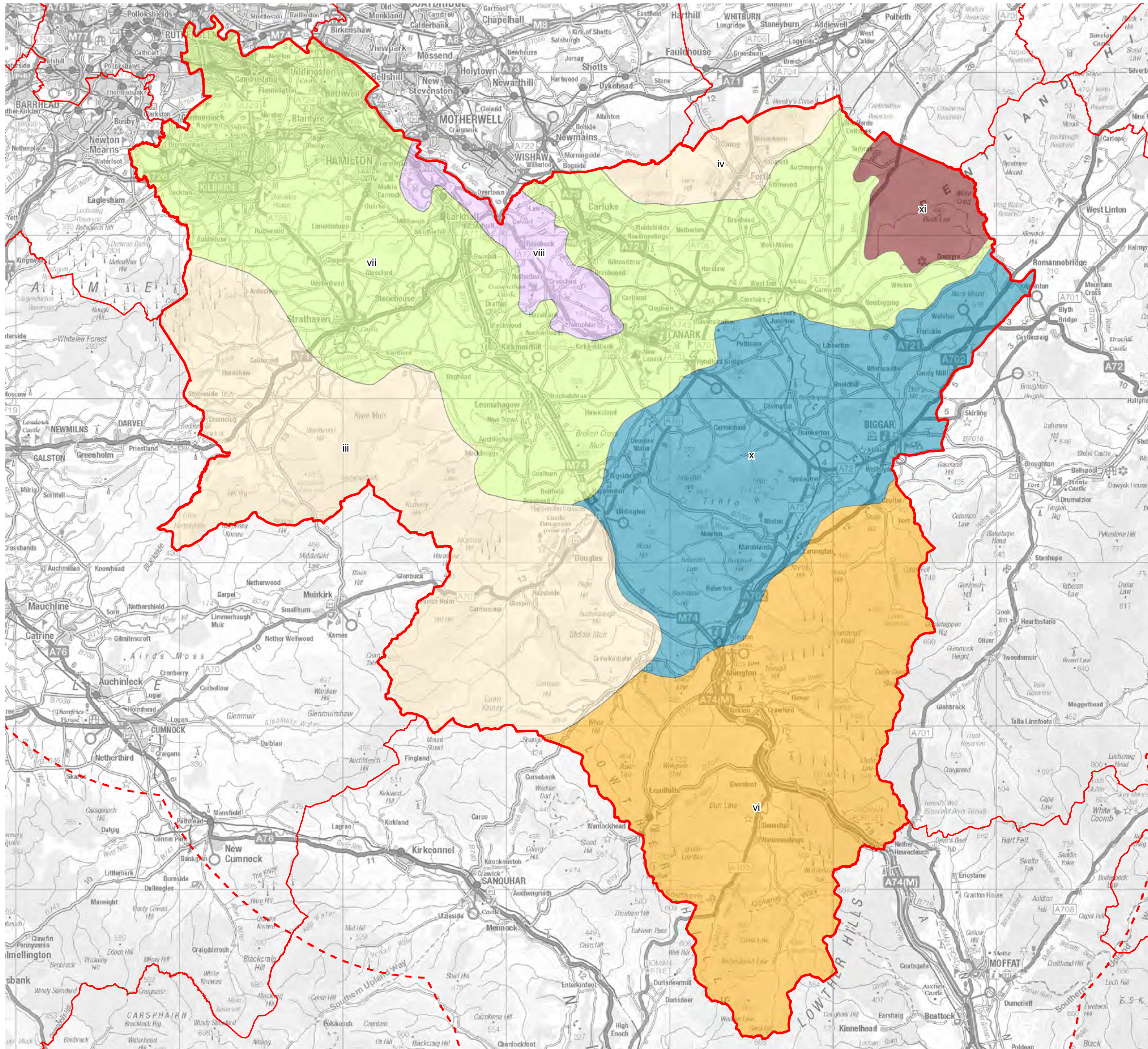


South Lanarkshire Landscape Capacity Study for Wind Energy

February 2016

7948 GIS 103



Legend

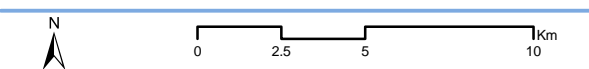
- SLC Boundary
- Study Area 15km buffer
- Scottish Local Authority Boundaries

Regional Landscape Areas (from 1999 Glasgow and Clyde Valley LCA)

- iii - Clyde and Ayrshire Basins Moorlands
- iv - Central Plateau Moorlands
- vi - Southern Uplands
- vii - Clyde Basin Farmlands
- viii - Inner Clyde Valley
- x - Southern Uplands Foothills
- xi - Pentland Hills

Figure 3.3

**Regional Landscape
Character Areas**

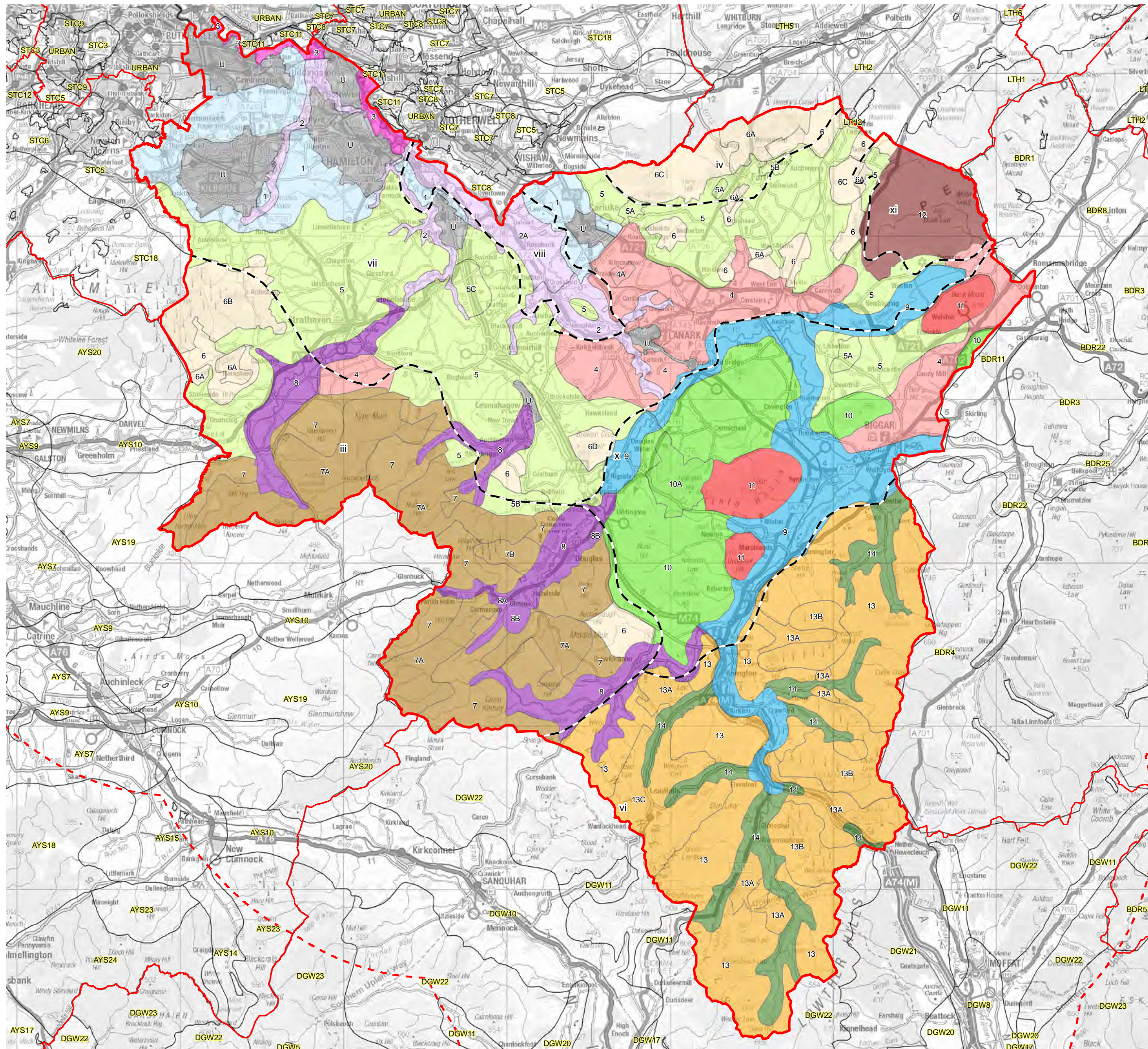


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February 2016

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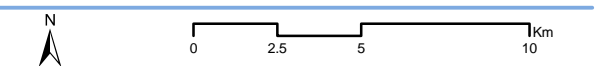


Legend

- SLC Boundary
 - Study Area 15km buffer
 - Scottish Local Authority Boundaries
- Landscape Character**
- 1 - Urban Fringe Farmland
 - 2 - Incised River Valley
 - 2A - Incised River Valley Broad Valley Floor
 - 3 - Broad Urban Valley
 - 4 - Rolling Farmland
 - 4A - Rolling Farmland Forestry
 - 5 - Plateau Farmland
 - 5A - Plateau Farmland Forestry
 - 5B - Plateau Farmland Opencast Mining
 - 5C - Plateau Farmland Windfarm
 - 6 - Plateau Moorland
 - 6A - Plateau Moorland Forestry
 - 6B - Plateau Moorland Forestry Windfarm
 - 6C - Plateau Moorland Windfarm
 - 6D - Plateau Moorland Opencast Mining
 - 7 - Rolling Moorland
 - 7A - Rolling Moorland Forestry
 - 7B - Rolling Moorland Windfarm
 - 8 - Upland River Valley
 - 8A - Upland River Valley Incised
 - 8B - Upland River Valley Opencast Mining
 - 9 - Broad Valley Upland
 - 10 - Foothills
 - 10A - Foothills Forestry
 - 11 - Prominent Isolated Hills
 - 12 - Old Red Sandstone Hills
 - 13 - Southern Uplands
 - 13A - Southern Uplands Forestry
 - 13B - Southern Uplands Windfarm
 - 13C - Southern Uplands Leadhills
 - 14 - Upland Glen
 - U - Urban
 - Landscape Character Areas in Neighbouring Authorities (SNH, 1999)
 - Regional Landscape Character Areas (see Fig 3.3 for details)

Figure 3.4

Landscape Character Areas

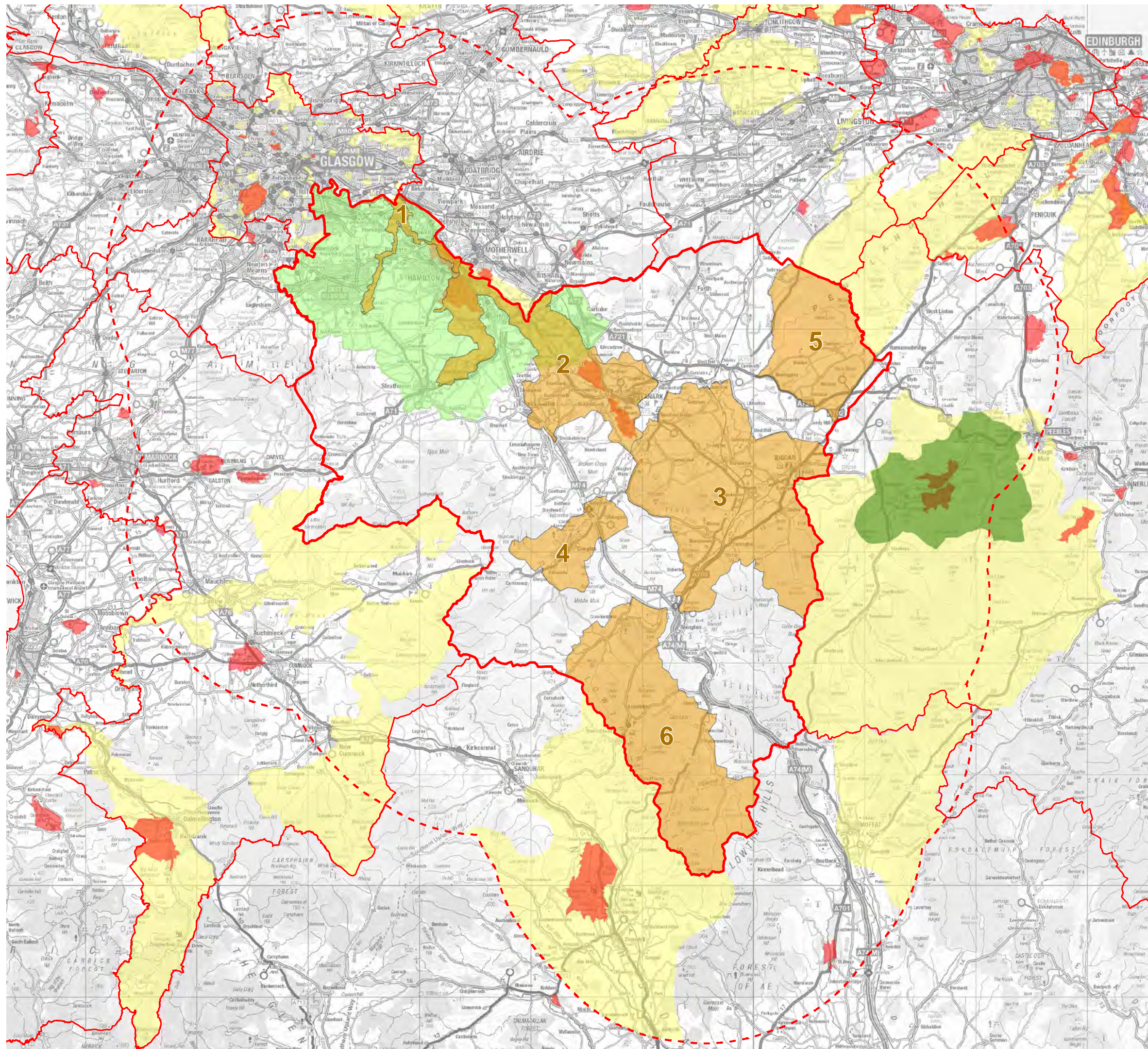


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February 2016

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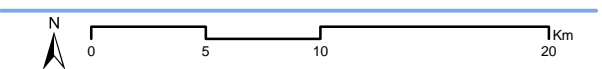


Legend

- SLC Boundary
- Study Area 15km buffer
- Scottish Local Authority Boundaries
- South Lanarkshire Special Landscape Areas:
 1. Lower Clyde and Calderglen
 2. Middle Clyde Valley
 3. Upper Clyde Valley & Tinto
 4. Douglas Valley
 5. Pentland Hills & Blackmount
 6. Leadhills & Lowther Hills
- National Scenic Areas
- Greenbelt
- Historic Gardens and Designed Landscapes
- Local Landscape Designations Outside South Lanarkshire

Figure 3.5

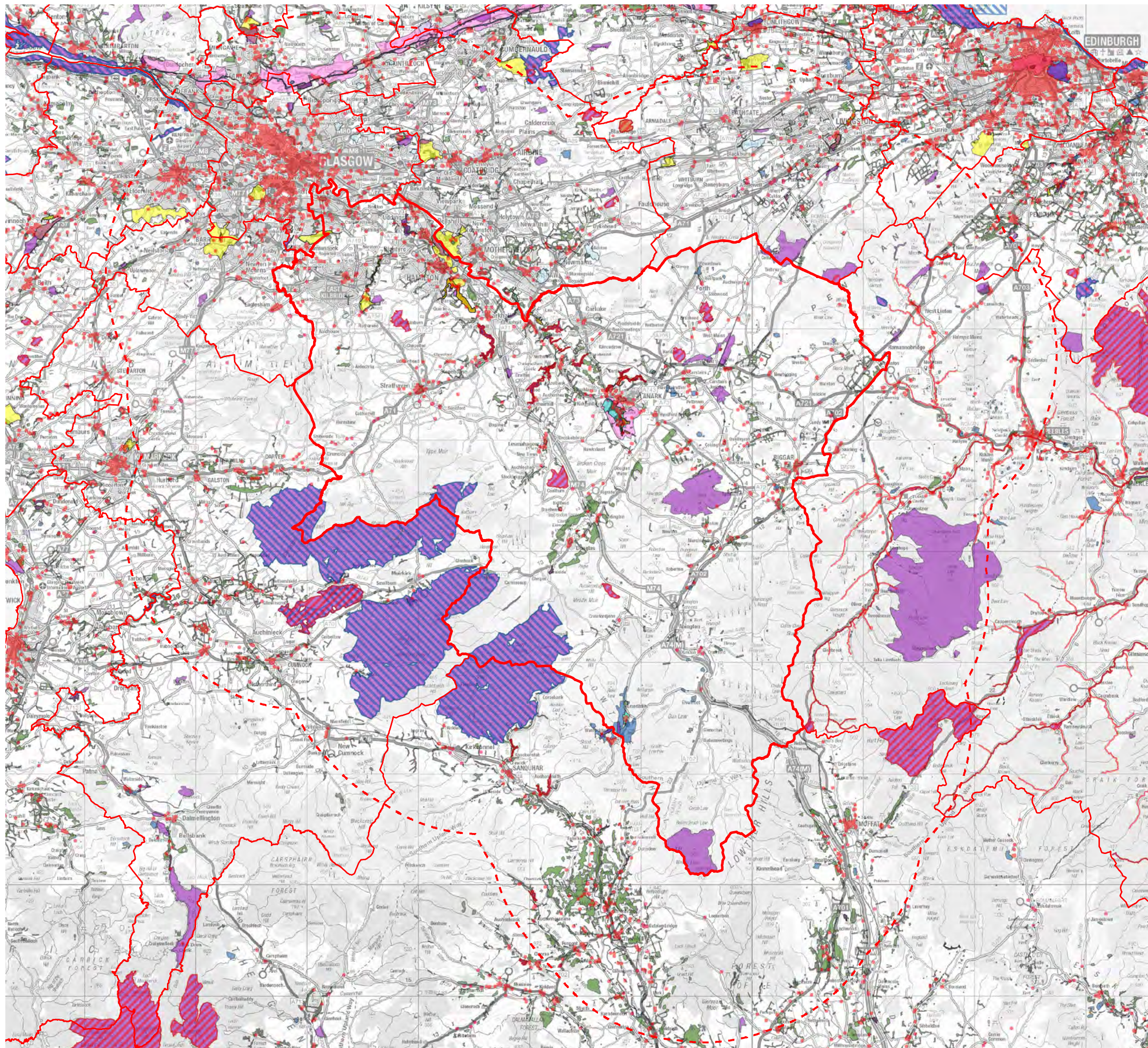
Landscape Related Designations



South Lanarkshire Landscape Capacity Study for Wind Energy

February 2016

7948 GIS 106

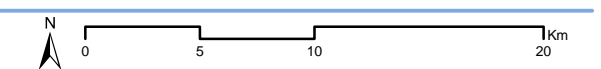


Legend

- SLC Boundary
- Study Area 15km buffer
- Scottish Local Authority Boundaries
- Natural Heritage Areas**
- Special Areas of Conservation
- Special Protection Areas
- National Nature Reserves
- Sites of Special Scientific Interest
- Ancient Woodland
- Local Nature Reserves
- Cultural Heritage Areas**
- Listed Buildings
- Scheduled Ancient Monuments
- Conservation Areas
- World Heritage Sites
- Other**
- Country Parks

Figure 3.6

**Natural and Cultural
 Heritage Designations**









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February 2016

7948 GIS 107

Legend

-  SLC Boundary
-  Study Area 15km buffer
-  Scottish Local Authority Boundaries
-  Landscape Character Areas
- Wild Land Areas:
 -  1. Merrick
 -  2. Talla-Hart Fell

2014 Relative wildness

Value
 High : 256
 Low : 1

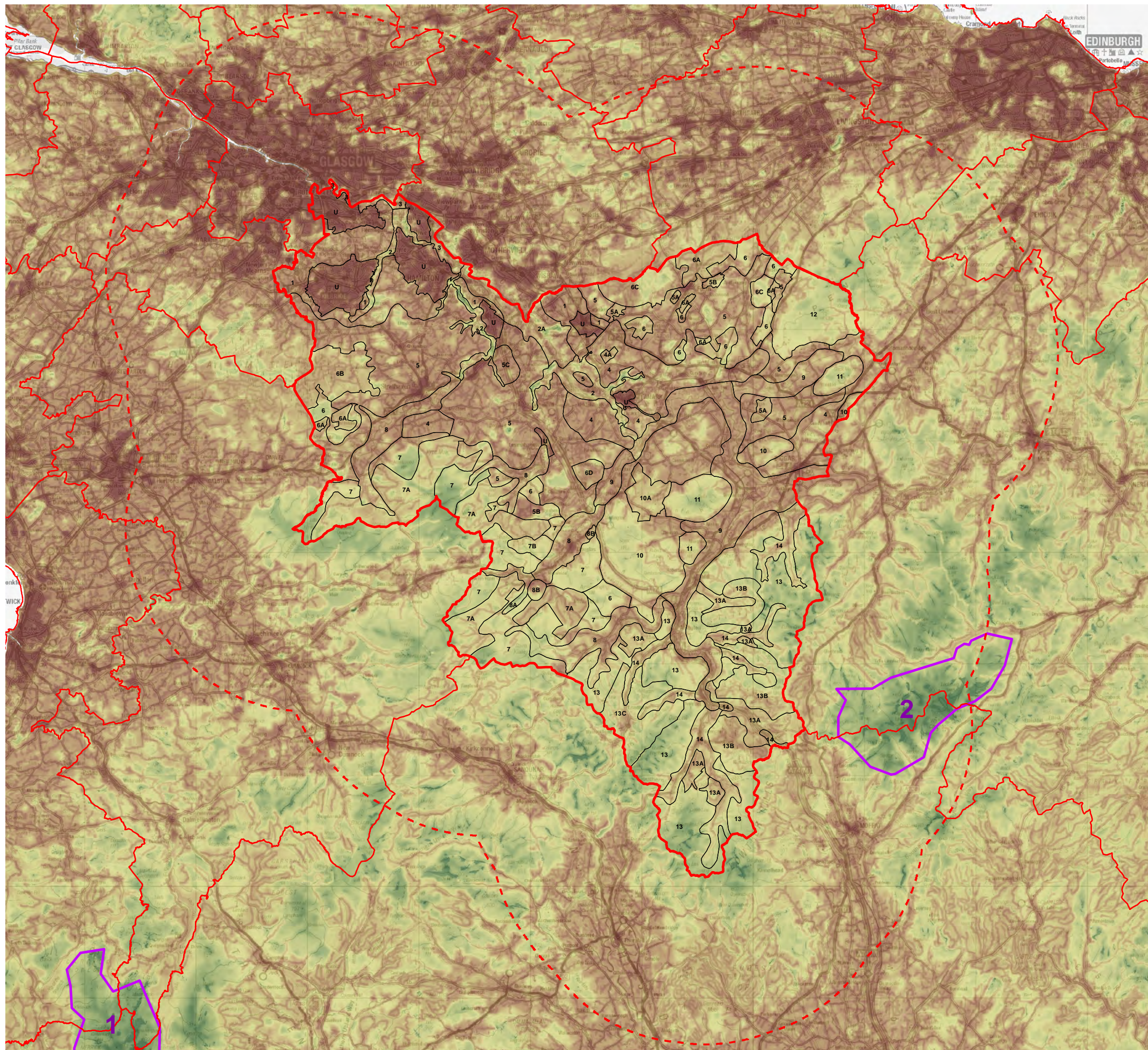
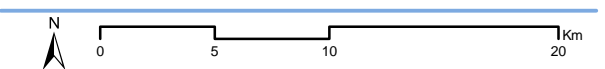


Figure 3.7
 Relative Wildness
 and Wild Land Areas



4.0 VISUAL BASELINE

The following section details the analysis that was carried out to establish the relative visibility of different parts of South Lanarkshire.

4.1 Visual Receptors

In a study of landscape capacity and cumulative landscape impacts, it is important to consider visibility, and the effects of cumulative impact on visual receptors. This not only feeds into the assessment of landscape sensitivity and capacity (see Section 2.2), but also builds up a picture of how visual receptors in and around South Lanarkshire would perceive windfarms within the South Lanarkshire landscape.

The types of potentially sensitive visual receptors within South Lanarkshire are broadly categorised into three groups, represented by the locations in brackets:

- Residents (dwellings and settlements)
- Travellers (roads, railway, paths and cycle routes)
- Visitors (visitor destinations and viewpoints)

While there are many working receptors in South Lanarkshire, these have not been included as sensitive visual receptors, as in common practice in LVIA.

Based on desk study and site analysis, three groups of receptors were identified as follows:

- Settlements, representing concentrations of residential receptors, based on the settlements defined in the South Lanarkshire Local Development Plan (LDP) (Adopted June 2015);
- Routes, representing travelling receptors, and including the motorway, “A” roads, selected “B” roads, railways, and long-distance footpaths and cycleways;
- Viewpoints, representing visitors, selected from popular walking destinations, visitor attractions, and viewpoints identified on OS maps, including several viewpoints just outside South Lanarkshire.

The settlements, routes, and viewpoints are listed in Tables 4.1, 4.2, and 4.3 below, and all the receptors are illustrated on Figure 4.1.

In accordance with the SPP spatial framework, a community separation area for consideration of visual impacts has been drawn around all settlements in South Lanarkshire. The list of settlements to which the area is applied was determined by reference to the LDP.

The LDP map indicates settlement boundaries. The settlements are shown on Figure 4.1 with an indicative 2km community separation area around them. These areas form part of group 2 of the spatial framework (see Figure 1 of this report). The 2km area shown is the indicative maximum distance of separation for consideration of wind energy developments

near settlements. When considering individual proposals, a suitable separation distance within this maximum would be applied following detailed consideration of the scheme landscape and visual criteria¹².

Table 4.1 Visual Receptors: Settlements

| | | | | | |
|----|------------------------|----|----------------|----|---------------|
| 1 | Abington | 32 | Dillarburn | 63 | Nerston |
| 2 | Ashgill | 33 | Dolphinton | 64 | Netherburn |
| 3 | Auchengray | 34 | Douglas Water | 65 | New Lanark |
| 4 | Auchenheath | 35 | Douglas | 66 | New Trows |
| 5 | Auldhouse | 36 | Drumclog | 67 | Newbigging |
| 6 | Biggar | 37 | Dunsyre | 68 | Pettinain |
| 7 | Blackwood/Kirkmuirhill | 38 | East Kilbride | 69 | Ponfeigh |
| 8 | Blantyre | 39 | Elsrickle | 70 | Quarter |
| 9 | Boghead | 40 | Elvanfoot | 71 | Quothquan |
| 10 | Bothwell | 41 | Ferniegair | 72 | Ravenstruther |
| 11 | Braehead | 42 | Garrion | 73 | Rosebank |
| 12 | Lower Braidwood | 43 | Gilmourton | 74 | Rigside |
| 13 | Upper Braidwood | 44 | Forth | 75 | Roberton |
| 14 | Brocketsbrae | 45 | Glassford | 76 | Rutherglen |
| 15 | Cambuslang | 46 | Glespin | 77 | Sandford |
| 16 | Candy Mill | 47 | Hamilton | 78 | Shawsburn |
| 17 | Carmichael | 48 | Hawksland | 79 | Stonehouse |
| 18 | Carluke | 49 | Hazelbank | 80 | Strathaven |
| 19 | Carnwath | 50 | Hyndfordbridge | 81 | Symington |
| 20 | Carstairs | 51 | Kerswell | 82 | Tanhill |
| 21 | Carstairs Junction | 52 | Kilncadzow | 83 | Tarbrax |
| 22 | Cartland | 53 | Kirkfieldbank | 84 | Thankerton |
| 23 | Chapelton | 54 | Kittochside | 85 | Thorntonhall |
| 24 | Cleghorn | 55 | Lamington | 86 | Tillietudlem |
| 25 | Coalburn | 56 | Lanark | 87 | Uddingston |
| 26 | Covington | 57 | Larkhall | 88 | Walston |
| 27 | Newtown of Covington | 58 | Law | 89 | West End |
| 28 | Coulter | 59 | Leadhills | 90 | Wilsontown |
| 29 | Crawfordjohn | 60 | Lesmahagow | 91 | Wiston |
| 30 | Crossford | 61 | Libberton | 92 | Woolfords |
| 31 | Crawford | 62 | Nemphlar | 93 | Yieldshields |

¹² SPP states in Table 1: ‘The extent of the area will be determined by the planning authority based on landform and other features which restrict views out from the settlement’

Table 4.2 Visual Receptors: Routes

| Route | From - to | Type |
|---|--|---------------|
| M74 | Uddingston to Moffat | Motorway |
| A724 | Rutherglen to Hamilton | "A" Road |
| A749 | Rutherglen to East Kilbride | "A" Road |
| A725 | East Kilbride to Bellshill | "A" Road |
| A726 | Eaglesham to Strathaven | "A" Road |
| A723 | Hamilton to Strathaven | "A" Road |
| A71 | Loudoun Hill to Garrion Bridge | "A" Road |
| A721 | Carluke to A72 | "A" Road |
| A73 | Newmains to Abington | "A" Road |
| A70 | Parish Holm to Tarbrax | "A" Road |
| A702 | Abington to Dolphinton | "A" Road |
| A702 | Elvanfoot to the Dalveen Pass | "A" Road |
| B797 | Abington to Wanlockhead | "B" Road |
| National Cycle Network Route 74 | Lesmahagow to Moffat (Uddingston to Lesmahagow proposed) | Cycle route |
| National Cycle Network Route 75 | Cambuslang to Uddingston | Cycle route |
| Southern Upland Way | Wanlockhead to Moffat | Walking route |
| Clyde Walkway | Cambuslang to New Lanark | Walking route |
| West Coast Main Line | Glasgow to Carlisle | Rail route |
| Argyle Line | Rutherglen to Lanark | Rail route |
| Glasgow to Edinburgh via Carstairs Line | Carstairs to Edinburgh | Rail route |

Table 4.3 Visual Receptors: Viewpoints

| No. | Viewpoint | Type | Location |
|-----|-----------------------------------|---|------------|
| 1 | Cathkin Braes | Hilltop, Country Park | NS 618 587 |
| 2 | Morrisons, East Kilbride | Shop, Settlement | NS 620 558 |
| 3 | Chatelherault Country Park | Country Park, Designed Landscape | NS 736 540 |
| 4 | Motherwell Heritage Centre | Museum, Settlement | NS 750 570 |
| 5 | West Forth Community Woodland | Footpaths | NS 938 531 |
| 6 | West Cairn Hill | Hilltop, Pentlands Regional Park | NT 107 584 |
| 7 | Black Law Covenanter's Grave | Hilltop, historical feature | NT 078 522 |
| 8 | Little Sparta | Designed Landscape | NT 053 488 |
| 9 | Black Hill | Hilltop | NS 832 435 |
| 10 | Footpath crossing A73 near Lanark | Footpath | NS 862 460 |
| 11 | Hyndford Bridge | Road, historical feature | NS 915 415 |
| 12 | Loudoun Hill | Hilltop | NS 608 379 |
| 13 | Trumpeter's Well | Historical feature on A71 | NS 660 417 |
| 14 | Tinto Hill | Hilltop, SSSI | NS 953 344 |
| 15 | Biggar Common | Footpath | NT 020 395 |
| 16 | Douglas Castle | Castle, Designed Landscape | NS 842 318 |
| 17 | Culter Fell | Hilltop | NT 052 290 |
| 18 | Cairn Table | Hilltop | NS 724 243 |
| 19 | Red Moss | B Road, National Cycle Route | NT 884 270 |
| 20 | Abington Services | Motorway Services | NS 930 249 |
| 21 | Crawford Footbridge | Footpath, Settlement | NS 954 209 |
| 22 | Leadhills | Settlement, museum | NS 886 150 |
| 23 | Green Lowther | Hilltop, Southern Upland Way | NS 900 120 |
| 24 | Devil's Beef Tub | Viewpoint, AGLV | NT 062 126 |
| 25 | Queensberry | Hilltop | NX 989 998 |
| 26 | Pykestone Hill | Hilltop, Upper Tweeddale National Scenic Area | NT 173 313 |

4.2 Visibility Analysis

An assessment of visibility was made from the settlements, routes and viewpoints listed in Tables 4.1 to 4.3. The extent of the visibility assessment was limited to a 15km radius from the receptors. This is considered to be the distance within which potentially significant impacts from a wind farm are likely occur. Whilst it is recognised that impacts occur beyond this distance, up to 35km and beyond, as recognised by EIA best practice, this is not an EIA assessment and the results are considered to adequately distinguish between locations of potentially greater or lesser sensitivity.

Each receptor type was assessed at four different heights of object in order to distinguish between the potential visibility of windfarm infrastructure and turbines of differing height at hub and blade tip height:

- 1m representing objects at or near existing ground levels;
- 45m representing hub height of smaller commercial turbines;
- 75m representing hub height of larger turbines or blade tip of smaller commercial turbines;
- 125m representing blade tip of larger turbines.

A receptor height of 1.5m was assumed.

Results of the visibility analysis are illustrated in Figures 4.2 to 4.4 (in Appendix 3), and show that the northern part of South Lanarkshire is significantly more visible from a larger number of receptors and that few areas would be able to accommodate wind turbines without some significant degree of visibility from the receptors.

4.2.1 Settlements

Figures 4.2 a-d show that the areas most likely to be seen from settlements are located in the north western part of South Lanarkshire: including the Glasgow conurbation, East Kilbride and Hamilton and around the Middle and Lower Clyde valley. The areas with lowest visibility lie along the south western and south eastern upland fringes, with some areas at the southern end of South Lanarkshire theoretically able to accommodate 125m high structures without visibility from a settlement. These figures are indicative for populations within settlements as a whole. Consideration of individual settlements in respect of the community separation distance (see 4.1 above) would require a specific visibility assessment for each settlement in question.

In terms of landscape character types the *Urban Fringe Farmland* and *Plateau Farmland* are the most visible, and the *Rolling Moorland* and *Southern Upland* the least visible. The *Plateau Moorland*, whilst not highly visible itself is visually sensitive to tall structures, particularly where it is located close to substantial settlements. Valleys are often visually sensitive due to containing settlements. The *Foothills* and *Plateau Moorland* areas south of Tinto and either side of the M74 have a low visibility, particularly for smaller structures.

4.2.2 Routes

The routes tell a similar story but with a more diffuse visibility than the settlements (Figures 4.3 a-d). This relates to the more pervasive nature of routes and the fact that some roads and walking routes cover high ground in which settlements are not normally located. In this assessment there is a more extensive visibility across the centre of South Lanarkshire and up into the north eastern part. The M74/ WCML corridor cutting north/ south through the area is also a notable corridor of visibility. In particular it is notable that hilltops and ridgelines are visually sensitive, with summits of Tinto and some of the Southern Upland hills particularly visible.

The most visible landscape types are the *Urban Fringe Farmlands*, *Plateau Farmlands* and *Rolling Farmlands*. Tinto Hill, in its pivotal position, is also highly visible. The least visible areas are the western fringes of the *Rolling Moorland* and the eastern fringes of the *Southern Upland* type. The *Foothills* area between Tinto and the M74 continues to have a relatively low visibility.

4.2.3 Viewpoints

The viewpoints tell a slightly different story (Figures 4.4 a-d). This is because they relate less to centres of population and more to available views. On the basis of the viewpoints selected, the most visible areas are in the centre and northeast of South Lanarkshire, particularly between Douglas, Lanark, Biggar and Carnwath. The least sensitive areas lie along the eastern edge of the Southern Uplands, the north eastern urban areas and the *Plateau Moorland* to the north of Forth.

The most visible landscape types are *Rolling Farmlands*, *Plateau Farmlands* and parts of the *Foothills* and *Broad Valley Upland* of the Upper Clyde. Again the *Foothills* area between Tinto and the M74 has a relatively low visibility.

4.2.4 Analysis of Visibility

The visibility analysis confirms perceptions that the most visually sensitive areas in terms of numbers of potential receptors are those close to population and transport routes. These are concentrated in the urban fringes of Glasgow and the Clyde Basin farmlands. In contrast the least visible areas are in the upland fringes of the Moorlands and Southern Uplands. This, in combination with the greater suitability of the upland landscape types and greater wind resource, underlines why the bulk of development is focused on the upland areas. Nevertheless, more detailed further analysis allows smaller and more subtle variations in visibility to be identified which may assist in determining which areas are most suitable for development from the point of view of visibility.

