

6.3 Overall Assessment of Capacity and Cumulative Development

6.3.1 Summary of Landscape Character, Sensitivity and Underlying Capacity

(Refer to Figures 6.1a (i-v) for details of underlying landscape capacity for turbines of different sizes)

The landscape of Aberdeenshire is located on the junction between three distinct types of landscape; the Grampian Mountains, the north-east coastlands of Banff and Buchan and the low-lying rift valley of Strathmore. This transition results in a great diversity of landscapes, from the high granite plateaux in the west, which project out into the gently rolling agricultural lowlands before progressing eastwards down to the flatter coastal plain farmland and thence to the coastal landscapes. The bulk of the population lives in towns and villages in the lowland and coastal areas, through which the main transport routes pass. These trunk routes radiate out from Aberdeen City which is the main centre of the north-east of Scotland.

The upland areas are great rounded spurs extending out into the surrounding lower farmland and are the ever present backdrop to much of Aberdeenshire and the city of Aberdeen itself. They are distinctive landmarks often with rocky summits and are integral to the landscape identity of the north-east. This makes moorland areas very sensitive to wind turbine development due both to elevated levels of visual sensitivity and landscape value.



The Moorland Plateaux are the distinctive backdrop to much of Aberdeenshire and are integral to the landscape identity of the north-east.

The assessment has determined that there is no capacity for wind turbine development in *Moorland Plateaux* apart from at a domestic scale (below 15m in height). Within the other upland type *Farmed Moorland Edge* this is limited to single or small groups of smaller turbines. This conclusion is in contrast with the current upland predominance in the pattern of Scottish wind energy development. Whilst this landscape character type in Aberdeenshire has some suitable characteristics of scale, simplicity of landform and lack of small scale development, the landscape importance, visual prominence and status as a popular recreational area severely limits capacity.

In Aberdeenshire the lowland landscapes represents the best opportunity for wind energy development. Two LCTs (*Coastal Farmland* and *Agricultural Heartland*) cover very extensive areas (over 63% of the total study area), with a medium to large scale simple landscape pattern of arable fields, roads and plantations. These are the hinterland for most of the principal towns of Aberdeenshire and are influenced in places by urban fringe development, industry, mineral extraction and major transport routes. These areas therefore have many of the characteristics that are considered compatible for wind turbine development and have capacity for larger turbines in some locations.

However they also have the sensitivities of a substantial local residential and travelling population and domestic scale landscape features such as houses and trees. There are also areas of more complex and smaller scale landform. This restricts the potential size and extent of development compared with other parts of Scotland that have extensive unpopulated moorland plateau areas developed with large windfarms and turbines.

Most of the *Straths and River Valleys* types within Aberdeenshire are smaller in scale and of a high quality and value and most areas have almost no capacity for turbines beyond a domestic scale (15m). However the *Deveron and Bogie Straths* have some limited capacity for turbines below 50m in height where the strath broadens out north of Huntly.

The main coastal types have some of the landscape characteristics considered suitable for wind turbine development. However these areas are limited in extent, being only a kilometre wide strip in many places, have low tree cover and are of high value. They are visually sensitive as turbines would stand out clearly against sea and sky and only smaller turbines can be accommodated.

6.3.2 Existing and Consented Wind Turbines

At 792 turbines, 97% of which are in groups of 3 or fewer, the current level of operational and consented development is very high, and distinctly different in type, when compared with many areas in Scotland. There are a large number of individual schemes, involving single or small clusters with a very broad range of turbine heights. The pattern is dispersed however overall there are much greater concentrations of turbines in the north of Aberdeenshire and far fewer in the west and south. The main concentrations of consented turbines which are leading to significant cumulative change in some areas of Aberdeenshire are:





- Around Mormond Hill, south of Fraserburgh extending west of Peterhead;

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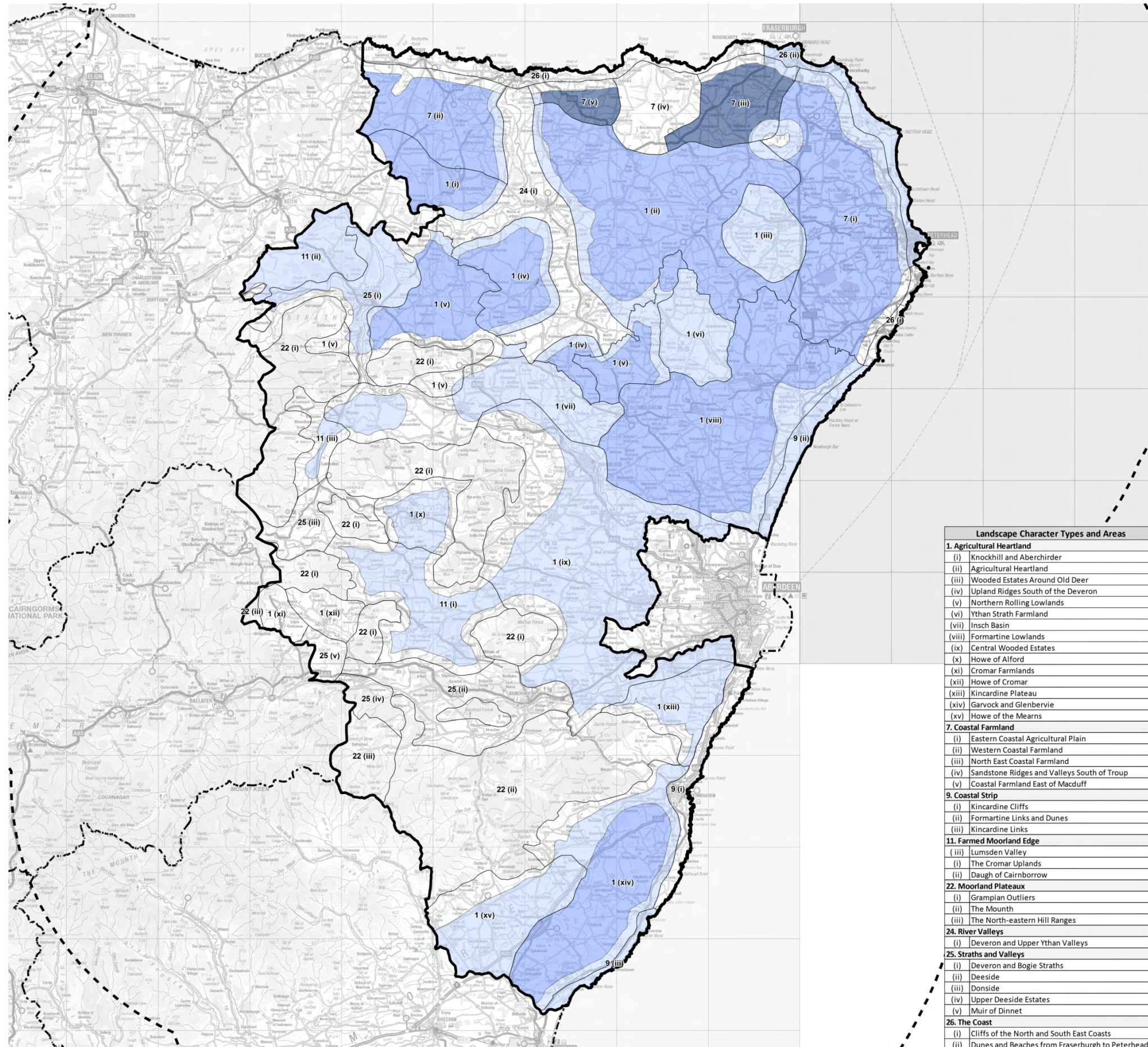
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Legend

-  Study Area
-  Study Area 30km Buffer
-  Scottish Local Authority Boundaries
-  Landscape Character Type / Area Boundary (see Table 3.1 for list)

Capacity

-  High Capacity
-  Medium Capacity
-  Low Capacity
-  No Capacity



Landscape Character Types and Areas	
1. Agricultural Heartland	
(i)	Knockhill and Aberchirder
(ii)	Agricultural Heartland
(iii)	Wooded Estates Around Old Deer
(iv)	Upland Ridges South of the Deveron
(v)	Northern Rolling Lowlands
(vi)	Ythan Strath Farmland
(vii)	Insch Basin
(viii)	Formartine Lowlands
(ix)	Central Wooded Estates
(x)	Howe of Alford
(xi)	Cromar Farmlands
(xii)	Howe of Cromar
(xiii)	Kincardine Plateau
(xiv)	Garvock and Glenbervie
(xv)	Howe of the Mearns
7. Coastal Farmland	
(i)	Eastern Coastal Agricultural Plain
(ii)	Western Coastal Farmland
(iii)	North East Coastal Farmland
(iv)	Sandstone Ridges and Valleys South of Troup
(v)	Coastal Farmland East of Macduff
9. Coastal Strip	
(i)	Kincardine Cliffs
(ii)	Formartine Links and Dunes
(iii)	Kincardine Links
11. Farmed Moorland Edge	
(i)	Lumsden Valley
(ii)	The Cromar Uplands
(iii)	Daugh of Cairnborrow
22. Moorland Plateaux	
(i)	Grampian Outliers
(ii)	The Mounth
(iii)	The North-eastern Hill Ranges
24. River Valleys	
(i)	Deveron and Upper Ythan Valleys
25. Straths and Valleys	
(i)	Deveron and Bogie Straths
(ii)	Deeside
(iii)	Donside
(iv)	Upper Deeside Estates
(v)	Muir of Dinnet
26. The Coast	
(i)	Cliffs of the North and South East Coasts
(ii)	Dunes and Beaches from Fraserburgh to Peterhead

Figure 6.1a (i)
Underlying Landscape Capacity
Small / Medium Turbines
(15 to <30m Height)



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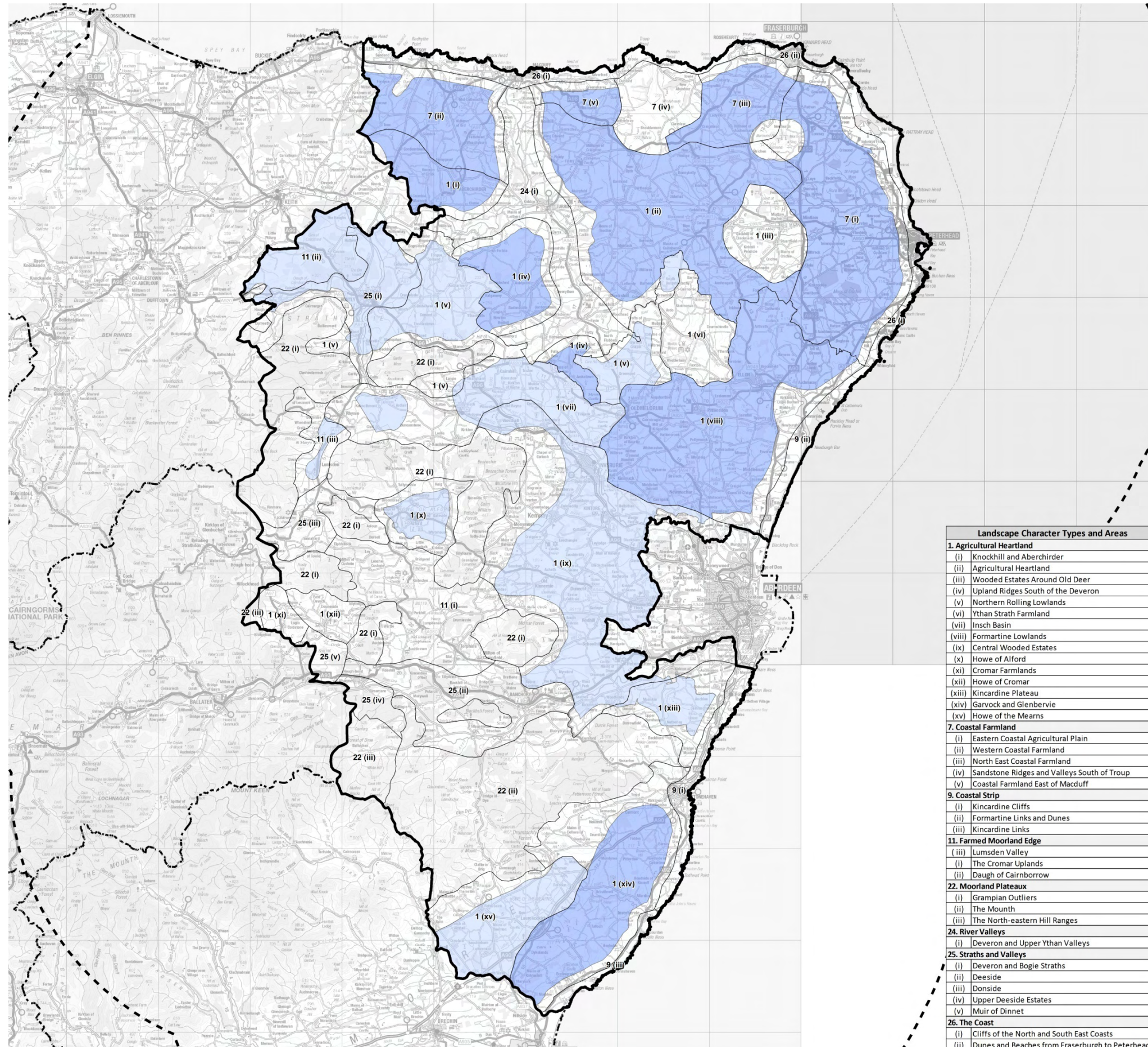
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Legend

- Study Area
- Study Area 30km Buffer
- Scottish Local Authority Boundaries
- Landscape Character Type / Area Boundary (see Table 3.1 for list)

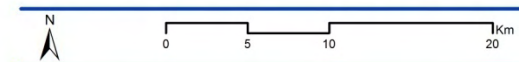
Capacity

- High Capacity
- Medium Capacity
- Low Capacity
- No Capacity



Landscape Character Types and Areas	
1. Agricultural Heartland	
(i)	Knockhill and Aberchirder
(ii)	Agricultural Heartland
(iii)	Wooded Estates Around Old Deer
(iv)	Upland Ridges South of the Deveron
(v)	Northern Rolling Lowlands
(vi)	Ythan Strath Farmland
(vii)	Insch Basin
(viii)	Formartine Lowlands
(ix)	Central Wooded Estates
(x)	Howe of Alford
(xi)	Cromar Farmlands
(xii)	Howe of Cromar
(xiii)	Kincardine Plateau
(xiv)	Garvock and Glenbervie
(xv)	Howe of the Mearns
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(iii)	Donside
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(v)	Muir of Dinnet
26. The Coast	
(i)	Cliffs of the North and South East Coasts
(ii)	Dunes and Beaches from Fraserburgh to Peterhead

Figure 6.1a (ii)
Underlying Landscape Capacity
Medium Turbines
(30 to <50m Height)



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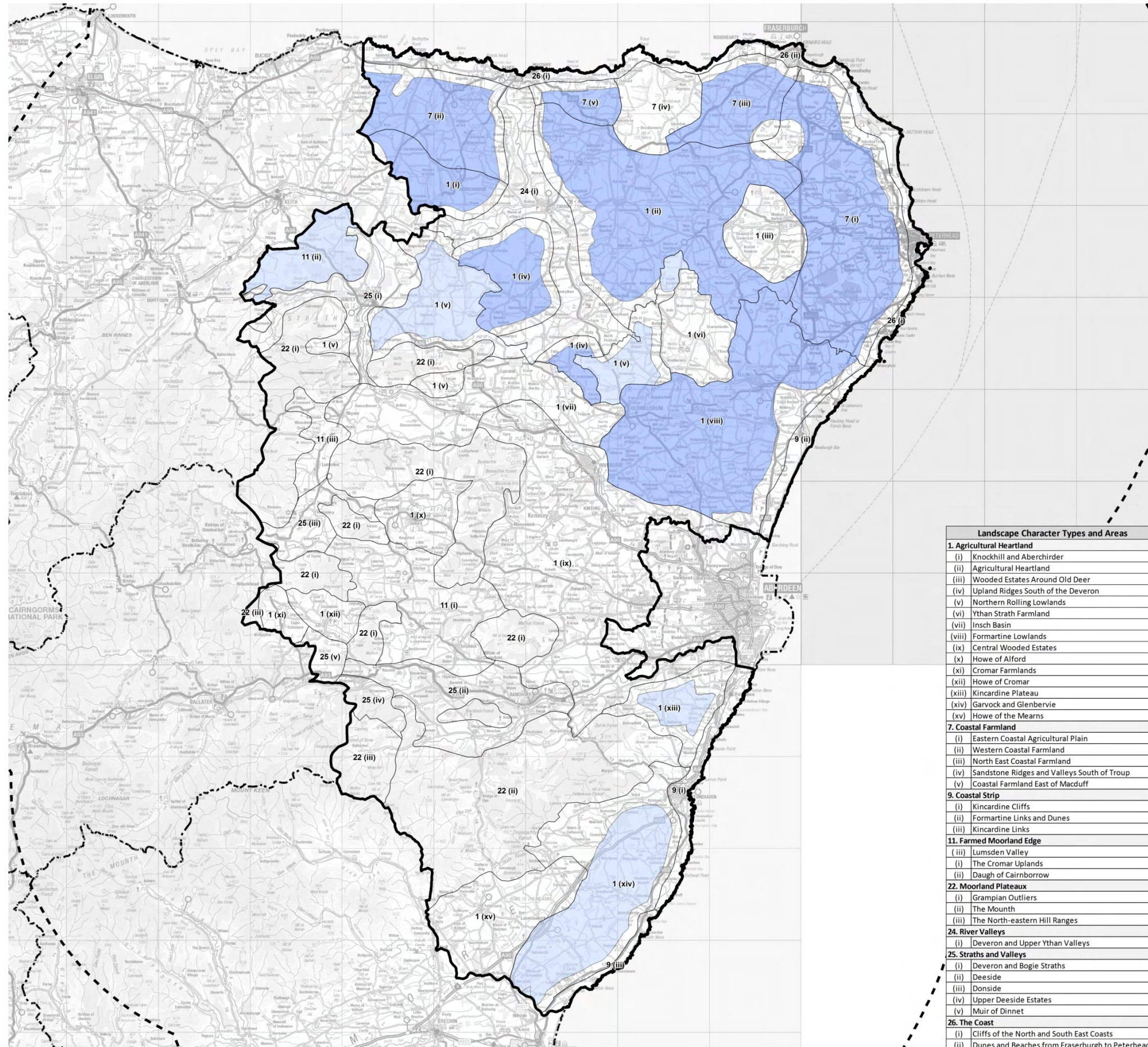
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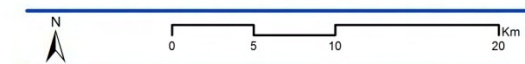
Legend

- Study Area
 - Study Area 30km Buffer
 - Scottish Local Authority Boundaries
 - Landscape Character Type / Area Boundary (see Table 3.1 for list)
- Capacity**
- High Capacity
 - Medium Capacity
 - Low Capacity
 - No Capacity



Landscape Character Types and Areas	
1. Agricultural Heartland	
(i)	Knockhill and Aberchirder
(ii)	Agricultural Heartland
(iii)	Wooded Estates Around Old Deer
(iv)	Upland Ridges South of the Deveron
(v)	Northern Rolling Lowlands
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(x)	Howe of Alford
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(v)	Muir of Dinnet
26. The Coast	
(i)	Cliffs of the North and South East Coasts
(ii)	Dunes and Beaches from Fraserburgh to Peterhead

Figure 6.1a (iii)
Underlying Landscape Capacity
Medium / Large Turbines
(50 to <80m Height)



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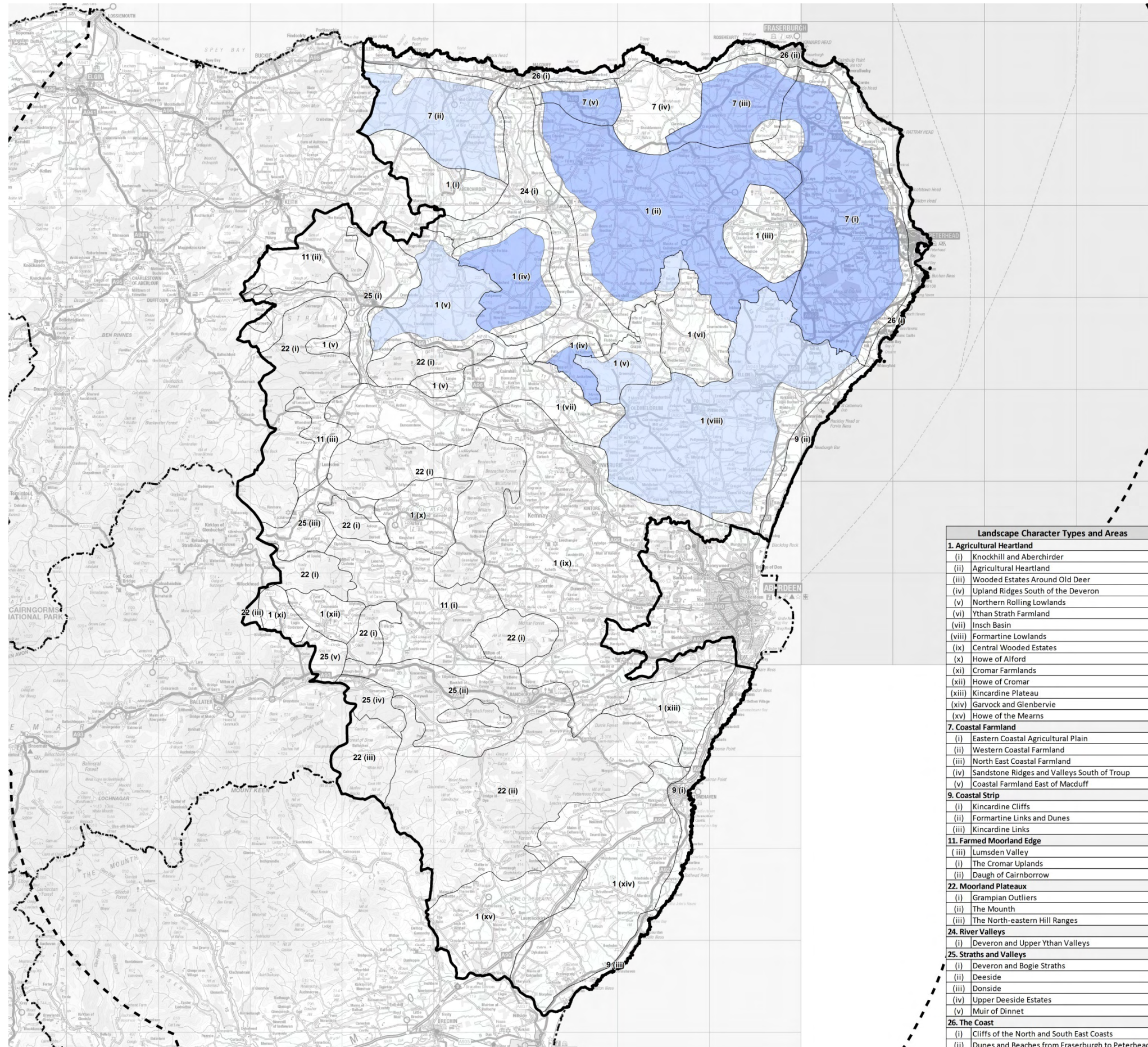
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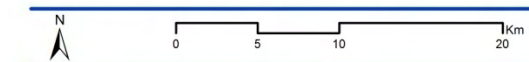
Legend

- Study Area
 - Study Area 30km Buffer
 - Scottish Local Authority Boundaries
 - Landscape Character Type / Area Boundary (see Table 3.1 for list)
- Capacity**
- High Capacity
 - Medium Capacity
 - Low Capacity
 - No Capacity



Landscape Character Types and Areas	
1. Agricultural Heartland	
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(ii)	Dunes and Beaches from Fraserburgh to Peterhead

Figure 6.1a (iv)
Underlying Landscape Capacity Large Turbines (80m+ Height)



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