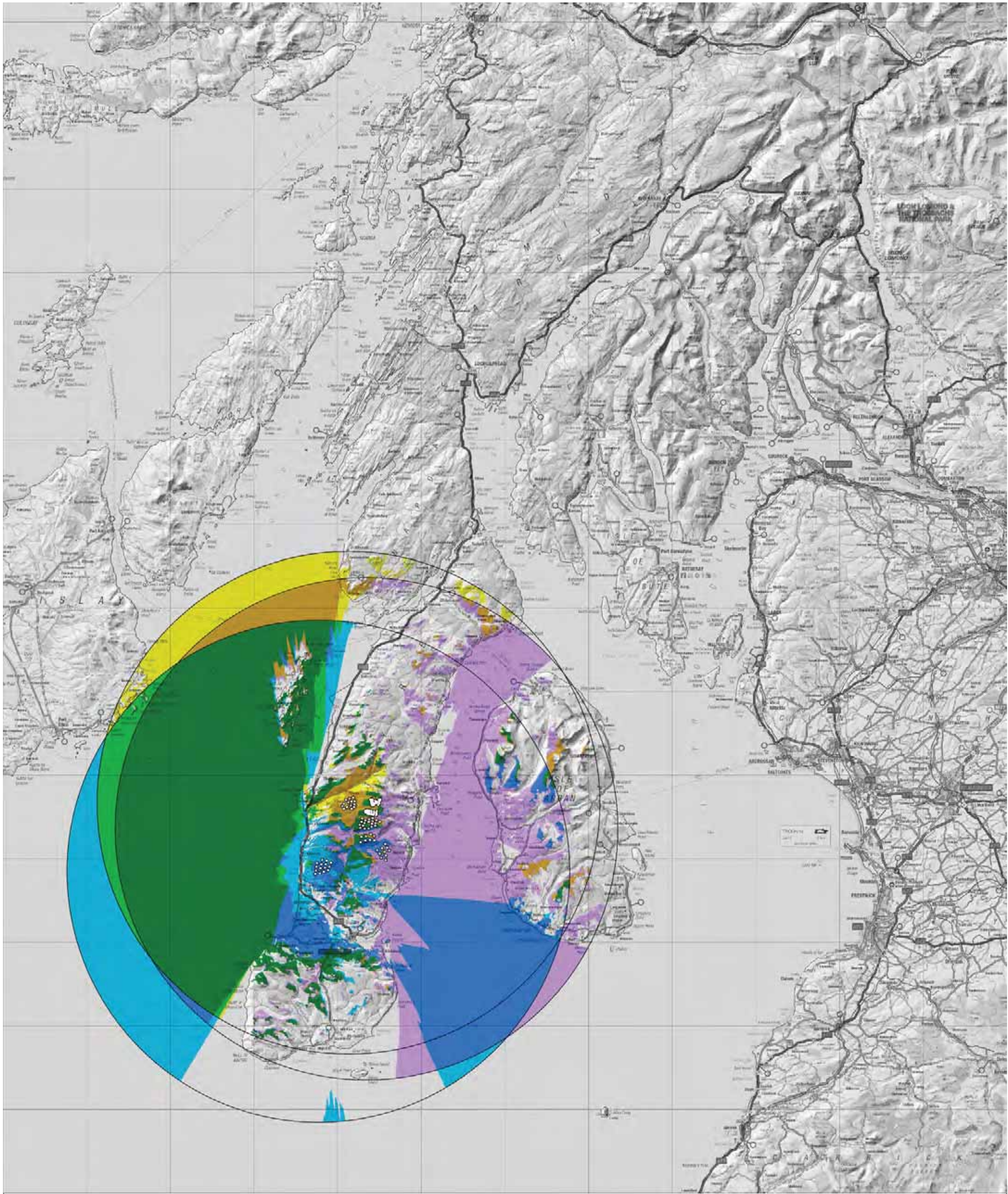


Argyll & Bute Landscape
Wind Capacity Study

Operational & Consented Wind Farms -
Zone of Theoretical Visibility - South

O Fig 10

Not to Scale



Argyll & Bute Landscape
Wind Capacity Study

Operational & Consented Wind Farms -
Zone of Theoretical Visibility - Far South

O

Fig 11

Not to Scale

3 SUMMARY OF FINDINGS AND RECOMMENDATIONS

3.1 Introduction

This section of the report summarises the key findings of the sensitivity assessment undertaken as part of the study. It addresses the landscape and visual issues associated with wider strategic planning of wind farm and turbine developments and outlines recommendations for a landscape strategy for Argyll and Bute.

3.2 The sensitivity assessment

The assessment considers the landscape and visual sensitivity of landscape character types and NSAs within Argyll and Bute to different heights of wind turbine. While a summary of sensitivity to **all** typologies is set out in sections 4 and 5 for each LCT/NSA in this report (Volume One), the detailed sensitivity assessment tables contained in Volume Two focus on specific development typologies most relevant to different LCTs/NSAs. The approach is set out in Table 3 in section 2 of this report.

3.3 Sensitivity to larger turbine typologies as additional new developments

The sensitivity assessment findings for the Very Large (turbines >130m) and Large typologies (turbines 80-130m) are set out in the following tables. Detailed assessment of sensitivity to very large turbines was undertaken for selected upland landscapes only (see table 3). All other landscape character types in Argyll and Bute are of high sensitivity to this typology and are not listed in the table below. A more detailed analysis of strategic issues relating to accommodating further wind farm development, including cumulative effects, focussing on the key upland areas of the Kintyre peninsula and the uplands either side of Loch Fyne and Loch Awe is set out in paragraph 3.8 of this section of the report.

<i>Very Large typology (>130m high turbines)</i>	
Sensitivity	Character type
High	Steep Ridgeland and Mountains (1), Loch Fyne Upland Forest Moor Mosaic (6a), Knapdale Upland Forest Moor Mosaic (6b), Craggy Upland (7) (and all other LCTs with the exception of LCT 6)
High-medium	Upland Forest Moor Mosaic (6)
Medium	-
Medium-low	-
Low	-

<i>Large typology (80m-130m high turbines)</i>	
Sensitivity	Character type
High	Steep Ridgeland and Mountains (1), High Tops (2), Mull High Tops (2a), Hidden/Mountain Glens (3/4), Open Ridgeland (5), Bute Open Ridgeland (5a), Mull of Kintyre Upland Forest Moor Mosaic (6c), Craggy Upland with Settled Glens (7a), Craggy Coast and Islands (7b), North Loch Awe Craggy Uplands (7c), Lorn Craggy Upland (7d), Mull Craggy Uplands (7e), Moorland Plateau (8), Moorland

	Plateau with Farmland (8a), Rocky Moorland (9), Small Island Rocky Moorland (9a), Low-lying Rocky Moorland (9b), Cnoc and Lochan Rocky Moorland (9c), Upland Parallel Ridges (10), Boulder Moors (11), High Stepped Basalt (12), Rolling Farmland with Estates (13), Bute Rolling Farmland with Estates (13a), Bay Farmland (14), Lowland Bog and Moor (15), Less Extensive Lowland Bog and Moor (15a), Marginal Farmland Mosaic (16), Small Island Marginal Farmland Mosaic (16a), Mull Basalt Lowlands (17), Bute Basalt Lowlands (17a), Lowland Ridges and Moss (18), Kintyre Coastal Plain (19), Bute Coastal Plain (19a), Rocky Mosaic (20), Low Coastal Hills (21), Coastal Parallel Ridges (22), Flat Moss and Mudflats (23), Sand Dunes and Machair (25), Inland Machair and Moss (26), Focal Hills (27)
High-medium	Upland Forest Moor Mosaic (6), Loch Fyne Upland Forest Moor Mosaic (6a), Knapdale Upland Forest Moor Mosaic (6b), Craggy Upland (7)
Medium	-
Medium-low	-
Low	-

3.4 Sensitivity to medium scale turbines

Given the increasing heights of turbines used in commercial wind farm developments, it was assumed that medium turbines between 50-80m high to blade tip would more likely comprise single or small groups of turbines. Some of the older wind farms comprise turbines of this size and single turbines of this height are located on Tiree, Islay and Coll. Turbines of this size are generally more appropriate in landscape and visual terms for smaller islands and less expansively scaled and more settled landscapes. The table below sets out sensitivity of landscape character types to this scale of development.

Medium typology (50m-80m high turbines)	
Sensitivity	Character type
High	Steep Ridgeland and Mountains (1), High Tops (2), Mull High Tops (2a), Hidden/Mountain Glens (3/4), Bute Open Ridgeland (5a), Craggy Coast and Islands (7b), Lorn Craggy Upland (7d), Mull Craggy Upland (7e), Moorland Plateau with Farmland (8a), Rocky Moorland (9), Cnoc and Lochan Rocky Moorland (9c), Boulders Moors (11), Rolling Farmland with Estates (13), Bute Rolling Farmland with Estates (13a), Less Extensive Lowland Bog and Moor (15a), Marginal Farmland Mosaic (16), Small Island Marginal Farmland Mosaic (16a), Mull Basalt Lowlands (17), Bute Basalt Lowlands (17a), Lowland Ridges and Moss (18), Kintyre Coastal Plain (19), Bute Coastal Plain (19a), Rocky Mosaic (20), Low Coastal Hills (21), Coastal Parallel Ridges (22), Flat Moss and Mudflats (23), Sand Dunes and Machair (25), Inland Machair and Moss (26), Focal Hills (27)

High-medium	Open Ridgeland (5), Upland Forest Moor Mosaic (6), Craggy Upland with Settled Glens (7a), North Loch Awe Craggy Upland (7c), Moorland Plateau (8), Small Island Rocky Moorland (9a), Low-lying Rocky Moorland (9b), Upland Parallel Ridges (10), High Stepped Basalt (12), Bay Farmland (14), Lowland Bog and Moor (15).
Medium	Loch Fyne Upland Forest Moor Mosaic (6a), Knapdale Forest Moor Mosaic (6b), Mull of Kintyre Upland Forest Moor Mosaic (6c), Craggy Upland (7)
Medium-low	-
Low	-

3.5 Sensitivity to smaller wind turbines

A number of smaller wind turbines <50m high are located on the islands, particularly concentrated on Tiree and Coll, and on the Kintyre peninsula in the Campbeltown area. These developments are mainly <30m high although some on the mainland are closer to 50m high. The sensitivity assessment concluded that there was some scope for the small-medium typology (turbines 35-50m) to be accommodated in many landscape character types with the exception of smaller scale glens and valleys, sensitive coasts and some notably distinctive landscapes. There was found to be increased opportunities to accommodate the small typology (turbines 20-35m) in a wider variety of landscapes including some NSAs.

There are currently no significant cumulative landscape and visual issues relating to multiple smaller wind turbines in Argyll and Bute. Changes to funding appear to have reduced interest in turbines of this size since the original ABLWECS was issued in 2012.

3.6 Opportunities for repowering existing wind farm developments

There are currently 17 operational and consented wind farms located in Argyll and Bute. Concentrations of wind farms are principally associated with the Kintyre peninsula, the *Upland Forest Moor Mosaic* (6) and either side of Loch Awe area, the *Craggy Upland* (7) and *Loch Fyne Upland Forest Moor Mosaic* (6a) landscape character types.

Proposals for much larger turbines can be associated with 'repowering' of existing wind farms and turbines. Repowering is expected to involve the replacement of operational wind turbines coming to the end of life with more efficient, and usually larger, turbines. Other repowering options which may be considered by operators include extending the blades of existing turbines, energy storage and other measures to increase efficiency and energy output.

An assessment has been undertaken to consider opportunities for repowering existing wind farms and for very large wind turbines (>130m high to blade tip) within Argyll and Bute. The assessment has been informed by computer-generated Zone of Theoretical Visibility (ZTV) mapping and visualisations based on sample operational and consented wind farms, showing replacement with larger turbines 150m and 200m high. The assessment has been supplemented with review of visualisations within Environmental Statements for current proposals and recent consents. Detailed assessment informed

by a more comprehensive range of visualisations would be necessary to fully consider landscape and visual impacts for specific proposals. In addition, any need for visible lighting of larger wind turbines would need to be considered especially in relation to potential effects on WLAs and areas with a pronounced sense of wildness and on views. The background to this study is contained in Appendix F.

3.6.1 *Analysis of increased height ZTVs*

The study of ZTVs showing increases in existing turbine height to 150m and 200m demonstrates that the **extent of increased visibility** (areas where larger turbines would be theoretically seen) would not be substantial in most cases. However, the following landscape and visual issues would be likely to be associated with significant increases in turbine sizes within some operational wind farms:

- Larger turbines on the Allt Dearg wind farm site would introduce new visibility of wind turbines in the West Loch Tarbert area, affecting views of this scenic sea loch from settlement and the A83.
- Increased visibility and potential cumulative effects would be likely to arise between the Beinn Ghlas and Carraig Gheal wind farms particularly in views from the east side of Loch Awe. There may also be potential impacts on the setting of sensitive coasts.
- Replacing the existing relatively small Beinn Ghlas turbines with substantially larger turbines would also result in increased visibility in the Glen Lonan and east Loch Awe area.
- Increases in visibility of the Beinn an Tuirc I wind farm could affect the sensitive and notably scenic small scale *Hidden Glens* and APQ coasts on the east side of Kintyre (in combination with the consented Beinn an Tuirc III development).
- New visibility of the An Suidhe wind farm could occur along the eastern coast of Inner Loch Fyne and may also result in potential cumulative effects with A'Chruach affecting views in the sensitive Inver/Lachlan Castle area.
- Extensions to visibility associated with much larger turbines on the Cruach Mhor wind farm site could affect the Kyles of Bute NSA.

3.6.2 *Analysis of sample visualisations and field assessment*

The assessment from representative viewpoints in the field concluded that the degree of impact or intrusion associated with increased heights of turbine would be principally influenced by the distance of the viewpoint from the wind farm, its siting and the context of the view.

The upland areas in mainland Argyll and Bute, where most commercial wind farm development is currently located, generally form relatively narrow peninsulas or long bands of land between sea and inland lochs. The uplands between Lochs Awe and inner Loch Fyne are around 10-11km in width while the Kintyre peninsula is between 8-12km width. These upland areas abut smaller scale, settled loch and coastal fringes and the narrowness of the uplands often results in relatively close views of wind farm development occurring from one or both sides of settled coastal edge/loch shore.

Older operational wind farms with smaller turbines, which are also often located closer to the centre of these upland areas, currently have a relatively minimal effect on nearby coastal edges and loch shores. The wind farms of Beinn an Tuirc I and II and

Deucheran Hill on the Kintyre peninsula are examples of this. Wind farms located closer to the coastal/loch edge and featuring larger turbines have a more significant impact on character and views, for example the Carraig Gheal wind farm seen from east Loch Awe and the Cour wind farm seen from the north Arran coast.

The study made the following conclusions in relation to the sample wind farms considered:

- Substantially increasing the An Suidhe turbines (currently 83m high) to 150m and 200m would be likely to significantly affect the setting of Inveraray appreciated from inner Loch Fyne. Although there would also be increases in impact from Loch Awe, it is less sensitive in that views of this wind farm principally occur from the west side of the loch which is densely forested, there are no significant landmark features in key views and topography could be utilised to partially screen larger turbines (as occurs with the present wind farm).
- Increases to the A'Chruach wind farm to 200m would be likely to significantly exacerbate effects on views from the Lachlan Castle area on east Loch Fyne. Increasing turbine heights within both the A'Chruach and An Suidhe wind farms could also result in cumulative effects along the south-eastern shore of inner Loch Fyne.
- The relative proximity of the existing Carraig Gheal wind farm (which already comprises turbines 127m) to the settled and smaller scale shores of Loch Awe, together with its visibility from sensitive glens and coast to the west, limits scope for substantial increases in turbine size.
- Increasing turbines on the Beinn Ghlas wind farm site to more than double the size of existing turbines (150m) would intensify the influence of wind farm development on the notable scenic head of Loch Awe and affect Glen Lonan and potentially also the Loch Etive area. Cumulative effects would also be likely to occur along the east side of Loch Awe where coalescence may occur with Carraig Gheal in some views with resultant effects on the intimate scale and sense of seclusion experienced in an area where no wind turbines are presently visible.
- Increasing the height of turbines to 150m and especially to 200m within operational wind farms located closer to the outer edges of the Kintyre peninsula would result in them appearing to overwhelm the low relief of the Kintyre peninsula, small buildings, fields and individual trees seen on lower hill slopes and the shore and also increase visual intrusion on roads and settlement within coastal/loch fringes and from Gigha or Arran (with potential effects on the North Arran NSA and WLA). This would be the case for the operational Cour development where turbines are currently 110m high.
- There may be some scope to increase the heights of turbines within some existing developments located further into the centre of the Kintyre peninsula, particularly if they are partially contained by landform where the distance and degree of intrusion on views from Arran and Gigha would be reduced. However, there is a need to also avoid introducing significant areas of new visibility and intrusion into the sensitive Carradale/Saddell area on the east coast of Kintyre and to minimise effects on the setting of the rugged well-defined hills of Beinn an Tuirc and Beinn Bhreac. Substantial increases to the Beinn an Tuirc I wind farm could adversely affect the setting of the hill of Beinn an Tuirc. Much larger

wind turbines could result in more widespread landscape and visual effects than is currently the case with sensitive coastal fringes on both sides of the Kintyre peninsula as well as Gigha and Arran potentially being affected.

- Significant increases to the height of turbines in the area of the operational Allt Dearg wind farm could adversely affect views and the setting of the scenic West Loch Tarbert area seen from settlement and the A83.
- Increases in the size of the operational Clachan Flats wind farm could adversely affect the Ben Lui Wild Land Area and exacerbate existing effects on one of the key approaches to Argyll and Bute.

3.6.3 Conclusions

Scottish Planning Policy (SPP) (paragraph 174) states that “*Proposals to repower existing wind farms which are already in suitable sites where environmental and other impacts have been shown to be capable of mitigation, can help to maintain or enhance installed capacity, underpinning renewable energy generation targets*”.

There may be some very limited opportunities to accommodate wind turbines between 130m and 150m high as part of repowering of existing wind farms sited within the central part of the Kintyre peninsula. However, more detailed assessment would be needed to fully consider potential effects on key sensitivities including cumulative effects with other wind farms. Any increases in the size of turbines should not result in considerably more widespread and significant effects arising on coastal fringes on the east and west sides of the peninsula and on Gigha and/or Arran.

Key constraints to any potential repowering of the Beinn Ghlas wind farm would be the need to avoid significantly exacerbating effects on the sensitive head of Loch Awe and cumulative effects with the Carraig Gheal wind farm. Any repowering of the An Suidhe wind farm would be principally limited by potential effects on the setting of Inveraray and Inver while repowering of the presently relatively well-contained Cruach Mhor wind farm would need to principally consider effects on the Kyle of Bute NSA. It is considered that newer operational and consented developments which are generally sited in appropriate locations in landscape and visual terms (including A' Chruach, Cour, Blary Hill and Carraig Gheal) which lie closer to, and are more visible from, sensitive loch and coastal areas, have reached maximum turbine size.

Existing wind farms in Argyll and Bute are generally well-spaced forming defined clusters with wide spaces between thus reducing potential for significant cumulative effects to arise with regard to contrasts in turbine size, design and layout associated with repowering projects. Redesign of wind farm developments as part of the repowering process, including altering the layout/number of turbines, may offer opportunities to avoid exacerbating effects on adjacent more sensitive landscapes and on views and reduce cumulative effects.

SPP suggests that repowering may be appropriate where existing developments are located... “*in suitable sites where environmental and other impacts have been shown to be capable of mitigation*”. The majority of wind farms and turbines are appropriately sited in landscape and visual terms within Argyll and Bute. However, there are some developments which are less successfully located. These include the Clachan Flats wind farm which is located in the sensitive *Steep Mountains and Ridgeland* (1)

landscape character type and lies in close proximity to the Loch Lomond and Trossachs National Park and the Ben Lui Wild Land Area. This development is also prominent on the approach to Loch Fyne on the well-used tourist route of the A83. The Allt Dearg/Sronaire development is very prominently sited on a pronounced and high hill and is consequently widely visible across outer Loch Fyne; it is also visible from parts of the Knapdale NSA. The Freasdail wind farm is also considered to be inappropriately located in relation to its effects on one of the key approaches to Argyll and Bute from Arran and views to Arran from the B8001. The large single turbine at Gallanach on Coll has an unacceptable impact on a small scale and highly scenic bay within the sensitive *Sand Dunes and Machair* (25) landscape character type. It is recommended that these wind energy developments should not be replaced after expiration of consent.

3.7 Designated landscapes and Wild Land Areas

The assessment has considered the special qualities of designated landscapes in determining sensitivity to different development typologies. The NSAs, as nationally important landscapes, are considered in SPP to be inappropriate locations for wind farm development. The sensitivity assessment undertaken for NSAs as part of the ABLWECS only considered smaller turbines below 50m high. It concluded that small turbines below 35m would have less of an effect on some NSAs provided these were sensitively sited.

SPP advises that Wild Land Areas (WLAs) fall into Group 2, areas of significant protection, for onshore wind spatial planning purposes. The two WLAs covering the Ben More area on Mull and the Jura, Scarba, Lunga and Garvellachs in Argyll and Bute are largely or wholly contiguous with the NSAs in these areas. The sensitivity assessment undertaken in the ABLWECS of NSA special qualities relating to the sense of wildness have therefore been supplemented with descriptions of the WLAs produced by SNH in 2017 in these areas. The WLAs of Ben Lui and the Loch Etive Mountains also extend into the *High Tops* (2) mountains of Argyll and Bute. SNH's descriptions of these WLAs have been reviewed and are taken into account in the sensitivity assessments for the *High Tops* (2) and other nearby landscape character types. The North Arran WLA additionally lies close to Kintyre and its attributes are considered in the sensitivity assessment for surrounding landscape character types such as those on Kintyre and Bute.

The key attributes associated with WLAs are sensitive to wind farm developments sited both within the defined area and close-by. Larger wind turbines may feature lighting and this needs to be considered in any development sited close to WLAs.

Many of the Areas of Panoramic Quality (APQs) defined by Argyll and Bute Council are important in providing a wider landscape setting to the much more closely defined NSAs and this role, together with their special qualities, has been considered in the assessment. It is recommended that the more detailed sensitivity tables set out in Volume Two of the study are consulted when reviewing specific development proposals and potential effects on APQs.

3.8 Strategic landscape issues

3.8.1 *Introduction*

The detailed sensitivity assessment identifies constraints and opportunities within each landscape character type/sub-type and NSA. Although the wider landscape context is considered as a key sensitivity criterion, the assessment essentially relates to specific landscapes and any effect on immediately adjacent landscape in isolation. The following discussion of strategic landscape issues therefore considers the experience and appreciation of the landscape of Argyll and Bute as a whole, providing a landscape overview where the wider implications of the conclusions of individual assessments are considered. It also considers strategic cumulative landscape and visual effects of wind farm and turbine development.

3.8.2 *An overview of the landscape of Argyll and Bute*

The landscape of Argyll and Bute is notable for its diversity, featuring an extensive and deeply indented coastline of long peninsulas of craggy and smoother uplands cut by sea lochs and lochs, fringed by narrow bands of farmland, mixed woodlands and settlement. The coastal edge is complex and intricately configured and numerous and distinctive islands add to the scenic richness of seascapes. High and rugged mountains occur in the north and east of the region. The juxtaposition and contrast of landscape character types and seascapes within Argyll and Bute produces multi-layered and high quality scenery, recognised in the NSA and APQs designations which cover substantial parts of the Region.

Argyll and Bute has a convoluted geography of peninsulas and islands, which can restrict inter-visibility between some parts of the region but also reveals surprising views from others. Main roads and settlements are predominantly aligned along loch shores and the coast and views therefore tend to be restricted with immediate skylines formed by upland edges, often seen across narrow lochs, forming the most prominent features in these low-level views. Views from roads are also often well-screened by extensive forestry and woodland or focus on the wider seascape within the more open fringes of the Kintyre Peninsula. Elevated views from roads are relatively rare although views from the sea and some islands allow greater visibility of the uplands backing narrow settled coastal fringes on mainland areas. The Munro hills and other popularly accessed hills, located within Argyll and Bute and in adjoining authorities, provide spectacular views over the rich scenery of the region.

3.8.3 *The existing pattern of wind farm development*

The existing pattern of commercial wind farm development within Argyll and Bute is principally related to the more extensive and less settled upland character types of the *Upland Forest Moor Mosaic* (6) and the *Craggy Upland* (7) and to fairly limited sites within the *Steep Ridgeland and Mountains* (1) character type and the *Knapdale Upland Forest Moor Mosaic* (6b).

3.8.4 *Current trends and issues related to wind farm development*

The following trends and issues have been taken into account in considering an appropriate landscape strategy for Argyll and Bute:

- Potential demand for larger single or small groups of turbines within more settled lowland and coastal areas and on some islands – these may comprise community schemes which are specifically promoted by the Scottish Government in draft strategic policy².
- Continuing pressure for wind farms within the upland areas either side of Loch Fyne and Loch Awe and on the Kintyre Peninsula. Larger turbines and sites lying more on the outer edges of these uplands have potential to significantly increase effects on more settled and complex coasts, loch shores and islands.
- Demand for extensions to existing wind farms that could potentially encroach on more sensitive landscapes and/or exacerbate the landscape and visual impacts of the original development and could also contrast with the layout and turbine size of the original development.
- Potential cumulative landscape and visual impacts between operational and consented larger wind farms.
- Potential repowering proposals where some of the older wind farms, comprising relatively small turbines, are coming close to the end of their consent period.

3.9 Cumulative issues in areas with scope for large turbines over 80m high

The sensitivity assessment found that the uplands within Argyll and Bute had some very limited scope for additional commercial development. These areas include the *Upland Forest Moor Mosaic* (6), the *Craggy Upland* (7) and *Loch Fyne Upland Forest Moor Mosaic* (6a). These landscape character types already accommodate many operational and consented wind farm developments. While accommodating additional wind energy development in these landscapes would consolidate the association of existing more successfully sited large wind farms with less sensitive upland landscapes, cumulative impacts and increasing effects on surrounding more sensitive landscapes are key constraints and these are considered in further detail within the broader Kintyre Peninsula, Loch Awe and Loch Fyne areas below.

3.10 The Kintyre Peninsula

3.10.1 Introduction

The Kintyre Peninsula accommodates nine operational/under-construction/consented wind farms. All these developments are located in the *Upland Forest Moor Mosaic* (6) landscape character type. There are currently no wind farms to the north of the B8001 and in the Mull of Kintyre area to the south of the A83 at either ends of the peninsula.

3.10.2 Key findings of the sensitivity assessment

Cumulative effects with other operational, under-construction and consented wind farms were identified as being a major constraint to accommodating additional wind energy development on the Kintyre peninsula. Cumulative landscape and visual effects are principally experienced from the coastal fringes of Kintyre and from Gigha and Arran. There was judged to be no scope for large turbines in the sensitive *Mull of Kintyre Upland Forest Moor Mosaic* (6c). Some constraints to development also occur in the *Upland Forest Moor Mosaic* (6) landscape character type and include the little modified and remote coast between Skipness and Tarbert, the higher and well-defined hills

² Onshore Wind Policy Statement – Scottish Government, Consultation Document, January 2017

centred on Beinn Bhreac which mainly lie in the central part of the peninsula, and the smaller and more complex hills and glens found on the outer fringes of this landscape.

3.10.3 *Effects of existing wind energy development on the coast of Kintyre*

The *Rocky Mosaic* (20) covers a narrow coastal band on the east and west coasts of Kintyre. The *Upland Forest Moor Mosaic* (6) backs the *Rocky Mosaic* (20) but views into the interior of these uplands are generally restricted apart from where occasional glens cut down to the coast and where outward-facing slopes are more gently graded. The uplands of the *Upland Forest Moor Mosaic* (6) form a scenic rugged backdrop to the *Hidden Glens* (4) and at the head of Barr Glen.

On the east coast of Kintyre, the *Rocky Mosaic* (20) forms a particularly narrow strip between Cloanaig and Cour and has a generally simpler character than the more settled and scenically diverse section of coast between Campbeltown Loch and Carradale. The coast and glens in this area form a key focus for travellers on the B842 while north of Carradale the focus of views from the road is increasingly to the east towards the north Arran mountains.

The Beinn an Tuirc I and II wind farms and the Deucheran Hill wind farm are visible on containing skylines from parts of the most scenic section of this coast near Carradale and Saddell. While turbines are intrusive, there is not widespread visibility and the richly scenic character of this section of the east Kintyre coast is largely unaffected. The consented Beinn an Tuirc III wind farm will increase the extent of visibility on skylines in the Saddell and Carradale area. The Cour wind farm is only briefly visible from the B842 in the Grogport area.

Along the west coast of Kintyre, views from settlement and the A83 are principally orientated outwards over the sea to Gigha and more distant Jura and Islay with a raised beach cliff often limiting visibility inland. However, views are drawn into the upland interior of Kintyre at Barr Glen and from a rare elevated section of the A83 to the north-east of Clachan. Currently, there is little influence of wind farm development on the west coast of Kintyre with the exception of brief views of Freasdail near Clachan and more sustained and close views of Tangy I and II in the south. The consented Blary Hill and Auchadaduie developments, and increased size of turbines within the Tangy III wind farm, will however significantly increase effects on smaller scale settled coastal fringes and from the A83 on the east side of Kintyre.

3.10.4 *Landscape and visual effects from Gigha and the Islay ferry*

The operational wind farms of Deucheran Hill and Beinn an Tuirc I and II are visible from Gigha but seen at distances of >14km and this, together with the relatively small size of turbines within two of these developments, limits landscape and visual impact. The consented Auchadaduie turbines and Blary Hill wind farm will be visible from parts of Gigha at distances of between 10 and 12km. The Auchadaduie turbines will appear to lie closer to the Kintyre coast in views from Gigha than other operational and consented wind farms which are generally associated with the 'interior' uplands. All these developments lie in a similar south-eastern sector of the view and Blary Hill and Beinn an Tuirc II will appear to coalesce in some views from Gigha.

Any additional wind farm development sited closer to the coast in the north-western part of the Kintyre peninsula would be likely to have significant effects on views from Gigha and would make a major contribution to cumulative effects experienced from the island and the sea. While views from Gigha towards the Kintyre peninsula are less dramatic than those westwards towards Jura, the outer slopes of the peninsula are often diverse with policy woodlands and farmland and provide an attractive backdrop to the coast. In some parts of Gigha, the north Arran mountains can be seen above the relatively low ridge of the Kintyre peninsula and this increases sensitivity.

The Freasdail wind farm is visible from the Islay ferry, although in views from West Loch Tarbert it appears sited on a lower part of the upland skyline and with the base of turbines screened by intervening ground thus reducing impact on views. Other operational wind farms on Kintyre are not readily visible until the ferry is in open sea and as they lie some distance from the mainland they are not visually prominent. The north Arran mountains are suddenly revealed above the low skyline of Kintyre as the ferry travels further west from the mainland and the Cour wind farm intrudes on these views to some extent. The perception gained of the Kintyre peninsula when travelling on the Islay ferry is currently not one where wind farms appear to dominate its character and views.

While the recently consented Blary Hill, and particularly the Auchadaduie turbines, will be located closer to the west coast of Kintyre, they will be seen in a broadly similar part of the peninsula as the majority of operational wind farms (Beinn an Tuirc I, II) and would be relatively distant from the ferry route thus lessening impact. Any additional wind farm development located closer to the route of the Islay ferry near West Loch Tarbert and north Kintyre could result in a perception of wind farms dominating the peninsula however (and could additionally intrude on views to Arran). Further from the mainland coast the drama of the Jura and Islay mountains forms the principal focus for ferry travellers.

3.10.5 *Landscape and visual effects experienced from Arran*

The greatest effects of wind farm development located on the Kintyre Peninsula is experienced from Arran. Much of the length of the Kintyre peninsula is seen from the west coast and hill summits of Arran. The skyline of the Kintyre ridge appears fairly even in these views but with occasional higher summits evident and a distinct separation apparent at Campbeltown Loch between the long Kintyre Peninsula and the Mull of Kintyre. The rugged hills of Beinn an Tuirc (454m) and Beinn Bhreac (425m) stand out on the peninsula in views from the west coast of Arran and Cnoc a' Bhaile-shios (422m) also forms a distinct high point at the northern end of the Kintyre peninsula.

Operational wind farm development currently occupies relatively confined sections of the long ridge of the Kintyre peninsula seen from Arran with the skyline predominantly open. There is no wind farm development on the Mull of Kintyre south of Campbeltown Loch or north of the A8001. A distinct pattern of wind farm development is emerging in views from Arran with the southern part of the peninsula accommodating larger and more concentrated operational and consented development (Beinn an Tuirc I, II and III) while more widely-spaced and less extensive clustered wind farms are more prevalent in the north (Deucheran Hill, Cour and Freasdail). The higher and more defined hill of

Beinn Bhreac forms a 'natural break' between these contrasting patterns of development discernible in views from the A841 on the west coast of Arran and (in clear conditions) from the Lochranza to Cloanaig ferry.

3.10.6 *Effects from the B8001 and Lochranza – Cloanaig/Tarbert ferry route*

The Freasdail wind farm is visible in close proximity to the B8001, a route commonly used by visitors to Argyll and Bute who take the ferry from Arran. Further wind farm development seen in similar or closer proximity to this road, and particularly located on both sides of the valley, would be likely to incur significant cumulative effects and would detract from the spectacular views of Arran and distant views to Jura that are a feature of this route. There are also long views south down Kilbrannan Sound from the Lochranza-Cloanaig ferry and potential coalescence of wind farms seen on the Kintyre Peninsula is a key issue for consideration when appraising proposals for additional new wind farm developments on the Kintyre peninsula.

3.10.7 *A strategy to minimise cumulative landscape and visual effects*

Simultaneous cumulative effects mainly occur in views from Arran and Gigha with more sequential cumulative effects experienced from roads along the coastal fringes of Kintyre. Remaining undeveloped space within the *Upland Forest Moor Mosaic* (6) is increasingly constrained by its closer proximity to more sensitive settled coasts, glens and smaller scale hills. Undeveloped areas to the north of the high ground centred on Beinn Bhreac additionally lies closer to the more sensitive northern part of Arran (where an NSA and WLA are present) but also to Gigha and West Loch Tarbert.

Locating any additional wind farm development so it is set well back from the coastal edge and also limiting turbine heights would minimise significant effects on adjacent settled glens and coasts on the Kintyre Peninsula. However, while this strategy would also reduce visual impact on views from the sea and Arran/Gigha, increases in the extent of wind farm development in the northern part of the Kintyre peninsula would be likely to result in significant adverse effects on surrounding landscapes and seascapes.

In terms of a landscape strategy it is considered important that the majority of the skyline of the Kintyre peninsula should remain open with wind farm developments occupying lower sections of the ridge thus minimising the dominance of development (limiting the height of turbines is likely to also assist this aim). A 'Landscape with wind farms' (where wind farms comprise an incidental feature) is a more appropriate strategy for Kintyre rather than allowing a 'Wind Farm Landscape' to evolve (where development forms the main defining feature). This is because of the presence of key landscape and visual constraints including effects on Gigha, Arran and sensitive coastal fringes.

A continuous or near continuous band of wind farms seen on the Kintyre skyline from Arran and Gigha would be too unremitting and potentially overbearing. Many visitors to Arran (cyclists among them) tend to traverse the length of the A841 along the west coast. Clustered developments with clear and generous spaces between them would be a better approach aimed at reducing impacts from surrounding islands and seascapes. Given the existing pattern and spacing between wind farms and the current level of landscape and visual effects, it is judged that there is very little scope for additional turbine development to be accommodated north of Beinn Bhreac within the *Upland Forest Moor Mosaic* (6). An approach which limited development in the northern part of

the Kintyre peninsula would also be likely to minimise effects on the coastal fringes of Kintyre and cumulative effects experienced from the A83, B8001 and B842 which are also commonly traversed in a circular route by drivers and cyclists.

The rugged grouping of largely undeveloped hills centred on Beinn Bhreac presents a substantial stretch of higher, more pronounced skyline seen from Arran, separating the more intensively developed southern part of the peninsula (where the Beinn an Tuirc developments are located) and the more widely spaced wind farms in the north. These higher hills provide more emphatic 'gaps' to provide relief in views from Arran (but are also dually important in conserving the more dramatic backdrop and setting to the scenic stretch of coast around Saddell and Carradale). It is recommended that no development should take place on or near these hills.

Extensions to operational and consented wind farms may minimise cumulative effects in views from Arran, Gigha and the sea by concentrating turbines and minimising the incidence of developments seen along the long skyline of the Kintyre peninsula, although the need to avoid significant impact on adjacent smaller scale landscapes on Kintyre may limit the number of additional turbines that could be accommodated. Avoiding development at the more sensitive northern end of the peninsula near the Skipness/Tarbert coast and within the *Mull of Kintyre Upland Forest Moor Mosaic (6c)* would also limit cumulative effects.

3.11 The Loch Awe area

The *Craggy Upland (7)* landscape character type lying either side of Loch Awe accommodates four operational wind farms. Although the An Suidhe, A'Chruach and Beinn Ghlas developments do not have a widespread effect on adjacent smaller scale settled loch fringes in the Loch Awe area, the Carraig Gheal wind farm appears closer and much more prominent from part of the intimately scaled Loch Awe area.

Loch Awe is most scenic at its head to the north where it opens out, features particularly diverse wooded shores and islands and is back-dropped by Ben Cruachan. The northern part of the loch is additionally important in acting as a 'gateway' to Lorn and north Argyll where this richly diverse landscape provides a distinctive sense of arrival when travelling from the east on the A85. The south-western end of Loch Awe is also scenically rich with the complex rolling landform, the loch and associated wetlands, diverse woodlands and small walled fields complemented by traditional settlement in the intimately scaled Ford area.

The particular sensitivities of these parts of Loch Awe are recognised in the study through the sub-division of the *Craggy Upland (7)* character type into the *North Loch Awe Craggy Upland (7c)* and the higher sensitivity accorded to this area. The remaining *Craggy Upland (7)* character type was concluded to have some limited scope for additional larger scale wind farm development, although key constraints in this area include more diverse landform and lochs within the upland plateaux, the smaller and often more distinct hills immediately edging Loch Awe and prominent hills and the ridges which form the immediate skyline seen within the settled glens to the west within the *Craggy Upland with Settled Glens (7a)* sub-type.

The Loch Awe area is sparsely settled and views from the narrow roads which are predominantly aligned along the loch shore tend to be contained by landform and woodland. The immediate skyline of hills edging the loch is a prominent feature where rare open views occur. Provided that turbines were set well back away from the immediate 'edge' hills and into the interior of the *Craggy Upland (7)* plateau, it is considered that significant cumulative landscape and visual impacts could be minimised in the Loch Awe area. Small extensions to operational developments would be likely to reduce sequential cumulative visual impacts from roads along Loch Awe (and limit impact on the more sensitive loch 'ends') by consolidating the existing pattern and spatial arrangement of development although the height of additional or repowered turbines needs careful consideration in relation to older operational wind farms and to reduce visual prominence from key views from roads/recreational routes and settlement. Increasing the height of turbines within the Beinn Ghlas and Carraig Gheal wind farms could also potentially adversely affect the setting of the sensitive head of Loch Awe defined as the *North Loch Awe Craggy Upland (7c)* character type in this study.

3.12 The Loch Fyne area

The narrow inner loch and broader outer loch (which occurs generally southwards from Lochgilphead) are visually separate in terms of their relative containment and orientation of views. This appraisal therefore considers potential cumulative impacts within each of these parts of the loch.

3.12.1 Inner Loch Fyne

Within the inner loch, a number of landscape character types are visible from roads and settlement. These include the small scale settled loch fringes of the *Rocky Mosaic (20)*, the *Loch Fyne Upland Forest Moor Mosaic (6a)* which forms a narrow band of hills which generally back the settled loch fringes and the *Craggy Upland (7)* which forms a distant and higher backdrop of more extensive hills. The *Steep Ridgeland and Mountains (1)* occurs at the head of the loch. The sensitivity assessment found some very limited scope for the large typology (turbines 80-130m) to be accommodated within the *Craggy Upland (7)*. The sensitivity assessment judged that there was no scope for larger typologies (turbines >50m) within the *Rocky Mosaic (20)*, the *Steep Ridgeland and Mountains (1)* and the part of the *Loch Fyne Upland Forest Moor Mosaic (6a)* which lies within the visual envelope of the inner loch.

The eastern side of the inner loch forms a narrow strip of fairly even but steep hill slopes (the *Loch Fyne Upland Forest Moor Mosaic* character type) rising to a distinct ridge bordering the *Steep Ridgeland and Mountains (1)*. The only wind farm here is the Cruach Mhor development which is not visible from much of inner Loch Fyne.

The north-western side of the inner loch comprises a more extensive gently undulating upland plateau where the *Loch Fyne Upland Forest Moor Mosaic (6a)* and the *Craggy Upland (7)* merge forming a band of uplands around 10-11km in width between Loch Awe and Loch Fyne. The A' Chruach and An Suidhe wind farms are located in this western area. Views from roads within the inner loch are often restricted by woodland cover and these wind farms are seen relatively briefly with the greatest impact being experienced from the south-eastern side of the loch in the St Catherines, Inver and Otter Ferry areas.

The narrowness of the loch and therefore the closeness of roads, settlement and visitor attractions to opposite hill slopes and upland ridgelines increases visual sensitivity within the inner loch.

3.12.2 *Outer Loch Fyne*

Within outer Loch Fyne, the *Knapdale Upland Forest Moor Mosaic* (6b) occurs to the west with the *Upland Forest Moor Mosaic* (6) of the Kintyre Peninsula bordering the far southern reaches of the loch to Skipness Point. The sensitivity assessment identified the more defined higher hills, which are seen from Loch Fyne, as a key constraint to development in this character type. The Skipness to Tarbert coast which lies within the *Upland Forest Moor Mosaic* (6) is also defined as a significant constraint to development in the sensitivity assessment due to its qualities of wildness which would be compromised by development seen in views to and from this coastal area.

The settled eastern fringes of outer Loch Fyne are defined as *Rocky Mosaic* (20) and are backed by the higher hill ground of the *Loch Fyne Upland Forest Moor Mosaic* (6a). The more complex landform immediately north of Portavadie within the *Loch Fyne Upland Forest Moor Mosaic* (6a), and the proximity of this character type in this area to the Kyles of Bute NSA, increases sensitivity and limits scope for wind farm development on the eastern side of outer Loch Fyne although the broadness of the outer loch and distance from key roads and settlement reduces sensitivity to some degree.

The Allt Dearg/Sronnaire wind farm is prominent in views from outer Loch Fyne because of its location on a high and well-defined hill. The A' Chruach wind farm is also visible from ferries in the outer loch, although is less prominently sited. These wind farms lie approximately 24km from each other and are seen in the context of expansive views thus limiting cumulative effects. The presence of significant constraints identified within the landscapes bordering the outer loch therefore principally restricts scope for the development of larger typologies rather than any potential cumulative effects that may arise with operational wind farms.

3.12.3 *A strategy for development within the Loch Fyne area*

Wind farm development already adversely affects the setting of some of the principal landmark built features located within inner Loch Fyne. The inner loch is highly sensitive to additional development because of the narrow extent of the loch and the prominence of containing hill slopes and upland skylines from roads, settlements and visitor attractions. The inner loch forms a scenic and important approach to Argyll and Bute for visitors and its dramatic intimate character should be protected and enhanced as a foil to other parts of the region where wind farm development is a key characteristic, for example the uplands of Loch Awe and Kintyre. Substantially increasing the size of turbines within operational wind farms located between Loch Awe and inner Loch Fyne would be likely to significantly exacerbate effects on specific sensitivities such as Lachlan Castle and Inveraray.

Sensitivity is reduced to some degree within outer Loch Fyne as it is broader and more open and development would be seen in a more expansive context, potentially reducing impact from key routes, tourist destinations and settlement. The effects on more sensitive surrounding landscapes (including the Kyles of Bute NSA) is a key constraint

however, together with the relatively low relief of the *Loch Fyne Upland Forest Moor Mosaic* (6) uplands, which is likely to constrain the extent and size of wind turbines that can be successfully accommodated.

3.13 Opportunities for wind energy developments on the islands

The Scottish Government Onshore Wind Policy Statement (Consultative Draft, January 2017) places an emphasis on island and community wind projects. The islands of Tiree, Islay and Coll already accommodate single larger wind turbines >50m high. Turbines just under 50m height are also present on Gigha. Some of these developments comprise community-led initiatives. All the islands of Argyll and Bute have diverse and singular scenic qualities; many of them are also small in area and in terms of their landscape scale. These factors increase sensitivity to larger wind turbines. The study considers potential for new and additional island wind energy projects. Areas of relatively lower landscape and visual sensitivity with potential for single/small groups of turbines <80m high have been identified on Coll, Colonsay, Tiree, Mull and Islay.

3.14 A recommended landscape strategy for Argyll and Bute

The study has found there to be only limited scope for further commercial scale wind farms to be accommodated while minimising landscape, visual and cumulative effects in Argyll and Bute. The recommended strategy outlined below aims to protect the most sensitive of Argyll and Bute's landscapes when considering capacity for further wind energy development:

Protection of the most scenic of Argyll and Bute's landscapes by directing larger wind turbines away from designated landscapes and avoiding intrusion on Inventory listed designed landscapes. Significant intrusion on the setting of NSAs and effects on their special qualities should also be avoided.

Maintaining the wildland qualities of the mountainous landscapes by directing wind farm development away from these areas (some of which are defined as WLA) and avoiding developments that could impact on the wider landscape setting and experience of these landscapes. Cumulative landscape and visual effects of wind farm development in surrounding landscapes will need to be carefully considered in terms of potential effects on the perception of wildness and on views from key hills.

Protect the special qualities of the coastal landscapes, islands and wider seascape which form an essential part of the character of Argyll and Bute, by resisting larger scale developments in the complex coastal landscapes and where they could intrude on views from roads, settlement and recreational areas (including from the sea). Intrusion on sections of coast with strong qualities of wildness (some of these seascapes are defined as a WLA but also include coastal areas such as the Skipness to Tarbert coast and the Mull of Kintyre) should also be avoided.

Conserve the character and integrity of inner Loch Fyne by avoiding wind farm development on steep hill slopes and skylines which would be highly visible either side of the narrow extent of the loch from roads, settlements and popular visitor attractions. The strategic importance of inner Loch Fyne as the 'threshold' to Argyll and Bute together with its scenic and often intimate character, merits protection from further wind farm development.

Conserve the rich scenic character found at the northern and southern ends of Loch Awe by locating additional wind farm development so it is set well back from the outer edges of the surrounding uplands of the *Craggy Upland* (7). North Loch Awe is additionally important in lying at the threshold to north Argyll and Lorn where the distinctive pattern of land and water associated with the region is first appreciated by travellers using key routes.

Follow the established pattern of larger wind farm development associated with less sensitive upland landscapes where their more extensive scale can better accommodate, and provide an appropriate wider setting, to large developments. Impacts on adjacent more sensitive smaller scale settled landscapes (including cumulative effects on roads and settlement) should be minimised by setting development well back into the upland interior and also considering limitations in the height of turbines.

Avoid exacerbating intrusion on Arran, Gigha and surrounding seascapes by restricting additional development in the northern part of the *Upland Forest Moor Mosaic* (6) to small extensions to existing wind farms, limiting turbine height (within proposals for new developments, extensions and repowering schemes) and avoiding any development on the higher more rugged hills within this landscape character type.

Direct larger typologies away from settled coastal and loch fringes as these are striking in the rich variety of landscapes, frequently small scale topography, complex landforms and intricate patterns of settlement and land use. Limit intrusion by setting smaller turbines (below 50m) well back from sensitive loch edges within the *Rocky Mosaic* (20) and at the transition with the more extensive simpler upland landscapes. Smaller turbines would form more of an incidental feature in these sensitive landscapes while larger turbines would dominate and detract.

Ongoing review of cumulative landscape and visual effects of multiple wind turbine developments will be necessary to ascertain when capacity is close to being reached. This will particularly apply to the *Craggy Upland* (7) and *Loch Fyne Upland Forest Moor Mosaic* (6a) in terms of key views from Loch Awe and Loch Fyne and the *Upland Forest Moor Mosaic* (6), principally in terms of views from Arran, the Kintyre coast and Gigha.

4 SENSITIVITY ASSESSMENT OF LANDSCAPE CHARACTER TYPES

4.1 Introduction

The assessments which follow consider the sensitivity of each landscape character type/area to different wind energy typologies, based on the height of the turbines ***taken to blade tip***.

An introduction to each landscape character area is set out in the sensitivity assessments that follow. This briefly describes the location of the character type/area and outlines operational and consented wind energy developments located both within the subject landscape character type/area and sited in the surrounding area (and clearly visible from the landscape character area being assessed).

A summary of sensitivity is provided with a combined rating given for landscape and visual sensitivity and a separate rating in relation to landscape values. Potential cumulative issues and key constraints and opportunities to development are set out for each landscape character type/area and the sensitivity assessment concludes with recommendations related to the scope of capacity and guidance on the siting of development. Further detail on the method of assessment is included in section 2 and Appendix D of this report.

Detailed sensitivity assessment for turbines > 130m high, either as new developments or repowering of existing schemes, has been undertaken for upland landscapes found to have some limited scope for the large typology (turbines 80-130m) in the 2012 ABLWECS study and/or landscape already accommodating operational and consented wind farms. These landscapes are:

- *Steep Ridgeland and Mountains* (1)
- *Upland Forest Moor Mosaic* (6)
- *Knapdale Forest Moor Mosaic* (6b)
- *Loch Fyne Forest Moor Mosaic* (6a)
- *Craggy Upland* (7)

A summary of sensitivity to all turbine typologies <130m high is set out for each Landscape Character Type/NSA in this section of the report. Table 3 in Section 3 of this report lists the turbine typologies assessed in detail in different Landscape Character Types and the NSAs and contained in the detailed sensitivity assessment tables in the Volume Two Report.

4.2 How to use the study

The sensitivity assessments have been undertaken on the basis of defined landscape character types/areas. Landscape character types/areas can have ‘fluid’ boundaries where a gradual transition occurs across adjacent character types/areas with some similar characteristics. Wind turbines are also tall structures which often influence other nearby landscapes resulting in indirect effects on character and/or on views. It is therefore recommended that when considering individual proposals, the sensitivity assessments outlined for both the landscape character type/area that the development lies in and immediately adjoining and any other close-by landscape character types/areas are reviewed as wider sensitivities may apply. In some instances landscape

character types/areas extend into adjacent authorities and these areas also need to be considered.

4.2.1 *Interpreting the overall sensitivity ratings*

In terms of guidance, the study indicates that where a landscape character type/area is identified as being of **High** landscape and visual sensitivity rating overall for any typology, it is the opinion of the consultants that the typology cannot be accommodated in the landscape character type/area without significant adverse landscape and/or visual effects arising across a wide range of key landscape and visual sensitivities.

Landscape character types/areas found to be of **High-medium** sensitivity will have a number of significant constraints to wind farm/turbine development. While some characteristics (usually found in limited parts of these landscapes) may relate better to such development, significant adverse landscape/visual effects are likely to occur on other key characteristics. We consider that there is likely to be either no scope or very limited scope for development in a small part of these character types/areas only.

Where a **Medium** sensitivity is identified, there is scope for development to be accommodated with fewer significant impacts on key sensitivities. Medium sensitivity landscapes are not without constraints however and developers should be required to take note of these in the siting and design of proposals. A **Low-medium** sensitivity indicates some limited sensitivities although there are opportunities to accommodate the development in most locations. A **Low** sensitivity landscape is one where the development typology relates well to key landscape characteristics and where change is able to be accommodated without significant adverse impacts arising on landscape character or visual amenity.

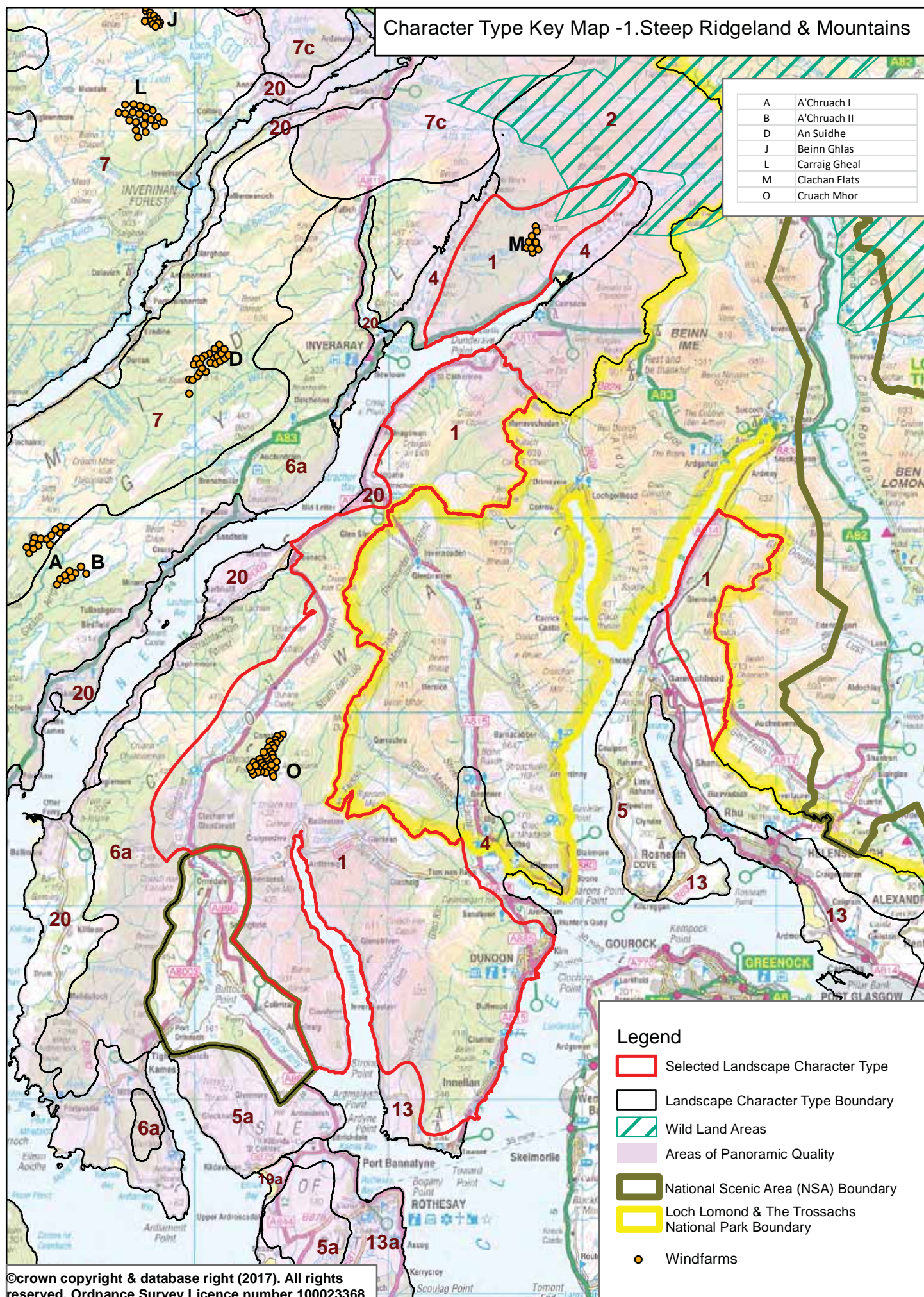
4.2.2 *Consideration of turbine height*

The study considers the sensitivity of landscape character types/areas to a limited number of pre-determined turbine typologies, principally based on height. It is overly complex to appraise a wide range of turbine typologies in a strategic landscape capacity study. Some flexibility on turbine heights may need to be applied when considering individual applications. Where turbines are slightly above the height threshold of the typologies assessed in this study or proposed within more sensitive landscapes, they should be subject to careful and thorough consideration with the developer being requested to demonstrate how they have dealt with potential effects on the constraints identified in the sensitivity assessment.

4.2.3 *The need for more detailed appraisal of specific proposals*

Caution is needed in interpreting the combined sensitivity scores set out in this report as these represent an average across broad character types and areas and considerable variation can occur across these landscapes. The assessment identifies constraints in analysis and at a strategic scale and developers would need to consider landscape and visual effects at a more detailed level.

Character Type Key Map -1.Steep Ridgeland & Mountains



©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

4.3 Steep Ridgeland and Mountains (1)

The *Steep Ridgeland and Mountains* landscape character type occurs in the Cowal area and at the head of Loch Fyne. The Loch Lomond and Trossachs National Park (LLTNP) borders this part of Argyll and Bute and the Ben Lui Wild Land Area covers the north-eastern part of this LCT. The special qualities of the National Park and SNH description of the WLA have therefore been considered in the sensitivity assessment.

The detailed sensitivity assessment set out in the Volume II Report considers larger (turbines >50m) development typologies only. Scope for turbines <50m is however considered in the guidance below.

4.3.1 *Description and summary of sensitivity*

This upland landscape comprises steep-sided, craggy-topped mountains and sharp ridges deeply cut by the long, narrow sea lochs of Cowal. While the larger wind turbine typologies could relate to the scale of this character type, the often complex landform and the distinctive backdrop these hills provide to settled glens and coastal edges, the head of Loch Fyne (where it is seen in conjunction with the *High Tops* (2) character type) and the wider Firth of Clyde increase sensitivity.

The outer edges of this character type are highly visible from roads, settlement and from the Firth of Clyde, the narrow Clyde sea lochs and from Inverclyde. The Strone Peninsula is particularly important in providing a wider backdrop to the Kyles of Bute NSA and is highly visible from the NSA and from Bute. The steep-sided mountains of this character type are also prominent at the head of Loch Fyne. While there are some relatively limited parts of the interior of these mountains where a degree of containment may be offered by higher landform, elevated views will be possible from popularly accessed mountains within Argyll and Bute and the adjacent Loch Lomond and Trossachs National Park.

Landscape and visual sensitivity is concluded to be **High** to turbines >50m high.

In terms of landscape values, sensitivity is **High** across most of this landscape as the majority of the area is designated as an APQ, the Ben Lui Wild Land Area (WLA) overlaps with the northern part of this LCT and this landscape also lies in close proximity to the Loch Lomond and Trossachs National Park and the Kyles of Bute NSA.

4.3.2 *Potential cumulative issues*

There are two operational wind farms located in this landscape character type. The Cruach Mhor wind farm is located east of Glendaruel while the Clachan Flats wind farm is located close to the head of Loch Fyne (and also to the LLTNP and the Ben Lui WLA). The operational wind farm of An Suidhe is located within approximately 15km of Clachan Flats and the A'Chruach wind farm lies a similar distance from the Cruach Mhor development; both are located in the *Loch Fyne Upland Forest Moor Mosaic* (6a). Operational wind farm development within North Ayrshire is also visible from higher peaks of the *Steep Ridgeland and Mountains* but seen at distances of 20km and beyond.

The Cruach Mhor wind farm occupies a rare area of slacker ground on the western edge of more complex craggy terrain which occurs to the east. The development is relatively well-screened with limited visibility. The Clachan Flats development lies closer to complex and dramatic hills and is more visible from parts of upper Loch Fyne and from the close-by popular mountain summits of the *High Tops* (2) character type.

Key landscape and visual cumulative issues likely to arise are:

- Additional wind farm developments sited in this character type could affect the setting and views from the popularly accessed Munros, Corbetts and other notable hills within the *High Tops* (2) and the adjacent Loch Lomond and Trossachs National Park. The area around the head of Loch Fyne would be particularly sensitive in this respect.
- The character and setting of the Ben Lui WLA could be directly or indirectly by additional development sited in the northern part of this LCT.
- Potential effects between any new developments sited in this landscape with the An Suidhe and A'Chruach wind farms located in the *Loch Fyne Upland Forest Moor Mosaic* (6a) which could cumulatively affect the setting to the dramatic head of Loch Fyne, the narrow extent of the loch and views from roads, settlements and popular visitor destinations.
- Strategically, the steep and rugged mountainous terrain of Cowal and its intricate pattern of deep sea lochs strongly contrast with the simpler, lower plateau-like uplands of Clyde Muirshiel and with the more developed character of the coastal edge of Inverclyde and North Ayrshire. The introduction of wind farms and larger turbines seen on the skyline of the *Steep Ridgeland and Mountains* or against the most prominent coastal edge and promontories of this character type from the wider Firth of Clyde basin would adversely affect the strong sense of Cowal forming the threshold to the 'Highlands' and the point where the Glasgow conurbation is left (this perception heightened by the ferry crossing to Dunoon). The present contrast of the landscapes of Cowal with the more developed Inverclyde and North Ayrshire coast would be diminished.

4.3.3 Constraints

- Rugged and often highly complex mountains and narrow ridges with slopes rising steeply from sea lochs and glens and patterned with craggy outcrops.
- The importance of this landscape in terms of the contrast it provides with the more developed coastal areas of Inverclyde, North Ayrshire and the urban area of Glasgow experienced from the Firth of Clyde area.
- The high visibility of the southern Cowal peninsulas in views from the well-settled Firth of Clyde basin and Bute, long views up the Fjord-like sea loch of Loch Striven from Bute and the sea, and the steep-sided mountains at the head of Loch Fyne. Much of this area is designated as an APQ.
- The close proximity of the Loch Lomond National Park and the Kyles of Bute NSA where wind farm development could affect some of the special qualities of these designated landscapes and key views to and from them.
- The Ben Lui Wild Land Area (WLA) which overlaps with the northern part of this landscape character type and where wind farm development sited within the WLA and nearby, could adversely affect the sense of wildness experienced.
- Elevated and close views from the hills within Cowal and the Loch Lomond and Trossachs National Park which are popular with walkers.

- The outer hills of this landscape which immediately contain smaller scale settled glens such as Glendaruel which would be dominated by larger wind turbines located on prominent ridges and skylines.
- Potential effects on the setting of the dramatic head of Loch Fyne and on the designed landscape and planned settlement of Inveraray.

4.3.4 *Opportunities*

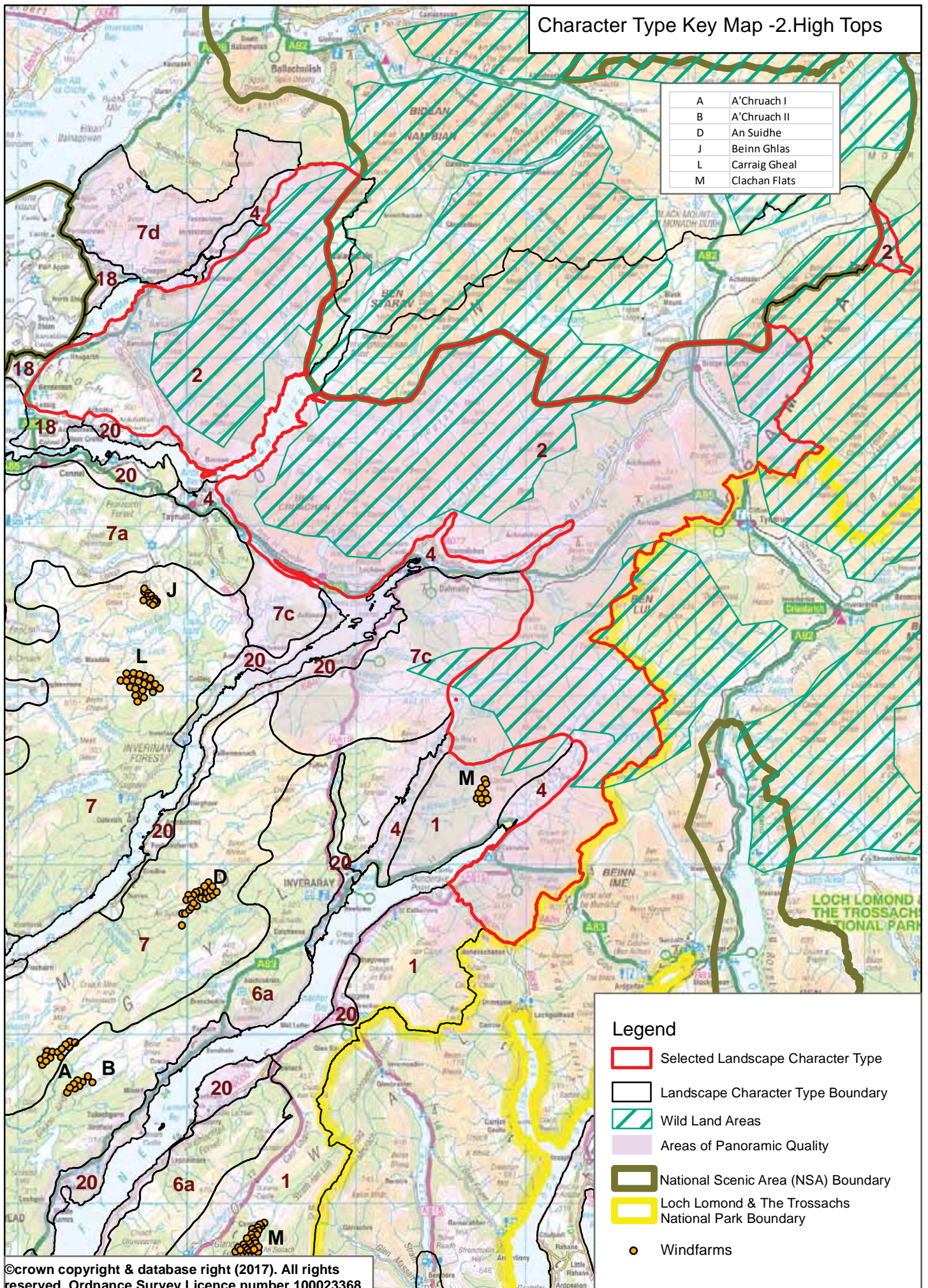
- Gentler hill slopes within broader valleys and against coastal edges (away from the more prominent peninsula tips) where some scope exists for well-sited smaller turbines.
- Commercial forestry on lower slopes which offer established access tracks and some screening from close views from roads and settlement.

4.3.5 *Guidance on development*

There is **no scope** to accommodate turbines >50m high as additional new developments within this landscape without significant effects occurring on a number of key sensitivity criteria. The operational Cruach Mhor wind farm occupies a rare area of slacker and simpler landform close to the outer edge of this character type – there are few, if any, similar sites in this landscape. There may be some scope to repower this development with larger turbines although potential effects on the Kyles of Bute NSA, smaller scale glens and coastal edges and on the APQ which covers much of this landscape, would need to be carefully considered at a detailed level. The Clachan Flats wind farm is more visually intrusive, diminishes the wildness experienced from part of the Ben Lui WLA and also lies close to popular hills within the LLTNP. It is recommended that this development should not be re-consented.

Smaller turbines are most likely to be proposed in locations closer to settlement and farms. Turbines > 35m high would be likely to dominate the small scale and more diversely patterned settled valleys and coastal edges of this character type. Turbines <35m high could be sited on smoother lower hill slopes where they would benefit from a backdrop of rising ground. Darker coloured turbines may reduce visibility where seen predominantly against a backdrop of forestry or moorland. Smaller turbines should be sited in accordance with the siting and design guidance set out in the Volume Two Report.

Character Type Key Map -2.High Tops



4.4 High Tops (2)

The *High Tops* (2) landscape character type is found in the north and north-east of mainland Argyll and Bute. This landscape character type comprises an extensive mountainous area which extends into the neighbouring Highland Region and the Loch Lomond and Trossachs National Park.

Due to the very sparsely populated nature of this upland landscape, demand for smaller scale typologies is likely to be very limited. The detailed sensitivity tables set out in Volume II Report therefore focus on turbines >50m high although smaller scale typologies are considered within the summary and guidance section below.

4.4.1 *Summary of sensitivity*

The dramatic craggy mountainous scenery of the *High Tops* forms a highly scenic backdrop to many of the more settled loch shores and coastal landscapes of Argyll and Bute. While the scale of this character type could relate to larger wind farm typologies their important scenic contribution to the wider landscape context, the complex rugged landform and the strong wildland qualities experienced within these mountains are key constraints. This landscape type is highly visible and features a number of Munro and Corbett mountains popular with walkers which increases visual sensitivity.

The landscape of the *High Tops* has an overall **High** landscape and visual sensitivity to larger typologies (turbines >50m high) of wind farm development.

The majority of this landscape lies in the Ben Lui and Loch Etive Mountains WLA. It is also largely covered by an APQ designation. The close proximity of the Ben Nevis and Glencoe NSA and the Loch Lomond and Trossachs National Park additionally increase sensitivity. There would be **High** sensitivity to turbines >50m high in terms of landscape values.

4.4.2 *Smaller typologies*

There is unlikely to be a demand for smaller typologies within this largely uninhabited upland area. Smaller typologies would appear out of scale in relation to the predominantly large scale of these uplands. They would also have similar effects on particularly complex mountainous landform and on the appreciation of wildness as larger typologies. Opportunities may exist on the fringes of this character type, on smoother less complex lower hill slopes at the transition with more settled glens and loch shores where smaller turbines <35m high could relate to these more developed areas, providing they did not significantly intrude on key views to the high mountains.

4.4.3 *Cumulative issues*

Although there are no wind farms within this character type, a number of operational wind farms are clearly visible from 5km of some key mountains. These include the developments of Clachan Flats, An Suidhe, Cruach Mhor, Beinn Ghlas and Carraig Gheal. Development sited in adjacent character types and close to these mountains could cumulatively affect their wider landscape setting by intruding on key views to and from the mountains. Incremental effects could also occur on the WLAs which are defined across much of this landscape with additional wind farm development further diminishing key attributes of wildness.

4.4.4 Constraints

- Rugged, highly complex mountains with recognisable individual peaks, steep craggy slopes and multiple ridges. Exposed rock, scree, small lochs and numerous burns pattern this mountainous area.
- The strong perceptual qualities of remoteness and naturalness which can be experienced in these uplands and which is recognised in the definition of the Loch Etive Mountains and Ben Lui WLA across much of this landscape.
- The high visibility of these mountains where they form a backdrop to more settled lowland areas and make a strong contribution to the richly scenic composition of Argyll and Bute's landscape, for example at the head of Loch Fyne and North Loch Awe.
- The popularly accessed Munros, Corbetts and other hills within this character type which increases visual sensitivity.
- The close proximity of the Ben Nevis and Glencoe NSA and the Loch Lomond and Trossach National Park and the APQ designation which extends across the majority of this character type.

4.4.5 Opportunities

- Smoother lower hill slopes on the fringes of this character type at the transition with the settled *Mountain Glens* (4), *Rocky Mosaic* (20) and *Lowland Ridges and Moss* (18) where small turbines could be located in association with more settled areas.

4.5 Guidance on development

There is **no scope** for larger typologies (turbines >50m) to be sited within this character type without incurring significant impacts on a number of key characteristics.

Smaller turbines (<50m high) could potentially be sited on less complex, gentler lower hill slopes at the transition with the *Lowland Ridges and Moss* (18), *Rocky Mosaic* (20) and *Mountain Glens* (4) where they could be visually associated with more settled and developed landscapes and back-dropped by rising ground. They should be sited to avoid intrusion on key views to the mountains. The small typology (turbines 20-35m) would be likely to have less of an impact on these adjacent smaller scale landscapes and on key views to the mountains. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Extensions to operational wind farms, repowering (particularly featuring larger turbines) schemes or new wind farm development sited in adjacent landscapes should avoid significantly impacting on key views to and from these uplands from roads and settlement. Wind farm development in adjoining character types should be sited sufficiently far away to avoid visual prominence in views from key mountain summits and also to avoid concentrations of multiple wind farms in close views which could affect the experience of wildness associated with this landscape.

Character Type Key Map - 2a. Mull High Tops



4.6 Mull High Tops (2a)

This assessment considers the area of the *High Tops* on Mull lying beyond the boundary of the Loch na Keal NSA, which is assessed separately in this study. The detailed tables in Volume II focus on turbines <50m although the summary of sensitivity below considers all development typologies.

4.6.1 *Summary of sensitivity*

The dramatic rugged mountainous scenery of the *Mull High Tops* forms a highly scenic backdrop to many of the lower more settled coastal fringes of Mull. These mountains have a massive scale and often complex landform of steep rocky slopes, well-defined summits and ridges. This landscape has strong qualities of wildness particularly associated with the core area of higher mountains. They are popular with walkers and also highly visible from the coast and from the sea.

This landscape type is highly visible and features a number of popularly accessed mountain peaks. There would be a **High** landscape and visual sensitivity to wind turbines >35m high. Sensitivity would be slightly reduced for small turbines (20-35m high) to **High-medium** reflecting very limited scope for this size of turbine to be associated with settlement lying on the outer fringes of this mountainous landscape.

An APQ designation applies to the majority of this landscape and the Loch na Keal NSA abuts it to the west. The Ben More, Mull WLA covers the high mountains lying at the core of this landscape. There would be a **High** sensitivity in terms of landscape values to all typologies within the WLA area. Sensitivity would range between **High-medium** and **Low** within the APQ and undesignated lower hill slopes of this landscape character type, reflecting scope for turbines <35m high to minimise effects on the adjacent WLA and NSA.

4.6.2 *Potential cumulative issues*

There is no wind farm development on Mull. The operational Carraig Gheal wind farm located on mainland Argyll and Bute is visible from parts of this landscape but seen at distances of >30km. There are no cumulative issues associated with this landscape.

4.6.3 *Constraints*

- Rugged, complex mountains with recognisable individual peaks, steep craggy slopes and multiple ridges. Exposed rock, sheer scree slopes and numerous burns pattern this mountainous area.
- The strong perceptual qualities of remoteness and naturalness which can be experienced in the more difficult to access and less developed core of these mountains as recognised by the Ben More, Mull WLA.
- The high visibility of these mountains where they form a backdrop to more settled coastal fringes and make a strong contribution to the richly scenic composition of Mull.
- The popularly accessed mountain peaks within this character type which increases visual sensitivity.
- The APQ designation which extends across much of this landscape and the setting provided by these *High Tops* to the Loch na Keal NSA.

4.6.4 *Opportunities*

- Smoother lower hill slopes on the fringes of this character type at the transition with the *Mull Basalt Lowlands* (17).

4.6.5 *Guidance on development*

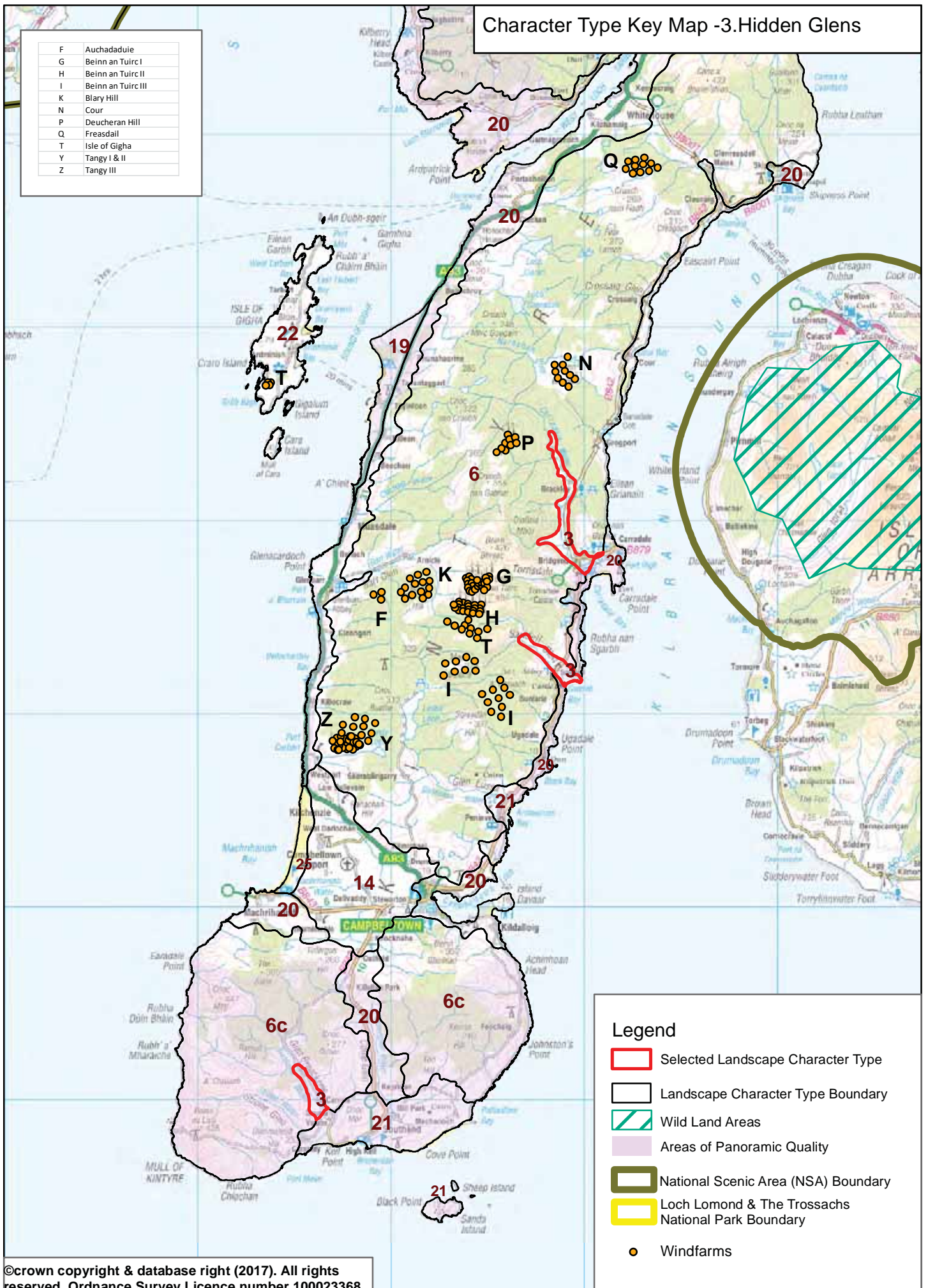
There is **no scope** to accommodate the turbines >35m high in this landscape.

There are **some limited** opportunities for the small typology (turbines <35m high) to be accommodated on the outer fringes of this character type, on smoother less complex lower hill slopes and undulating moorland at the transition with the more settled glens and loch shores of the *Mull Basalt Lowland* (17). Turbines should be sited to avoid intrusion on key views to the more dramatic mountains from roads and on the approach by ferry to Craignure. They should also avoid impacting on the setting of settlements and the designed landscape of Torosay. Smaller turbines <20m should be associated with more settled areas at the transition with adjacent character types.

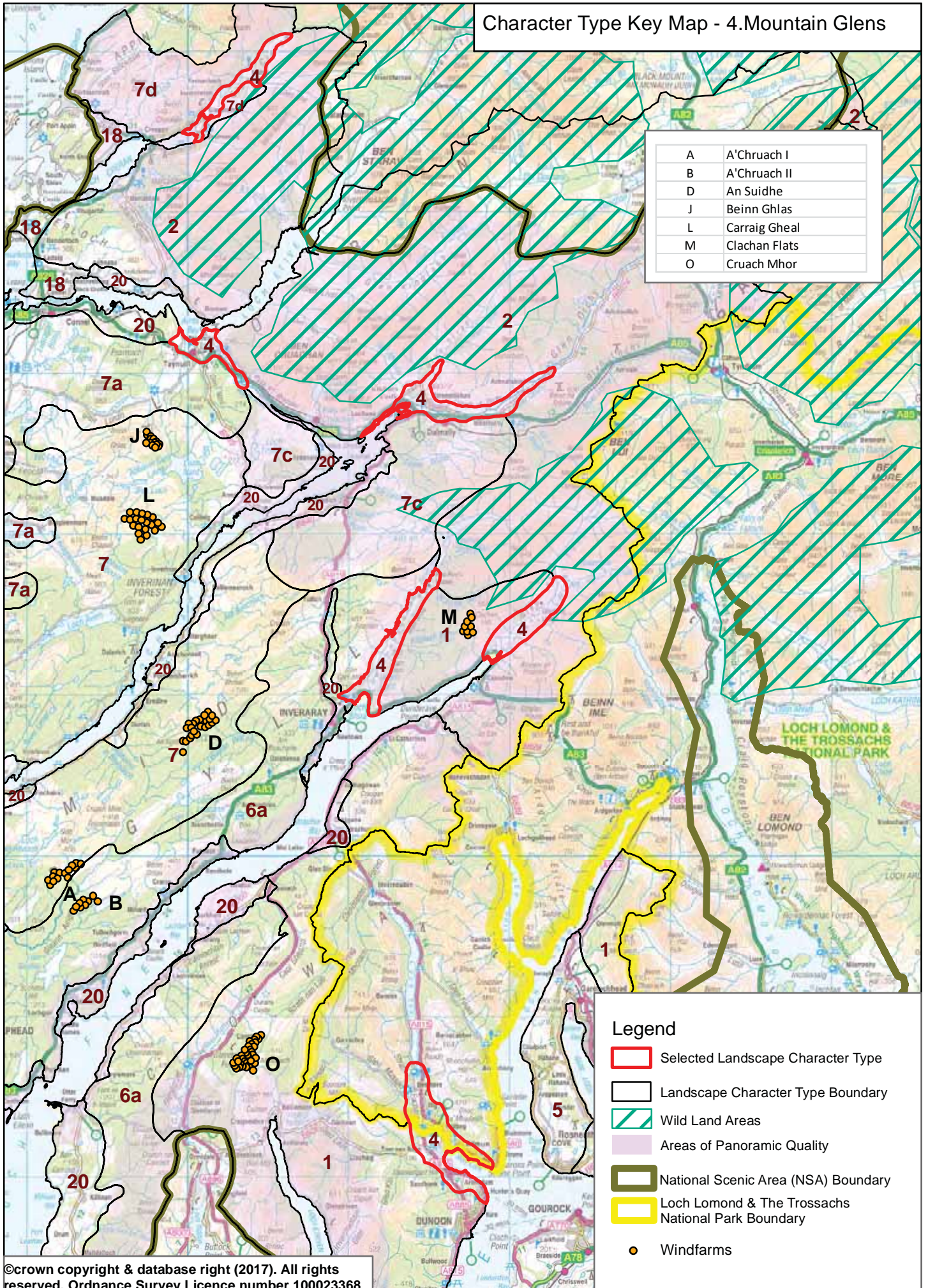
Detailed siting of smaller turbines should accord with the guidance set out in the Volume Two Report.

Character Type Key Map -3.Hidden Glens

F	Auchadaduie
G	Beinn an Tuirc I
H	Beinn an Tuirc II
I	Beinn an Tuirc III
K	Blary Hill
N	Cour
P	Deucheran Hill
Q	Freasdall
T	Isle of Gigha
Y	Tangy I & II
Z	Tangy III



Character Type Key Map - 4.Mountain Glens



4.7 Hidden Glens/Mountain Glens (3/4)

These character types have been combined for the purposes of the sensitivity assessment because of the similarity of their key characteristics in terms of scale, strong containment by adjacent upland character types and the consistent presence of farmland and wooded policies. The Argyll and Firth of Clyde Landscape Assessment principally defines the glen floor and lower glen sides as these character types and it should be noted that the visual extent of the glen includes the ridges seen on the skyline which lie within the adjacent upland character types.

Glen Creran, Tayuilt/Inverawe, Strath of Orchy, Glen Fyne, Glen Shira, Carradale, Saddell Glen and Holy Loch are defined as these landscape character types in this study. The sensitivity assessment which follows considers the character type as a whole and focuses on smaller typologies due to the technical constraints likely to be associated with accommodating larger turbines in these confined glens. Key landscape and visual constraints relating to larger typologies are, however, briefly described in the summary and guidance section.

4.7.1 Summary of sensitivity

The *Hidden* and *Mountain Glens* are enclosed and often narrow, contained by steep sides which rise to form irregular ridgelines. The narrowness and enclosure of these glens create a contained and often small scale landscape, which is accentuated by the presence of small buildings, trees and field enclosure pattern, and this severely limits scope for larger turbines.

These glens have a **High** landscape and visual sensitivity to turbines >35m high and a **High-medium** landscape and visual sensitivity to the small typology (turbines 20-35m).

The majority of the *Mountain Glens* (4) are designated as an APQ although only the eastern coastal areas of the Saddell and Carradale *Hidden Glens* (3) are covered by an APQ designation. Landscape values would be **High-medium** for turbines >35m high and **Medium** for the small typology taking into account the likely effect on the setting, views and contrast the *Mountain Glens* (4) provide with the adjacent *High Tops* (2). Sensitivity would be **Low** for all typologies in undesignated parts of the *Hidden Glens* (3).

4.7.2 Cumulative issues

There are no operational or consented wind farm developments sited in these character types. The operational Beinn an Tuirc I and II wind farms and the Deucheran Hill wind farm, sited within the adjacent *Upland Forest Moor Mosaic* (6), are visible from parts of the Carradale area and from Glen Saddell on Kintyre. The consented Beinn an Tuirc III extension will increase the number of turbine tips and blades visible on containing skylines of the *Hidden Glens* (3) in some areas.

The operational Beinn Ghlas and Carraig Gheal wind farms are also visible from parts of the Inverawe/Taynuilt *Mountain Glen* (4).

Within the *Hidden Glens*, significant adverse cumulative visual effects could arise if the extent of development already visible on prominent skyline ridges is significantly

extended or if further wind farm development is located closer to the more diverse and smaller scale coastal edges of these landscapes.

Cumulative effects could arise where any smaller turbines located in these glens was closely inter-visible with wind farms visible on containing skylines. Repowering of older operational wind farms, which currently feature relatively small turbines of around 60m high, could also result in a greater extent of visibility and cumulative impact with other more recently constructed wind farms visible from these glens.

If more than one, or small groups, of small turbines appear within these glens, including along the hill slopes and adjacent ridgelines, the relationship between proposals for this typology should be monitored closely in terms of potential cumulative effects. Cumulative impacts could include increased visual clutter, detracting from the rhythm of existing settlement and diminishing the sense of anticipation of travelling into more sparsely settled, less developed and often dramatic upper glens.

4.7.3 *Key constraints*

- The narrowness and strong containment of these glens which would be dominated by taller turbines located within the glen.
- The dramatic forms of steep-sided hill flanks and ridges and often complex rugged lower slopes of the *Mountain Glens* (4).
- The containing slopes and ridges seen from the floor of these glens (usually defined as the adjacent upland character type) which are visually prominent against the sky.
- The heads of the glens, which are often the focal point in views and dramatic views across some of these glens to the *High Tops* (2).
- The close proximity of some of the *Mountain Glens* (4) to the WLAs of Ben Lui and the Loch Etive Mountains.
- The well-settled character of these glens and presence of historic buildings and archaeological features.
- Policy woodlands and often well-managed strongly enclosed pastures on the flat glen floor which contrast with the often rugged forested or rugged glen sides.

4.7.4 *Opportunities*

- Broader glens with less steeply rising lower slopes where containment is less strong and a subtler transition occurs with adjacent character types, for example the *Upland Forest Moor Mosaic* (6) or the *Craggy Upland with Settled Glens* (7a) character type.
- The lower side slopes, where small terraces and other landforms, the pattern of settlement and small side valleys or tributary watercourses offer opportunities for small turbines to be sited where they can be associated with these other features in the landscape.

4.7.5 *Guidance on development*

There is **no scope** for turbines >35m high to be accommodated within this character type without significant adverse impacts occurring on key landscape and visual sensitivities.

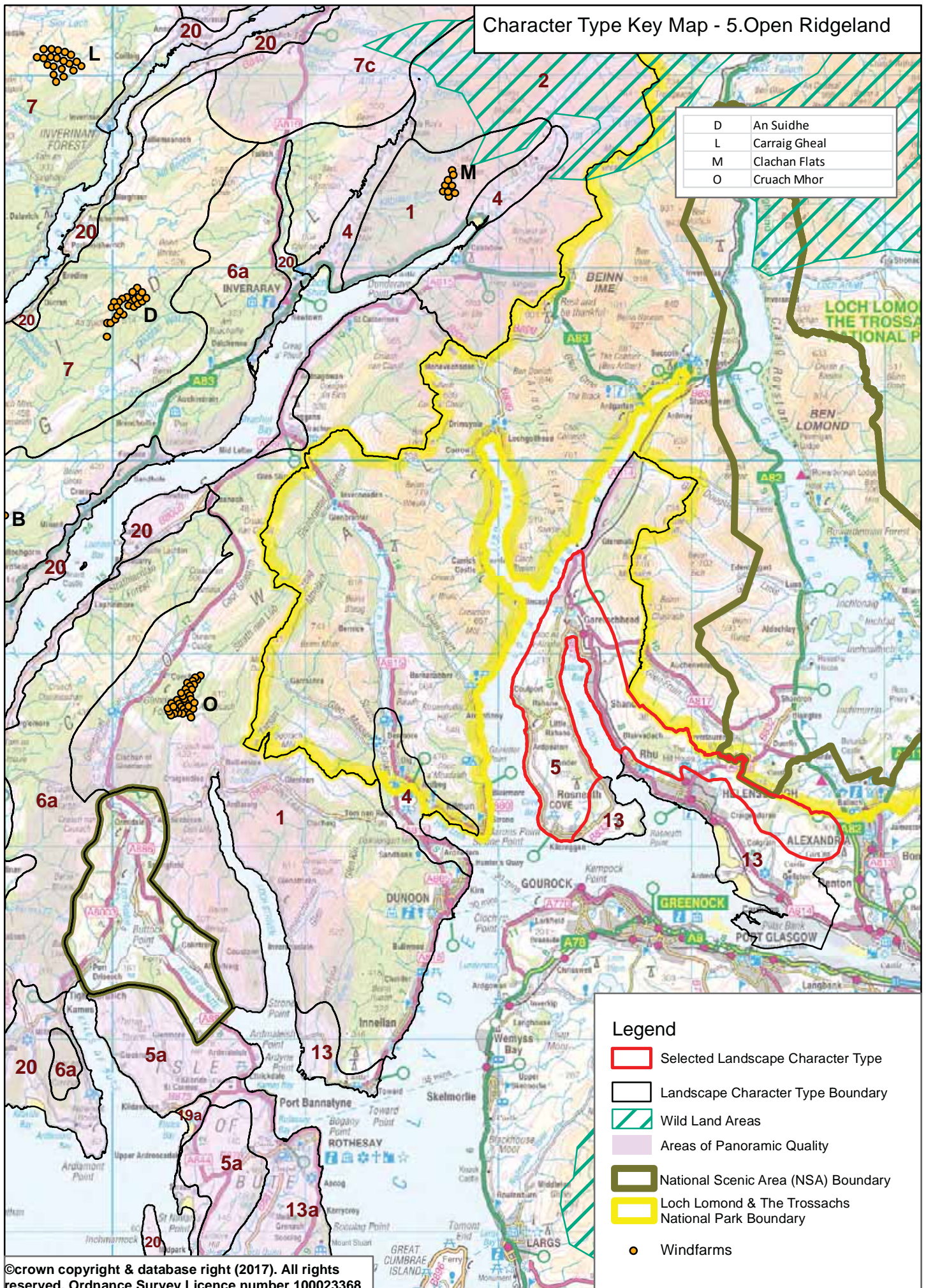
There is some **very limited** scope for the small typology (turbines 20-35m high) to be located in wider glens, where the perceived scale of the glen is seen as being broader, and at the transition with more gently rising slopes within the adjacent *Upland Forest Moor Mosaic* (6) or the *Craggy Upland with Settled Glens* (7a). Areas of more complex landform should be avoided and particularly more prominent knolls which occur on lower slopes. Turbines should be located where they can reinforce the pattern of existing development, associated with farms located at the edge of the glen floor or lower side slopes above the existing built development. They should avoid intruding on policy landscapes, historic buildings, archaeology and the setting of settlements. They should also be sited to avoid significant cumulative effects with larger turbines sited in adjacent uplands.

Turbines should avoid intrusion on views to the often dramatic heads of the glens and to key views of the mountains within the adjacent *High Tops* (2) from major roads and settlements.

Any wind farm development turbine development in the adjacent *Upland Forest Moor Mosaic*, *Craggy Upland* (7) and (7a) and the *Steep Ridgeland and Mountains* (1) character types should also be sited away from prominent ridge lines visible from the floor of these glens.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 5.Open Ridgeland



4.8 Open Ridgeland (5)

This character type is located in two areas within mainland Argyll and Bute, on the Rosneath Peninsula and to the north-east of Helensburgh.

4.8.1 Summary of sensitivity

The *Open Ridgeland* character type covers the Rosneath Peninsula and the band of hills behind Helensburgh and Cardross, below the ridge which forms the boundary to the Loch Lomond and Trossachs National Park. This landscape generally comprises gentle hill slopes and smooth ridges with a simple land cover pattern of semi-improved grazing, moorland and coniferous plantations, although some steeper slopes occur along the Gare Loch. While these characteristics are more compatible to wind turbine development, sensitivity to larger typologies is increased because of the limited extent of the character type and the low relief of the hills within the Rosneath Peninsula. This landscape also lies adjacent to the sensitive smaller scale *Rolling Farmland with Estates* (13) and the dramatic *Steep Ridgeland and Mountains* (1) character types and, in combination with these landscapes, contrasts with the more developed urban areas of Glasgow and Inverclyde to the east and south, thus increasing sensitivity in relation to wider landscape context. These landscapes are visually prominent from the well-settled Firth of Clyde area.

Landscape and visual sensitivity is judged to be **High** for the large typologies (turbines >50m) and **High-medium** for the small-medium typology (turbines 35-50m) and **Medium** for the small typology (turbines 20-35m).

Although this landscape is not covered by any designations, it lies adjacent to the Loch Lomond and Trossachs National Park. Sensitivity in relation to landscape values is judged to be **High-medium** for larger typologies (turbines >50m) in locations where turbines of this size could significantly impact on views from the National Park and **Medium** for the smaller typologies (turbines <50m) where it is considered that intrusion on key views could be reduced.

4.8.2 Cumulative issues

There are no operational wind farms located in this landscape character type. The operational wind farms of Ardrossan, Dalry and Kelburn and the very large Hunterston wind turbines located in North Ayrshire are visible from parts of this character sub-type but are generally seen at distances > 20km.

The more developed and densely settled character of the landscape found on the southern and eastern coast of the Firth of Clyde contrasts with the landscapes lying to the north. In strategic terms, introducing larger typologies to this landscape would diminish the contrast the *Open Ridgeland* (and also the *Steep Ridgeland and Mountains* (1)) provide to the more developed coastal areas of Inverclyde, North Ayrshire and the urban area of Glasgow.

4.8.3 Key constraints:

- The importance of this landscape in terms of the contrast it provides with the more developed coastal areas of Inverclyde, North Ayrshire and the urban area of Glasgow.

- The relatively low relief of the Rosneath Peninsula and the presence of fringing settlement which reduces the scale of the landscape.
- The high visual prominence of the *Open Ridgeland* in views from roads, recreational areas and settlement in the wider Firth of Clyde area and where the Rosneath Peninsula and steep-sided ridge to the north-west of Helensburgh form a low foreground to the dramatic craggy peaks of the *Steep Ridgeland and Mountains* (1).
- The adjacent Loch Lomond and Trossachs National Park.

4.8.4 *Opportunities:*

- Broader, gentler hill slopes away from key views to the high peaks of the Loch Lomond and Trossachs National Park.

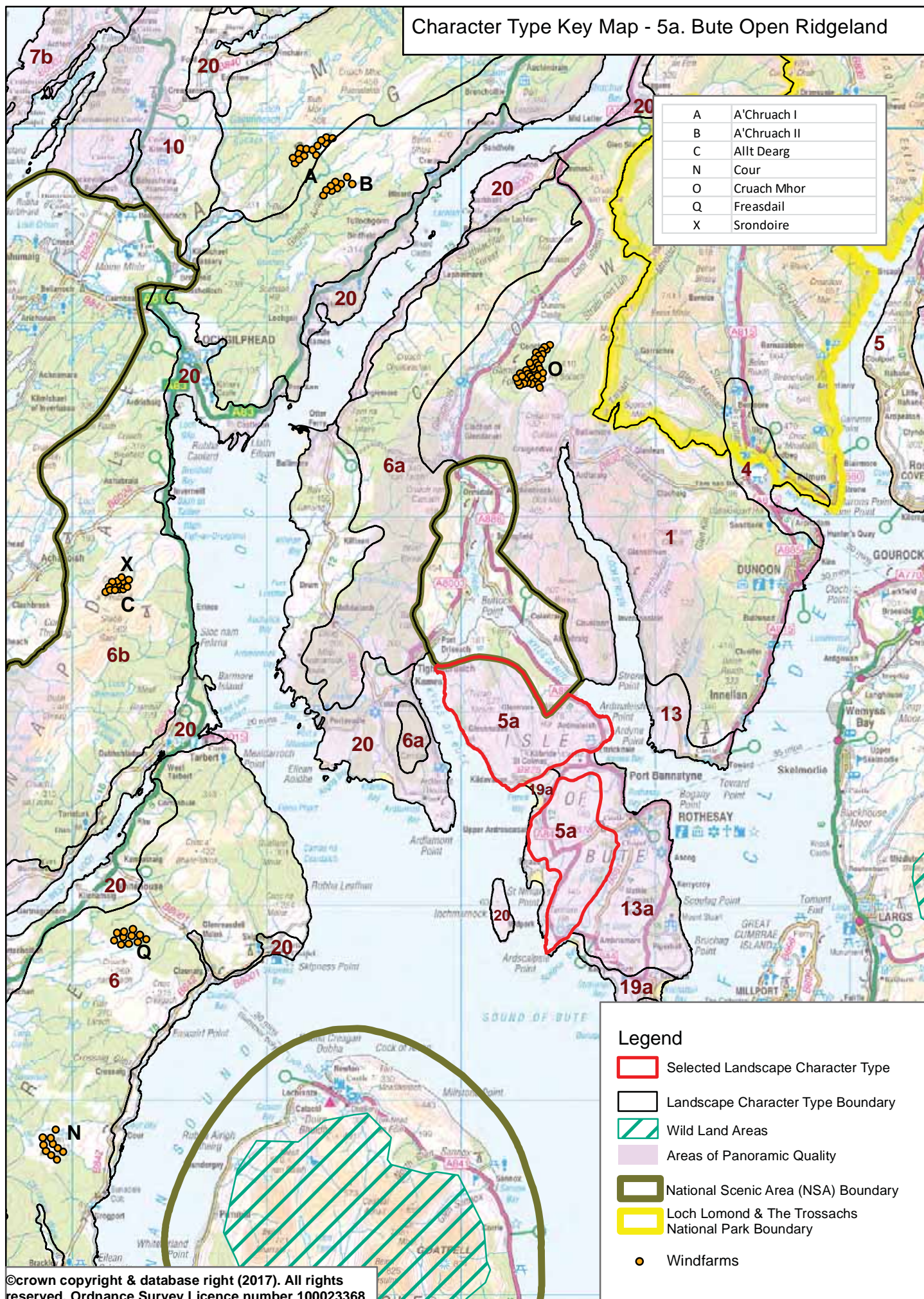
4.8.5 *Guidance on development*

There is **no scope** for the larger typologies (turbines >50m) to be located within this landscape type without incurring significant impacts on a number of key sensitivity criteria.

There is some **limited** scope for the small-medium typology (turbines 35-50m) to be accommodated in this landscape. Turbines should avoid pronounced hill tops and ridges, particularly those above Glen Fruin and the Loch Lomond and Trossachs National Park. They should be located on lower hill slopes and within natural dips or shelves where rising ground would provide a degree of backdrop able to minimise visual impact. Turbines should be sited to avoid impacting on key views across the Firth of Clyde to the *Steep Ridgeland and Mountains* (1) in the Cowal area.

There is increased scope to accommodate the small typology (turbines 20-35m) and turbines <20m high providing these are sited so they avoid intrusion on key views to the Cowal mountains. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 5a. Bute Open Ridgeland



4.9 Bute Open Ridgeland (5a)

This character type is found in two areas on the island of Bute. The detailed sensitivity tables contained in the Volume Two Report assess sensitivity to all development typologies.

4.9.1 *Summary of sensitivity*

This character type features steep-sided and well defined hills in the north and lower rounded hills and undulating upland plateaux in the south. The higher ground of this character type is open and is covered with rough pasture and moorland while small farms and enclosed pastures fringe lower hill slopes. These relatively low but open ridges and small hills are important in the contribution they make to the overall diversity of landscape found on the Isle of Bute. The north-eastern hills also provide a wider scenic backdrop to the Kyles of Bute NSA. These landscapes are visually prominent from Bute but also from the Cowal and Firth of Clyde area and also from north Arran.

Landscape and visual sensitivity would be **High** to turbines >50m high, **High-medium** to the small-medium typology (turbines 35-50m) and **Medium** to the small typology (turbines 20-35m).

This landscape is covered by an APQ designation. It also abuts the Kyles of Bute NSA to the north. Sensitivity in terms of landscape values would be **High** for turbines >50m high. Sensitivity is **medium** to the small-medium typology (turbines 35-50m) and **Medium** for the small typology (turbines 20-35m), reflecting greater opportunities for siting small turbines to avoid impacts on key special qualities.

4.9.2 *Cumulative issues*

There are no operational or consented wind farm developments sited within this character type. The operational wind farms of Ardrossan, Kelburn and Dalry are visible in North Ayrshire, approximately 19km distance from the nearest point to this character type on Bute. The very large Hunterston wind turbines in North Ayrshire are also visible at distances >13km from this character type

There could be cumulative impacts on views from Great Cumbrae and the wider Firth of Clyde area where turbines around 50m height and over were sited in this character type and seen in conjunction with operational wind farms in North Ayrshire. In strategic landscape terms, cumulative landscape impacts could also be associated with larger scale turbine development being sited on the Isle of Bute which appears largely undeveloped in comparison with the highly modified mainland coastal area to the east. Smaller turbines (turbines <35m) would be likely to have less of an effect, being clearly different in terms of scale with commercial developments sited on the mainland and also less visually intrusive provided they were sited to avoid prominent ridgelines and summits.

4.9.3 *Key constraints*

- The relatively low elevation of the southern hills, and the presence of nearby small buildings, which could be dominated by larger turbines.
- The prominence of higher hill tops seen in views from roads and settlement within Bute and also from the wider Firth of Clyde. The three peaks seen on the

ridge between Barone and Kilmory Hills are particularly visible from the Ardlamont peninsula and the higher northern hills within this character type are seen from key viewpoints within the adjacent Kyles of Bute NSA.

- The presence of extensive broadleaved woodlands and the setting this landscape provides to Ettrick Bay, Lochs Fad and Quien and the designed landscape of Kames Castle in the adjacent *Bute Rolling Farmland and with Estates* character type (13a).
- The setting of archaeological features found particularly within the southern hills.

4.9.4 Opportunities

- Gentler hill slopes with a less diverse vegetation pattern which provide opportunities particularly for smaller typologies.

4.9.5 Guidance on development

There is **no scope** for turbines >50m high to be accommodated in this landscape character type without significant effects arising on key sensitivity criteria.

There is **some limited** scope for the small-medium typology (turbines 35-50m) to be located within this landscape. Turbines should not be sited on prominent hill tops or steep slopes instead favouring gentler lower slopes and plateau-like areas where impact on sensitive skylines could be avoided. They should be set back from settlement to minimise potential conflicts of scale and should not intrude on key views from the Kyles of Bute NSA. There are likely to be restricted opportunities for multiple turbines of this size to be accommodated in this landscape.

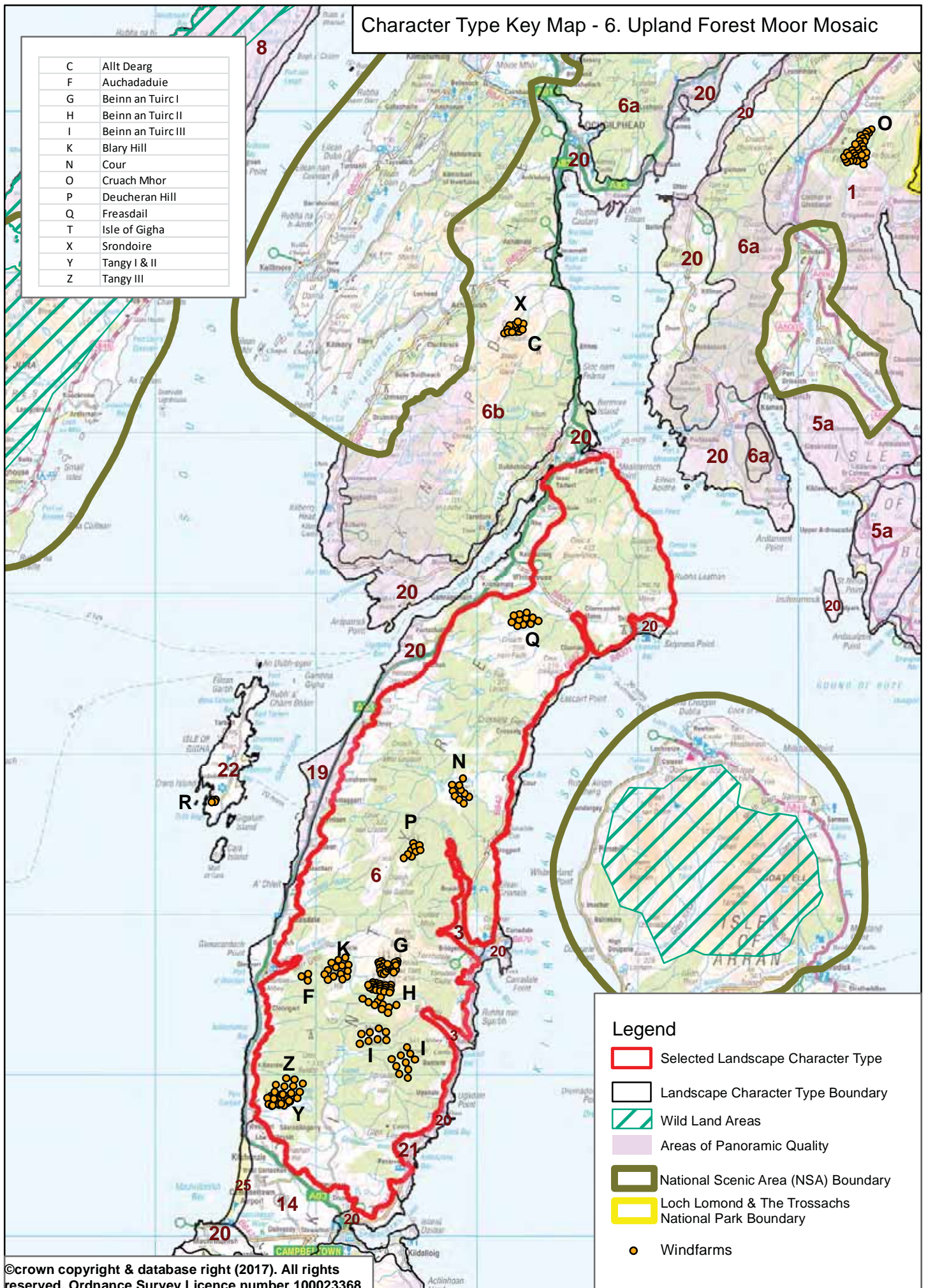
There is **some scope** for the small typology (turbines 20-35m) to be accommodated in this landscape. Turbines of this size should also avoid prominent hill tops, being sited on gentler lower hill slopes and natural dips or shelves where rising ground would provide a degree of backdrop able to minimise visual impact. There are increased opportunities for turbines < 20m height to be associated with farms and other buildings on the settled lower hill slopes of this landscape character type.

All development typologies should avoid significant impact on the broadleaved woodlands and steep scarp slopes above Loch Fad, the prominent 'three peaks' on the ridge between Barone and Kilmory Hills, the steep hill sides which provide the backdrop to Kames Castle designed landscape and the higher northern hills and slopes which border the Kyles of Bute and provide the wider setting to the NSA. The setting of archaeological features would also be sensitive to development.

Turbines should be sited in accordance with the detailed guidance set out in section 6 of this report.

Character Type Key Map - 6. Upland Forest Moor Mosaic

C	Allt Dearg
F	Auchadaduie
G	Beinn an Tuirc I
H	Beinn an Tuirc II
I	Beinn an Tuirc III
K	Blary Hill
N	Cour
O	Cruach Mhor
P	Deucheran Hill
Q	Freasdail
T	Isle of Gigha
X	Srondoire
Y	Tangy I & II
Z	Tangy III



4.10 Upland Forest Moor Mosaic (6)

This landscape comprises broad areas of undulating upland plateau lying within the interior of the Kintyre peninsula. Detailed sensitivity assessment contained in the Volume II Report has been undertaken for the larger development typologies only (turbines >50m) due to the relatively sparsely settled nature of this landscape. Detailed assessment of Very Large turbines (>130m) has also been undertaken and is set out in the Volume Two Report. General guidance is given for smaller typologies within 4.10.2 and 4.10.6.

4.10.1 *Summary of sensitivity*

The *Upland Forest-Moor Mosaic* character type in the Kintyre area features a gently undulating plateau-like landform with smooth even slopes. This landscape has a simple land cover of extensive coniferous forestry and moorland. It is sparsely settled and already accommodates operational and consented wind farm developments. Some of these key characteristics reduce sensitivity to large wind turbines although there are some more sensitive features. These include the more complex smaller scale hills and occasional narrow settled glens lying on the outer fringes of this upland plateau. More pronounced and rugged higher hills which lie within the core area of this landscape and the remote and little modified coast between Skipness and Tarbert would also be highly sensitive to wind energy development. A major constraint to accommodating additional wind energy development is potential cumulative effects with other wind farms.

This is a very sparsely settled area which is difficult to access in places although the Kintyre Way long-distance footpath attracts walkers. Visibility of the core area of these uplands is restricted from roads and settlement within adjacent low-lying coastal areas although there are more distant views from Arran, Gigha and across West Loch Tarbert, outer Loch Fyne and the Kilbrannan Sound.

This landscape has a **High-medium** sensitivity to turbines >80m high. Sensitivity to the medium typology (turbines 50-80m) would also be **High-medium**.

No designated landscapes apply to this landscape although it abuts a coastal APQ in places. Sensitivity in relation to landscape values is considered to be **Low** for both of the typologies assessed although this would increase at the transition with the APQ designated area as turbines visible on prominent skylines above the coastal fringe may indirectly affect special qualities.

4.10.2 *Smaller typologies*

There is unlikely to be a significant demand for smaller typologies (turbines <50m) within the very sparsely settled uplands of this landscape. Smaller typologies could have cumulative effects with operational and consented wind farm developments in views towards the interior of these uplands. Some limited opportunities exist for the small-medium typology (turbines 35-50m) to be located on lower and gentler hill slopes at the transition with the *Rocky Mosaic* (20) where they could be back-dropped by rising ground and visually associated with the more settled and farmed coastal fringes. Prominent skylines, for example at the top of the scarp edge of the raised beach coast on the western side of the Kintyre peninsula, and hill tops above the settled upper reaches of Barr Glen and Glen Lussa which lie within this landscape character type and immediately containing the adjacent *Hidden Glens* (3) and the *Rocky Mosaic* (20)

character types, should be avoided. More complex landform and the small walled improved pastures close to settlement (which provide a positive contrast with extensive commercial forest cover) should also be avoided with broader areas of rougher pasture and grass moorland favoured. There are greater opportunities to accommodate the small typology (turbines <35m) in these areas due to their better scale relationship with nearby settlement.

4.10.3 *Potential cumulative issues*

The operational Deucheran Hill, Beinn an Tuirc I and II, Tangy I and II and Cour wind farms are sited within this character type. The under-construction Freasdail wind farm is also located in the northern part of this landscape. The consented repowered Tangy III wind farm will replace Tangy I and II once constructed. The consented Auchadaduie and Blary Hill developments are located close to the western edge of this landscape near Barr Glen and the consented Beinn an Tuirc III wind farm extension will be located in the southern part of this landscape.

The Gigha community turbines lie within 7km of this character type. The operational Allt Dearg and Srondoire wind farm is also located within the *Knapdale Upland Forest Moor Mosaic* (6b), lying some 10km to the north of this character type.

The operational wind farm developments of Deucheran Hill and Beinn an Tuirc I and II lie within the core of the Kintyre uplands and are set back from the more sensitive coastal edge. These wind farms generally have a limited influence on the settled coastal areas of Kintyre although they are visible from Arran and Gigha. Beinn an Tuirc I and Deucheran Hill comprise relatively small turbines (between 66-76m high) while more recent developments comprise turbines around 100-110m.

The operational Tangy wind farm is located towards the south-western edge of the Kintyre uplands and is more visible from settled areas on Kintyre. The consented repowered Tangy III wind farm, comprising significantly larger turbines (125m turbines replacing the original 75m high turbines) will increase visual intrusion on the settled western fringes of Kintyre as will the consented Blary Hill wind farm, and especially the consented Auchadaduie turbines. The Cour and Freasdail wind farms are also sited closer to the outer edges of this upland plateau and both developments have a greater influence on views from roads on Kintyre and from Arran.

Wind farms on the Kintyre peninsula are visible from the west coast and hills of Arran where they are seen at distances of between 7km and 14km. The long extent of the Kintyre peninsula, the distances that the majority of these wind farms are seen at and the largely widely spaced and distinct clusters formed by each development, generally reduces cumulative effects on landscape and on views from much of Arran. However, intensification of wind farm development will occur in the southern part of the Kintyre peninsula following construction of the consented Beinn an Tuirc III development which will significantly increase impact on views from south-western Arran. Some wind farm development located in this landscape character type is visible from Gigha although the combination of generally smaller turbines and distance results in minimal impact.

Key cumulative landscape and visual issues that may arise include:

- Larger turbines and/or more extensive wind farm developments sited on the outer edges of the Kintyre uplands where they would be likely to significantly increase landscape and visual impacts on the settled coastal edge of Kintyre and on views from Arran and Gigha and would also further erode the established pattern of wind farm developments largely associated with the less sensitive core of these uplands.
- Potential effects on views from the A83 Tourist Route where any new wind farm development located in this character type could increase sequential cumulative effects with the developments of Allt Dearg/Srondoir, Freasdail, Auchadaduie, Blary Hill and Tangy.
- Potential effects on views from the B842 on the east coast of Kintyre where any additional development could be seen sequentially with the Cour and Beinn an Tuirc I, II and III wind farms.
- Additional wind farms and extension/repowering of operational wind farms which may comprise much larger turbines and could increase inter-visibility and overlap between developments seen from Gigha and Arran and from the A83 and B842 on Kintyre.
- Extensions or repowering proposals (involving significantly larger turbines) to operational and consented wind farms which could increase the extent of development seen on sensitive skylines above the *Hidden Glens* (3) or within the narrow, settled Barr Glen and Glen Lussa within this character type.
- Cumulative effects associated with any additional wind farm development located in this character type and in the nearby *Mull of Kintyre Upland Forest Moor Mosaic* character type (6c) in terms of views from the west coast of Arran which take in the full length of the peninsula.
- A potential 'corridor' of large wind farm development seen either side of the B8001 which could significantly detract from views to Arran and Jura and affect the experience of travellers using this road and the Lochranza-Claonaig ferry route.
- Significant increases in the extent of wind farm development (as gaps between present clusters of turbines are potentially filled) seen in views from Arran and Gigha which could present a dominant, continuous and dense band of turbines seen on the skyline – this could include a coalescing effect experienced when looking south down the Kilbrannan Sound from north Arran and from the Lochranza -Claonaig ferry.
- Cumulative effects on the setting of the North Arran NSA and WLA related to the above scenario.

Cumulative effects with other operational and consented wind farms are a key constraint to accommodating further development in this landscape. Further discussion of strategic cumulative issues on the Kintyre Peninsula is contained in section 3 of this report.

4.10.4 Key constraints:

- The more complex landform of smaller interlocking hills and slopes which provide a backdrop to the settled coastal landscapes of the *Rocky Mosaic* (20) and the *Bay Farmland* (14) on the outer fringes of the Kintyre peninsula and which are prominent in views from roads and settlement.

- The rugged and remote coast between Skipness and Tarbert which has some qualities of wildness and is visible from the Tarbert – Lochranza ferry, outer Loch Fyne and the west coast of the Ardlamont peninsula.
- The more pronounced, rugged and higher hill summits, including Beinn Bhearc, and Beinn an Tuirc, which are particularly visible from the sea and Arran to the east, adding interest to the fairly uniform skyline of these uplands. The hill of Cnoc a Bhaile-shois at the northern end of the peninsula is also prominent, particularly in views from the west in the Knapdale area.
- The narrow, settled glens which extend into these uplands – for example Barr Glen and Glen Lussa – which would be sensitive to larger typologies sited on the edge hills and ridges which provide immediate skylines to these smaller scale landscapes.
- The edges of these uplands which form prominent skylines and containing ridges seen from the intimately scaled and richly diverse *Hidden Valleys* (3) and coasts around Carradale and Saddell on the east coast of Kintyre.
- The APQ covering the coastal fringes which abuts this character type and where turbines could potentially impact on special qualities if visible on prominent skylines.
- Views to the mountains of north Arran and to Jura from the B8001.
- Potential cumulative effects with operational and consented wind farms seen from the A83, B842, B8001, from the Kintyre coast, Kilbrannan Sound, Arran (including from the North Arran NSA and WLA) Gigha and the West Loch Tarbert area.

4.10.5 *Opportunities:*

- The generally simple landform and expansive scale of the interior plateau areas.
- The sparsely settled nature of this character type and the relatively limited visibility of the interior of these uplands from surrounding settled coastal fringes.

4.10.6 *Guidance on development*

There is **very limited** scope for the Very Large typology (turbines >130m) to be accommodated. The narrow extent of this peninsula and its relatively low relief (especially in the northern part of this LCT) inhibits opportunities for turbines >150m high. Very large turbines in many locations would be likely to significantly intrude on views from both Gigha and Arran, considerably extending effects and potentially affecting the ‘space and cluster’ spatial pattern of existing wind farm development evident in the northern part of the peninsula in views from Arran. Turbines <150m may be able to be accommodated provided they are set well into the centre of the peninsula and occupy more contained sites which would minimise the effects of turbines of this size on the coastal fringes of Kintyre and on views from Arran and Gigha. Many such sites are already occupied and scope for this size of turbine is likely to be restricted to repowering of operational wind farms. Cumulative effects with operational wind farms, including effects on layout, spacing between developments and avoiding noticeable differences in turbine design and size, would need to be carefully considered.

Although the large typology (turbines 80-130m) would fit better with the scale of these uplands and with operational/consented turbines, there is also **very limited** scope to accommodate this size of turbine. This is principally due to potential cumulative effects on the coastal fringes of Kintyre and on views from Arran and Gigha. The area of the

peninsula to the north of Beinn Bhreac is particularly sensitive due to likely increased effects on Arran, Gigha and surrounding seascapes. Small extensions or repowering proposals for operational wind farms may be able to be accommodated as these could minimise effects on adjoining and surrounding landscapes.

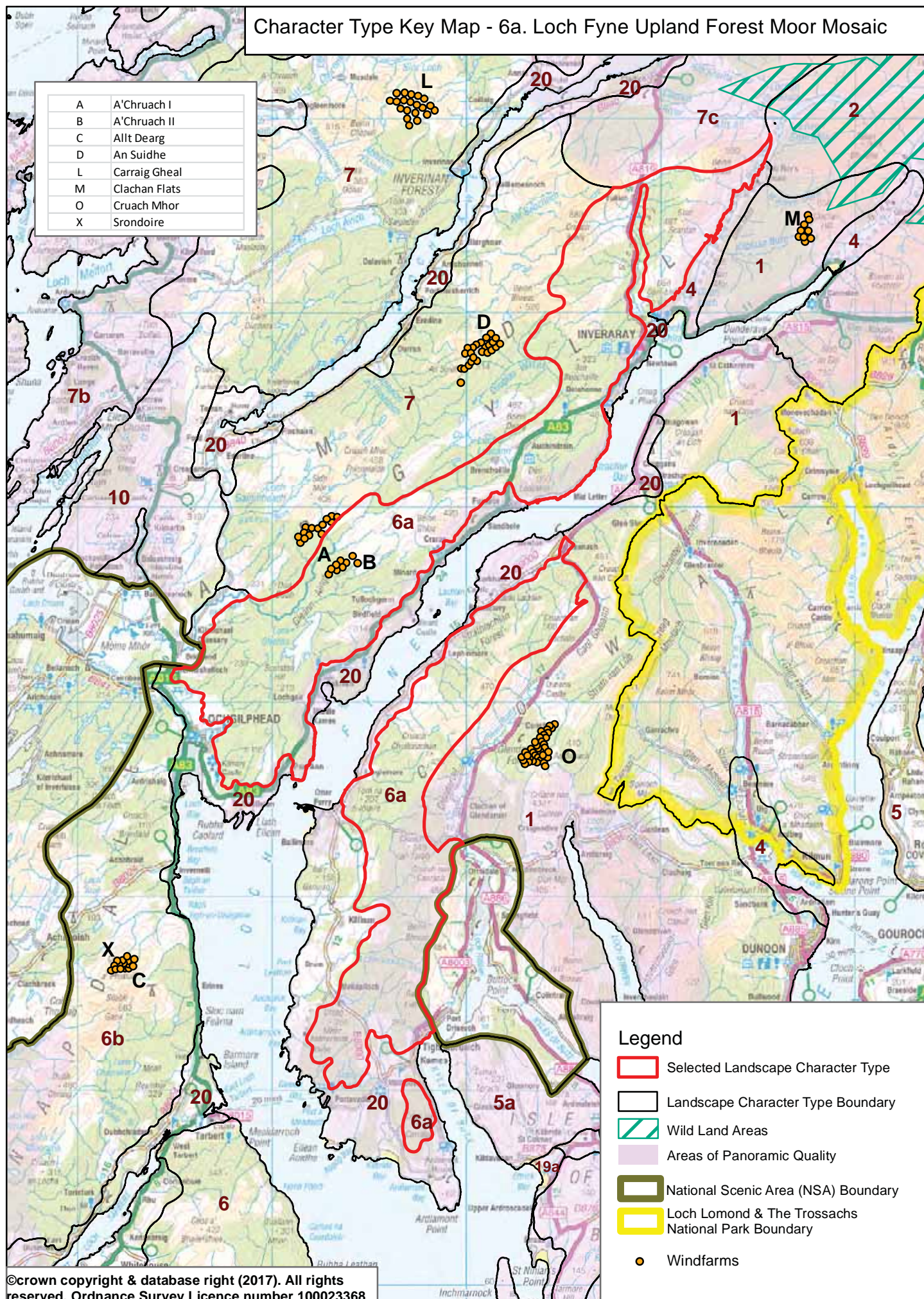
Any additional development of the Very Large and Large typologies (turbines >80m high) should avoid more complex irregular small hills found on the outer edge of the Kintyre peninsula (and particularly the arc of small knolly hills to the south of Lussa Loch). Turbines should not be sited on, or close-by, the more pronounced and higher hill summits found in the southern and northern part of this character type including Beinn Bhreac and Beinn an Tuirc which form a scenic backdrop to the Carradale area. These hills also provide some partial containment of the operational wind farm of Beinn an Tuirc I and this, together with the need to retain the integrity of these hills, may limit scope for any extension or substantial increases in turbine height (as part of a repowering scheme) to this wind farm. Turbines should also be sited to avoid any intrusion on views to and from the rugged and remote coast between Skipness and Tarbert as this would affect the sense of wildness associated with this seascape. The smaller scale and settled Barr Glen and Glen Lussa, which lie within this character type, would also be sensitive to larger typologies sited on containing hills and ridges which provide immediate skylines. Development should additionally be sited to avoid significant intrusion and cumulative effects on views from the B8001.

In terms of effects on adjacent landscape character types, significant intrusion on the setting and views from the adjacent settled and small scale *Rocky Mosaic* (20) and the *Hidden Glens* (3) and on Arran and Gigha should be avoided by siting larger turbines well back into the interior of these uplands. Further discussion of strategic cumulative issues in relation to larger turbines is set out in section 3 of this report. It is considered that scope for additional development north of the higher hills centred on Beinn Bhreac is particularly limited due to the likely significant exacerbation of effects on Arran, Gigha and surrounding seascapes.

It is assumed that the medium typology (turbines 50-80m) would be more likely to comprise single or small groups of turbines, possibly located within the more accessible farmed outer edges of this landscape. As such they would be more visible from roads and settlement and there is therefore only **very limited** scope to accommodate turbines of this size. Cumulative effects with larger wind turbines, which will be increasingly visible from the coastal fringes of Kintyre once consented developments are constructed, are a major constraint to accommodating this typology.

Small turbines <50m should be sited so visually associated with existing settlement and farms at the transition with the *Rocky Mosaic* (20) and *Bay Farmland* (14) character types and located to relate to gentler hill slopes set back from buildings so as to avoid dominating their scale. Areas of more complex, irregular landform found in these transitional areas should be avoided. More extensive pasture and moorland areas above in-by land and backed by rising hill slopes or forestry would provide opportunities to minimise visibility. Detailed siting and design of smaller turbines should accord with the guidance given in the Volume Two Report.

Character Type Key Map - 6a. Loch Fyne Upland Forest Moor Mosaic



4.11 Loch Fyne Upland Forest Moor Mosaic (6a)

The *Loch Fyne Upland Forest-Moor Mosaic* (6a) comprises relatively narrow bands of hill ground either side of Loch Fyne and above the shoreline *Rocky Mosaic* (20). This character type forms a transitional landscape between the settled and smaller scale loch fringe and the more extensive and very sparsely settled uplands of the *Craggy Uplands* (7) and the *Steep Ridgeland and Mountains* (1).

The detailed sensitivity assessment tables in the Volume Two Report focus on the larger development typologies (turbines >50m high) only due to the relatively sparsely settled nature of this landscape. General guidance is given for smaller typologies within the summary below.

4.11.1 Summary of sensitivity

The *Loch Fyne Upland Forest-Moor Mosaic* comprises a narrow band of hills either side of Loch Fyne. Landform is varied with complex and pronounced hills aligning the north-west shore of Loch Fyne and also occurring north of Portavadie. Broader basins and undulating craggy plateaux areas also occur, particularly at the transition with the *Craggy Upland* (7) character type where the scale of the landscape also becomes more extensive. This landscape has a generally simple land cover of extensive forestry and moorland and is sparsely settled. While many of these characteristics present potential opportunities to accommodate large scale wind farm development, the presence of more complex and smaller scale landform and the role this landscape plays in providing a simple backdrop and setting to the diverse settled shores of Loch Fyne increases sensitivity. It is also highly visible from roads and settlement including from the A83, a major tourist route. The narrowness of the inner Loch Fyne allows close views across the loch and this landscape forms prominent skylines and steep containing hill slopes in these views. Long views down the inner loch are also framed by these slopes.

This landscape is judged to have a **High** sensitivity to Very Large turbines (>130m). Sensitivity would be **High-medium** to the large and medium development typologies (turbines 50-130m).

The majority of this character type is not covered by any landscape designations, although some of the hills forming the immediate backdrop to Loch Fyne are included in the APQ. Sensitivity in relation to landscape values is also increased where these landscapes lie close to the Kyles of Bute and Knapdale NSAs. Sensitivity was judged to be **High-medium** in these areas and **Low** elsewhere.

4.11.2 Smaller typologies

There is unlikely to be a significant demand for smaller typologies (turbines <50m) within the more sparsely populated uplands of this landscape. Some limited opportunities exist for the small-medium typology (turbines 35-50m) to be located on lower and slacker hill slopes at the transition with the *Rocky Mosaic* (20) where they could be back-dropped by rising ground and visually associated with the more settled and farmed loch fringes. There are greater opportunities to accommodate the small

typology (turbines <35m) in these areas due to their better scale relationship with nearby settlement.

4.11.3 *Cumulative issues*

The operational A' Chruach I and II wind farm partially lies within the north-western part of this landscape. The operational Clachan Flats, An Suidhe, Allt Dearg and Cruach Mhor wind farms also lie close-by this landscape. Views of these wind farms are very limited from the A83 and settlement on the north-western shore of inner Loch Fyne with the exception of the Clachan Flats wind farm which is seen on the approach to Cairndow from the A83. Wind farm development is clearly visible from settlement and roads on the south-eastern shores of the loch with An Suidhe seen from the A886 above Strachur and from the B8000 at St Catherines and the A' Chruach wind farm visible from the Inver area, Otter Ferry and from ferries in outer Loch Fyne.

Potential cumulative issues include:

- New wind farms or extensions/repowering proposals (featuring larger turbines) associated with operational wind farms, could increase coalescence and inter-visibility of developments in key views on the south-eastern side of the inner loch – for example at Lachlan Castle at Inver.
- Potential effects on views from rare and popularly accessed hill top viewpoints, for example the Inveraray Castle folly, Dunardry Hill near the Crinan Canal, or from occasional elevated stretches of road where new developments could be inter-visible with existing and consented wind farms and adversely affect the setting of settlements, views and experiential qualities.
- Cumulative effects on views from the A83 and the Otter Ferry area in outer Loch Fyne.

4.11.4 *Key constraints*

- The limited extent of this landscape (as it forms a narrow band of hills either side of the confined Inner Loch Fyne) and its high visibility seen in close proximity across the narrow extent of the inner Loch Fyne and in views up and down the loch.
- More complex landform comprising steep slopes, sharp ridges and pronounced knolly hills which backdrop the settled shores of Loch Fyne, framing views up and down the loch from roads and settlement and prominent in views across the loch.
- Areas of open pasture, broadleaved woodland and settlement on lower hill slopes and valleys at the transition with the smaller scale landscapes of *Rocky Mosaic* (20).
- The proximity of parts of this landscape to highly sensitive landscapes including the Kyles of Bute NSA, the Knapdale NSA, the settled and archaeologically rich landscapes of Kilmichael Glen and Moine Mhor and the *Rocky Mosaic* (20) on the coastal fringes of Loch Fyne which is diverse, small scale and well-settled and accommodates a number of historic features including Inveraray and Inveraray Castle designed landscape.
- Potential cumulative effects with the operational wind farms of A'Chruach, An Suidhe, Cruach Mhor and Clachan Flats from key elevated viewpoints such as the Inveraray Castle folly but also views from open sections of the B8000 and

the A83 and from settlement, particularly on the south-eastern side of Loch Fyne.

4.11.5 Opportunities

- Broader shallow basins and more gently undulating plateaux areas where a degree of visual containment could be utilised to limit landscape and visual effects on the more sensitive settled shores of Loch Fyne and other surrounding landscapes.
- The simple land cover of extensive forestry and moorland and sparsely settled nature of this character type.

4.11.6 Guidance on development

There is **no scope** for Very Large turbines (>130m) to be accommodated principally because of the limited extent and relatively low relief of this landscape, likely effects on the strongly contained and narrow extent of inner Loch Fyne, on the small scale and diverse character of the adjoining *Rocky Mosaic* (20) and on views from settlement and key routes and destinations popular with visitors.

There may be some **very limited** scope for additional large turbines (80-130m) to be accommodated where the extent of this character type is broader and where Loch Fyne is less strongly contained and scenically dramatic (adjacent to the 'outer loch').

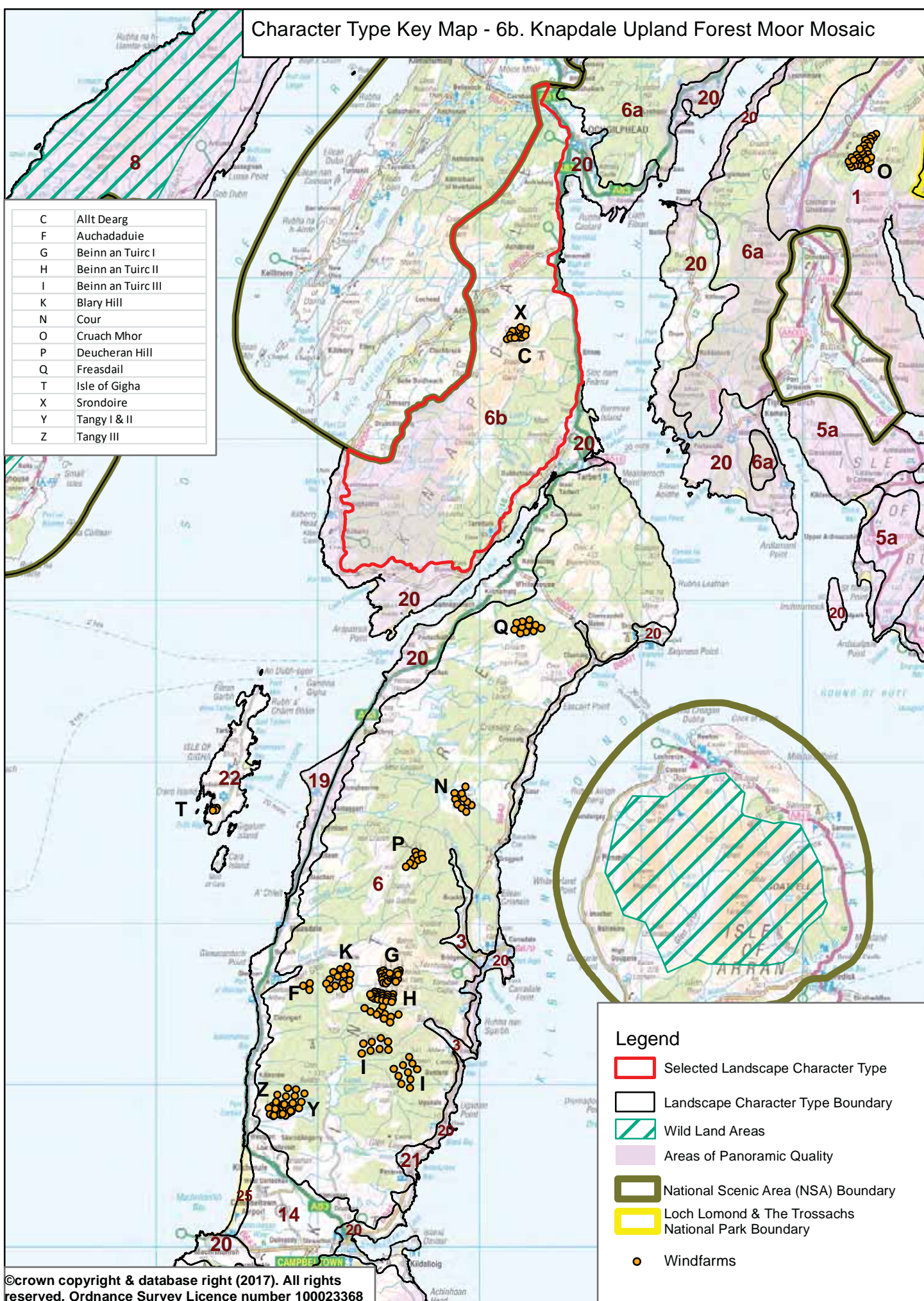
Development should be avoided either side of the narrow, strongly contained and visually sensitive inner Loch Fyne. Any new wind farm development would need to be carefully sited and designed to minimise impact on views from the settled shores of Loch Fyne, Kilmichael Glen, Moine Mhor and west Bute. The height of turbines would need to be carefully selected to avoid dominating the relatively low relief of hills and turbines should additionally be sited within more visually contained basins and gently undulating plateaux (avoiding key ridges and higher hill tops) to minimise effects on surrounding settled valleys and the shores of Loch Fyne. These more visually contained areas are rare in this landscape. Intrusion on key views from the Knapdale and Kyles of Bute NSAs should be avoided. Further discussion of strategic cumulative effects in relation to Loch Fyne is set out in section 3 of this report.

The medium and small-medium typologies (turbines <80m) are more likely to comprise single and small groups of turbines located closer to the more settled fringes of this landscape. Turbines >50m would be likely to be prominent from roads and settlements in these locations and have cumulative effects with operational wind farms. There may be **some limited** opportunities for the small-medium typology (turbines 35-50m) to be located on lower and gentler hill slopes at the transition with the *Rocky Mosaic* (20) where turbines could be back-dropped by rising ground and visually associated with the more settled and farmed loch fringes. Prominent skylines and hill tops above valleys and loch shores, more complex landform and the small walled improved pastures close to settlement (which provide a positive contrast with extensive forestry) should be avoided with broader areas of rougher pasture and grass moorland favoured. There are greater opportunities to accommodate the small typology (turbines <35m) in these areas due to their better scale relationship with nearby settlement.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 6b. Knapdale Upland Forest Moor Mosaic

C	Allt Dearg
F	Auchadaduie
G	Beinn an Tuirc I
H	Beinn an Tuirc II
I	Beinn an Tuirc III
K	Blary Hill
N	Cour
O	Cruach Mhor
P	Deucheran Hill
Q	Freasdail
T	Isle of Gigha
X	Srondoire
Y	Tangy I & II
Z	Tangy III



4.12 Knapdale Upland Forest Moor Mosaic (6b)

This sensitivity assessment covers the *Knapdale Upland Forest-Moor Mosaic* (6b) character type. Detailed sensitivity assessment tables contained in the Volume Two Report focus on the larger development typologies (turbines >50m) due to the relatively sparsely settled nature of this landscape. General guidance is provided for smaller typologies within the summary below.

4.12.1 Summary of sensitivity

The *Knapdale Upland Forest-Moor Mosaic* character type has an irregular and often complex craggy landform with pronounced ridges and occasional high, more defined summits, although some limited areas of slightly smoother and gentler hill slopes also occur, mainly in the south-west. This area has a simple land cover of extensive coniferous forestry and moorland; it is also sparsely populated and already accommodates wind farm development. While the scale and sparsely settled nature of this landscape presents potential opportunities to accommodate large scale wind farm development, areas of more complex smaller scale hills fringing the outer edge of this upland area and the more defined ridges and peaks within its core would be sensitive to such development.

There is little settlement in this landscape and it is not notably popular for recreation. Visibility of the interior of these uplands is fairly restricted from roads and settlement within adjacent low-lying coastal areas although there are longer views from the nearby Knapdale NSA, across Loch Fyne, West Loch Tarbet and from Arran and Gigha.

This landscape has an overall **High** sensitivity to the Very Large typology (turbines >130m). Sensitivity would be **High-medium** to the large (80-130m) and **Medium** sensitivity to the medium typology (turbines 50-80m), reflecting the greater scope for smaller turbines to minimise effects on key views.

The western part of the Knapdale area is designated an APQ. It also lies adjacent to the Knapdale NSA. Sensitivity in relation to landscape values is judged to be **High-medium** for larger typologies within the APQ where turbines may indirectly affect the special qualities of the APQ or the Knapdale NSA and its wider setting. Sensitivity would be **Low** within the undesignated parts of this landscape.

4.12.2 Smaller typologies

There is unlikely to be a significant demand for smaller typologies (turbines <50m) within the very sparsely settled uplands of this landscape. Some limited opportunities exist for the small-medium typology (turbines 35-50m) to be located on lower and gentler hill slopes at the transition with the *Rocky Mosaic* (20) where they could be back dropped by rising ground and visually associated with the more settled and farmed coastal fringes. Prominent skylines and hill tops immediately above the *Rocky Mosaic* (20) character type, more complex landform and the small walled improved pastures close to settlement (which provide a positive contrast with extensive commercial forestry) should be avoided with broader areas of rougher pasture and grass moorland favoured. There are greater opportunities to accommodate the small typology (turbines <35m) in these areas due to their better scale relationship with nearby settlement.

4.12.3 Cumulative issues

The operational Allt Dearg and Srondroire wind farm development are located within this landscape. These developments are visible from the western shores of Loch Caolisport and from the higher hills within this character type but screened to the south by the ridge of higher ground between Meall Reamhar and Stob Odhar. These developments lie adjacent to each other and comprise different sized turbines which is clearly noticeable from some of these key views.

The operational wind farms of Cruach Mhor and A' Chruach are visible from the higher northern hills of this landscape. The operational Deucheran Hill, Freasdail and Beinn an Tuirc I and II wind farms, sited within the *Upland Forest Moor Mosaic* (6) which covers the Kintyre Peninsula to the south, are also visible from the higher southern hills and intermittently from the southern coast of this landscape.

Key cumulative landscape and visual issues include:

- Views from the A83 Tourist Route where multiple wind farm developments in Knapdale could potentially be visible in the more open Kennacraig to Clachan area and in views between Lochgilphead and Inverneill and contribute to cumulative effects experienced when travelling around the Kintyre peninsula.
- Potential effects of multiple developments seen on the skyline of these uplands which form the backdrop to the Knapdale NSA.
- Cumulative effects experienced from the Islay ferry where it traverses West Loch Tarbert and where Freasdail wind farm is visible close-by Kennacraig.
- Cumulative views from outer Loch Fyne where any additional wind farm development, especially sited on the eastern hills of this landscape, could impact on key views down the loch from Lochgilphead, from occasional open sections of the eastern coast of the loch, for example near Otter Ferry, and from the sea.

4.12.4 Key constraints

- The more complex landform of smaller interlocking hills which provide a backdrop to the settled coastal landscapes of the *Rocky Mosaic* (20) on the outer fringes of the Knapdale peninsula and which are prominent in views from roads and settlement.
- Defined ridges and pronounced summits between Stob Odhar and Meall Reamhar which are highly visible in views from settlement and the A83 across West Loch Tarbert and ridges and summits close to the eastern coast of Knapdale seen from Loch Fyne and Lochgilphead.
- Small loch basins often contained by knolly hills which increase diversity within the upland plateau – for example, Loch a' Bhailidh in the south-western part of this landscape.
- Potential cumulative effects with the operational and consented wind farm developments of Allt Dearg, Srondroire, Freasdail, Deucheran Hill and Beinn an Tuirc wind farms seen sequentially from the A83 and together (in various combinations) in views up, down and across Loch Fyne.
- The APQ designation covering the western side of the Knapdale area and the Knapdale NSA to the north of this area.

4.12.5 Opportunities:

- Areas of lower, less complex gently undulating landform set back from sensitive coastal edges and from the higher more defined ridges and pronounced summits and generally occurring in the south-western part of this character type.
- The sparsely settled nature of this character type and the relatively limited visibility of parts of the interior of these uplands from surrounding settled coastal fringes.

4.12.6 Guidance on development

There is **no scope** to accommodate Very Large turbines (>130m).

There may be some **very limited** scope to accommodate further large turbines (80-130m) in this character type. Development should be sited within more gently undulating landform, away from the more complex irregular small hills characteristic of the seaward fringes of the Knapdale area and also set well back from the defined ridges and higher pronounced summits at the core of this upland area. Development should also be sited to avoid significant intrusion on views over West Loch Tarbert from the A83, from the adjacent settled and small scale *Rocky Mosaic* (20) and to and from the Knapdale NSA (and particularly views down Loch Coalisport to Jura which is a defined Special Quality of this NSA).

The medium typology (turbines 50-80m high) would be more likely to minimise effects on views from the settled coastal fringes of the *Rocky Mosaic* (20) and from the A83 and potentially also on the setting of the Knapdale NSA.

Small turbines <50m should be sited so visually associated with more settled lower hill slopes at the transition with the *Rocky Mosaic* (20) and located to relate to gentler hill slopes set back from buildings so as to avoid scale impacts yet. Areas of complex, irregular landform found in these transitional areas should be avoided. More extensive pasture and moorland areas above in-by land and backed by rising hill slopes or forestry would provide opportunities to minimise visibility. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 6c. Mull of Kintyre Upland Forest Moor Mosaic



4.13 Mull of Kintyre Upland Forest Moor Mosaic (6c)

The two areas of the *Mull of Kintyre Upland Forest-Moor Mosaic* (6c) directly abut the sea, forming dramatic wild coastlines. This landscape is forested and sparsely settled in common with other areas of *Upland Forest Moor Mosaic*. However, unlike other areas of this character type, it does not feature operational or consented wind farm development. The *Mull of Kintyre Upland Forest-Moor Mosaic* (6c) also forms the setting for the *Coastal Hills* (21) and both are largely covered by an APQ designation.

Detailed sensitivity assessment tables in the Volume Two Report focus on the larger development typologies only due to the relatively sparsely settled nature of this landscape. General guidance is given for smaller typologies within the summary below.

4.13.1 Summary of sensitivity

This character type comprises a relatively simple rolling plateau of densely forested hills at its core, contrasting with individual summits, such as Beinn Ghuilean, and a more diverse and rugged landform along the coast. The western coast and Mull of Kintyre have strong qualities of wildness. The diverse coastal landform and the backdrop and setting the outer fringes of these hills provide to smaller scale settled landscapes, increases sensitivity to wind farm development. The edge hills of the *Mull of Kintyre Upland Forest Moor Mosaic* are highly visible from the surrounding settled lowland landscapes of the *Rocky Mosaic* (20), the *Bay Farmland* (14) and the *Low Coastal Hills* (21). This increases sensitivity to larger typologies where tall turbines would be likely to be visible from these areas and could intrude on more sensitive skylines.

This landscape has a **High** sensitivity to the large typology (turbines 80-130m) and a **High-medium** sensitivity to the medium typology (turbines 50-80m).

An APQ covers much of this character type and is presumed to have been designated because of its coastal scenery and panoramic views of the wider seascape. Sensitivity in relation to landscape value is judged to be **High-medium** to **Low**.

4.13.2 Smaller turbines

There is unlikely to be a significant demand for smaller typologies (turbines <50m) within the more sparsely settled and densely forested core of hills of this character type. Some limited opportunities exist for the small-medium typology (turbines 35-50m) to be located on lower and broader hill slopes at the transition with the more expansive *Bay Farmland* (14) landscape character type where they could be back-dropped by rising ground and visually associated with these settled and farmed landscapes. There are also some limited opportunities for the small typology (turbines <35m) to be sited on gentler hill slopes at the transition with the *Rocky Mosaic* (20) character type and the *Low Coastal Hills* (21). Where settlement occurs close to the east coast within the *Upland Forest Moor Mosaic*, turbines should avoid intrusion on sea views from the public road. There are greater opportunities to accommodate the small typology (turbines <35m) in these coastal areas due to their better scale relationship with nearby settlement and reduced visual impact.

4.13.3 Cumulative issues

There are no operational or consented wind farm developments located in this landscape. Wind farm development is a key characteristic of the *Upland Forest Moor Mosaic* (6) landscape character type in the north of the Kintyre peninsula. The operational Tangy and Beinn an Tuirc I and II wind farms are the closest wind farms sited within the *Upland Forest Moor Mosaic* (6) and these developments are visible from some northern parts of this landscape. The consented repowered Tangy and Beinn an Tuirc III developments will increase the extent and influence of wind farm development seen on the southern edge of the *Upland Forest Moor Mosaic* from this landscape (6c) and the *Bay Farmland* (14).

Key cumulative issues include:

- Potential cumulative effects on views from Arran where the long even spine of Kintyre north of Campbeltown is strongly characterised by wind farm development. Wind farm development also located on the *Mull of Kintyre Upland Forest Moor Mosaic* would increase the extent of development seen in these views.
- Related to the above point are the potential effects on the perception of the Mull of Kintyre which has a character distinct from the long and more even spine of the Kintyre peninsula north of Campbeltown from which it is separated by a low-lying isthmus which sets it apart. Wind farm development could be perceived as making it appear the same as the northern length of Kintyre, diminishing its rugged character and strong identity.
- Cumulative effects with other wind farms located on the southern part of the nearby *Upland Forest Moor Mosaic* (6) potentially affecting more settled hill fringes and the *Bay Farmland* (14).

4.13.4 Key constraints:

- The high rugged hills characteristic of the south-western part of this character type which provide a dramatic backdrop to the settled and farmed landscapes of the *Low Coastal Hills* (21) and make a strong contribution to the scenic quality of this coastal area and the wider seascape.
- Areas of complex craggy landform, plunging hill slopes and cliffs/raised beaches along the coast and the small knolly hills which are highly visible on the edges of this character type.
- The pronounced wildland character which is especially, but not exclusively, associated with the exposed, remote and little modified butt of the Mull of Kintyre and the west coast.
- The high visibility of the outer 'edge' hills of this upland area from the surrounding well-settled landscapes of the *Rocky Mosaic* (20), the *Low Coastal Hills* (21) and the *Bay Farmland* (14).
- The landscape setting provided by Beinn Ghuilean to Campbeltown.
- Views from Arran and cumulative effects with other wind farm development seen along the long 'spine' of the Kintyre peninsula to the north of Campbeltown.
- The APQ designation which covers much of this landscape.

4.13.5 Opportunities:

- The simple landform and land cover of the interior rolling and densely forested hills within this character type.
- The sparsely populated nature of this character type and the potential for limiting visibility and intrusion from surrounding sensitive well-settled and frequented landscapes and the coast within the core of these uplands.

4.13.6 Guidance on development

There are **no opportunities** to accommodate the large typology (turbines 80-130m) within this character type due to its likely effect on the highly sensitive coast and the smaller scale settled landscapes of the *Low Coastal Hills* (21) and the *Rocky Mosaic* (20). This typology could, in addition, incur significant cumulative effects with operational and consented wind farm developments in the Kintyre peninsula north of Campbeltown appreciated sequentially from the A83 and in views from Arran.

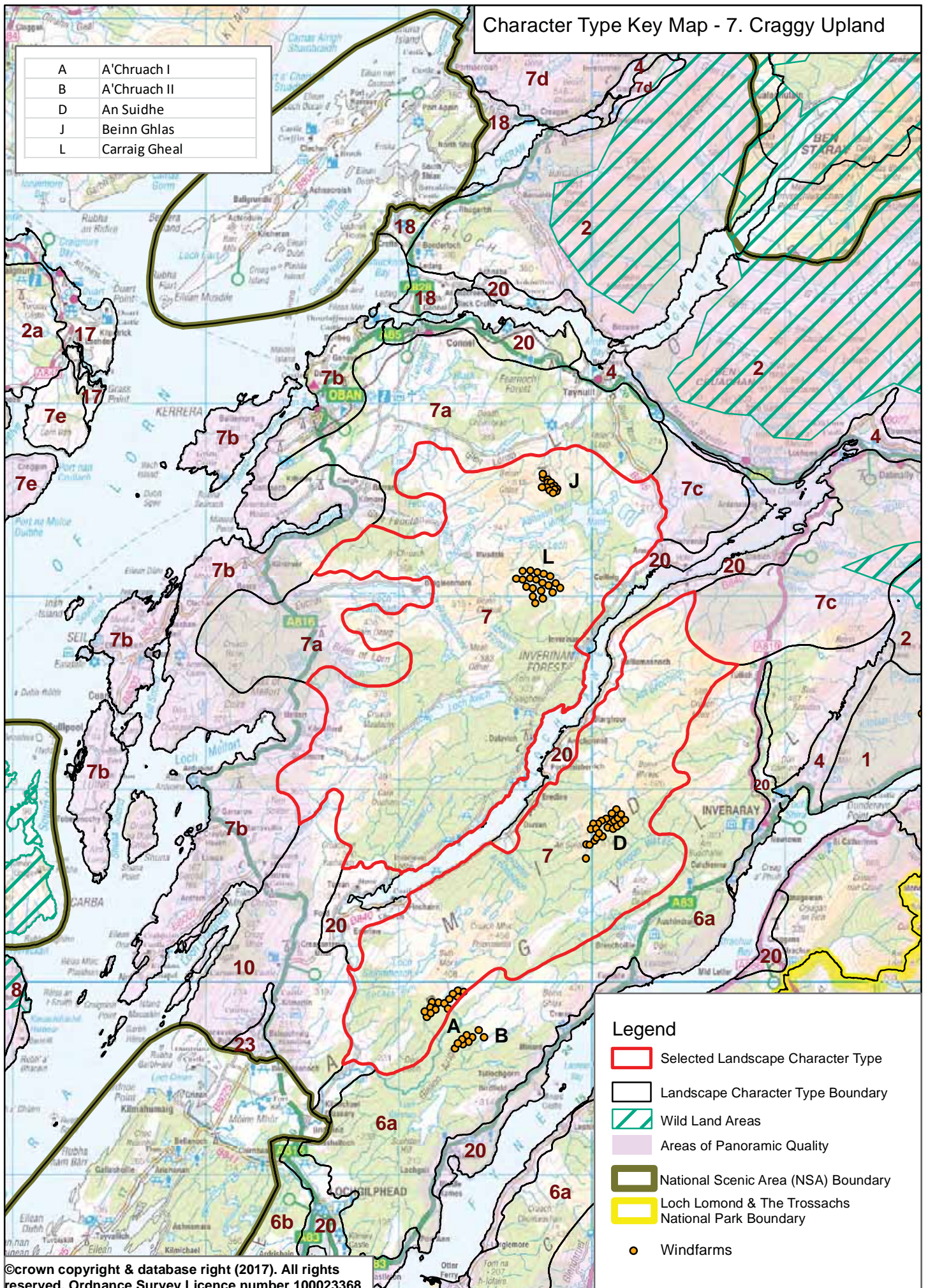
There may be some **very limited** opportunities to site the medium typology (50-80m) provided turbines avoid intrusion on highly sensitive coasts and adjoining smaller scale settled landscapes. Turbines should be sited within the simpler rolling landform of interior forested hills and on gentler hill slopes contained by higher ground which could limit visibility from the coast and from Arran. The smaller pronounced hills which form the highly visible southern edge of this character type should be avoided.

There are increased opportunities for smaller turbines to be located at the transition of this character type with adjacent settled landscapes where they could relate to the scale of broader and gentler hills slopes yet be visually associated with built development in these lowland areas. There is some limited scope for the small-medium typology (turbines 35-50m) to be sited at the transition with the more expansive landscape of the *Bay Farmland* (14) on hill slopes where they can be backed by rising ground, thus limiting effects on skylines. The small typology (turbines <35m) could be better accommodated at the transition with the smaller scale *Low Coastal Hills* (21) and the *Rocky Mosaic* (20) in order to fit with the scale of small hills which fringe these areas. More complex irregular landform and distinct knolly hills should be avoided and this will limit opportunities for multiple developments.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 7. Craggy Upland

- | | |
|---|---------------|
| A | A'Chruach I |
| B | A'Chruach II |
| D | An Suidhe |
| J | Beinn Ghlas |
| L | Carraig Gheal |



4.14 Craggy Upland (7)

This area comprises the uplands which lie either side of Loch Awe. Detailed sensitivity assessment has been undertaken for the larger development typologies only (turbines >50m) due to the very sparsely settled nature of this upland landscape. General guidance is given for smaller typologies within the summary below:

4.14.1 *Summary of sensitivity*

The *Craggy Upland* character type comprises a high irregular upland plateau lying either side of Loch Awe. This landscape generally has a large scale and simple land cover of extensive moorland and coniferous forestry which reduces sensitivity to wind farm development although areas with more complex craggy knolls and lochans have an increased sensitivity. Although this is a very sparsely settled landscape with roads aligned in valleys and views additionally restricted by extensive coniferous forest and loch-side woodland, immediate skylines formed by hills on the edge of the *Craggy Upland*, and visible from more settled loch shores and valleys, are sensitive. These uplands already accommodate a number of operational wind farms and potential cumulative effects on Loch Awe, inner Loch Fyne and on surrounding smaller scale settled glens and valleys are constraints to additional development.

This landscape has a **High** landscape sensitivity to very large turbines (>130m). Landscape sensitivity would be **High-medium** to the large and medium development typologies (turbines 50-130m).

No designated landscapes apply to most of this character type although the north-eastern and western parts are covered by an APQ. Landscape values are judged to be **High-medium** to **Low** for both typologies.

4.14.2 *Smaller typologies*

There is unlikely to be a significant demand for smaller typologies within this very sparsely settled upland area. Opportunities may exist on the fringes of this character type and at the transition with the *Craggy Upland with Settled Glens* (7a) and the *Rocky Mosaic* (20) character types where smaller turbines could be located on slacker hill slopes so visually associated with the more settled and farmed loch fringes and glens.

4.14.3 *Cumulative issues*

The operational Beinn Ghlas, Carraig Gheal and An Suidhe wind farms lie within this character type. The operational A' Chruach wind farm and its consented two turbine extension is partially located in this landscape and partially in the north-west part of the adjacent *Loch Fyne Upland Forest-Moor Mosaic* (6a) character type. The operational Clachan Flats wind farm is also situated close to the *Craggy Upland* (7) to the south-east of Loch Awe and within the adjacent *Steep Ridgeland and Mountains* (1) character type.

Key cumulative issues include:

- Incremental loss of open, less modified moorland and effects on the diverse character of the more intricate pattern of small lochans and craggy knolls present in some areas.

- Cumulative effects arising from potential differences in the layout and size of turbines associated with different wind farm developments which may be perceived in close views from Rights of Way but also from occasional open views from minor roads aligned within this character type.
- Cumulative effects that could occur with multiple developments seen on skyline ridges prominent in views from minor roads within the *Craggy Upland* (7) character type, along the Loch Avich road and from the B840 on the southern shores of Loch Awe but also from the south-eastern shore of Loch Fyne and from the A886 and the A85, at the scenic head of Loch Awe and southern shore of Loch Etive.
- Significant cumulative effects which would arise on roads and settlement if multiple wind farm developments extended either side of Loch Awe. The spatial pattern of operational wind farms (and small size/limited visibility of Beinn Ghlas turbines) limits the incidence of development seen along the very long length (40km) of Loch Awe in sequential views. Extensive forestry and woodland also restricts visibility from roads along Loch Awe although additional new wind farm developments (as opposed to extensions to existing wind farms) could result in turbines being prominent in the backdrop of every open view seen from the B840/Cycle Route 74.
- Cumulative impacts on the smaller settled landscapes of the *Rocky Mosaic* (20) where the large turbines of Carraig Gheal already significantly impacts on character and views on the south-eastern shores of Loch Awe and where additional development could significantly extend this effect into Ford area at the bottom of Loch Awe where wind farm development currently has little influence.
- Additional development seen in conjunction with the operational Carraig Gheal wind farm on hills which provide immediate containment to the sensitive *Craggy Upland and Settled Glens* (7a) and *Craggy Coast and Islands* (7b).

4.14.4 Key constraints

- The backdrop of steep slopes and skyline ridges which provide the immediate setting to the settled fringes of Loch Awe and to the less settled Loch Avich area but also to the small scale settled landscapes of the adjacent *Craggy Uplands with Settled Glens* (7a) to the west.
- Areas of more complex craggy landform including steep-sided ridges and knolly tops and the higher pronounced summits of Beinn Chapull, Beinn Dearg and Beinn Ghlas seen from adjacent settled glens.
- The intricate pattern of lochans and small knolly hills in the south-eastern part of the interior plateau of this character type and the more extensive areas of unmodified ground where a degree of naturalness and seclusion can be experienced.
- Occasional pronounced small open-topped hills close to Loch Awe and long wooded lower hill slopes which form spurs and promontories extending into Loch Awe and add to its scenic interest.
- The wider setting to the planned settlement of Inveraray and views from Loch Fyne.
- Prominent hills which form landmark features including Beinn Bhreac and Beinn Dearg which lie in the area between Loch Awe and Loch Fyne and are seen from inner Loch Fyne.

- Potential effects of large turbines sited on the north-eastern edge of this landscape on the scenic basin of north Loch Awe.
- Potential cumulative effects with the operational wind farms of A'Chruach, An Suidhe, Carriag Gheal and Beinn Ghlas particularly affecting views from Loch Awe and Loch Fyne. Cumulative effects could also occur in more extensive views from the popular Munro of Ben Cruachan, the Wild Land Areas of the Loch Etive Mountains and Ben Lui to the north and east and the sea and islands to the west.

4.14.5 Opportunities

- The generally simple landform and land cover and the large scale of interior plateaux. Forested areas are generally less sensitive as the underlying landform tends to be less craggy and complex.
- The very sparsely settled nature of these uplands and their relative inaccessibility which limits close views of the interior plateau.

4.14.6 Guidance on development

There is considered to be **no scope** to accommodate very large turbines in this landscape due to potential effects on Loch Awe and its smaller scale and often scenic settled fringes, the *Craggy Upland with Settled Glens (7a)* and *Craggy Coasts and Islands (7b)*. Replacement of the operational wind farm developments of Carraig Gheal, An Suidhe and Beinn Ghlas with turbines >130m high would be likely to incur significant effects on key sensitivities including on the setting of Inveraray (An Suidhe) and on the character and views from Loch Awe (Carraig Gheal and Beinn Ghlas). Further discussion of potential constraints associated with repowering is contained in Appendix F and in section 3 of this report.

There may be some **very limited** scope to accommodate the large typology (turbines 80-130m) in this character type. It would be preferable to consolidate existing wind farm developments in order to reduce cumulative visual effects but to also minimise the incremental effects on landscape character and on views from Loch Awe and potentially also from Loch Fyne.

It will be important to minimise intrusion on the adjacent smaller scale settled landscapes of the *Craggy Uplands with Settled Glens (7a)* and the *Craggy Coasts and Islands (7b)* and this may constrain scope for new developments and extensions to existing wind farms in some areas. Development should not be sited on, or close-by, the more pronounced higher hill summits of Beinn Chapull, Beinn Dearg and Beinn Ghlas, which form landmark features seen at the head of the settled glens to the west. Additional wind farm development should also avoid intrusion on prominent skylines seen from open sections of Loch Awe. This could be achieved by selecting sites which are slightly dipped and contained to some degree by higher ground and where turbines would be seen on a relatively low even stretch of skyline. Development should be sited to avoid the steep, predominantly wooded slopes which provide an immediate backdrop and setting to Loch Awe and its settled fringes and to Loch Avich. They should also be sited away from the occasional small hills, wooded spurs and promontories along the shores of Loch Awe. Areas with a more complex landform, for example irregular craggy ridges, steep slopes, narrow valleys and areas with a particularly intricate pattern of lochans and rocky knolls would be highly sensitive to all development whether sited

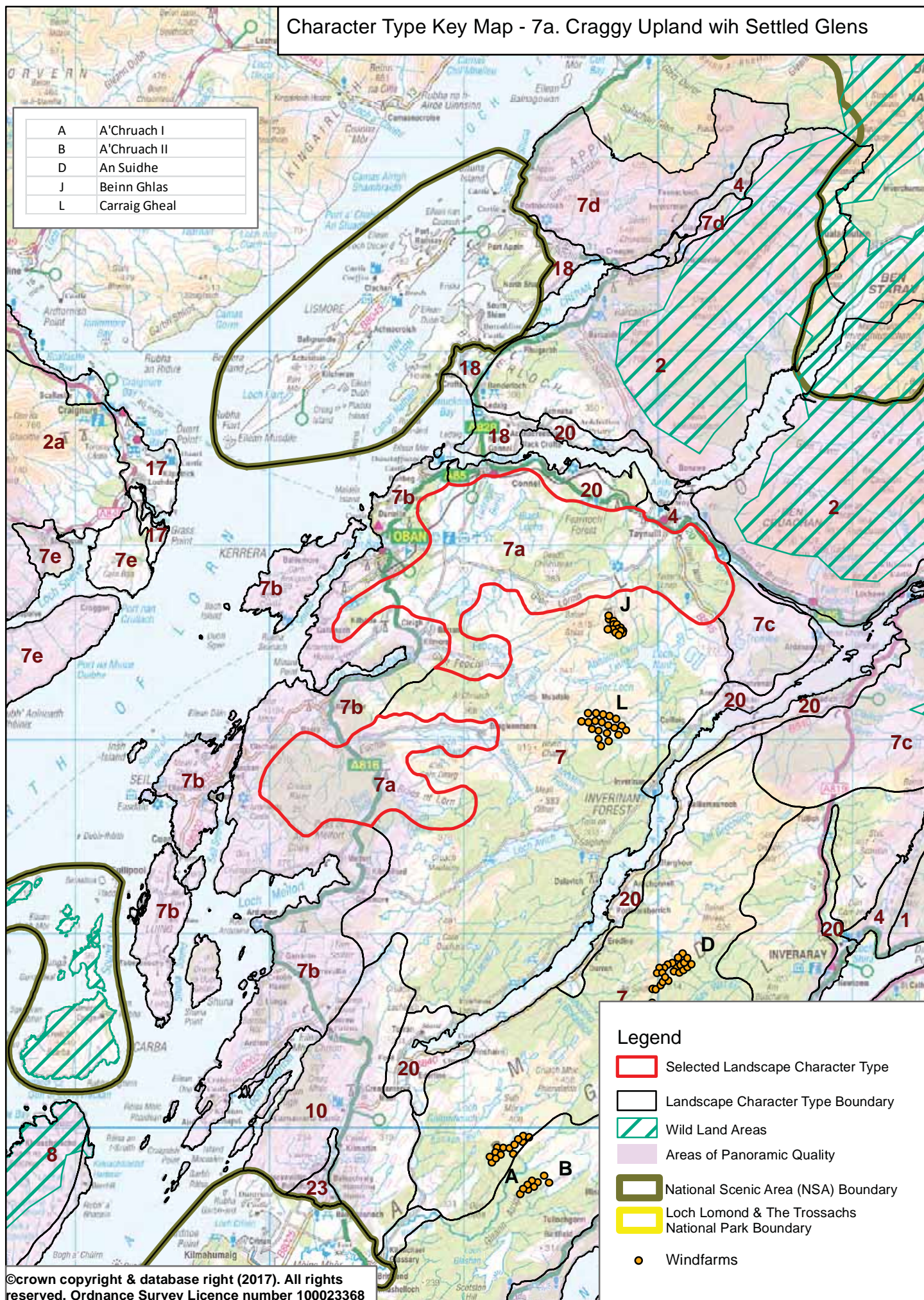
directly within these areas or nearby. More extensive areas of open and less modified ground where wildland qualities are stronger, for example south-west of Eredine Forest (the latter area also comprising a notably complex landscape of lochans and rocky knolls) should also be avoided and care taken to minimise effects from turbines sited in the surrounding area on these qualities.

Replacing (repowering) the Beinn Ghlas wind farm would need to minimise potential effects on the scenic north-eastern head of Loch Awe and cumulative effects with the Carraig Gheal wind farm in views from the south-eastern shore of Loch Awe. Any repowering proposals for the An Suidhe wind farm would need to carefully consider effects on the setting of Inveraray appreciated from inner Loch Fyne. Any extension to the operational Carraig Gheal wind farm should not significantly exacerbate already adverse effects on views from the south-eastern side of Loch Awe and on the landscape setting and character of the loch.

Smaller turbines (turbines <50m) could be sited so visually associated with more settled areas and located to relate to gentler hill slopes set back from buildings so as to avoid dominating the scale of small buildings, trees and fields. More extensive pasture and moorland areas above in-bye land and backed by rising hill slopes or forestry would provide opportunities to minimise visibility. Cumulative effects with larger turbines would need to be minimised. Smaller turbines should be sited in accordance with the guidance contained in the Volume Two Report.

Character Type Key Map - 7a. Craggy Upland wih Settled Glens

A	A'Chruach I
B	A'Chruach II
D	An Suidhe
J	Beinn Ghlas
L	Carraig Gheal



©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

4.15 Craggy Upland with Settled Glens (7a)

This landscape occurs on the western fringes of the *Craggy Uplands* character type (7). Detailed sensitivity assessment tables for all development typologies are contained in the Volume Two Report.

4.15.1 *Summary of sensitivity*

This landscape forms a series of deep glens, some of these containing narrow lochs, and areas of more expansive low craggy plateaux. Scale varies with the contained glens having a generally small scale accentuated by the often intricate pattern of broadleaved woodland, pastures and settlement and with scale increasing in the more extensive and open plateau areas which are generally densely forested. Although views are restricted from roads by the incised landform of the glens, the skylines formed by hills within this landscape (seen from the glens and the adjacent *Craggy Coast and Islands* (7b)) are highly sensitive. The settled nature of this landscape, its predominantly diverse landform and proximity to the highly sensitive *Craggy Coast and Islands* (7b) increases sensitivity to the large typology (turbines >80m) with a **High** sensitivity concluded in the assessment. Sensitivity would be **High-medium** for the medium typology (turbines 50-80m) and **Medium** for the smaller typologies (turbines <50m) as turbines of this size could be sited to minimise impacts on smaller scale settled areas.

An APQ designation applies to the western part of this landscape and sensitivity was concluded to be **High-medium** for the larger and small-medium typologies within the APQ where views to the coastal area could be affected reducing to **Medium** for the small typology, reflecting increased scope for minimising intrusion. Sensitivity in relation to landscape values would be low within the majority of this character sub-type which is undesignated.

4.15.2 *Cumulative issues*

There are no operational or consented wind farms within this character type although the Carraig Gheal and, to a lesser extent, the Beinn Ghlas wind farms are visible from some parts of this landscape. Key cumulative issues within this character type are likely to include:

- The cumulative effect of multiple wind farm developments sited within the adjacent *Craggy Upland* (7) seen from roads and settlement on prominent skylines above the small scale settled glens.
- Potential inter-visibility of any larger scale turbines sited in this character type with the operational Carraig Gheal wind farm (and any future wind farm development) sited in the adjacent *Craggy Uplands* (7).

4.15.3 *Constraints*

- The complex irregular landform which includes steep rocky slopes containing deep glens, rocky outcrops and knolls and occasional pronounced craggy topped hills. The glens and lower lying, farmed and settled landscapes are of a relatively small scale.
- Settlement within these areas and the setting of archaeological features which are particularly evident in the Glen Lonan and Loch Nell area.

- The rich diversity of broadleaved and policy woodlands, lochs, wetlands and small pastures characteristic of these settled glens adds to complexity and the reinforces the small scale character of this landscape.
- The backdrop of steep slopes and skyline ridges which provide the immediate setting to the well-settled coastal edge of the *Craggy Coast and Islands* (7b).
- Potential cumulative effects with consented and proposed wind farm developments sited within the adjacent *Craggy Upland* (7).
- An APQ designation covering the plateau area around Cruach Rarey and the foreground this landscape provides to panoramic views of the coast, sea and islands from the Loch Avich to Kilmelford road.

4.15.4 *Opportunities*

- More extensive plateau-like areas with a less complex topography, unsettled character and generally with a more uniform land cover of coniferous forestry, where the scale of the landscape is increased.

4.15.5 *Guidance on development*

There is no scope for turbines >80m high to be accommodated within this landscape due to the impact of turbines of this size on small scale glens, landmark lochs, complex landform and more naturalistic vegetation and on the adjacent coastal fringe of the *Craggy Coast and Islands* (7b).

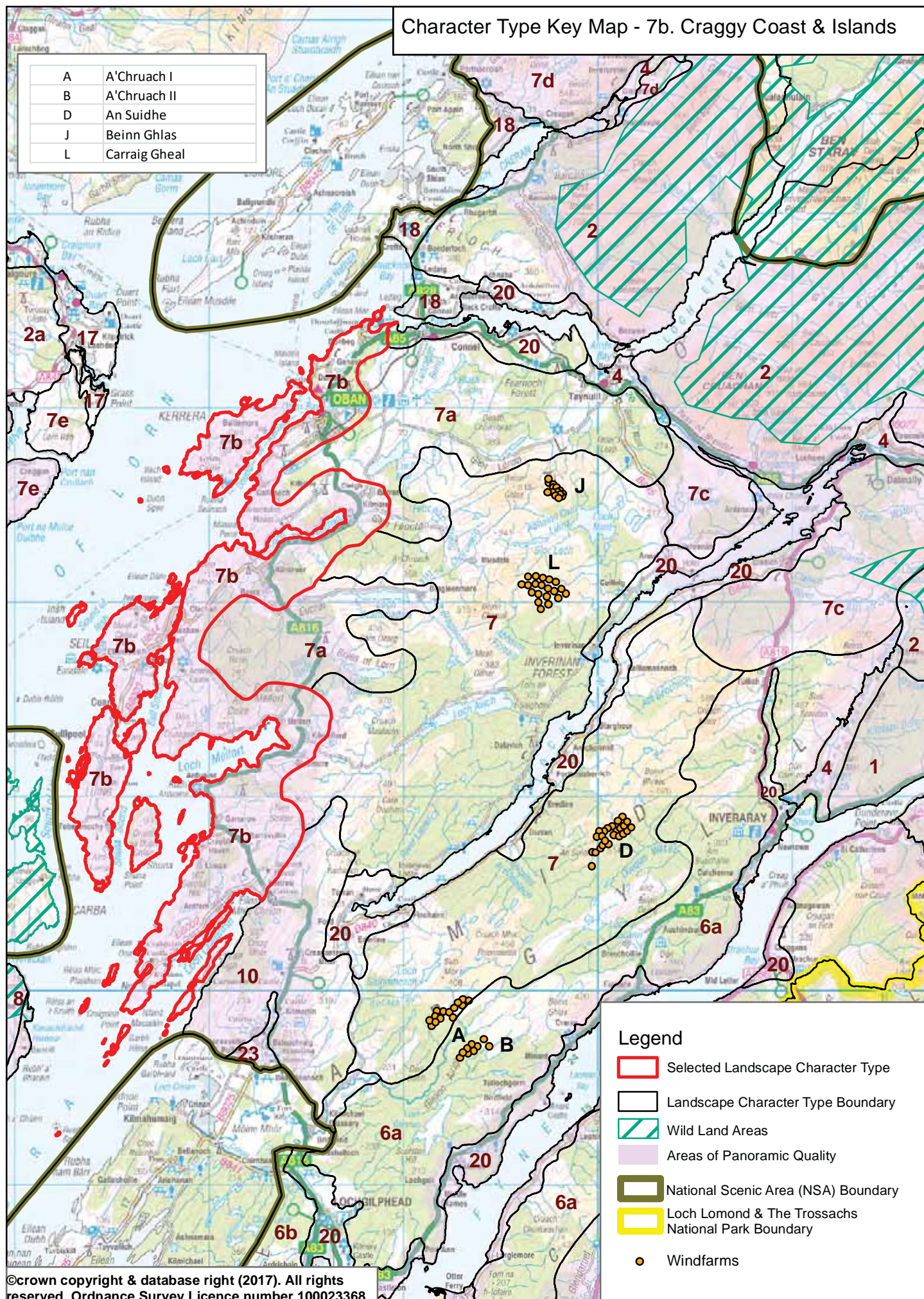
There is some **very limited** scope for the medium typology (turbines 50-80m) to be located in more extensive plateau-like areas with a less complex landform and simpler vegetation cover of moorland or coniferous forestry. Turbines should be sited away from the small scale glens and lochs where they would dominate their scale and detract from their diverse landform, vegetation cover and settlement. They should also avoid intrusion on the prominent skyline ridges enclosing these glens and also sited to avoid intrusion on prominent skylines seen from the adjacent *Craggy Coast and Islands* (7b) character type. Turbines towards the lower height band of the medium typology are more likely to minimise effects on key views to and from the coastal area.

There is increased opportunity to site smaller typologies (turbines <50m) at the transition between marginal farmed areas and the more extensive rough grazing and forestry where gentler hill slopes and plateau-like areas occur. The small typology (turbines between 20-35m) could be more readily accommodated close to more settled areas. The small scale glen floors and lochs remain sensitive however to the typologies considered in the sensitivity assessment although turbines below 20m could be more readily accommodated in these areas if visually associated with existing farms and other buildings.

The setting of archaeological features would be sensitive to all typologies and also to smaller turbines if inappropriately sited. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 7b. Craggy Coast & Islands

- | | |
|---|---------------|
| A | A'Chruach I |
| B | A'Chruach II |
| D | An Suidhe |
| J | Beinn Ghlas |
| L | Carraig Gheal |



Legend

- Selected Landscape Character Type
- Landscape Character Type Boundary
- Wild Land Areas
- Areas of Panoramic Quality
- National Scenic Area (NSA) Boundary
- Loch Lomond & The Trossachs National Park Boundary
- Windfarms

4.16 Craggy Coast and Islands (7b)

The landscape comprises the coastal area between Oban and Loch Craginish and the near shore islands of Kerrera, Seil, Luing and Shuna. Detailed sensitivity assessment tables for all development typologies are contained in the Volume Two Report.

4.16.1 *Summary of sensitivity*

The *Craggy Coast and Islands* character sub-type has a deeply indented coastline of narrow sea lochs, long fragmented peninsulas and islands. The complex landform of this character type is complemented by extensive broadleaved woodland, small settlements, farmland and policy landscapes which feature on the more sheltered sections of coast. It is a small scale and richly diverse landscape which makes a strong contribution to wider seascape character when seen in conjunction with Mull and Jura. This coastal landscape is relatively well-settled and is a popular destination for tourism and recreation. Panoramic views from the A816, from minor roads and settlement and from the sea.

This landscape has a **High** landscape and visual sensitivity to turbines >50m high. It has a **High-medium** sensitivity to the small-medium typology (turbines 35-50m) and a **Medium** sensitivity to the small typology (turbines <35m).

An APQ designation applies to the majority of this landscape. This landscape is also important in providing key views to the Scarba, Lunga and the Garvellachs NSA and the wider setting to the northern part of the Jura, Scarba, Lunga and the Garvellachs WLA. Sensitivity in terms of landscape values is considered to be **High-medium** for the larger and small-medium typologies and **medium** for the small typology.

4.16.2 *Cumulative issues*

No operational or consented commercial wind farms or large turbines are sited in this landscape. The operational wind farms of Beinn Ghlas, An Suidhe and A'Chruach located in the adjacent *Craggy Upland* (7) are visible from elevated and less settled areas within this landscape. The operational Carraig Gheal wind farm which is also located in the *Craggy Upland* (7) has a more extensive visibility across this character type with elevated and generally less settled areas affected but with some views also from the southern islands. Key landscape and visual cumulative issues comprise:

- Inter-visibility between wind farm developments sited in the adjacent *Craggy Upland* (7) and any larger turbines sited in this character type.
- Incremental encroachment of wind farm development located in the adjacent *Craggy Upland* (7) which forms an often prominent backdrop to these small scale and diverse coastal areas.

4.16.3 *Key constraints:*

- The scenic contribution made by the *Craggy Coast and Islands* to the wider seascape context.
- The intricate coastal edge cut by narrow sea lochs and sounds and the complexity and variety of landform including islands, skerries and distinctive coastal geological features.

- The strong containment provided to the coastal edge by steep-sided hills to the east, the deeply indented coastal edge and knolly landform give an often small scale to the landscape, this accentuated by woodlands, small enclosed fields and settlement.
- The rich pattern of vegetation cover including extensive broadleaved woodlands, mixed policy woodlands and parkland, pockets of wetland and scrub.
- A strong sense of remoteness and naturalness experienced particularly on more isolated promontories, sparsely settled islands and the more exposed, inaccessible and rugged west-facing coasts.
- The setting to Oban and other coastal settlements provided by a backdrop of higher ground and often most visible from the sea.
- Views from the A816 as it winds along the coast offering a sequence of panoramas of sea and land which feature focal views to the mountains of Jura and Mull.
- Views from the sea, including those from the Colonsay ferry, but also the popularity of this coastal area for recreational sailing which increases sensitivity
- An Area of Panoramic Quality designation which covers much of this coastal landscape sub-type.
- Views from Easdale and Culipool on the island of Luing to the Scarba, Lunga and the Garvellachs NSA.

4.16.4 *Opportunities*

- Areas of less complex craggy landform away from the coastal edge where smaller typologies could be accommodated so visually associated with existing buildings

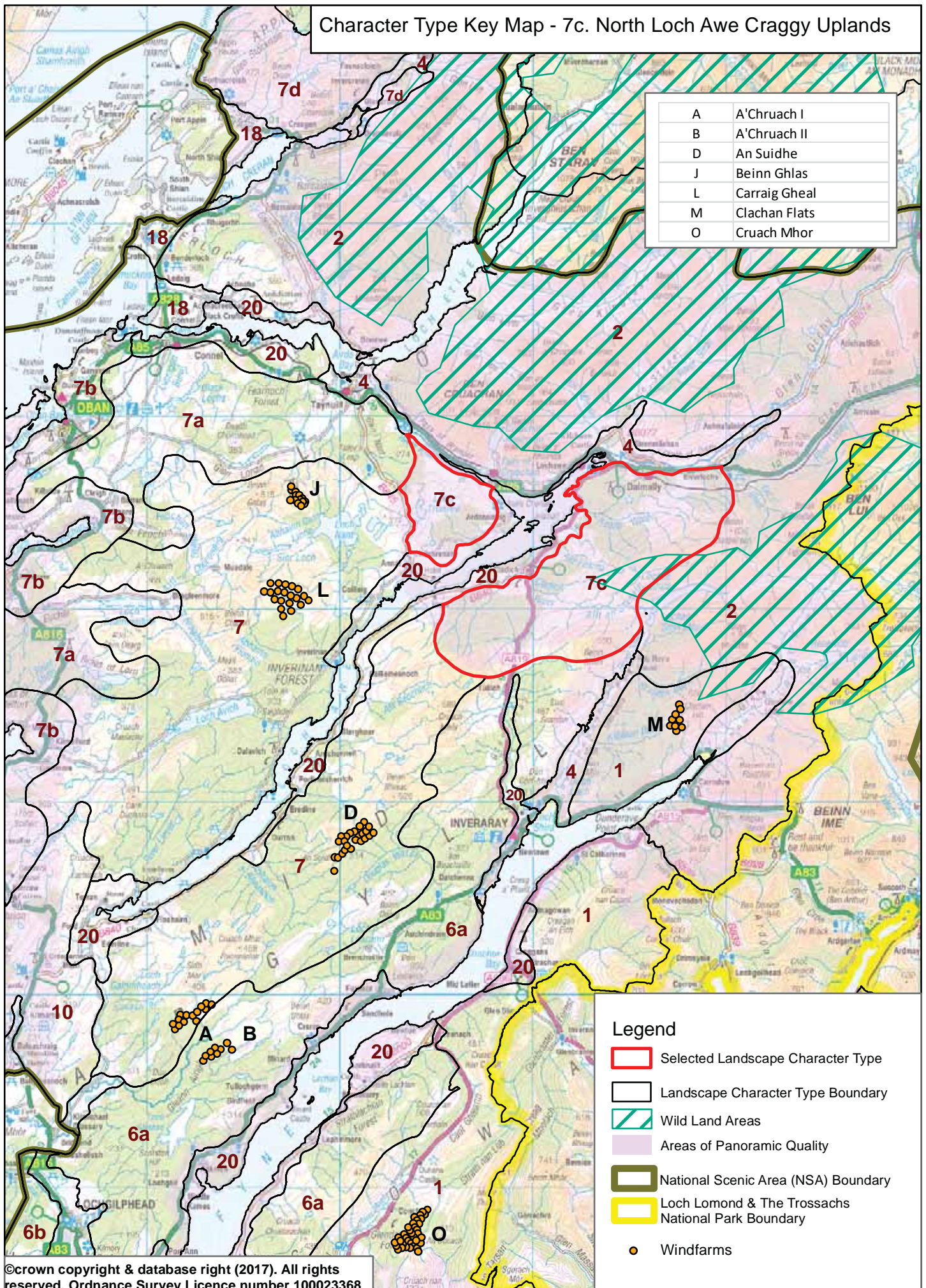
4.16.5 *Guidance on development*

There is no scope to site the larger and the small-medium typologies (turbines >35m high) within this landscape due to the significant adverse impacts that would be likely to occur on a wide range of landscape and visual sensitivities.

There is some **very limited** scope for single and small groups of the small typology (turbines <35m) to be associated with less complex landform and vegetation cover. Turbines should be sited away from the more inaccessible western coasts and unsettled islands which have a distinct sense of wildness. They should avoid intrusion on skylines, particularly where these form the backdrop to settlement and on key views from the A816 to the coast and sea. The setting of archaeological features and designed landscapes should also be avoided. They will be easier to accommodate if sited on slightly rises or folds in the landscape or where there are natural changes in gradient and in areas where rising ground forms a backcloth able to reduce their prominence.

It will be important to limit the number of turbines and the ranges of turbine designs in this highly sensitive landscape to avoid it becoming cluttered with built development. There is likely to be more scope to accommodate a greater number of well-sited turbines below 20m height than the small typology considered in this assessment. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 7c. North Loch Awe Craggy Uplands



4.17 North Loch Awe Craggy Upland (7c)

This character type covers the low wooded hills and more open higher ridges which immediately contain the scenic basin of the head of Loch Awe.

Detailed sensitivity assessment tables contained in the Volume Two Report focus on larger development typologies (turbines >50m) due to the very sparsely settled nature of this upland landscape. General guidance is given for smaller typologies within the summary below.

4.17.1 *Summary of sensitivity*

This landscape character type comprises an irregular upland plateau which sits at the juxtaposition of a number of different character types at the head of Loch Awe. The relatively simple vegetation pattern, the presence of existing infrastructure and the lack of settlement within the type have been identified as characteristics which can reduce sensitivity to larger wind turbines. However, the context – in particular the diversity of different character types which come together in this area – the limited extent of the area and the medium scale of the landscape all limit scope. The plateau forms the backdrop, and is often visible as a skyline, from small scale low-lying, settled landscape types. It also forms the foreground in views to the steep sided, massive bulk of Ben Cruachan and other mountain areas. This landscape is also highly visible from Ben Cruachan and from roads, settlements, the loch and the railway as well as from key historic features.

Overall, the landscape and visual sensitivity of this character type has been assessed as being of **High** sensitivity to large turbines (turbines 80-130m) and **High-medium** sensitivity to the medium typology (turbines 50-80m).

This landscape makes a strong contribution to the diversity of relief, scale, form and pattern which come together to create the scenic qualities and visual drama associated with the North Loch Awe Area of Panoramic Quality, and is therefore judged to be of **High-medium** sensitivity in relation to landscape value.

4.17.2 *Smaller typologies*

There is unlikely to be a significant demand for smaller typologies (turbines <50m) within this very sparsely settled upland area. Opportunities may exist on the fringes of this character type and at the transition with the *Mountain Glens* (4) and the *Rocky Mosaic* (20) where smaller turbines could be located on slacker hill slopes so visually associated with the more settled and farmed loch fringes and valleys.

4.17.3 *Cumulative issues*

There are no operational or consented wind farms within this landscape. The operational wind farms of Beinn Ghlas and Carraig Gheal lie within the adjacent *Craggy Upland* (7) character type and are extensively visible across this character type and the surrounding area. The operational wind farm of An Suidhe also lies within the adjacent *Craggy Upland* (7) character type but is only visible from the higher ridge on the south-eastern boundary of this character type.

Key cumulative issues include:

- Inter-visibility with wind farms on adjacent character types, principally the *Craggy Upland* (7) type, particularly where these might extend to create cumulative effects of distracting visual clutter or significant loss of open skylines around north Loch Awe and the designated APQ.
- This is an area of the *Craggy Upland* character type which is undeveloped in terms of wind farms (and which is different in its character and context), and therefore contrasts with nearby larger scale and more extensive areas of *Craggy Upland* which are more able to accommodate larger wind energy developments.

4.17.4 *Key constraints*

- The physical juxtaposition and inter-visibility of this type with several other landscape types in this area, which combine to create contrasts in scale, relief and form and contribute to the dramatic and diverse setting of north Loch Awe and the Area of Panoramic Quality.
- The slopes and ridges which contribute to the setting of the settled and farmed fringes of Loch Awe and the Dalmally area, and are visible as skylines from roads and settlements.
- Key panoramic viewpoints and focal features, including views to and from places of historic interest, and to natural features, such as the Loch Awe islands or the panorama of Ben Cruachan.
- Cumulative effects with the operational wind farms of Carraig Gheal and Beinn Ghlas (particularly if larger turbines replaced the relatively small turbines in the latter development as part of a repowering scheme) seen in widespread views from roads, visitor facilities, hill paths and settlement at the head of Loch Awe.

4.17.5 *Opportunities*

- Occasional less complex areas of landform and the generally simple land cover of this irregular plateau.
- The very sparsely settled nature of these uplands and their relative inaccessibility which limits visibility particularly in the interior glens.

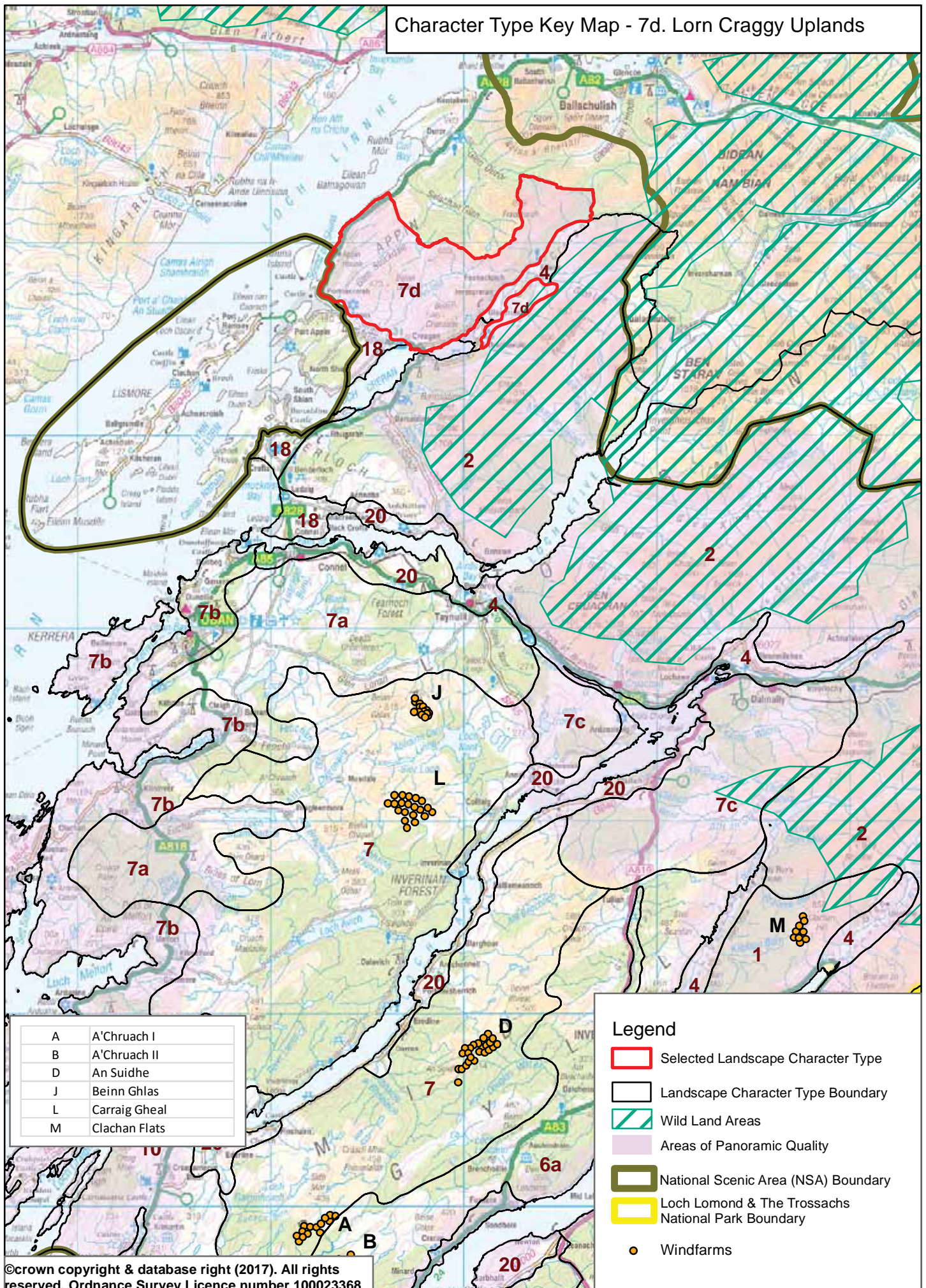
4.17.6 *Guidance on development*

There is **no scope** to accommodate the large typology (turbines 80-130m) in this character type due to likely effects on the setting and views from the scenically rich head of Loch Awe.

Scope to accommodate the medium size typology (turbines 50-80m) is likely to be limited to areas where turbines of this size would not intrude into skylines overlooking Loch Awe, or into key views to and from the Loch, its islands, historic features and panoramas of the mountains. Turbines towards the lower height band of this typology would be more likely to minimise intrusion.

Smaller turbines (<50m) could be sited so visually associated with more settled fringes of this character type and located to relate to gentler hill slopes set back from buildings so as to avoid scale impacts. More extensive pasture and moorland areas above in-bye land and backed by rising hill slopes or forestry would provide opportunities to minimise visibility. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 7d. Lorn Craggy Uplands



4.18 Lorn Craggy Upland (7d)

The *Lorn Craggy Upland* which has been defined as a landscape character sub-type because of heightened sensitivities related to its APQ designation and context next to the Lynn of Lorn NSA and the *High Tops* (2) character type within Glen Creran.

Detailed sensitivity assessments in this assessment have been undertaken for the larger development typologies (turbines >50m) only due to the very sparsely settled nature of this upland landscape. General guidance is given for smaller typologies within the summary that follows.

4.18.1 *Summary of sensitivity*

The defined rugged, craggy hills of the *Lorn Craggy Upland* character type form an important scenic backdrop to the lower settled coastal fringes and the wider seascape of the Lynn of Lorn and Loch Linnhe. These hills also form a visual extension of the higher mountains of the *High Tops* (2) within Argyll and Bute and neighbouring Highland region. While the scale of this upland character type could relate to larger wind farm typologies the important scenic contribution it makes to the wider landscape context, the complex craggy landform of the hills and the wildland qualities experienced within this landscape are key constraints. This landscape type is highly visible from major coastal tourist routes and settlement but also lies close to popular listed Corbetts and Munros lying in this and adjoining character types.

This landscape has an overall **High** landscape and visual sensitivity to larger typologies (turbines >50m) of wind farm development.

All of this landscape is covered by an APQ landscape designation and the eastern part lies within a Wild Land Area. This landscape also lies in close proximity to the Lynn of Lorn NSA. There would be **High** sensitivity to larger typologies (turbines >50m) in terms of landscape values.

4.18.2 *Smaller typologies*

There is unlikely to be a demand for smaller typologies (turbines <50m) within this very sparsely settled upland area. Smaller typologies would appear out of scale in relation to the predominantly large scale of these uplands. They would also have similar effects on complex landform, land cover and on the appreciation of wildland character as larger typologies. Some limited opportunities may exist for the small typology (turbines <35m) to be sited on the fringes of this character type, on less steep and smoother lower hill slopes at the transition with the more settled and farmed *Lowland Ridges and Moss* (18) (Strath Appin).

4.18.3 *Cumulative issues*

There are no operational or consented wind farm developments located within this landscape. The operational wind farms of Bheinn Ghlas and Carraig Gheal, located in the *Craggy Upland* (7) are visible from the south-facing hill slopes of this character type but seen at distances of over 26km. No cumulative landscape and visual issues would therefore arise.

4.18.4 *Constraints*

- The rugged defined hills of this character type where steep craggy slopes and conical peaks physically limit scope for wind farm development and where this development would also detract from their complex landform.
- The sense of seclusion and naturalness which can be experienced in these uplands.
- The high visibility of these uplands where they form a backdrop to more settled coastal areas and seascapes but are also visible in close proximity by walkers accessing the popular Munros, Corbetts and other hills in this and the adjoining *High Tops* (2) character type.
- Effects on the special qualities of the APQ which covers this character type and also on the special qualities of the Lynn of Lorn NSA.

4.18.5 *Opportunities*

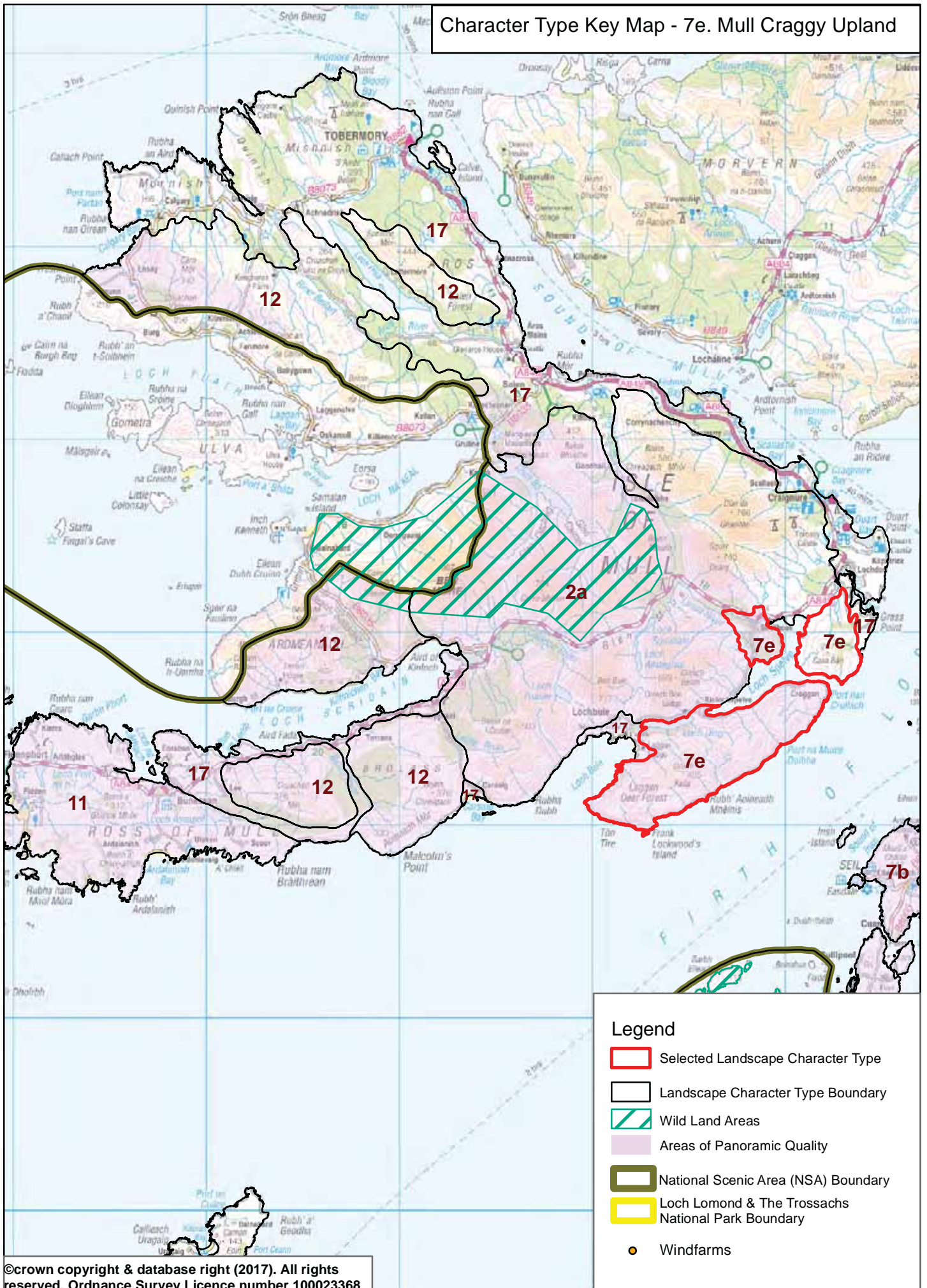
- Smoother, less steep lower hill slopes on the fringes of this character type where the small typology could be sited in association with existing settlement providing it did not intrude on key views to these hills.

4.18.6 *Guidance on development*

There is no scope for turbines >35m high to be accommodated in this landscape character type without incurring significant impacts on a number of key characteristics.

Some limited opportunities may exist for the small typology (turbines <35m) to be sited on the fringes of this character type, on less steep and smoother lower hill slopes at the transition with the more settled and farmed *Lowland Ridges and Moss* (18) (Strath Appin). Turbines should be sited to avoid intrusion on key views to these hills from the A828 and from the Lynn of Lorn NSA. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 7e. Mull Craggy Upland



4.19 Mull Craggy Upland (7e)

The Mull Craggy Upland occurs in three small areas around Loch Spelve on the island of Mull. As no scope was identified in the 2012 ABLWECS for turbines >35m high to be accommodated in this landscape, the sensitivity tables contained in Volume Two do not assess larger turbines.

4.19.1 *Summary of sensitivity*

The *Mull Craggy Uplands* form rugged coastal peninsulas enclosing Loch Spelve. The landform is generally complex with steep rocky slopes and craggy knolls and is particularly dramatic in the west near Loch Buie, forming higher hills and sheer cliff faces on the coast. Extensive broadleaved woodlands are a feature in the Ardtura area, the eastern slopes of Carn Ban and also colonise narrow gullies within the western peninsula. Policy woodlands and buildings of architectural interest are associated with Loch Uisg. This is a sparsely settled area with few roads; the exposed coast against the Firth of Lorn is difficult to access and has a strong sense of wildness. While taller turbines could relate to the scale of this landscape, the complexity of the landform, the strong sense of wildness experienced in coastal areas and the contribution this landscape makes to wider scenic quality are key factors increasing sensitivity.

This landscape has a **High** sensitivity to turbines >50m high. Sensitivity would be **High-medium** to the small-medium typology (turbines 35-50m) and **Medium** sensitivity to the small typology (turbines 20-35m), reflecting increased scope to site smaller turbines to minimise intrusion.

An APQ designation applies to the majority of this landscape with sensitivity in relation to landscape values judged to be **High-medium** for the small-medium typology and **Medium** for the small typology. Sensitivity would be reduced in the undesignated Carn Ban area.

4.19.2 *Cumulative issues*

There are no operational or consented wind farms within this character type. The operational wind farms of Bheinn Ghlas and Carraig Gheal located within the *Craggy Upland (7)* on the mainland are theoretically visible from higher coastal areas of this character type but at distances of over 28km. There are no cumulative issues associated with this character type.

4.19.3 *Key constraints*

- The scenic contribution made by the *Mull Craggy Uplands* to the wider, little developed and diverse seascape of the Firth of Lorn and the foreground it provides to the *Mull High Tops (2a)* seen from the mainland coast and islands and the sea.
- A complex craggy landform, cut by numerous narrow gorges and the high cliffs of the Firth of Lorn coast.
- Extensive oak woodlands on the lower slopes of Cruach Ardura and Carn Ban and on the shores of Loch Uisg.
- A strong sense of remoteness and naturalness experienced particularly on the more exposed, inaccessible and rugged Firth of Lorn coast.

- Views from the Carsaig to Lochbuie coastal path and the Lochbuie area to the dramatic rugged hills and high coastal cliffs of the western peninsula.
- Intimate and scenic views from the minor road along Loch Uisg to policy woodlands, historic built features and the backdrop of steep craggy hills.
- The APQ covering much of this landscape.

4.19.4 *Opportunities*

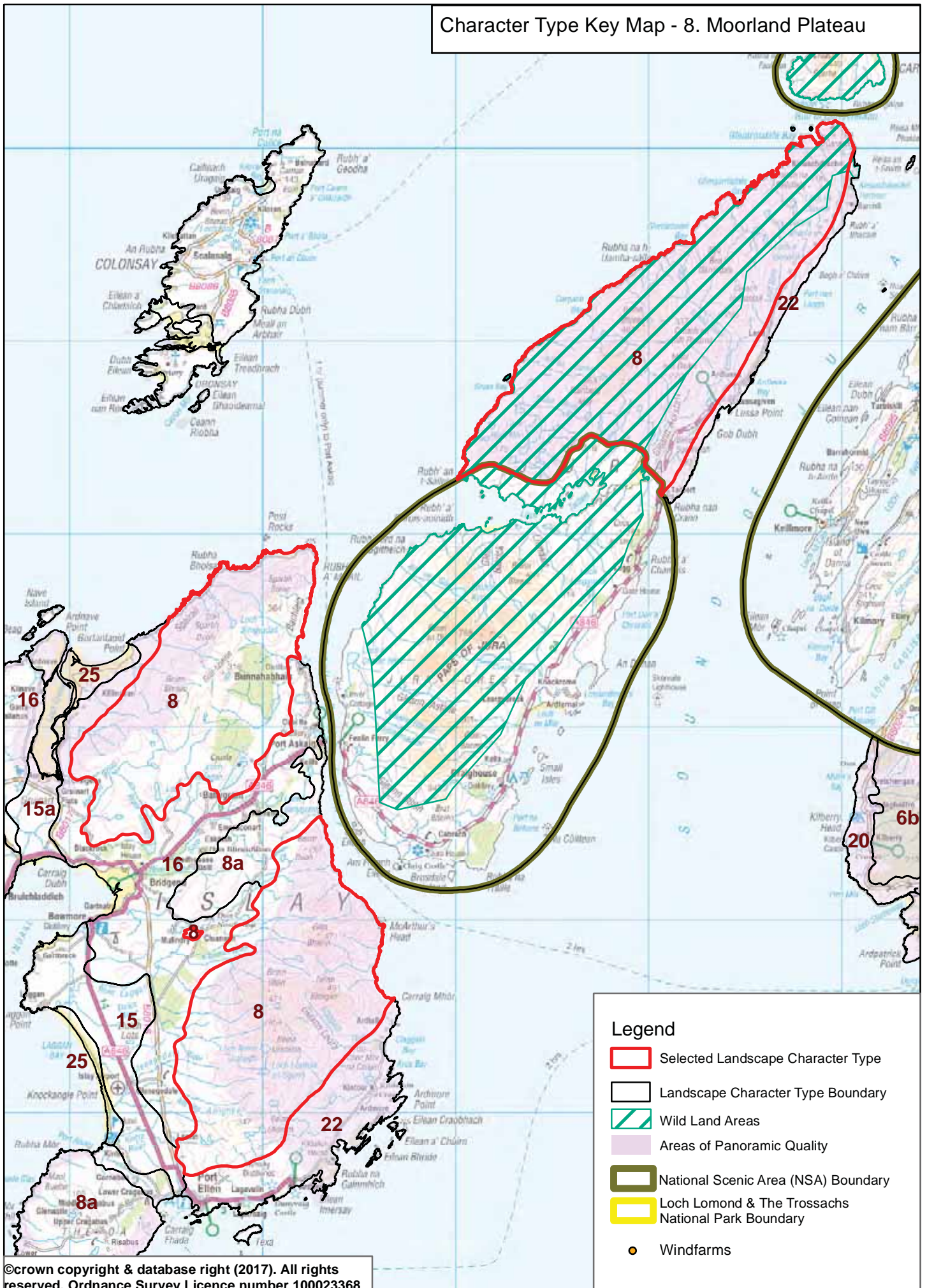
- Areas of less complex craggy landform away from the more dramatic and wild coastal edge where smaller typologies could be accommodated so visually associated with settlement.

4.19.5 *Guidance on development*

There is **no scope** for turbines >35m high to be located in this character type due to the potential significant impacts that could arise on a number of key landscape and visual sensitivity criteria.

There is some **limited** scope for single and small groups of the small typology (turbines 20-35m) to be associated with less complex landform, away from more intricately patterned wooded areas and avoiding intrusion on the more sensitive remote and undeveloped coastal area. Turbines of this size should be visually associated with existing settlement being sited on gentler lower hill slopes and flatter coastal fringes where rising ground would reduce prominence. Turbines should be sited to avoid significant intrusion on framed views through the narrow channel between the Firth of Lorn and Loch Spelve seen from the minor road on the north-west shore of the loch and on long views up and down Loch Uisg. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 8. Moorland Plateau



4.20 Moorland Plateau (8)

The *Moorland Plateau* (8) landscape character type is defined on the islands of Islay and Jura and extends over most of the higher uplands, embracing stretches of coastline and areas of inaccessible and remote interior hills.

The detailed sensitivity tables contained in the Volume Two Report consider all turbine typologies as some scope was identified for the small-medium typology (turbines 35-50m) to be accommodated in the 2012 ABLWECS.

4.20.1 Summary of sensitivity

This character type forms the uplands and highest hills on Islay and within Jura outwith the NSA. These hill ranges form the backdrop to a number of farmed and settled low-lying landscape types. The hills are irregular and interlocking, divided by glens, narrow river valleys and corries and saddles which often contain lochans. The highest summits contrast with areas of undulating plateau, and there are expanses of smooth, gentler slopes. Long coastlines, with raised beaches, cliffs and occasional indented bays and islands, add further to the topographical diversity. The vegetation is dominated by moorland and wet heath. Much of the area is unsettled, relatively inaccessible, exposed, semi-natural and often remote.

The sense of remoteness and relative naturalness, emphasised by the inaccessibility and lack of settlement and the topographical diversity are key sensitivities. Further sensitivities include the diversity of the coastal landscape and areas of more complex, smaller scale landforms. The *Moorland Plateau* (8) character type is largely unsettled with no public roads, although parts of this landscape are visible from roads in adjacent character types. There are some coastal walks, and the ridgelines and hill profiles are a prominent feature in wider views. While this landscape is generally of higher landscape and visual sensitivity, the absence of smaller scale features such as settlement and the simplicity of land cover together with more gently sloping ground offers some scope for wind energy development at the periphery of this character type, where there is a transition with neighbouring more managed and settled landscapes.

This landscape is judged to have a **High** sensitivity to large turbines (turbines >80m) due to their effect on the scale, landform and remote qualities of this character type. Sensitivity would be **High-medium** to the medium and small-medium typology (turbines 35-80m). This reflects the very limited scope in terms of area for this typology, as it is likely to be best accommodated at the very periphery of this character type, where the type forms the immediate backdrop to adjacent lower lying and farmed landscapes. This landscape has a **Medium** sensitivity for the small typology (turbines 20-35m) as there are likely to be slightly more opportunities to accommodate smaller turbines in similar locations which with careful siting are less likely to impact on the more remote and complex areas of landscape character.

This landscape type is widely covered by an APQ and a Wild Land Area applies to much of the *Moorland Plateau* (8) character type on Jura. It also lies in close proximity to the Jura NSA. Sensitivity in terms of landscape value would be **High-medium** where the APQ designation applies and **High** where both the APQ and Wild Land Area occur.

4.20.2 Cumulative issues

A single community wind turbine (61m high) is located at Castlehill on Islay, at the transition between this landscape character type and the *Marginal Farmland Mosaic* (16). Operational and consented wind farm developments located on the mainland in the Kintyre and Knapdale lie beyond 30km.

There is potential for cumulative landscape and visual effects to arise in the future with turbines located on the *Marginal Farmed Mosaic* (16), the *Coastal Parallel Ridges* (22) and the *Moorland Plateau with Farmland* (8a). This is particularly the case because the scope for development on the *Moorland Plateau* is likely to be on the boundary between the uplands and these more managed types.

Key cumulative issues that may arise within the fringe areas most likely to be developed within the *Moorland Plateau* are likely to include:

- Inter-visibility between any wind turbine development located in this character type and wind turbines in adjacent character types.
- The creation of a 'ring' of turbines around the lower and most accessible slopes of the hills – although this is only likely to become a concern if there are a significant number of applications creating a dense band of turbines.
- Where variations in the type and size of single and small groups of small turbines are proposed.

4.20.3 Key constraints

- The diverse and at times complex topography of the landform, particularly the interior and coastal hills.
- The strong sense of remoteness, naturalness experienced in the interior of this area and on the coast.
- The visibility of skyline ridges and the more visually prominent higher hills seen in distant profile from roads in adjoining character types and from the sea.
- The setting of Finlaggan and associated archaeological features.

4.20.4 Opportunities

- Areas of gently graded slopes, the undulating plateaux and shallow glens and the backdrop provided by rising ground in places.
- The periphery of this type, where there is a transition between this type and the lower-lying upland fringe and farmed landscapes of the *Moorland Plateau with Farmland* (8a), the *Marginal Farmland Mosaic* (16) and the *Coastal Parallel Ridges* (22).
- The simple land cover of this character type which includes extensive moorland and areas of conifer forest

4.20.5 Guidance on development

There is **no scope** for larger typologies (turbines >80m) to be located in this landscape.

There is likely to be **very limited** scope for the medium typology (turbines 50-80m) to be sited on the periphery of this landscape character type where the landform is simpler, more smoothly graded and set well away from the more remote higher

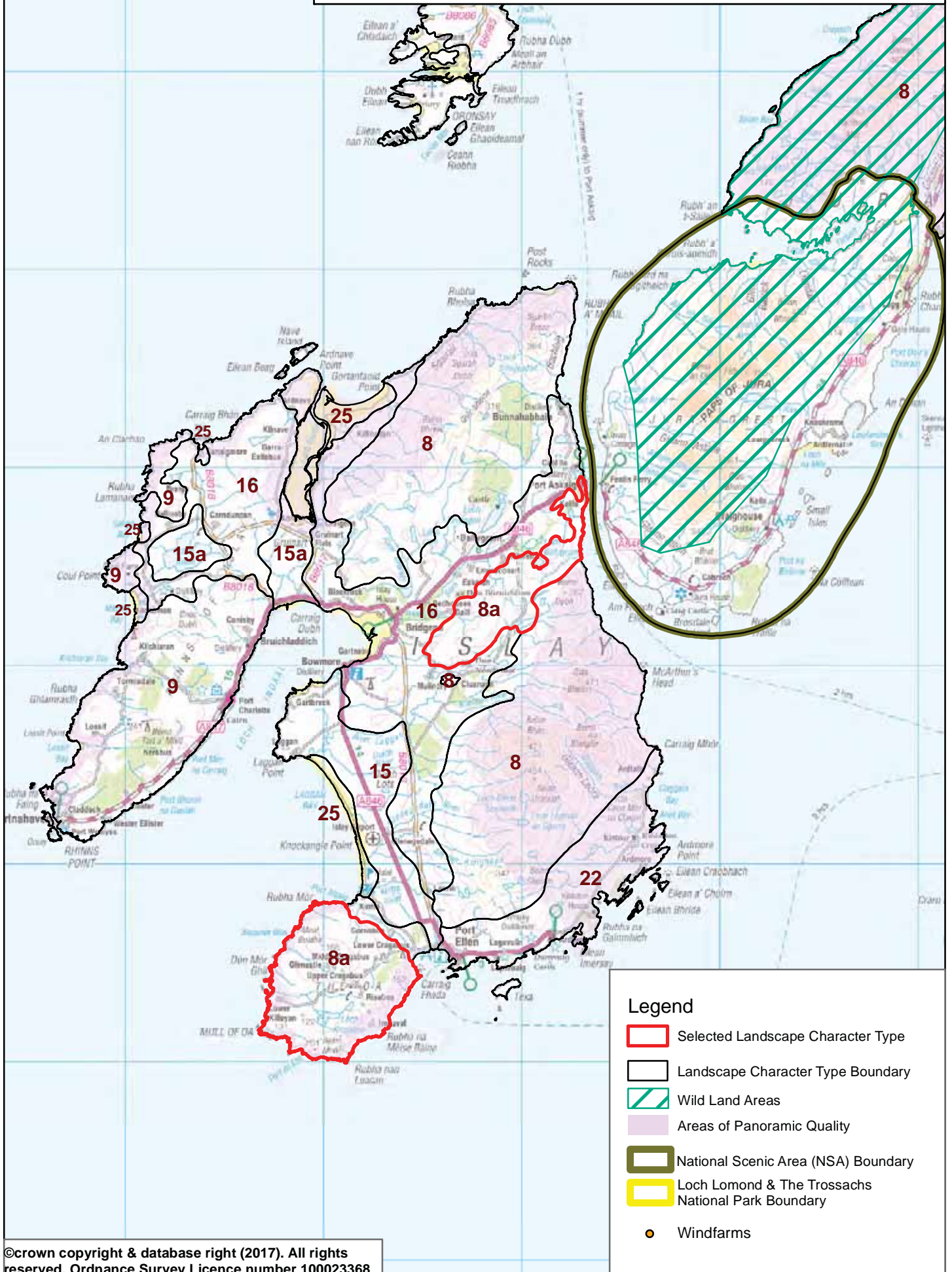
dramatic core hills and the remote coastal areas (these areas are additionally covered by an APQ designation). Extensions to the operational community turbine would concentrate development in a less sensitive part of this landscape although additional turbines would need to be of a similar size due to the openness of the landscape in this area which would allow differences in scale to be readily appreciated.

There is also some **very limited** scope for the small-medium typology (turbines 35m – 50m) to be sited within this character type. Opportunities are likely to be limited to the periphery of this landscape, where it can form a backdrop and suitably scaled setting for development seen within the context of adjacent farmed or forested land. This size of turbine should be sited well away from the operational community turbine to prevent discordant scale comparisons arising.

There are some increased opportunities for the small typology (20m – 35m) to be located on gently graded slopes, shallow glens and bowls of land close to farmland and visually associated with settlement within the *Moorland Plateau with Farmland* (8a) or *Marginal Farmland Mosaic* (16).

Turbines sited in these areas should be set well back from the coast and avoid intrusion on more remote areas, on more complex landform and on archaeological features. They should be sited to avoid intrusion on prominent skylines seen from roads and sea (principally formed by the group of higher and more rugged hills in the southern part of this landscape character type). In farmed areas, there are more opportunities for turbines of less than 20m as these could be sited to reflect the scattered settlement pattern, and would fit in well with the scale of this landscape. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 8a. Moorland Plateau with Farmland



4.21 Moorland Plateau with Farmland (8a)

The *Moorland Plateau* (8a) landscape character type is found two areas on Islay – on the fringes of the glen between Port Askaig and Bridgend and covering the whole of the Oa peninsula.

The detailed sensitivity tables contained in the Volume Two Report consider all turbine typologies as some scope was identified for the small-medium typology (turbines 35-50m) to be accommodated in the 2012 ABLWECS.

4.21.1 Summary of sensitivity

This landscape character type is characterised by a relatively low relief especially on the Oa. The landform features low hills with shallow glens, gently graded slopes and occasional more steep sided and prominent hills although it is more complex and contained on The Oa. The landscape is relatively open with some conifer woodland, and is partially farmed as improved pasture, the remaining land being under moor and upland grassland. Dispersed farms are scattered across sheltered glens and along lower slopes. The coastline of The Oa is characterised by rocky cliffs, small exposed headlands, bays, indentations and islands. It is relatively secluded, and has a sense of naturalness which is reinforced by its exposed setting.

The relative narrow extent of this character type, and its context adjacent to smaller scale landscapes, especially between Port Askaig and Bridgend, the sense of seclusion on the coast of the Oa, the relatively low relief and, where present, more complex landforms are all key sensitivities. The *Moorland Plateau with Farmland* character type is only partially settled and has few roads. There are some coastal walks, and The Oa is itself a prominent feature in wider views. Views from the A846 are sensitive but are likely to be intermittent because of intervening knolls and trees, and from within The Oa are contained by landform. Key views along the coast are sensitive.

This landscape has a **High** sensitivity to the medium and large typologies (turbines >50m) as turbines of this size would dominate the low relief of these landscapes and would be more likely to affect sensitive coastal areas. Sensitivity would be **High-medium** to the small-medium typology (turbines 35-50m) and **Medium** sensitivity to the small typology (turbines 20-35m) reflecting that there are likely to be some opportunities to accommodate smaller turbines which with careful siting are less likely to impact on the more remote and complex areas of landscape character and fit with the scale of the landscape. Turbines of less than 20m in height are likely to be less visible within the areas of irregular, hilly landform within this character type.

A narrow coastal strip of this landscape type is covered by an APQ and sensitivity in terms of landscape value would be **High-medium** for the small-medium typology and **Medium** for the small typology where this designation applies.

4.21.2 Cumulative issues

No operational or consented wind turbines were noted as lying within this character type during the site visit. A single community wind turbines (61m high) is located on the periphery of the *Moorland Plateau* (8) and is visible from this landscape. Operational

and consented wind farm developments located on the mainland in the Kintyre area lie beyond 30km.

There is potential for cumulative landscape and visual effects to arise in the future with turbines located on the *Marginal Farmed Mosaic* (16), which lies adjacent to and lower than the *Moorland Plateau with Farmland* (8a). However, the farms which are likely to be the focus for this size of turbine are dispersed and therefore while there may be some sequential cumulative visual effects associated turbines sited on the majority of land holdings, with careful and consistent approach to siting, cumulative effects could be minimised.

The potential visual cumulative effect would be reduced if well-sited turbines of less than 20m were used within these settled areas, and if a consistent relationship between these small turbines and the farm cluster was applied to siting. Small turbines are also more readily visually screened by topography, which is likely to limit their cumulative visual impact.

Key cumulative issues that may arise within the *Moorland Plateau with Farmland* are likely to include:

- Inter-visibility between any wind turbine development located in this character type and wind turbines in the adjacent *Marginal Farmland Mosaic* (16).
- Where variations in the type and size of single and small groups of small turbines are proposed.

4.21.3 *Key constraints*

- The relatively low relief of the landscape, especially when experienced from within the shallow glens, which is easily dominated by tall structures.
- The complex landform of The Oa and its limited vertical relief and scale.
- The setting of individual buildings and other built features including many archaeological features.
- The sense of remoteness and naturalness experienced on more inaccessible stretches of coast.
- The visibility of skyline ridges and the containing slopes of the foothills orientated towards the A846

4.21.4 *Opportunities*

- Areas of gently graded slopes, the sides of less steep hilly ridges and more contained glens could accommodate the small typologies (turbines 20m-35m).
- Areas of more open and larger scale, simple landform, where vegetation pattern is relatively simple may also be able to accommodate the small-medium typologies (35m-50m).

4.21.5 *Guidance on development*

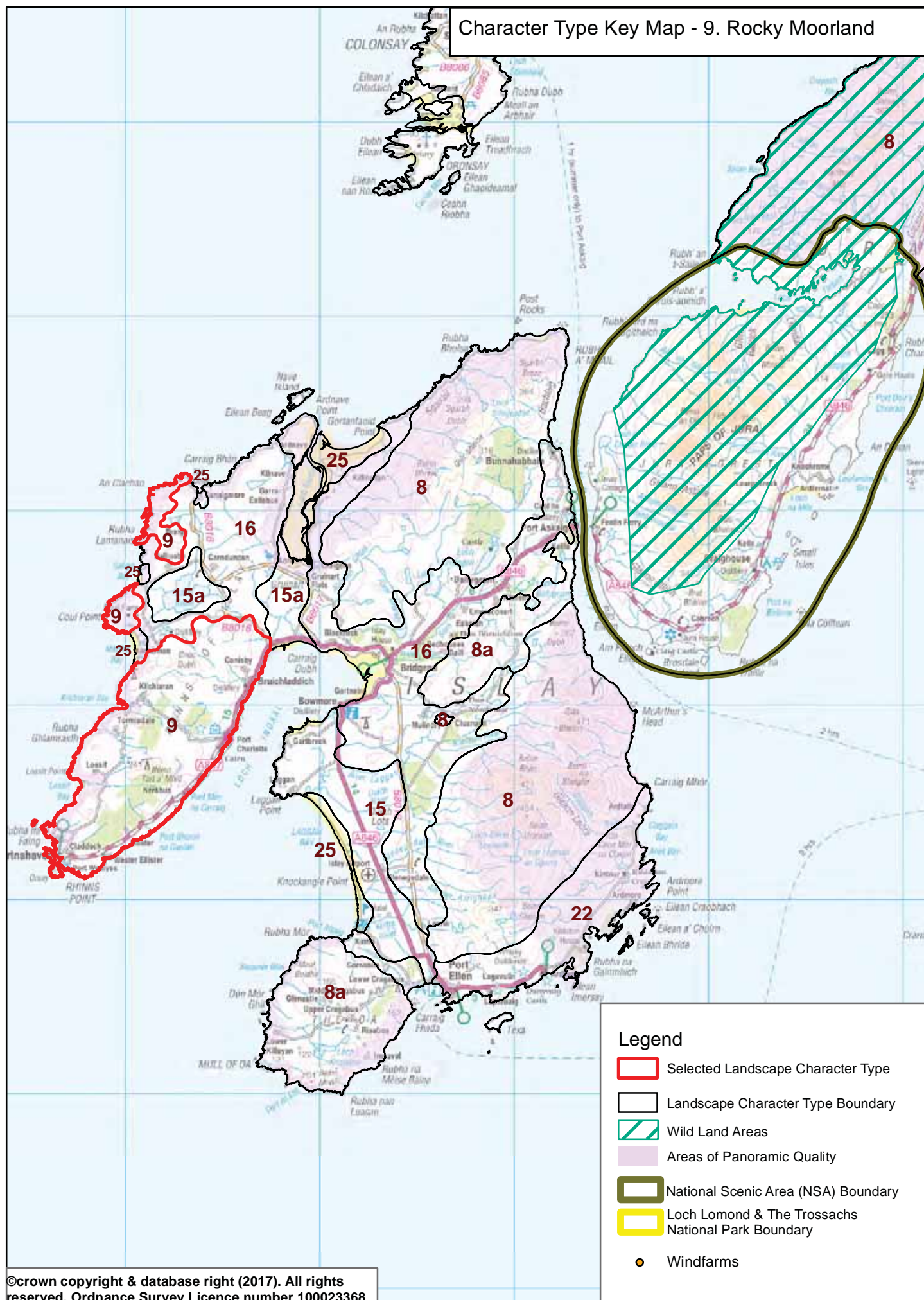
There is **no scope** to site turbines >50m high in this landscape.

There is likely to be **very limited** scope for the small-medium typology (turbines 35-50m) to be sited within this character type due to the adverse impacts likely to occur across several of the criteria.

There are **some opportunities** for the small typology (turbines 20-35m) to be located on gently graded slopes, shallow glens and bowls of land close to farm land where a more gradual merging occurs with the adjacent *Marginal Farmland Mosaic* (16) character type. In these areas the land form is less complex and land cover more simple, comprising rough grazing land and coniferous plantations. Turbines sited in these areas should be set back from the sensitive coast and small features such as buildings and farms and the setting of archaeological features. Turbines should avoid areas of low relief and high points on the skylines and could be back-clothed by rising ground thus minimising visual intrusion. In farmed areas, well sited turbines of less than 20m could be sited to reflect the scattered settlement pattern, and would fit in well with the scale of this landscape.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 9. Rocky Moorland



Legend

- Selected Landscape Character Type
- Landscape Character Type Boundary
- Wild Land Areas
- Areas of Panoramic Quality
- National Scenic Area (NSA) Boundary
- Loch Lomond & The Trossachs National Park Boundary
- Windfarms

4.22 Rocky Moorland (9)

This character type comprises an irregular moorland plateau broken by rocky knolls which forms the higher land extending down much of the west coast of Islay. The largest area occupies the whole of the Rhinns of Islay, where a wide band of farmed coast surrounds the interior moorland. Two further, much smaller, outlying areas on the north-west coast are characterised by irregular and visually distinctive rocky outcrop hills. They lie adjacent to *Marginal Farmland Mosaic* (16). The relief is low overall, but there are more prominent hills which form land mark features from a distance.

The detailed sensitivity tables contained in the Volume Two Report consider all turbine typologies as some scope was identified for the small-medium typology (turbines 35-50m) to be accommodated in the 2012 ABLWECS.

4.22.1 *Summary of sensitivity*

This character type comprises strongly coastal landscapes, although the Rhinns peninsula is broad enough to encompass a more upland, undulating, interior plateau. All areas have dramatic rugged hills that are land mark features, visible widely across the western parts of Islay. A broad swathe of farmland and smaller scale rocky outcrops extends down the east coast of the Rhinns and into a series of shallow glens set back from the coast along the western side of this peninsula. These farmed areas are the focus for settlement.

The broader scale landscape of the interior plateau of the Rhinns, where conifer woodland and moorland extends over an undulating landform, offers some potential to accommodate single and small groups of wind turbines. Elsewhere however, the size and shape of the rugged hills, the remoteness and sense of naturalness experienced along the less accessible coasts, the indented, small scale coastline and the farmed and settled areas, all of which are relatively small in scale, increase the sensitivity of this character type. This character type is highly visible from other character types across Islay, especially from the east, but views are generally distant. The prominent rugged hills on the Rhinns and their easily recognisable profiles are however a key feature of the wider Islay landscape.

This landscape type has a **High** landscape and visual sensitivity to turbines >50m high. Sensitivity would be **High-medium** to the small-medium typology (turbines 35-50m) and **Medium** sensitivity to the small typology (turbines 20-35m) reflecting increased scope to minimise visual intrusion. Turbines of less than 20m in height could more readily be accommodated within the small scale, farmed and more settled areas within this landscape type.

A narrow coastal strip of this landscape type is covered by an APQ and sensitivity in terms of landscape value would be **High-medium** for the small-medium typology and **Medium** for the small typology where this designation applies. Sensitivity would be low within undesignated areas.

4.22.2 *Cumulative issues*

No operational wind turbines were noted within this character type during the site visit. A single community wind turbine lies on the periphery of the *Moorland Plateau* (8) and

visible at distance from eastern parts of this landscape. Operational and consented wind farm development located on the mainland lies beyond 30km.

There is potential for cumulative landscape and visual effects to arise in the future with turbines located on the *Marginal Farmland Mosaic* (16). In the more settled areas, the regularity of farms could rapidly lead to a cluttered appearance if single or groups of turbines were associated with the majority of land holdings. This potential visual cumulative effect would be reduced if well-sited turbines of less than 20m were used within the settled areas, and if a consistent relationship between these small turbines and the farm cluster was applied to siting. Small turbines are also more readily visually screened by topography, buildings and woodland, which is likely to limit their cumulative visual impact.

Key cumulative issues that may arise within the *Rocky Moorland* are likely to include:

- Inter-visibility between any wind turbine development located in this character type and wind turbines in the *Marginal Mosaic Farmland* (16).
- Inter-visibility between small-medium sized turbines located on the interior plateau of the Rinns and smaller – less than 20m high – turbines likely to be located closer to farms or houses in the settled areas.
- Where variations in the type and size of single and small groups of small turbines are proposed within a landscape area

4.22.3 *Key constraints*

- The small extent of this character type where it occurs on the two outliers to the north west of the island.
- The setting of the rugged, rocky hills, some of which are small, and all of which appear larger than they really are. These are easily recognisable landmark features and widely visible.
- The relatively small fields and settlements across the farmed landscapes, which produces a relatively small-scale landscape.
- The coast, especially on the western and south-western coasts, where the indented shape and relatively small scale is highly sensitive. This is also the area where often more remote and semi-natural terrain contributes to landscape experience, and an area which has been designated as an APQ.
- The high visibility of the east facing slopes, the skyline and the profiles of the hills from the roads, the settlement and elsewhere on Islay.
- The setting of settlements, archaeological features and views to the coast. The stretch of land between the road and the shore is especially sensitive.

4.22.4 *Opportunities*

- The more ‘upland’ areas along the Rinns, where the expanse of moorland or forestry is generally more extensive across long undulating plateau where the larger scale landform and vegetation pattern could accommodate both the small-medium and the small typologies.
- The transition between this spine of moorland or forestry and the farmland fields, set back from the road and small settlements, where there could be opportunities to site the small typologies.

4.22.5 *Guidance on development*

No scope has been identified for turbines >50m high in this landscape.

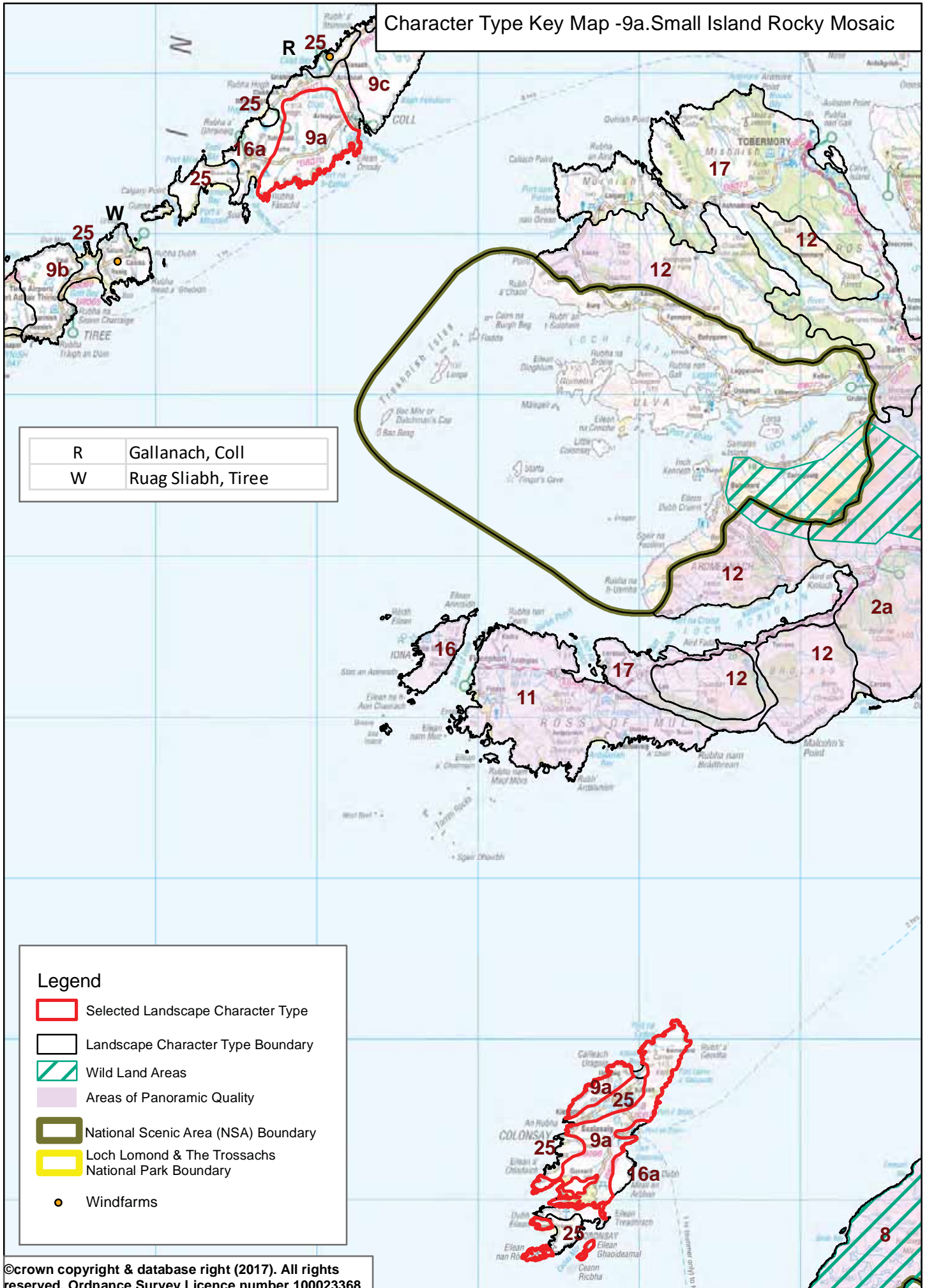
Opportunities for the small-medium typology (turbines 35-50m) are limited to the undulating plateau within the Rhinns, although care should be taken to site these turbines where they do not intrude into the setting and perceived scale of more prominent 'landmark' hills, impinge upon the coast or dominate the scale of buildings. In these generally less settled areas, the land form is less complex and land cover is simpler comprising rough grazing land and coniferous plantations. This typology could include small groups <3 turbines of this size.

There are also limited opportunities for the small typology (20-35m) to be located on similar terrain. This opportunity may extend closer to settled areas, if they can be sited where they do not dominate the small size of the houses or farms.

Turbines sited in these areas should be set back from the sensitive coast, and should avoid locations which are between the road and the coast. Turbines should also avoid impinging upon more remote coastal areas as well as small features such as buildings and farms, and could be back-clothed by rising ground thus minimising visual intrusion. In farmed and settled areas, well sited turbines of less than 20m could be sited to reflect the small scale of the complex landform and vegetation and settlement patterns.

All turbines should also be located to avoid impacts on the setting of settlements and on archaeological features and sites. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map -9a.Small Island Rocky Mosaic



4.23 Small Island Rocky Moorland (9a)

This character type comprises undulating moorland broken by rocky knolls which forms the less settled and higher parts of Coll and Colonsay. All development typologies are considered in the detailed sensitivity tables set out in the Volume Two Report.

4.23.1 *Summary of sensitivity*

This character type comprises the upland and less settled parts of these small islands. This landscape is not high with individual hills attaining maximum heights of 104m on Coll and 136m on Colonsay. It is consistently patterned with rocky outcrops, these being particularly craggy on Colonsay but also becoming more intense on the western side of Coll where boulders litter lower slopes at the transition with the *Small Island Marginal Farmland Mosaic* (16a). Landform is smoother on the south-eastern side of Coll, forming less craggy sweeping slopes and occasional wet basins and lochs between hills. Occasional smoother basins and slopes also occur on the eastern and northern parts of Colonsay. Where these moorlands abut the sea, the coast is rocky and fragmented with many islands and skerries. Grass and heather moorland is the dominant land cover although areas of moss also occur. All areas are very sparsely settled with dispersed crofts, isolated houses and small farms largely sited on the coastal fringes of this landscape or at the transition with the *Small Island Marginal Farmland Mosaic* (16a). This landscape forms highly visible backdrops to the coast and is widely visible from the ferries on the approach to these islands where it often forms a multi-layered composition of islands and hills. Some of the higher hills are popular with walkers and there are also promoted walking routes through this landscape in parts of Colonsay.

This landscape type has a **High** overall sensitivity to the large typology (turbines 80-130m) as turbines of this size would dominate the relatively low relief and limited extent of both the landscape character type and the islands. Sensitivity would be **High-medium** to the medium typology (turbines 50-80m). There would be a **Medium** sensitivity to the small-medium typology (turbines 35-50m) and **Medium-low** sensitivity to the small typology (turbines 20-35m).

This character type is not covered by any scenic or landscape designations or other recognised values and sensitivity is therefore **Low** in relation to landscape values.

4.23.2 *Cumulative issues*

There are no operational wind farms located in this character type although small wind turbines are located within/close by this landscape. These include, on Colonsay, a small turbine (15m high) at Balnahard and another larger turbine (36m high) close to Colonsay House. The large single turbine at Gallanach on the west coast of Coll is visible from this landscape and there are also a number and range of small wind turbines associated with crofts and farms on Coll, lying adjacent to this landscape. Operational and consented wind farm development located on the mainland lies beyond 30km.

While some inter-visibility could arise between any wind energy development located in this character type and the operational single turbine on Coll, separation distances would be likely to minimise cumulative effects. Cumulative effects could arise between larger turbines sited on the western edges of this landscape with small turbines sited in

the adjacent *Small Island Marginal Farmland Mosaic* (16a) and careful siting would be needed to minimise these.

4.23.3 *Key constraints*

- The relatively limited extent of this landscape character type, and also of the islands of Coll and Colonsay, which increases sensitivity due to the likely dominating effects of larger heights and numbers of turbines.
- Occasional hills such as Ben Hough on Coll and Carnan Eoin and Beinn nan Guidairean on Colonsay, which although not high, form landmark features and offer spectacular views over these islands.
- The more intricate, smaller scale coastal edge which would be dominated by larger turbines.
- Views from the minor road on the south-eastern side of Coll which focus on Mull and the Treshnish Islands.
- The backdrop and setting this landscape provides to popularly visited and highly scenic beaches and to settled areas on both islands
- Archaeological features, including crannogs, cairns and standing stones, associated with the lochs on Coll and hill forts and chapels on Colonsay.
- The sense of seclusion and naturalness associated with parts of this landscape (particularly on Colonsay where the terrain is generally rougher) which is also accentuated by the remoteness of these islands.

4.23.4 *Opportunities*

- The simpler, smoother hills and shallow basins present on the south-eastern part of this landscape on Coll which are sparsely settled and have a more expansive scale.
- Less complex smoother areas of moorland and rough pasture in the northern and eastern parts of Colonsay which are less widely visible across the island.

4.23.5 *Guidance on development*

There is no scope for the large typology (turbines 80-130m) to be accommodated in this landscape character type.

This landscape offers greatest scope to accommodate a modest development of the medium typology (turbines 50-80m) on the islands of Coll and Colonsay while protecting more sensitive coastal and settled areas. However, some landscape and visual sensitivities are present and adverse landscape and visual impacts would be unavoidable. On **Coll**, small groups of up to 5-7 turbines could be accommodated in the more gently undulating and simpler upland area in the south-eastern part of this character type. The undulating nature of this landscape could provide opportunities to site turbines in more contained areas to reduce the extent of visibility and impact. Single and groups of up to 3 turbines of this size would be more appropriate on **Colonsay** as the extent of simpler landform is more limited.

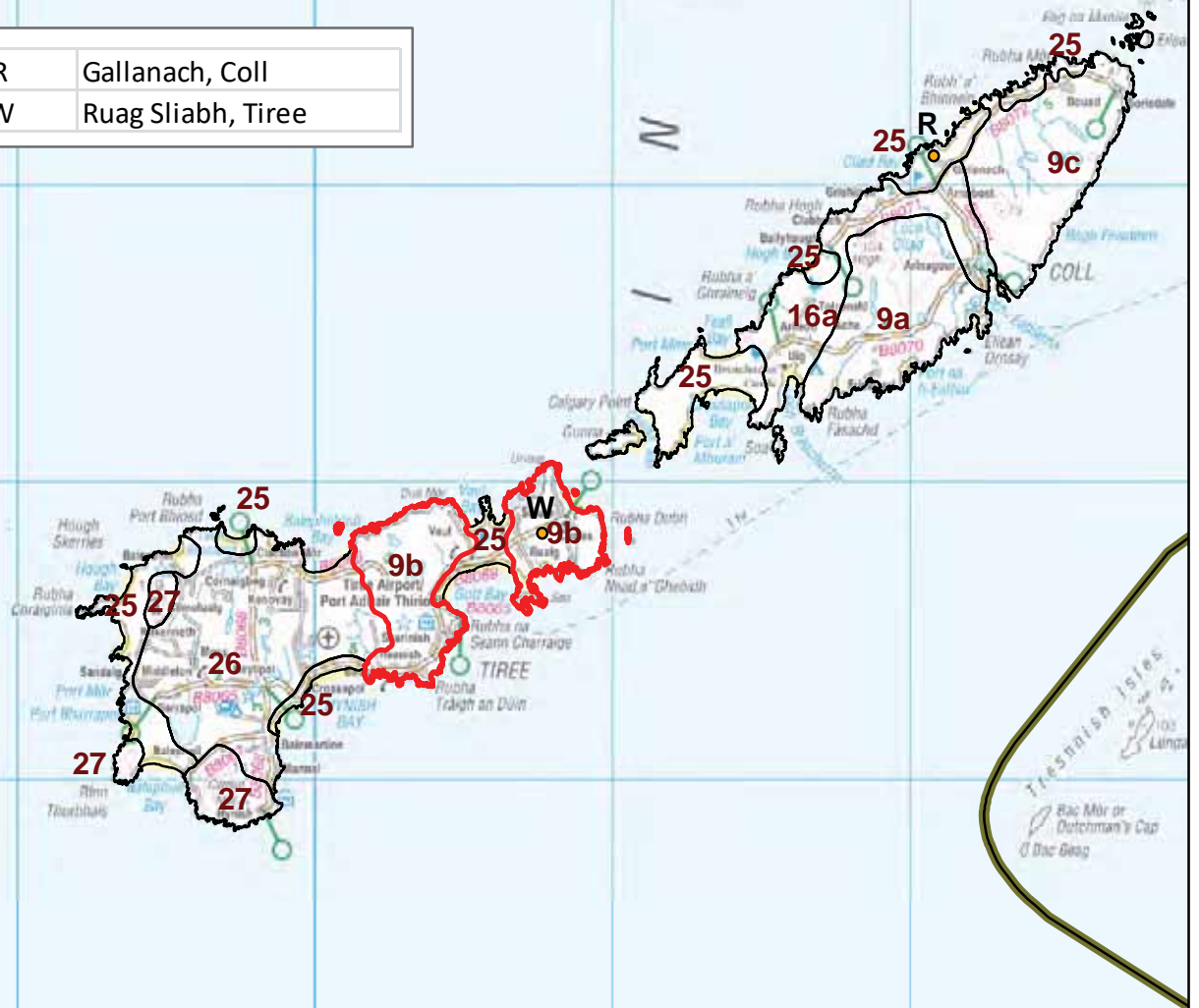
Turbines should not be sited on or close to landmark hills and should avoid significantly intruding on the setting of lochs and archaeological features. Turbines of this size should also not be sited between the minor road and the south-eastern coast of Coll to conserve dramatic views to Mull and the Treshnish islands.

The small-medium and small typologies (turbines 20m-50m) could also be accommodated in this landscape although if larger turbines were to be developed, then it would be better to limit the range of turbine sizes and designs on **Coll** due to the smallness of the island and the close inter-visibility between developments to avoid visual confusion and clutter. In this scenario, turbines <20m could be more readily accommodated on the more settled fringes of this landscape as they would fit with the size of existing small turbines although care would be needed to minimise cumulative effects given the number and variations of design of small turbines already present in some parts of the *Small Island Marginal Farmland Mosaic* (16a).

The siting of smaller turbines should accord with the guidance set out in the Volume Two Report.

Character Type Key Map -9b.Low-lying Rocky Moorland

R	Gallanach, Coll
W	Ruag Sliabh, Tiree



Legend

- Selected Landscape Character Type
- Landscape Character Type Boundary
- Wild Land Areas
- Areas of Panoramic Quality
- National Scenic Area (NSA) Boundary
- Loch Lomond & The Trossachs National Park Boundary
- Windfarms

4.24 Low-lying Rocky Moorland (9b)

This landscape character type only occurs on Tiree where it forms a low platform of intensely craggy Gneiss. Settlement occurs largely on the coastal fringes and at the transition with the *Inland Machair and Moss* (26) landscape character type. This landscape is more extensive in the north-east of the island with smaller areas occurring on the fringes of the *Inland Machair and Moss* (26).

4.24.1 Summary of sensitivity

This character type forms an area of rocky moorland generally lying below 50m AOD which is very open and exposed. This landscape provides a low and coarse-textured backdrop to the *Inland Machair and Moss* (26). Landform is simple and generally even, forming a low platform interrupted by occasional higher knolls such as Balpetrish Hill which stand out within low-lying surrounds. At the coast, this landscape forms intricate small scale complex inlets and rocky headlands. In the west of Tiree, this landscape is not extensive comprising small patches of rocky moorland between large expanses of inland machair. Although the pattern of rocky knolls gives a complex texture, landcover is relatively simple with areas of wet heath interspersed with rough grazing land. Small lochs are particularly prevalent to the north-west of Kirkapol. This landscape is often well settled on its coastal fringes at the interface with the *Inland Machair and Moss* (26) where more intensive grazing is possible. The buildings are a key feature, creating a pattern of often white farms and houses which stand out against the low rocky outcrops. A landfill site, quarry and a single community wind turbine (75m high) are present in this landscape character type.

This landscape has a **High** sensitivity to the large typology (80-130m). Sensitivity is **High-medium** for the medium typology (turbines 50-80m). There would also be **High-medium** sensitivity to the small-medium typology (turbines 35-50m) and a **Medium** sensitivity to the small typology (turbines 20-35m). Turbines of less than 20m in height could more readily be accommodated where settlement is denser, along roads at the transition with flatter areas or along the coast and would fit better with the established pattern of wind energy development on Tiree.

This landscape is not designated and landscape values are therefore judged to be **Low**.

4.24.2 Cumulative issues

The single community operational turbine is located at Ruaig in one of the more extensive parts of this character type at the eastern end of Tiree. Potential cumulative effects are likely to include variations in the type and size of turbines which would be readily perceived in this low and open landscape.

4.24.3 Key constraints

- The small extent of parts of this landscape and the close proximity to small scale settlement on coastal fringes and at the transition with the *Inland Machair and Moss* (26).
- The low backdrop this landscape provides to scenic and well-used beaches, in the adjacent *Sand Dunes and Machair* (25) increasing visual sensitivity.
- The often rugged and remote character of this landscape where it abuts the coast – parts of the coast feature a rich archaeology.

- Extensive views to this landscape across the low and open landscape of Tiree where there is no scope to partially contain larger wind turbines.
- Potential cumulative effects with smaller turbines (usually <20m) associated with crofts and farms on the settled fringes of this landscape but also with the operational community wind turbine (75m high) located in this landscape character type at Ruaig.

4.24.4 *Opportunities*

- This landscape is the least sensitive in Tiree to wind turbine development due to its generally simple character and the relative absence of settlement and other smaller scale features in the core of more extensive areas in the east of the island.
- More modified areas of quarrying, landfill and disturbed ground.

4.24.5 *Guidance on development*

There is **no scope** for turbines >80m to be accommodated in this landscape character type.

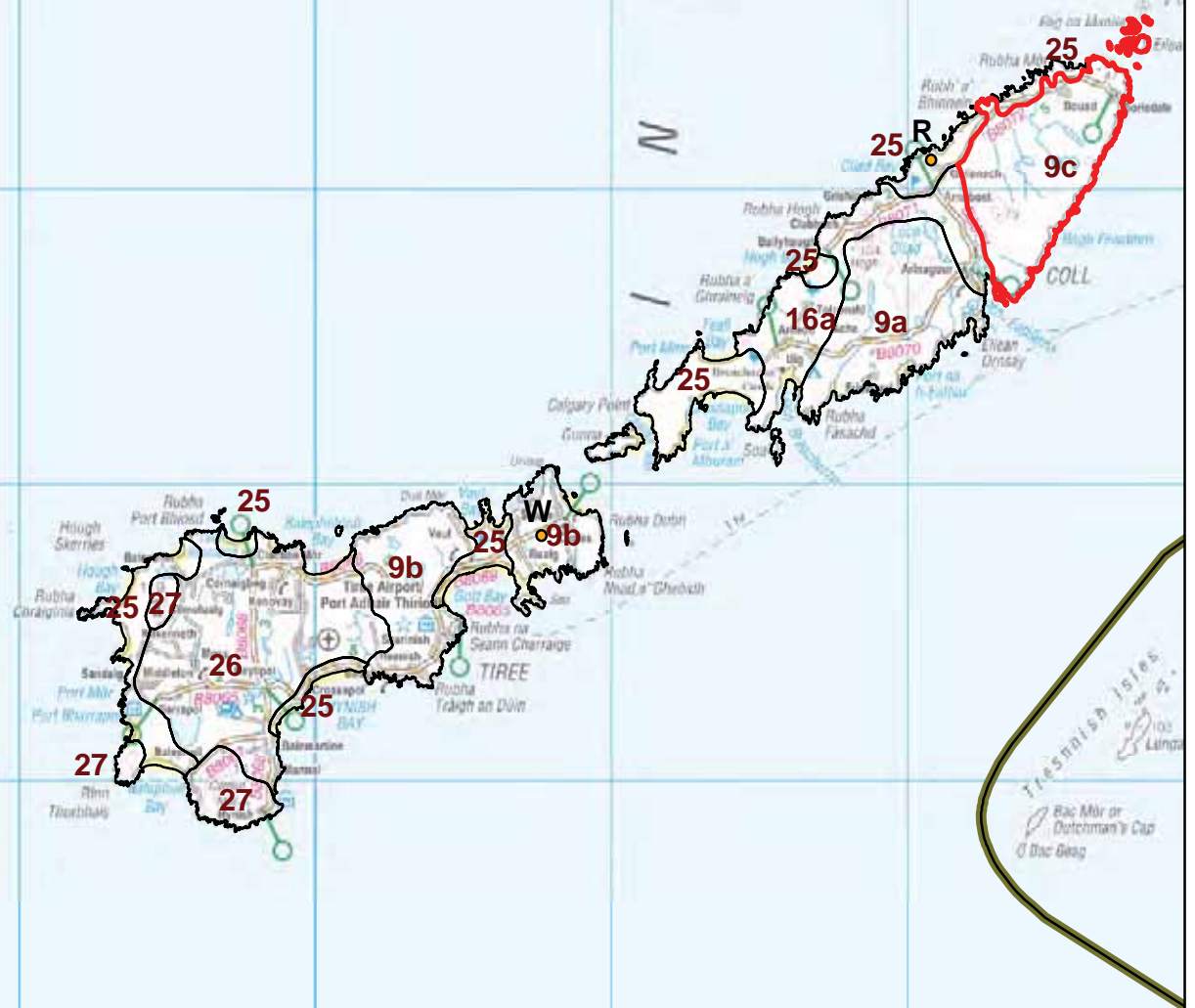
This landscape offers greatest scope to accommodate the medium typology (turbines 50-80m) as a modest new wind energy development or a small extension to the operational single large turbine on Tiree while protecting more sensitive coastal areas and fitting with the character and scale of Tiree. Turbines should be sited in the more expansive and less settled core areas of this landscape to minimise effects on the scale of small buildings which are usually sited along the peripheral areas of this landscape. Any extension to the existing Ruaig turbine should comprise turbines of a similar height and design due to the close views of this development from nearby Gott Bay and other areas where any significant differential in size and design would be readily perceived.

The small-medium and small typologies (turbines 20m-50m) could also be accommodated although if additional larger turbines were to be developed as a separate cluster in this landscape, then it would be better to limit the range of turbine sizes due to limited extent of this character type and the smallness of the island which would increase inter-visibility between differently sized developments and create a cluttered effect. Turbines <20m could be more readily accommodated on the more settled fringes of this landscape at the transition with the *Inland Machair and Moss* (26) although care would be needed to minimise cumulative effects with the range of small turbines already present in these areas.








The siting of smaller turbines should accord with the guidance set out in the Volume Two Report.

Character Type Key Map -9c.Cnoc & Lochan Rocky Moorland

R	Gallanach, Coll
W	Ruag Sliabh, Tiree



Legend

-  Selected Landscape Character Type
-  Landscape Character Type Boundary
-  Wild Land Areas
-  Areas of Panoramic Quality
-  National Scenic Area (NSA) Boundary
-  Loch Lomond & The Trossachs National Park Boundary
-  Windfarms

4.25 'Cnoc and Lochan' Rocky Moorland (9c)

This character type covers the north-eastern part of Coll. Although this landscape shares similar characteristics with the *Small Island Rocky Moorland* (9a) there is greater exposure of the Gneiss bedrock and a tighter, more complex pattern of small rocky knolls (or 'cnocs') and small lochans.

4.25.1 *Summary of sensitivity*

The tight pattern of intensely undulating small cnocs, dips and numerous loch basins, together with the dominance of exposed rock, creates a distinctly coarse-textured and complex landscape. Lochans fill dips and are linked by burns. The extent of rock present in this landscape limits woodland with heather, low grasses and bog vegetation the dominant land cover. An often convex, rocky cliff face occurs against the south-eastern coast of Coll with a more fragmented pattern of skerries present on the north-eastern tip and where rocky outcrops interrupt the smoother machair on the north-western coast of the island. This rough and largely uninhabited landscape is difficult to access and a strong sense of wildness is experienced within its remote interior. It is largely uninhabited with settlement limited to occasional croft houses tucked between rocky knolls at the transition with the *Sand Dunes and Machair* (25) and within rare broader glens and inlets. Only the outer edges of this landscape are commonly visible although there are long views of the coastal edge of this landscape from the Coll ferry. Views from within this landscape are strongly contained by the landform.

This landscape type has a **High** landscape and visual sensitivity to all development typologies.

No scenic designations or other recognised landscape values apply to this character type. Landscape values are therefore **Low**.

4.25.2 *Potential cumulative issues*

A single large turbine is located on the west coast of Coll at Gallanach in the adjacent *Sand Dunes and Machair* (25). A variety of small turbines are additionally sited in the *Small Island Marginal Farmland Mosaic* (16a). No cumulative effects would arise with these existing developments given the high sensitivity of this landscape to all forms of wind energy development.

4.25.3 *Key constraints*

- The dense pattern of rocky knolls, small dips and numerous water bodies which form a highly intricate and complex landscape which is notably distinctive.
- The small scale and low relief of hills which are cut by numerous narrow gullies.
- The backdrop and contrast this landscape provides to the sandy beaches of the adjacent *Sand Dunes and Machair* (25).
- The strong sense of remoteness and naturalness experienced in this largely uninhabited and difficult to access landscape.

4.25.4 *Guidance on development*

There is no scope to accommodate any type of wind energy development in this highly sensitive landscape.

Character Type Key Map - 10. Upland Parallel Ridges

A	A'Chruach I
B	A'Chruach II
C	Allt Dearg
D	An Suidhe
J	Beinn Ghlas
L	Carraig Gheal
X	Sronaire

Legend

- Selected Landscape Character Type
- Landscape Character Type Boundary
- Wild Land Areas
- Areas of Panoramic Quality
- National Scenic Area (NSA) Boundary
- Loch Lomond & The Trossachs National Park Boundary
- Windfarms

©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

4.26 Upland Parallel Ridges (10)

The *Upland Parallel Ridges* character type is defined in two locations to the north of Moine Mhor at the south-western end of Loch Awe. Detailed sensitivity assessments have been undertaken for the larger typologies only (turbines >50m) in the sensitivity assessment due to the sparsely settled nature of this character type. Smaller typologies are however considered below.

4.26.1 *Summary of sensitivity*

This landscape comprises a distinctive series of linear ridges aligned in parallel with the south-west/north-east grain of the coast. Craggy-topped hills and ridges have a rugged character accentuated by the mosaic of heather, grass and scrub across rocky hill slopes. A line of craggy conical peaks between Creag Chapuill and Sron na Saobhaidhe form a distinctive backdrop to the southern shores of Loch Awe around the settlement of Ford. The coastal edge against Loch Craignish is particularly rough and impenetrable and access is difficult throughout most of this character type. The importance of this character type in forming the setting to the highly sensitive archaeologically rich landscapes within Moine Mhor and the glens of Kilmartin and Kilmichael, its context in relation to the wider seascape around Loch Craignish and the backdrop and setting it provides to the small scale *Rocky Mosaic* (20) landscape around Loch Awe, increases sensitivity. Although views are restricted from roads by the incised landform of the glens, the skylines formed by hills within this landscape (seen from the A816, the coast around Loch Craignish, important historic landscapes and the Loch Awe area) are highly sensitive.

There would be a **High** landscape and visual sensitivity to the large typology (turbines 80-130m) and a **High-medium** sensitivity to the medium typology (turbines 50-80m).

The close proximity of this landscape to the Knapdale NSA and the presence of an APQ covering much of the area increases sensitivity in relation to landscape values with **High-medium** sensitivity judged for both the large and medium typologies. Sensitivity would be low within undesignated areas.

4.26.2 *Smaller typologies*

The limited extent and close proximity of this character type to surrounding highly sensitive landscapes restricts scope for smaller turbines. Small turbines <35m high could relate to less complex hill slopes at the transition with the *Craggy Upland* (7) and the *Rocky Mosaic* (20) character types to the east, although distinctive hills and adjacent archaeological features and settlement would still be sensitive to this typology.

4.26.3 *Potential cumulative issues*

No operational or consented wind farms are sited in this landscape.

The operational wind farm of A' Chruach located within the adjacent *Craggy Upland* (7) and *Loch Fyne Upland Forest Moor Mosaic* (6c) landscape character types is visible in relatively close proximity from elevated parts of this landscape. The operational Carraig Gheal wind farm, also located within the adjacent *Craggy Uplands* (7), is visible from fairly limited areas around the southern end of Loch Awe. The operational Allt Dearg

wind farm located within the *Knapdale Upland Forest Moor Mosaic* (6b) is visible from upper slopes and hill tops of this character type but seen at distances of >20km.

Key cumulative issues are likely to include:

- Inter-visibility of large scale wind farm development located in the adjacent *Craggy Upland* (7) character type and clearly visible from the small and distinct hills at the southern end of Loch Awe (which appear to be more accessible for walkers) and seen within distances of around 10-16km.
- Cumulative effects on the settled fringes of the southern end of Loch Awe in the Ford area, defined as *Rocky Mosaic* (20), where large turbines sited within the uplands of this character type could appear to encircle this smaller scale settlement and adversely affect its setting.

4.26.4 *Key constraints*

- The complex landform of long parallel ridges with hummocky slopes, rocky outcrops and ridge tops, cut by narrow valleys and with occasional pronounced craggy hills.
- A rich archaeology evident in the many hill forts forming landmarks in views from roads and settlement and the immediate setting parts of this landscape forms to the important archaeological features set within the glens of Kilmartin and Kilmichael and Moine Mhor.
- The backdrop of steep rugged slopes, skyline ridges and distinctive small hills that provide the immediate setting to the small scale *Rocky Mosaic* (20) fringing the shores of Loch Awe in the vicinity of the settlement of Ford.
- The strong qualities of wildness associated with the unsettled and little modified coastal area of this character type and its role in providing a backdrop to the sensitive *Craggy Coasts and Islands* (7b) in the Loch Craignish area.
- The close proximity of the southern part of this landscape to the Knapdale NSA and prominence of scarp edge slopes and skylines which back-drop the *Flat Moss and Mudflats* (23) character type which lies within the designated area.

4.26.5 *Opportunities*

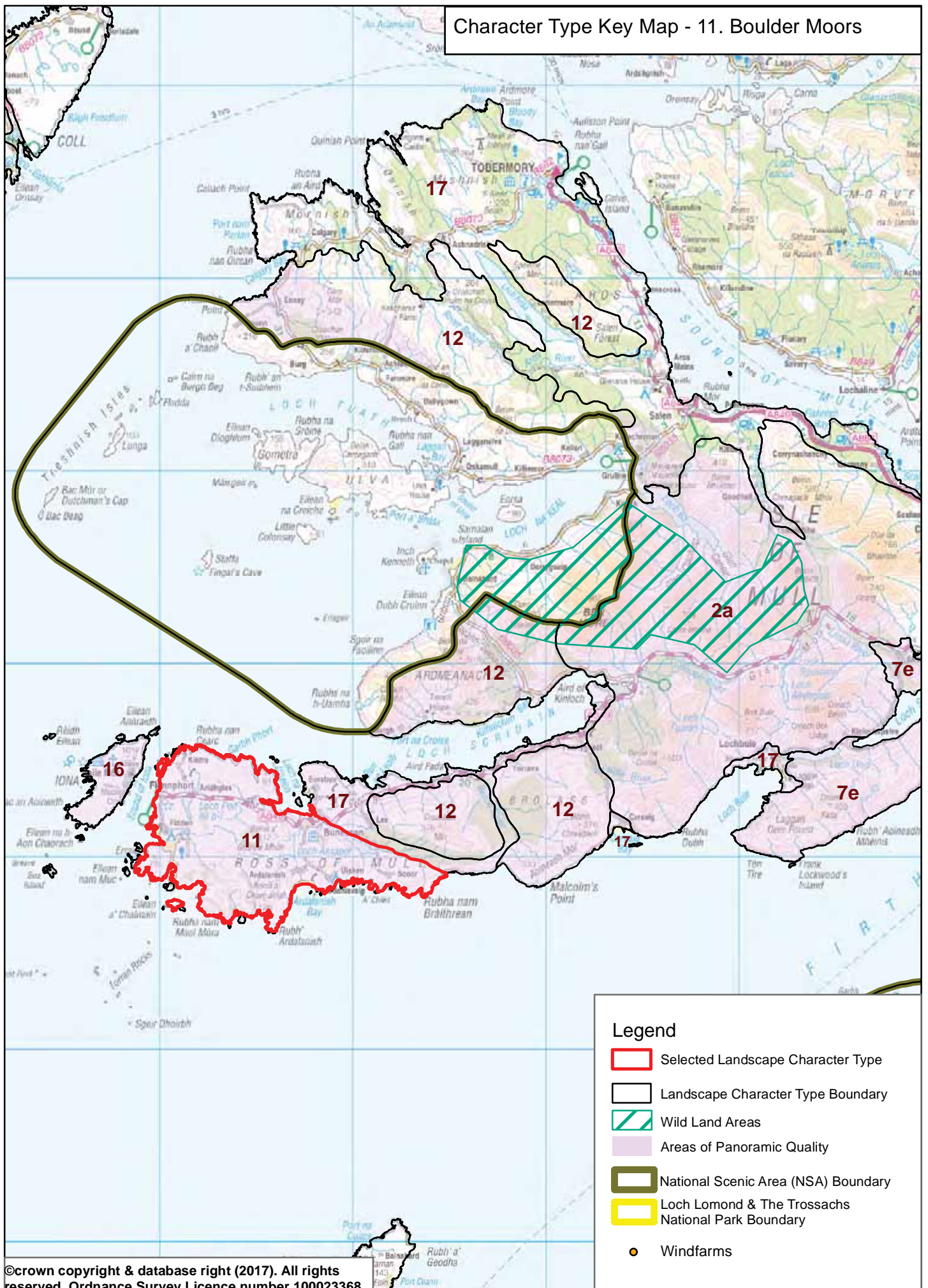
- No opportunities were identified for larger turbines within this landscape.

4.26.6 *Guidance on development*

There is no scope to locate larger turbines (turbines >50m) within this part of the *Upland Parallel Ridges* character type due to the significant impacts that would be likely to occur across a wide range of sensitivity criteria.

Small turbines <35m (single and small groups <3 turbines) could be associated with less complex lower hill slopes at the edge of more managed land within the *Rocky Mosaic* (20) and the *Craggy Upland* (7) but should avoid impacts on sensitive skylines, prominent small hills and the setting of archaeological features and settlements. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 11. Boulder Moors



4.27 Boulder Moors (11)

This character type occurs only on the western tip of the Ross of Mull. The detailed sensitivity tables contained in the Volume Two Report consider only turbines <50m high as no scope was identified to accommodate turbines above 35m high in the 2012 ABLWECS.

4.27.1 *Summary of sensitivity*

This open, low-lying landscape is found at the end of the long peninsula of the Ross of Mull. It has a distinctive coarse-textured landform of frequent small rocky knolls which outcrop over areas of flat moorland. The scale of the small rocky knolls and the predominantly small houses characteristic of this landscape form the principal constraints to taller turbines although areas of higher landform also coincide with the less settled areas in the south and east of this character type and offer potential opportunities to accommodate smaller turbines. The openness of this landscape allows extensive views from the well-used A849 and from settlement. This landscape also forms the foreground to views of the wider seascape including Iona, Staffa and the sheer cliffs of the Ardmeanach Peninsula.

Landscape and visual sensitivity is judged to be **High** for turbines >50m. Sensitivity is **medium** for the small-medium typology (turbines 35-50m) and the small typology (turbines 20-35m).

This landscape is designated an APQ and sensitivity in terms of landscape values would be **High-medium** for the small-medium typology and **Medium** for the small typology.

4.27.2 *Potential cumulative issues*

There are no operational or consented wind farms located within this character type although a number of small turbines (under 25m height) were noted during field survey. Operational and consented wind farms located on mainland Argyll and Bute lie beyond 30km distance. There are no cumulative issues associated with this character type.

4.27.3 *Key constraints*

- The small scale of buildings and the low distinctive blocky pink granite knolls which outcrop within the flatter moorland and farmland.
- The particularly complex pattern and tight concentration of rocky knolls generally found along the coastal peninsulas and islands which give an intimate scale to the landscape.
- Small, lush green pastures, enclosed by distinctive boulder walls, which stand out amidst duller coloured moorland and rocky outcrops.
- Qualities of wildness experienced along the more inaccessible and undeveloped southern and northern coasts of this character type.
- The cluttered appearance of the landscape in places where existing wood pole lines are highly visible in the more settled area and detract from the distinctive pattern of small rocky knolls – this could be exacerbated by multiple and/or poorly sited turbines.
- Views to and from Iona Abbey from the western coastal area of this landscape.

- The openness of this low-lying landscape which allows extensive views from the A849, a popular tourist route to Iona, and to the wider seascape including Staffa, Iona and the Ardmeanach Peninsula.
- The presence of the APQ designation particularly in relation to larger turbines which could impact on key special qualities.

4.27.4 *Opportunities*

- Broader, flatter areas of moorland backed by larger hills and set away from the more sensitive coastal edges and smaller scale rocky knolls and settlement.

4.27.5 *Guidance on development*

There is **no scope** to site turbines >35m high in this landscape due to the likely significant impacts that could occur across a number of key sensitivity criteria.

There is some **limited** scope to site the small typology (turbines 20-35m) within broader areas of moorland and larger hills and ridges and where settlement is sparser. These areas generally occur in the south-eastern part of this character type. Turbines should be set on the edge of these moorland areas close to higher ridges so back-dropped and visually tying in with existing landscape features. Flatter terraces and less rocky lower hill slopes also provide opportunities for accommodating this typology, particularly at the transition with the *Basalt Lowlands* (17). Turbines should be sited to avoid intrusion on sensitive remote coasts and key views.

Turbines above 20m high would appear very large in comparison with the small scale of distinctive rocky knolls and with houses, which are usually single storey, small and highly visible in the more settled parts of this landscape. There are however opportunities to site turbines below 20m high in these more settled areas although care should be taken to avoid small rocky outcrops (and particularly turbines being 'perched' on top of knolls which increases their prominence), areas of particularly complex geology and small enclosed pastures. Turbines should be sited away from existing wood pole lines to minimise the clutter of vertical features in this open landscape but should be visually associated with buildings.

All turbines should be set back from the coastal edge and should avoid intrusion on key views to Iona Abbey and to the wider seascape seen in views to the north from the A848. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 12. High Stepped Basalt



4.28 High Stepped Basalt (12)

This character type occurs only on Mull where it forms higher hills inland from the coastal fringes of the *Mull Basalt Lowlands* (17). This character type also extends into the Loch na Keal NSA which is considered separately in the study.

The detailed sensitivity tables contained in the Volume Two Report consider all turbine typologies as some scope was identified for the small-medium typology (turbines 35-50m) to be accommodated in this landscape in the 2012 ABLWECS.

4.28.1 *Summary of sensitivity*

This upland landscape includes the southern part of the Ardmeanach Peninsula, the Brolass area and the long parallel ridges either side of Loch Frisa. This landscape generally has a medium to large scale and is very sparsely populated. The relative degree of complexity of landform is a key limiting factor to wind turbine development although other constraints identified in the sensitivity assessment include potential visibility from the Loch na Keal NSA and the strong wildland character of the more remote coastal areas.

Landscape and visual sensitivity would be **High** for the large typology (turbines 80-130m) due to potential effects on adjoining landscapes, including the Loch na Keal NSA, and on remote coastal areas. Sensitivity would be **High-medium** for the medium typology (turbines 50-80m) and **Medium** for the small-medium and small typologies (turbines 20-50m), reflecting increased scope for smaller turbines to minimise effects on key special qualities.

The Ardmeanach Peninsula, the Brolass area and the north-western part of the Loch Frisa area is designated an APQ. A WLA covers the northern part of the Ardmeanach peninsula in this LCT. Sensitivity in terms of landscape values would range from **High-medium** over much of this landscape to **low** in the undesignated area around Loch Frisa.

4.28.2 *Potential cumulative issues*

There are no operational or consented wind farm or turbine developments located in this landscape. Operational and consented wind farm developments located on mainland Argyll and Bute lie beyond 30km distance. There are no cumulative issues associated with this character type.

4.28.3 *Key constraints*

- Areas of complex, sheer rocky-stepped slopes on the Ardmeanach Peninsula and craggy-topped hills in the western parts of the Brolass area.
- Dramatic cliffs and the strong sense of wildness associated with the southern coast, west of Carsaig Bay.
- Views of the Brolass area from the B8035 on the north shore of Loch Scridain.
- Potential intrusion of turbines on sensitive skylines above the containing ridges of the Loch na Keal NSA (higher ridges and backdrop slopes in the Loch Frisa area).

- The APQ designation which applies to the Ardmeanach and Brolass area and the north-western part of the Loch Frisa area.

4.28.4 *Opportunities*

- Areas with gentler hill slopes and broader, lower ridges.
- The relatively limited visibility of more contained valleys and interior hills within the Brolass and Loch Frisa area where settlement is sparse and there are few roads.
- The sparsely settled nature of this landscape (which increases opportunities for larger turbines to be accommodated whilst minimising conflicts of scale).

4.28.5 *Guidance on development*

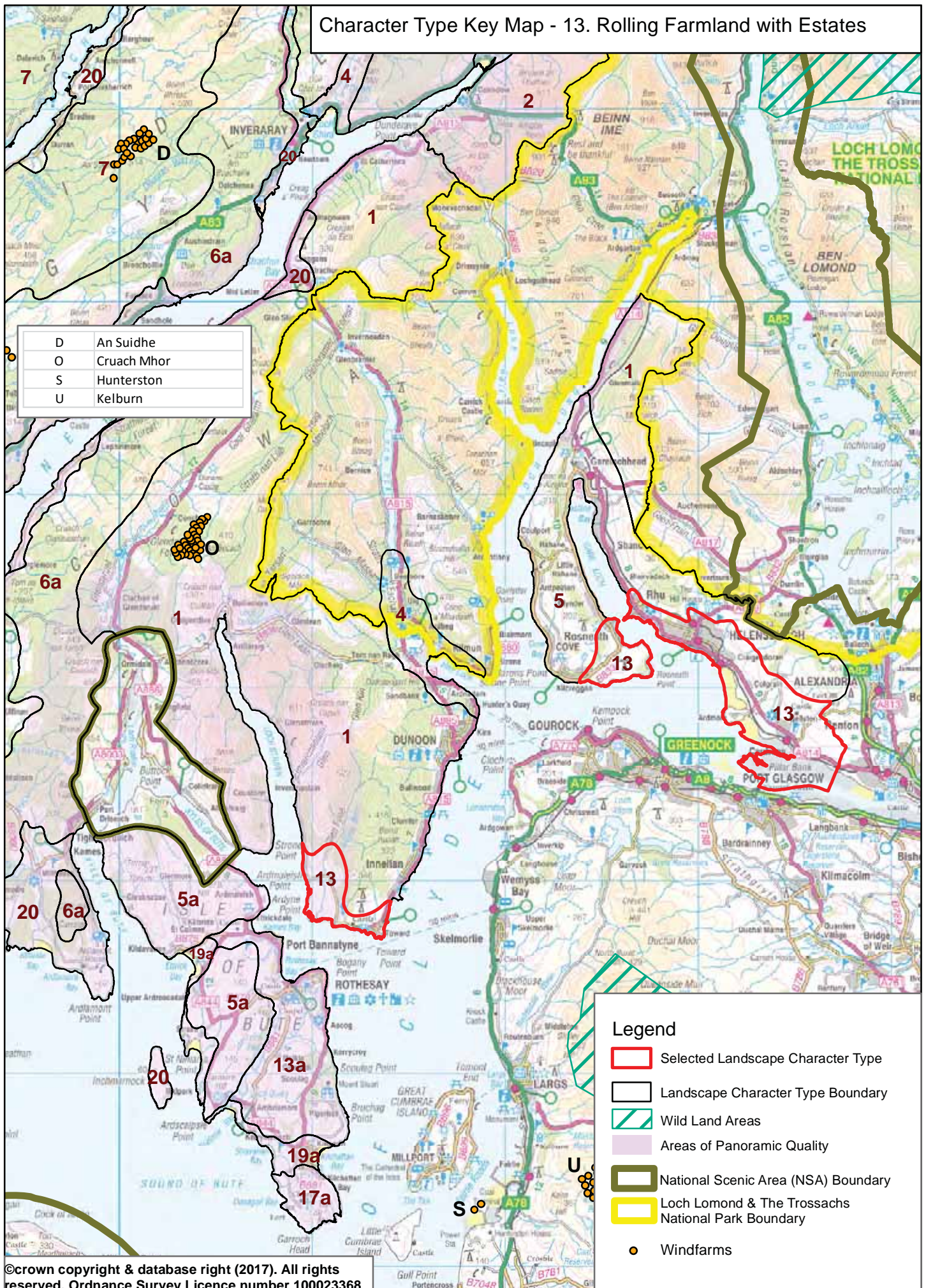
There are no opportunities to accommodate the large typology (turbines 80-130m) in this landscape.

There are some **limited** opportunities to site the medium and the small-medium typology (turbines 35-80m) on less complex and broader areas of gently sloping ground in the Brolass and Loch Frisa area. Turbines should avoid craggier hills with a pronounced stepped profile and, if sited within the Brolass area, should not intrude on the sensitive southern coast to the west of Carsaig Bay. In the Loch Frisa area it will be important to avoid intrusion on the sensitive skylines seen above the containing ridges on the northern boundary of the Loch na Keal NSA and this may limit the size of turbines that can be accommodated. Lower slopes and ridges and smaller turbines are more likely to offer opportunities to site this size of turbine to avoid such impacts.

The small typology (turbines 20-35m) could also be located in the above areas although turbines of this size would appear less 'out of scale' within this medium to large scale upland landscape if visually associated with more settled areas located either in this character type or within the adjacent *Mull Basalt Lowlands* (17).

Turbines should not be sited within the highly sensitive Ardmeanach Peninsula where they would detract from the complex steeply stepped landform, strong wildland character (part of this area lies in the Ben More Mull WLA) and also be highly visible in views from the A849. Smaller developments <20m height could however be accommodated on the gentler, smoother hill slopes to the east of Tioran provided they were associated with settlement. Turbines should be carefully sited to avoid intrusion on key views to the *Mull High Tops* (2a) at the head of Loch Scridain from the B035. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 13. Rolling Farmland with Estates



4.29 Rolling Farmland and Estates (13)

This assessment applies to three separate areas on the mainland of Argyll and Bute around Helensburgh, the Roseneath Peninsula and Toward Point. Detailed sensitivity assessment tables for all development typologies are contained in the Volume Two Report.

4.29.1 *Summary of sensitivity*

The *Rolling Farmland and Estates* landscape character type comprises three small low-lying areas on the tips of the Rosneath Peninsula, Toward Point and in the Helensburgh/Cardross area. They all lie in prominent locations on the edge of the Firth of Clyde. These landscapes are principally characterised by the presence of designed landscapes with wooded policies, strongly enclosed pastures and a number of landmark historic and archaeological features. They are backed by the more extensive hill slopes of the *Open Ridgeland* (5) and *Steep Ridgeland and Mountains* (1) landscape character types and provide a strong and scenic contrast with these simpler upland landscapes and the narrow sea lochs and broad basin of the Firth of Clyde. These landscapes are also important in the contrast they provide to the more developed urban edge of Glasgow to the east and the Inverclyde coast. These landscapes are highly visible from Bute, the densely-settled Inverclyde coast and from the Firth of Clyde.

There would be a **High** sensitivity to the large and medium typology (turbines >50m) due principally to the effect of taller turbines on the scale of the landform, its diverse vegetation pattern, on the setting of settlement and on views. Sensitivity would be **High-medium** for the small-medium typology (turbines 35-50m) and **Medium** for the small typology (turbines 20-35m) due to its better fit with the scale of the landform and settlement.

An APQ designation covers the western part of Toward Point. Castle Toward and Rosneath are Inventory listed designed landscapes. Sensitivity in terms of landscape values would be **High-medium** for the large, medium and small-medium turbines (turbines >35m) but **Medium** for the small typology (turbines 20-35m) where smaller turbines could reduce effects on the special qualities of the designated area.

4.29.2 *Potential cumulative issues*

There are no operational or consented wind farm developments located within this landscape. Operational wind farm development located in North Ayrshire is visible from the Toward Point area of this character type and contributes to the more developed character of the landscape on the southern and south-eastern coasts of the Firth of Clyde although the distance of these developments lessens visual impact.

Key cumulative landscape and visual issues include:

- The introduction of wind farms and larger turbines to these prominent peninsulas and coastal areas within the wider Firth of Clyde basin would adversely affect the strong sense of Cowal forming the threshold to the 'Highlands' and the point where the Glasgow conurbation is left (heightened by the ferry crossing to Dunoon). The present contrast of the landscapes of Cowal with the more developed Inverclyde and North Ayrshire coast could be diminished.

4.29.3 *Key constraints*

- The relatively small scale of this landscape, occasional knolly hills and more diverse indented coastal edge.
- The diverse pattern of enclosed fields and policy woodlands but also historic and archaeological built features which form occasional landmark features.
- The prominent location of these landscapes on peninsula tips and along the coast which increases visual sensitivity in terms of their visibility in views from the Firth of Clyde and its settled fringes.
- Inventory listed designed landscapes of Castle Toward and Rosneath and an APQ designation covering the west side of Toward Point against Loch Striven.

4.29.4 *Opportunities*

Gentler hill slopes with a less distinct field enclosure pattern, set back from the more prominent coastal edge and located at the transition with the *Open Ridgeland* (5) and *Steep Ridgeland and Mountains* (1) character types, which provide opportunities for smaller typologies to be accommodated.

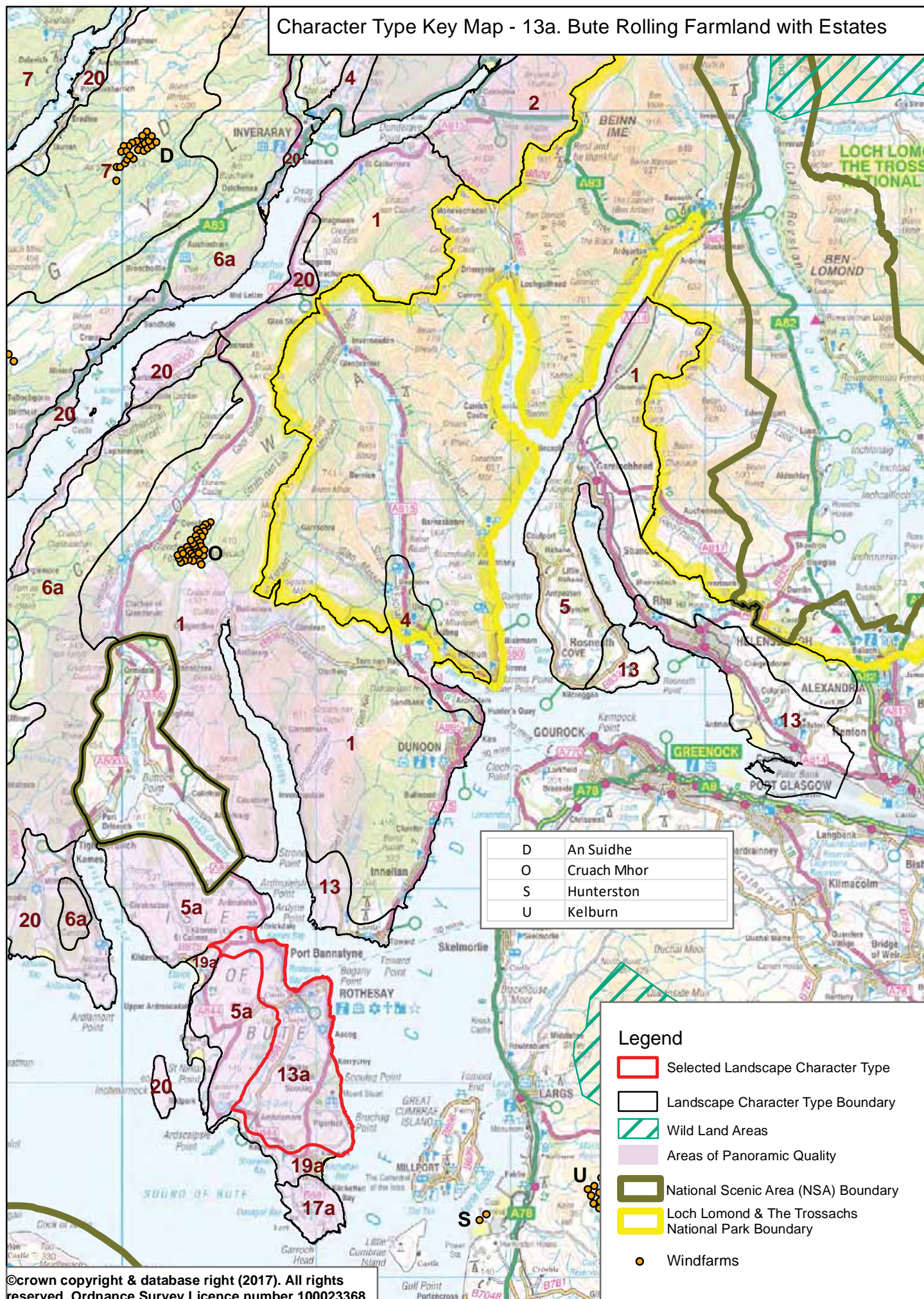
4.29.5 *Guidance on development*

There is **no scope** for the large, medium or small-medium typology (turbines >35m height) to be located within this landscape type without incurring significant impacts on a number of sensitivity criteria.

There is some **very limited** scope for the small typology to be accommodated at the transition with the adjacent more extensive upland landscapes of the *Open Ridgeland* (5). Turbines should avoid areas with a more distinct land cover pattern including designed landscapes, wider policy plantings and strong enclosure pattern. They should be sited on higher hill slopes well away from the more visually prominent and diverse coastal edges and also set back slightly from farm buildings and other settlement to avoid overwhelming their scale. The setting of historic buildings and settlement, designed landscapes and archaeological features remains sensitive even to small turbines. Multiple turbines of this size would quickly clutter the limited extent of these landscapes and careful monitoring of cumulative landscape and visual effects would be necessary.

There is increased scope to assimilate turbines <20m high providing these are sited so they are visually associated with existing buildings. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 13a. Bute Rolling Farmland with Estates



4.30 Bute Rolling Farmland and Estates (13a)

This character sub-type occurs in a single area on the Isle of Bute. The detailed sensitivity tables contained in the Volume Two Report focus on assessing smaller turbines <50m high as the 2012 ABLWECS found no scope to accommodate turbines >35m in this landscape.

4.30.1 *Summary of sensitivity*

This relatively low-lying landscape of gently rolling small hedged pastures and extensive wooded policies forms a lush pastoral scene contrasting with the more rugged higher ground of north Bute and the exposed open landscapes of the west coast. This landscape is visible in close proximity from roads and settlement.

There would be a **High** sensitivity to turbines >50m. Sensitivity would be **High-medium** to the small-medium typology (turbines 35-50m) due principally to the effect of taller turbines on the scale of the landform, on the diverse vegetation cover and on settlement. Sensitivity would be **Medium** for the small typology (turbines 20-35m) due to their better fit with the scale of the landform and settlement.

This landscape is covered by an APQ and Mount Stuart is listed in the Inventory of Gardens and Designed Landscapes and extends over a considerable part of this character type. Sensitivity in terms of landscape values would be **High-medium** for the small-medium typology and **Medium** for the small typology.

4.30.2 *Potential cumulative issues*

There is no operational or consented wind farm development located within this character type. The operational wind farms of Kelburn, Ardrossan, Dalry and the Hunterston wind turbines which are all located in North Ayrshire are visible within 14km from the east coast of Bute. The operational Cruach Mhor wind farm on Cowal can also be briefly glimpsed from the A844 between Mount Stuart and Rothesay.

Key cumulative issues include:

- Impacts that could occur on views where any larger turbines were sited in this landscape and were inter-visible with operational wind farms and large wind turbines located close to the North Ayrshire coast. Views from Great Cumbrae and the Firth of Clyde would be likely to be principally affected.
- Cumulative landscape impacts could be associated with larger turbines being sited on the Isle of Bute which appears largely undeveloped in comparison with the highly modified mainland coastal area to the east. Smaller turbines (turbines <35m) would however be likely to have less of an effect, being clearly different in terms of scale with commercial developments sited on the mainland and also less visually intrusive provided they were well-sited in relation to the key constraints and opportunities listed below.

4.30.3 *Key constraints*

- The relatively small to medium scale of this low-lying gently rolling landform accentuated by woodlands, small enclosed fields, farms and other buildings.

- A diverse pattern of woodlands, hedged pastures and the extensive policies and designed landscapes of Mount Stuart and the smaller historic properties, gardens and parkland associated with Ascog and Kames Castle.
- The landmark features of Lochs Fad, Quien and Ascog and the broadleaved woodlands on the steep scarp against Loch Fad.
- Views from the A881 (which features dramatic views south-west to Arran) and from minor roads and more elevated footpaths, such as the West Island Way in the wider Bute area.
- Views from North Ayrshire, Great Cumbrae and the Firth of Clyde which would be particularly sensitive to taller turbines.

4.30.4 *Opportunities*

Smooth open hill slopes with a less strong small scale field enclosure pattern and the lower slopes backing the higher ground of the adjacent *Bute Open Ridgeland* (5a).

4.30.5 *Guidance on development*

There is no scope for the small-medium typology (35-50m) to be located within this landscape type without incurring significant impacts on a number of sensitivity criteria.

There is some **limited** scope for small turbines (20-35m) to be accommodated in this landscape. Turbines should avoid areas with a strong pattern of policy woodlands and small hedged fields. They should also be sited to minimise impact on the setting of settlements and designed landscapes and avoid significant intrusion on landmark features such as views to Arran from the A881, broadleaved woodlands and Lochs Fad, Quien and Ascog. Turbines should be visually associated with farms and other buildings, avoiding prominent hill tops and favouring lower hills slopes backed by the higher ground of the adjacent *Bute Open Ridgeland* (5a). This is a well-settled landscape with many small farms dispersed across the rolling farmland. Multiple turbines (and especially turbines >25m) associated with every farm could quickly become a dominant feature.

There is increased scope to assimilate turbines <20m high providing these are sited so they are visually associated with existing buildings. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 14. Bay Farmland

F	Auchadaduie
G	Beinn an Tuirc I
H	Beinn an Tuirc II
I	Beinn an Tuirc III
K	Blary Hill
N	Cour
P	Deucheran Hill
Q	Freasdail
T	Isle of Gigha
Y	Tangy I & II
Z	Tangy III

Legend

- Selected Landscape Character Type
- Landscape Character Type Boundary
- Wild Land Areas
- Areas of Panoramic Quality
- National Scenic Area (NSA) Boundary
- Loch Lomond & The Trossachs National Park Boundary
- Windfarms

© Crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

©crown copyright & database right (2017). All rights reserved. Ordnance Survey Licence number 100023368

4.31 Bay Farmland (14)

The *Bay Farmland* character type extends across the broad lowland plain between Campbeltown and Machrihanish Bay. The detailed sensitivity assessment tables contained in the Volume Two Report consider all development typologies.

4.31.1 *Summary of sensitivity*

The Bay Farmland comprises a broad, low-lying flat to gently undulating plain extending between Campbeltown and Machrinhanish Bay. It is contained by the higher ground of the *Upland Forest Moor Mosaic* (6) to the north and the *Mull of Kintyre Upland Forest Moor Mosaic* (6c) to the south. While the landform and land cover of this landscape is relatively simple, it is a well-settled landscape, regularly dotted with farms and houses and this increases sensitivity in relation to the size of wind turbines that could be accommodated. The potential for cumulative impacts with the operational Tangy and Beinn an Tuirc I, II and III wind farms and effects on adjoining landscapes also increase sensitivity, particularly to larger typologies. This landscape is very open and highly visible from major roads and settlement. It also forms the immediate hinterland to Campbeltown and Machrinhanish Bay.

This landscape has an overall **High** sensitivity to the larger development typologies (turbines >50m). Sensitivity would be reduced for the smaller typologies to **Medium** for the small-medium typology (turbines 35-50m) and **Medium-low** for the small typology (20-35m), reflecting increased opportunity to accommodate multiple small turbines in this landscape.

This landscape is not designated and landscape values would be **Low** for all typologies considered in the assessment.

4.31.2 *Potential cumulative issues*

There are no operational or consented wind farm developments located in this character type. The operational Tangy Hill I and II wind farm development lies approximately 3km from the northern boundary of this character type on the southern slopes of the adjacent *Upland Forest Moor Mosaic* (6) and is visible across much of this open landscape. The consented Tangy III repowering development will replace this operational wind farm with much larger turbines located slightly further away. The operational Beinn an Tuirc I and II development, also located in the *Upland Forest Moor Mosaic* (6) character type, is visible from the southern part of the *Bay Farmland* where it is seen in conjunction with the Tangy development. The consented Beinn an Tuirc III extension will increase visibility of this development in the western part of the *Bay Farmland* where it will be inter-visible with the Tangy wind farm.

The clear association of the above wind farms with the less settled and more expansive upland landscape of the *Upland Forest Moor Mosaic* (6) and the broadness of the *Bay Farmland* minimises the landscape and visual impact of these developments to some degree when seen from this landscape.

Key cumulative landscape and visual issues include:

- Larger turbines and wind farm developments sited within the *Bay Farmland* would be contrary to the established association of wind farm developments

located within the adjacent less settled and generally more expansive *Upland Forest Moor Mosaic* (6) landscape character type.

- Potential effects on views from the A83 Tourist Route where wind farm developments sited in the *Bay Farmland* would be likely to be simultaneously visible in relative proximity with the operational Tangy wind farm.
- Sequential visibility of operational wind farms and any potential developments sited in the *Bay Farmland* from the Kintyre Way long distance footpath which is routed on the southern edge of this landscape and along the elevated minor road to Lussa Loch.

4.31.3 *Key constraints*

- The regular pattern of dispersed farms and small settlements within this landscape.
- Small drumlin-like hills and more complex rolling landform which occurs in the eastern part of this landscape.
- The arc of small interlocking hills at the transition with the Upland Forest Moor Mosaic (6) to the north of this landscape.
- The close proximity of this landscape to the diverse and naturalistic *Sand Dunes and Machair* (25) landscape character type covering Machrinhanish Bay.
- High visibility from the A83 and also from the Campbeltown Loch area.

4.31.4 *Opportunities*

- The generally simple landform and land cover of this area and its broad extent which increases scale.
- The presence of some larger scale industrial buildings which could better relate to the size of smaller typologies.

4.31.5 *Guidance on development*

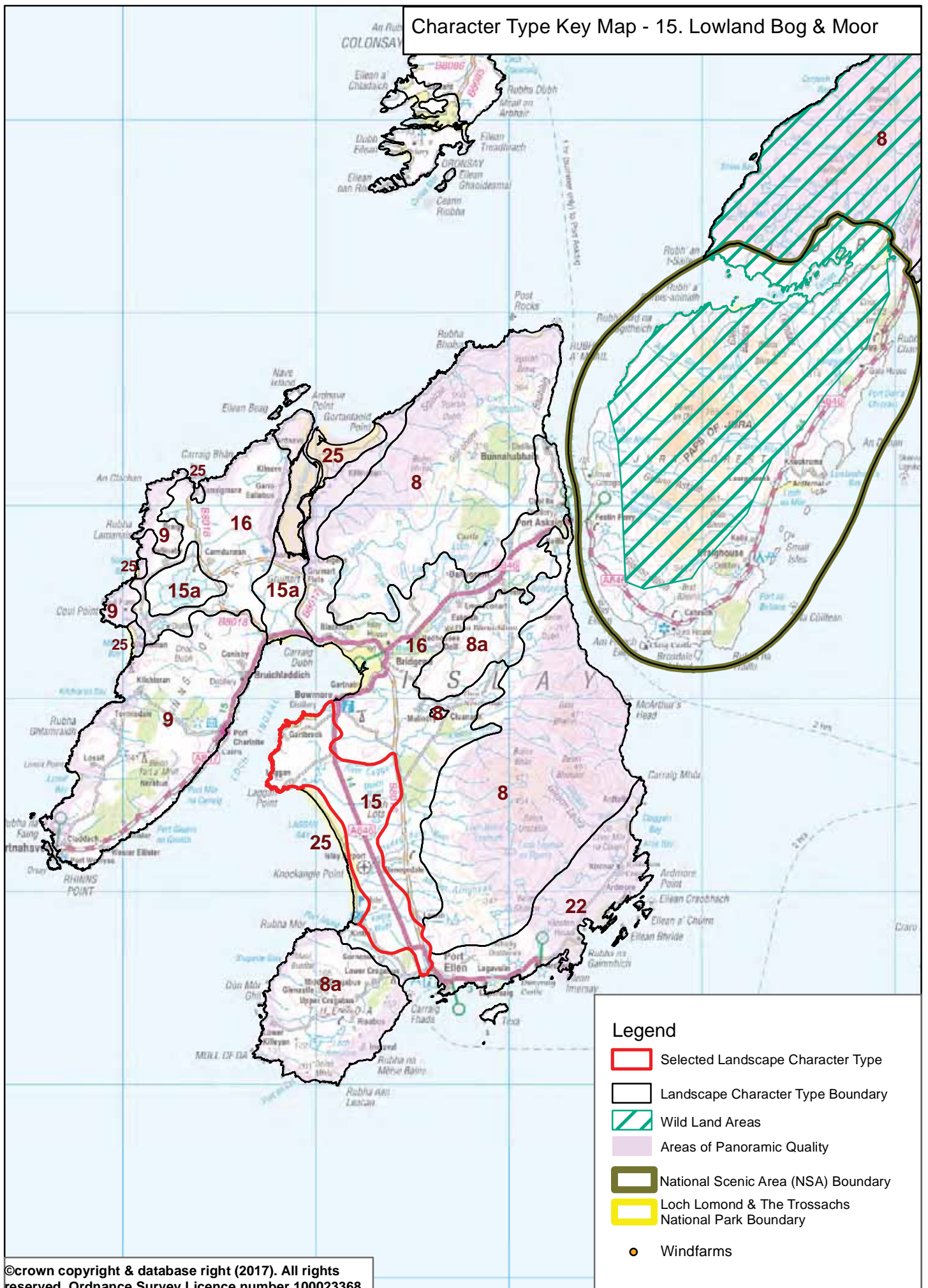
There is **no scope** to accommodate larger typologies (turbines >50m) in this landscape character type due principally to their effects on the scale of this landscape which is characterised by a regular pattern of farms and houses providing ready scale references, and also because of the cumulative effects that would arise with operational and consented wind farm development located in the adjacent upland area to the north.

The small-medium typology (turbines 35-50m) could be sited on the outer edges of this landscape at the transition with the *Upland Forest Moor Mosaic* (6) and the *Mull of Kintyre Upland Forest Moor Mosaic* (6c) to benefit from a backdrop of rising ground to limit visual impact. Turbines should not be sited close-by the arc of more complex small hills on the northern boundary of this landscape and should avoid significant cumulative effects with the operational and consented Tangy wind farm which lies relatively close to the *Bay Farmland*. The small typology (turbines 20-35m) could also be sited on these lower transitional hill slopes but could additionally be located on broader low ridges and natural breaks in slope that occur in the more undulating eastern part of this landscape. They should not however be sited on top of, or close to, more pronounced small drumlin-like knolls which are prominent features in this landscape. There are also opportunities to site small turbines so visually associated with larger scale industrial buildings with the aim of concentrating development and thus reducing clutter and visual impact across the *Bay Farmland*.

Care should be taken to avoid intrusion on sensitive coastal landscapes and on key views to Campbeltown from the A83 (including the dramatic steep-sided Beinn Ghulean which forms an essential part of its landscape setting). The openness of this landscape and the relatively close visibility of the operational Tangy wind farm limits the number of smaller turbines that could be accommodated in terms of cumulative impacts. A greater number of small turbines (<35m) could be more easily accommodated.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 15. Lowland Bog & Moor



4.32 Lowland Bog and Moor (15)

The *Lowland Bog and Moor* (15) landscape character type is found in one area on the island of Islay where it extends across the coastal plain south of Bowmore south to Port Ellen, parallel with Laggan Bay.

All development typologies are considered in detail in the sensitivity assessment tables contained in the Volume Two Report.

4.32.1 *Summary of sensitivity*

This character type forms a low-lying and an often level plain which lies between the *Marginal Farmland Mosaic* (16) and the *Sand Dunes and Machair* (25) at Laggan Bay. In addition to being of very low elevation and relief, this landscape type is frequently wet and marshy, with small pools as well as larger lochans on the areas which have not been drained to create improved pasture farmland. There are also areas of improved pasture and development in this area includes the airport. Occasional woodland is associated with the very sparse settlement. The *Lowland Bog and Moor* (15) character type is only sparsely settled and there are also few roads. Key views are limited to views from the road, and the beach at Laggan Bay. However, the openness of the landscape means that visibility is likely to be extensive and sustained.

The *Lowland Bog and Moor* (15) is relatively open with a simple topography and sparse settlement. There is also existing development, most notably at the airport. However, the more natural wetlands with pools, the coast and the transition with the *Sand Dunes and Machair* (25) are sensitive to development and this landscape is also highly visible from roads and settlement.

Landscape and visual sensitivity would be **High** for the large typology (turbines 80-130m) and **High-medium** for the medium typology (turbines 50-80m). This landscape would have a **Medium** sensitivity to the small-medium typology (turbines 35-50m) and also to the small typology (turbines 20-35m). This reflects that there are likely to be some opportunities to accommodate these typologies with careful siting related to the more expansively farmed areas of this landscape.

This landscape is not designated and landscape values would be **Low** for all the typologies considered in the assessment.

4.32.2 *Potential cumulative issues*

No operational wind farms or large turbines are located in this character type. A single community wind turbine (61m high) is located close to this landscape in the *Moorland Plateau* (8) landscape character type. Wind farms located on the mainland of Argyll and Bute lie at distances beyond 30km.

There is limited potential for cumulative landscape and visual effects to arise in the future with turbines located in the adjacent *Marginal Farmland Mosaic* (16) character type, where there was some limited scope identified for the small (20m-35m) typology. The farms which are likely to be the focus for this size of turbine are very dispersed and therefore cumulative visual effects are likely to be limited and manageable with careful siting of individual turbines and a cautious approach to numbers, which should be limited to small groups of no more than three. The potential visual cumulative effects

would be considerably reduced if well-sited turbines of smaller typologies of less than 35m were used within these settled areas, and if a consistent relationship between these small turbines and the farm cluster was applied to siting. Small turbines (of less than 20m in height) are even more readily visually screened by low woodland, which is likely to limit their cumulative visual impact.

Key cumulative issues that may arise within the *Lowland Bog and Moor* (15) are likely to include:

- Variations in the type and size of single and small groups of small turbines proposed within the landscape type.
- Close inter-visibility with the operational single community turbine at Castlehill which lies within 2-3km of this landscape.

4.32.3 *Key constraints*

- The irregularity and small scale of the coastal edge west of Bowmore to Laggan Point.
- The setting to the planned settlement of Bowmore which is sited at the northern end of this landscape and is seen in long views across Loch Indaal.
- The sense of naturalness experienced on the coast and within the more expansive wetlands.
- The extensive visibility possible over this very open landscape.
- Long views from the A846 over this flat and open landscape to the higher hills of the *Moorland Plateau* (8) and to the Oa.

4.32.4 *Opportunities*

- The extensive openness of the landscape character, which creates a strong sense of horizontal scale which could act as a counterpoint to vertical features.
- Extensive areas of drained farmland.
- Sparse settlement and the presence of some infrastructure associated with the airport (ie this landscape is already developed to a degree).
- More extensive areas of this character type, especially where it merges with areas of similar vegetation pattern in the adjacent *Marginal Farmland Mosaic*.

4.32.5 *Guidance on development*

There is **no scope** for the large typology to be accommodated in this landscape due to its likely dominant scale, visual impact and potential cumulative impact.

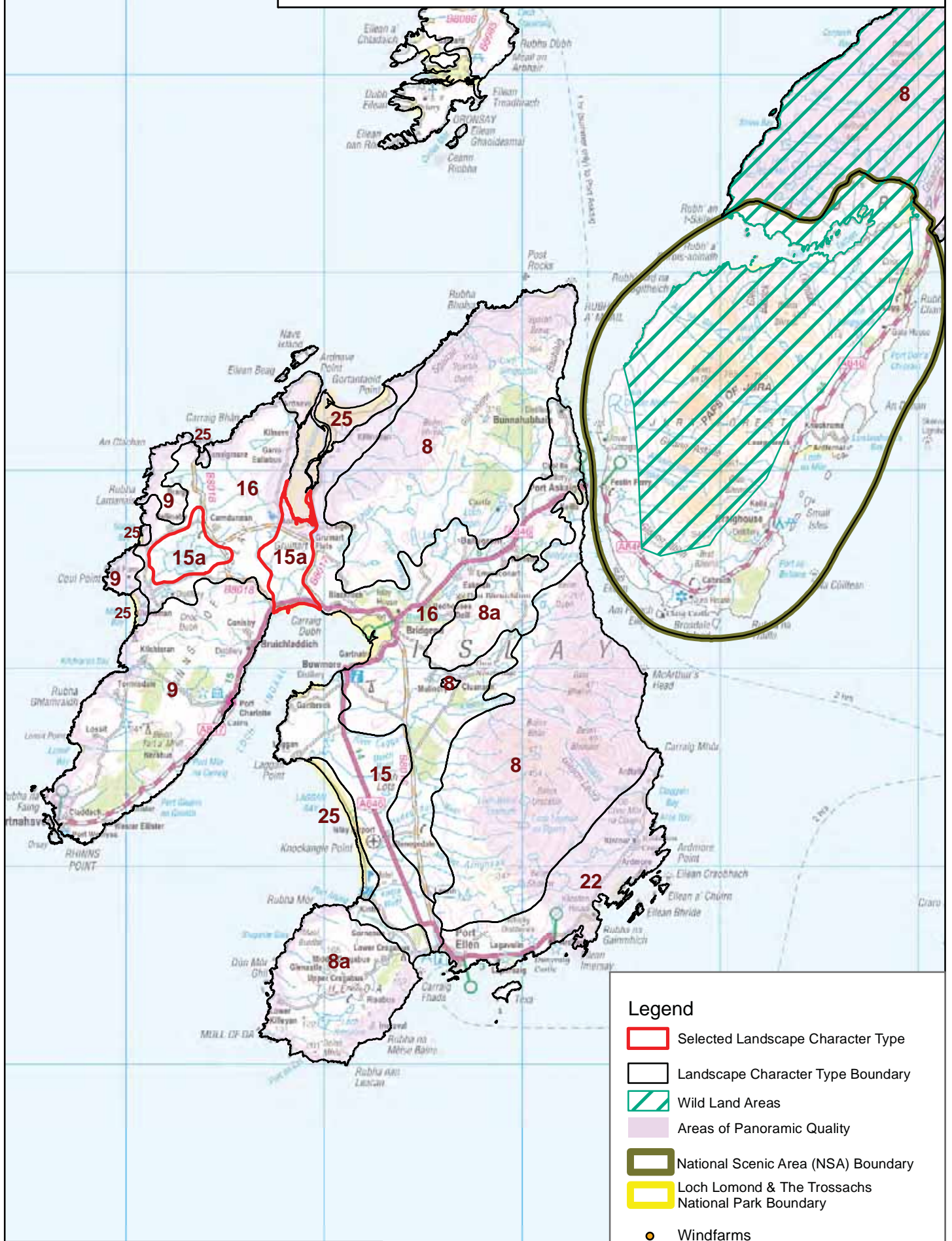
Some limited scope exists for the medium typology to be located within the more expansive farmland and moorland of this landscape. The small-medium and small typologies (turbines 20-50m) could also be located in these more expansive areas although cumulative effects would be likely to occur if all sizes of turbine were to be developed due to the limited extent and openness of this landscape.

Turbines of this size would need to be carefully sited to avoid intrusion on key views from the A846, the setting of the planned settlement of Bowmore and cumulative impacts with the operational community turbine at Castlehill. More intricate and natural areas of wetland and pools and coastal dunes should also be avoided.

Turbines of less than 20m could also be sited in more settled areas of this landscape. All turbines sited in this landscape should be set back from the sensitive coast and more remote wetland areas.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 15a. Less Extensive Lowland Bog & Moor



4.33 Less Extensive Lowland Bog and Moor (15a)

The *Less Extensive Lowland Bog and Moor* (15a) occurs in two small areas, on the isthmus at Gruinart and on the shores of Loch Gorm, on Islay. The detailed sensitivity tables contained in the Volume Two Report assess smaller development typologies only as the 2012 ABLWECS found there was no scope for turbines >20m to be accommodated in this landscape.

4.33.1 *Summary of sensitivity*

This character type forms a low-lying and an often level plain which connects the two parts of Islay and extends along the shores of Loch Gorm. The extensive wetland dominates, although drained, improved pasture backs onto the tidal flats at Gruinart. Lochans and small pool extend over the marshy areas. Settlement is very sparse and roads are limited to the periphery of these areas.

The *Less Extensive Lowland Bog and Moor* (15a) is very limited in extent, although it is open with a simple topography and sparse settlement. Any development in these locations would easily impact on neighbouring types and dominate the small extent of these areas. The sense of naturalness, the coast, the setting of Loch Gorm and the small extent of this area all combine to increase sensitivity. This landscape character type is only sparsely settled but views from the elevated peripheral roads are extensive. The openness of the landscape means that visibility is likely to be extensive and sustained. There are also settlements on neighbouring character types which overlook these low-lying areas.

This landscape has a **High** sensitivity to all development typologies.

This landscape is not designated and landscape values would be **Low** for both typologies considered in the assessment.

4.33.2 *Potential cumulative issues*

No operational wind farms or large turbines are located in this character type and wind turbines sited elsewhere on Islay do not have a strong influence on this landscape. Wind farms located on the mainland of Argyll and Bute lie at distances beyond 30km. There is a little potential for cumulative landscape and visual effects to arise in the future because of severely limited scope for these typologies within these areas.

4.33.3 *Key constraints*

- The small extent of these areas, which limits opportunities to site development without it impacting on the adjacent landscape types.
- The small extent of these areas, and relative containment of Gruinart in particular, which would be easily dominated by turbines.
- The sense of naturalness experienced on the coast, around Loch Gorm and the wetlands.
- The extensive and often elevated views over this very open landscape
- The setting of Loch Gorm and the tidal flats at Loch Gruinart

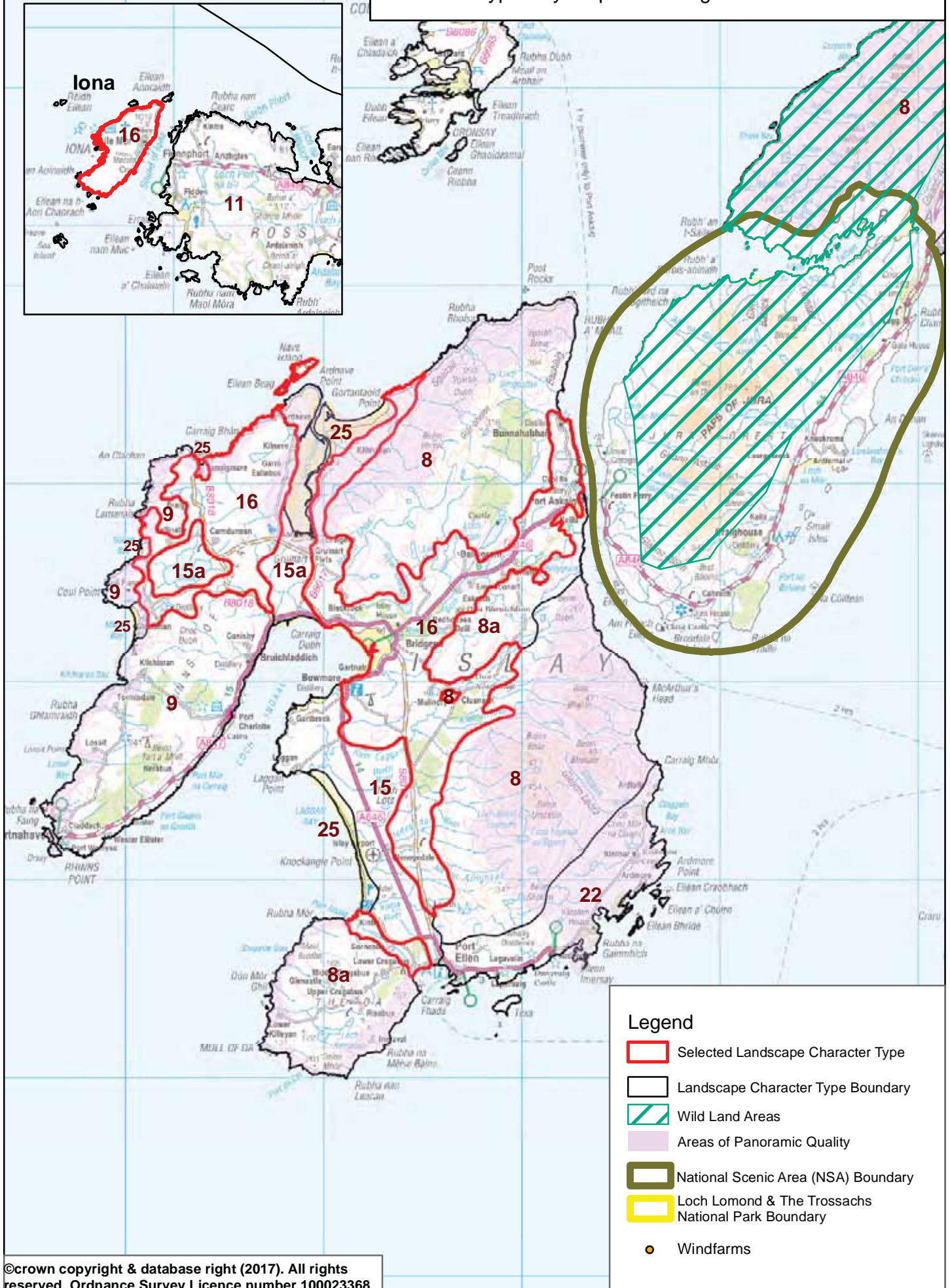
4.33.4 *Opportunities*

- No opportunities have been identified for wind turbine development in this landscape.

4.33.5 *Guidance on development*

There is no scope to site wind turbine development within this character sub-type due to the significant adverse impacts that would be likely to occur on a wide range of landscape and visual sensitivities.

Character Type Key Map - 16. Marginal Farmland Mosaic



4.34 Marginal Farmland Mosaic (16)

The *Marginal Farmland Mosaic* (16) character type forms the farmed fringe of the uplands on the island of Islay. It occupies the interior glen stretching from Port Askaig to Bridgend, and also forms a linear transition between the *Lowland Bog and Moor* (15) and more elevated, upland character types, especially *Moorland Plateau* (8) and *Rocky Moorland* (9). The detailed sensitivity tables contained in the Volume Two Report assess smaller development typologies only as the 2012 ABLWECS found there was no scope for turbines >35m high to be accommodated in this landscape.

4.34.1 Summary of sensitivity

This character type forms a relatively narrow, linear settled and farmed lower fringe to the more upland landscape types found on the island of Islay. The area is characterised by its very low relief. Most of this type is relatively complex and small scale, with interlocking knolls and low stepped ridges providing strong containment reinforced by small woodlands, fields, and numerous farms and houses which further emphasise its small scale. This landscape is simpler to the west of Gruinart, where it widens to form an undulating plateau of moorland, and to the east of the B8016, where there are more extensive forestry plantations and the landform which backs onto the *Moorland Plateau* (8) is more gently graded. It also appears more extensive, at least in terms of vegetation pattern, where it lies adjacent to *Moorland Plateau with Farmland* (8a).

The low relief, the small scale, complex landform and pattern, the consistent presence of small features which act as scale reference points in this landscape, and its narrow extent and role in the wider landscape context this type increase the sensitivity of this character type. The *Marginal Farmed Mosaic* character type is well-settled, accommodates a network of narrow roads and is inter-visible with other character types, and from viewpoints across Islay, especially from the west. While views within the more undulating and wooded areas are likely to be more sporadic and intermittent, the low relief nevertheless limits opportunities for reducing visibility. Key views to the coast and to the Paps of Jura are additionally sensitive.

This landscape has a **High** sensitivity to turbines >35m high. Sensitivity would be **High-Medium** for the small typology (20m-35m) typology reflecting some opportunity to accommodate smaller turbines at the transition with adjacent upland character types and across the more open and broader scale moorland areas. Turbines of less than 20m in height could more readily be accommodated within the small scale, diverse and more settled character of this landscape type.

This landscape is not designated and landscape values would be **Low** for both typologies considered in the assessment.

4.34.2 Potential cumulative issues

The operational community turbine at Castlehill in the adjoining *Moorland Plateau* (8) is visible from the southern end of this character type. This landscape lies beyond the 30km threshold set for the ZTV mapping of operational and consented wind farms located on mainland Argyll and Bute.

There is potential for cumulative landscape and visual effects to arise in the future with wind turbines located on the *Moorland Plateau* (8) and the *Lowland Bog and Moor* (15).

In the more settled areas, the regularity of farms could rapidly lead to a cluttered appearance if single or groups of turbines were associated with the majority of land holdings. This potential visual cumulative effect would be reduced if well-sited turbines of less than 20m were used within the settled areas, and if a consistent relationship between these small turbines and the farm cluster was applied to siting. Small turbines are also more readily visually screened by topography and woodland, which is likely to limit their cumulative visual impact.

Key cumulative issues that may arise within the *Marginal Farmland Mosaic* are likely to include:

- Inter-visibility between any wind turbine development located in this character type and larger wind turbines in adjacent more upland character types.
- Where variations in the type and size of single and small groups of small turbines are proposed within a landscape area.
- Possible visual clutter associated with the presence of overhead wires or masts alongside turbines.

4.34.3 *Key constraints*

- The narrowness of this character type which forms a linear fringe along the lower margins of upland areas and along the coast, where even smaller turbines could dominate its extent.
- The low relief of the landscape which is easily dominated by tall structures.
- The complex, rolling, knolly landform which in combination with woodlands and relatively small fields and settlements, produces a predominantly small scale landscape.
- Where it occurs, the irregular knolly landform, complemented by the rich mosaic of land cover comprising a variety of woodlands, improved pastures, lochans and moor.
- The high visibility of these areas from the roads, the settlement and elsewhere on Islay.
- The setting of settlements, archaeological features and key views to the Paps of Jura and the coast.

4.34.4 *Opportunities*

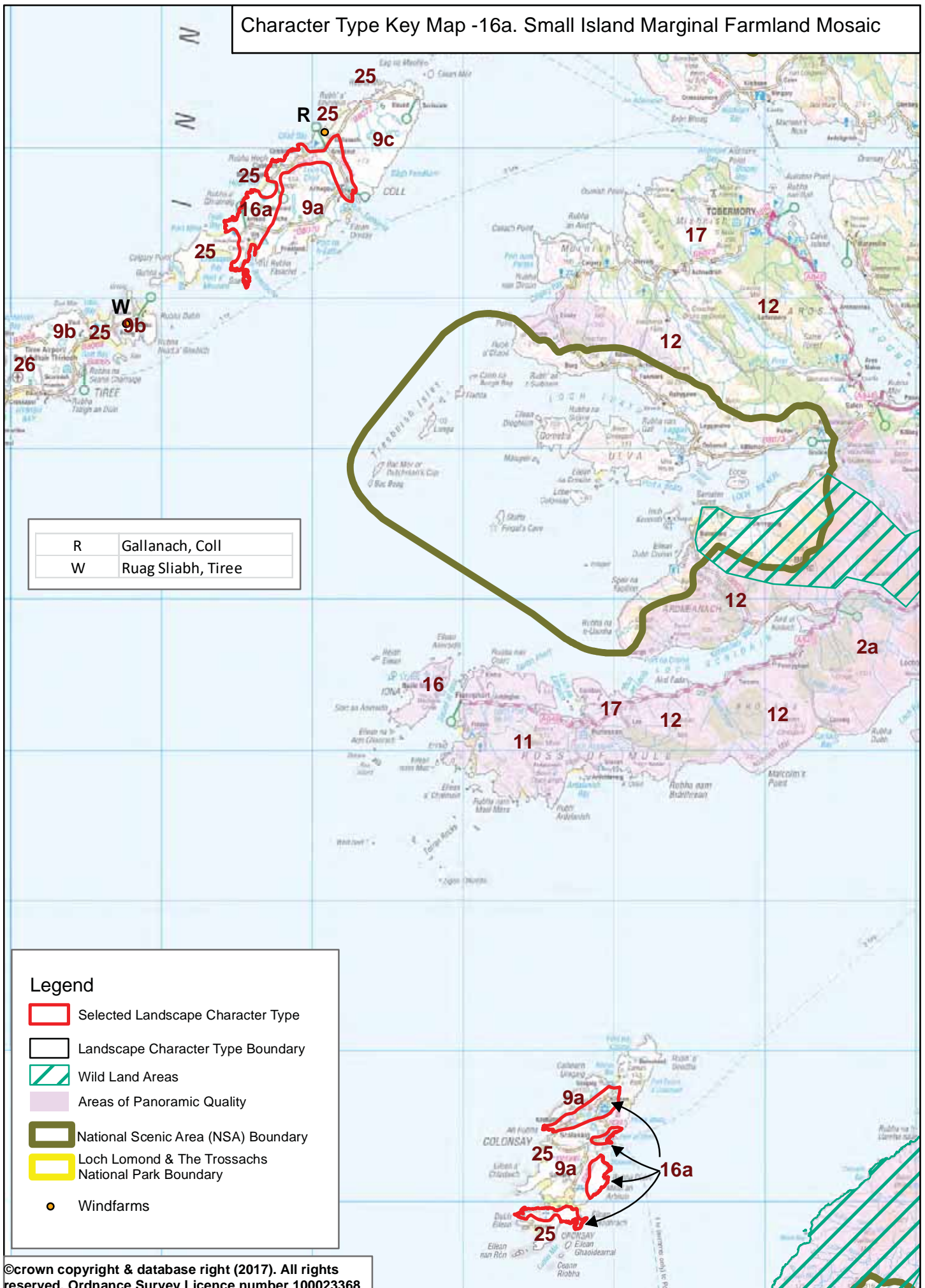
- Areas where the narrow fringe of the *Marginal Farmed Mosaic* (16) has a more gradual transition with adjacent upland character areas such as the *Moorland Plateau with Farmland* (8a) and *Moorland Plateau* (8) where the increased breadth of the farmed land and transition with the much higher relief of the upland areas creates a sense of larger scale which could accommodate the small (20m – 35m) typologies.
- Where the more open moorland and sweeping horizontal scale could accommodate the small (20m – 35m) typologies

4.34.5 *Guidance on development*

There is no scope for turbines >35m high to be sited within this character type due to the significant adverse impacts likely to occur across a range of sensitivity criteria.

There are some limited opportunities for the small typology (20m – 35m) to be located both where the extent of the *Marginal Farmland Mosaic* is broader (south and east of Bowmore) and where a more gradual merging occurs with the adjacent *Moorland Plateau with Farmland* (8a) and the *Rocky Moorland* (9) character types. In these areas the land form is less complex and land cover more simple, comprising rough grazing land and coniferous plantations. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map -16a. Small Island Marginal Farmland Mosaic



4.35 Small Island Marginal Farmland Mosaic (16a)

This landscape character type occurs on Coll and Colonsay where it forms settled and farmed valleys and some flatter areas of ground close to the coast. All development typologies are considered in detail in the sensitivity tables contained in the Volume Two Report.

4.35.1 *Summary of sensitivity*

On Coll, this landscape character type comprises flatter fenced fields of sand-blown pasture (machair) where it abuts the *Sand Dunes and Machair* (25) and smaller, irregularly-shaped and often walled, fields at the transition with the *Small Island Rocky Moorland* (9a). Farmland in both these areas on Coll is frequently interrupted by small exposed rocky knolls and boulders. On Colonsay, this landscape comprises a broad, loch-filled valley with smoother slopes and more fragmented pockets of farmland interspersed with rocky knolls either side of The Strand. This landscape features a characteristically scattered settlement pattern of small crofts and houses, these usually located on drier slopes between rocky outcrops above more productive pastures. There is a strong coastal influence and many areas abut notably scenic and well-used sandy beaches. This landscape has a small scale due to the often strong containment provided by rocky outcrops, the presence of some woodland on Colonsay, and the dispersed but relatively dense pattern of small houses, together with enclosed fields. Much of this landscape is closely visible from island roads and the coast although on Coll, a degree of visual containment is provided by sand dunes from nearby well-visited beaches.

This landscape type has a **High** overall sensitivity to the large, medium and small-medium typologies (turbines 130-50m) and a **High-medium** sensitivity to the small typology (turbines 20-35m). Turbines <20m could more easily fit with the scale of this landscape.

No scenic designations apply to this landscape although the designed landscape of Colonsay House is listed in the Inventory of Gardens and Designed Landscapes. Sensitivity would range from **High-medium** to **Low**.

4.35.2 *Potential cumulative issues*

A range of small turbines <30m high are located in this character type on Coll. A single operational large wind turbine is also located at Gallanach in the adjoining *Sand Dunes and Machair* landscape character type on the western coast of Coll. A 36m high single turbine is located in this landscape character type on Colonsay. Operational and consented wind farm development located on the mainland lies beyond 30km of these islands.

Cumulative issues may include:

- Inter-visibility between any wind turbine development located in this character type on Coll and the Gallanach large wind turbine in the adjacent *Sand Dunes and Machair* (25). This could exacerbate effects on the character of undeveloped coast and on views from the coast and minor roads on the island.
- Variations in the type, size and rotation speed of single and small groups of small turbines which could increase visual clutter and confusion in this generally

open and low-lying landscape (on both Coll and Colonsay) where developments could be seen together in close proximity due to the small size of land holdings.

- An exacerbation of existing effects on the setting of the Colonsay House GDL associated with any additional wind energy development.

4.35.3 *Key constraints*

- The small extent of this character type which in turn is located on a small island which increases scope for domination on character and views particularly by larger wind turbines.
- The small scale of these landscapes which are characterised by generally small cottages, crofts and farms.
- The setting of the scenically rich and dramatic dunes and sandy beaches in the adjacent *Sand Dunes and Machair* (25)
- The setting of the designed landscape of Colonsay House.
- The integrity of diverse machair pastures and their contrast with roughly textured rocky outcrops.
- The high visibility of these areas from roads and some coastal areas.
- Potential cumulative effects between existing small wind turbines on parts of Coll (which vary in size and design) and additional turbines which could result in increasing visual confusion and clutter.

4.35.4 *Opportunities*

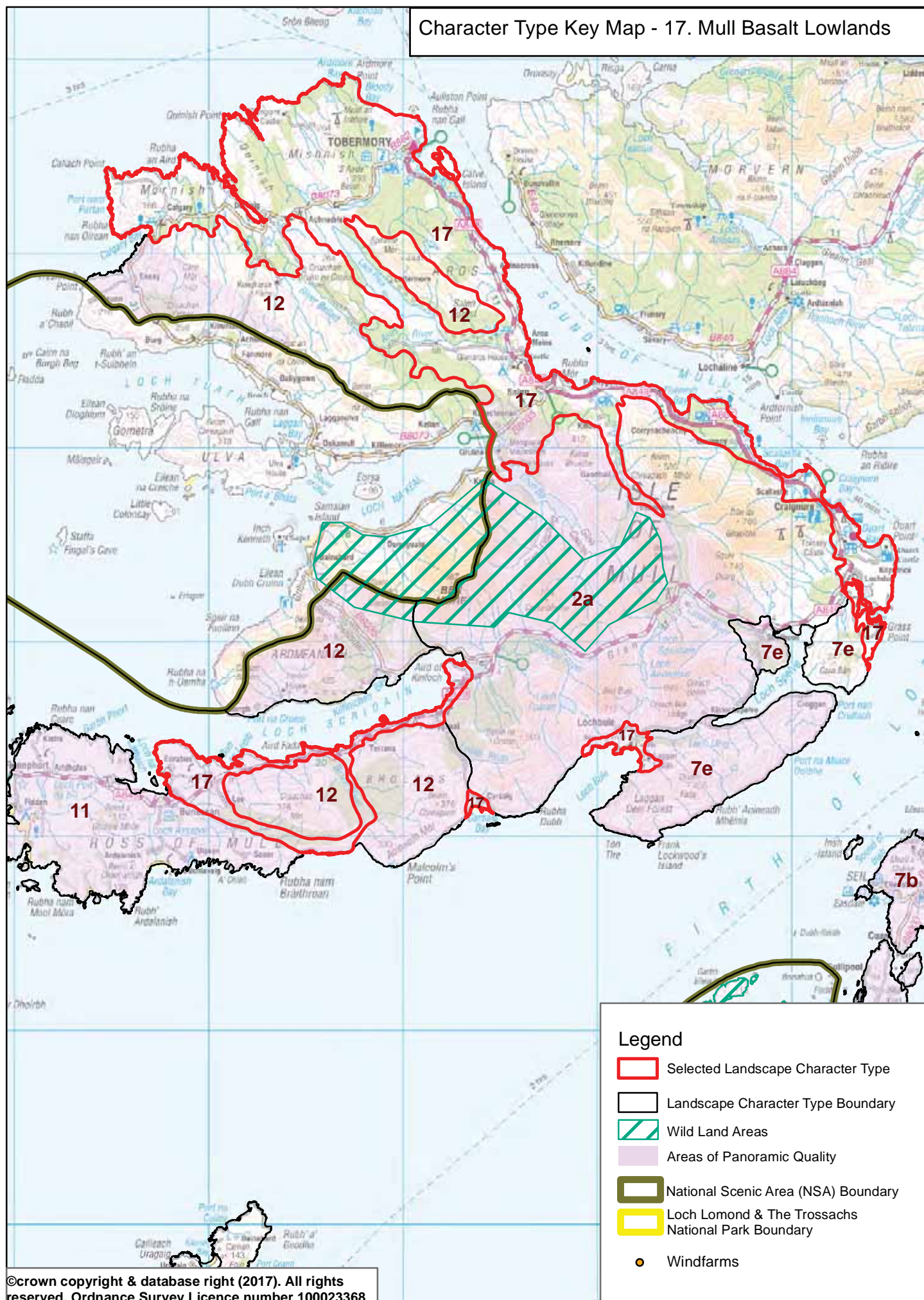
- The transition between the more expansively scaled *Small Island Rocky Moorland* (9a) landscape character type where single and small groups of the small typology (20-35m) could be located.
- Small farms and crofts where single and small groups of turbines <20m could be accommodated.

4.35.5 *Guidance on development*

There are no opportunities for larger typologies (turbines >35m) to be accommodated in this small scale, well-settled and visually sensitive landscape.

There are some limited opportunities for the small typology (turbines 20-35m) to be accommodated. Turbines of this size should be located at the transition with the *Small Island Rocky Moorland* (9a) where scale is increased and where a degree of containment could be provided by rising hill slopes. There are increased opportunities to site turbines <20m within more settled parts of this landscape. Cumulative effects with existing small turbines will need to be carefully considered on Coll and any additional turbines on Colonsay should be sited to avoid exacerbating impact on the Colonsay House GDL. Turbines should not be sited on top of small prominent rocky knolls or in the centre of Machair pastures. The siting of smaller turbines should accord with the guidance contained in the Volume Two Report.

Character Type Key Map - 17. Mull Basalt Lowlands



Legend

- Selected Landscape Character Type
- Landscape Character Type Boundary
- Wild Land Areas
- Areas of Panoramic Quality
- National Scenic Area (NSA) Boundary
- Loch Lomond & The Trossachs National Park Boundary
- Windfarms

4.36 Mull Basalt Lowlands (17)

This character type is found on Mull where it generally occurs along the coastal fringe of the Sound of Mull, in the Gruline area and along the northern coast of Loch Scridain. The detailed sensitivity tables contained in the Volume Two Report assess all development typologies.

4.36.1 *Summary of sensitivity*

This character type generally forms settled coastal fringes although it is more geographically extensive in the north-west of Mull. There are variations in the complexity of landform and scale within this character type between the more densely settled coastal fringes and the higher and more extensive sparsely settled low ridges and hill slopes inland. As this character type forms a narrow linear edge around much of Mull, there are also differences in the juxtaposition with other character types and the wider seascape and the detail of the sensitivity assessment therefore needs to be read in conjunction with this summary. The coastal fringes of this character type are highly visible from key roads and from the sea. The less frequented and settled inland areas would have a reduced sensitivity in general.

Landscape and visual sensitivity to larger typologies (turbines >50m) would be **High**. Sensitivity to the small-medium typology (turbines 35-50m) is judged overall to be **High-medium** and **Medium** to the small typology (turbines 20-35m), reflecting the increased ability of smaller turbines to minimise impacts on adjoining character types and on the scale of the settled coastal areas.

This landscape is partially designated an APQ and the designed landscape of Torosay Castle is also Inventory listed. Sensitivity in relation to landscape values would be **High-medium** for the small-medium typology and **Medium** for the small typology although would be low within the majority of the character type.

4.36.2 *Potential cumulative issues*

There are no operational wind farms on Mull and mainland wind farms are theoretically visible but lie >25km away. A single 30.6m high turbine is consented at Glengorm. No cumulative impacts with operational and consented wind farm and turbine development are likely to arise.

4.36.3 *Key constraints*

Areas of more complex and smaller scale landform particularly found on the north-western coast of Mull between Glengorm Castle and Calgary Bay.

- The high visibility of the coastal edge between the A848 and the Sound of Mull and views up and down the Sound from this road and from the sea.
- Views from the ferry on the approach to Mull and occasional glimpsed views from the A848, down Glen Forsa and above Salen, where this landscape forms the foreground to views of the *Mull High Tops* (2a).
- The setting of archaeological and historic features which are especially prominent around the coast.
- The steep slopes and ridges which form the setting to Tobermory where turbines could intrude on skylines prominent in views from the A848 and the sea.

- Views from the A849 where this landscape forms the foreground to views of the sheer cliffs of the Ardmeanach Peninsula and down Loch Scridain to the mountainous landscape of the *Mull High Tops* (2a).

4.36.4 *Opportunities*

Broader, lower ridges, terraces and gentle hill slopes (some of these forested) especially at the transition with the larger scale landscape of the *High Stepped Basalt* (12) where turbines could also be sited to utilise a degree of visual containment

4.36.5 *Guidance on development*

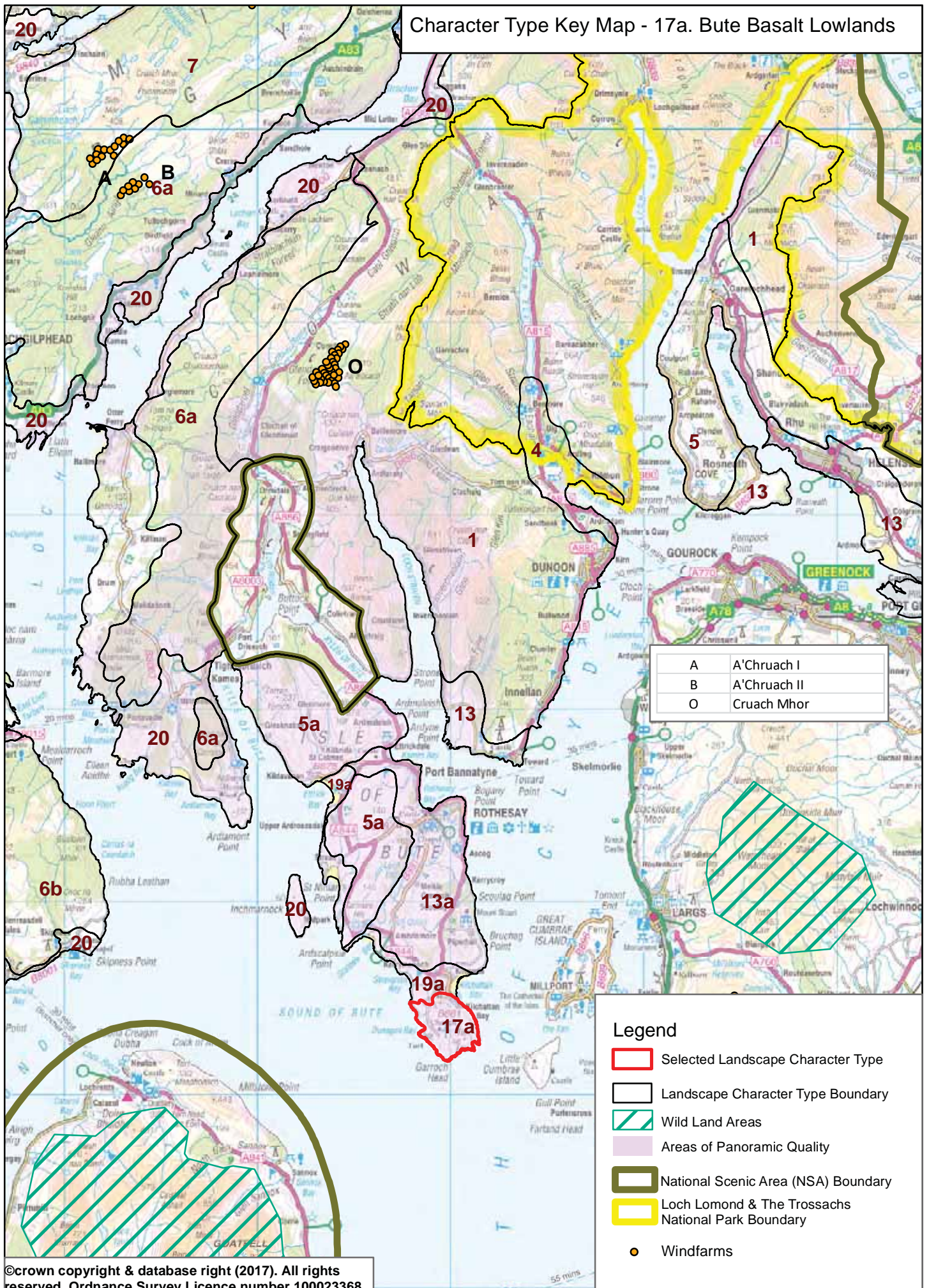
There is **no scope** for turbines >50m high to be accommodated in this landscape.

There is some **very limited** scope for the small-medium typology (35m-50m) to be located on broader hill slopes, less complex ridges and terraces generally at the transition with the larger scaled *High Stepped Basalt* (12) character type west of Tobermory and in the Aros and Broilass areas. Turbines of this size should be sited away from the coastal and loch edges in order to minimise impacts on these smaller scale landscapes and also avoid intrusion on key views up and down the Sound of Mull and in the Loch Scridain area.

There is increased scope for the small typology (20m-35m) to be located in the above areas and at the transition with the *High Tops* (2) in the Loch Don and Sound of Mull areas where views to the more dramatic mountain peaks would not be significantly affected. The smaller scale coastal fringes would still be sensitive to this typology although turbines <20m could be accommodated in these areas provided they were sited close to existing buildings and were set back from the coastal edge and particularly avoided highly visible small promontories and more complex landform features.

All turbines should avoid intrusion on the setting of Tobermory and on the setting of archaeological and historic buildings including designed landscapes. Turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 17a. Bute Basalt Lowlands



4.37 Bute Basalt Lowlands (17a)

The *Bute Basalt Lowlands* occur in a single very small area on the southern tip of Bute. The detailed sensitivity tables contained in the Volume Two Report assess smaller development typologies only as the 2012 ABLWECS found there was no scope for turbines >35m to be accommodated in this landscape.

4.37.1 *Summary of sensitivity*

The rugged southern tip of Bute is a small-scale landscape of narrow parallel craggy ridges and low knolly hills. It is sparsely settled but forms the setting for Kilchattan and also features a rich archaeology. This landscape is highly visible in views to the north on Bute where it presents a distinct contrast with more low-lying and managed farmland and makes a strong contribution to the highly scenic character of the west coast of the island.

Landscape and visual sensitivity would be **High** to turbines >35m high. Sensitivity would be **High-medium** to the small typology (turbines 20-35m).

This landscape is designated an APQ and sensitivity in terms of landscape values would be **High-medium** for the small-medium typology and **Medium** for the small typology.

4.37.2 *Potential cumulative issues*

There is some visibility of the operational wind farms of Ardrossan and Kelburn and the Hunterston turbines which are located in North Ayrshire, from the eastern coast and more elevated ground of this character type. Cumulative landscape and visual impacts could arise with these developments particularly affecting views from Great Cumbrae and the Firth of Clyde with larger turbines of the small-medium typology (turbines 35-50m) being more likely to incur potential impacts if sited in this landscape.

Cumulative landscape impacts could be associated with larger scale turbine development (turbines >50m) in this less developed area and on Bute in general when considered in the wider context of the Firth of Clyde where the mainland coastal area to the east is highly modified.

4.37.3 *Key constraints*

- The low relief of this area and the strong containment provided by narrow parallel ridges and valleys which, together with the presence of houses and small farms, gives a small scale to the landscape.
- The diverse landform of rocky indented coastline, craggy ridges and prominent steep-sloped conical hills.
- Views to this area from the A844, a well-used tourist route, and from the West Island Way footpath which is aligned through this area. This area is also visible from north Arran and the Firth of Clyde.
- The extensive remains of St Blane's Church which is well-visited and located in an elevated position within the small hills of this landscape.

- Small enclosed pastures found on the west coast of Bute and seen in the foreground of spectacular views over the Sound of Bute to the mountains of north Arran.
- The contrast the island of Bute provides with more developed mainland coasts where wind farm development is a key characteristic.
- The APQ designation which applies to this landscape.

4.37.4 *Opportunities*

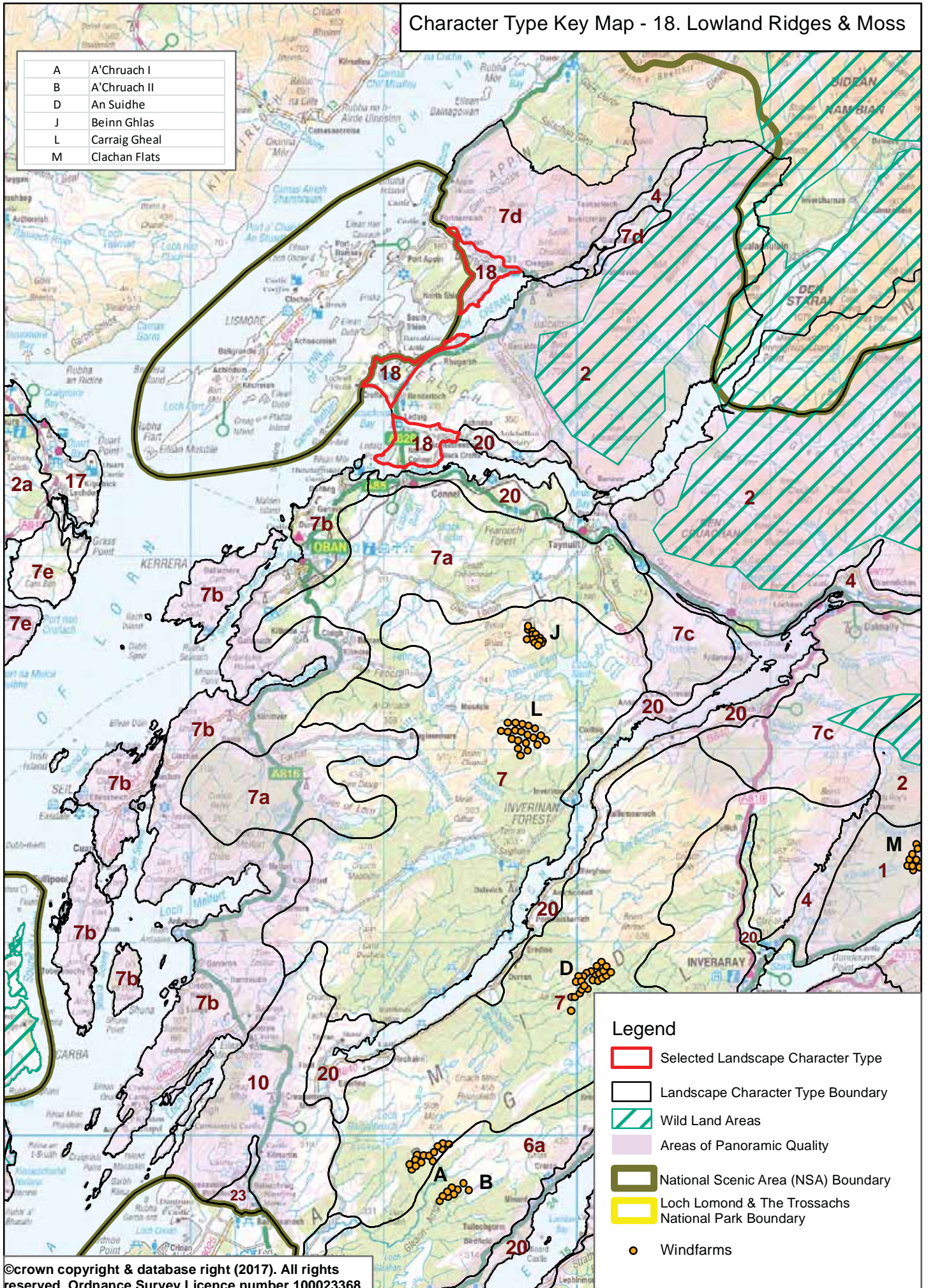
Gentler hill slopes on the northern edge of this landscape and small pockets of slacker landform and natural terraces close to farms.

4.37.5 *Guidance on development*

There is no scope for turbines >35m high to be accommodated in this landscape without incurring significant adverse landscape and visual impacts, including strategic cumulative impacts, on a number of key sensitivity criteria.

There is **very limited** opportunity for the small typology (20-35m) to be sited in this landscape. Turbines should be sited away from more remote coastal areas, instead favouring areas where they can be clearly associated with more settled areas. Turbines should avoid prominent hill tops and ridges and be located on lower gentler hill slopes and natural breaks in slope away from more complex craggy landform features and where a backdrop of rising ground may limit intrusion. The setting of archaeological features and, in particular, St Blane's Church, would be highly sensitive to intrusion of turbines visible on immediate ridgelines. Turbines should also avoid the small pastures between the minor road/public car park and the west coast of this area which form the foreground to views to Arran. It is likely that turbines towards the lower height band of this typology would be more able to fit with the scale of this landscape and minimise visual intrusion. Turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 18. Lowland Ridges & Moss



4.38 Lowland Ridges and Moss (18)

This character type covers an area of flat to gently undulating ground close to the coast in the Benderloch area. It also extends over Lismore and the distinct low parallel ridges of the coastal peninsulas abutting the Lynn of Lorn and Loch Creran although these areas lie within the Lynn of Lorn NSA and are considered separately in this study.

All development typologies are considered in the detailed sensitivity assessment set out in the Volume Two Report.

4.38.1 *Summary of sensitivity*

The very small extent of this landscape, its well-settled character (where small buildings provide ready scale references) and the presence of diverse remnant mosses, wetlands and scrub woodland are key constraints to turbine development. This landscape is often open and widely visible from the A828, from settlement and recreational features including cycle-ways, beaches and footpaths. Views are often highly scenic across the sea and focus on dramatic mountain backdrops. There would be an overall **High** sensitivity to the large, medium and small-medium typologies (turbines >35m) and a **High-medium** sensitivity to the small typology (turbines 20-35m).

An APQ applies to the northern parts of this landscape and the Lynn of Lorn NSA also abuts this character type. Sensitivity in terms of values would be **High-medium** for the large, medium and small-medium typologies and **Medium** for the small typology within the designated areas.

4.38.2 *Potential cumulative issues*

There are no operational or consented wind farm developments within this character type. There is some limited visibility of the operational Beinn Ghlas wind farm located in the *Craggy Upland (7)* from the southern parts of this character type. No cumulative issues would arise with this landscape.

4.38.3 *Key constraints*

- The narrowness of this character type where even smaller turbines could dominate their extent and its well-settled character where woodlands and buildings provide ready scale references.
- The richly textured and natural Moss of Achnacree and other smaller areas of remnant moss, lochans, wetland and scrub found in the southern parts of this character type.
- The openness and high visibility of these areas close to the A828, the popularity of this area with tourists and the well-settled nature of this landscape which increases visual sensitivity.
- Key views from the A828 across Loch Creran to the Lynn of Lorn NSA and the dramatic mountains at the head of the upper loch and across the Moss of Achnacree to Ben Cruachan.

4.38.4 *Opportunities*

- There are very limited opportunities for the small typology in this character type but only where associated with existing buildings and not intruding on key coastal views.

4.38.5 *Guidance on development*

There is **no scope** for siting the large, medium or small-medium typologies (turbines >35m) in this landscape without incurring significant adverse landscape and visual impacts on a number of key sensitivity criteria.

There are **very limited** opportunities to accommodate the small typology in this landscape, and particularly turbines towards the lower height band of this typology (<25m). Turbines should be sited so visually associated with crofts and larger scale built development. They should avoid intruding on key views across Loch Creran from the A828 to the mountains at the head of the upper loch. Turbines should also be sited away from coastal edges which are often prominent in views from roads and settlement and should not extend on the skyline of low parallel ridges seen from the Lynn of Lorn NSA.

There are greater opportunities to locate turbines below 20m high in this landscape provided they are clearly associated with existing buildings. Even these small turbines could exacerbate existing built clutter found in some areas including fish farming operations and quarrying – particularly given the relatively high density of small crofts in some highly visible coastal fringes. Small turbines < 20m should be sited where they can be clearly associated with existing built development, farms or other settlement and fit better with the scale of trees and woodland where these are present.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 19. Coastal Plain

F	Auchadaduie
G	Beinn an Tuirc I
H	Beinn an Tuirc II
I	Beinn an Tuirc III
K	Blary Hill
N	Cour
P	Deucheran Hill
Q	Freasdail
T	Isle of Gigha
Y	Tangy I & II
Z	Tangy III



4.39 Kintyre Coastal Plain (19)

This character type forms a narrow linear coastal plain on the west coast of Kintyre. The detailed sensitivity assessments contained in the Volume Two Report consider all development typologies.

4.39.1 *Summary of sensitivity*

The very small extent of this narrow coastal plain, the setting of settlements and its close proximity to the richly diverse small scale landscape of the *Rocky Mosaic* (20) are key constraints for all the development typologies considered in the sensitivity assessment. This landscape is very open and widely visible from the A83, settlement and the coast where highly scenic views over the sea to low-lying Gigha, focussing on the distinctive profile of Jura, are a key feature. There would be a **High** landscape sensitivity to the larger typologies (turbines >50m), a **High-medium** sensitivity to the small-medium typology (turbines 35-50m) and a **Medium** sensitivity to the small typology (turbines 20-35m).

An APQ applies to this landscape and sensitivity would be **High-medium** for the larger typologies and the small-medium typology and **Medium** for the small typology in terms of landscape values.

4.39.2 *Potential cumulative issues*

There is no operational wind farm development within this character type although some small wind turbines <20m high are consented at the Point Sands Caravan Park. The operational community turbines on Gigha are visible from this character type. Other operational wind farm developments located within the adjacent *Upland Forest Moor Mosaic* (6) are not visible. The following potential cumulative issues could arise:

- Inter-visibility of any wind turbines sited in this landscape with the operational and consented developments of Auchadaduie, Blary Hill, Beinn an Tuirc I and II located in the *Upland Forest Moor Mosaic* (6) seen from the sea and Gigha. Larger typologies would be likely to have a greater effect.
- Variations in the type and size of single and small groups of small-medium and small turbines associated with farms could create cumulative landscape and visual impacts with this simple, open landscape with it quickly appearing cluttered and detracting from seaward views from the A83.

4.39.3 *Key constraints*

- The narrowness and limited overall extent of this landscape and the presence of small buildings and settlements which limits scope even for smaller turbines.
- The panoramic views across this open coastal landscape to the sea, Gigha and the dramatic skyline of Jura from the A83, a key tourist route and from settlement.
- The setting of key archaeological features, settlements and historic buildings and designed landscapes located in this and the adjacent *Rocky Mosaic* (20) character type.

4.39.4 *Opportunities*

- There are very limited opportunities for turbines <20m in this character type but only where visually associated with existing buildings and not intruding on key views to the sea, Gigha and Jura.

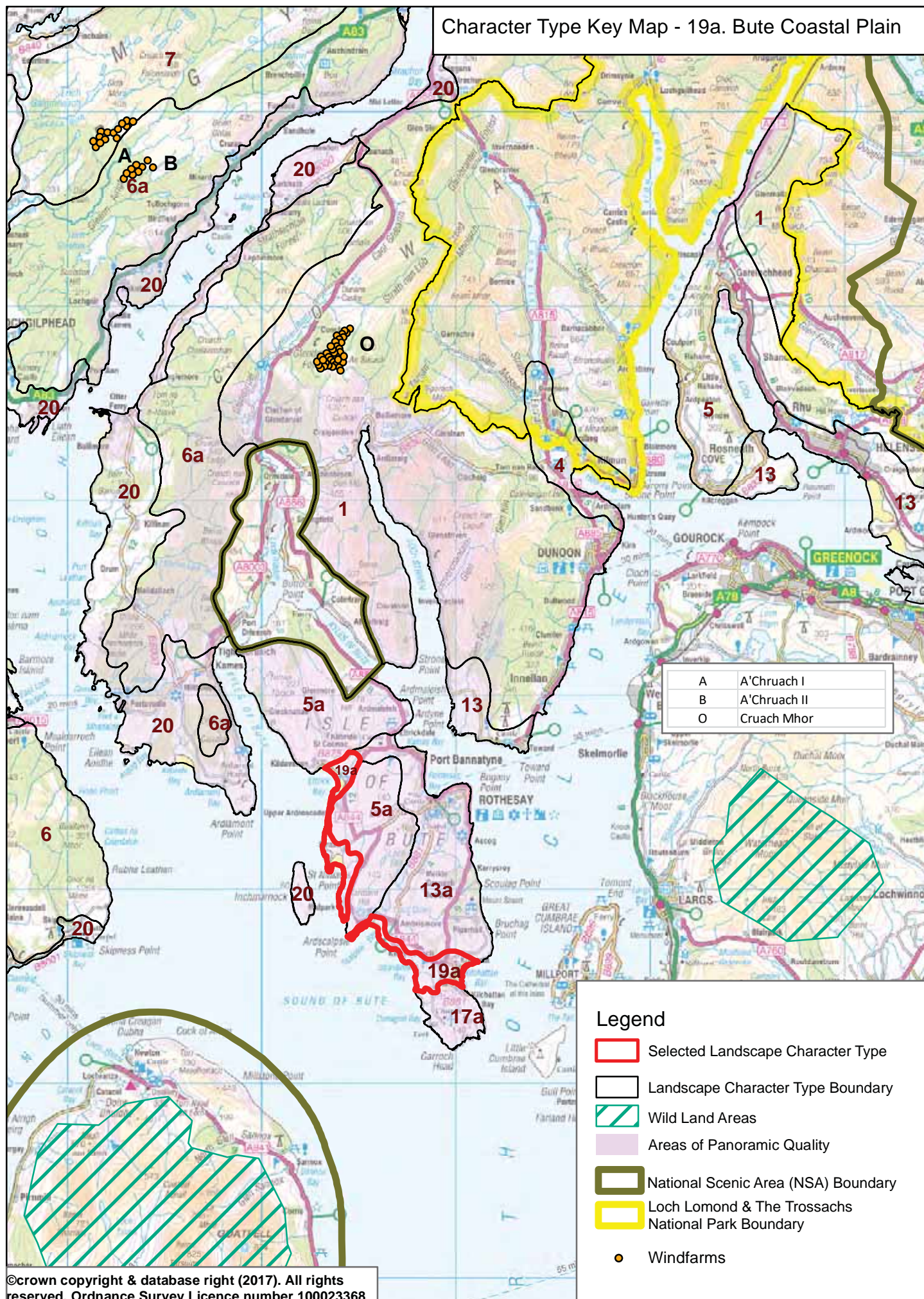
4.39.5 *Guidance on development*

There is **no scope** for siting turbines >20m within this character type without incurring significant adverse landscape and visual impacts on a number of key sensitivity criteria.

Small turbines <20m could be sited where they can be visually associated with existing built development, farms or other settlement and also fit better with the scale of woodlands. All turbines should avoid intrusion on key views from the A83 and on the setting of archaeological, historic built features and designed landscapes in the adjacent *Rocky Mosaic* (20) character type. There is very limited scope for multiple developments of single and small groups of turbines in this small and highly sensitive open landscape.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 19a. Bute Coastal Plain



4.40 Bute Coastal Plain (19a)

This landscape character type occurs in one area on the island of Bute. The detailed sensitivity tables set out in the Volume Two Report consider smaller turbines only as the 2012 ABLWECS found no scope for turbines >35m high to be accommodated in this landscape.

4.40.1 *Summary of sensitivity*

The narrowness of the *Bute Coastal Plain* and the distinctly natural qualities of wetlands and tidal beaches, which provides a strong contrast with the more developed east coast of Bute, limits scope to accommodate wind energy development. These flat, open coastal areas are highly visible from roads and settlement which are often elevated above them and beaches and other coastal areas are also popular for recreation. There is an overall **High** landscape and visual sensitivity to turbines >35m high. Sensitivity would be **High-medium** sensitivity to the small typology (turbines 20-35m).

This landscape is designated an APQ and sensitivity in terms of landscape values would be **High-medium** for the small-medium typology and **Medium** for the small typology.

4.40.2 *Potential cumulative issues*

There is no existing wind farm or turbine development within this character type.

There is some visibility of the operational wind farms and large turbines of Ardrossan, Kelburn and Hunterston sited within North Ayrshire from the Kilchattan Bay area on Bute. There is also theoretical visibility of the consented Allt Dearg wind farm sited in the *Knapdale Upland Forest Moor Mosaic* (6b) from the west-facing parts of this character type but seen at distances of beyond 26km. Cumulative landscape and visual impacts could arise with the Ardrossan wind farm seen from the Kilchattan Bay area although visibility of mainland areas is restricted from elsewhere within this character type due to the screening provided by the *Bute Open Ridgeland* (5a).

Cumulative landscape impacts could be associated with larger scale turbine development in this less developed area and on Bute in general when considered in the wider context of the Firth of Clyde where the mainland coastal area visible to the east is highly modified.

Variations in the type and size of single and small groups of small-medium and small turbines associated with farms could create cumulative landscape and visual impacts with this often sparse, very open and simple landscape, quickly appearing cluttered. Turbines could form a dominant feature detracting from the pattern and low, 'tucked-in' form of other landscape features such as small, windswept trees and low buildings.

4.40.3 *Key constraints*

- The narrowness of this landscape where even smaller turbines could dominate its extent.
- More diverse landform features on the coastal edge including promontories, cliffs and sandy beaches.
- The natural and diverse character of areas of wetlands and their interface with dynamic, strongly tidal sandy beaches and the contrast this provides with the more developed eastern coastal edge of Bute.
- The small size and shape of wind-pruned trees, as well as sometimes low building forms in the most exposed areas, which make the landscape appear sparse and uncluttered with a strong sense of place.
- The openness and high visibility of these areas close to the A844 (a popular tourist route) and their popularity for recreation which increases visual sensitivity.
- Key views over the Sound of Bute to the dramatic peaks of north Arran.
- The setting of archaeological features and historic settlements including those which are particularly prominent around the coast.

4.40.4 *Opportunities*

- More managed farmland set back from the coastal edge, at the transition with more settled character types and where a backdrop of rising ground could reduce visual impact.

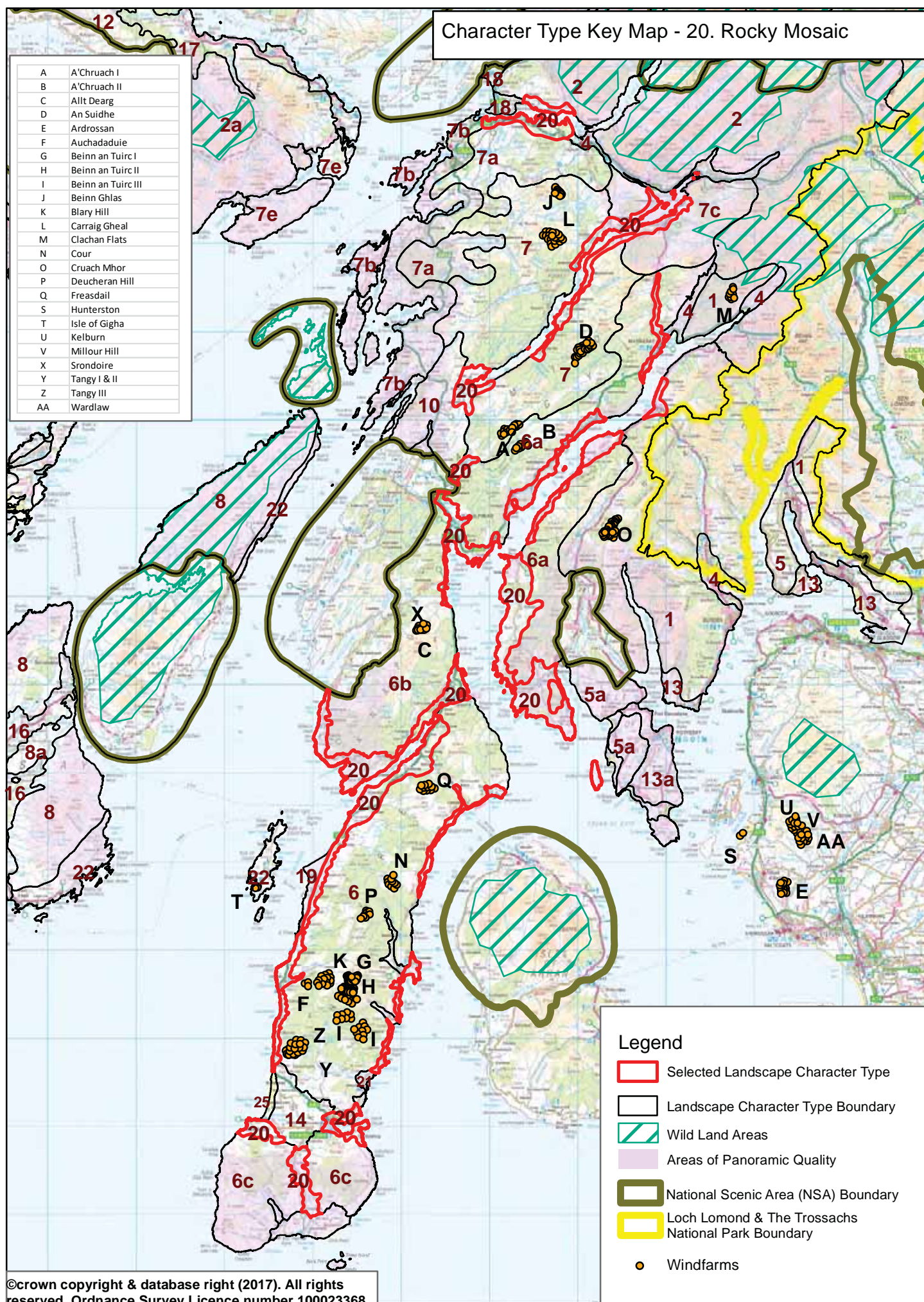
4.40.5 *Guidance on development*

There is **no scope** for siting turbines >35m high in this character type without incurring significant adverse landscape and visual impacts on a number of key sensitivity criteria.

There is **very limited** scope for siting the small typology (turbines 20-35m) within this character type. Turbines towards the lower height band of this typology are likely to limit effects on coastal character and minimise visual intrusion. Small turbines should be sited so associated with more settled areas. They should avoid sensitive open coastal edges, instead being located within more managed farmland at the transition with more settled character types. All turbines should avoid intrusion on key views from settlement, the A844 and coastal footpaths and on the setting of archaeological features and landscapes of historic interest. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 20. Rocky Mosaic

A	A'Chruach I
B	A'Chruach II
C	Allt Dearg
D	An Suidhe
E	Ardrossan
F	Auchadaduie
G	Beinn an Tuirc I
H	Beinn an Tuirc II
I	Beinn an Tuirc III
J	Beinn Ghlas
K	Blary Hill
L	Carraig Gheal
M	Clachan Flats
N	Cour
O	Cruach Mhor
P	Deucheran Hill
Q	Freasdail
S	Hunterston
T	Isle of Gigha
U	Kelburn
V	Millour Hill
X	Srondoire
Y	Tangy I & II
Z	Tangy III
AA	Wardlaw



4.41 Rocky Mosaic (20)

This character type forms a narrow linear margin along the shores of Loch Fyne and the Kintyre coast. There are also some 'inland' areas of this character type defined on the Mull of Kintyre and Loch Awe which essentially form smaller scale valleys set within adjacent upland areas. The context of this character type varies greatly with some areas featuring an expansive sea-ward context (the Knapdale and Kintyre coasts) while other areas are more contained being located either side of a narrow sea loch (upper Loch Fyne and West Loch Tarbert) or at the end of Loch Awe and along Loch Etive. Common characteristics however include the small scale and often rolling landform, a well-settled character and the backdrop provided to these low-lying linear loch fringes and valleys by more expansive upland landscapes.

The detailed sensitivity tables contained in the Volume Two Report consider all development typologies.

4.41.1 *Summary of sensitivity*

This character type usually forms an irregular narrow coastal or loch edge. The rolling landform of the landscape provides strong containment and the presence of small woodlands, fields and settlement reinforces its predominantly small scale. These loch shores and coastal fringes make an important contribution to the wider scenic context of Argyll, forming an intricately patterned band between the foreground of sea or loch and backed by simple and more expansive upland landscapes. Their small scale, complex landform and pattern and role in the wider landscape context increases sensitivity. The *Rocky Mosaic* character type is relatively well-settled, often accommodates major transport routes and is a focus for recreation. While visibility along lochs and coast can be restricted by landform and woodland, views tend to focus on opposite loch shores and outwards across wider seascapes in the Kintyre peninsula and are often highly scenic.

Sensitivity would be **High** for large and medium typologies (turbines >50m) and **High-medium** for the small to medium typology (turbines 35-50m). Sensitivity would be **Medium** for the small typology (turbines 20-35m) reflecting opportunities to accommodate smaller turbines in areas of more medium scale at the transition with adjacent upland character types.

The majority of this landscape is covered by an APQ and sensitivity in terms of landscape value would be **High-medium** for the large, medium and small-medium typologies and **Medium** for the small typologies where this designation applies.

4.41.2 *Potential cumulative issues*

While there are no operational or consented wind farm developments located in this landscape character type, a number of wind farms sited in adjoining upland areas are visible from these settled coastal and loch fringes.

The operational Beinn Ghlas and Carraig Gheal wind farms are visible from the south-eastern shores of Loch Awe and the north shore of lower Loch Etive. The operational An Suidhe, Clachan Flats and A'Chruach and Allt Dearg wind farms are visible from the shores of Loch Fyne (the latter development being particularly prominently sited and affecting views over more extensive parts of this landscape).

There is visibility of the operational wind turbines on the Isle of Gigha from the western Kintyre coast and the Tangy I and II wind farm is also highly visible from parts of this coast. Operational wind farms sited within the interior of the *Upland Forest Moor Mosaic* (6) on Kintyre are only intermittently visible from the *Rocky Mosaic* coastal edge on the eastern side of the Kintyre Peninsula. The consented wind energy developments of Beinn an Tuirc III, Blary Hill and Auchadaduie will have an increased visual influence on this landscape character type in parts of Kintyre.

Key cumulative issues that may arise are likely to include:

- Inter-visibility between any wind turbine development located in this character type and larger wind farms in adjacent upland character types. This could lead to potentially significant impacts where existing and consented wind farms already form a key influence on views from some loch shores, for example in the Loch Awe and Loch Fyne area.
- An increased influence of wind farms located in nearby upland areas, particularly if located on distinctive or prominent skylines which immediately backdrop these small scale settled coastal fringes.

4.41.3 *Key constraints*

- The narrowness of this character type which forms a linear margin along loch and sea shores where even smaller turbines could dominate its extent.
- The rolling landform which in combination with woodlands, small fields and settlement to produce a predominantly small scale landscape.
- An irregular knolly landform featuring an indented coastal/loch edge of bays and low rocky headlands and occasional pronounced craggy hills; the diversity of the landform complemented by the richness of land cover comprising a variety of woodlands, smooth pastures and rough grazing.
- A strong contrast with adjacent simple and more expansive upland character types which provide a backdrop to these more intricately patterned loch and sea fringes and the important contribution this landscape makes to the wider rich scenic composition characteristic of Argyll.
- The high visibility of these areas from major roads such as the A83/A85, from well-used recreational and tourist attractions and from settlement which is concentrated along the loch shores and coast.
- The setting of settlements, archaeological features and designed landscapes which are a key feature along these loch shores and coastal areas.

4.41.4 *Opportunities*

- Areas where the narrow fringe of the *Rocky Mosaic* (20) broadens and where the transition with adjacent upland character areas such as the *Upland Forest Moorland Mosaic* (6) is less pronounced with a simpler landform and land cover able to accommodate smaller typologies and minimise impacts on more sensitive settled loch and coastal edges.

4.41.5 *Guidance on development*

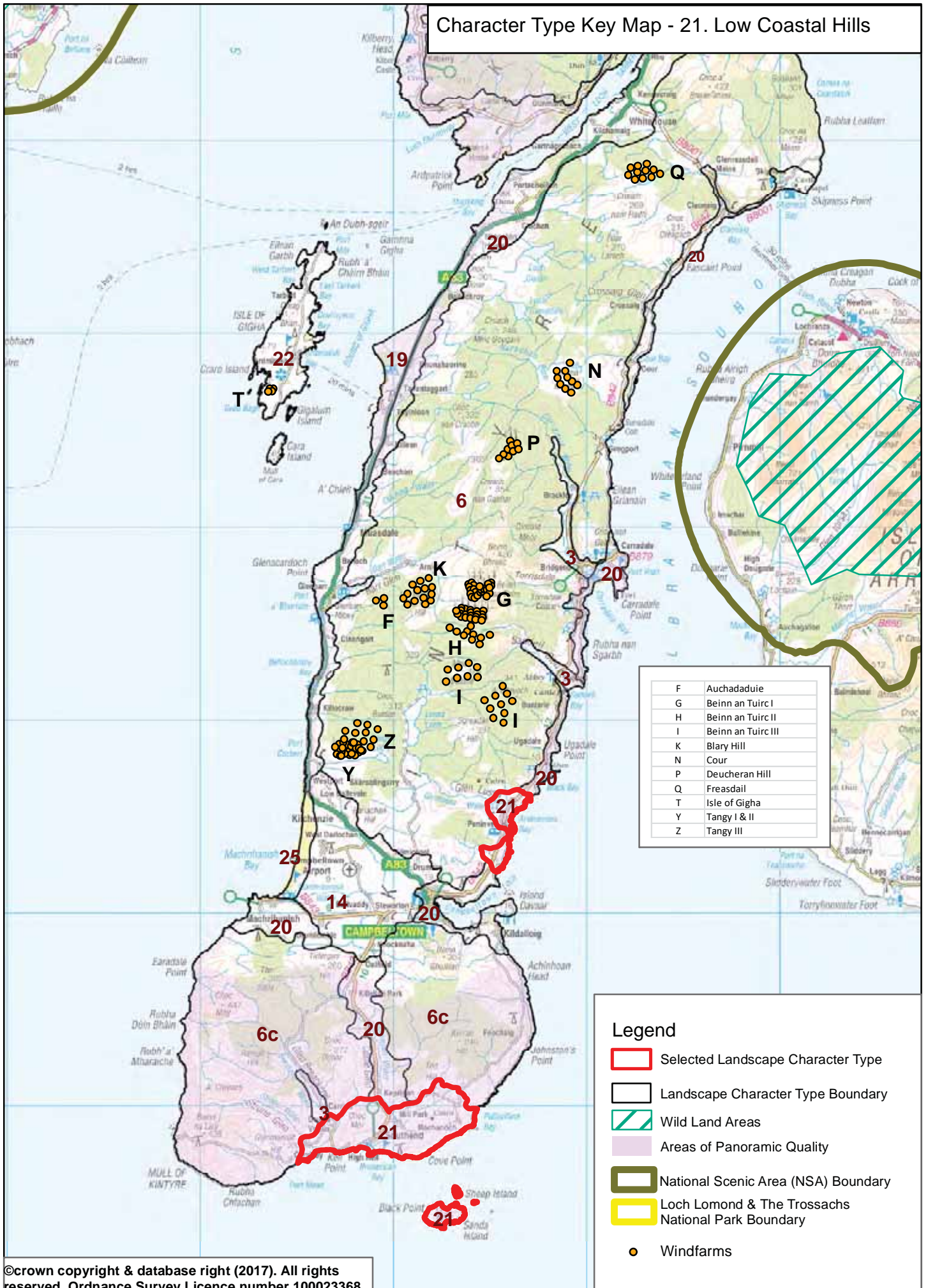
There is **no scope** for the large and medium development typologies (turbines >50m high) to be sited within this character type due to the significant adverse impacts likely to occur across a range of sensitivity criteria.

There are some **very limited** opportunities for the small-medium typology (turbines 35-50m) to be located where the extent of the *Rocky Mosaic* is broader and where a more gradual merging occurs with the adjacent *Upland Forest Moorland Mosaic* (6, 6a, 6b and 6c) or the *Craggy Upland* (7) and *Craggy Upland with Settled Glens* (7a) character types. In these generally less settled areas, land cover is simpler comprising rough grazing land and coniferous plantations and there are also areas of less complex landform. Turbines sited in these areas would be set back from the sensitive coastal/loch edge and could be back-clothed by higher ground thus minimising visual intrusion.

There are increased opportunities for the small typology (turbines 20-35m) to be located in this landscape although areas close to the shore, small 'alluvial' pastures and more complex landform including pronounced craggy hills would be highly sensitive to all development typologies. Turbines should also be sited to avoid impacts on the setting of settlements, archaeological features and on designed landscapes. Smaller turbines should be sited in accordance with the guidance set out in section 6 of this report.

These small-scale, settled sea and loch fringes are highly sensitive to larger typologies sited on the edges of adjacent upland areas, particularly where turbines would appear 'perched' on ridges which form the immediate skyline to these landscapes and would have a dominant effect. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 21. Low Coastal Hills



4.42 Low Coastal Hills (21)

The *Low Coastal Hills* character type principally occurs on the south-east tip of the Mull of Kintyre where an outcrop of Devonian sandstone has created a farmed landscape which contrasts with the more extensive upland moorlands and forestry occurring to the north. Another small area of this character type also lies on the north side of Campbeltown Loch. The detailed sensitivity assessment tables set out in the Volume Two Report considers sensitivity to all development typologies.

4.42.1 Summary of sensitivity

This character type forms a coastal landscape of rounded low hills and shallow valleys on the southern tip of the Mull of Kintyre. The irregular, rolling landform of the landscape provides strong containment and the presence of small woodlands, fields and settlement reinforces its predominantly small scale. This landscape makes an important contribution to the wider scenic context, the small-scale diverse and settled character of hinterland farmland, sandy beaches, rocky cliffs and islands contrasting with the dramatic rugged backdrop of the steep-sided and high hills of the Mull of Kintyre. The *Low Coastal Hills* are relatively well-settled and form a focus for recreation with views to and from the coast being particularly important. Views to this character type from the adjoining *Mull of Kintyre Upland Forest-Moor Mosaic* (6c) are more limited due to the sparsely settled and relatively little accessed nature of this landscape. These uplands also screen views of the *Low Coastal Hills* from the north although there are some distant views from the south-west coast of Arran.

Landscape and visual sensitivity would be **High** for large and medium typologies (turbines >50m) and **High-medium** for the small to medium typology (turbines 35-50m). There would be a **Medium** sensitivity to the small typology (turbines <35m) reflecting opportunities to accommodate smaller turbines in areas of more medium scale at the transition with the adjacent *Mull of Kintyre Upland Forest-Moor Mosaic* (6c) character type and to limit intrusion on key views to the coast and wider seascape.

All of this landscape is covered by an APQ and sensitivity in terms of landscape value would be **High-medium** for the large, medium and small-medium typologies (turbines >35m) and **Medium** for the small typology.

4.42.2 Potential cumulative issues

No operational or consented wind farm developments are sited within, or are visible from, this landscape. While there are no potential cumulative landscape and visual issues arising at present, the inter-relationship between any larger scale wind farm developments located in the adjacent *Upland Forest-Moor Mosaic* and *Mull of Kintyre Upland Forest-Moor Mosaic* (6 and 6c) and wind turbine development sited in this character type would need to be considered. This will include consideration of cumulative views from the west coast of Arran.

The *Low Coastal Hills* are limited in extent and the development of multiple turbines (and even the small typology) could quickly dominate this landscape.

4.42.3 Key constraints

- The very limited extent of this character type where even smaller turbines could dominate.
- The low relief and rolling landform of small hills and ridges which, in combination with woodlands and regularly spaced settlement, produce a predominantly small scale landscape.
- Irregular, craggy-topped hills and knolls and a diverse coastal edge of sandy beaches, cliffs and rocky headlands, Sanda Island and its associated skerries.
- The strong contrast with the adjacent rugged, steep-sided high hills of the Mull of Kintyre which provide a dramatic backdrop to this small scale settled and farmed landscape.
- The setting of settlements, archaeological features and designed landscapes which are key features in parts of this character type.
- An APQ designation which covers all of this character type.

4.42.4 Opportunities

- Areas where the *Low Coastal Hills* abut the *Mull of Kintyre Upland Forest Moor Mosaic* (6c) and where broader and gentler hill slopes provide opportunities for the small typology to be sited to minimise impacts on more sensitive settled areas, the coastal edge and wider seascape.

4.42.5 Guidance on development

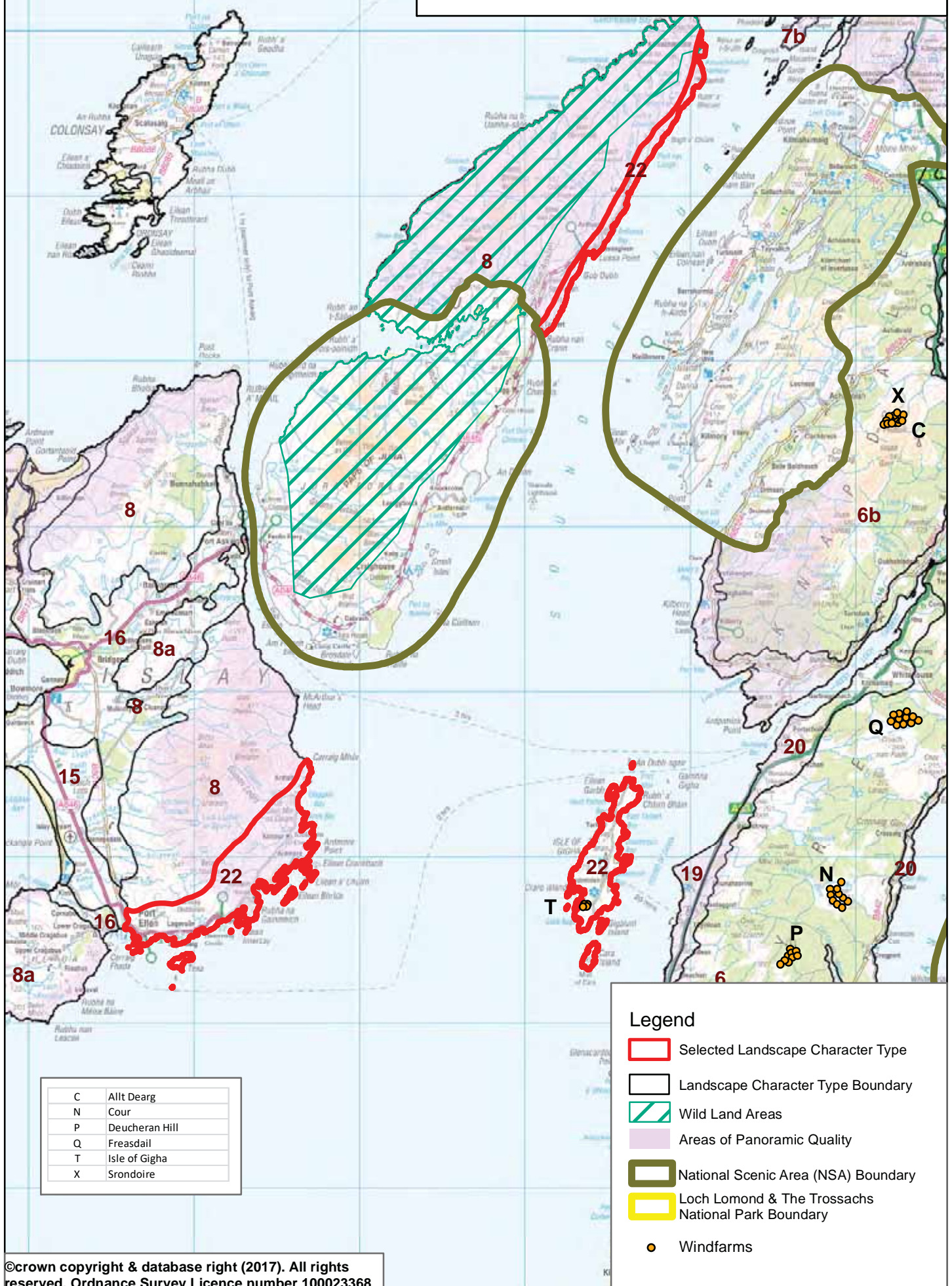
There is **no scope** for the large and medium development typologies (turbines >50m) to be sited within this character type due to the significant adverse impacts likely to occur across a range of sensitivity criteria. The small-medium typology (turbines 35-50m) would also appear very large in relation to the scale of this landscape – heightened by its low relief and well-settled character and turbines towards the lower height band of this typology would be more appropriate with **very limited** opportunities to site them at the transition with the larger scale landscape of the *Mull of Kintyre Upland Forest Moor Mosaic* (6c).

The small typology (turbines <35m) would fit better with the scale of this landscape and there are some **limited** opportunities for turbines of this size to be located on the gentler, smoother slopes of larger hills. These areas also tend to occur at the transition with the adjacent *Mull of Kintyre Upland Forest Moorland Mosaic* (6c) character type and turbines sited in these areas would be set back from the sensitive coastal edge and could additionally be back-clothed by higher ground thus minimising visual intrusion.

Small turbines should avoid being sited on prominent hill tops and on more complex knolly or craggy landform. They should also be sited to avoid intrusion on key views to the coast, the Mull of Kintyre and Sanda Island. Turbines should also be sited to avoid impacts on the setting of settlements, the numerous archaeological features present in this landscape and on designed landscapes. The limited extent of this character type would result in multiple turbines of this size quickly dominating this landscape and cumulative landscape and visual impacts should therefore be carefully considered. The use of a restricted number of turbine designs could optimise capacity by minimising the variety of built structures and potential visual clutter in this small scale and scenically rich landscape.

There would be fewer constraints to siting turbines <20m high in this landscape provided they were visually associated with farms and other buildings. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 22. Coastal Parallel Ridges



4.43 Coastal Parallel Ridges (22)

Outside of the NSAs, the *Coastal Parallel Ridges* (22) landscape character type occurs on the south-eastern coastlines of the islands of Islay and Jura, the whole of the island of Gigha and on the western coast of the Knapdale area on the mainland. The *Coastal Parallel Ridges* form a series of narrow south-west to north-east aligned rocky coastal ridges which form the transition between a deeply indented and fragmented coast to two upland character types, the *Moorland Plateau* (8) on Islay and Jura and the *Upland Parallel Ridges* (10) on Knapdale. The relief is very low, and the landform small scale and linear, with extensive moorland and rough grazing alternating with frequent small scattered woodlands, and farmed land on the more level land and gentle slopes.

The detailed sensitivity assessment tables contained in the Volume Two Report consider all development typologies.

4.43.1 Summary of sensitivity

This character type forms a series of low ridges and elongated glens which extend along the south-eastern corner of the island of Islay and the north-eastern coast of Jura, between the upland *Moorland Plateau* (8) and the sea. The irregular ridges contain low-lying wetland and narrow valleys, some of which are partially farmed. More extensive improved pasture extends into the hinterland behind the settlements such as Port Ellen and Ardlussa. The ridges continue out to sea, especially off Islay, where they are partially submerged, creating chains of islands off an intricately indented coastline.

Settlement is associated with the more accessible coastal fringe, sheltered bays, such as at Lussa given, and the gentler slopes and shallow glens behind Ardbeg, Lagavulin and Port Ellen, all of which are located on the coast.

The small scale and irregular shape of the ridges and the often intricate coastline, the diversity and fragmented pattern of the woodlands, the islands, the small fields and scattered settlement, as well as the numerous archaeological sites on Islay and secluded character of some of the coastline, especially on Jura, are key sensitivities of this character type. The *Coastal Parallel Ridges* (22) character type is only partially settled and not extensively roaded. There are a number of key views associated with historic features and accessible bays and coastlines. In addition, the views from the Port Ellen – Kennacraig ferry and other maritime traffic are sensitive.

This landscape has a **High** sensitivity to turbines >50m high. Sensitivity is **High-medium** overall sensitivity to the small-medium (35m-50m) typology and **Medium** sensitivity for the small (20m-35m) typology reflecting that there are likely to be more opportunities to accommodate smaller turbines which with careful siting are less likely to impact on the more remote and complex areas of landscape character and to impinge upon skyline ridges. Turbines of less than 20m in height could readily be accommodated within the farmed areas of this landscape type. Turbines of less than 20m in height are likely to be less visible within the irregular landform and woodland associated with this character type.

An APQ covers all of this landscape character type on Jura and the majority of it on Islay. Landscape value would be **High-medium** where this designation applies.

4.43.2 *Potential cumulative issues*

There are no operational or consented wind farms located in this landscape character type although a small cluster of 4 community wind turbines <50m high is located on Gigha. A community wind turbine (61m high) is located within the *Moorland Plateau* (8) relatively close to this character type on Islay although there is limited visibility due to topographic screening. Potential cumulative landscape and visual effects could arise to arise in the future with turbines located in adjacent character types such as the *Moorland Plateau* (8) where some scope has been identified for development of the medium typology (turbines 50-80m) in this study.

The farmed land which is likely to be the focus for smaller turbines is dispersed and while there may be some sequential cumulative visual effects associated with turbines sited on the majority of land holdings, inter-visibility of turbines could be minimised with careful siting. The potential visual cumulative effect would be reduced if well-sited turbines of less than 20m were used within these settled areas, and if a consistent relationship between these small turbines and the farm cluster was applied to siting. Small turbines are also more readily visually screened by topography, which is likely to limit their cumulative visual impact.

4.43.3 *Key constraints*

- The relatively low relief of the landscape, especially when viewed from the road and the sea.
- The complex and striking irregular forms of the rocky ridges.
- The small scale of the landscape – with its interlocking pattern of woodlands which reinforce the small-scale enclosure of the landform – and the intricate and complex coast.
- The sense of seclusion, naturalness and even remoteness experienced on more inaccessible stretches of coast and some of the interior ridges.
- The visibility of the coast and the ridges from roads, footpaths and accessible beaches and historic sites.
- The setting of individual buildings, small coastal settlements and other built features, such as the Kildalton Church.
- The proximity of this landscape to more dramatic rugged upland areas on Jura and Islay where larger typologies could intrude on views but also diminish qualities of wildness.

4.43.4 *Opportunities*

- Areas of gently graded slopes, more expansive stretches of interior elongated glen and hillsides close to farms where simple slopes offer rising ground against which turbines can be located.
- More settled areas of farmland.
- Shallow glens set back from the coast.

4.43.5 *Guidance on development*

There is **no scope** for wind turbines >50m high to be accommodated in this landscape principally due to their likely dominance on its small scale but also because of potential effects on the more remote and dramatic adjacent uplands on Jura and Islay.

There may be some **very limited** scope for the small-medium (35m - 50m) development typologies to be accommodated within more expansive parts of this landscape at the transition with larger scale upland areas such as the *Moorland Plateau* (8) on Islay.

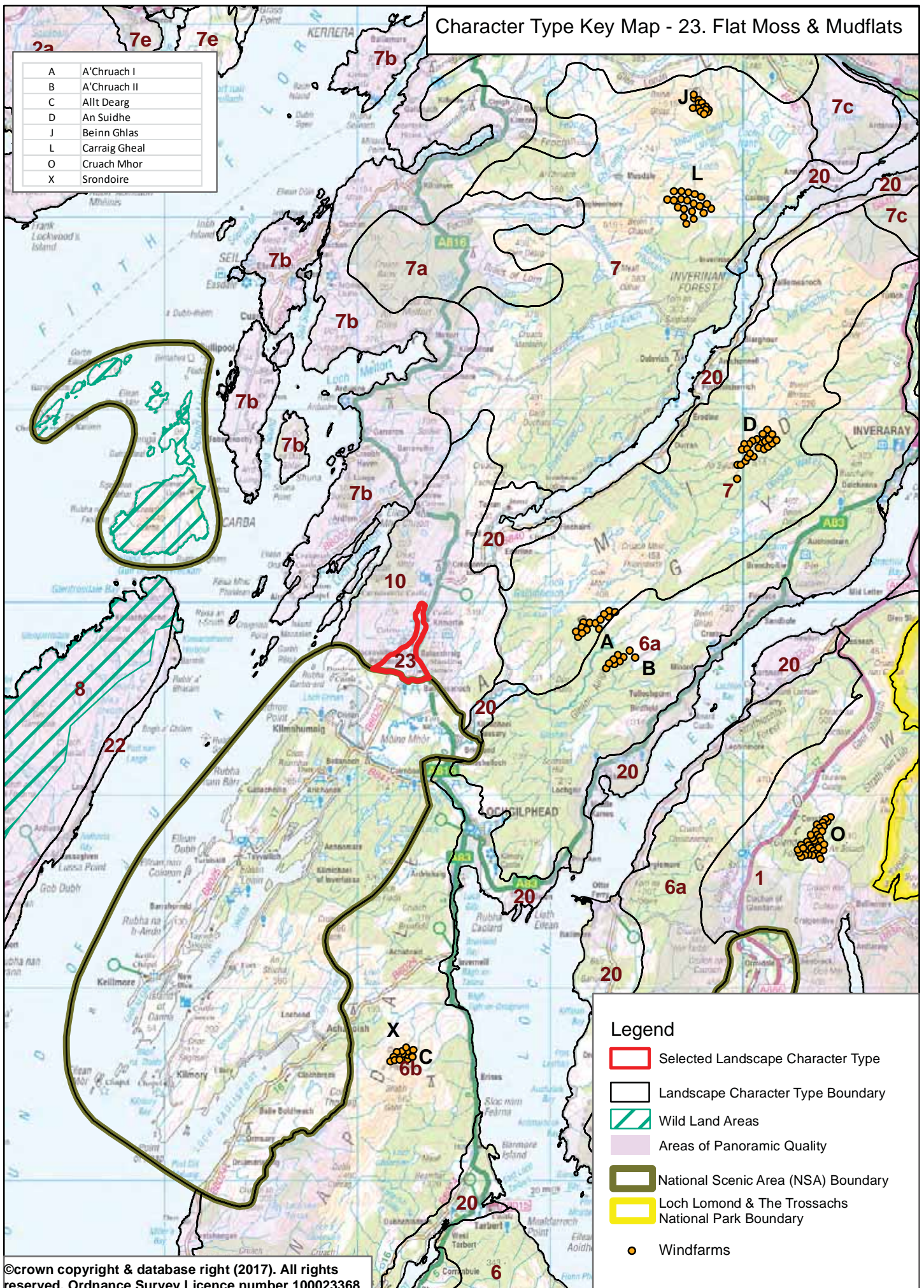
There are some opportunities for the small typology (20m-35m) to be located on gently graded slopes, shallow glens and farmland within the Coastal Parallel Ridges. Individual turbines are likely to be easier to accommodate than groups, which should be limited to no more than three turbines.

All turbines sited in these areas should be set back from the sensitive coast and small features such as buildings and farms and should avoid intruding on the irregular skyline ridges. They should also be sited to avoid high points on skylines and aim to be back-clothed by rising ground thus minimising visual intrusion. Turbines should not intrude on key views from the ferry or roads to the more rugged and remote mountains which backdrop this low-lying landscape on Jura and Islay. Larger turbines could adversely affect qualities of wildness associated with these less settled and undeveloped uplands in some areas.

In farmed areas, well sited turbines of less than 20m could be sited to reflect the scattered settlement pattern, and would fit in well with the scale of this landscape.

All turbines should be located to avoid impacts on the settings of, and views from and to, archaeological features and sites and should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 23. Flat Moss & Mudflats



4.44 Flat Moss and Mudflats (23)

This character type covers a small part of the open plain of Moine Mhor and Kilmartin Glen which lies to the north of the Knapdale NSA.

Detailed sensitivity assessments have been undertaken for the smaller typologies only in the sensitivity assessment as the 2012 ABLWECS found no scope to accommodate wind turbines >35m high in this landscape.

4.44.1 *Summary of sensitivity*

This landscape comprises the northern and eastern edges of the flat coastal plain of Moine Mhor, tapering in the north to form the narrow glen of Kilmartin which is strongly contained by the steep craggy slopes of the *Upland Parallel Ridges* (10). This is a well-settled and farmed landscape which features many landmark archaeological features. The relatively small scale and limited extent of this character type and its rich archaeology increases sensitivity to all turbine development. This landscape is highly visible from the A816 Tourist Route. It is also well-visited because of its renowned archaeology.

Landscape and visual sensitivity would be **High** for turbines >35m high and **High-medium** for the small typology.

The close proximity of this landscape to the Knapdale NSA and the presence of an APQ increases sensitivity in relation to landscape values with a **High** sensitivity judged for the small-medium typology and a **High-medium** sensitivity for the small typology.

4.44.2 *Potential cumulative issues*

No operational or consented wind farms are sited in this character sub-type. There is no visibility of wind farm developments sited in the surrounding area from this character type due to the containment provided by higher ground.

4.44.3 *Key constraints*

- The intimate scale of the Kilmartin Glen where its narrow valley floor is strongly contained and increasingly constricted by the steep-sided craggy slopes of the *Upland Parallel Ridges* (10) and the well-settled nature of this landscape where buildings, woodlands and other features provide ready scale references.
- A rich archaeology including stone circles, standing stones and burial chambers forming highly visible 'landmark' features within this landscape.
- An often intricate pattern of woodlands, farmland and designed landscape features which pattern parts of this landscape.
- The high visibility of this landscape which is seen from the A816 Tourist Route, from footpaths and cycle routes and which is well-visited because of its renowned archaeological features.
- The close proximity of the southern part of this landscape to the Knapdale NSA and the presence of an APQ designation which covers all this character type.

4.44.4 *Opportunities*

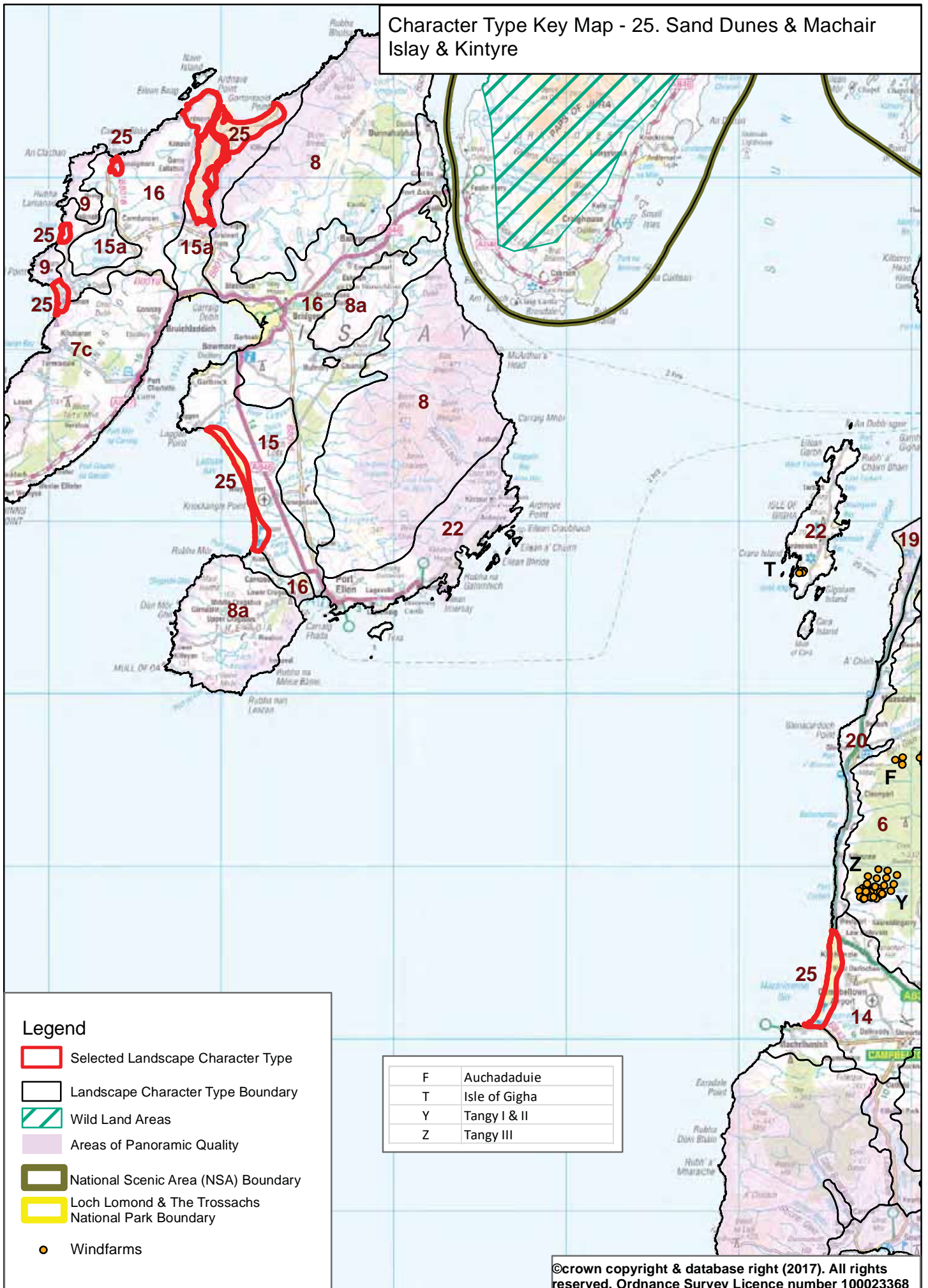
Gently undulating lower hill slopes at the transition with the *Upland Parallel Ridges* (10) which offer potential opportunities for small turbines associated with farms.

4.44.5 *Guidance on development*

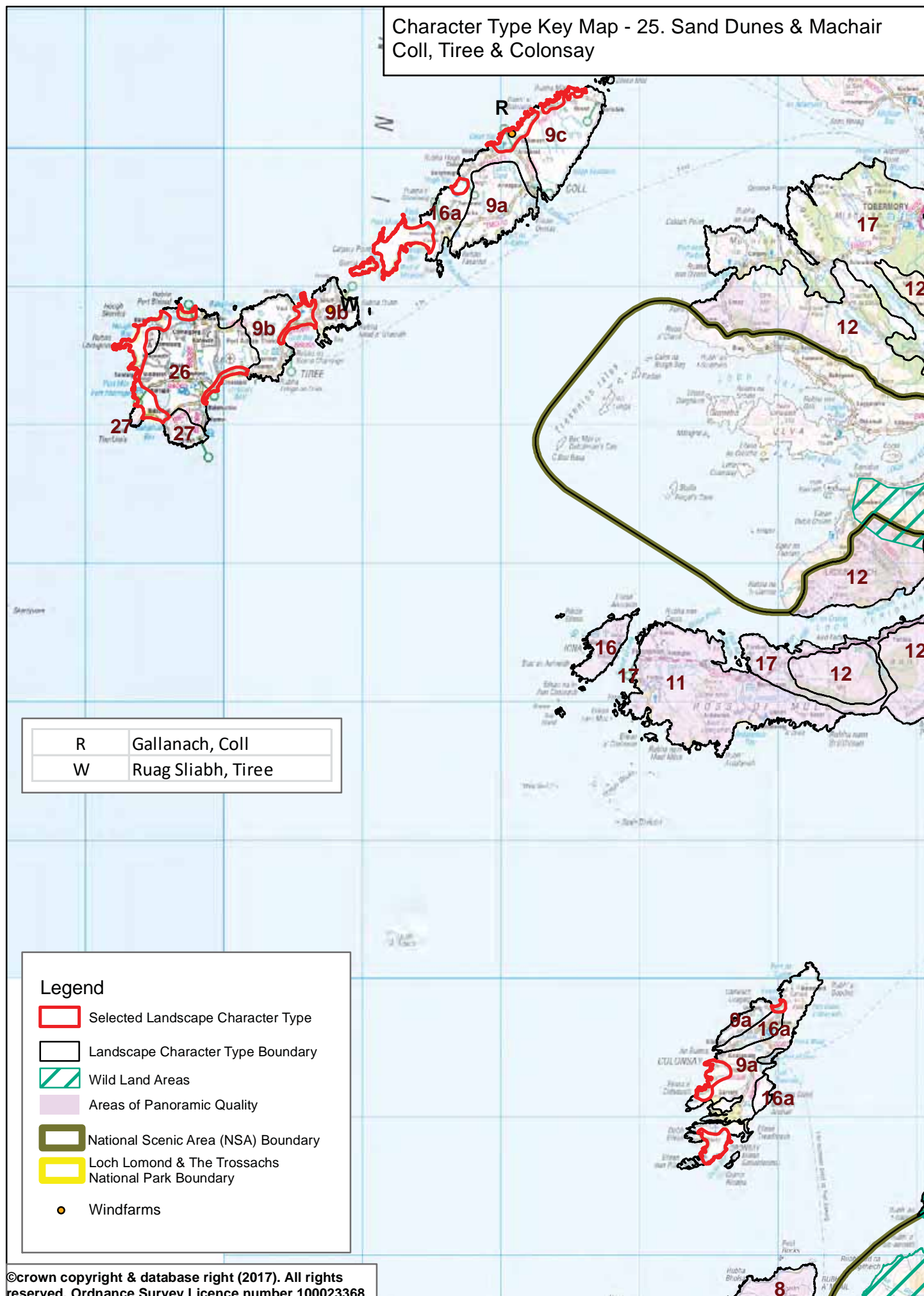
There is **no scope** to locate turbines >35m within this character type due to the likely significant effects that would arise across a number of key sensitivity criteria.

There is **very limited** scope to accommodate turbines towards the lower height band of the small typology (<25m) on more gently undulating lower hill slopes at the transition with the *Upland Parallel Ridges* (10). Turbines would need to be located to avoid impacting on the setting of archaeological features and on designed landscape features such as parkland and planted roundels. They should be sited to visually relate to existing buildings in order to minimise built clutter within this sensitive landscape. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Character Type Key Map - 25. Sand Dunes & Machair Islay & Kintyre



Character Type Key Map - 25. Sand Dunes & Machair Coll, Tiree & Colonsay



4.45 Sand-Dunes and Machair (25)

The *Sand-Dunes and Machair* (25) landscape character type is largely found on the west facing coasts of Islay and the Kintyre peninsulas and, extensively on Coll, Tiree and Colonsay. This landscape principally comprises long sandy bays and often extensive dune systems. Large areas of machair are also associated with this coastal landscape on Coll, Tiree and Colonsay. On Islay, it additionally covers the narrow peninsulas and tidal flats at Gruinart and on Kintyre, the coastal margin backing Machrihanish Bay.

The detailed sensitivity assessment tables set out in the Volume Two Report consider sensitivity to all development typologies.

4.45.1 *Summary of sensitivity*

This character type is coastal, low-lying and combines stretches of sandy beach, tidal flats and low rocky outcrops with dunes, some of which are still active. They are very limited in extent, often comprising narrow strips of coastline. Generally orientated to face the west, this type is exposed and open, with low wind swept vegetation. Accessible by farm tracks, and along the shoreline, these are popular areas for informal recreation, and can be secluded and semi-natural in character. A distinct sense of wildness can be experienced in the more remote and extensive beaches, dunes and machair found on the west coasts of Coll and Tiree.

The *Sand-Dunes and Machair* (25) is open and very sparsely settled. Any development in these locations would easily impact on neighbouring types and dominate the small extent of the areas. The strong sense of naturalness, the diversity of the coast including fine stretches of sandy beach and fragile dunes and machair and the often small extent of this area all combine to increase sensitivity in terms of landscape character. This landscape character type is only sparsely settled but these coasts are popular recreation areas, so are highly visible. The openness of the landscape means that visibility is likely to be extensive and sustained.

This landscape has a **High** landscape and visual sensitivity to all development typologies.

This landscape character type is covered by an APQ on the north-western coastline of Islay and sensitivity in terms of landscape value would be **High-medium** where this designation applies.

4.45.2 *Potential cumulative impacts*

A single large operational wind turbine is sited in this character type at Gallanach on Coll. The operational and consented wind farms of Tangy and Beinn a Tuirc, located within the *Upland Forest Moor Mosaic* (6) on the Kintyre Peninsula, are visible from the area of *Sand Dunes and Machair* of Machrihanish Bay. A single large turbine located in the *Low-lying Rocky Moorland* (9b) on Tiree lies close to this character type in the western part of the island.

Cumulative landscape and visual effects could arise with wind energy development sited on adjoining landscapes where turbines were highly visible from beaches and machair.

4.45.3 *Key constraints*

- The small extent of these areas, which limits opportunities to site development without it impacting on the adjacent landscape types and which would be easily dominated by turbines.
- The small scale of features such as the dunes and small inlets and bays.
- The sense of naturalness and often seclusion experienced on much of the coast with wildness being particularly pronounced on the more remote west coasts of Coll, Tiree and parts of Colonsay.
- The diversity and integrity of floristically rich machair areas.
- The setting these areas provide to diverse wider seascapes.
- The high visibility of these landscapes, which are open and popular for informal recreation

4.45.4 *Opportunities*

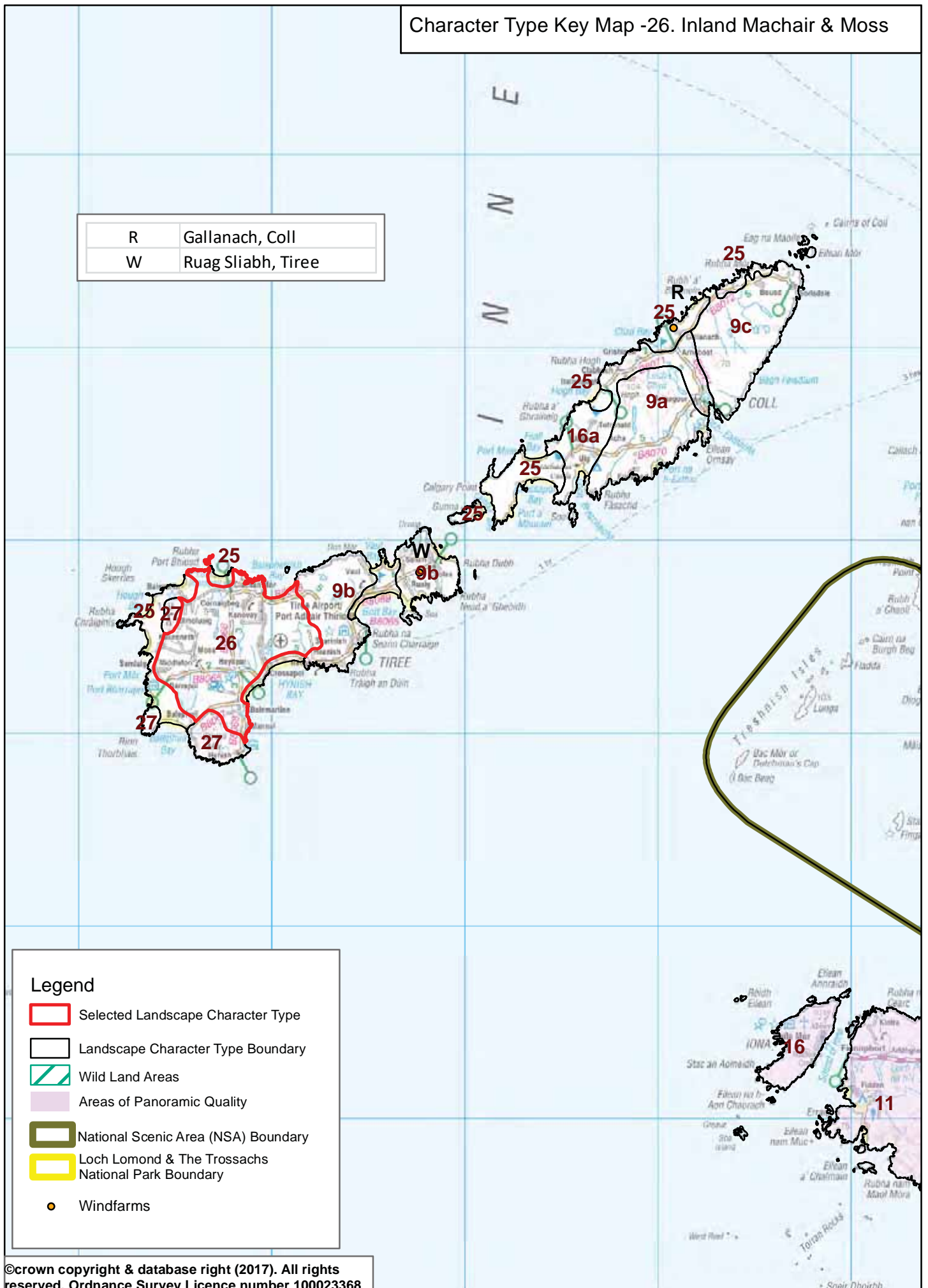
No opportunities have been identified to accommodate development in this landscape character type.

4.45.5 *Guidance on development*

There is no scope to site development within this character type due to the significant adverse impacts that would be likely to occur on a wide range of landscape and visual sensitivities. These coastal areas are highly sensitive to intrusion from wind turbines sited close-by in adjacent landscape character types.

Character Type Key Map -26. Inland Machair & Moss

R	Gallanach, Coll
W	Ruag Sliabh, Tiree



4.46 Inland Machair and Moss (26)

This landscape character type is only found on Tiree where it forms flat and open moss, wetlands and lochs surrounded by well-settled farmland. All development typologies are considered in the detailed sensitivity tables set out in the Volume Two Report.

4.46.1 *Summary of sensitivity*

Expansive wetlands and bog, peppered with small pools and larger shallow rounded water bodies, occupy the low-lying core of this landscape. Flat to very gently undulating sand-blown machair pastures lying on the edges of wetter ground are densely settled with a regular pattern of small white croft and farm houses which stand out in this open landscape. Towards the east, The Reef comprises a flat expanse of very low-lying, open and sparsely settled machair and wetter pasture. This area accommodates the airport and occasional WWII concrete defence buildings and farms border long straight roads on its edge.

Sensitivity would be **high** to the large and medium typologies (turbines >50m). There would be a **High-medium** sensitivity to the small-medium typology (turbines 35-50m) and a **medium** sensitivity to the small typology (turbines 20-35m).

This landscape is not covered by any scenic designations or other recognised values and sensitivity would therefore be **low** in respect of landscape value.

4.46.2 *Potential cumulative issues*

A number of small croft/farm turbines <30m high are located in this character type. A single large operational wind turbine is located at north-eastern end of Tiree in the *Low-lying Rocky Moorland* (9b). Operational and consented wind farm development located on the mainland lies beyond 30km.

There is potential for cumulative landscape and visual effects to arise with existing small farm/croft wind turbines if significantly larger turbines were introduced to this area. At present operational small turbines are conspicuous but their close relationship to farms and crofts reflect the regularity of buildings which also stand out in this very flat and open landscape, thus reducing landscape and visual impact. The integrity of building form is a key characteristic of Tiree and small wind turbines should aim to attain a similar consistency of design and size to complement this.

4.46.3 *Key constraints*

- The proximity of the *Focal Hills* (27) of Beinn Hough and Ben Hynish to this landscape, which although not very high, form prominent features in this open and low-lying landscape. Larger turbines would diminish the perceived height and prominence of these hills.
- Diverse wetlands, lochs and moss which add scenic interest to this generally simple landscape.
- Loch a' Phuill, Lochan Eilein and Loch Bhasapoll which form key focal points in this landscape seen from roads and from the *Focal Hills* (27) of Ben Hynish and Beinn Hough.
- The density of settlement which increases scope for cumulative effects especially with turbines >20m high. Multiple and larger wind turbines could form

a dominant rather than an incidental feature, detracting from the integrity of buildings which are a key characteristic of Tiree.

4.46.4 *Opportunities*

- Less settled areas where larger turbines could relate to the more expansive scale and simplicity of the landscape.

4.46.5 *Guidance on development*

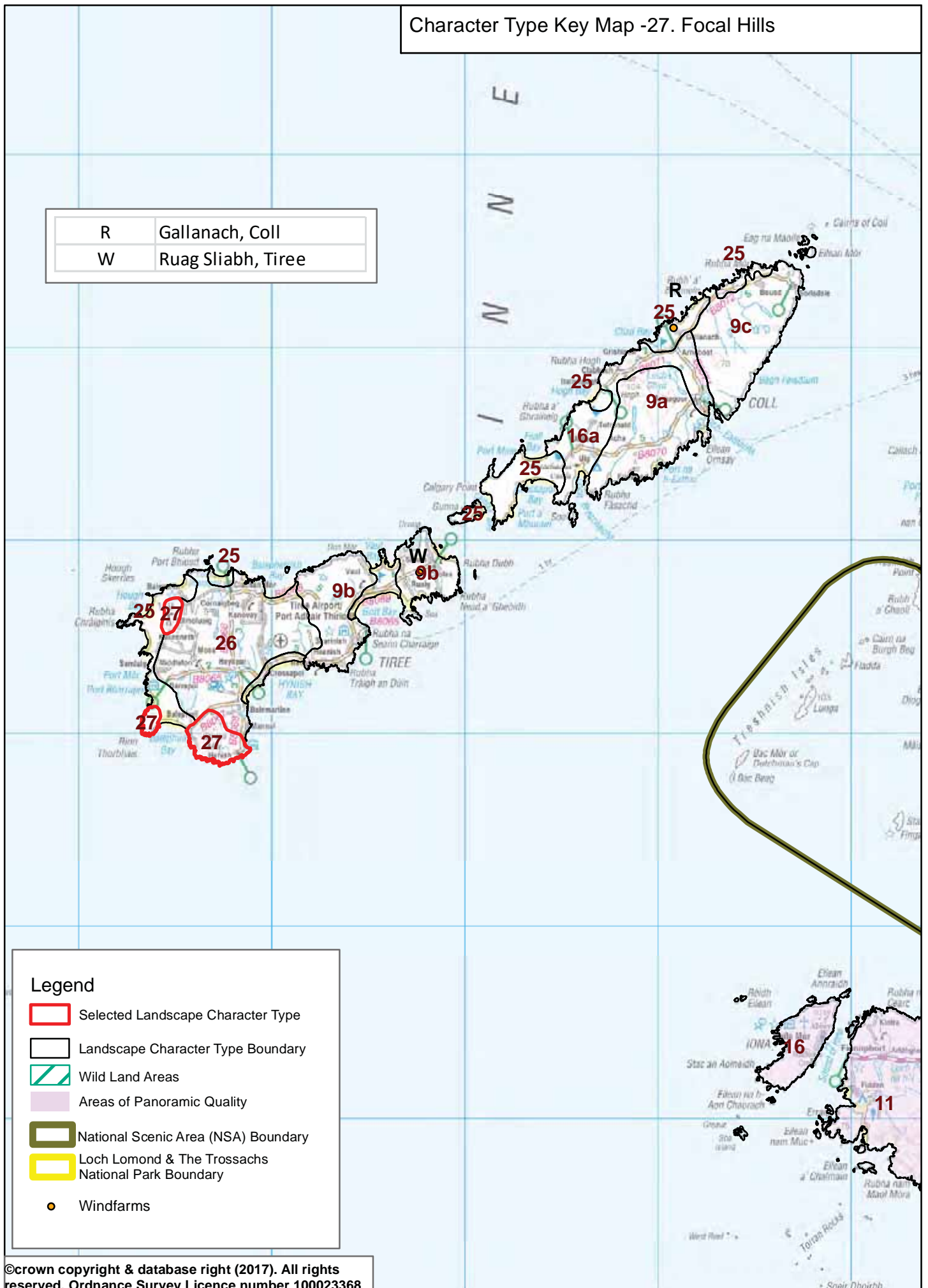
There is **no scope** to accommodate the large or medium development typologies (turbines >50m).

There is some **very limited** scope to accommodate a single or a small group (<3) of the small-medium typology (turbines 35-50m) in less settled parts of this landscape to minimise contrasts of scale with small buildings. Turbines should not be sited close to Loch a' Phuill, Loch an Eilein and Loch Bhasapoll which form key focal points in this landscape or intrude on views to these lochs from roads. Siting turbines at the transition with the *Low-lying Rocky Moorland* (9a) would help to visually 'anchor' them. Turbines should also not be sited close to the *Focal Hills* (27) or in more visually diverse areas of machair, moss and wetlands.

There is some limited scope to accommodate single or small groups of the small typology (turbines 20-35m) associated with occasional crofts and farms. Multiple turbines of this size could quickly become a dominant feature given the density of crofts and farms and on-going review will be necessary to assess cumulative effects. Turbines of less than 20m in height could more readily be accommodated within the more settled areas within this landscape type. It is important that small wind turbines are consistent in their design and size to fit with the integrity of building form characteristic of Tiree. Siting of smaller turbines should accord with the guidance set out in the Volume Two Report.

Character Type Key Map -27. Focal Hills

R	Gallanach, Coll
W	Ruag Sliabh, Tiree



4.47 Focal Hills (27)

This character type is only found on Tiree where it comprises three small hills which rise abruptly from low-lying machair and moss landscapes of the island and form focal features across Tiree. The detailed sensitivity tables set out in the Volume Two Report consider all development typologies.

4.47.1 *Summary of sensitivity*

The hills of Beinn Hough and Ben Hynish are not high (119m and 141m respectively) but are well-defined with steep slopes rising abruptly from the surrounding low-lying *Inland Machair and Moss* (26) and therefore form landmark features seen across Tiree. Beinn Ceann a' Mhara, although less widely prominent, forms a distinctive craggy outcrop seen from the west coast of Tiree. This hill has dramatic cliffs which support sea bird colonies. Beinn Hough is less rugged but has a distinctive ridgeline and pronounced peaks while Ben Hynish is more rounded. Grass and patchy heather cover these hills. The hills are largely unsettled although some small farms are tucked at the foot of the steep eastern slopes of Beinn Hough and on the gentler slopes of Ben Hynish. The historic settlement and dock of Hynish lies at the south-eastern foot of Ben Hynish. Telecommunications, radar 'golf ball' and access tracks are present on Ben Hynish and Beinn Hough. Beinn Ceann a'Mhara is undeveloped although is rich in archaeological sites.

Larger wind turbines sited anywhere within this landscape character type would diminish the appreciation of the apparent vertical scale of the hills by providing an element of 'scaling' (this is compromised already to some degree at Ben Hynish and Beinn Hough where existing built structures diminish the perceived scale of these hills). Turbines would add to the clutter of man-made elements already present on Ben Hynish and Beinn Hough and would affect the little modified and wilder character of Beinn Ceann a'Mhara. Most development typologies would visually compete with the focus presently provided by the hills.

Sensitivity would be **high** to the large, medium and small-medium typologies (turbines >35m). There would be a **High-medium** sensitivity to the small typology (turbines 20-35m). Turbines <20m high could be more easily accommodated in parts of this landscape.

This landscape is not covered by any scenic designations or other recognised values and sensitivity would therefore be **low** in respect of landscape value.

4.47.2 *Cumulative issues*

There are some small wind turbines associated with farms on the lower slopes of Ben Hynish. A single operational large wind turbine is located on the north-eastern part of Tiree and some small turbines, generally <20m but with some closer to 30m high, are located on the nearby *Inland Machair and Moss* (26) landscape character type. Operational and consented wind farm development located on the mainland lies beyond 30km

The relative smallness and openness of Tiree means that the large operational single Ruag Sliabh turbine would be inter-visible with any additional larger turbines sited in this

landscape character type. The sparsely settled nature of these hills is likely to limit cumulative effects associated with a variety of small turbines.

4.47.3 *Key constraints*

- The prominence of these rugged hills which form widely visible landmark features seen across Tiree.
- The relatively low relief of these hills which would be diminished by larger turbines.
- Contrasts of scale with small buildings and potential effects on the setting of the historic settlement of Hynish.
- The small extent and rugged landform of these hills which limits scope for development.
- Views from these hills from informal footpaths.
- Existing built infrastructure on the summits of Beinn Hough and Ben Hynish – additional structures would exacerbate visual clutter.
- The wild character of the little modified Ceann a' Mhara and the setting of archaeological features on this rugged headland hill.

4.47.4 *Opportunities*

- More gently graded farmland on the lower slopes of the larger hills.

4.47.5 *Guidance on development*

There is **no scope** to accommodate the large, medium and small-medium typologies (turbines >35m) in this landscape character type.

There is some **very limited** scope for the small typology (turbines 20-35m) to be accommodated on the more gently graded south-eastern slopes at the foot of Ben Hynish. Turbines should be sited to avoid significant intrusion on the setting of the historic Hynish settlement and should also be set back from the coast. There are opportunities to accommodate smaller turbines <20m high provided these are closely associated with farms located at the foot of Beinn Hough and Ben Hynish. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

5 SENSITIVITY ASSESSMENT OF NATIONAL SCENIC AREAS

5.1 Introduction

The 2012 ABLWECS study brief requested that landscape sensitivity to and capacity for wind turbines of up to 50m only should be considered within the NSAs. The following NSAs lie wholly within Argyll and Bute:

- Knapdale
- Lynn of Lorn
- Jura
- Loch na Keal
- Scarba, Lunga and the Garvellachs
- Kyles of Bute

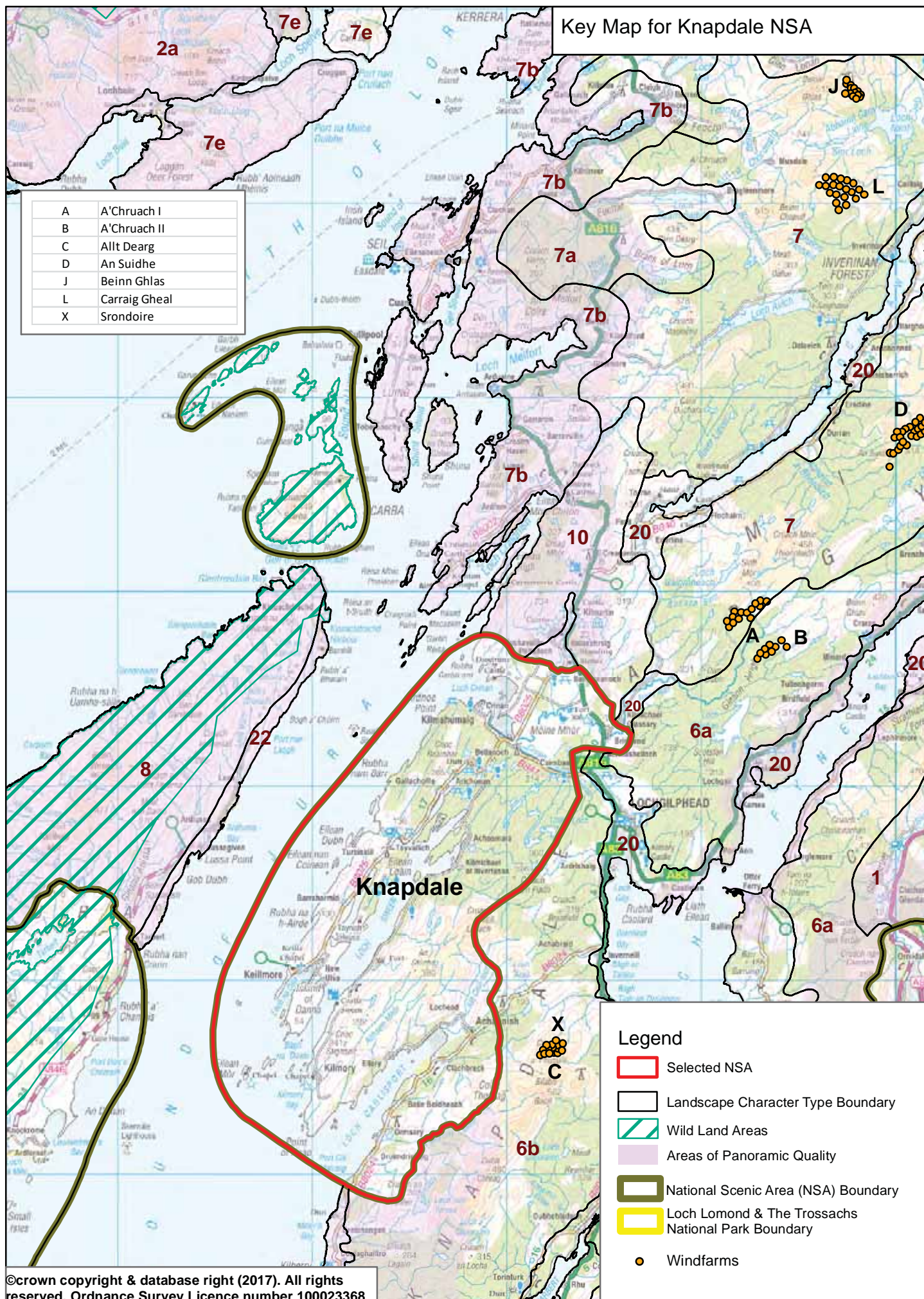
Detailed field assessment has not been undertaken for the Scarba, Lunga and the Garvellachs NSA. The majority of these islands are uninhabited, with Scarba and Rubha Fiola being inhabited for only part of the year, and demand for smaller wind turbines is likely to be very limited. This NSA is however noted in the assessment for the adjacent *Craggy Coast and Islands (7b)* landscape character type.

A small part of the Ben Nevis and Glen Coe NSA also overlaps the northern boundary of Argyll and Bute. This NSA has been considered within the sensitivity assessment undertaken for the *High Tops (2)* landscape character type.

The sensitivity assessment is based on potential effects on wind turbines up to 50m high on the special qualities of the NSAs as defined by SNH in 2010³. The SNH studies identify only special qualities and not all the key landscape and visual characteristics that are potentially sensitive to wind turbine development. Some of the special qualities can also be either difficult to assess in relation to wind turbine development or comprise qualities that would be unlikely to be affected by such development. The sensitivity assessment for this study has therefore involved some interpretation and supplementation of the SNH special qualities work. Further detail on methodology is set out in Annex E of this report.

The sensitivity assessment that follows initially describes the character and special qualities of each NSA prior to summarising the sensitivity and key constraints and opportunities for development. Potential cumulative issues are set out and guidance is provided where scope for development has been identified. Detailed sensitivity assessment tables are contained in the Volume Two Report.

³ The Special Qualities of the National Scenic Areas. 2010. SNH Commissioned Report 374.



5.2 Knapdale

5.2.1 Introduction

The Knapdale NSA is located to the west of Lochgilphead. This NSA encompasses the narrow sea lochs of Loch Sween and Loch Caolisport, the craggy linear ridges which separate them and the flat plain of Moine Mhor and Loch Crinan to the north. The following landscape character types defined in the Argyll and Firth of Clyde Landscape Assessment (1996) occur within this NSA:

- *Upland Parallel Ridges* (10)
- *Coastal Parallel Ridges* (22)
- *Flat Moss and Mudflats* (23)

The *Upland Parallel Ridges* (22) landscape character type extends slightly beyond the eastern boundary of the NSA and this small outlying area of this character type has been incorporated into the adjacent *Knapdale Upland Forest Moor Mosaic* (6b) for the purposes of this assessment.

5.2.2 Description of the NSA and its special qualities

Scotland's Scenic Heritage (1978) describes this NSA thus:

'The strongly grained topography of Knapdale with long parallel ridges and glens aligned on a north-west south-east axis, presents a miniature 'Appalachian' type landscape. Heavily wooded now, the glacially overdeepened glens either have narrow ribbon lakes in their bottoms or else have been invaded by the sea. Loch Sween is a complex series of parallel channels intruding long narrow fingers of sea into the coniferous forests of Knapdale.'

This ever present combination of fresh and sea water with their different plant life, small waterside meadows, and heavily wooded ridges makes up a series of narrow enclosed landscapes gradually opening out to the lower, more open, and mixed land uses of the wider topography at the mouth of Loch Sween, from where there are fine views to the Paps of Jura. By contrast, Loch Caolisport is a wide sea loch. It is contained by sufficient amplitude of relief to frame the views of Jura, and in this more open loch basin there is a pleasing mixture of forestry and well-kept farmland, with moorland on the high land, and some deciduous woodlands on the hillsides.'

To the north the flat moss, meadow and arable land of the Moine Mhor, the finely curving meanders of the River Add, and the abruptly upstanding heights of Dunadd and Cnoc na Moine, the former rocky and bare, the latter heavily mantled in oakwoods, provide a sharp contrast to the tightly grained and forested hills of Knapdale. Loch Crinan, with its wide expanse of flats, continues this character seawards, and is enclosed on its north side by a series of miniature glens and hills, echoing the scale of Knapdale to the south, but offering a gentle, open, cultivated contrast to the forest. The historic and cultural interest of this landscape adds a further dimension to the scene'.

The special qualities of the Knapdale NSA are defined by SNH as comprising:

- *Distinctive ridges and loch-filled trenches*

- *A landscape of skylines*
- *A clothing of oak woodland over the ridges and hollows*
- *A profoundly evocative, ancient place*
- *Ever-changing patterns of colour, sound and smell*
- *In the north, dramatic juxtaposition of ridges and volcanic plugs arising from the flat expanse of Moine Mhor bog*
- *A centre of parallel ridges and secret lochans*
- *Long, slow journeys to the sea*
- *Dramatic sea views in the south*
- *The Crinan Canal*

The special qualities '*Ever-changing patterns of colour, sound and smell*' and '*Long, slow journeys to the sea*' have not been considered in the sensitivity assessment that follows. The assessment also considers an additional sensitivity criterion relating to the pattern, scale and setting of settlement (a key characteristic not defined in the NSA special qualities study but of relevance to wind turbine development).

5.2.3 *Summary of sensitivity*

This NSA covers a relatively large area with a diverse character ranging from the flat open moss of Moine Mhor to the north, intricate linear small scale linear ridges and valleys in the core of the NSA; these extending to form more open coastal peninsulas and sea lochs to the south and backed by higher more expansive uplands to the east. Key sensitivities include the small scale and complex landform of narrow ridges and deep valleys and the prominent skylines created by these and other ridges which form the backdrop to the NSA. The Moine Mhor area, while having a more open and expansive character in places, is constrained by the presence of small outcrop knolls, small scale settlement and a rich archaeology which would be affected by wind turbines. The more open coastal peninsulas would also be sensitive to wind turbine development due to their likely effect on key views to Jura. The overall sensitivity assessment takes into account the prevalence of key special qualities across this diverse NSA, with a **High** sensitivity to the small-medium typology (turbines 35-50m) and a **High-medium** sensitivity to the small typology (turbines 20-35m) concluded, reflecting increased opportunities to locate smaller turbines on less complex hill slopes which form a backdrop on the eastern edge of the NSA.

5.2.4 *Cumulative issues*

The operational wind farm of Allt Dearg/Srondaire located in the adjacent landscape character type *Knapdale Upland Forest Moor Mosaic* (6) is visible from the settled north-western shore and hill slopes above Loch Caolisport. The operational wind farm of A'Chruach is visible from higher rare open hill tops and ridges within the NSA and seen at distances of >10km distance.

Potential cumulative landscape and visual issues include:

- Increases in the number of larger wind farm developments located so clearly visible from the NSA (determined by height of turbines, distance and specific location) and potential cumulative effects on the wider landscape setting of the NSA.
- Cumulative visual effects on views from popularly accessed hill tops such as Dunardy and Taynish within the NSA

5.2.5 Constraints

- The very open character of the southern tips of the peninsulas either side of Loch Sween where dramatic views across the sea to Jura are a feature and where even small turbines would be highly prominent and intrude on these views.
- The backdrop and contrast provided by higher hills between Loch Sween and Loch Coalisport and on the eastern boundary of the NSA and seen from roads, settlement and also from the lochs.
- The intimate scale of long, narrow parallel ridges and valleys occurring in the core of the NSA which is accentuated by dense woodland cover where even small turbines would dominate their relatively low relief.
- Potential conflicts of scale between small buildings and taller turbines and impacts on the setting of small settlements.
- A distinctive landform with deeply folded slopes and rocky outcrops which is particularly complex within the small scale parallel ridges and valleys at the core of the NSA but is also diverse and craggy within the higher hills on the south-eastern boundary of the NSA.
- The dramatic juxtaposition of small volcanic plugs and ridges with the flat plain of the Moine Mhor in the northern part of the NSA where even small turbines would dominate the scale of these features and detract from the overall scenic composition.
- A rich archaeology evident in the many well-known inter-related archaeological features set within the Kilmichael and Moine Mhor area but also on the southern peninsula tips and coastal areas and the shores of Loch Caolisport.
- The strong wildland character experienced within the unsettled and little modified western coastal edge of this NSA and also within the extensive oak woodlands of the Tayvallich Peninsula which have a distinctly natural character.

5.2.6 Opportunities

- Smoother, lower hill slopes and flatter breaks in slope within the broader scale peninsula separating Loch Sween and Loch Caolisport and the lower slopes above the eastern shore of Loch Caolisport where smaller typologies could be accommodated.

5.2.7 Guidance on development

There is **no scope** to site the small-medium typology (turbines 35-50m) within the Knapdale NSA due to the significant adverse impacts that would be likely to occur on a wide range of landscape and visual sensitivities.

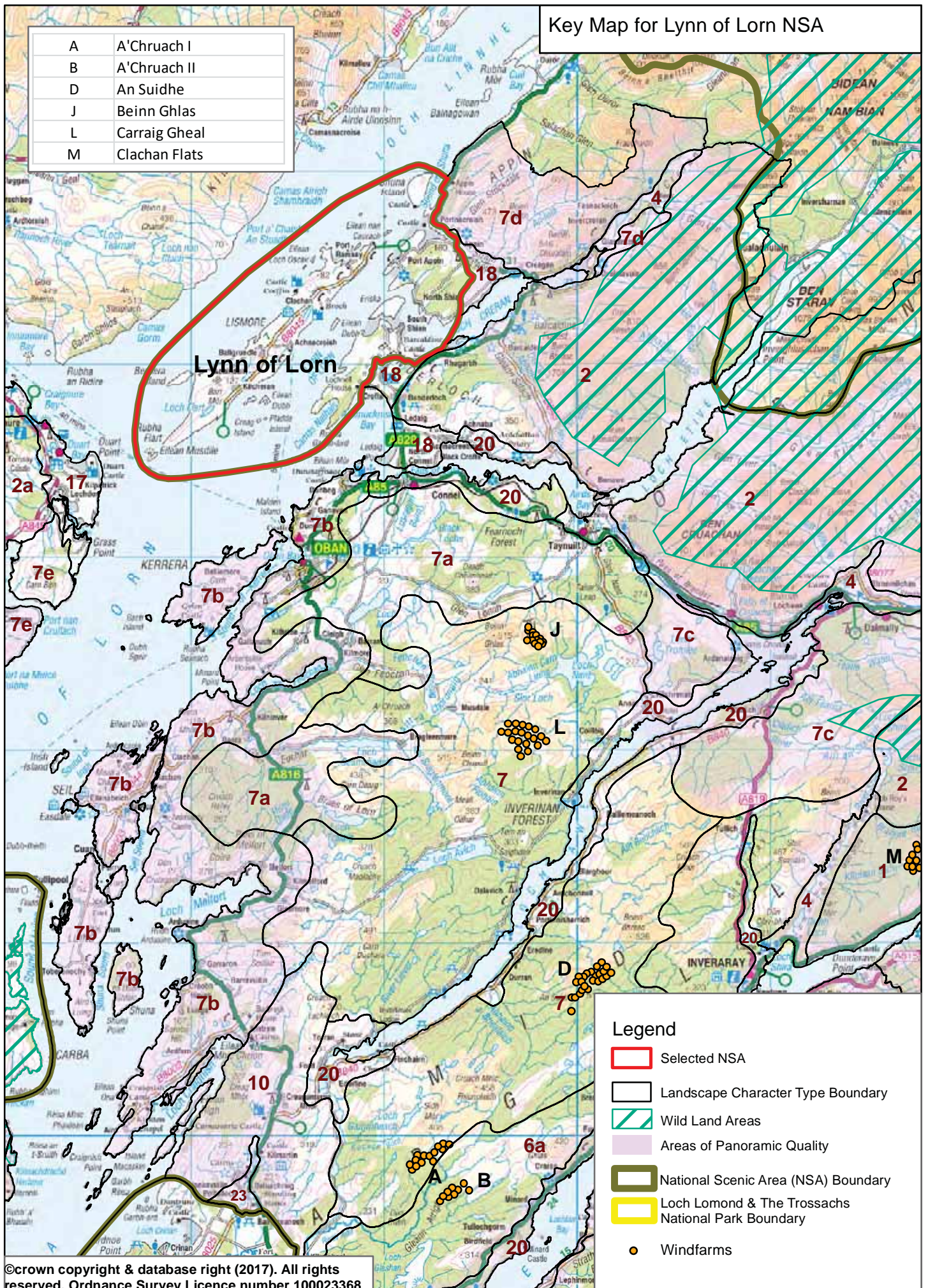
There is some **limited** scope for single and small groups (<3) of the small typology (turbines <35m) to be located on less complex lower hill slopes of the broader, higher peninsula east of Loch Sween and on the lower hill slopes to the south-east of Loch Caolisport. Turbines should be sited to avoid intrusion on prominent skylines, particularly those which form the backdrop to Loch Sween, and should also avoid significant intrusion on key views down Loch Caolisport to Jura. The setting of archaeological features would be sensitive even to these small turbines and care should be taken to avoid intrusion. Turbines of this size would be easier to accommodate if sited on subtle rises or where there are breaks in slope and rising ground forms a backcloth able to reduce their prominence.

There would be greater scope for turbines below 20m to be accommodated in this landscape and sited where they should be visually associated with small dispersed farms and other buildings. Turbines should be sited away from the more inaccessible western coast which has a distinct sense of wildness and the very open southern tips of the long peninsulas which extend into the open sea where they would be visually prominent and would potentially affect the setting of archaeological features and views to Jura. They should also avoid the fragmented coast and islands of Loch Sween and should be sited on the 'up' side of narrow public roads in order to avoid cluttering views across the loch. The Moine Mhor area of the NSA would still be sensitive to turbines of this size in many areas because of potential effects on archaeology and on the small outcrop hills which punctuate this open plain. Turbines of this size could however be sited close to buildings well away from outcrop hills and on the lower hills slopes at the transition with the *Upland Parallel Ridges* (10) but would need to avoid impacting on the setting of the many archaeological features in these areas.

It will be important to limit the number of turbines and the ranges of turbine designs in this highly sensitive landscape to avoid it becoming cluttered with built development. Guidance on the siting of smaller typologies is set out in the Volume Two Report.

Key Map for Lynn of Lorn NSA

A	A'Chruach I
B	A'Chruach II
D	An Suidhe
J	Beinn Ghlas
L	Carraig Gheal
M	Clachan Flats



5.3 Lynn of Lorn

5.3.1 Introduction

This NSA lies to the north of Oban and includes the island of Lismore and the coastal peninsulas and smaller islands which bound the narrow sea channel of the Lynn of Lorn. The whole of the NSA is defined as the *Lowland Ridges and Moss* (18) landscape character type in the Argyll and Firth of Clyde Landscape Assessment.

5.3.2 Description of the NSA and its special qualities

Scotland's Scenic Heritage (1978) describes this NSA thus:

'The Lynn of Lorn is an island-studded waterway at the confluence of the Sound of Mull with Loch Etive and Loch Linnhe, from which it is separated by the island of Lismore. The Lynn follows the north-westerly alignment of the prevailing relief in the area, which, set in the wider context of sea lochs and mountains, is a small scale region of parallel limestone ridges. It is these ridges, whether submerged, so that only their tops form islets, or whether raised in succession, with the waters of the Lynn, Loch Creran and Loch Laich lapping in between them, that give the area its distinctive character. Made of limestone they support a rich vegetation, either green, lush meadows in the intervening glens and on the surrounding raised beaches, or thick luxuriant oakwoods, at times extended by new coniferous plantations, covering their slopes. It is a small scale, secluded landscape with constantly changing views as the pattern of ridges and valleys, islands and inlets, is traversed. Lismore translates as 'Great Garden', a name which is not at variance with the character of the whole area, and which is realised in the fine policies of the big houses of the area – Lochnell, Eriska, Airds and Appin, to which Castle Stalker on its diminutive island offers a complete contrast.'

The special qualities of the Lynn of Lorn NSA are defined by SNH as comprising:

- A long-inhabited, green oasis
- A small scale, low-lying landscape within a vast highland backdrop
- A landscape strongly orientated northeast-southwest
- The coastline of great variety and diversity
- A strategic location, rich in history
- A place of retreat and seclusion
- Castle Stalker, one of Scotland's iconic romantic images

All these special qualities are considered in the detailed sensitivity assessment set out in the Volume Two Report and we have identified no further key landscape and visual characteristics that need to be considered in relation to wind turbine development.

5.3.3 Summary of sensitivity

This NSA covers the island of Lismore and the low parallel ridges and islands on the eastern side of the long narrow sound of the Lynn of Lorn. Key sensitivities include the smaller scale narrow ridges, valleys and intricate coastal edge which would be dominated by the typologies considered in the assessment. The rich archaeology characteristic of this landscape and the presence of designed landscape features is also a constraint to development. Turbines visible on containing skylines and the coastal edge could detract from key views southwards down the long length the Lynn of

Lorn and from landmark features such as Castle Stalker seen in these views. The overall sensitivity assessment takes account the prevalence of special qualities across the NSA with a **High** sensitivity being concluded for the small-medium typology (turbines 35-50m) and a **High-medium** sensitivity concluded for the small typology (turbines 20-35m), reflecting opportunities for smaller turbines to be associated with broader basins and hill slopes provided significant intrusion on more sensitive coastal areas and key views was avoided.

5.3.4 *Cumulative effects*

No operational or consented wind farms are sited in this NSA. Operational wind farms sited in the *Craggy Upland* (7) (Carraig Gheal and Beinn Ghlas) have minimal influence on views from this NSA. Cumulative effects are unlikely to arise given the distance of existing wind farms and the limited scope for wind energy development in this NSA and in immediately surrounding landscapes.

5.3.5 *Constraints*

- The intimate scale of this landscape where the strong containment provided by low parallel ridges is accentuated by dense woodland and the presence of small buildings.
- The complexity of landform including low, knolly and often very narrow parallel ridges and a 'coastline of great variety and diversity' with numerous islands and featuring a distinctive north-east/south-west alignment. The coast has a diverse geology including raised beaches and cliffs and has a particularly rugged character on the western shores of Lismore.
- A rich archaeology evident in the many duns, cairns, castles and early religious settlements.
- A diverse pattern of small enclosed pastures, scrubby woodlands and wetland found within Lismore, small glens of meadows and mossland on the mainland coastal edge.
- Policy landscapes located on the sheltered coastal fringes and featuring mixed woodlands, parkland and gardens associated with the estates of Lochnell, Eriska, Ardtur and Druimneil.
- Landmark features such as the Eilean Musdile lighthouse on the southern tip of Lismore seen from the Mull ferry and Castle Stalker 'one of Scotland's iconic romantic images' sited on a diminutive island within Loch Laich.
- Long elevated views from the A828 and from the promoted viewpoint near The Knap looking south-west down the length of the Lynn of Lorn and taking in the diverse coastal edge of Lismore and Appin with the mountains of Movern and Mull forming a rugged backdrop.
- The setting of small scale settlements such as Port Appin and small houses tucked within woodlands and small bays on the mainland and set down between the parallel ridges of Lismore

5.3.6 *Opportunities*

- Gentler hill slopes and dips below pronounced narrow ridges across Lismore and the broader, higher ridges in the southern part of the island.
- More open and less complex lower hill slopes backing settlement on the shores of Loch Creran.

5.3.7 *Guidance on development*

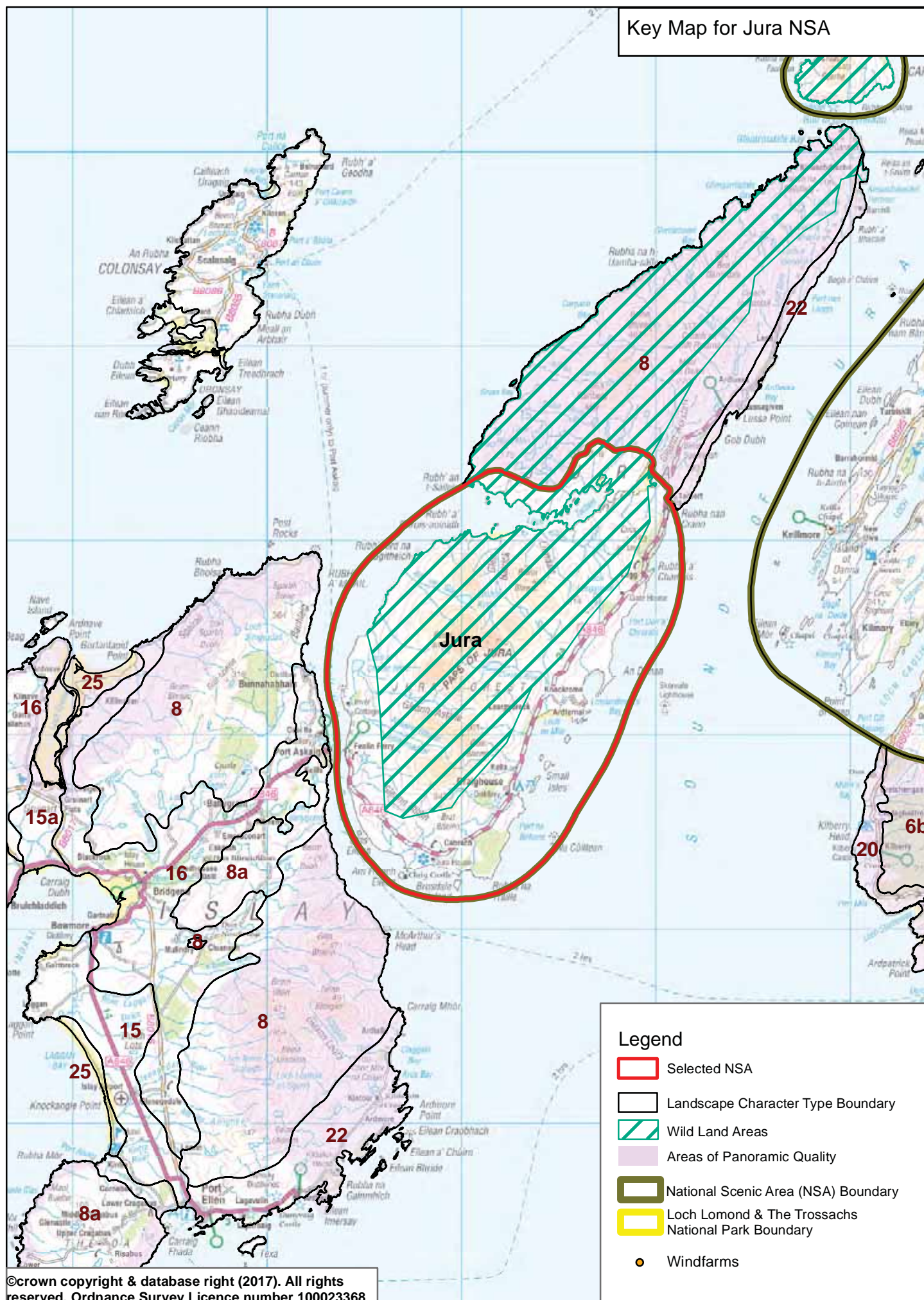
There is **no scope** to accommodate the small-medium typology (turbines 35-50m) within this NSA. This is because this size of turbine would dominate the scale of low, narrow ridges which generally rise to less than 50m height on the lower peninsulas and small islands. While relief increases within the Appin peninsula and parts of Lismore, turbines of this size would be likely to be prominent in key views south down the Lynn of Lorn and would detract from the contrast that occurs between the sea, the fragmented coastline and islands and strongly rhythmic pattern of cliffs and craggy parallel ridges that contribute to the highly scenic composition of this seascape.

There are limited opportunities to locate single and small groups of turbines (<3) of the small typology (turbines <35m) on broader, less craggy ridges, gentler hill slopes and flatter areas found in parts of Lismore. Turbines should be sited to avoid impacting on the setting of the Eilean Musdile lighthouse and views to this and to the rugged unsettled south-west facing coast of Lismore seen from the Mull ferry. They should also be sited well back from the south-east facing coast and kept off prominent skylines within Appin and Lismore where they could detract from iconic views southwards down the Lynn of Lorn. Turbines of this size could not be easily accommodated in the lower mainland peninsulas and smaller islands as they would dominate the scale of low ridges and buildings. However, there may be some very limited opportunities for turbines towards the lower height band of this typology (<25m) to be sited in association with existing buildings and larger scale development in the Loch Creran area provided they are sited away from designed landscapes and from sensitive coastal edges which feature in key views from roads (especially the A828), settlement and promoted viewpoints. Turbines should not be sited on hill tops but on lower, gentler slopes in order to reduce their visual prominence. The higher ground found in the Appin peninsula would help reduce visual prominence of any turbines sited on lower slopes by providing a backdrop of rising ground.

There are greater opportunities to locate turbines below 20m high in this landscape provided they are clearly associated with existing buildings. Even these small turbines could introduce clutter to highly sensitive views and they should be sited to avoid intrusion on the foreground of key elevated and panoramic views southwards down the Lynn of Lorn and on views from the narrow roads which wind around the mainland peninsulas and offer changing panoramas across outer Loch Creran and the Lynn of Lorn.

All turbine development should be sited to avoid intrusion on archaeological features including Dun Chruhan, Port Kilcheran, the broch of Tirefour castle and the Achnacroish monument on Lismore (as well as other lesser known archaeological features). They should also be sited well away from the more diverse coastlines featuring bands of cliffs, promontories, bays and the Clach Tholl arch and should avoid intrusion on the setting of mansion houses and their designed landscapes. It will be important to limit the number of small turbines (20-35m high) and multiple developments of single or small groups of turbines located in this NSA due to potential effects on dramatic views to the mountains of Movern and Mull and also views to Lismore from the Oban area and from the sea. The siting of smaller turbines should accord with guidance set out in the Volume Two Report.

Key Map for Jura NSA



5.4 Jura

5.4.1 Introduction

The Jura NSA occupies the southern end of the Island of Jura. This NSA encompasses the iconic Paps of Jura, their setting and key viewpoints, the coastline of the southern end of Jura and the setting of Loch Tarbert which forms the northern boundary.

The following landscape character types defined in the Argyll and Firth of Clyde Landscape Assessment (1996) occur within this NSA:

- *Moorland Plateau* (8)
- *Coastal Parallel Ridges* (22)
- *Marginal Farmland Mosaic* (16)

Both the *Moorland Plateau* (8) and the *Upland Parallel Ridges* (22) landscape character types extend northwards across the remainder of the island, where they lie within an Area of Panoramic Quality.

5.4.2 Description of the NSA and its special qualities

Scotland's Scenic Heritage (1978) describes this NSA thus:

'Jura forms the western visual limit of a large-scale coastal tract which encompasses Mid Argyll, but it is the southern part of the island which has outstanding scenic interest. The island is made up of quartzite, which usually results in remarkable upland landforms and Jura is no exception. The Paps of Jura, all three between 700 and 800 metres in height, are dominant in views from the mainland and Islay. Their shapely cones rise abruptly from rolling moorland, and their summits shimmer with quartzite screes. 'In the opinion of the well-known Scottish writer Alisdair Alpin McGregor, their steep-sided elegance can be compared only with the famous Cuillins of Skye' (Whittow, 1977). The coastal fringe has dramatic raised beaches and cliff lines on the west side of the island, and indented bays and islets on the east shore, with some woodland, both semi-natural and planted.'

The special qualities of the Jura NSA are defined by SNH as comprising:

- *The distinctive Paps of Jura*
- *Human settlement on the margins of a vast moorland terrain*
- *A continually varying coast*
- *Large tracts of wild land*
- *The raised beaches of the west coast*
- *An island of deer*
- *An island close yet remote*
- *The inaccessible Loch Tarbert*

The special qualities '*An island of deer*' and '*An island close yet remote*' have not been considered in the sensitivity assessment that follows. The assessment also considers an additional sensitivity criterion relating to the pattern, scale and setting of settlement (a key characteristic not defined in the NSA special qualities study but of relevance to wind turbine development).

5.4.3 *Summary of sensitivity*

The Jura NSA is fairly extensive and features coastal and upland landscapes. The more remote west coast and moorland interior of this landscape is defined as a Wild Land Area and this is a key constraint to all turbine development typologies. The Paps of Jura form landmark features seen across both the NSA and the wider seascape and even smaller turbines could detract from key views to these hills and affect their character. Overall sensitivity would be **High** for the small-medium typology (turbines 35-50m) typology and **High-medium** for the small typology (turbines 35-20m).

5.4.4 *Cumulative issues*

No operational or consented wind farms are located in this NSA. The operational Allt Dearg wind farm located on the mainland is visible from the eastern coast and higher ground of this NSA. Cumulative effects are unlikely to be significant due to the distances of operational wind farms (>25km) sited on mainland Argyll from this NSA.

5.4.5 *Constraints*

- The visual drama of the widely visible and easily recognisable cone-like forms of the Paps of Jura rising from the relatively level plateau and their wider seascape setting when seen from across the island of Jura, from Islay, the sea and more distant views from the west coast mainland and other islands. Even small turbines could detract from the overall scenic composition.
- The perceived size of the Paps, which are smaller in relief than they appear, and which could be diminished if their scale is related to the height of a turbine.
- The contrasts in scale between the open and extensive undulating, moorland plateau, the upright forms of the Paps and the small-scale indentations and islands along the coast where even small turbines could detract from the overall scenic composition.
- The blurring between the more remote and rugged moorland interior and the clearly defined settled and farmed coastal strip.
- The wild land qualities of inaccessibility, remoteness, naturalness of the relatively exposed and isolated west coast and moorland interior – recognised in the WLA which covers the largely unsettled upland core of this NSA.
- Potential conflicts of scale between small buildings and taller turbines and impacts on the setting of small settlements.
- Prominent skylines and ridges which contain settlements or are highly visible in views along the coast.
- The setting and juxtaposition of the wide variety of coastal features, including raised beaches, caves, bays, headlands, and islands.
- The setting of individual features, including Loch Tarbert and its wider scenic context, and smaller features such as Jura House and specific beaches.

5.4.6 *Opportunities*

- Smoother, lower hill slopes and flatter breaks in slope closely associated with the settled areas.

5.4.7 *Guidance on development*

There is **no scope** to site the small-medium typology (turbines 35-50m) within the Jura NSA due to the significant adverse impacts that would be likely to occur on a wide range of landscape and visual sensitivities.

There is some **very limited** scope for single small turbines (turbines <35m) to be located on less complex lower hill slopes close to main settlements (where effects on qualities of wildness would be minimised). Turbines should be sited to avoid intrusion on prominent skylines, particularly those which form the backdrop to the settlements and along the coast and should also avoid the immediate coastal edge where they would be visually prominent. Turbines should avoid significant intrusion on key views to the Paps. The setting of coastal features would be sensitive even to these small turbines and care should be taken to avoid intrusion. Turbines of this size would be easier to accommodate if sited where there are breaks in slope and rising ground forms a backcloth able to reduce their prominence.

There would be greater scope for turbines below 20m to be accommodated in this landscape and sited where they would be visually associated with croft clusters and other buildings. Turbines below 20m height should be sited close to settlement and avoid intrusion on the coast and significant views to the Paps of Jura as recommended for the small typology above. The rugged and relatively remote interior, Loch Tarbert and western coast of the Jura NSA would still be sensitive to turbines of this size.

It will be important to limit the number of turbines and the ranges of turbine designs in this highly sensitive landscape to avoid it becoming cluttered with built development. Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Key Map for Loch na Keal, Isle of Mull NSA



5.5 Loch na Keal

5.5.1 Introduction

The Loch na Keal NSA comprises an extensive seascape covering the western coast of Mull and a number of smaller islands. The majority of this NSA is defined as the *High Stepped Basalt* (12) character type within the Argyll and Firth of Clyde Landscape Assessment with small areas of the *Basalt Lowlands* (17) and the *High Tops* (2) also included. These character types extend beyond the boundary of the Loch na Keal NSA on Mull and separate sensitivity assessments have been undertaken for the undesignated areas of each of these character types. Where relevant, the potential effect of wind turbines on the adjacent NSA is considered in these sensitivity assessments.

5.5.2 Description of the NSA and its special qualities

Scotland's Scenic Heritage (1978) describes this NSA thus:

'Loch na Keal is the principal sea loch on the Atlantic shore of Mull. The outer loch is divided into two by the island group of Ulva and Gometra, and the northern water forms Loch Tuath. Although the whole forms one island-studded seascape, the component parts of Loch Tuath, inner Loch na Keal and outer Loch na Keal have distinctive but complementary characters.'

The shoreline of the inner loch is of low relief, the bayhead beach backed by meadow and woodland, above which the south slopes sweep uniformly up to the shapely peak of Ben More. Eorsa is a green island of the same smooth appearance, but it is the innermost of a group of islands in the outer loch of astonishing variety of shape and form. The outer loch has a bold and dynamic coastline of cliffs rising in landslipped tiers, unmasked by tree growth, but studded with huge boulders. The north shore has a more intimate character which develops in Loch Tuath where the shoreline is indented by a number of small bays, into which hazel, rowan and alder-lined burns tumble swiftly and sometimes, like Eas Forss, fall over small precipices which echo the larger cliffs of the south shore.'

The hillsides of Loch Tuath have a mixture of rough grazing and semi-natural woodland which contributes to its more intimate and gentle character. Although Loch Tuath has a sense of enclosure that contrasts with the bold rugged and wild character of outer Loch na Keal, they share views of the same groups of islands, whether the dramatic profiles of the basaltic Staffa and Treshnish Isles, or the greener, shelved islands of Ulva, Gometra and Little Colonsay, or the innumerable skerries that pepper the whole bight with eyecatching shapes.'

The special qualities of the Loch na Keal NSA are defined by SNH as comprising:

- *Highly distinctive seaways and shores*
- *A voyage from enclosed sea loch to the open Atlantic*
- *Dramatic coast of basalt terraces and cliffs*
- *Views of an island-studded sea*
- *Islands and islet groups of astonishingly varied character*
- *A vast natural world, dwarfing human settlement*

- *World famous Staffa and Fingal's Cave*
- *The horizontal Treshnish Isles*
- *The instantly recognisable Dutchman's Cap*

Following review in the field, we have considered the special qualities relating to the offshore islands, namely '*The horizontal Treshnish Isles*', '*World famous Staffa and Fingal's Cave*' and '*The instantly recognisable Dutchman's Cap*' within the '*Islands and islet groups of astonishingly varied character*' special quality to avoid any potential double-counting in the sensitivity assessment for the NSA. The special quality '*A voyage from enclosed sea loch to the open Atlantic*' has been omitted in the detailed sensitivity assessment set out in the Volume Two Report, as turbine development would be unlikely to impact on this quality. The experience of remoteness touched upon in this special quality is however addressed by a fuller consideration of perceptual qualities (with reference to the Ben More, Mull WLA description) as an additional sensitivity criterion.

5.5.3 *Summary of sensitivity*

The Loch na Keal NSA comprises an expansive seascape where turbines up to 50m in height would appear as relatively small features in relation to the scale of big and bold landforms. However, while taller wind turbines could relate to the scale of this landscape, the highly distinctive landform of coastal features and islands and the strong sense of wildness associated with many parts of this NSA are key constraints to development. The larger turbines of the small-medium typology would also be likely to be more visually intrusive in this very open landscape, introducing built clutter into a little developed landscape and detracting from views to islands and coastal features on the mainland. Overall sensitivity is judged to be **High** for the small-medium typology (35-50m) and **High-medium** for the small typology (turbines 20-35m), reflecting some limited scope to accommodate smaller turbines in association with more settled coastal fringes and hill slopes with a less complex landform.

5.5.4 *Cumulative issues*

There are no operational wind farms or turbines located in this NSA. Operational wind turbines sited on mainland Argyll have minimal influence on views from this NSA. The potential for cumulative effects to arise is low.

5.5.5 *Constraints*

- The distinctive basalt landform of massive coastal cliffs, mountains and islands which gives spectacular complexity and diversity in much of the NSA.
- Views to iconic islands such as Staffa and the Treshnish Islands from coastal roads, footpaths and mountain tops around Loch na Keal but also from the Ross of Mull and Iona and inter-visibility between islands, mainland and the sea.
- The narrower extent of the inner Loch na Keal and Loch Tuath where the opposite shore is seen in relative proximity and where the skyline of ridges containing these lochs is prominent in views.
- The small size of houses, these principally sited on the northern shores of Loch na Keal and Loch Tuath and the sheltered eastern end of Ulva.
- The openness of this seascape which limits scope for screening by landform or vegetation.

- A strong sense of wildness experienced in the remote, uninhabited islands and coast of the Ardmeanach Peninsula.

5.5.6 *Opportunities*

- Less complex, gentler lower hill slopes on the north side of Loch Tuath and inner Loch na Keal and eastern Ulva which are visually associated with settlement.

5.5.7 *Guidance on development*

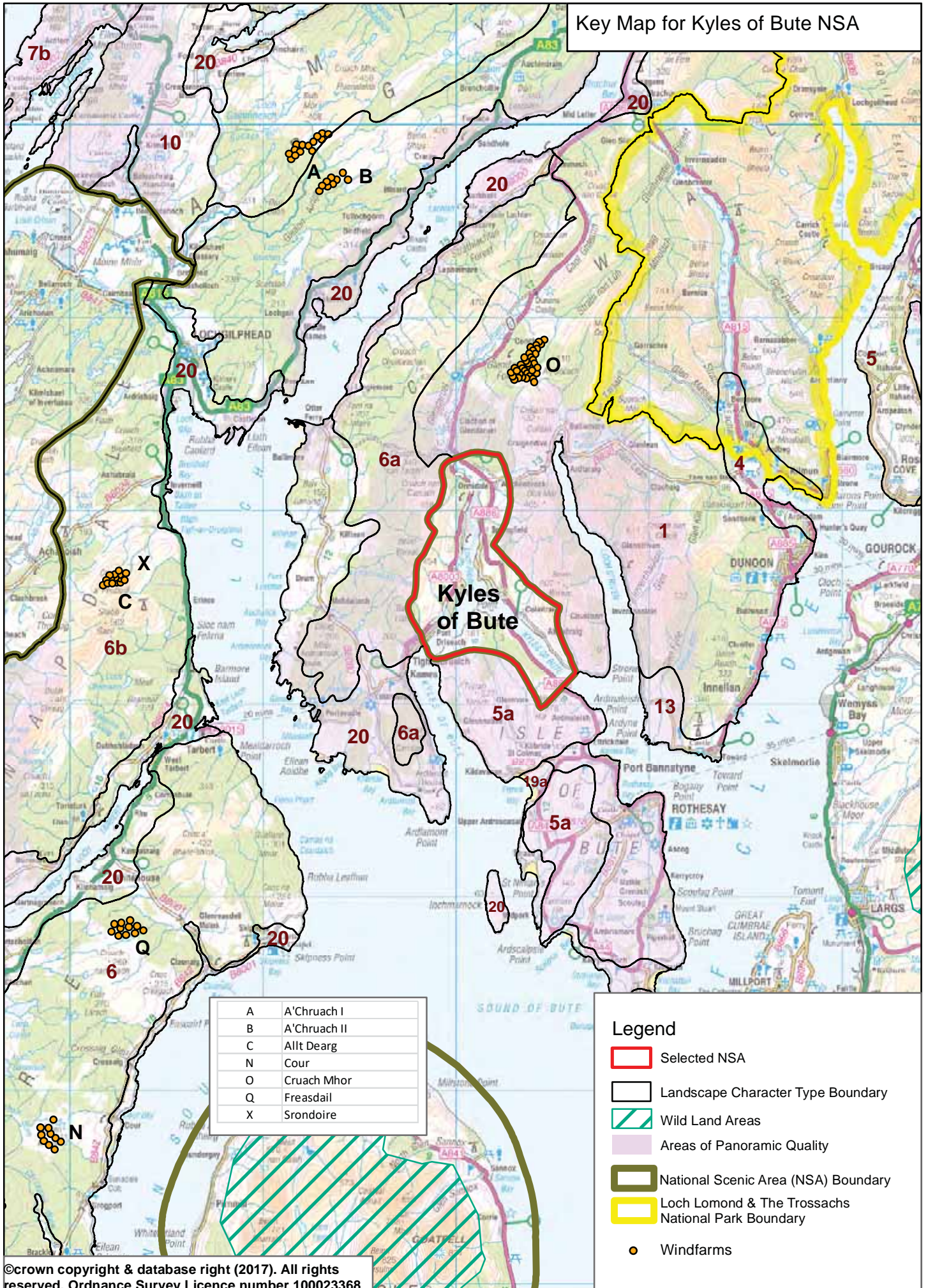
There is **no scope** to accommodate the small-medium typology (turbines 35-50m) within this NSA.

There are some **very limited** opportunities to locate single and small groups of turbines (<3) of the small typology on less complex lower hill slopes and small areas of flatter ground and terraces next to settlement and on the upper edge of fields. Turbines should be sited away from the coastal edge, particularly where it is very fragmented, to avoid intrusion on open views to islands from coastal roads and paths. They should be sited to avoid intrusion on more complex landform features such as rocky stepped slopes, cliffs and prominent craggy hill tops and they should not break the skyline of containing ridges in key views.

There are increased opportunities to locate turbines below 20m high in this landscape provided they were closely associated with settlement.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

Key Map for Kyles of Bute NSA



5.6 Kyles of Bute

5.6.1 Introduction

This NSA covers the northern tip of Bute and the narrow sea lochs of the Kyles of Bute. The majority of this NSA is defined as the *Craggy Upland* (7) character type within the Argyll and Firth of Clyde Landscape Assessment with small areas of the *Steep Ridgeland and Mountains* (1) and the *Bute Open Ridgeland* (5a) also included. A small area of the *Craggy Upland* (7) extends beyond the southern boundary of the NSA on Bute. For the purposes of this assessment, this area of the *Craggy Upland* has been reclassified as the adjacent *Bute Open Ridgeland* (5a) with which it shares key characteristics and a similar landscape context.

5.6.2 Description of NSA and special qualities

Scotland's Scenic Heritage (1978) describes this NSA thus:

'The juxtaposition of the island of Bute to mainland Cowal at the mouth of Loch Ruel gives rise to a deeply enclosed passage of the sea through an area of broken and well wooded hill country, the whole combining to form a scene of great variety and interest. Loch Ruel is markedly tidal with extensive mud flats at its head. The loch shore is mantled with mixed woodland and the hillsides are roughly undulating with rock outcropping frequently. There are views to northern Bute, which has an undeveloped moorland character, with bluffs containing the Kyles. The mainland hills overhang the Kyles steeply, and afford striking views of the three arms of water. The rich verdure of the banks and the high degree of enclosure confer an appearance of peaceful calm on these narrow waters, which underlines their physical beauty.'

The special qualities of the Kyles of Bute NSA are defined by SNH as comprising:

- *The drama of the Kyles*
- *Verdant woodland on the enclosing hills*
- *Rocky outcrops punctuating the wooded slopes*
- *Small fields between the water and the woods*
- *The juxtaposition of human settlement and a wider undeveloped landscape of sea and hills*
- *A peaceful landscape of constant movement*
- *The ever-changing vistas*
- *The gradual transition from land to sea in Loch Ruel*

The special qualities of '*a peaceful landscape of constant movement*' and '*The gradual transition from land to sea in Loch Ruel*' were not considered in the detailed sensitivity assessment set out in the Volume Two Report as these qualities would be unlikely to be affected by wind turbine development.

5.6.3 Summary of sensitivity

This is a small NSA with much of the designated area visible from key viewpoints along roads and within settlement. Key sensitivities include the complex rugged landform and intricate coastal features including buildings, small pastures and woodlands which would be adversely affected by wind turbines. Turbines could also detract from highly scenic views over the Kyles and north Bute from the A8003 and the sea and this limits

scope for development. Overall sensitivity would be **High** for both the small-medium and small typologies (turbines 20-50m high).

5.6.4 *Cumulative issues*

No operational or consented wind farms are sited within this NSA. The operational Cruach Mhor wind farm is sited within the adjacent *Steep Ridgeland and Mountains* (1) character type approximately 6km from the north-eastern boundary of the NSA. There is visibility of this development within the NSA from the northern hills of Bute, the waters of the western Kyle of Bute, the steep hillsides which enclose the Kyles of Bute to the east and west and intermittently from the A8003. Theoretical visibility is also shown in Figure 9 from the A886 although dense woodland is likely to severely restrict views from this route. Existing wind farms sited in North Ayrshire may be visible from elevated locations in this NSA

Any extension and/or increase in turbine height (repowering) of the Cruach Mhor wind farm could increase the extent of visibility and potential intrusion on the NSA.

Cumulative effects could occur if additional large scale developments were sited in the uplands of the *Steep Ridgeland and Mountains* (1) and *Loch Fyne Upland Forest Moor Mosaic* (6a) which provide the wider setting to the NSA.

5.6.5 *Constraints*

- The often intimate scale of this landscape where the narrow channels of the Kyles of Bute and Loch Ruel are strongly contained by steep-sided hill slopes and accentuated by the occasional small buildings which fringe the shore.
- An irregular complex landform of rocky indented shoreline of promontories, coves and islands backed by craggy hill slopes which form sheer-sided buttresses particularly pronounced in the area where the Kyles merge with Loch Ruel.
- Small enclosed pastures, extensive broadleaved and policy mixed woodlands and tidal wetlands which combine to produce a richly diverse landscape cover.
- The small extent of this NSA and its high visibility from roads and the sea – the majority of the area can be seen from key viewpoints and there are very few less visible areas.
- Scenic views from the A8003 over and funnelled down the long sea channels of the Kyles, framed by steep containing hill slopes including the rugged undeveloped hill ground of north Bute, which is highly visible in these views.

5.6.6 *Opportunities*

- Gentler hill slopes close to settlement and set back from the shoreline and therefore less intrusive in key views down the Kyles.

5.6.7 *Guidance on development*

There is no scope to accommodate the small-medium and small typologies (turbines 20-50m) within this NSA. This is because turbines of this size would be more likely to impact on the predominantly complex, craggy landform, on the small scale of the more strongly contained parts of this landscape and on the notably extensive cover of broadleaved woodland. They would also be likely to be prominent in key views south down the Kyles of Bute and would detract from the highly scenic composition of this NSA.

There may be some very limited opportunities to locate turbines below 20m high in this landscape provided they are clearly associated with existing farms and settlement. Even these small turbines could introduce clutter to highly sensitive views and they should be sited to avoid significant intrusion on the foreground of key elevated and panoramic views southwards down the Kyles of Bute, particularly avoiding the more sensitive shoreline area. The less complex lower hill slopes either side of the eastern Kyle offer more scope to accommodate turbines on the edge of larger pastures close to settlement.

The NSA is also sensitive to potential development sited within the adjacent character types of the *Steep Ridgeland and Mountains* (1), the higher northern hills of the *Bute Open Ridgeland* (5a) and the *Loch Fyne Upland Forest Moor Mosaic* (6a) which are visible as a backdrop in key views, from the A8003 for example.

Smaller turbines should be sited in accordance with the guidance set out in the Volume Two Report.

APPENDICES

APPENDIX A: REFERENCES

Countryside Commission for Scotland, 1978. Scotland's Scenic Heritage.

Countryside Commission for Wales, Brady Shipman Martin and University College Dublin (2001). Guide to Best Practice in Seascape Assessment, Maritime Ireland/Wales INTERREG 1994-1999.

English Heritage, 2005. Wind Energy and the Historic Environment.

Grant, A. 2010. Landscape Capacity Studies in Scotland – a review and guidance to good practice. Scottish Natural Heritage Commissioned Report No 385 and online Toolkit

Grant, A. (2006). Landscape/seascape carrying capacity for aquaculture Scottish Natural Heritage Commissioned Report No 215

Grant, A and Anderson, C. (2013) Seascape/landscape assessment of the Firth of Clyde Firth of Clyde Forum

Historic Environment Scotland (website). Inventory of Designed Landscapes, Argyll and Bute

Historic Environment Scotland. Managing Change in the Historic Environment: Setting. June 2016.

Landscape Institute and the Institute of Environmental Management and Assessment. Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, 2013.

Scott, K.E., Anderson, C. and Benson, J.F. (2005). An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore windfarms. Scottish Natural Heritage Commissioned Report No. 103.

Scottish Government, June 2014. Scottish Planning Policy (also online resource Onshore Wind – Some Questions Answered).

Scottish Government, January 2017. Onshore Wind Policy Statement (consultative draft)

Scottish Natural Heritage. April 2016. Guidance on Coastal Character Assessment Consultation Draft.

Scottish Natural Heritage, February 2017, Visual Representation of Wind Farms (Version 2.2)

Scottish Natural Heritage, 2010. The Special Qualities of the National Scenic Areas. SNH Commissioned Report No. 374

Scottish Natural Heritage. 2012. Assessing the Cumulative Impacts of Onshore Wind Energy Developments

Scottish Natural Heritage 2017. Siting and Designing windfarms in the Landscape (version 3)

Scottish Natural Heritage. June 2015. Spatial Planning for Onshore Wind Energy Developments – Natural Heritage Considerations.

Scottish Natural Heritage. June 2014. Map of Wild Land Areas and Non-Technical Description of Methodology.

Scottish Natural Heritage. February 2017. Descriptions of Wild Land Areas

Swanwick, C, University of Sheffield and Land Use Consultants 2005. Landscape Character Assessment Guidance for England and Scotland – Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity. Scottish Natural Heritage and The Countryside Agency

Visual material within various Environmental Statements for wind farm developments including those for Beinn an Tuirc III, Acharossan, Killeen, Blary Hill, Upper Sonachan and Creggan.

APPENDIX B: GLOSSARY OF TERMS

Landscape character

The distinct and recognisable pattern of elements that occurs consistently in a particular type. Landscape relates not only to the physical attributes of the land but also to the experience of the receptor. Landscape character is made up of the physical characteristics such as landform, land cover and settlement pattern (which exist whether anyone sees them or not) plus a range of perceptual responses to that landscape.

Landscape Character Type

An area with a distinct and recognisable pattern of key elements in terms of landform, vegetation cover, land use and settlement pattern. Landscape Character Types are generic and are therefore repeated although in Argyll and Bute they have a very different geographic context which influences character and sensitivity.

Landscape sensitivity

Sensitivity relates to landscape character and how vulnerable this is to change. In this study change relates to wind energy development and any findings on landscape sensitivity are restricted to this. Landscapes may have different sensitivities to other forms of change or development. Landscapes which are highly sensitive are at risk of having their key characteristics fundamentally altered by development. Sensitivity is assessed by considering the physical and perceptual characteristics of landscapes.

Landscape capacity

This relates to how far a landscape can accommodate development without significant adverse impacts on its character. Landscape character and sensitivity are part of this, but capacity can also include visibility assessment and consideration of any values placed on the landscape (usually in the form of designations).

Landscape impacts

Changes in the physical landscape that give rise to changes in its character and how it is experienced, and may in turn affect the value attached to a landscape. Landscape impacts may be beneficial (for example where a characteristic feature is restored) or adverse (for example where a characteristic feature is damaged or lost).

Visual impacts

Changes in the appearance or perceptions of a particular area or view as a result of development or other change. Visual impacts can be beneficial (for example where a new view is opened up) or adverse (for example where an existing view is affected by the addition of an intrusive feature).

Cumulative impacts

The combined impacts that occur, or may occur, as a result of more than one project being constructed, giving rise to accumulating landscape and visual changes where developments are seen simultaneously (at the same place, in the same field of view), in succession (at the same time, but not in the same field of view) or in sequence (on travelling through an area).

APPENDIX C: LANDSCAPE CHARACTER REVIEW

The Argyll and Firth of Clyde Landscape Assessment

The Argyll and Firth of Clyde Landscape Assessment was undertaken by Environmental Resources Management (ERM) in 1996 and formed part of the national programme of landscape character assessment commissioned by SNH in partnership with local authorities. This regional study identifies 25 landscape character types across Argyll and Bute. The descriptions are for generic character types which occur in more than one place across Argyll and Bute. There is therefore only limited analysis of differences in relation to local context.

SNH are currently reviewing the landscape character assessments with a view to establishing a consistent national classification (due to be completed in 2017). It is understood that there will be relatively few changes made to the Argyll and Firth of Clyde Landscape Assessment as part of this review. Some amendments will be made to boundaries with many of these taking into account the changes made to classification in the 2012 ABLWECS. The most significant changes include extension of the *Rocky Mosaic* (20) landscape character type along Loch Etive and Loch Awe and the adoption of the new landscape character type of *Craggy Coasts and Islands* (7b) on the west coast of Argyll south of Oban. The SNH review will also entail renaming landscape character units to fit with a new national convention. The revised character assessment is due to be launched on SNH's website in Spring 2017.

Cross-boundary characterisation

Separate landscape character assessments were undertaken for the adjoining Loch Lomond and Trossachs (2002) and Lochaber (1998) area.

Our review of the Loch Lomond and Trossachs landscape character assessment found there to be an inconsistency with the approach undertaken for the Argyll and the Firth of Clyde characterisation. The Loch Lomond and Trossachs landscape character assessment was undertaken after the Argyll and Firth of Clyde study and extends beyond the boundaries of the National Park into the Argyll and Bute Council area. The Loch Lomond and Trossachs assessment adopts a more complex categorisation with detailed definition of glen sides and identification of character types principally defined by forest cover. With the aim of maintaining consistency in the sensitivity assessments undertaken for this study, we have made the decision to reinstate the 1996 Argyll and Bute characterisation within the 'overlap' that occurs beyond the National Park boundary.

The study brief requires landscape and visual issues to be considered within a wider study area 30km from Argyll and Bute's boundary. In relation to the Loch Lomond and Trossachs National Park, our assessment focuses on considering the sensitivities of the special qualities of the Park to wind farm and turbine development rather than using the 2002 landscape character assessment as a basis for the sensitivity assessment.

The nomenclature and descriptions of character types within the 1998 Lochaber landscape assessment are very similar to those used within the Argyll and Firth of Clyde Landscape Assessment.

Other landscape characterisation and related work

There are detailed descriptions of landscape character and scenic qualities within the Special Qualities studies prepared by SNH for each of the Six National Scenic Areas (NSAs) within Argyll

and Bute. A similar assessment of special landscape qualities has also been undertaken by SNH for the Loch Lomond and Trossachs National Park. There are no similar citations for the regional landscape designations, Areas of Panoramic Quality (APQ), defined by Argyll and Bute Council. Descriptions of Wild Land Areas have recently been issued by SNH (January 2017) and these have informed the updated sensitivity assessment.

Two SNH funded landscape capacity studies consider seascape character in part of the Argyll and Bute study area in relation to wind farm and aquaculture development. The Landscape/Seascape Aquaculture capacity study (SNH) has been used to inform the sensitivity assessment for the Lorn, Lismore and Loch Etive area (this forming a pilot area in the study) and the Loch Fyne Aquaculture Capacity Study (2005) has been used principally to inform key views and sensitivities in relation to the *Rocky Mosaic* (20) landscape character type which borders the shores of Loch Fyne. A further coastal character assessment study, Seascape/Landscape Assessment of the Firth of Clyde (2013) has also informed this 2017 updated sensitivity assessment of the ABLWECS.

Detailed review of landscape character within Argyll and Bute

During our review and field work we focused on verifying the descriptions within the Argyll and Firth of Clyde Landscape assessment against the key characteristics likely to be sensitive to wind farm development and noted the following:

There is considerable variation in the character of the *Upland Forest Mosaic* (6) which comprises a very extensive tract of land. The area within the upper Loch Fyne basin forms a narrow and highly visible band of rolling hills between the loch edge and higher uplands while the Kintyre uplands are broader and also characterised by wind farm development. The Mull of Kintyre area of this character type also has different sensitivities in terms of its coastal context and wildland character.

The *Craggy Upland* (7) also forms an extensive tract of land and sensitivities differ considerably in terms of landscape context, (particularly where this type occurs in Lorn, north Loch Awe and on Mull) and the much reduced scale and more complex landscape pattern found on the coastal edge, the fringes of Loch Awe and within the settled glens in the west.

The settled and generally small scale coastal fringes of outer Loch Etive are variously defined as *Craggy Upland* (7) and *High Tops* (2) (both predominantly large scale upland landscapes) in the Argyll and Firth of Clyde Landscape Character Assessment. Landscape character types occurring on both the mainland and within different islands tend to vary considerably, particularly in terms of their landscape context. This includes the *Coastal Plain* (19), *Basalt Lowland* (17), *Rolling Estates with Farmland* (13) and *Open Ridgeland* (5).

Additional field assessment has been undertaken on the islands of Coll, Tiree and Colonsay in 2017 as part of the update to the study. The regional assessment set out in the Argyll and Firth of Clyde Landscape Assessment is very broad and a more detailed classification of character has therefore been undertaken on these islands. This has involved the identification of additional sub-types of the *Rocky Moorland* (9) and *Marginal Farmland Mosaic* (16) landscape character types as well as new landscape character types on Tiree. This revised classification has allowed consideration of the landscape context and scale of these small islands to be fully considered in the assessment.

Alterations to boundaries/reclassifications of landscape character types

We have largely adopted the landscape types within the 1996 Argyll and Bute landscape assessment as a basis for the sensitivity assessment but with some minor alterations to the boundaries and classification of some character types as follows:

- The small scale settled fringes of Loch Awe and Loch Etive have been reclassified as the *Rocky Mosaic* (20) due to their similarity with landscapes found along Loch Fyne and the Kintyre coast.
- The Skipness area on the east Kintyre coast, originally defined as *Hidden Glens* (3) has been reclassified as *Rocky Mosaic* (20) for the purposes of this study. These loch shores have a similar small scale, rolling landform and settled character found elsewhere in the *Rocky Mosaic* character type.
- The *Slate Islands* (24) and part of the *Coastal Parallel Ridges* (22) in the Loch Craignish area have been amalgamated within a new sub-type, the *Craggy Coast and Islands* (7b), due to their similar context, intimate scale and diverse landform.
- The *Open Parallel Ridges* (10) in the Kilmartin area has been extended northwards to include a series of distinctive hills which provide a backdrop to southern Loch Awe.
- A small part of *Moorland Plateau* (8) on Islay has been reclassified as *Coastal Parallel Ridges* (22) in the east to include the village of Port Ellen and its hinterland, which is similar in character to the remainder of this coastline already within *Coastal Parallel Ridges* (8).
- Extension of the *Low Coastal Hills* (21) to include the small foothills of the *Mull of Kintyre Upland Forest Moor Mosaic* (7b) and part of the *Rocky Mosaic* (20) lying to the north-west of Southend.
- The incorporation of small areas of *Craggy Upland* (7) extending beyond the boundaries of the Kyles of Bute NSA into the adjacent *Steep Ridgeland and Mountains* (1) and the *Open Ridgeland* (5a) within north Bute.
- The inclusion of a small area of the *Upland Parallel Ridges* (10) extending beyond the eastern boundary of the Knapdale NSA into the adjacent *Knapdale Upland Forest Moor Mosaic* (6b).

In addition, we have defined a number of landscape character sub-types and these are detailed in the table below. Landscape character types and sub-types, used as the basis for the sensitivity assessment, on the Mainland and Bute are shown in Figure 4. Those on the islands of Mull, Islay and Jura are shown in Figure 5 while Colonsay, Coll and Tiree are shown on Figure 6.

The table below sets out how we have addressed each of the landscape character types identified in the Argyll and Firth of Clyde Landscape Character Assessment within the detailed sensitivity assessment for this study:

No	Character type	Approach adopted for assessment
1.	Steep Ridgeland and Mountains	Original character type boundaries reinstated to boundary of LLTNP and detailed sensitivity assessment undertaken within Argyll and Bute of this

		character type with special qualities of the LLTNP also considered.
2.	High Tops	Separate sensitivity assessments undertaken for the mainland area of this character type and on Mull (2a) due to different context.
3/4	Hidden Glens/Mountain Glens	These have been amalgamated for the purposes of the study and a single sensitivity assessment undertaken
5	Open Ridgeland	Separate sensitivity assessments undertaken for this character type occurring on the mainland and on Bute (5a) due to different context.
6	Upland Forest Moor Mosaic	Kintyre peninsula retained as principal type 6 with 3 sub-types defined for <i>Loch Fyne</i> (6a), <i>Knapdale</i> (6b) and <i>Mull of Kintyre</i> (6c) with separate sensitivity assessments undertaken of each.
7	Craggy Upland	Principal area (7) retained either side of mid-south Loch Awe with 5 sub-types defined: <i>Craggy Upland with Settled Glens</i> (7a), <i>Craggy Coast and Islands</i> (7b), <i>North Loch Awe Craggy Upland</i> (7c), <i>Lorn Craggy Upland</i> (7d) and the <i>Mull Craggy Upland</i> (7e). A further revision of the boundary of sub-type 7c was undertaken as part of the 2017 updated ABLWECS following more detailed field assessment. Separate sensitivity assessments were undertaken for each of these sub-types.
8	Moorland Plateau	Sub-division into 2 different areas: <i>Moorland Plateau</i> (8) and <i>Moorland Plateau with Farmland</i> (8a) with separate sensitivity assessments for each.
9	Rocky Moorland	Occurs in a single area on Islay in the LCA. Sub-divisions identified on Coll, Tiree and Colonsay 9a <i>Small Island Rocky Moorland</i> , 9b <i>Low-lying Rocky Moorland</i> and 9c <i>Cnoc and Lochan Rocky Moorland</i>
10	Upland Parallel Ridges	Southern area lies within the Knapdale NSA. Northern area extended to include pronounced small hills at head of Kilmartin Glen
11	Boulder Moors	Occurs in a single area on Mull. No sub-divisions with a single sensitivity assessment undertaken.
12	High Stepped Basalt	Occurs in a number of areas within Mull. Large parts of this LCT lie within the Loch na Keal NSA. No sub-divisions and a single sensitivity assessment undertaken.
13	Rolling Farmland with Estates	Separate sensitivity assessments undertaken for the area on the mainland and the area on the <i>Isle of Bute</i> (13a) due to different context.
14	Bay Farmland	This character type only occurs in one area in south Kintyre. No sub-division and single sensitivity assessment undertaken.

15	Lowland Bog and Moor	Sub-division into 2 different areas: <i>Lowland Bog and Moor</i> (15) and <i>Less Extensive Lowland Bog and Moor</i> (15a).
16	Marginal Farmland Mosaic	Occurs in one area on Islay and on Coll, Tiree and Colonsay. Sub-division identified on Coll and Colonsay 16a <i>Small Island Marginal Farmland Mosaic</i> . A different classification has been adopted on Tiree.
17	Basalt Lowlands	Separate sensitivity assessments undertaken for the area on Mull (17) and the area on Bute (17a) due to different context.
18	Lowland Ridges and Moss	This character type predominantly lies within the Lynn of Lorn NSA. A separate assessment has been undertaken for the remaining area of this LCT lying beyond the NSA.
19	Coastal Plain	Separate sensitivity assessments undertaken for the area on Kintyre (19) and on Bute (19a) due to different context.
20	Rocky Mosaic	Extended to include the settled fringes of Loch Awe and Loch Etive and a single sensitivity assessment undertaken for the character type.
21	Low Coastal Hills	Northern boundary extended – this character type is only found in the Mull of Kintyre and on the east coast of Kintyre. A single sensitivity assessment has been undertaken for both areas.
22	Coastal Parallel Ridges	On the mainland this character type predominantly lies within the Knapdale NSA. The area around Loch Craignish has been incorporated into <i>Craggy Coasts and Islands</i> (7b). A single sensitivity assessment for the areas found on Islay and Jura has been undertaken.
23	Flat Moss and Mudflats	This character type predominantly lies within the Knapdale NSA apart from a small area in the Kilmartin Glen where a separate assessment has been undertaken.
24	Slate Islands	This character type has been incorporated into the new sub-type of the Craggy Upland - the <i>Craggy Coast and Islands</i> (7b).
25	Sand Dunes and Machair	This character type occurs extensively on Tiree, Coll, Colonsay and Islay and on a small part of Kintyre. A single sensitivity assessment has been undertaken to cover all areas. Part of this character type found on Tiree has been reclassified as 26 <i>Inland Machair and Moss</i> because of its more settled character (in part) and wetland vegetation.
26	Inland Machair and Moss	A new LCT identified on Tiree and covering the flat well-settled farmed machair and moss which lies some distance from the coast in the west of the island.

27	Focal Hills	A new LCT identified on Tiree covering the small but prominent hills which rise abruptly from low-lying machair and moss in the west of the island.
----	-------------	---

APPENDIX D: SENSITIVITY CRITERIA

Sensitivity criteria	Factors considered and relevance of criteria to wind turbines
Context	<ul style="list-style-type: none"> • The role of adjacent character types in contributing to the overall character of the type being assessed. This includes consideration of where adjacent or nearby landscape character types may provide containment, a backdrop or skyline, increase or reduce the experience of scale or complexity or combine to provide a notably scenic whole. • Assessment of the potential effects of development on adjacent character types and vice versa. This includes assessment of inter-visibility and potential effects on nearby landscapes. • Landscape types that are more closely juxtaposed and contrast strongly with surrounding landscapes may be especially sensitive. Sensitivity is also likely to be increased where there is a complex interplay, for example, coastal peninsulas, sea lochs and islands or where there is a high degree of inter-visibility between adjacent landscapes and/or seascapes. • Landscape types which are large in extent, or which have a similar scale or vegetation pattern to neighbouring landscapes may have more scope for larger typologies.
Scale	<ul style="list-style-type: none"> • Consideration of the scale of the landscape taking into account the degree of relief, amount of topographical containment, degree of openness and enclosure and the extent of land visible. • Identification of areas of containment and factors that create enclosure where scale reduces. Identification of features against which the size of a turbine might be easily referenced. • Consideration of how the size of the development might impact on the understanding of scale of the landscape. • Assessment of how the development would relate to the scale of the landscape including whether they would be likely to dominate or appear compatible in scale in terms of the relative scale of landform, landscape pattern and individual features, including buildings, in the landscape. • Consideration of how development would affect expansiveness and the sense of distance. • In general, the more open the landscape and the larger the scale of the landscape the greater the ability to relate to larger development typologies.
Landform	<ul style="list-style-type: none"> • Consideration of the overall topographical shape and the degree of complexity of landform including identification of any distinct 'landmark' features. • Assessment of how development, including ancillary works, would impact on or relate to landform and whether it would intrude or detract if close to distinctive landform features.

	<ul style="list-style-type: none"> • In general, the simpler and more gently graded the landform the better the visual relationship with the simple form of turbines, and more gentle gradients are likely to better accommodate the platforms and roads associated with larger turbines.
<i>Land cover</i>	<ul style="list-style-type: none"> • Consideration of the degree of complexity and diversity of land cover pattern (field enclosure, woodlands, water courses and lochs) and whether pattern is strong or distinctly repeated, displays integrity or where it is fragmented. • Assessment of the degree of diversity, and the importance of this in informing the distinctiveness of the landscape character. • In general, a landscape with simple land cover pattern, for example grass moorland or more uniform commercial forestry, would be of reduced sensitivity to development while a more intricate pattern of woodlands or strong field enclosure pattern would be more sensitive. • Assessment of how development could relate to pattern; whether it would disrupt or dominate strong pattern or undermine well balanced diversity, interrupt or fragment integrity of pattern, fit with areas where pattern is more simple or increase visual confusion where pattern is very fragmented. • Consideration of potential effects on landmark features, such as hill top copses, designed landscapes and features, water bodies.
<i>Built environment</i>	<ul style="list-style-type: none"> • Consideration of the pattern, density and character of settlement, its relationship to topography or other natural features and its setting, roads and other built structures. Consideration of historic features and sites and their setting. Landscapes with notable historic settlements and archaeology would generally be of increased sensitivity. • Assessment of how development might impinge on these characteristics; where there may be scope to attain some visual separation to minimise effects on settlement setting and avoid fragmentation of the pattern of built development and its association with topography or other natural features. • Where larger scale industrial buildings and built structures such as pylons, masts and existing wind farms are present, the relationship of turbine development to these is considered. • Historic and archaeological features which contribute to landscape character are assessed in terms of any potential effects on setting.
<i>Perceptual qualities</i>	<ul style="list-style-type: none"> • Consideration of the degree of modification by human intervention (such as roads, settlement, forestry, masts and wind turbines), consideration of how development could affect perceptions of naturalness and the degree of tranquillity experienced. More modified and developed landscapes

	<p>(some of these featuring wind farm development) would generally have a reduced sensitivity to wind energy development.</p> <ul style="list-style-type: none"> • Consideration of the sense of remoteness in terms of ease of access or seclusion (in the sense of the degree of containment that can be experienced rather than purely distance from roads and settlement) and whether and how development would alter these perceptions. Identification of landscapes where the number and distinctiveness of archaeological or historic features can give a strong sense of history or 'timelessness'. Identification of opportunities related to more developed and modified landscapes.
<i>Visual amenity</i>	<ul style="list-style-type: none"> • The extent of likely visibility (including considerations of whether the landscape is well settled and easily accessible or not) and types of views. The degree of openness or enclosure which influences visibility, including the amount of screening created by topography and woodland. In general, well-settled landscapes with many roads and footpaths are likely to be more sensitive in visual terms than sparsely settled landscapes distant from transport routes although some remote upland landscapes can be highly visible from surrounding lower-lying landscapes thus increasing sensitivity. • The type of views, including elevated, extensive views which are sustained, framed views to focal points or glimpse views, or views experienced as part of a sequence or as revealed views creating a sense of arrival into the landscape type. • Consideration of the significance of skylines and visual horizons. • Key vistas or backdrops associated with historic landscapes or other features.
<i>Landscape values</i>	<ul style="list-style-type: none"> • The assessment of landscape values takes into account designated landscapes including National Scenic Areas (NSAs) and Areas Panoramic Quality (APQ) and other non-designated landscape values including Wild Land Areas, Inventory and Non-Inventory listed Gardens and Designed Landscapes. • In addition, the factors potentially influencing landscape value set out in the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) are taken into account with recreation value, landscape condition and the rarity of the landscape particularly considered. • Judgements have been made in the assessment on the extent of the designation/interest as it occurs across landscape character types/areas and the effect of wind turbines on the special qualities associated with the designation/interest. • No detailed citations exist for the APQs and we have therefore considered the key scenic qualities of these areas during our field work and assessment. Statements of Significance for Inventory

	<p>listed designed landscapes were reviewed as part of the assessment. The assessment considers the likely degree of impact of different development typologies on the key special qualities/significance of the designation (or formally valued landscape) in coming to a judgement on sensitivity. Landscape character types do not always accord with designation boundaries (which tend to span a number of character types) and this therefore prevents even 'scoring' across the whole character type in many instances. It will therefore be necessary to undertake more detailed review in relation to special qualities and potential effect on landscape values on a case by case basis when considering specific developments</p> <ul style="list-style-type: none">• There are some drawbacks in taking account of landscape values in the sensitivity assessment in that landscape character types do not generally accord with designated areas (these tend to span a number of character types) and this therefore prevents even scoring across the whole character type
--	---

APPENDIX E: NSA SENSITIVITY ASSESSMENT METHOD

NSA sensitivity assessment methodology

Introduction

The study brief requested that landscape sensitivity to and capacity for wind turbines of up to 50m should be considered within the NSAs. Siting and design guidance should also cover these areas.

NSAs lying within Argyll and Bute

The following NSAs lie wholly within Argyll and Bute:

- Knapdale
- Lynn of Lorn
- Jura
- Loch na Keal
- Scarba, Lunga and the Garvellachs
- Kyles of Bute

A small part of the Ben Nevis and Glen Coe NSA also overlaps the northern boundary of Argyll and Bute. This NSA will be considered within the sensitivity assessment undertaken for the 'High Tops' (2) character type only.

Detailed field assessment has not been undertaken for The Scarba, Lunga and The Garvellachs NSA. The majority of the islands within this NSA are uninhabited, with Scarba and Rubha Fiola being inhabited for only part of the year, and demand for wind turbine development is likely to be very limited. This NSA is noted within the assessment for the adjacent 'Craggy Coast and Islands' (7b) character type in terms of sensitivities relating to its wider setting and views. Generic guidance on the siting of turbines less than 50m to blade tip will cover both the mainland and islands throughout Argyll and Bute.

The relationship between the landscape character assessment and the NSAs

The landscape character types identified in the Argyll and Firth of Clyde Landscape Assessment (1996) are generally not contiguous with the boundaries of the NSA. The Knapdale, Jura and Loch na Keal NSAs include at least three landscape character types identified in the Argyll and Firth of Clyde (1996) Landscape Assessment. The Ben Nevis and Glen Coe, Lynn of Lorn and Kyles of Bute NSAs largely include one or two landscape character types. The number of character types found within each NSA is a reflection of how diverse they are but also how extensive the designated area. The landscape diversity of some NSAs (which in itself contributes to their scenic quality) leads to some difficulties in comprehensively assessing sensitivity to wind turbine developments in relation to the special qualities of these designated landscapes. This is described in more detail below.

Review of the SNH NSA special qualities reports

The study brief requires NSAs to be assessed but does not prescribe how this should be done. The Argyll and Bute Windfarm Capacity Study Pilot Study (May 2011) does not specifically address the NSAs. As the study brief requires the whole NSA to be considered in

the sensitivity assessment rather than the individual landscape character types which occur within the NSAs, we have undertaken a sensitivity assessment principally in relation to the special qualities of the NSAs, defined by SNH in 2010⁴, during our field assessment work. The SNH studies identify only 'special' qualities and not all the key landscape and visual characteristics (or qualities) that are potentially sensitive to wind turbine development. Some of the special qualities can be either difficult to assess in relation to wind turbine development or comprise qualities that would be unlikely to be affected by such development. Examples include '*the ever-changing patterns of colour, sound and smell*' or the '*Long, slow journeys to the sea*', identified as special qualities within the Knapdale NSA or '*An island of deer*' within the Jura NSA.

Some key landscape and visual sensitivities to wind turbine development are not included in the special qualities, for example, there is no mention of settlement within the Knapdale NSA. Some landscape characteristics are also repeated several times in the list of special qualities, for example '*oak woodlands*' and '*narrow ridges*' within the Knapdale NSA are mentioned in the descriptions of three separate special qualities. This could potentially lead to 'double-counting' in a sensitivity assessment which considers each of the special qualities relating to the NSA and could undermine the evaluative assessment process which is attributed to each of the key landscape and visual sensitivities.

The NSAs are also often very diverse in landscape character – indeed, the conjunction of several different character types can create a very diverse landscape which is likely to contribute to the scenic qualities for which the area was designated. The Knapdale NSA is particularly diverse when compared to other smaller NSAs and the special qualities only relate to specific parts of it. For example '*A clothing of oak woodland*' and '*secret lochans*' occur in a fairly small area within the NSA and while these qualities may be highly sensitive to wind turbine development within the locality, they are not universally prevalent throughout the NSA.

The wider setting of the NSA is not consistently noted in the special qualities work and we consider that as larger wind farm developments may increasingly be proposed within upland areas which backdrop some of the NSAs, then views to and from the NSA need to additionally be highlighted as key sensitivity criteria.

It is therefore not a straightforward exercise to use the special qualities work as a basis for a strategic sensitivity assessment for wind turbine development in the same way that we have undertaken the sensitivity assessment for individual landscape character types (and sub-types). We have therefore devised a simpler method for the NSA assessment and this is outlined in the following text.

Methodology

Our methodology aims to marry the special qualities of the NSA with our own observations of key landscape and visual sensitivities in relation to wind turbine development. The sensitivity assessment for each NSA is structured in the following way:

⁴Scottish Natural Heritage (2010) The Special Qualities of the National Scenic Areas. (SNH commissioned report No 374.)

- Description of the NSA based on Scotland's Scenic Heritage and listing the special qualities defined by SNH.
- An assessment of the potential sensitivities associated with each of the more tangible special qualities (those likely to be of relevance to wind turbine development) to the small-medium and small typologies of wind turbine development. This considers the potential effect of turbines on the special quality but does not take into account the prevalence of the special quality across the NSA in making a judgement on sensitivity. Some interpretation of the special qualities information has been necessary to avoid 'double-counting' where specific characteristics are repeated.
- Identification of any additional key landscape and visual characteristics not covered by the NSA special qualities but potentially sensitive to wind turbine development. These are considered in the detailed assessment tables where relevant.
- Identification of potential cumulative landscape and visual issues relating to the NSA and wider setting issues.
- Analysis of constraints and opportunities taking into account relevant special qualities but also other landscape and visual characteristics potentially sensitive to wind turbine development.
- Guidance on the development typologies that could be accommodated considering the prevalence of special qualities together with key landscape and visual sensitivities listed as constraints and opportunities.

Classification and mapping

The boundaries of the NSA are not contiguous with the landscape character type boundaries identified in the 1996 Argyll and Firth of Clyde Landscape Character Assessment. Where landscape character types extending beyond the boundaries of the NSA are very small in area we have decided to incorporate these into the appropriate adjacent character type in order to avoid undertaking separate sensitivity assessments for these small 'cut off' areas which will be different in context to the generic character type found elsewhere in Argyll and Bute. This situation occurs in relation to the Knapdale and Kyles of Bute NSAs only. For example, the Kyles of Bute NSA mostly comprises the 'Craggy Upland' (7) character type which is found in various locations across Argyll and Bute (and has been additionally sub-divided for the purposes of this study). Small parts of the 'Craggy Upland' character type extend beyond the boundary of the Kyles of Bute NSA into north Bute and we have therefore incorporated these areas into the adjoining 'Bute Open Ridgeland' (5a) character type with which it shares similar characteristics and context.

In terms of the Knapdale NSA, the 'Upland Parallel Ridges' (10) character type extends slightly over the NSA boundary to the east. This overlapping area of the 'Upland Parallel Ridges' (10) has been incorporated into the adjacent 'Knapdale Upland Forest Moor Mosaic' (6b). More extensive parts of landscape character types generally extend beyond the boundaries of the other NSAs so no change has been made to classification and separate sensitivity assessments have been undertaken for these areas, for example, the 'Lowland Ridges and Moss' (18) which extends east of the Lynn of Lorn NSA or the 'Moorland Plateau' (8) extending beyond the Jura NSA.

APPENDIX F: OPPORTUNITIES FOR REPOWERING EXISTING WIND FARMS

OPPORTUNITIES FOR REPOWERING EXISTING DEVELOPMENTS

Background

The size of wind turbines within new wind farm developments has significantly increased over the last 10 years. Some of the earliest wind farms in Argyll and Bute comprise 61m and 66m high turbines. The majority of commercial wind turbines in Argyll and Bute are below 100m high while more recently constructed wind farms range between 100m to 135m high. Recent proposals for new wind farm developments in Argyll and Bute comprise 149m high turbines.

Proposals for much larger turbines can also be associated with 'repowering' of existing wind farms and turbines. Repowering involves the replacement of operational wind turbines coming to the end of 25-year planning permissions with more efficient, and usually larger, turbines. Other repowering options may be considered by operators on existing development sites including extending the blades of turbines and other measures, such as on-site energy storage, to increase efficiency and energy output.

An assessment has been undertaken to consider opportunities for a 'Very Large' development typology comprising turbines >130m high to blade tip and up to 200m high. Scope for repowering existing wind farms within Argyll and Bute is also considered with the focus being on replacement with larger turbines. The assessment has been informed by computer-generated visibility mapping and visualisations based on representative operational wind farms located in selected upland landscapes and showing replacement of existing turbines with larger turbines.

More detailed sensitivity assessment for very large turbines >130m high has also been undertaken for LCTs where some scope for the large typology (turbines 80-130m high) was identified in the 2012 ABLWCS and/or where operational wind farms are already present. These comprise the following landscapes which are considered in section 4 of this report and in the Volume Two Report:

- *Steep Ridgeland and Mountains (2)*
- *Upland Forest Moor Mosaic (6)*
- *Loch Fyne Upland Forest Moor Mosaic (6a)*
- *Knapdale Upland Forest Moor Mosaic Southern Uplands (6b)*
- *Craggy Upland (7)*

Methodology

A series of Zone of Theoretical Visibility (ZTV) maps have been produced showing existing theoretical visibility of operational and consented turbines within 6 wind farms and the increased extent of visibility that could occur if these turbines were replaced with larger turbines 150m and 200m high to blade tip. The 150m height was selected as recent applications for wind farm developments have been close to this height while the largest onshore wind turbines currently available stand at just under 200m high. A cut-off of 30km is shown on the ZTV maps.

The ZTV maps have been modelled using existing turbine positions. Repowering of existing wind farms may adopt a different layout and contain fewer turbines than the original although this will depend on whether the original layout has any built-in flexibility

to allow for potential repowering and/or extensions. Potential expansion of an existing wind farm site to accommodate more widely spaced larger turbines may additionally contribute to increased visibility and this has not been taken into account in the ZTV maps.

Simple 'photo-wire' computer-generated visualisations have been produced from 6 viewpoints across Argyll and Bute and from Arran showing operational/consented turbines and turbines 150m and 200m high. The photo-wires have been generated as illustrative tools only to inform discussions in the field and the appraisal of likely landscape and visual effects associated with increasing turbine size. Visualisations from recent wind farm applications comprising substantially larger wind turbines than those already operational have also been reviewed.

Field work was undertaken to assess scope for much larger wind turbines within the landscape character types listed above. Field assessment was undertaken by two or more landscape architects experienced in the landscape and visual impact assessment of wind energy developments.

Analysis of Zone of Theoretical Visibility mapping

The ZTV maps are based on operational wind farms located in Argyll and Bute and show differences in the extent of visibility if turbines were increased to 150m and 200m to blade tip. The ZTV maps are based on bare-ground data and do not take into account the potential screening effects of woodland. Analysis of the ZTV maps is set out in the following table:

Table A: Analysis of ZTV maps based on operational and consented wind farms

Wind farm	Existing height	Areas of theoretical new visibility associated with 150m and 200m turbines
Beinn Ghlas	61m	Increasing these relatively small turbines to 150m would significantly extend visibility of this wind farm along the eastern shores of Loch Awe (affecting views from settlement and the B840), from Glen Lonan and the hills south of Oban. There would also be new visibility from the Firth of Lorn, Kerrara and Mull. In many of these new areas of visibility, this wind farm would be seen together with the operational Carraig Gheal wind farm (turbines 127m high). Cumulative effects on the east side of Loch Awe, where close views of both developments would be likely to occur, would be a key issue. Increasing turbine height to 200m would not significantly increase the extent of new visibility above and beyond the 150m increase.
Allt Dearg	81m	The extent of new visibility associated with both the 150m and 200m turbines would not be dramatic although some highly sensitive landscape and visual receptors would be likely to be affected. The most significant change would be that larger turbines would introduce visibility affecting the scenic West

		Loch Tarbert area including views from settlement and the A83. There would also be some fairly limited increases in theoretical visibility affecting the northern edge of Moine Mhor (albeit with the wind farm being seen at distances of >18km). While new areas of visibility would be likely to occur across part of Jura Sound, views would be fairly distant and unlikely to be seen by significant numbers of people. There may be closer views from higher ground and the coast around Tarbert. Significantly larger turbines in this prominent location, would exacerbate effects on views from Lochgilphead, east Loch Fyne and also potentially the Knapdale NSA.
A'Chruach I	110m	There would be some new visibility associated with both increases to 150m and 200m high turbines along the east shore of Loch Fyne, south of Inver (where this wind farm is already prominent being seen at distances of around 7km) and affecting views from the B8000 and dispersed settlement. Some areas of new visibility would also be introduced across Moine Mhor and Kilmichael Glassary (at distances of between 10-15km) which could potentially affect the setting of important archaeological features as well as views from roads and settlement.
An Suidhe	83m	There would be some limited new visibility from the SE shores of Loch Fyne including potentially from the settlement of Strachur and Lachlan Castle area. If visible, cumulative effects could be an issue with the A'Chruach wind farm which is already visible from this important visitor attraction. While some new visibility is indicated on the ZTV from the SE shores of Loch Awe, this is in the Eredine area where views are generally well-contained by woodland. Visibility would also be increased in the SW part of Moine Mhor and potentially also the Crinan Canal although views would be distant at around 18-20km. There may also be distant views from the A83 and settlement in the Ardrishaig area where this development may be seen with A'Chruach wind farm.
Beinn an Tuirc I	66m	There would be little discernible difference in the extent of visibility associated with increases to both 150m and 200m turbines seen from Arran. Increasing these relatively small turbines to 150m could introduce new visibility in the sensitive Carradale Bay and Saddell Glen area on the east side of Kintyre. Lower Barr Glen on the west side of Kintyre could also be affected and cumulative effects could occur in these views with Beinn an Tuirc II

		<p>which is also visible from Barr Glen where very large turbines were seen close-by 100m high turbines. Areas of new visibility are also shown in the Kilberry area of Knapdale although the wind farm would be seen at distances of >25km and effects would be unlikely to be significant.</p>
Cruach Mhor	71m	<p>Relatively minor increases in the extent of visibility would be associated with increasing turbine size to 150m and 200m. New visibility would occur at the head and eastern shore of Loch Striven and the head of Loch Riddoch (potentially seen from Kyles of Bute NSA but would not intrude on key views to the south over the core of the NSA). New visibility could also occur on the NW side of Loch Fyne, potentially affecting views from the A83 but mostly extending over less frequented upland areas. Views from the hills on the south side of the Crinan Canal could also be affected, including Dunardry Hill which is popular with walkers. The A'Chruach wind farm is already seen from this hill although it forms a relatively minor feature in panoramic views. Cruach Mhor would similarly be located away from the key focus of the view from this hill which is to NW and seen at distances of around 20km which would reduce its impact. There would also be distant views from the west side of outer Loch Fyne and around Tarbert.</p>

Analysis of sample visualisations

The visualisations generated show larger turbines in the current positions of operational turbines. This has resulted in the wind farm image in the visualisations sometimes appearing overly cluttered. The analysis assumed that this effect would be resolved through a revised layout and/or fewer turbines within the repowered scheme. The analysis from representative viewpoints is set out in Table B which follows.

Table B: Viewpoint analysis of increasing size of turbines within operational wind farms

Viewpoint	Wind farm(s) seen in the view	Existing height of turbines	Effects of increasing height of turbines
1: Loch Fyne, B839	An Suidhe	83m	Most of the turbines are visible although some of the turbine bases are screened by landform. The existing turbines generally appear small in comparison with the uplands they are located (seen at around 15 km distance) although they are still clearly noticeable and appear large in comparison with the buildings within Inveraray below. They are sited on a lower point of the upland plateaux which reduces their impact. The pronounced summit of Beinn Bhreac (526m) is visible to the right of the wind farm. Increasing turbines to 150m would make them almost double in height and they would appear much more prominent especially in relation to Inveraray. 200m high turbines would considerably magnify this effect. This wind farm is already prominent in views from St Catherine's where a rare open view to Inveraray and the associated Inventory listed designed landscape provides the focus across the narrow extent of inner Loch Fyne. The <i>Craggy Upland (7)</i> and <i>Loch Fyne Upland Forest Moor Mosaic (6a)</i> forms a relatively narrow tract of uplands between two lochs and there are also views of this wind farm from the Loch Awe area.
2: Lachlan Castle, Loch Fyne	A'Chruach	126.5m	Between 4-5 existing turbines are visible above hub height with the remaining seen as blade tips above woodland on a relatively low section of the skyline across Loch Fyne. While the location of this development in a shallow basin provides a degree of containment, 150m high turbines would increase intrusion on the setting of Lachlan Castle in this view. While there may be some scope to redesign the wind farm layout and reduce the numbers of turbines to mitigate this, taller turbines could affect views from other locations, for example in the sensitive Moine Mhor area. Turbines closer to 200m high would substantially increase the extent of the wind farm visible and the turbines closer to the castle

			would appear dominant given the scale of the landscape and distance (<6km) from the view.
3: Otter Ferry	A' Chruach	126.5m	The existing wind farm forms a focus opposite the small pier at Otter Ferry, being around 10km from the viewpoint where it is seen in a 'gap' between hills. It is however seen in the context of a very expansive view where outer Loch Fyne becomes broader and more open and the containing slopes to the north less steep and high. 150m high turbines would increase the extent of the wind farm visible and its prominence although it would still appear to occupy a relatively small portion of expansive views as it is strongly contained by landform. 200m high turbines would however significantly extend the wind farm visible and would also dominate the relief of hills seen on the north side of the loch and small buildings visible in the Lochgair area.
4: Portsonachan, Loch Awe	Carraig Gheal and Beinn Ghlas	127m and 61m	The existing Beinn Ghlas wind farm is briefly glimpsed from the B840 while views of Carraig Gheal are more sustained and it is a prominent feature seen on the skyline of the hills which contain Loch Awe to the NW. The majority of turbines in both developments are seen from base to tip in this view. The existing Beinn Ghlas turbines appear very small compared with Carraig Gheal at over twice the height. The wind farms appear relatively well-spaced in relation to each other in this view although substantial increases in turbine size of the relatively small Beinn Ghlas turbines may result in both developments merging in views from the loch shore. While much larger turbines would not appear to overwhelm the relief of the <i>Craggy Upland</i> LCT seen in this view, turbines of 200m would dominate the narrow and intimate character of Loch Awe. This effect is likely to be most obvious from the more intimately scaled views from the B840 and from settlement along the eastern shores where Carraig Gheal in particular appears closer to the edge of the loch. The Beinn Ghlas wind farm would have a very congested appearance if turbines were substantially increased in size and this would need to be rectified in a revised layout which may involve some extension of the wind farm.
5: Imachar Point, Arran	Deucheran Hill Cour	76m and 110m	The Cour wind farm lies slightly closer to this viewpoint (around 9km) than the Deucheran Hill wind farms (around 10.5km). In this view from the A841 on the west coast of Arran, the current 110m high Cour turbines are prominent. The

			<p>smaller (and slightly more distant) Deucheran Hill turbines form clearly noticeable rather than prominent features in this view and are associated with a higher and more distant area of upland plateau. Open views to the Kintyre peninsula are sustained along much of the A841. Both wind farms are well-spaced in this view and they have compatibility in their layout and number of turbines.</p> <p>Increasing the turbines in both developments to 150m would be likely to significantly magnify effects from Arran. There would be little apparent difference in impact between the two developments with 150m high turbines as the variation in distance is relatively small from this viewpoint. However, further north in the Pirnmill area of Arran, the Cour wind farm would be likely to form a significantly more dominant feature as it lies closer to the Arran coast (around 7km). 150m high Cour turbines would also appear overly large in relation to the relief of the lower hills of this part of the Kintyre peninsula. Increasing turbines to 200m within both wind farm sites would significantly exacerbate these effects with turbines of this size likely to overwhelm the relief of the uplands but also the small buildings visible on the Kintyre coast. Wind farms would become a defining characteristic of this view and could significantly detract from the experience of people visiting Arran's less developed western coast.</p>
6: Blackwaterfoot, Arran	Beinn an Tuirc I	66m	<p>Although not readily visible in this location, the summit of Beinn an Tuirc hill forms a pronounced high point on the long Kintyre peninsula (together with the notably rugged Beinn Bhreac) seen from the west coast of Arran. The turbines within this wind farm appear small in relation to the scale of the uplands and because they lie around 16km from the viewpoint. Although they are sited close to the summit of Beinn an Tuirc hill and they affect its setting to some degree, they do not dominate it entirely. Substantial increases in turbine size would however result in the wind farm displacing the focus of the hill in views from Arran (of which this view is representative). The greater distance of the wind farm from the Arran coast, together with the partial screening provided by Beinn an Tuirc hill would reduce the visual impact of turbines <150m to some degree. This wind farm is densely spaced and any repowering would necessitate a radically revised layout which may involve some extension of the development.</p>

Conclusions

The assessment has considered a select number of existing wind farms and key views with the aim of identifying constraints and opportunities for accommodating much larger turbines in the generally less sensitive upland areas of Argyll and Bute.

The study of ZTVs showing increases in turbine height demonstrates that the ***extent of increased visibility*** is not dramatic in most cases. However, the following landscape and visual issues would be likely to be associated with substantial increases in turbine sizes:

- Larger turbines on the A'Dearg wind farm site would be likely to introduce new visibility of wind turbines in the West Loch Tarbert area, affecting views of this scenic sea loch from settlement and the A83.
- Increased visibility and potential cumulative effects between the Beinn Ghlas and Carraig Gheal wind farms particularly in views from the east side of Loch Awe.
- Replacing the existing relatively small Beinn Ghlas turbines with substantially larger turbines would result in increase visibility in the Glen Lonan and east Loch Awe area.
- Increases in visibility of the Beinn an Tuirc I wind farm potentially affecting the sensitive and notably scenic small scale *Hidden Glens* and APQ coasts on the east side of Kintyre and the setting of the hill of Beinn an Tuirc.
- New visibility of the An Suidhe wind farm along the eastern coast of Inner Loch Fyne and potential cumulative effects with A'Chruach affecting views in the Inver area.
- Extensions to visibility associated with much larger turbines on the Cruach Mhor wind farm site potentially affecting the Kyles of Bute NSA.

Our assessment from representative viewpoints in the field concluded that the degree of impact or intrusion associated with increased heights of turbine would be principally influenced by the distance of the viewpoint from the wind farm, its siting and the context of the view.

The upland areas in mainland Argyll and Bute, where most commercial wind farm development is located, generally form relatively narrow peninsulas or bands between sea and inland lochs. The band of uplands between Lochs Awe and inner Loch Fyne are around 11km in width while the Kintyre peninsula is between 8-12km width. These upland areas abut smaller scale, settled loch and coastal fringes and the relative narrowness of the uplands results in fairly close views of wind farm development occurring from both or one side of settled coastal edge or shore.

Older operational wind farms which feature relatively small turbines and which are located closer to the centre of these uplands areas, currently have minimal effects on nearby coastal edges and loch shores. The wind farms of Beinn an Tuirc I and II and Deucheran Hill on the Kintyre peninsula are examples of this. Wind farms located closer to the coastal/loch edge and featuring much larger turbines have a more significant

impact on character and views, for example the Carraig Gheal wind farm seen from east Loch Awe and the Cour wind farm seen from the north Arran coast.

The study identified the following key issues that would be likely to be associated with increasing turbine size within operational wind farm sites:

- Substantially increasing existing turbines within the A'Chruach and An Suidhe wind farm sites would be likely to incur effects on specific sensitivities in the sensitive inner Loch Fyne such as Lachlan Castle on east Loch Fyne and Inveraray. Cumulative effects between these two developments may also become an issue.
- The relative proximity of the existing Carraig Gheal wind farm (which already comprises turbines 126m) to the settled and smaller scale shores of Loch Awe, together with its visibility from sensitive glens and coast to the west, limits scope for substantial increases in turbine size.
- Increasing turbines on the Beinn Ghlas wind farm site to more than double the size of existing turbines would increase the influence of wind farm development on the notable scenic head of Loch Awe and on Glen Lonan. Cumulative effects would also be likely to occur along the east side of Loch Awe where coalescence may occur with Carraig Gheal in some views with resultant effects on the intimate scale and sense of seclusion experienced in this area.
- Increasing the height of turbines within operational wind farms located closer to the outer edges of the Kintyre peninsula would result in them appearing overly large in relation to buildings, small scale fields and individual trees seen on lower hill slopes and also increase visual intrusion on roads and settlement within coastal/loch fringes and from Arran. This would be the case for the existing Cour development where turbines are 110m high.
- There may be some scope to increase the heights of turbines up to around 150m high within some existing developments located further into the centre of the Kintyre peninsula, particularly if they are partially contained by landform. The northern part of the Kintyre peninsula is particularly sensitive to very large turbines due to the landscape and visual effects likely to occur on Arran and Gigha and surrounding seascapes.
- There is a need to also avoid introducing significant areas of **new** visibility into the sensitive Carradale/Saddell area on the east coast of Kintyre and to minimise effects on the setting of the rugged well-defined hills of Beinn an Tuirc and Beinn Bhreac. Substantial increases to the Beinn an Tuirc I wind farm development would be likely to adversely affect the setting of the hill of Beinn an Tuirc.

The key differences in significantly increasing turbine size would mainly be experienced in elevation in the field, although the degree of impact will be greatly influenced by distance, turbine size and the context of the view. The less sensitive upland landscapes of Argyll and Bute, where existing wind farms are currently accommodated, are not extensive in scale. They also abut highly sensitive scenic coastal and loch fringes and, in the case of the Kintyre peninsula, are also seen from Arran and Gigha. It is concluded that turbines over 150m high to blade tip would be too large to accommodate in landscape and visual terms anywhere in Argyll and Bute.

While there may be some very limited opportunities to accommodate turbines between the 130m and 150m high within the central part of the Kintyre peninsula, more detailed assessment would be needed to fully consider potential effects on key sensitivities.

Potential cumulative effects with existing nearby wind farms comprising smaller turbines will need to be carefully assessed when considering repowering proposals. Redesign of wind farm developments as part of the repowering process, including altering the layout/number of turbines, may offer opportunities to avoid exacerbating effects on adjacent more sensitive landscapes and on views and reducing cumulative effects.

This assessment has been based on ZTV mapping and visualisations prepared from a very limited range of viewpoints. Detailed assessment informed by a more comprehensive range of visualisations would be necessary to fully consider landscape and visual impacts for specific proposals. Redesign of turbine layout and omission of some turbines could also reduce some of the effects identified in Table B.

