Audit of Access and Greenspaces for the Durham Magnesian Limestone Plateau

Commissioned by the

Limestone Landscapes Partnership

Report produced by The Access Company

March 2009

1   Summary

Over 1300 parcels of greenspace were collected and analysed, totalling over 24,000 ha, or 243 km^2. Data was sourced from a number of partner organisations and combined to form six datasets, with one master set of accessible natural greenspace.

Accessible Natural Greenspace Standards for towns and cities (ANGSt[1]) analysis of access to all greenspaces revealed that the population of the National Character Area (NCA - formerly known as Joint Character Area) has good access to medium sized greenspace and adequate access to Local Nature Reserves, but limited access to large sites. In addition a significant number of small areas have poor access to sites close to where they live.

Public rights of way and other linear access are well distributed across the area, providing areas for exercise and an ability to walk through green areas even where no designated sites exist. In particular the railway walks provide safe and easy access to greenspace for many people.

ANGSt standards are used to assess the availability of greenspace to local people. A key measure is the amount of Local Nature Reserve (LNR) per 1000 people. The ANGSt standard is for 1hectaore of LNR per 1000 people. This is just met within the NCA which has 1.015 hectares per 1000 people.

There are a significant number of areas within the NCA where the population do not have adequate access to natural or semi-natural greenspace close (within 300m) to where they live.

Only a few small areas of the NCA do not meet the criteria for access to greenspace over twenty hectares. However a significant area of Sunderland does not have adequate access to greenspace within two km.

One small, sparsely populated area close to Trimdon does not meet the criteria for access to sites over 100ha.

Access to large (>500 hectare) sites is limited within the NCA. The only sites identified as being over 500 ha are along the coast. The majority of the population living in the west of the area do not have adequate access to large sites.

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[1] English Nature ANGsT report (Accessible Natural Green Space Standards in Towns and Cities: A Review and Toolkit for their Implementation 2003) http://www.english-nature.org.uk/special/lnr/pdf/GreenSpaceReport.pdf

Small illustrative maps have been used in the body of the report simply to indicate the geographical distribution of various greenspaces. Appendix 10 contains more detailed A4 maps.

2   Introduction

This study was commissioned in October 2008 by the Durham Limestone Landscapes partnership, a partnership comprising representatives from Natural England, local authorities, biodiversity and other relevant organisations. The partnership was established in April 2008, a stakeholder workshop held in spring 2008 included twenty-nine organisations.

The study was steered by a task group made up of members from Natural England, Durham County Council, Durham Biodiversity Partnership and East Durham Groundwork Trust.

This report outlines the approach taken and the results from an ANGSt analysis (Accessible Natural Greenspace Standards) in the Durham Limestone Landscapes National Character Area.

The ANGSt model requires that:

- There should be at least one hectare (ha[2]) of Local Nature Reserve (LNR) per 1000 people,
- Nobody should live more than 300 m from their nearest natural greenspace at least two hectares in size,
- Nobody should live more than two km (approx 1¼ miles) from their nearest natural greenspace at least twenty hectares in size,
- Nobody should live more than five km from their nearest natural greenspace at least 100 hectares in size,
- Nobody should live more than ten km from their nearest natural greenspace at least 500 hectares in size.

As part of the background research to the ANGSt project, information was collated from existing PPG17 open space / green infrastructure strategies (see Appendix 5), local analysis of the Woodland Trust 'Space for People' figures (see Appendix 7) and published Rights of Way Improvement Plans (ROWIPs) in the study area (see Appendix 8). The following ROWIPs are included, specifically where they mention barriers in the local rights of way network :

- Darlington Unitary Authority

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[2] A hectare is an area of land 100m x 100m (or 10,000 m[2]) and 100 hectares = 1km[2]. See appendix 1 for how the ANGSt distances translate into average walking / cycling / riding times.

- Durham County Council [3]
- Hartlepool Borough Council
- The joint Tyne & Wear ROWIP [4]

Background research for the project draws in material from existing PPG17 open space strategies (Appendix 5), The Woodland Trust's "Space for People" report[5] (Appendix 7) and published Rights of Way Improvement Plans (ROWIPs) (Appendix 8). The Woodland Trust's "Space for People" report is a similar GIS-based approach to adequacy of local provision of woodlands. The data relevant to the study area is presented. The report concludes that some 180 hectares of new woodland is required across the six districts relevant to this study area. The review of four[6] ROWIPs identifies common links with local provision of greenspaces as well as various barriers (road, rail severance etc) in the access network.

Barriers in the local rights of way network include :

- Roads, in particular the A1(M), the A66, A19, A68, A179, A689 – there is a local need for safer road crossings, bridges, refuges etc. One Highway Authority is planning to catalogue all such dead-ends, propose solutions, and have stronger future input into road improvement schemes. Another Highway Authority is already planning a new multi-user bridge implementation project
- Railway lines
- Fragmentation for particular user-groups e.g. bridleway / byway network not connected. One ROWIP produced a separate equestrian strategy detailing barriers for equestrians
- Golf courses, intensive farming, Durham Tees Valley airport locally severs access network

2.1 Study area

The study was carried out across the Durham Magnesian Limestone Plateau (Natural Area number 6, National Character Area number 15); a triangular-shaped area across east Durham, south-east Tyne & Wear and the northern half of

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[3] Durham County Council is the Highway Authority for three boroughs / districts relevant to this report : Easington, Sedgefield and Durham City.
[4] Covered five authority areas – relevant to this study are : South Tyneside Council and Sunderland City Council
[5] The Woodland Trust (2004) *Space for People : Targeting action for woodland access* www.woodland-trust.org.uk/publications
[6] Darlington, Durham County, Hartlepool and joint Tyne & Wear ROWIPs

Hartlepool. Urban areas include Sunderland, Peterlee and Newton Aycliffe, Tyne & Wear and the northern parts of Hartlepool. The underlying geology is based on magnesium-rich limestone forming escarpments. Land-use is mostly mixed arable and pastoral farming, with an industrial legacy of limestone quarries and mining.

Map 1 - National Character Area 15 (map taken from project brief)
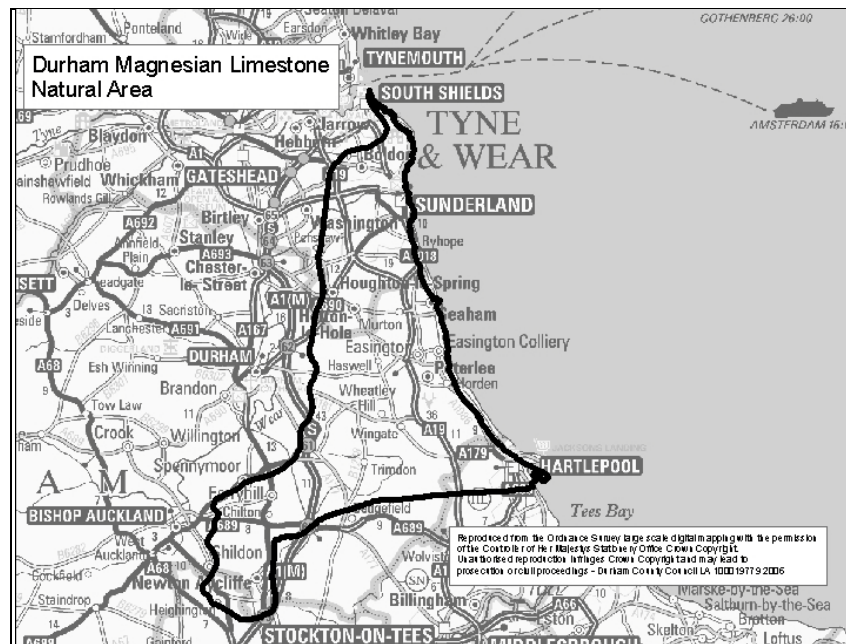
The area of the National Character Area (NCA) is just over 45,260 ha, with a population of 433,653 people (see appendix 2 for workings).

To enable accurate application of the ANGSt criteria a 10 km buffer zone was drawn around the NCA and GIS data was collected for this area. This is illustrated in Map 2, below.

For the purposes of this contract, Natural England's OS licence[7] was used (as a sub-contractor, and a time-limited licence agreement signed). Natural England also supplied black & white OS 1:50,000 raster base maps for the study area.

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[7] Reference 100046223 [2009]. In the course of the project, licence agreements were also signed with Durham City Council, Durham County Council, The Forestry Commission, The National Trust, Sedgefield Borough Council & Sunderland City Council.

Map 2 - NCA 15 plus a 10 km buffer zone
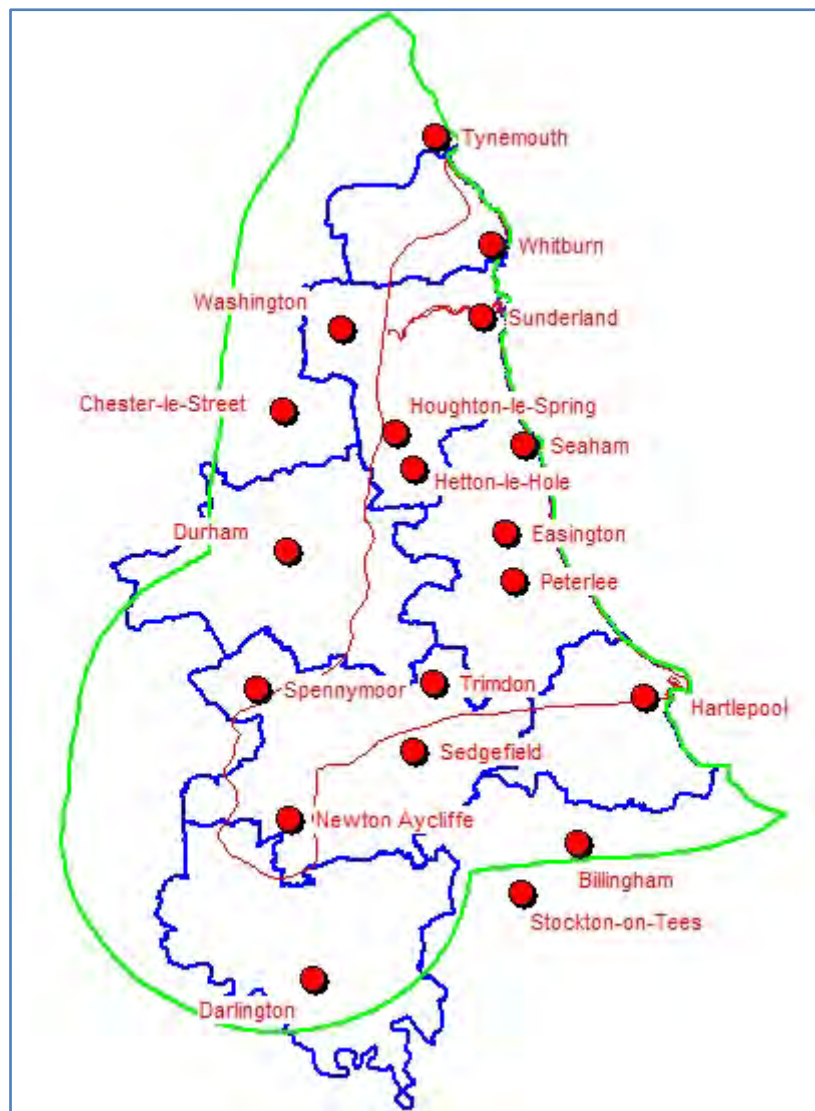
3 Methodology

Working with the Limestone Landscapes steering group and taking best practice from existing documentation (e.g. local authority open space needs assessments under PPG17 and other green infrastructure strategies) the project team:

- Developed five categories (typologies) of greenspace plus one of access routes
- Developed an approach to record the quality of 'naturalness' and 'access' for each site
- Agreed a set of data attributes
- Agreed an approach for the calculation of the amount of Local Nature Reserve per 1000 people.

A desk-top study was carried out to identify and obtain relevant material. Partners, including local authorities, public bodies, and large land owners, were approached and asked for relevant GIS material. Where digital data was not available sites were identified through other means and digitised.

The study would not have been possible without the cooperation and support of the local authorities and partner organisations who supplied the data.

The data was combined into sets representing typologies (see below). When complete the data was combined to create an overall GIS dataset of accessible greenspace.

Figure 1 - typologies contributing to accessible greenspace
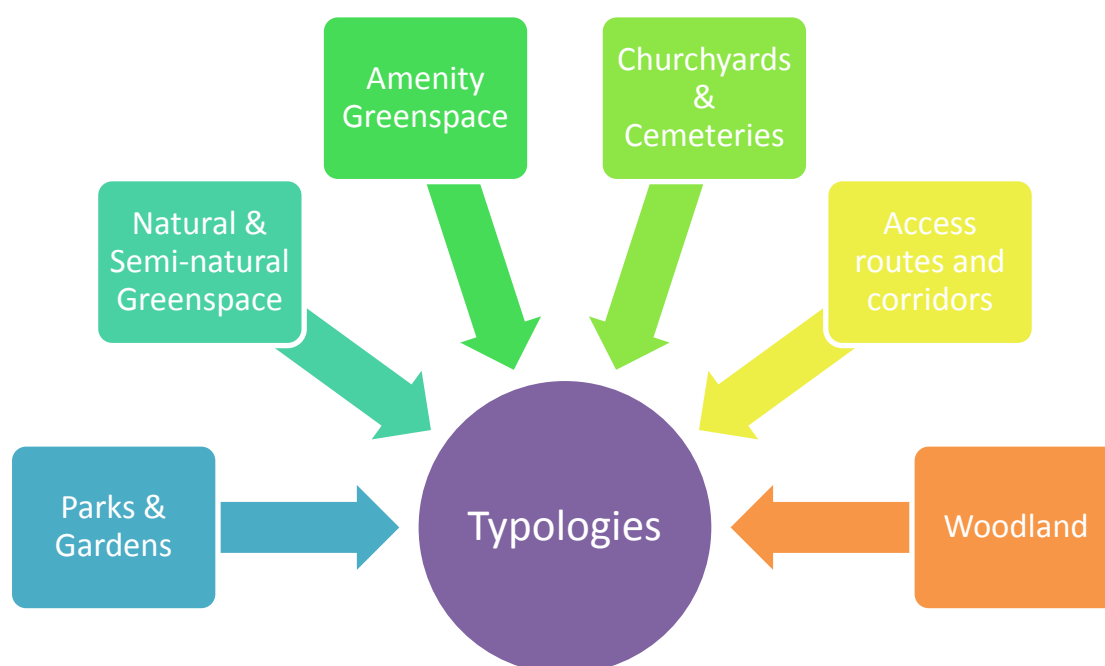
ANGSt criteria were used to assess the current availability of accessible greenspace within the NCA, and to identify areas where the criteria are not met and improvements are needed.

This study, unlike an open space strategy, only collected data relating to greenspace. Areas of public space, for example civic spaces, public squares, and urban spaces ('grey space') were not collected and not included in the analysis. The data collected included all natural and semi-natural greenspace, however only the sites which are freely accessible to the public were included in the overall analysis. Sites which were included in the source data sets but were not covered by the study[8], include Golf Courses, Allotments and some School Playing Fields (all of which are unlikely to be freely accessible). In addition where local authorities supplied GIS data including parcels marked as 'inaccessible' these were not included.

Due to the time constraints and the sheer number of sites in this project, site visits to the greenspaces and public consultation were not possible. The quality of naturalness and access was recorded on a three-point scoring system (high, medium, low). This was either based on assumptions (see table 4 appendix 5), or based on evidence where available.

The population of the NCA was calculated using Lower Level Super Output Areas (SOAs – see appendix 2). This figure was then used to calculate the amount of Local Nature Reserve per 1000 people.

Over 1300 parcels of greenspace were collected and analysed, totalling over 24,000 ha, or 243 km^2.

More details about the methodology used are given in the diagram overleaf and in appendices 2-5.

The data produced through the process, and which is on CD, consists of:

- Original source data from partners – structured into folders according to source organisation
- Typologies – structured into folders to match Figure 1 above and including duplicated railway paths (and similar) in 'access' typology
- A merged dataset of the typologies together, with sites smaller than 2ha removed.

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[8] These sites remain in the source data sets, but were not attributed to a typology, and were not included in the master data set of combined typologies.

Figure 2 - the data handling process

1. GIS data from local authorities and from partner organisations

2. Removal of:

- Sites marked as inaccessible in origin dataset
- Sites unlikely to be freely accessible (allotments, golf courses)
- Sites not 'greenspaces' (civic spaces)
- Sites obviously part of highways mowing (roundabout centres etc)

3. Allocation of parcel into typology of best fit, whilst retaining as many useful data fields as possible

4. Combining adjacent parcels within the same typology where sensible e.g. Village Green or Cemetery digitised in many small parts, or merging nature reserve with RSPB site where the public would view them as one whole. Adding combined information to "dataset source" and "typology_second" to reflect this

5. Filling in data gaps where possible e.g. Naming Parks – using base map / internet

6. Checking ancient woodland parcels one by one for those where an access route either ran through it or adjacent – removing the rest

7. Adding naturalness quality and access quality, and confidence data – either from primary source such as original dataset, Magical Meadows woodlands inventory – or by making assumptions according to parcel typology / source

8. Combining the typologies into one dataset and filtering on the ANGSt size criteria. Running the buffering according to the ANGSt distances

4   Typologies

The typologies were developed with reference to PPG17 companion guide annex A and best practice from existing open space audits and green infrastructure strategies[9]. The typologies form broad categories enabling practical and effective data manipulation. Within each are a number of secondary typologies.

The five original typologies were :

- Parks and gardens
- Natural and Semi-Natural Greenspace
- Amenity Greenspace
- Churchyards & cemeteries
- Access routes

Due to the complexity of the data-set it was decided that an additional typology of "woodland" should be added. At a later stage this set could be added into "natural and semi natural greenspace".

4.1   Parks & Gardens
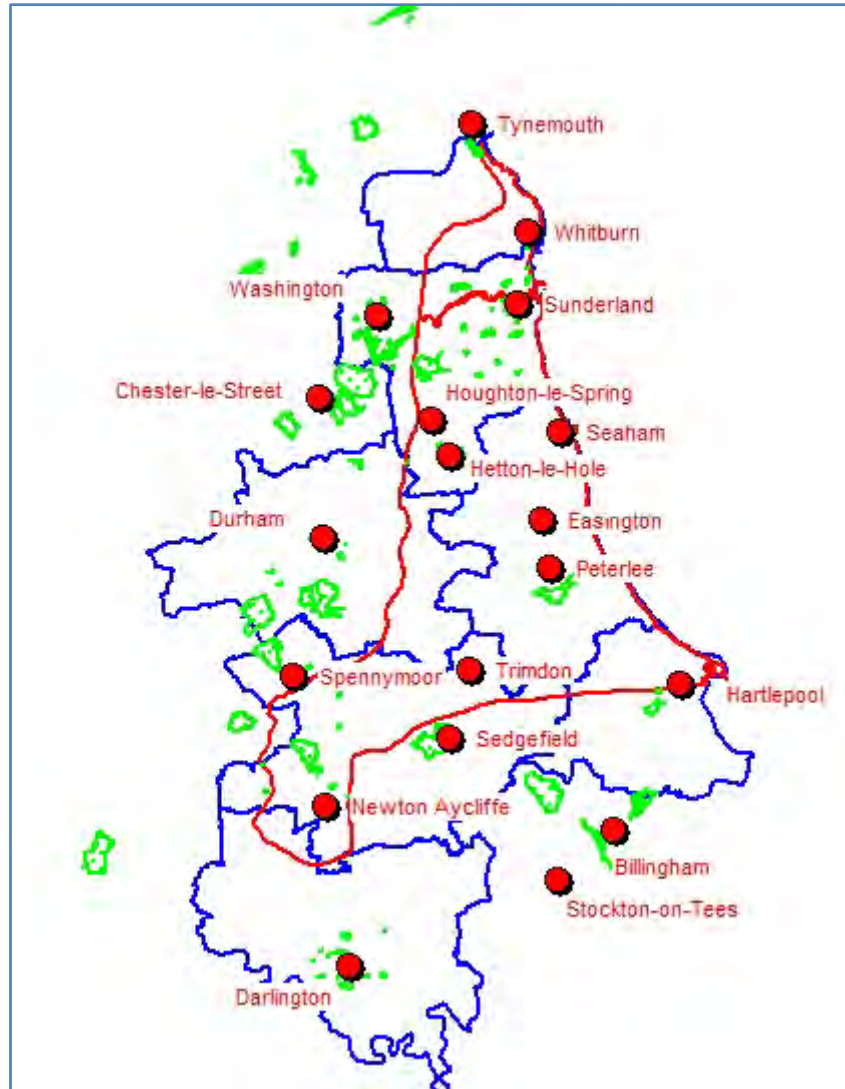

Figure 3 - parks and gardens typology
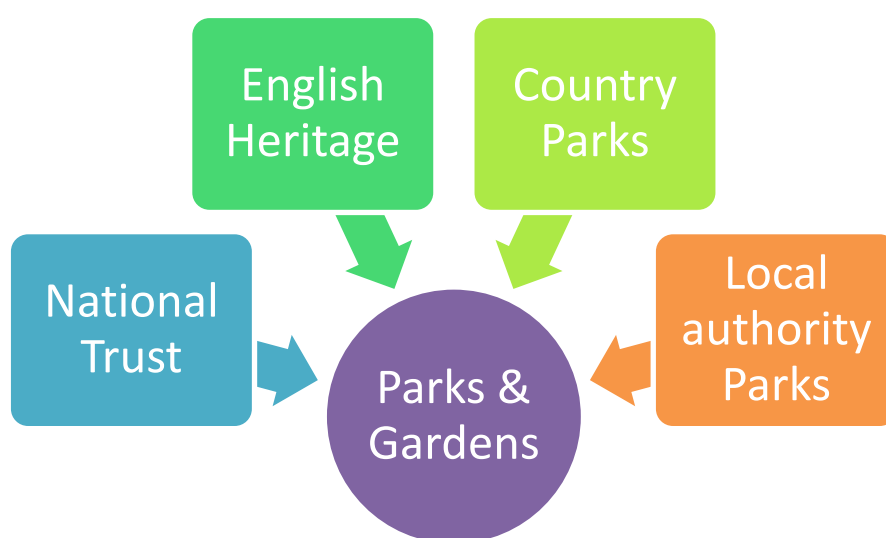
This typology includes historic parks and gardens (English Heritage), Urban Parks, Country Parks, local authority parks and National Trust Park & garden sites.

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[9] See appendix 3 for a list of the typologies suggested by PPG17 and adopted by local authorities in their open space audits.

Map 3 illustrates the distribution of parks and gardens across the NCA.

In total the data set comprises 92 parcels of Parks & Gardens with a combined area of 4,092 ha. Twenty of these parcels are smaller than two ha [10].
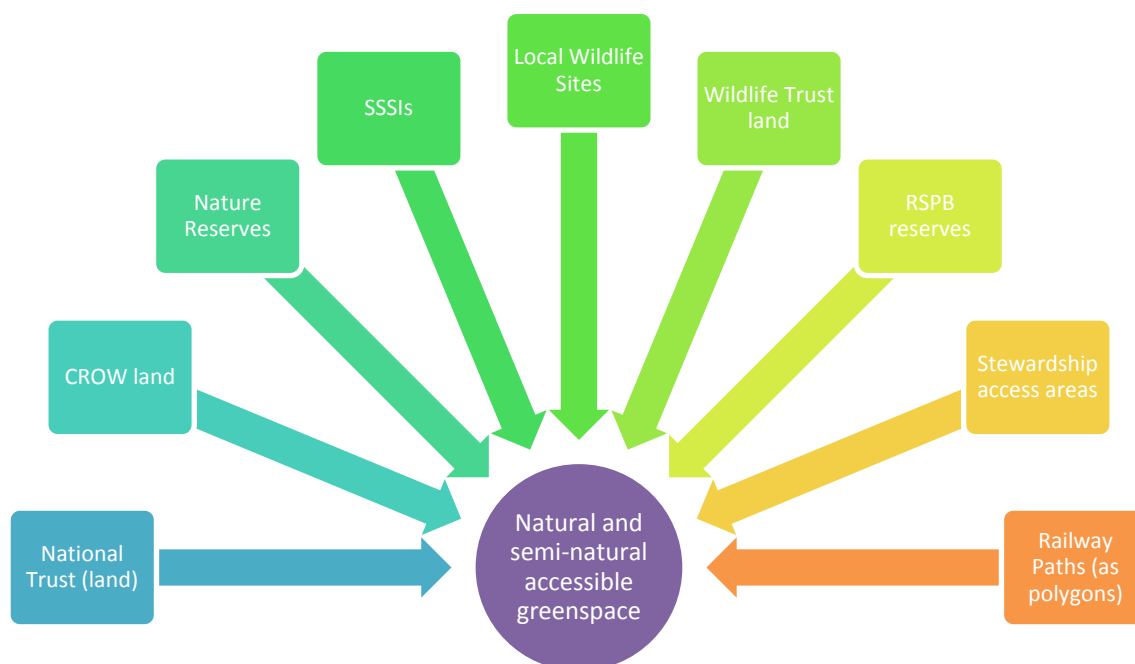

Map 3 - all parks and gardens

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[10] The summary statistics, both here and below, refer to parcels inside the NCA and those in the ten km buffer zone.

4.2 Natural and Semi-Natural Greenspace

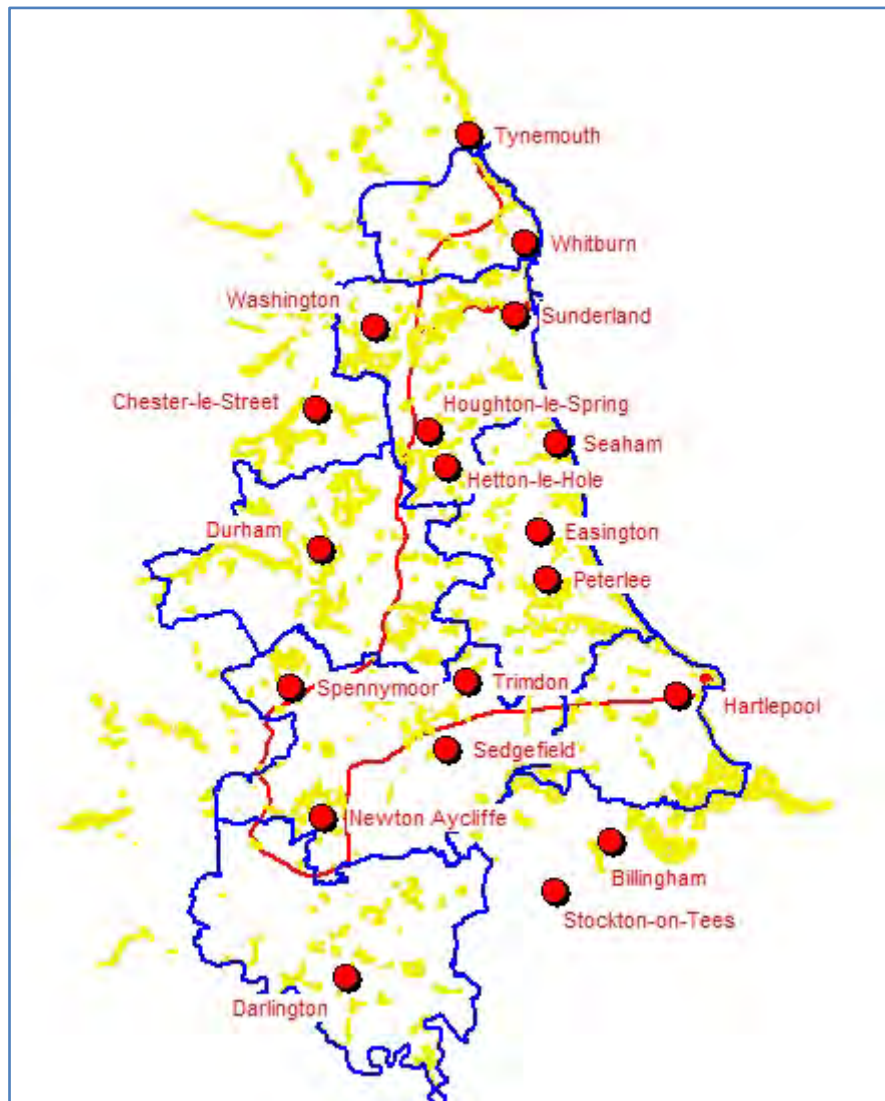**Figure 4 - natural and semi-natural greenspace**

This typology includes National Trust land sites, CROW land & common land, all nature reserves, local wildlife sites[11], "green / wildlife corridors", stewardship land with access[12], and some greenspaces from local councils, such as "tree belt". In addition railway paths which, although primarily access routes also act as strips of greenspace, were added to this dataset. These routes effectively appear in both this dataset as natural and semi-natural greenspaces, and in the access dataset as linear access routes. However they only appear once in the final, master dataset.

Map 4 below illustrates the distribution of natural and semi-natural greenspace across the NCA.

This dataset includes a total of 614 parcels of Natural & Semi-Natural Greenspace, with a combined area of just over 11,833 ha. 146 of these parcels are smaller than two ha.

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[11] "Local Wildlife Sites" is the new generic term for "Sites of Importance for Nature Conservation" – sites recognised as worthy of safeguarding (yet which fall outside international or national designations such as SSSI).
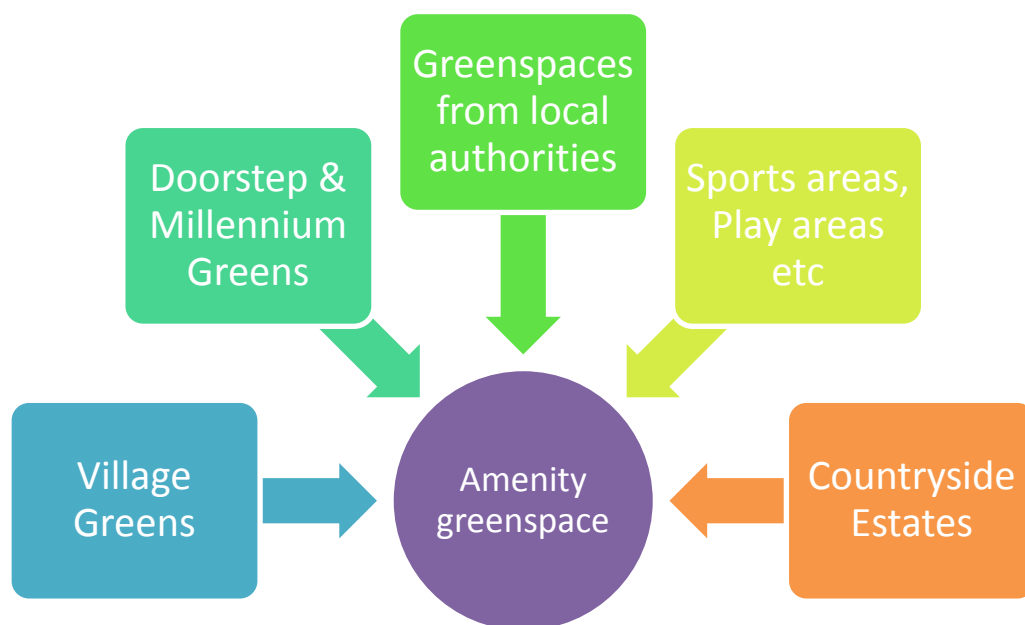
[12] Stewardship land with access means here permissive area-based open access through agri-environment schemes.

Map 4 - Natural and semi-natural greenspaces

4.3 Amenity Greenspace

Figure 5 - amenity greenspace

This typology includes village greens, doorstep greens, sports areas, play areas and other open spaces from local authorities. Many greenspace strategies include an additional typology for formal sports areas (designed specifically for sport, such as sports pitches, school playing fields, running tracks etc) as opposed to informal sport. However this study is addressing access to freely accessible greenspace, so these areas are not included in the study.

Map 5 below illustrates amenity greenspace.

The typology comprises 1976 parcels of Amenity Greenspace, with a combined area of just over 3,864 ha. 1604 of these parcels are smaller than two ha.
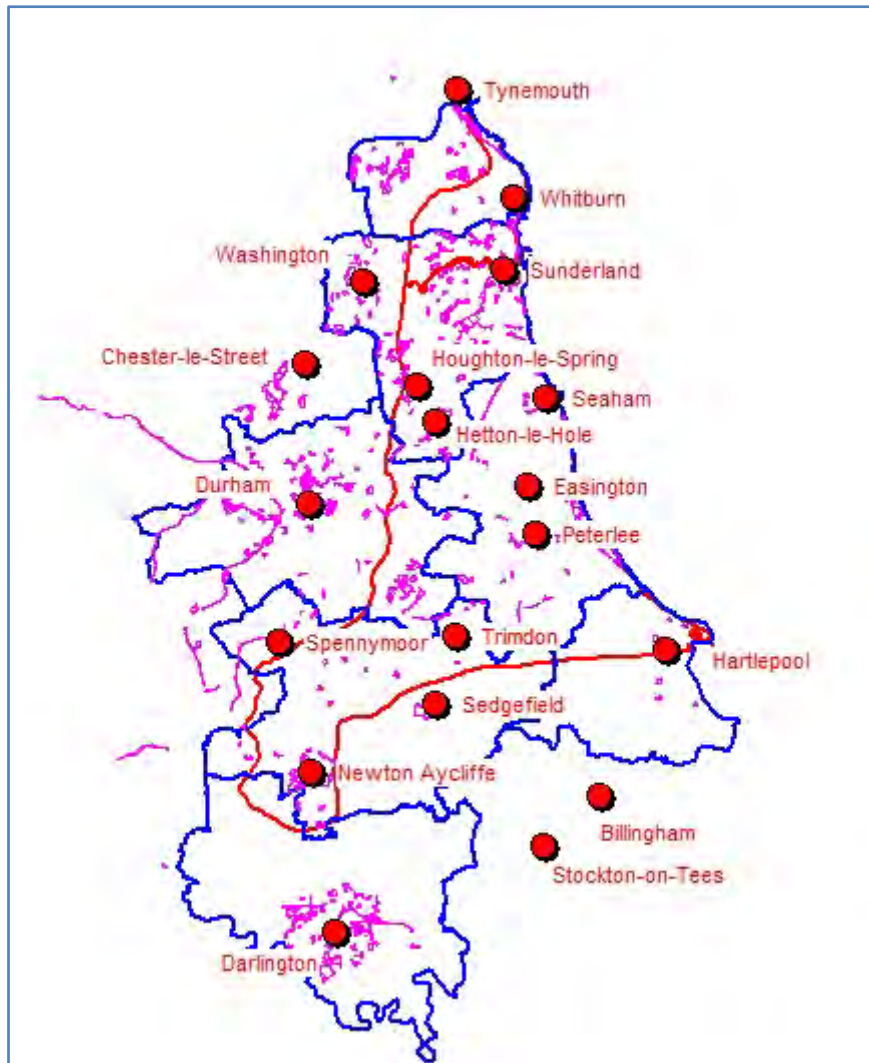
Map 5 - Amenity greenspace

4.4 Churchyards & cemeteries

Figure 6 - churchyards & cemeteries
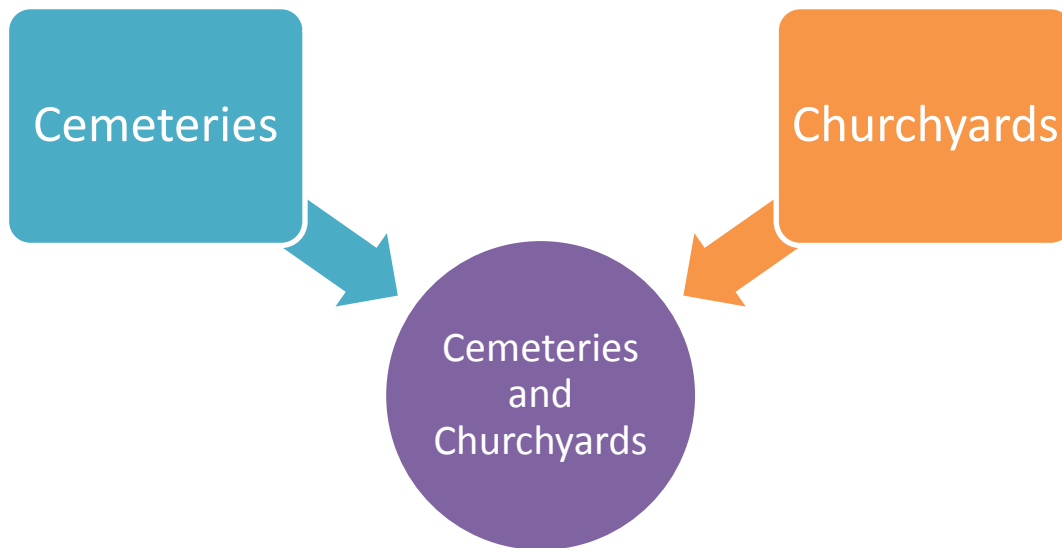
This proved to be the most straightforward typology – being the easiest to define. Churchyards and cemeteries are shown in Map 6 below.

The data includes a total of 140 parcels of Churchyards & Cemeteries, with a combined area of just over 343 ha. 104 of these parcels are smaller than two ha.
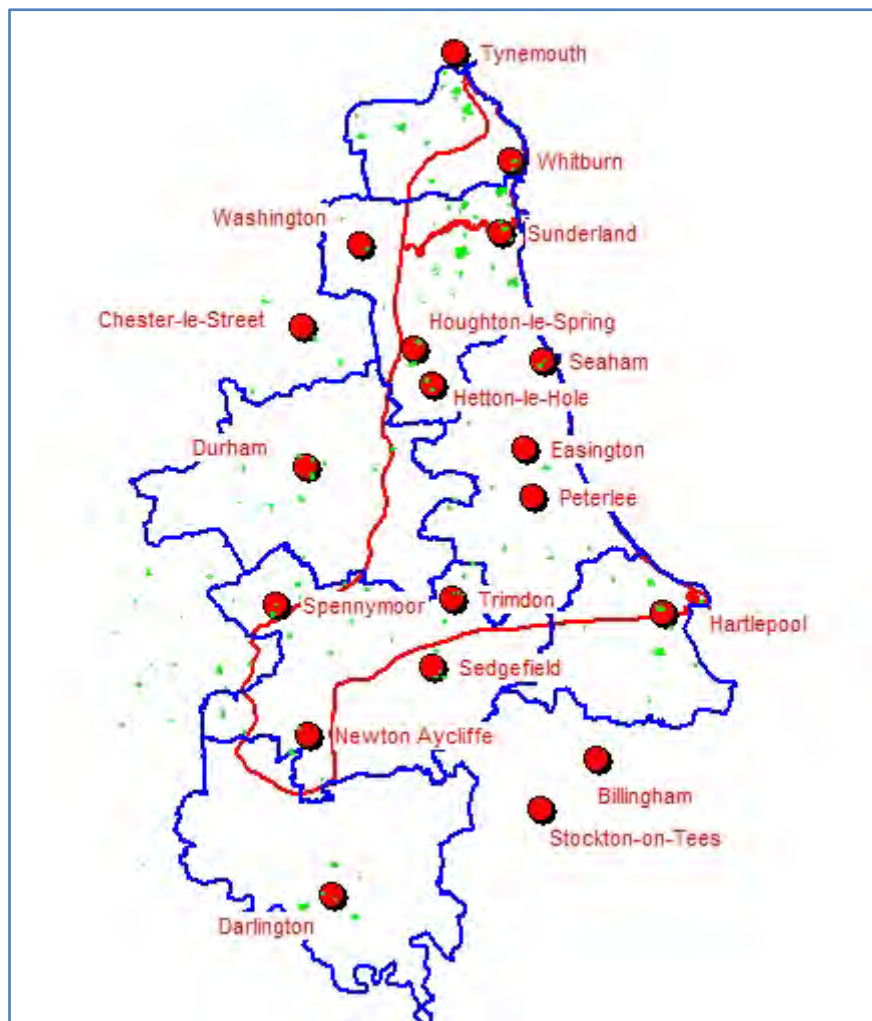
Map 6 - churchyards and cemeteries

4.5 Woodland
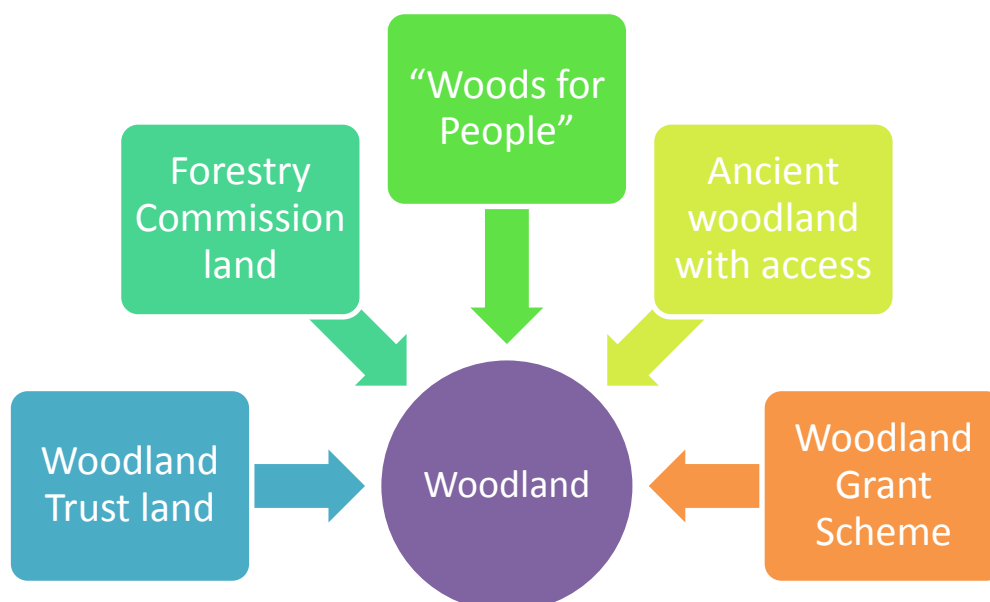
This typology was added during the data collection phase, due to the complexity and number of sources of woodland data. Woodland data was sourced from The Woodland Trust[13], Forestry Commission, Natural England and local authorities.

Map 7 below illustrates the distribution of woodland.

The final data set includes a total of 240 parcels of Woodland, with a combined area of just over 4202 ha. Fifty-three of these parcels are smaller than two ha.

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[13] Including the Woodland Trust's own landholding plus a project "Woods 4 People" which is their inventory of known accessible woods – see Table 4, below, for more information.
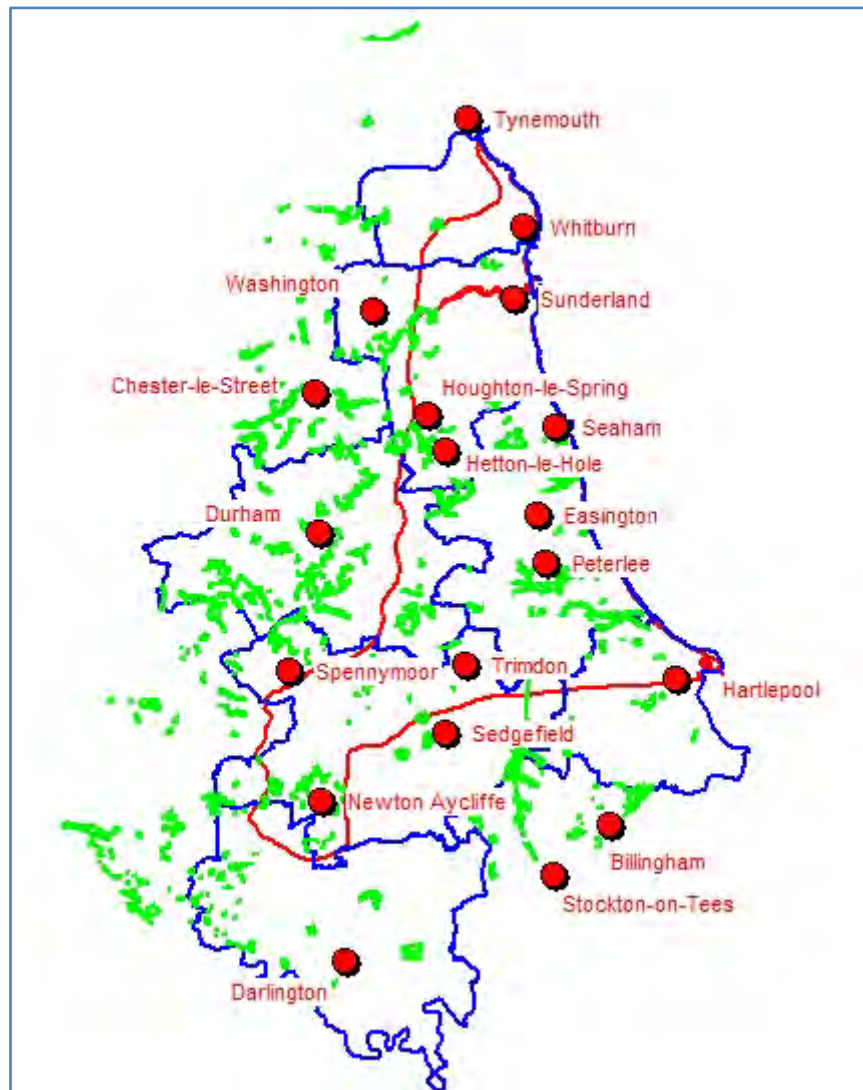
Map 7 - Woodland typology

4.6 Access routes

Figure 8- access routes
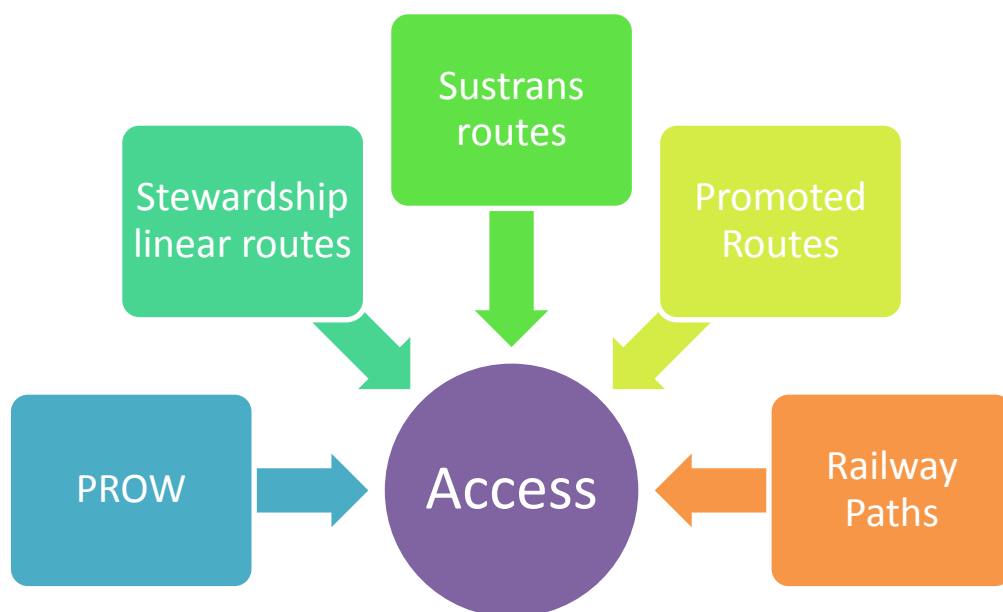
This typology is different to the others as it covers linear access. It includes Public Rights of Way, stewardship access routes, other identified permissive access, cycleways, promoted routes[14], disused railway paths, and other linear access. The dataset is shown in Map 8 below.

The majority of this data relates to narrow access routes, although some, for example railway paths, are much wider and form not only access routes but greenspaces in their own right.

The access dataset is the largest, comprising 5086 records of access routes, with a combined length of just over 2411 km. In addition, it includes 73 parcels where access is wider than a narrow line and has been mapped as polygons, these make up just over 677 ha.

The linear access routes were not buffered in the ANGSt analysis. They were used to check the access arrangements to greenspaces. It is important to remember

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[14] Promoted routes means any promoted route GIS information that the local authority supplied. For example, this included the Great Aycliffe Way in Sedgefield, or more local walks such as Native Tree Walk in Hartlepool.

that linear access provides access to greenspace, in particular in rural areas, which is not identified through the ANGSt analysis.
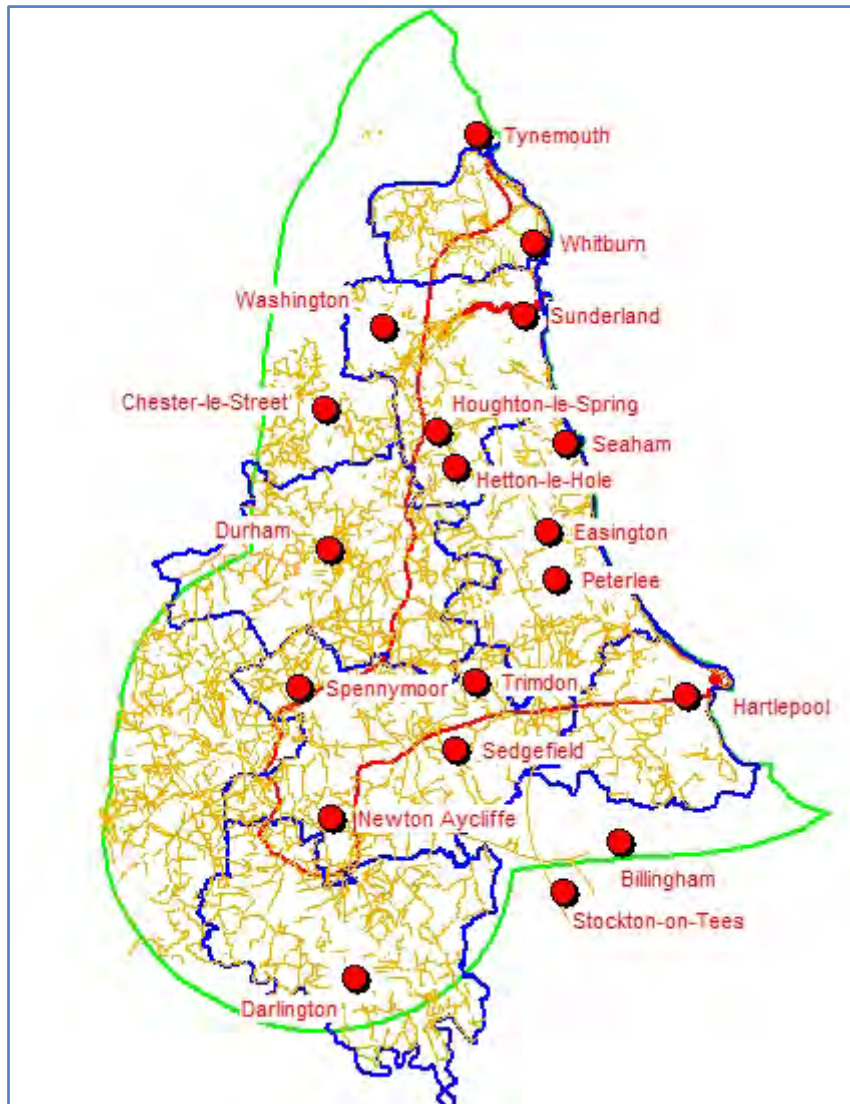
Map 8 – Access routes

Further information about the typologies and the dataset sources is given in appendix 3.

4.7 Overlap of definitions [15]

There is some overlap in the definitions, for example some "National Trust sites" appear both in "Parks & Gardens" and "Natural & Semi-Natural Greenspace". This is because some of these sites will have a "Parks & Gardens" character and therefore be included in that typology, others will be more natural, for example open land owned by the National Trust, and appear in the "Natural & Semi-Natural" typology.

Other examples of potential overlap are :

- Certain parcels of woodland which fall into "Natural & Semi-Natural" or into "Woodland",
- Tree belts from local authorities falling into "Amenity Greenspace" or into "Woodland",
- Picnic Areas or Play Areas from local authorities falling into "Parks & Gardens" or into "Amenity Greenspace",
- Green Corridors or Railway Paths – there are many disused railway tracks in the area as a legacy of the industrial heritage. These can sometimes figure in "Natural & Semi-Natural Greenspaces", "Amenity Greenspaces" or "Woodland" – depending on the approach the dataset source took and the vegetation on site. Where these were identified, they were duplicated into a second access dataset called "duplicated railway paths".

Where a parcel of land was identified which fitted more than one category it was allocated to the typology of best fit. Any information that may have been relevant was retained in the column "Typology_second". The parcel was **not** duplicated in both typology datasets – it was allocated to the typology of best fit.

5 Attribute data

Information about each green space is stored in the attribute table. Key attributes are recorded for all sites where possible; others are only recorded if the data was included in the original dataset.

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[15] This issue was also encountered by the PPG17 Open Space Needs Assessments by local authorities. For instance, **Durham City's Open Space Needs Assessment** says, "It is often the case that an open space may fit into more than one of the PPG17 categories, e.g. a country park could fit into "public parks & gardens" or into "natural or semi natural green space", or a recreation ground containing a football pitch and play equipment, could be classed as a "public park" or an "outdoor sports facility" or as a "children's play facility". For the purposes of this study, the primary use was determined by the site surveyor and corroborated by the study team. With some of the larger sites, where there were clearly at least two distinctly separate uses, the sites were divided so that each distinct use was separately categorised ..." (page 50).

Key fields are shaded in table 1.

<p align="center">Table 1- attribute table</p>

Attribute	Description / notes
Name	Site name. About half the datasets included site names. Some sites were named using a base map or the internet – where names were guessed at a question mark has been added at the end of the site name. Where sites were too small to name sensibly, or where it was not possible to identify a name, this field is left as 'No Name'[16].
ANGSt typology	One of the 6 typology categories
Secondary Typology	If the original data source included information such as "Picnic Area" or "SSSI" this was slotted in to this column
Naturalness	High, medium or low
Naturalness – confidence score	This field allocates a confidence score to the field above. If the naturalness score is based on clear evidence the confidence score will be high, if the evidence is not clear or if the score was based on generic assumptions the confidence will be medium or low. It is recommended that as the data is refined all sites with medium or low confidence scores are checked and updated.
Quality of access	High, medium or low
Quality of Access - confidence score	As for 'naturalness confidence score' above
Data source	Either the name of the original GIS dataset or the name of the organisation or person[17] who supplied it. The attribute table may include more than one entry here, indicating that two different organisations or data sources supplied the same (or similar) parcel.
Area_ha	Size of parcel in hectares
Easting	Where the origin dataset included Eastings and Northings these were

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[16] 138 out of 1213 greenspace records over 2ha have "No Name" in this column
[17] In some cases, many different people within each organisation were contacted for GIS data. To keep the reference to the origin data source, sometimes the person's name was used in this column together with the organisation.

Northing	preserved in the attribute table. Similarly, where OS grid references were included, these were preserved.
Grid Ref	
Landowner	If supplied with original data set, or identified through research
Notes	This column includes any information about potential for improving site naturalness quality or access quality that was either preserved from the origin GIS dataset or gleaned from reading a report.

Any additional information from the original datasets beyond that covered above was added to 'Notes'. |

6   Results and Interpretation

This section considers each element of the ANGSt analysis in turn and interprets any geographical deficiencies in greenspace provision.

6.1   Summary

The population of the NCA has good access to medium sized greenspace and adequate access to Local Nature Reserves, but access to large sites is limited, in particular in the west of the area. In addition a significant number of small areas have poor access to sites close to where they live, the most densely populated area being Sunderland.

Public rights of way and other linear access are well distributed across the area, providing areas for exercise and an ability to walk through green areas even where no designated sites exist. In particular the railway walks provide safe and easy access to greenspace for many people.

Access to Local Nature Reserves in the NCA just meets the ANGSt criteria. Although the standard is met across the area as a whole it is likely that many people do not have easy access to a local nature reserve, development of more sites would be beneficial, in particular in the central area to the east of Durham (south of Hetton le Hole and Seaham and north of Trimdon and Peterlee).

There are a significant number of areas within the NCA where the population do not have adequate access to greenspace close to where they live.

Only a few small areas of the NCA do not meet the criteria for access to greenspace over twenty hectares. However a significant area of Sunderland does not have adequate access to greenspace within two km.

One small, sparsely populated area close to Trimdon does not meet the criteria for access to sites over 100 km.

Access to large (>500 hectare) sites is limited within the NCA. The only sites identified as being over 500 ha are along the coast. It is debatable whether access to a long narrow strip of land is the same as access to a large 500 hectare site, and this whether the sites identified in the study do actually provide the experience one imagines a large site would. However access to the coast, while possibly only

on a narrow strip of land, does bring with it a sense of scale and freedom, so it is possible that the criteria are indeed met.

Figure 9 - the proportions of all the greenspaces collected

All parcels
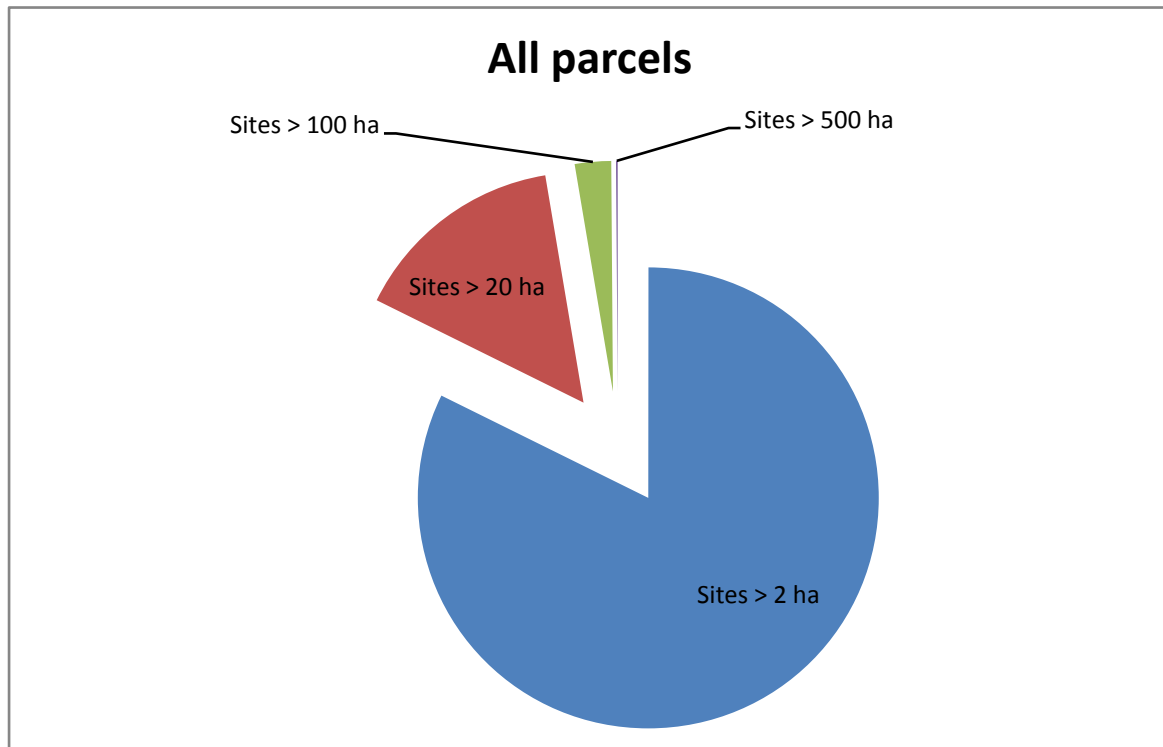
ANGSt criteria

- There should be at least one hectare (ha) of Local Nature Reserve (LNR) per 1000 people,
- Nobody should live more than 300 m from their nearest natural greenspace at least two hectares in size,
- Nobody should live more than two km (approx 1¼ miles) from their nearest natural greenspace at least twenty hectares in size,
- Nobody should live more than five km from their nearest natural greenspace at least 100 hectares in size,
- Nobody should live more than ten km from their nearest natural greenspace at least 500 hectares in size.

6.2 Access to Local Nature Reserves

ANGSt recommendation:

There should be at least one hectare (ha) of Local Nature Reserve (LNR) per 1000 people.

There are twenty-seven[18] Local Nature Reserve (LNR) sites within or partly within[19] the NCA study area, with a total area of 440.52 hectares[20]. They are illustrated in Map 9, below.

The population of the NCA is 433,653 people (see appendix 2 for details of the approach taken to reach this figure).

Assuming this population level is correct, there is 1.015 hectares of Local Nature Reserve per 1000 people. This just meets the ANGSt criteria. However the LNRs are not evenly spread across the NCA, there is a large central area with few reserves.

Although the standard is met across the area as a whole it is likely that many people do not have easy access to a local nature reserve, development of more sites would be beneficial, in particular in the central area to the east of Durham (south of Hetton-le-Hole and Seaham and north of Peterlee).

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[18] These are : Bracken Hill Wood, Spion Cop Cemetery, Hart Warren, Tilesheds, Cleadon Hills, Wingate Quarry, Horden Grasslands, Crow Trees, Raisby Way and Trimdon Grange Quarry, Harton Down Hill, Little Wood, Coxhoe Quarry Wood, Blackhall Grasslands, Limekiln Gill, Noses Point, Whitburn Point, Hart to Haswell Walkway, Fulwell Quarry, Hylton Dene, Hetton Bogs, Tunstall Hills, Marsden Old Quarry, The Moor, Ferryhill Carrs, Byerley, Bishop Middleham Community Wildlife Garden and part of Castle Eden Walkway.

[19] The SQL command used was "intersects". The twenty-seven LNR includes the Castle Eden Walkway, partly inside the NCA and partly outside. This was therefore split in half, and the calculations performed on only that part of the LNR within the NCA.

[20] Note – there are sixty-one LNRs in the NCA + 10 km buffer zone, with an area of 1,178 hectares
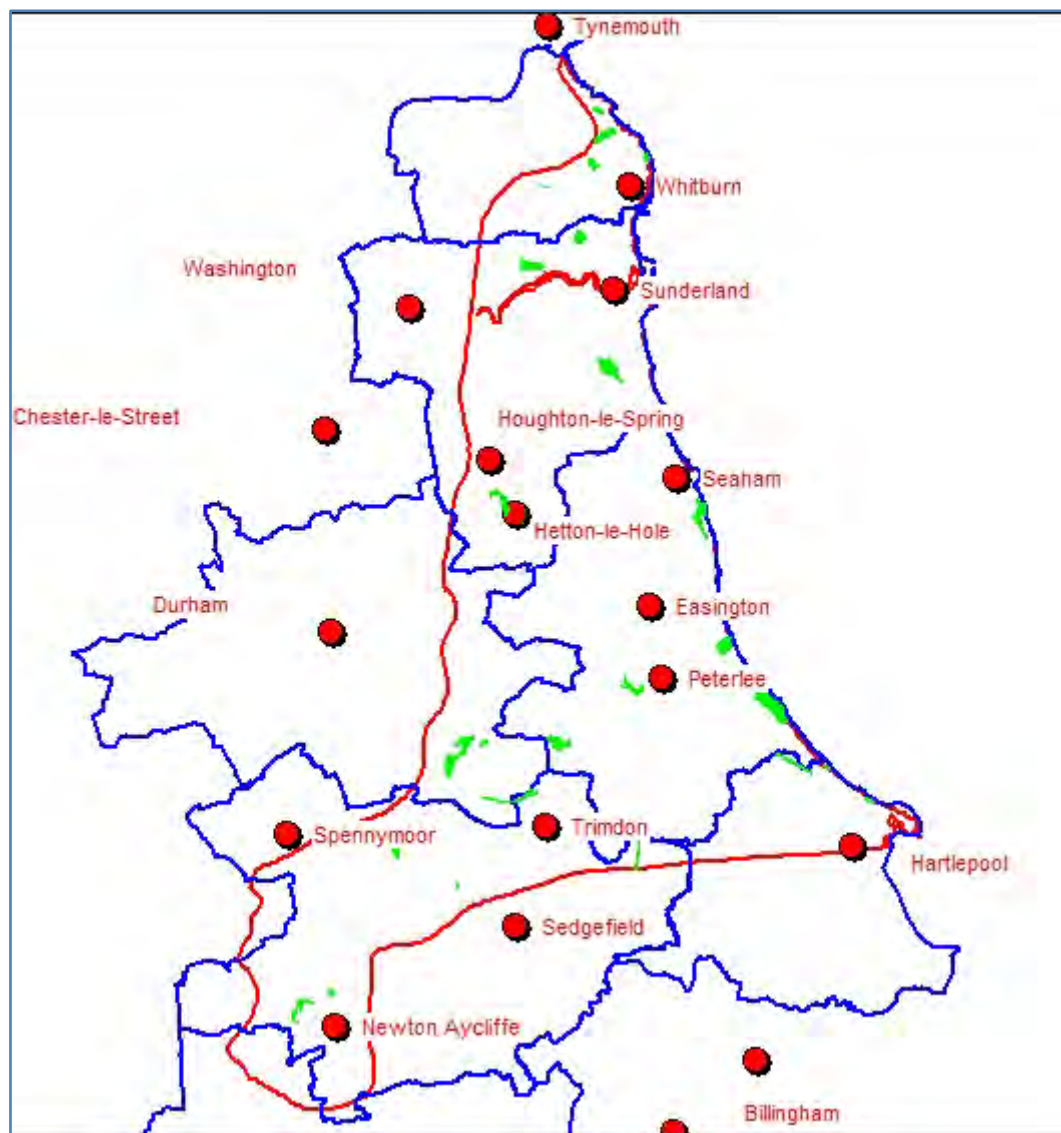
Map 9 - Local Nature Reserves in NCA

6.3 Access to greenspace within 300 m of home (all sites over two hectares)

ANGSt recommendation:

Nobody should live more than 300 m from their nearest natural greenspace at least two ha in size.

1368 parcels of Accessible Natural Greenspace over two hectares were collected, with a combined area of just over 24,191 ha [21].

These parcels include all sites over two hectares, up to and including those over 500 hectares.

Map 10 below shows all of these sites. It is not immediately obvious from the map where the large sites are. There are only two sites over 500 hectares, these are long narrow sites along the coastal strip (see Map 16).

Map 11 below shows the over two hectare sites with a 300m buffer drawn around them. This maps show the areas of the NCA where people do not have adequate access to local greenspace.

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[21] These summary figures refer to parcels both inside the NCA and those in the ten km buffer zone.

Map 10 – combined typologies of greenspaces > 2ha
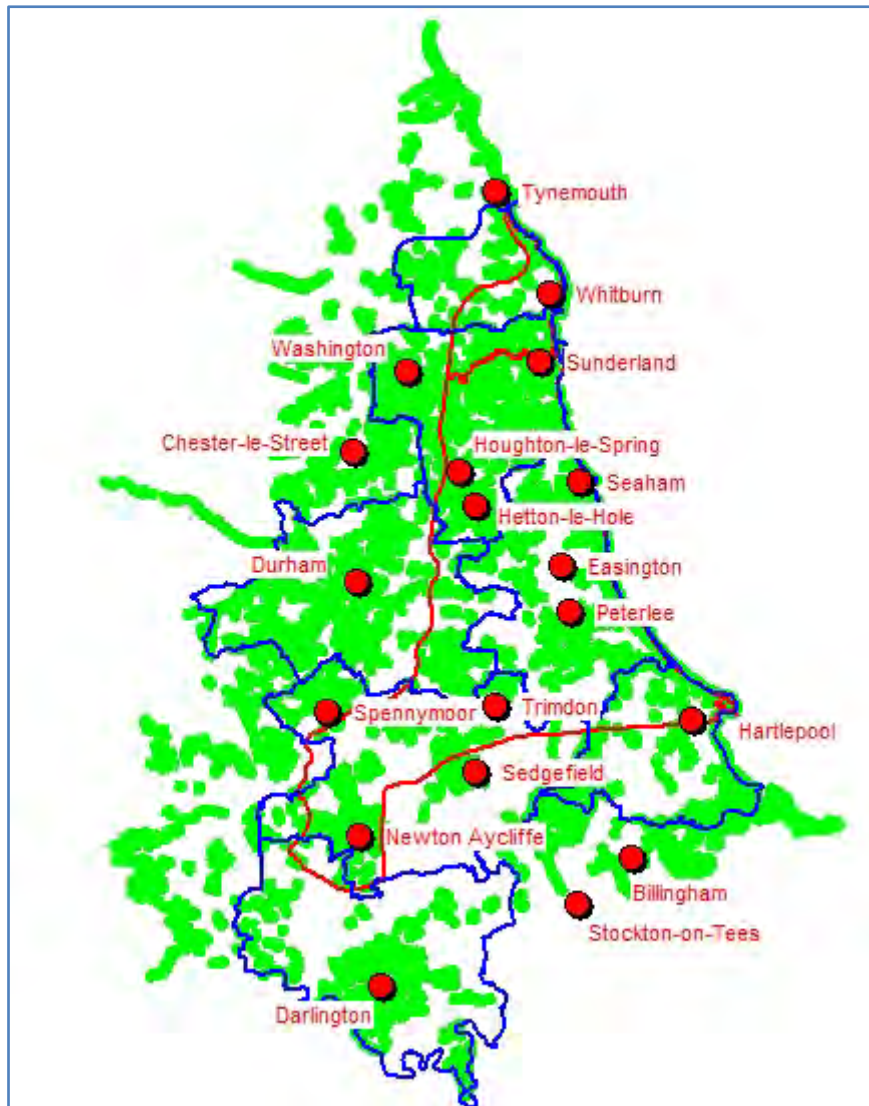
Map 11 - combined typologies of greenspaces > 2ha with 300m buffer

Appendix 10 (Map 17, Map 18, Map 19, Map 20, Map 21 & Map 22) show these areas in more detail. These include:

- Near Cleadon and behind Whitburn
- Parts of Sunderland, including the docks, parts of the central built-up area, and the countryside near Middle Herrington, Newbottle, west of Ryhope and east of Houghton-le-Spring & Hetton-le-Hole.
- A central belt in Seaham
- Land near Easington Lane
- A large area of deficiency stretching south of Murton to Peterlee, including Easington, Easington Colliery and Shotton Colliery.
- Inland from Blackhall Colliery
- Around Wheatley Hill & Thornley

- A large area around Sheraton / South Wingate/ Black Hurworth towards Embleton.
- South of West and East Rainton
- Land around Shadforth & Old Cassop
- South of Low Moorsley towards Sherburn
- South-West of Coxhoe including Cornforth
- Parts of built-up Hartlepool
- The countryside West of Hartlepool, including High Throston, & Hart, towards Elwick
- Most of rural Sedgefield and around Trimdon
- Mainsforth and Great Chilton westwards towards Kirk Merrington, Middlestone & Coundon,
- Land near Old Eldon
- South-west of Newton Aycliffe, including Heighington

It is not possible to calculate the number of people living in these areas accurately using Lower Super Output Areas, as to do this as assumption would have to be made that the population are evenly distributed within each SOA (which is clearly not the case, some of the areas are densely populated, for example Hartlepool, Seaham and Easington, others are very rural with low density of population for example around Sherburn and Coundon).

6.4 Access to greenspace within two km of home (all sites over twenty hectares, up to and including those over 500 ha)

ANGSt recommendation:

Nobody should live more than two km (approx 1¼ miles) from their nearest natural greenspace at least twenty ha in size.

250 parcels of Accessible Natural Greenspace over twenty ha were collected, with a combined area of just over 18,285 ha. Map 12 below shows these areas, which reveals large gaps. However when they are buffered to two km (see Map 13, below) the gaps are dramatically reduced.
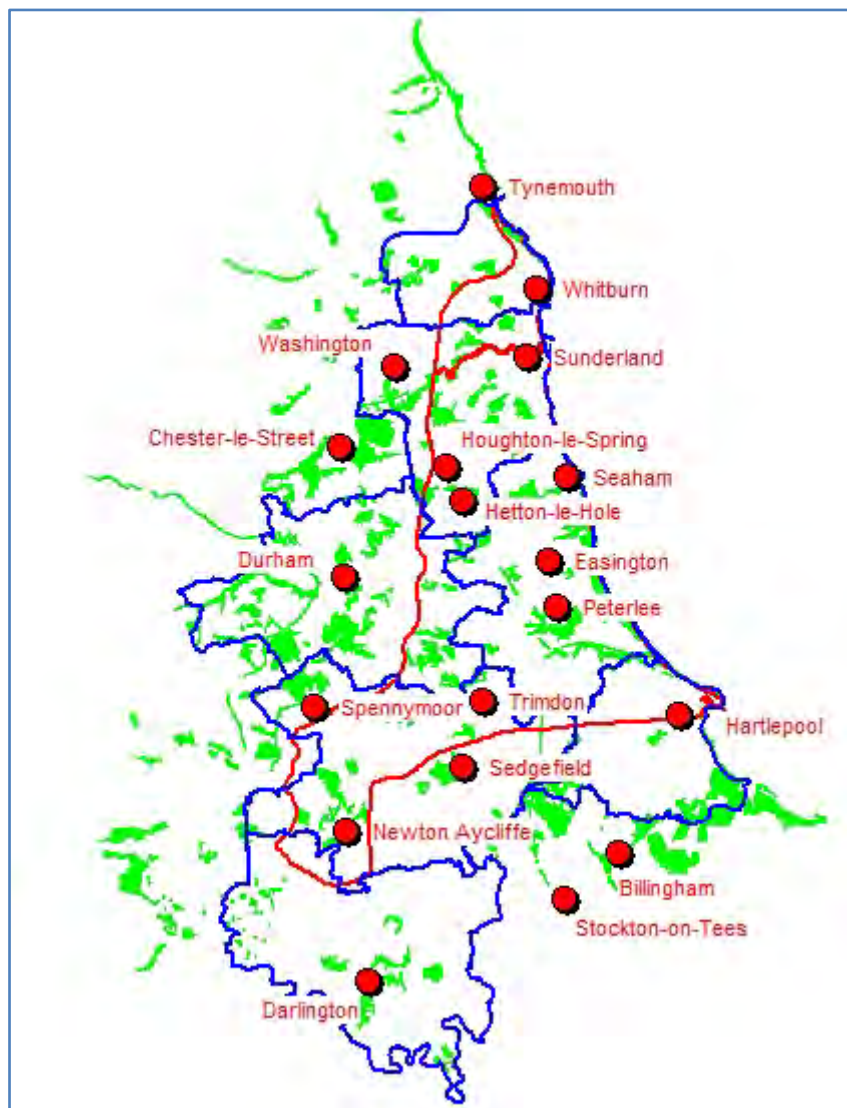
Map 12 – combined typologies of greenspaces > 20ha
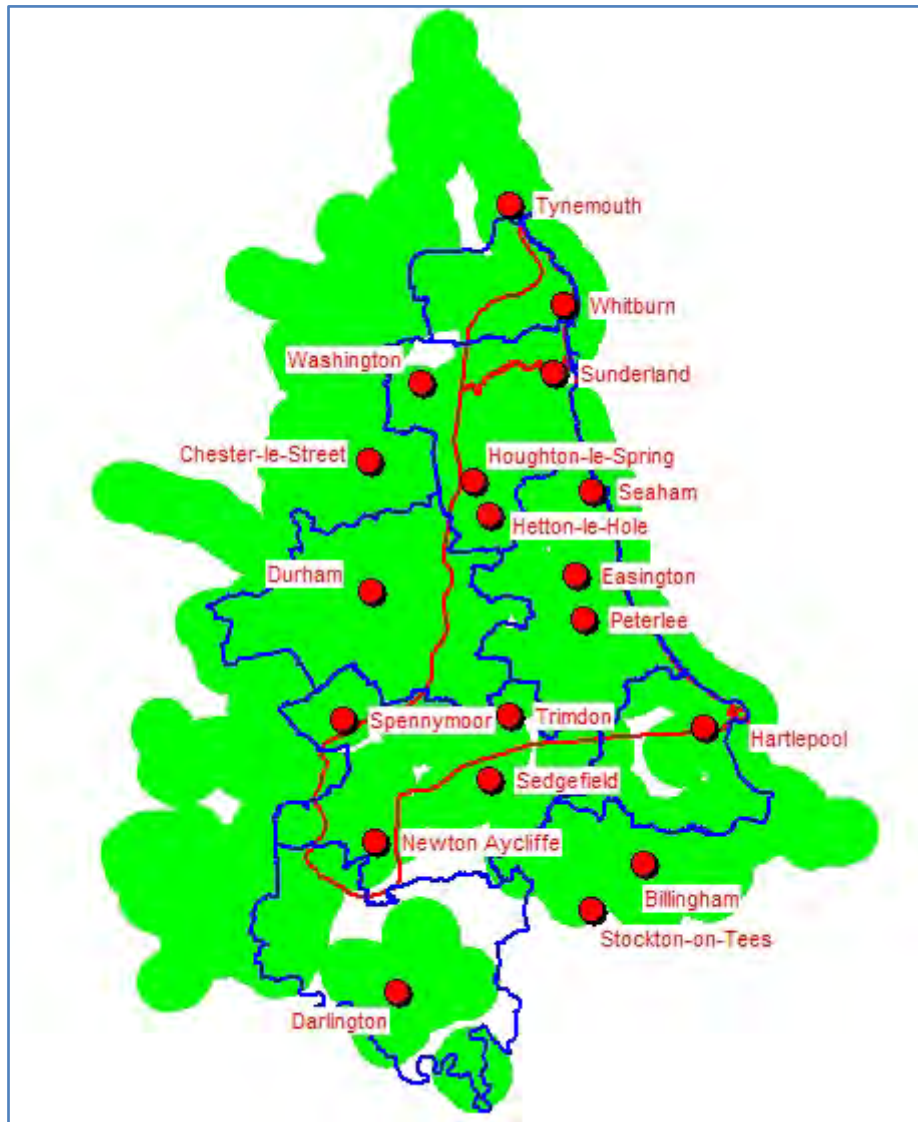
Map 13 – combined typologies of greenspaces > 20ha with a 2km buffer

A few areas of the NCA do not meet the criteria for access to greenspace over twenty hectares. Appendix 10 (Map 23, Map 24, Map 25 & Map 26) show these areas in more detail. These include:

- The docks in Sunderland and the built-up area inland
- Land east of South Hetton in Easington district
- Thornley, in Easington and Durham disctrict
- Land near Trimdon Colliery and near Trimdon / Fishburn.
- Between Elwick and High Throston in Hartlepool district, extending to near Sheraton in Sedgefield district
- Land near Bradbury / Great Chilton
- South-east of Spennymoor, near Kirk Merrington & Middlestone & Dean Bank
- South of Newton Aycliffe

The majority of these are tiny areas which are very sparsely populated, the only significant exception being Sunderland.

6.5 Access to greenspace within 5 km of home (all sites over 100 hectares, up to and including those over 500 ha)

ANGSt recommendation:

Nobody should live more than five km from their nearest natural greenspace at least 100 ha in size.

Fourty-two parcels of Accessible Natural Greenspace over 100 ha were collected, with a combined area of just over 9,574 ha.

Map 14, below, shows these greenspaces, revealing the dispersed nature of the larger sites. When buffered to five km (Map 15, below) only two areas of the NCA are revealed to be outside the ANGSt criteria for sites of this size. These are shown in Appendix 10 (Map 27 & Map 28).

- Around Trimdon, Trimdon Grange, Town Kelloe & Kelloe in Durham City Council area
- South of Newton Aycliffe (Aycliffe Village / Aycliffe Industrial Estate)

Map 14 - combined typologies of greenspaces > 100ha

Map 15 – combined typologies of greenspaces > 100ha with a 5km buffer

6.6 Access to greenspace within ten km of home (all sites over 500 hectares)

ANGSt recommendation:

Nobody should live more than ten km from their nearest natural greenspace at least 500 ha in size.

Only two parcels of Accessible Natural Greenspace over 500 ha were collected, with a combined area of just over 2303 ha. These are shown in Map 16, below. These sites are :

- Durham Coast and Limekiln Gill – part NNR, part LNR, part SSSI
- Tees & Hartlepool foreshore & wetlands, Seal Sands etc – part NNR, part LNR, part SSSI, part RSPB site

Map 16 – combined typologies of greenspaces > 500ha

These sites are along the coast, and it is debatable whether such sites should be classed as meeting the ANGSt criteria, as, being long and thin they do not provide the overall sense of a large site. This is something which the project team may wish to consider when running any further analysis on this data.

As the larger sites are on the coast, most of the western side of the NCA does not meet the criteria for access to large sites (illustrated in Appendix 10, Map 29 & Map 30) including :

- NCA areas west of an imaginary line which broadly ten km inland from the coast following – Trimdon, Chilton, Kelloe, Cassop, Sherburn Hill, Pittington & West Rainton, including Fishburn, Bishop Middleham, Newton Aycliffe, Heighington, Coundon, Ferryhill, Cornforth, Coxhoe, Old Quarrington & Old Cassop

7   Recommendations

7.1   Improving access to greenspace

Access to Local Nature Reserves per 1000 population is adequate, however coverage is not even. Opportunities should be taken to encourage the development of more LNRs across the NCA and particularly in the central area.

Development of more LNRs will improve local access for people living close to them. However additional work is required to improve access close to where people live, in particular around Sunderland and the areas identified in section 6.3 above.

Access to large sites in the NCA is poor. The inclusion of the coastal strip (Map 16) as a 'large >500 hectare' site is a subject for discussion. If this site is not considered to fully meet the criteria for a large site then the whole of the NCA could be said to have inadequate access to large sites. Work may be required to link up existing sites, through encouraging access to currently inaccessible sites, or though development of new sites. However, the area has an excellent network of linear access provision (map 8), which gives access to greenspace particularly in the rural areas. Whilst linear access is not considered in ANGSt it is how many people access greenspace and gain the physical and mental health benefits associated with greenspace.

Further analysis is required to determine if the areas deficient in greenspace have good access to linear routes. It may well prove to be easier to create linkages through new sections of linear access (for example through permissive path agreements or higher level stewardship agreements) than to create new areas of greenspace.

7.2   Improving awareness of greenspace

The difficulties encountered while compiling the greenspace dataset are revealing. There is no central place the public can go to find out exactly where they can go. Confident map readers can find the information they need on Ordnance Survey maps, but the majority of the population are not able to do this, and have no other place to go.

The dataset collected through this project should be made available to the public[22]. This could be approached in a number of ways :

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[22] Subject to agreement with the supplying organisations

Interactive website

- The individual typologies could be available on a website, with people encouraged to make comments or corrections if the data is incorrect
- Such an approach would require disclaimers to warn the public that although the sites are on the map they may not actually be accessible
- Encouraging user feedback is a good way to update the quality scores and clean up the dataset, it may also reveal sites which have been missed, in particular informal sites used by the pubic but not recorded by authority
- Local authorities and other partners could be encouraged to have links to the data from their own websites

An example of this approach can be seen at :
http://wildweb.london.gov.uk/wildweb/Welcome.do where the public are asked to report on naturalness and access to build up picture of local use / value of sites.

Informative website

- The data could be checked and amended where required before being shared with the public
- This approach will require more resources, as sites will need to be visited
- However authorities are more likely to agree to this approach, as they may fear the repercussions of publishing less than 100 percent accurate access data.

It may be possible to combine the two approaches, depending on the level of commitment of the partnership members. Volunteers or Local Access Forums could be tasked with checking out sites and amending the data for example.

Appendices

Appendix 1 - ANGSt distances as walking / cycling / riding times

Table 2 - ANGSt criteria represented as journey times

	Walking	Running	Riding	Cycling
	Between 2.5mph (4 km / hr) and 2.25mph (3.6 km / hr)[23]	6.5mph (10.5 km / hr)	Horse Riding (trot) at 8mph (12.8 km / hr)	20 km / hr[24]
300 m	4 ½ minutes – 5 minutes	1 ¾ minutes	1 ½ minutes	1 minute
2 km	30 – 35 minutes	12 minutes	10 minutes	6 minutes
5 km	1 hr 15 – 1hr 25 minutes	30 minutes	25 minutes	15 minutes
10 km	2 hrs 30 – 2hrs 45 minutes	1hr	45 – 50 minutes	30 minutes

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[23] A gentle walking speed is around 2.5 mph or just under, allowing for breaks along the way

[24] A cycling speed of 20 km / hr (just under 13 mph) allows time for stopping for traffic lights / junctions, slowing down and accelerating and negotiating traffic and other hazards such as parked cars in an urban environment

Appendix 2 – Calculation of the population of NCA

Lower Level Super Output Areas are derived from 2001 census data. Each parcel represents on average 1,500 people (min 1000 people) and they are a basic, stable statistical geography used by the Office of National Statistics (ONS) [25]. This approach is commonly used by many projects working to establish service provision by population spread.

Lower Level Super Output Areas were used in this project to determine the population of the National Character Area. While this is not 100% accurate, and relies on a number of assumptions, it provides a practical solution allowing a population figure to be obtained.

Two assumptions made were that:

a) The population of each Lower Level SOA is 1500 people
b) The population is evenly spread throughout each Lower Level SOA.

Several SOA parcels crossed the NCA boundary. The population of each was calculated by area, for example if 30% of a SOA was inside the NCA the population of that area was calculated to be 30% of 1500 = 450 (based on the assumptions above).

- There are 217 whole Super Output Areas *entirely within* the NCA. This equals a population of 325,500.
- Therefore there are 118 Super Output Areas *partly within* the NCA. Having split these polygons, and assigned them a population figure according to the proportion area inside and outside the NCA, this equals a population of 108,153

The combined 217 NCA "entirely within" parcels plus the 118 "partly within" parcels = 335 total parcels.

The combined population is therefore **433,653** people.

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[25] See
http://neighbourhood.statistics.gov.uk/dissemination/Info.do?page=aboutneighbourhood/geography/superoutputareas/soa-intro.htm for more information about Lower Level Super Output Areas.

Appendix 3 – Data handling

1   Source data

Local authorities and other organisations were approached asked to supply any GIS data they had for greenspace and access within their area. They were provided with a list of the data types to be covered by the project including; public rights of way and any other linear access, parks, cemeteries, natural greenspaces, amenity greenspaces, etc. This contact was followed up with telephone calls.

Data was provided in a number of formats. Many authorities provided large data sets including a mixture of land types, often the basis of mowing or maintenance contracts. Metadata was attached with origin datasets in only six cases. [26]

Where such datasets were supplied a number of approaches were used to identify the nature of the land parcel and to 'clean' the data. These included:

- Checking the associated attribute tables for clues, in particular for any indication of the land use.
- Where land type could not be easily identified other clues such as department responsible were used. For example land under 'education' was generally assumed to be related to schools and not accessible to the public, land covered by 'parks and countryside' or 'culture & leisure' was generally assumed to be accessible.
- Larger sites which could not be identified were investigated by looking at the base map or aerial photographs. This procedure identified many sites and often enabled a name to be given to them. It also revealed sites which were not publicly accessible, for example allotment sites, golf courses or caravan parks.
- Tiny areas of land associated with housing, for example verges adjacent to urban streets included in mowing contracts, were removed from the data.
- Land identified as 'inaccessible' were deleted.
- Ancient woodland sites which did not overlap with any other parcels were examined on the base map to assess how accessible they are. If a public right of way or other access route touched or passed through the site it was classed as accessible and added to the 'woodland' typology. If no access was

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[26] These six datasets with origin metadata are :
- CROW land from Natural England,
- Local Nature Reserves and National Nature Reserves from English Nature GIS download site (now Natural England),
- RSPB reserves and JCA area from magic.gov.uk and
- Woodland Trust land holding.

apparent, and the site was not included in the Woodland Trust's dataset of accessible woodland it was not added to the typology[27].

- Where sites had been stored as several small areas of land these were merged to create a single site. This approach was used particularly for village greens which often appeared as a number of tiny parcels divided by roads; in this case they were combined to show the whole green as a single parcel. Other sites were treated in this way if they had the same name, were adjacent to each other, or appeared to be the same type of land.

2 Typologies

The cleaned data was sorted into the five main typologies;

- Parks and gardens
- Natural and Semi-Natural Greenspace
- Amenity Greenspace
- Churchyards & cemeteries
- Access routes

The complexity of woodland data meant that it was retained as a separate data set, making a sixth typology. This dataset was complex due to the number of sources, the variety of data in from each source, the amount of overlap, the difficulty of establishing how accessible each site is, and the need to keep the databases to a manageable size[28].

Where ancient woodland data was supplied with no information on levels of access, the accessibility of the site was derived from the presence or absence of linear access. For example an ancient woodland with an access route running through it or adjacent to it was described as accessible and was therefore retained in the dataset. A similar site with no right of way or other means of access was assumed to be inaccessible and not included in the final "accessible greenspace" layer. This means of sorting ancient woodland parcels (one by one) was relatively time-consuming. It is important to note that it is only the ancient woodland dataset parcels that were approached in this way – others were assumed to be accessible by their very nature e.g. village green, nature reserve, etc.

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[27] However, it should be noted that this was a labour-intensive method of deciding on the inclusion of parcels one by one. This approach was not replicated in the other typologies / datasets.
[28] There will, however, be many woodland sites which to some extent may overlap with the typology "Natural & Semi-Natural".

Data was extracted from the individual sources and moved into the relevant typology dataset, for example all the cemetery sites from all authorities were added to the 'churchyards and cemeteries' dataset.

3   Merging data

Within each typology parcels which adjoined or overlapped each other were merged to create a larger parcel. For example a site supplied by an authority as a countryside site may overlap with a local nature reserve, or a SSSI. In this case the sites would be merged to create a larger site within the 'natural or semi-natural greenspace' typology.

In each case where sites were merged, attribute data was preserved, including a concatenation in the column 'Typology_second' and 'Dataset_Source'.

Sites which overlap with others from a different typology were not merged.

4   Gaps in data

Where data was not supplied in a usable GIS format gaps were filled through :

- Studying the Ordnance Survey base map, and noting any sites meeting the criteria in areas where data had not been supplied
- Discussions with local authority officers about sites which may have been missed
- Aerial photos on Google Earth to identify known missing parks etc

5   Quality of data

A very large amount of data was handled during the project. Due to the assumptions made and processes followed it is possible that some smaller sites may have been missed in areas where a full set of local authority data was not supplied. In addition where datasets were provided by outside bodies it was assumed that all content within them was accurate – the contract did not allow for checking or visiting sites. Therefore it is possible that there are some errors or omissions in the final dataset. It is important to remember therefore that areas of deficient accessible natural greenspaces may reflect the detail of the original datasets, rather than a real deficiency locally. However The Access Company are confident that the final dataset provides a valuable tool for identifying areas of greenspace, and is within acceptable levels of accuracy.

See appendix 4 below for more information about datasets and sources.

Appendix 4 – datasets and sources

The table below shows the sources of the GIS datasets together with any caveats (in alphabetical order of organisation name).   For a full list of the contact details for the ANGSt project, please see Appendix 6.

Table 3 - data sets and sources

Organisation and contact name	Dataset(s)	Caveats
Biodiversity Partnership (Durham)-Lucy Campbell	Local Wildlife Sites Proposed Local Wildlife Sites from MAGical Meadows project[29] Durham Wildlife Trust Reserves	
Biodiversity Partnership (Northumberland) - Francesca Leslie	Northumberland SNCIs City of Newcastle SNCIs Northumberland Wildlife Trust Reserves	Some of the North Tyneside parcels boundaries may need updating
Darlington - Yvonne Ramage Julia Quiñonez Kevin Dolan	PROW Local Nature Reserves & proposed LNRs, Community Woodland, Parks & Gardens Wildlife Sites (SNCIs & LNRs), Village Greens, Cemeteries, Open Space Strategy	Darlington is still developing its GIS facilities / datasets and what is available tends to be fragmented within the organisation
Durham City Council – Andrew Young	Durham City Boundary, Open Space Needs Assessment	
Durham County Council - Christine	Durham County Boundary, Village Greens, Cemeteries,	Durham County Council are currently improving the

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[29] In the end 'proposed' sites were not included in the analysis, but they are a useful dataset for the Limestone Landscapes partnership

Mackinnon Stephen Ferguson	Countryside Estates PROW	quality of the village greens shapefile – not 100% accurate. PROW has not gone through Positional Accuracy Improvement program
Easington District Council – Peter Bennett	Easington Boundary, PROW, Grass Areas, Common Land & Village Greens [30]	Grass Areas – very little metadata behind it without local knowledge. Parks belong to parishes through the Welfare Gardens legacy They only deal with 'closed' churchyards
English Heritage – website http://services.english-heritage.org.uk/NMRDataDownload/	Registered Parks & Gardens	
Natural England – website	Ancient Woodland, Country Parks, LNR, NNR, SSSIs	Ancient Woodland data included no attributes [31] Country Parks dataset may not be complete – Natural England in process of checking with local authorities
Forestry Commission – Yong Rawlings	Forestry Commission land, Community Forests, Woodland Grant Scheme	Forestry Commission land outside study area Woodland Grant Scheme parcels needed filtering for current dates – more will lapse over time
Hartlepool Borough Council – Chris Scaife	Churches and Cemeteries, Village Greens, Woodlands, Green Corridors, Local Nature Reserves, Promoted	Churches & Cemeteries dataset marked as 'private'

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[30] None of these datasets are believed to be from Easington's PPG17 assessments
[31] There is a project called "Name that Wood" to add information about ancient woodland sites
http://www.magic.gov.uk/info/namethatwood.html

	routes, Recreation grounds, Permissive access, PROW	
Richard Waldmeyer	Borough Boundary	
Nomusa Martindale	Open Spaces audit including Parks, Amenity Greenspace, Cemeteries & Churchyards, Children's Play areas, Green Corridors, Local Nature Reserves	
	Ratified SNCIs	
Ian Bond - Ecologist		Currently reviewing SNCIs in line with new guidance, expected completion by late summer. May lose several current sites but gain new ones.
Magic.gov.uk – website http://www.magic.gov.uk/	NCA15, RSPB reserves	Note – there are no National Trails in the study area
National Trust – Kay McLain	National Trust ownership	
Natural England – Alex Coomer	CROW data, Doorstep & Millennium Greens, Stewardship areas and stewardship routes,	CROW data had to be supplied directly from Natural England as the dataset from magic was not separated into parcels. Recombined into open country, commons, plus section 15 + section 16 land

Stewardship includes HLS and the old schemes CSS and ESA, were updated internally before release |
| **Sedgefield Borough Council** – Bryn Morris-Hale | Borough Boundary, Great Aycliffe Way, Green Space Strategy, linear access, railway paths | |
| **South Tyneside Metropolitan Borough Council** – Andrew Young | PROW and other public paths, Borough Boundary, | |

	Cycleways, Green Belt, Linked Open Space System, LNRs, Local Wildlife Sites, Proposed Open Space, Proposed SNCI, Grounds Maintenance Open Spaces, Recreational Open Space	
Sunderland City Council – Tim Ducker	City Boundary, Open Space Register, PROW network, Wildlife Corridors	
Sustrans – Adam Hillmann	National Routes, Regional Routes, NCN Links	
Woodland Trust – Ian White	Woodland Trust ownership and access points, Woods4People	

As a result of contacting people, many said they would be interested to be kept informed about the project, if not be able to see the final report. In particular those contacts are :

- Kay McLain, National Trust
- Ian White, Woodland Trust
- Peter Bennett, Easington District Council

Contact details are in appendix 6, below.

Appendix 5 – Assessing Quality (of naturalness and of access)

Although ANGSt analysis makes reference to the quality and naturalness of sites, there is no standard agreed approach to assessing or recording these attributes. While there are toolkits available which could be used, for example CABE's Spaceshaper[32] toolkit or UDAL's Placecheck[33], these require considerably more time to carry out than was available through this contract. Community consultation has already been carried out in the area during local authority's work on their PPG17 open space audits, it is important that communities are not confused by too many similar consultations[34]. Other options considered by the team included 'Green Flag' or 'Green Pennant'[35] status, which provides a useful standard for parks, but does not yet include other more natural spaces, such as woodlands, grasslands etc.

PPG17 doesn't really discuss naturalness – or where it does it is simply the 'not built' environment. However, it does discuss 'quality' :

> The location, quantity and quality of existing provision nearly always affect local perceptions of need. For example, there may be more than enough parks in an area, but if they are of poor quality they may not be meeting local needs.

PPG17 companion guide, page 20, para 4.21

Reference to assessing quality is made:

> Any assessment of the quality or nature of existing open spaces or sport and recreation facilities needs a clear set of benchmarks, related to stated standards

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[32] Spaceshaper is a facilitated workshop-based toolkit to measure the quality of a public space (http://www.cabe.org.uk/default.aspx?contentitemid=1675) developed by the Commission for Architecture and the Built Environment, the government's advisor on architecture, urban design and public space. The record of perceptions of individual spaces includes the following sections: access, use, how the space caters for different needs, maintenance, environment (safety and comfort), design, appearance and community. Spaceshaper software can then produce diagrams

[33] www.placecheck.info/ UDAL (The Urban Design Alliance) is a network of professional and campaigning organisations formed in 1997 to prove the value of good urban design.

[34] See, for example, Sedgefield's Open Space audit, page 27, para 4.5

[35] The Green Flag Award is the national standard for parks and greenspaces in England and Wales. The scheme began in 1996 as a means of rewarding and encouraging high environmental standards, creating a benchmark of excellence. Key criteria include access, safety, cleanliness, sustainability, management of conservation / heritage, and community involvement. Each site is judged on its own merits and the community it serves. The Green Pennant Award is for sites managed by voluntary and community groups and is part of the Green Flag scheme. Both awards are managed by The Civic Trust and supported by Communities and Local Government. http://www.greenflagaward.org.uk/

> and, ideally, some form of scoring system. It is also an important opportunity for the 'management system' and the 'planning system' to work together. The aim should be jointly to identify those open spaces or facilities which need enhancement, the form this enhancement should take and relative priorities.
>
> The best approach to deriving quality criteria is to base them on a 'vision' drawn up by local stakeholders, against the background of nationally agreed quality standards such as the ... Green Flag Scheme, the ... Urban Green Spaces Taskforce (see endnote 24) ... the Sports Councils' Quest scheme for sport and recreation facilities ... the Sports Turf Research Institute ...

PPG17 companion guide, page 63, paras 10.19 – 10.20

Turning to the ANGSt model in its origins defines 'naturalness' as "…areas naturally colonised by plants and animals …" – which has problems unless you know the history of the site – and may ignore man-made restored grassland on industrial sites, for example. Only 16% of the experts interviewed in the ANGSt review agreed with this definition of 'naturalness'.

> Taking the definition strictly would require complete knowledge of the site history in order to decide whether a site has been naturally colonised or is the result of planting and extensive management. Since most visitors to a site probably could not tell the difference and would not find the distinction significant, the end result can be considered more important than how it came to be.

ANGSt review, page 41

ANGSt goes on to suggest a further definition: "…places where human control and activities are not intensive so that natural processes are allowed to predominate …"[36] although this still leaves room for interpretation – would this include coppiced woodland, for example.

In addition, a greenspace like landscaped parkland, may be less 'natural', but in the public's perception, could be a high-quality 'greenspace'. Clearly there can a difference between the quality of a site in terms of its wildlife value, and the quality of a site in the eyes of the public (an ecological vs. a social perspective, or 'scientific' vs. community perceptions[37]).

The **City of Durham**'s Open Space Needs Assessment says:

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[36] ANGSt review, page 41
[37] For further see ANGSt review page 43 & 47

An ecological approach favours management of grasslands as meadows allowing the flowering of herbaceous plants which means not cutting grass swards until early summer. This leads to long spring growth with might restrict ball games and other forms of recreation and may be seen by some members of the community as unkempt. This is an illustration of the reason why the companion guide to PPG17 focuses on the concept of 'primary purpose' although it may be the case that several complementary primary purposes may be found for a given site notably in relation to natural greenspace.

City of Durham's Open Space Needs Assessment, page 91

1   Existing open space audits / green infrastructure strategy approaches towards 'naturalness' and 'quality'

There is no consensus of approach to the issue of recording quality in the existing open space audits and green infrastructure strategies. Some have assessed quality through accessibility, i.e. how close the site is to the population - which is an easy but not very helpful approach, as this study already seeks to apply physical accessibility through the ANGSt criteria.

Most useful at this stage is **Darlington Open Space strategy which** assessed the quality and value of sites using a five-star rating system, based on PPG17 recommendations and annex B scoring sheet. For quality they considered presence of litter bins, seating, grass condition, landscaped areas and path furniture. For value they considered the range of open spaces in that locality, evidence of use /abuse, importance of site in terms of tree protection or listed buildings. Telephone conversations with officers involved in the drawing up of the strategy and with its implementation both recommended this system for its simplicity of interpretation and understanding – both from a practitioner's point of view, and the public's. They would welcome the use of a similar, broadly comparable system.

Sedgefield Open Space strategy discusses recreation quality and visual quality. Research was also undertaken with local people, who rated 'quality' in terms of satisfaction. People rated 'safety and security' top, then cleanliness of site, easy to get to, control of dogs, control of noise, easy to get around and finally 'quality of site' (possibly because this term might have had less meaning for them). Later the document discusses the quality of the facilities (footpaths, equipment) and general maintenance.

Hartlepool's Open Spaces Audit scored using a 'high / medium / low' scale for Quality and Value on each site[38]. However, the assessment criteria were different for each type of open space.

The ANGSt review cites a case-study from Bracknell where the distinction between the sites was achieved in a simple way. Each site was assigned a value on a five-point scale showing the balance between the site's value for amenity and naturalness. The advantage of this approach is that it distinguishes between playing fields and nature reserves, whilst also allowing for multi-functional sites to be assessed. A disadvantage, however, was the subjective process of assessing and the lack of survey data which may not have been robust enough for development control purposes.

2 Scoring quality of access and naturalness for this study

Despite the lack of a nationally agreed approach, and the time limitations of the contract, it was agreed that some measure of quality was important. Access to greenspace cannot really be assessed without some measure of quality – a site which is poorly managed and which locals are reluctant to use does not truly contribute to their locally accessible greenspace.

ANGSt is about two aspects of quality: accessibility and naturalness of site. This can be seen as contributing to the quality of a visitor's experience of accessing a (semi) natural greenspace, with a view to :

> *"More people enjoying, understanding and acting to improve, the natural environment, more often" (Natural England outcome 2)*
>
> *"Increase the number and diversity of people actively engaged to conserve and enhance the natural environment by 10% by 2011." (Natural England target 2.2.1)*

(This outcome and target originate from English Nature's thinking on ANGSt). The logical chain is access→enjoy→understand→act for the natural environment.)

In order to meet the need to record quality a very simplistic system was developed to record how natural a site is, and the quality of access provision.

As sites visits were beyond the scope of the contract quality could only be assessed based on the opinions of the people providing us with data, or on other written

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[38] http://www.hartlepool.gov.uk/site/scripts/downloads.php?categoryID=3384 for more information

evidence. To add value to the quality scores in each case a confidence score is attached based on the quality of information provided. For example is a site is known to be managed by the woodland trust we can be confident that access is good.

Both attributes are scored on a three-point scale, high medium and low. No attempt was made to define a more precise the scale, for example one to record percentages of a site where natural processes dominate, as this would not be possible to judge without site visits. Similarly it was decided not to take existing scoring information directly from open space audits or data supplied, unless the approach used was comparable.

3 Quality of Access

The quality of access of a site is scored on a three-point scale, high, medium or low.

- An example of a 'high' scoring site in terms of access would be site which is promoted and actively managed for the public, which may have a dedicated warden, will be regularly inspected and will have maps, leaflets, seating etc, and good access for range of abilities
- An example of a 'medium' scoring site in terms of access would be sites managed for access, but which may be very low key. They will be places where visitors feel welcome but may be closed at night
- An example of a 'low' scoring site in terms of access would be places where some people are liable to feel unwelcome, uncomfortable, or lacking in confidence. They are likely to be not actively managed, not regularly inspected, may have records of abuse /vandalism[39], and are unlikely to be promoted. An example could be an area of woodland, not currently managed for access, which may be very overgrown and muddy, with no waymarkers and possibly graffiti or litter.

Access routes themselves (the 5th 'typology' in this study) were not scored for access although sites which were mapped as polygons and added to the 'natural and semi natural greenspace layer' were given a score.

4 Quality of Naturalness

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[39] A further column within the attribute table will record whether there is potential for improvements which would improve the quality scores of the site.

Naturalness was scored on the same three-point scale, high, medium and low.

- An example of a 'high' scoring site in terms of naturalness would be one which is managed primarily for nature conservation, or is managed with zero or very low levels of intervention to permit natural process to take place. These sites provide high quality habitats.
- An example of a 'medium' scoring site in terms of naturalness would have some benefit to wildlife but not providing as good habitats as the high ones or those sites which are half managed and half natural
- An example of a 'low' scoring site in terms of naturalness would be those managed mostly for amenity, for example sports pitches, village greens which are 'gardened'

Access data was not scored for naturalness, although sites which were mapped as polygons and added to the 'natural and semi natural greenspace layer' and were given a score.

5 Allocating scores for naturalness and access

It is entirely feasible that a site can score 'high' for naturalness and 'low' for access (for example a wild woodland), or vice-versa 'low' for naturalness and 'high' for access (for example an urban park). The scores are very different and are therefore kept separate.

Figure 10 - a diagram illustrating naturalness and access scores

high

High naturalness / Low access score	High naturalness / High access score
e.g. Wild woodland or 'island' CROW site	e.g. Local Nature Reserve with public right of way
Low naturalness / Low access score	Low naturalness / High access core
e.g. Neglected play area with record of vandalism / fly tipping / dog mess	e.g. Urban park, 'gardened' village green, sports pitch

low

high

Scores were initially allocated on a series of assumptions. Where evidence was available these were then updated to improve accuracy. For example all SSSIs and NNRs score high for naturalness, and all amenity greenspace scores low for naturalness. Where access is available through the rights of way network access is scored high, unless the path skirts the edge of the site, if sites are locked at night they are scored 'medium'.

Ideally these assumptions would be checked through site visits or conversations with land managers, but the number and complexity of sites, and the time constraints of the contract meant this was not possible. In order to increase the value of these scores the confidence scores are awarded to demonstrated how reliable the score is – if the quality score is based on evidence or on a valid assumption the confidence score will be high, if there is more doubt it may be medium or low.

For some sites it was not possible to allocate a score these are shown as a '-' in the table below.

Table 4 - a summary of the generic scoring system

Typology / source	Naturalness		Access	
	quality assumption	confidence	quality assumption	confidence
Parks & Gardens				
Country Parks	Low	High	High	High
English Heritage	Low	High	High	High
National Trust	Low	High	High	High
Parks / picnic areas	Low	High	High	High
Natural & Semi-Natural				
SSSIs	High	High	-	Low
Open access land	High	Med	Med	Low
National Trust land	Med	Low	High	High
RSPB reserve	High	High	High	High
Local Wildlife Sites	-	Low	-	Low
LNRs	High	Med	-	Low
NNR	High	High	Med	Low
Stewardship open access areas	Med	Low	Med	Low
Natural areas from boroughs e.g. wildlife sites, SNCIs etc[40]	-	Low	-	Low
Railway paths / 'green wedges' / green corridors etc (boroughs)	Med	Med	High	High
Amenity Greenspace				
Village Greens, Doorstep Greens, Millennium Greens	Low	High	High	High
Play Areas, Sports areas	Low	High	High	High
Railway Walks etc	Med	Med	High	High
Other greenspaces from boroughs	-	Low	-	Low
Churchyards and Cemeteries				

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[40] Included a variety of sites eg tree belt or woodland survey sites – this is one of the areas of overlap.

All churchyards and cemeteries	Med	Med	High	High
Woodland				
Woodland Trust landholding	High	Low	High	High
Woods 4 People [41]	Med	Low	High	High
Woodland Grant Scheme	Med	Low	-	Low
Ancient woodland with access	High	Med	High	Low
Other woodlands from boroughs	-	Low	-	Low

[41] Woods 4 People is the Woodland Trust inventory of known accessible woods (and not the same as 'Space for People' in appendix 7). In many places the Woodland Trust landholding is a sub-set of Woods 4 People. However, in the following two cases, the Woodland Trust landholding indicates additional parcels (is probably more up to date):
- Elemore & White Hill Woods
- Low Burnhall

Appendix 6 - Contact details for Durham Limestone Landscapes project

Name	Phone	Email	Organisation	Job Title	Notes_comments	Map Data / Progress
Dolly Hannon	0191 527 4347				wrote Easington Green Space strategy	Did not contact in the end
Jonathan Elmer	0191 301 8465	JElmer@durhamcity.gov.uk	City of Durham Council			No PROW as that is via DCC.
Kevin Dolan	01325 388606	Kevin.Dolan@darlington.gov.uk	Darlington UA	Technical Officer		Sent open space strategy, wildlife sites, village greens, cemeteries,
Julia Quinonez		juliageno@gmail.com	Darlington UA	Countryside Team GIS assistant	Works 1 day a week	Send LNR, Community Woodland, Parks Gdns
Rob George	01325 388637	robert.george@darlington.gov.uk	Darlington UA	Countryside & ROW officer	Spoke to on phone, plus helpful colleague	
Valerie Adams	01325 388477	valerie.adams@darlington.gov.uk	Darlington UA		Planning Officer who put together Darlington's Open Space Strategy	
Yvonne Ramage	01325 388784	yvonne.ramage@darlington.gov.uk	Darlington UA	Countryside Access Officer		Sent a memory stick with Darlington PROW
Lucy Campbell	0191 584 3112	lucycampbell@durhambiodiversity.org.uk	Durham Biodiversity Partnership	Data and Information Officer		Supplied boundaries for local wildlife sites and proposed local wildlife sites from magical meadows.
Helen Ryde	0191 584 3112	helenryde@durhambiodiversity.org.uk	Durham Biodiversity Partnership			
Stephen Ferguson	0191 3834452	stephen.ferguson@durham.gov.uk	Durham CC	PROW officer		Supplied PROW including Durham City Council area
Mike Ogden	0191 383 4082	mike.ogden@durham.gov.uk	Durham CC	Head of PROW & Countryside Access ?		

Name	Phone	Email	Organisation	Job Title	Notes_comments	Map Data / Progress
Ged Lawson	0191 383 4365	ged.lawson@durham.gov.uk	Durham CC	Senior Landscape Architect		
Christine Mackinnon	0191 370 8671	christine.mackinnon@durham.gov.uk	Durham CC	Customer Services / GIS	very helpful sending GIS data	Supplied Village Greens, Country Estates, DCC boundary, Cemeteries & Churchyards
Trevor Kirkup	0191 370 8668		Durham CC	GIS		
Victoria Lloyd	0191 383 3114	victoria.lloyd@durham.gov.uk	Durham CC	ROWIP officer		
Andrew Young	0191 301 8755	AYoung@durhamcity.gov.uk	Durham City	GIS team		
Geoff Corbett	0191 301 8756	GCorbett@durhamcity.gov.uk	Durham City Council	Building and Land Surveyor, Property Services	Signed licence agreement with me	
Jim Cokill	0191 584 3112	jcokill@durhamwt.co.uk	Durham Wildlife Trust			
Gary Shears	0191 527 4754	gary.shears@easington.gov.uk	Easington DC	Countryside Officer	doesn't have GIS himself	DCC are Highway Authority here
Peter Bennett	0191 527 4581	peter.bennett@easington.gov.uk	Easington Env Sevices		spoke to on the phone - helpful	Supplied boundary, PROW & Village Greens. No parks as they are via Parishes (Welfare Gardens) but investigating use of open spaces dataset (very little metadata without local knowledge).
Heather Gordon	01793 414829	heather.gordon@english-heritage.org.uk	English Heritage	NMR Enquiry & Research Services (buildings)		English Heritage data query
Penny Salisbury	01325 353791		external consultant		Open Space Needs Assessment for Durham City Council	Was not able to contact Penny in the end

Name	Phone	Email	Organisation	Job Title	Notes_comments	Map Data / Progress
Yong Rawlings	01223 314546	yong.rawlings@forestry.gsi.gov.uk	Forestry Commission			Supplied Community Forest, English Woodland Grant Scheme, Woodland Grant Scheme, FC land ownership - but no indication of public access
John Ford	0191 527 3333	john.ford@groundwork.org.uk	Groundwork E Durham	Operations Manager		
Chris Scaife	01429 523524	chris.scaife@hartlepool.gov.uk	Hartepool BC	Countryside Assistant	please cc Richard Waldemeyer	Sent through lots of data inc ROW, 'private' churchyards and cemeteries, village greens, wood, green corridors, tree walks, nature reserves, permissive access, rec grounds, LNR etc
Richard Waldmeyer	01429 266522	richard.waldmeyer@hartlepool.gov.uk	Hartlepool BC	Principal Planning Officer		Has sent though borough boundrary
Nomusa Martindale	01429 284302	nomusa.martindale@hartlepool.gov.uk	Hartlepool BC	Planning Information Officer		
Ian Bond	01429 523431	ian.bond@hartlepool.gov.uk	Hartlepool BC	Ecologist		Sent through local wildlife sites for Hartlepool and suggested another contact in Sedgefield
Jackie Hunter	0191 222 7868	jackie.hunter@northtyneside.gov.uk	N Tyneside	Biodiversity Co-ordinator, N Tyneside		
Kay Mclain	01670 774691	kay.mclain@nationaltrust.org.uk	National Trust NE regional office		Particularly requested final copy of report	Supplied NT ownership
Marney Harris			Natural England	Doorstep / Millennium Greens		

Name	Phone	Email	Organisation	Job Title	Notes_comments	Map Data / Progress
Ingo Schuder	0191 229 3386	ingo.schuder@naturalengland.org.uk	Natural England		or Sue Millinger for contractual issues in Durham CC 0191 383 4078 mob 07970 102746	
Alex Coomer	0191 229 5520	alex.coomer@naturalengland.org.uk	Natural England	GIS specialist / co-ordinator		Sent base map (OS licence), CROW land, Doorstep greens, Millennium Greens, stewardship,
Regina Eyarty	0191 229 3073		Natural England	GIS - 'analyst'		
Derek Hilton-Brown	0191 211 5660	derek.hiltonbrown@newcastle.gov.uk	Newcastle	Biodiversity Co-ordinator, Newcastle		
Naomi Hewitt	0191 222 7868	naomi.hewitt@twmuseums.org.uk	Northumberland Wildlife Trust			
Ross Carter		ross.carter@ons.gsi.gov.uk	ONS		very helpful via email re super output areas	
Andrew Tracey	0191 424 7561	andrew.tracey@southtyneside.gov.uk	S Tyneside Met BC	"computer wizard"		
Andrea King	0191 424 7588	andrea.king@southtyneside.gov.uk	S Tyneside Metropolitan BC	Principal Planning Officer	spoke to on the phone, seems nice	
Matt Hawking	0191 427 7000	matthew.hawking@southtyneside.gov.uk	S Tyneside Metropolitan BC	Senior Countryside Officer	Emerging open space study - see Daniel Binns below	
Bryn Morris-Hale	01388 816166 x4513	bmorris-hale@sedgefield.gov.uk	Sedgefield BC	GIS Assistant	helpful re GIS agreement. Interested in project	
Tammy Morris-Hale	01388 816166 x4487	tmorris-hale@sedgefield.durham.gov.uk	Sedgefield BC	Countryside Officer	very friendly	PROW is DCC.
Graham Clingan			Stockton-on-Tees BC		Contact via Ian Bond	no response

Name	Phone	Email	Organisation	Job Title	Notes_comments	Map Data / Progress
Danniel Binns	0161 776 4367	not supplied	Strategic Leisure (Scott Wilson)	Principal Consultant	spoke to him 17th Nov. S Tyneside - expecting to complete by March - agreed to update each other in Jaunuary. Rang again in Jan but number unobtainable.	
Clive Greenwood	0191 561 1576	clive.greenwood@sunderland.gov.uk	Sunderland BC	Senior Planner		
Andrew Bewick	0191 553 1555	andrew.bewick@sunderland.gov.uk	Sunderland BC	Countryside Officer		
Lorraine Crowther	0191 561 2397	lorraine.crowther@sunderland.gov.uk	Sunderland BC	Gazeteer Supervisor		
Tim Ducker	019 561 2450	tim.ducker@sunderland.gov.uk	Sunderland BC	Cycle Network / PROW officer		
Adam Hillmann	0117 9268893	adam.hillmann@sustrans.org.uk	Sustrans		Know him through WL data exchanges	Got data OK
Sue Antrobus	01287 636382	santrobus@teeswildlife.org.	Tees Valley Wildlife Trust	Biodiversity Co-ordinator		
Francesca Leslie	0191 222 5158	francesca.leslie@newcastle.ac.uk	Tyne & Wear Museums / Newcastle	EYE Project Officer		Sent SNCI data for north of study area
Ian White	01476 581111	ianwhite@woodland-trust.org.uk	Woodland Trust		Spoke on the phone, very helpful	Sent through WT ownership and woodland access points, then later "woods4people" dataset
Victoria Hodson		VictoriaHodson@woodlandtrust.org.uk	Woodland Trust	colleague of Ian White	Checked that we had Woods 4 People	

Appendix 7 - Woodland Trust 'Space for People'

The Woodland Trust published 'Space for People' in 2004[42] which introduced the Woodland Access Standard as well as assessing the extent of accessible woodland in the UK, and finally establishing targets for opening up existing woodland and creating new woods. The standard aspires that nobody should live more than 500m from one area of accessible woodland two hectares in size or larger, and that there should also be at least one larger (20 ha) piece of accessible woodland within four km of people's homes.

The detailed analysis and results tables consider the two elements of the above standard :

- the % of local population with access to a two ha+ wood within 500 m
- the % of local population with access to a twenty ha wood within four km
- the % of extra people that would have access to a two ha+ wood within 500 m if existing inaccessible woods were opened up
- the % of extra people that would have access to a twenty ha wood within four km if existing inaccessible woods were opened up
- the % of people requiring new woodland for access to two ha+ wood within 500 m and the minimum size of new woodland that would need to be created
- the % of people requiring new woodland for access to twenty ha wood within four km and the minimum size of new woodland that would need to be created

The results are presented both at a county / unitary authority level and at a district / borough / city council level in the graphs below.

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[42] The Woodland Trust (2004) *Space for People: Targeting action for woodland access* www.woodland-trust.org.uk/publications

Taking first the access to small woodland sites (two ha or more) within 500 m :
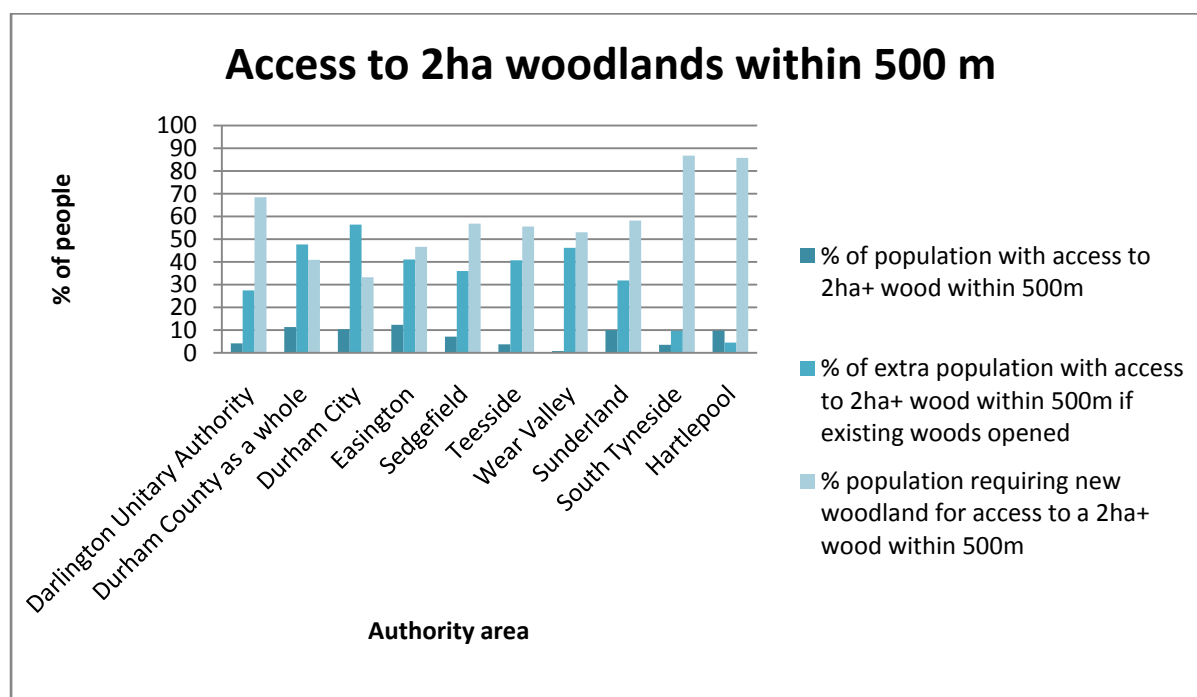
Figure 11 - Access to 2ha woodlands within 500m

Across Durham County as a whole, 11% of people already have access to two ha woodland sites within 500 m, and a further 48% of the local population is added if some woodland is made more accessible. Within Durham County, however, there are some local contrasts.

Less than one percent of people in the Wear Valley and 4% of people in Teesside already have access to two ha woodland sites within 500m. In many of the districts, about 50% of the population in these localities require new woodland creation in order to meet the standards.

In Darlington Unitary Authority, just over four percent of people already have access to two ha woodland sites within 500 m, in total 68% of Darlington people require new woodland creation in order to meet the stardard.

The situation in South Tyneside and Hartlepool is similar – with around 85% of local people requring new woodland creation in order to meet the standard.

Minimum area of new woodland required for access to a 2ha+ wood within 500 m
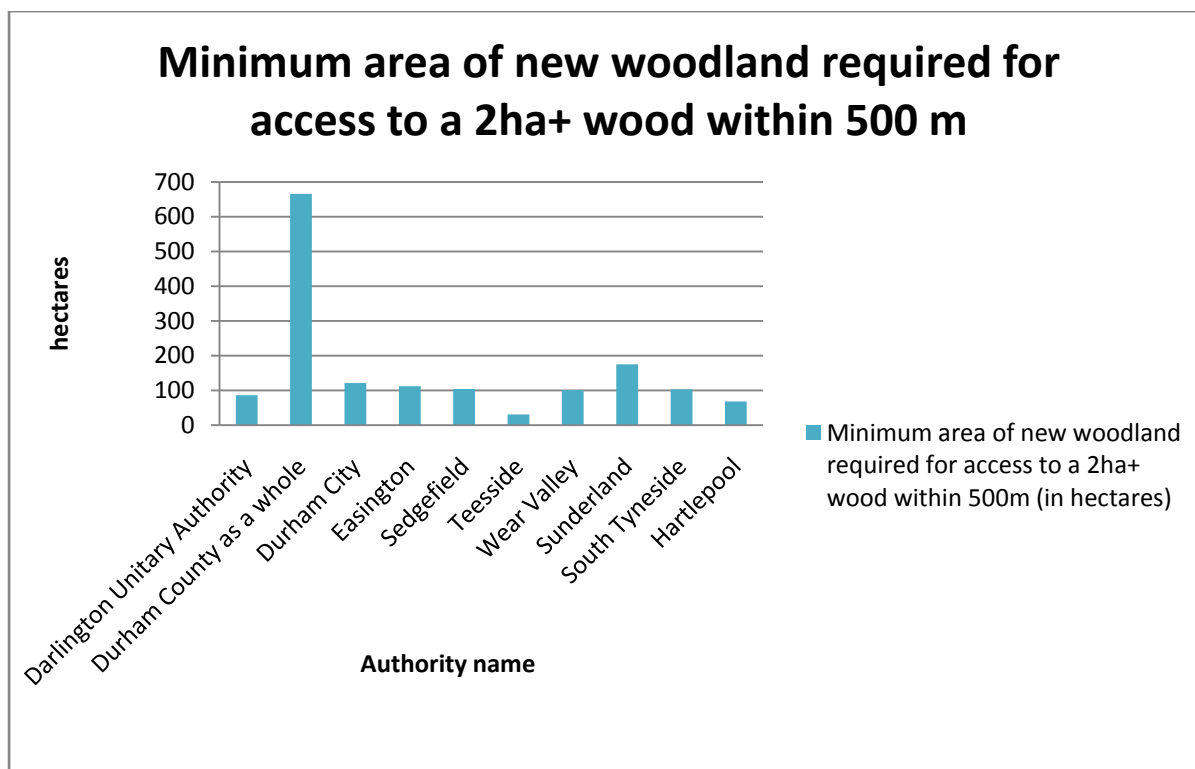
Figure 12 - areas of small, local new woodland required

The above graph shows that in most areas about 100 ha of new woodland creation is needed in order to meet the two ha within 500 m standard for local people.

Secondly, the access to large woodland sites (twenty ha) within four km :

Access to 20ha woodland within 4km
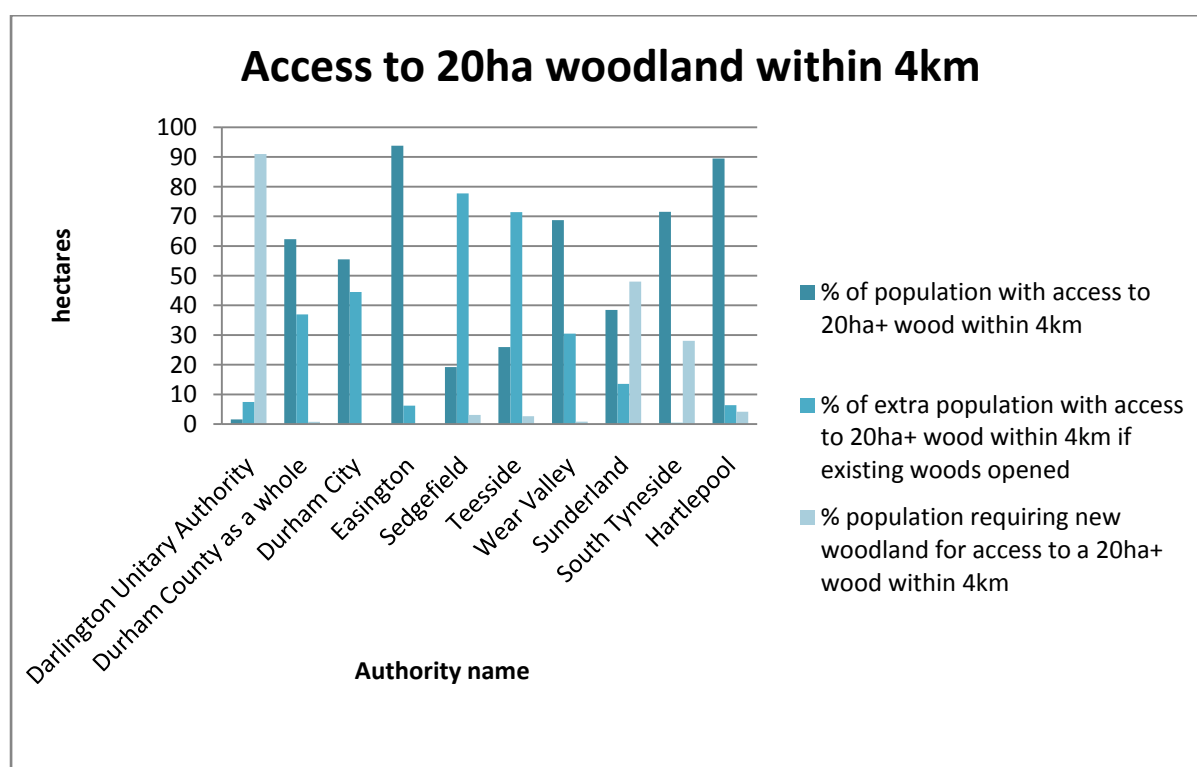
Figure 13 - Access to 20ha woodland within 4km

In relation to this aspect of the standard, there are more local differences.

Easington, Hartlepool already nearly meet this standard, as shown by the high blue lines on the graph. Sedgefield, Teesside, Durham City and the Wear Valley would meet the standard if all areas of local woodland were publically accessible, as illustrated by the very low green lines on the graph.

There is greatest need for new woodland creation in Darlington – where less than two percent of the population already have access to twenty hectare sites within four km. There is also need for woodland creation in Sunderland and South Tyneside.

Minimum area of new woodland required for access to a 20ha+ wood within 4km
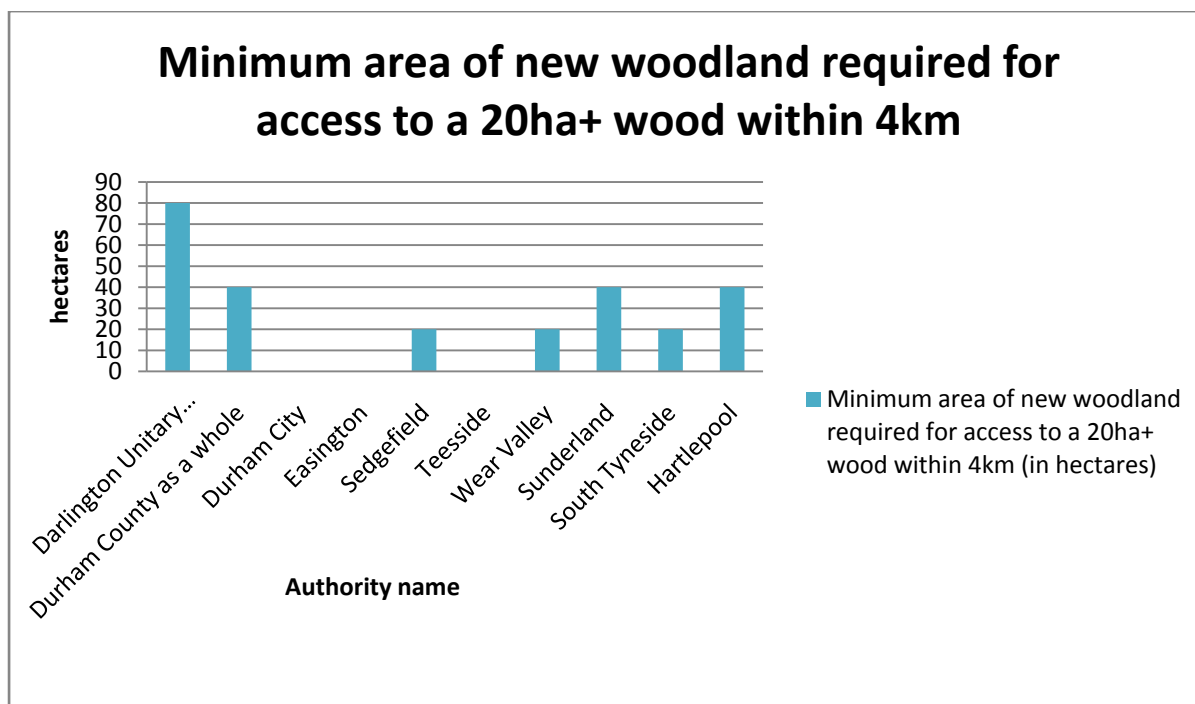
Figure 14 - area of large new woodland required

The report concludes that 80 hectares of new woodland would need to be created in Darlington in order to meet the twenty ha within four km standard, 40 hectares would be needed in Durham County (in the Sedgefield and Wear Valley districts), a further 40 hectares needed in both Sunderland and Hartlepool, and 20 hectares needed in South Tyneside.

Appendix 8 – Extracts from ROWIPs in the region - background

In 2008, The Access Company reviewed published ROWIPs for Natural England. This project included providing detailed regional reports linking published ROWIPs with the emerging agendas for health, transport (LTP, school travel, modal shift), Tourism, Stewardship, Education, Green infrastructure & Growth areas, and the Olympics.

This appendix includes a summary of the review information for the ROWIPs published in 2008 in the NCA together with additional identified barriers that the ROWIP states.

Darlington's ROWIP was "good – some good practice and /or exceeding requirements in some areas". It is excellent in the way it consults (focus groups) with a wide range of potential users, and presents a good assessment of the adequacy / quality of the existing network gained from the understanding of talking to local people, combined with considering opportunities and fragmentation (including good points about the availability of stewardship in the urban fringe and areas of high demand). It is well set out.

Darlington's ROWIP vision is:

> "... to create a facility that allows all of the public to have sustainable access to quality countryside. Countryside where they may experience the richness of an unpolluted and biodiverse environment, as well as on that encourages healthy and safe travel ..."

Darlington's ROWIP, page 6

The ROWIP notes a project entitled 'Local motion' which links to the aims of this ANGSt report :

Local motion "aiming to improve the use of sustainable transport, using both hard and soft initiatives. Some of these positively affect the use of green space around the town for exercise as well as reasons for transport... urban green corridors have been improved to accommodate walkers and cyclists alike. This is enabling people to move more easily around the town, as well as to access the urban fringe and other semi-natural areas ..."

Darlington's ROWIP, page 50

Darlington's ROWIP noted in particular the following **barriers** in the countryside access network :

- The A1(M) to the west of Darlington, despite many crossing points both over and under the road
- A66 to the south and east of Darlington – completely severs the PROW network – although there is a project to install a new bridge over the A66 linking to S Burdon Community Woodland
- Durham Tees Valley airport severs PROW
- Intensive farming – see quote below
- Golf courses
- Railway lines
- The ROWIP is looking for opportunities to re-route the Teesdale Way along the bank of the River Tees (in south-west Darlington)

On page 56 there is an interesting quote relating to the value of access provided through agri-environment schemes :

"Much of Darlington is surrounded by intensively farmed land, which is often of little interest to the walking public. This is where a more joined up approach to land management could be beneficial. The use of agri-environment schemes, aimed at improving both quality and accessibility of the countryside, could deliver very positive results in this respect. This, combined with other biodiversity schemes, could be very effective in providing improved quality access ..."

Darlington's ROWIP, page 56

Durham County Council's[43] ROWIP was "good – meets requirements". The health links were good and the research findings were clearly evidenced; good use of quotes from the consultation used throughout the document The needs of

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[43] Which includes Easington, Sedgefield and Durham City.

potential users were well understood and summarised (pg 62) but difficulty in outreach to BME groups. The plans objectives are clear (pg 6).

Durham's ROWIP vision is:

"...To deliver an access and rights of way network fit for the 21st century..."

Durham's ROWIP, page 5

The ROWIP noted in particular the following **barriers** in the countryside access network :

- Fragmentation in the distribution of bridleway and byways (fragmentation for higher users)
- Roads – in particular the A19, the A1(M), the A66 and the A68 (see page 21)

Hartlepool's ROWIP was "good – some good practice and / or exceeding requirements in some areas". Its summary includes maps with interest & utility features including major workplaces. There were clear links to LTP and other policy areas with clear involvement of the LAF. The demand for access is well considered, especially for people with mobility / visual needs and a commitment to work more to audit & grade routes (& mobility training for staff). The ROWIP considers a wider network and looks for potential to target agri-envrionment stewardship funds to network's gaps. The ROWIP will develop a database of missing links that could be used for targeting stewardship funds.

Vision: "...To maintain, develop and promote countryside access, through partnership working with landowners, users and the general public to meet the needs of those who use or wish to use the local access network..."

Hartlepool's ROWIP, page 1

The ROWIP noted in particular the following **barriers** in the countryside access network :

- The A19 is cited which severs 12 footpaths – many comments were received during consultation phase
- A179 & A689
- There is a separate equestrian strategy identifying barriers for equestrians
- The ROWIP-LTP is planning a new route / multi-user bridge in Elwick

The Joint Tyne & Wear ROWIP was "good – meets requirements". Themes and policies were introduced in a structured way. There were health links throughout and a good overview of LTP and shared objectives. Also the engagement with the public and the LAF on identifying issues and priorities was good. The ROWIP included a well-presented consideration of sources of conflict and potential solutions. There was supporting work on equestrian needs including mapping their missing links. Fragmentation is pointed out early in the ROIWP (page iii) and cycleways are well-defined – but the network assessment needed clearer conclusions. SOA considers risks to implementation.

There is no vision statement in the Joint Tyne & Wear ROWIP as such, but instead eight guiding principles which frame the statement of action. However, the following quote has good links to this ANGSt project :

In recent years the Government has paid increasing attention to the role that attractive and accessible greenspace can play in enhancing the quality of peoples' lives. For example, policy statements, such as those published by the Office of the Deputy Prime Minister (ODPM), have focussed on the powerful influence that greenspace can have in the fight against obesity and ill-health, especially amongst children, and in bringing communities together, promoting social inclusion and fostering local pride.

It is estimated that each year well over half the UK population (some 33 million people) make more than 2.5 billion visits to urban greenspaces alone. The benefit of such activity is demonstrated by research commissioned by the ODPM in 2002 pointing to the 'increasing evidence that "nature" in the urban environment is good for both physical and mental health'.

Concerns about the quality of greenspaces have fed into many aspects of the Government's 'liveability' agenda, especially into its policies for 'cleaner, safer, greener communities'.

The Government's vision 'for a renaissance of England's green spaces' is that 'by 2008 the majority of local areas in England have at least one quality green space – with a Green Flag Award to prove it – and over 75% of people are satisfied with their green spaces.' Since 2002, the Government has launched a number of initiatives and funding programme aimed at 'reversing the historic decline of green spaces', including the Liveability Fund and the Safer and Stronger Communities Fund. The strategic approach underpinning the priorities of the greenspace component of these funding streams is aimed at creating 'networks of diverse and high-quality spaces that fulfil a range of functions and serve all members of our

communities'… and that, '…provide entertainment and enjoyment, protect and enhance the environment and signify community pride.'

Country Parks are a vital component of this greenspace resource, with many being located on urban/rural fringe where they seek to 'provide facilities and services for open air recreation and for the enjoyment and convenience of the public'. In their vision for the 'countryside in and around towns', the Countryside Agency and Groundwork recognised that Country Parks can play an important role as part of a network of green corridors between town and country, which 'create variety and choices for people in how they enjoy the outdoors and contact with nature'.

The joint Tyne & Wear's ROWIP, pages 40 - 41

The ROWIP noted in particular the following **barriers** in the countryside access network :

- Severance by the road network (the ROWIP plans to catalogue all dead-ends, propose solutions and implement them, plus to input into future road improvement schemes to avoid future severance).
- Local need for safer road crossings, refuges, bridges etc.
- User-specific severance for equestrians

Appendix 9 – further descriptions about typologies / glossary

Ancient Woodland – Land that has had continuous woodland cover since at least 1600 AD. It may be either semi-natural (the native tree and shrub cover has stayed, although it may be managed by coppicing / felling – also known as ASNW) or replanted (the original native cover has been felled and replanted, usually with conifers, also known as PAWS).

Country Parks Country parks are publicly accessible areas of open greenspace, usually at the edge of cities and towns. They are largely owned and managed by Local Authorities. Many Country Parks were recognised by the former Countryside Commission (now Natural England) and many have Green Flag status. Country Parks are undergoing a renaissance and an accreditation scheme is being launched by Natural England in 2009.

Community Forests – England has twelve community forests which have been developed through the England Community Forest Programme and which operated in the North East until spring 2008. This programme is a partnership between the Forestry Commission, Natural England and a host of local and national organisations. Relevant to this study area is the Great North Forest and the Tees Forest (however they are beyond the boundary of NCA15).

Doorstep Greens - The Doorstep Greens initiative provided new or renovated areas of public open space close to people's homes that could be enjoyed permanently by the local community. It was aimed at targeting communities who experience disadvantage and where regeneration of the local environment and outdoor recreation provision is sorely needed. This programme concluded in 2007/8. See also Millennium Green.

English Heritage Register of Parks and Gardens – this register has existed since the 1980s and now contains over 1500 sites nationally. It serves to ensure that the features and qualities which make these landscapes of national importance can be safeguarded. Each site is graded into three bands to give added guidance on their significance; grade I have international importance; grade II* are considered to be of exceptional historic interest and grade II are of national importance. Inclusion of a historic park or garden on the Register in itself does not bring statutory controls. Local authorities are required by central government to make provision for the protection of the historic environment in their policies and allocation of resources. http://www.english-heritage.org.uk/server/show/nav.1410

Sites within the NCA area are:

- North & South Marine Parks & Bents Park (part inside the NCA area and part outside)
- Roker Park & Mowbray Park,in Sunderland
- Pasmore Pavillion & Castle Eden, in Peterlee
- Ward Jackson Park in Hartlepool (part inside the NCA area and part outside)
- Windlestone Hall, near Newton Aycliffe

Sites within the 10 km buffer zone are:

- Jesmond Dene, Armstrong & Heaton Parks, Newcastle General Cemetery & Saltwell Park, in Newcastle
- Lambton & Lumley Castle, at Chester-le-Street
- Old Durham Gardens, Croxdale Hall, Burn Hall & Brancepeth Castle, in or near Durham
- Auckland Castle Park, at Bishop Aukland
- Hardwick Park & Ceddesfeld Hall Gardens, at Sedgefield
- Wynyard Park, near Stockton-on-Tees / Billingham
- West Cemetery & South Park in Darlington
- Part of Raby Castle site, between Newton Aycliffe & Barnard Castle.

Heritage Coasts – 33% of the English coastline is conserved as Heritage Coasts. Heritage Coast is a non-statutory landscape definition. Heritage coasts are managed so their natural beauty is conserved and where appropriate, accessibility for visitors improved. Relevant to this study area is the Durham Heritage Coast, newly defined in March 2001
http://www.countryside.gov.uk/LAR/Landscape/DL/heritage_coasts/durham.asp

Millennium Greens - The Millennium Greens initiative set out to provide new areas of public open space close to people's homes that could be enjoyed permanently by the local community, in time to mark the start of the third millennium. They were to be breathing spaces - places for relaxation, play and enjoyment of nature and pleasant surroundings. They could be small or large and in urban or rural locations.

LNR – A Local Nature Reserve is a statutory designation made under Section 21 of the National Parks & Access to the Countryside Act (1949) by principal Local Authorities. LNRs are part of the Local (Wildlife) Sites system, which all Local Authorities report on to Central government under the National indicator 197 (Improved local biodiversity) regarding their "positive management", in the North East region this reporting initiated in March 2009. See also NNR.

National Trust – National Trust properties do not definitively indicate land managed by the Trust. The majority of National Trust land is tenanted and farmed

and there is no automatic right of access to this land. Access is via rights of where or where the Trust has designated the land open access. This is indicated on local information boards, maps or Trust literature.
http://www.nationaltrust.org.uk/main/

NNR – a National Nature Reserve is land declared under the National Parks and Access to the Countryside Act (1949) or under the Wildlife & Countryside Act (1981) http://www.easington.gov.uk/services/tourism/4-6177.asp

SSSI – a Site of Special Scientific Interest is land notified as SSSI under the Wildlife & Countryside Act (1981)

Village Greens – developed under customary law as areas of land where local people indulged in lawful sports and pastimes. Section 15 of the Commons Act 2006 (which came into force in April 2007) changes the legal definition of a town or village green and sets out the qualifying circumstances in which land may be newly registered (http://www.defra.gov.uk/wildlife-countryside/protected-areas/common-land/tvg.htm)

(English) Woodland Grant Scheme – The English Woodland Grant Scheme (and before July 2005 the Woodland Grant Scheme) is part of the DEFRA family of environmental support (ERDP) & delivery. Its purpose is to develop the co-ordinated delivery of public benefits from England's woodlands. It provides incentives for people to create and manage woodlands in England. Its primary objectives are to create and manage woodlands, to sustain and increase the delivery of public benefits. One of the aims of creating new woodlands and forests is to provide new areas for recreation. Under the grant support the woodland must meet the criteria set out in the UK Forestry Standard http://www.forestry.gov.uk/pdf/UKWAS_2nd_edition_web.pdf/$FILE/UKWAS_2nd_edition_web.pdf - pages 43 - 45 mention public access :

- All existing permissive or traditional uses of the woodland shall be sustained except when such uses can be shown to threaten the integrity of the woodland or the achievement of the objectives of management
- There shall be provision for some public access to the woodland subject only to specific exemptions – exemptions include woodlands under 10ha with a high private amenity value, areas that adjoin dwellings or private gardens, isolated woodlands to which there is no ready access route, areas that would be particularly vulnerable, periods when country sports or special events would be jeopardised
- Where there is special demand for further public access, particularly for environmental education, the owner / manager shall make reasonable efforts to try to meet this demand or help locate an alternative site

http://www.defra.gov.uk/erdp/schemes/wgs/default.htm and
http://www.forestry.gov.uk/forestry/infd-6dfklb

In the datasets referred to in this project, the origin attribute table included 'contract start' and 'contract end' fields which were filtered to represent the current picture.

Woodland Trust – is the UK's leading conservation charity dedicated to the protection of native woodland. http://www.woodland-trust.org.uk/woods/index.htm Some of their woodlands were also part of the project "Woods on your Doorstep" – a project with the Millennium Commission, which nationally created 930 ha of new woodland and community involvement. http://www.woodland-trust.org.uk/woyd/

Map 17 -
Combined typologies of greenspaces >2ha with a 300m buffer

VEHICLE FERRY
FROM NEWCASTLE TO

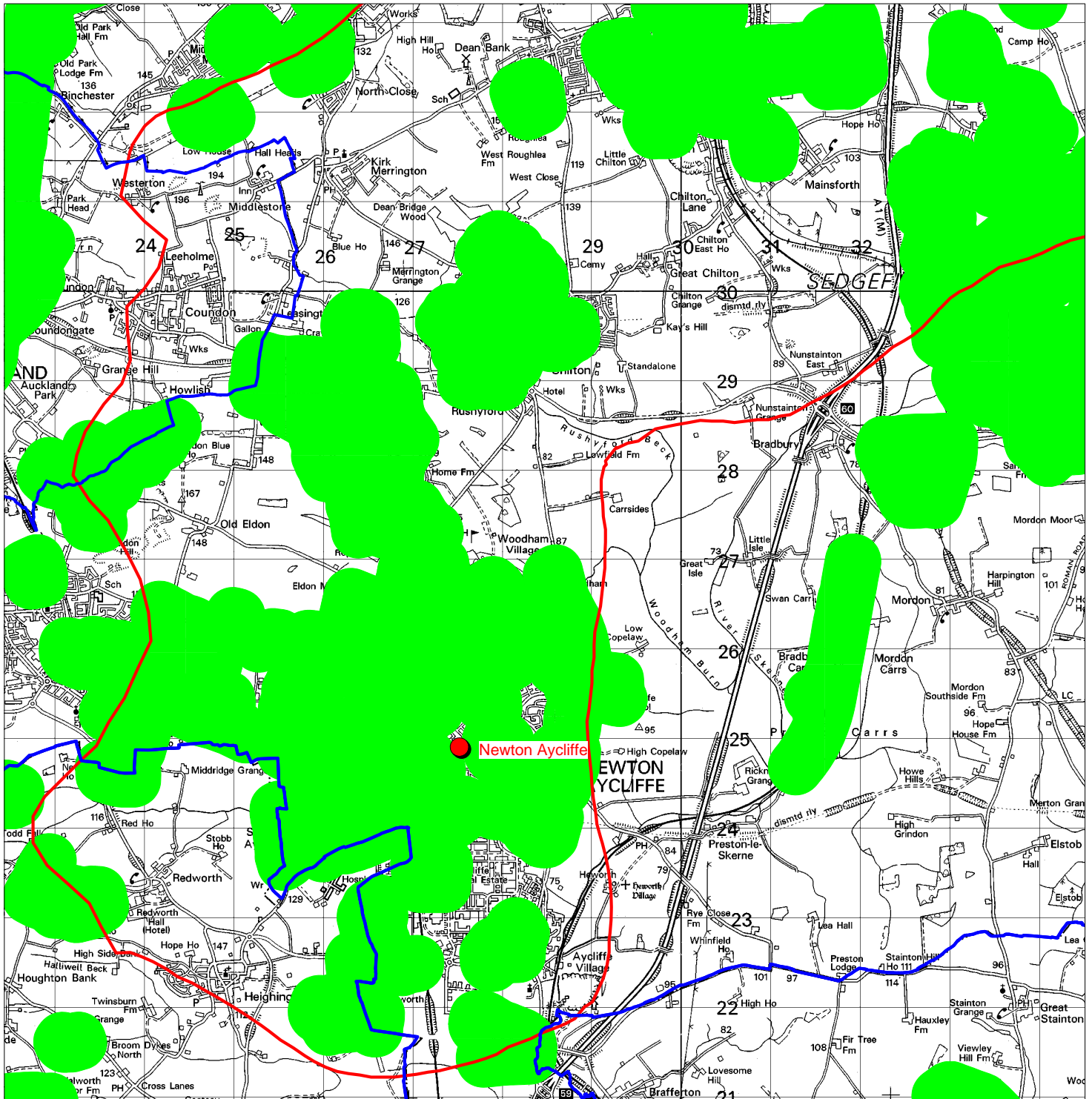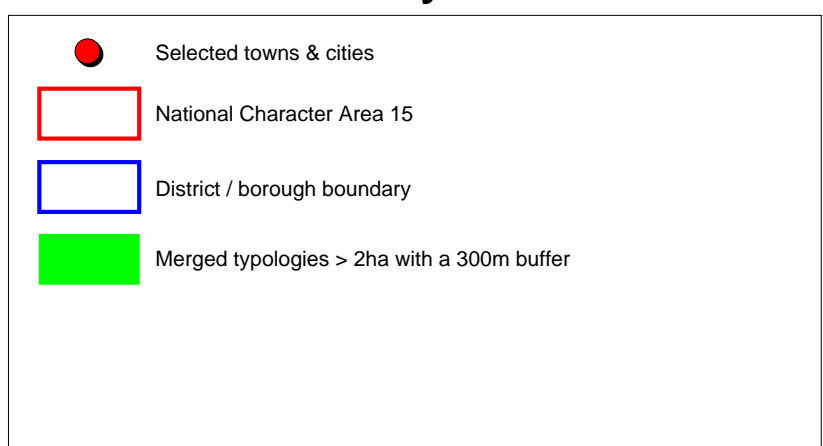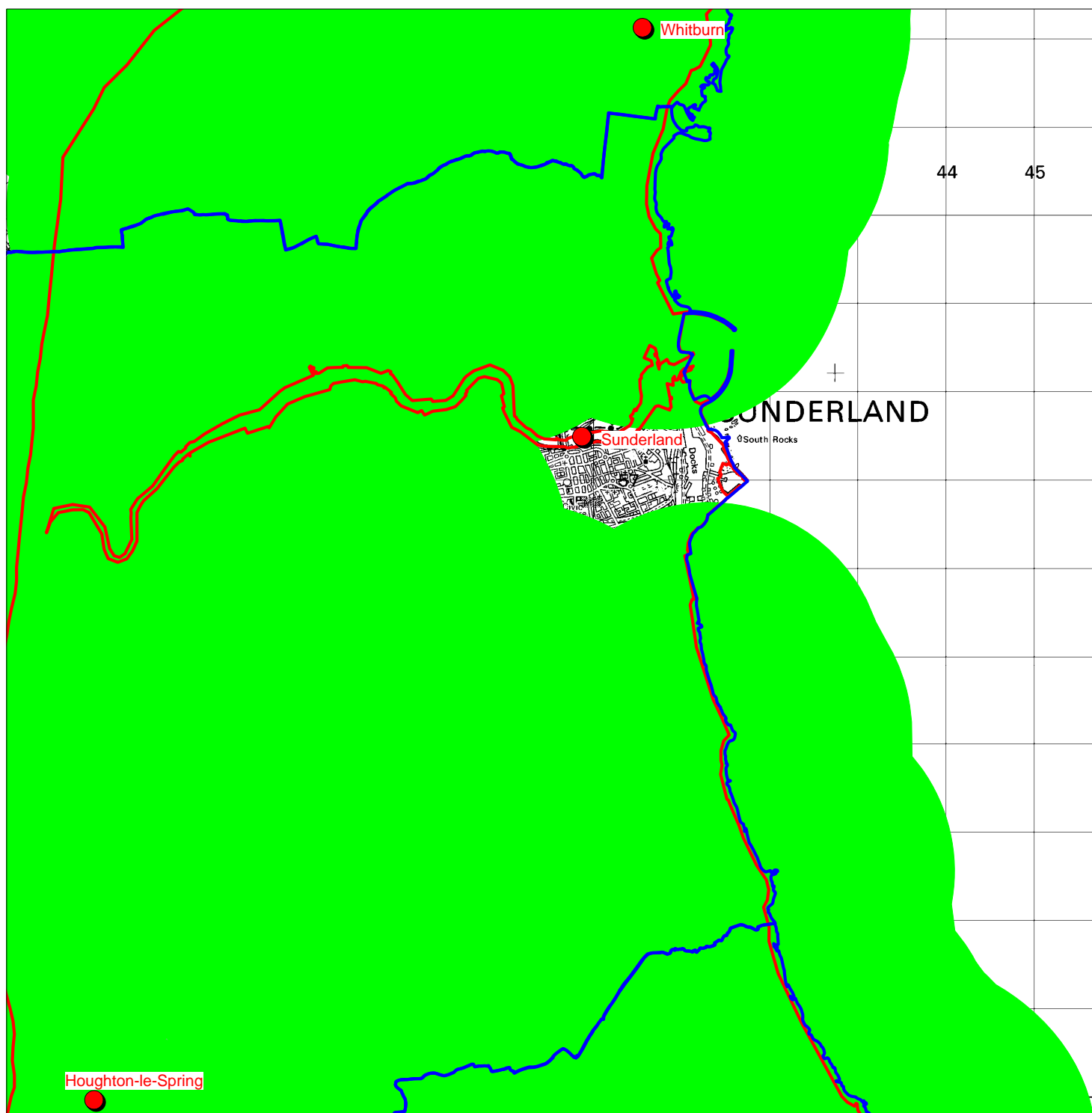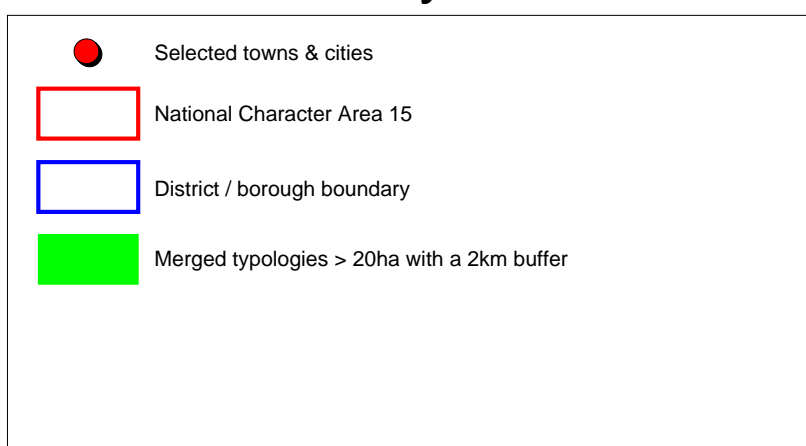| Bergen | 19½-23 hours |
Stavanger	17½-19½ hours
Gothenburg	21-23 hours
Amsterdam	14 hours
Hamburg	23 hours
Haugesund	21½-22½ hours

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Key

- ● Selected towns & cities
- ▭ National Character Area 15
- ▭ District / borough boundary
- ▮ Merged typologies > 2ha with a 300m buffer

Map 18 -
Combined typologies of greenspaces >2ha with a 300m buffer
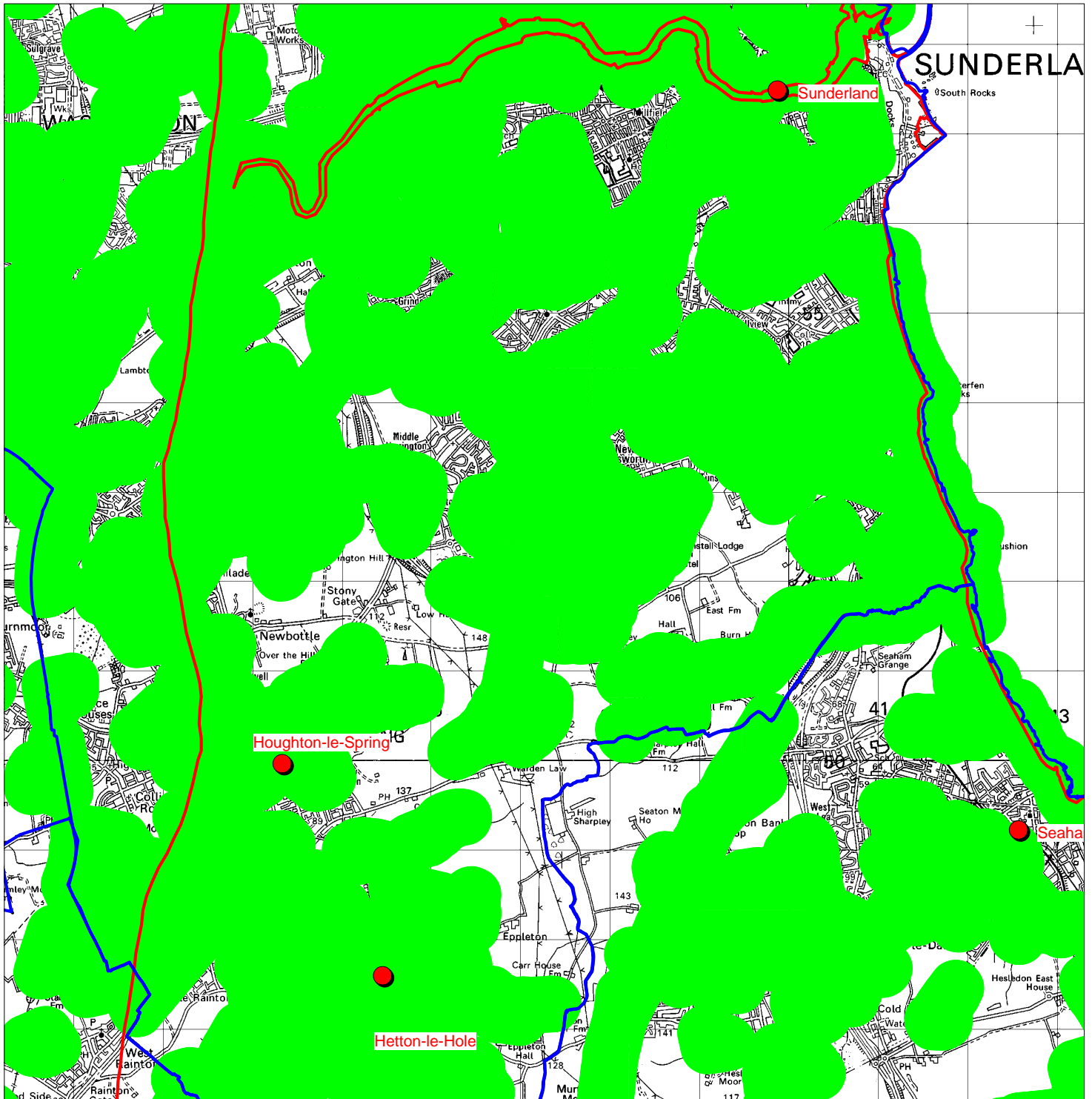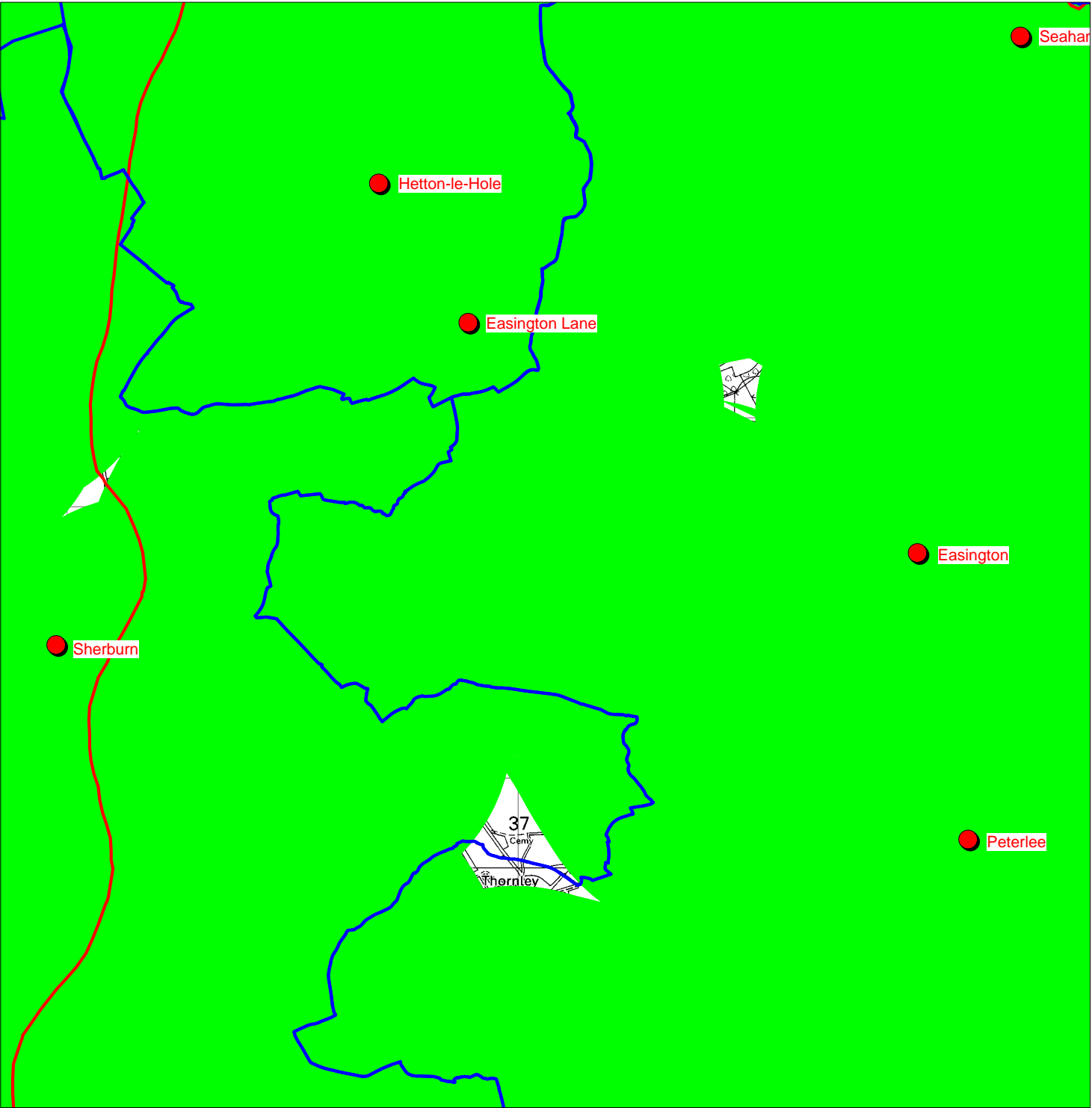
SUNDERLA

Sunderland

South Rocks

55

Houghton-le-Spring

Seaha

Hetton-le-Hole

Key

Limestone Landscapes   Access Company

- Selected towns & cities
- National Character Area 15
- District / borough boundary
- Merged typologies > 2ha with a 300m buffer

Map 19 -
Combined typologies of greenspaces >2ha with a 300m buffer

Houghton-le-Spring

Hetton-le-Hole

Seaham

HAM

Easington

Peterlee

Limestone
Landscapes

Access

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Key

● Selected towns & cities

National Character Area 15

District / borough boundary

Merged typologies > 2ha with a 300m buffer

Map 20 -
Combined typologies of greenspaces >2ha with a 300m buffer

Point

Mouth

● Peterlee

Cemy
Mickle Hill
79

Blackhall
Rocks

Tweddle
Black Halls

39

38

(mmer only)

37

Hulam

106

Sheraton
Hill

84

Nelson   Hart

72

Nor
Fm

Leechmire

Fleet
Shot

131

South Wingate

Sheraton

Hart
102

Catlow
Hall

Rixown

141   132 △ 127

156

Volt
Fm

34
Sch

Resr

High
Throston

Sheraton
Grange Fm

Sheraton
West Grange

Pudding Poke
Fm

North Urn
Fm

126

Elwick

105

Lambs
House Fm

High
Tunstall

Sch

HARTLEPOO

67

West

Hartlepool
Bay

the
Hill

Field House
Fm

Dalton Piercy

Long Scar

Key

●	Selected towns & cities
▢ (red)	National Character Area 15
▢ (blue)	District / borough boundary
▓ (green)	Merged typologies > 2ha with a 300m buffer

Limestone Landscapes   Access Company

Map 21 -
Combined typologies of greenspaces >2ha with a 300m buffer

Key

- 🔴 Selected towns & cities
- ▭ (red outline) National Character Area 15
- ▭ (blue outline) District / borough boundary
- 🟩 Merged typologies > 2ha with a 300m buffer

Limestone Landscapes   The Access Company

Map 22 -
Combined typologies of greenspaces >2ha with a 300m buffer

Key

- 🔴 Selected towns & cities
- ▭ National Character Area 15
- ▭ District / borough boundary
- 🟩 Merged typologies > 2ha with a 300m buffer

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Limestone Landscapes
The Access Company

Map 23 -
Combined typologies of greenspaces >20ha with a 2km buffer

44   45

Whitburn

SUNDERLAND

South Rocks

Sunderland

Docks

Houghton-le-Spring

Limestone Landscapes   The Access Company

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Key

- Selected towns & cities
- National Character Area 15
- District / borough boundary
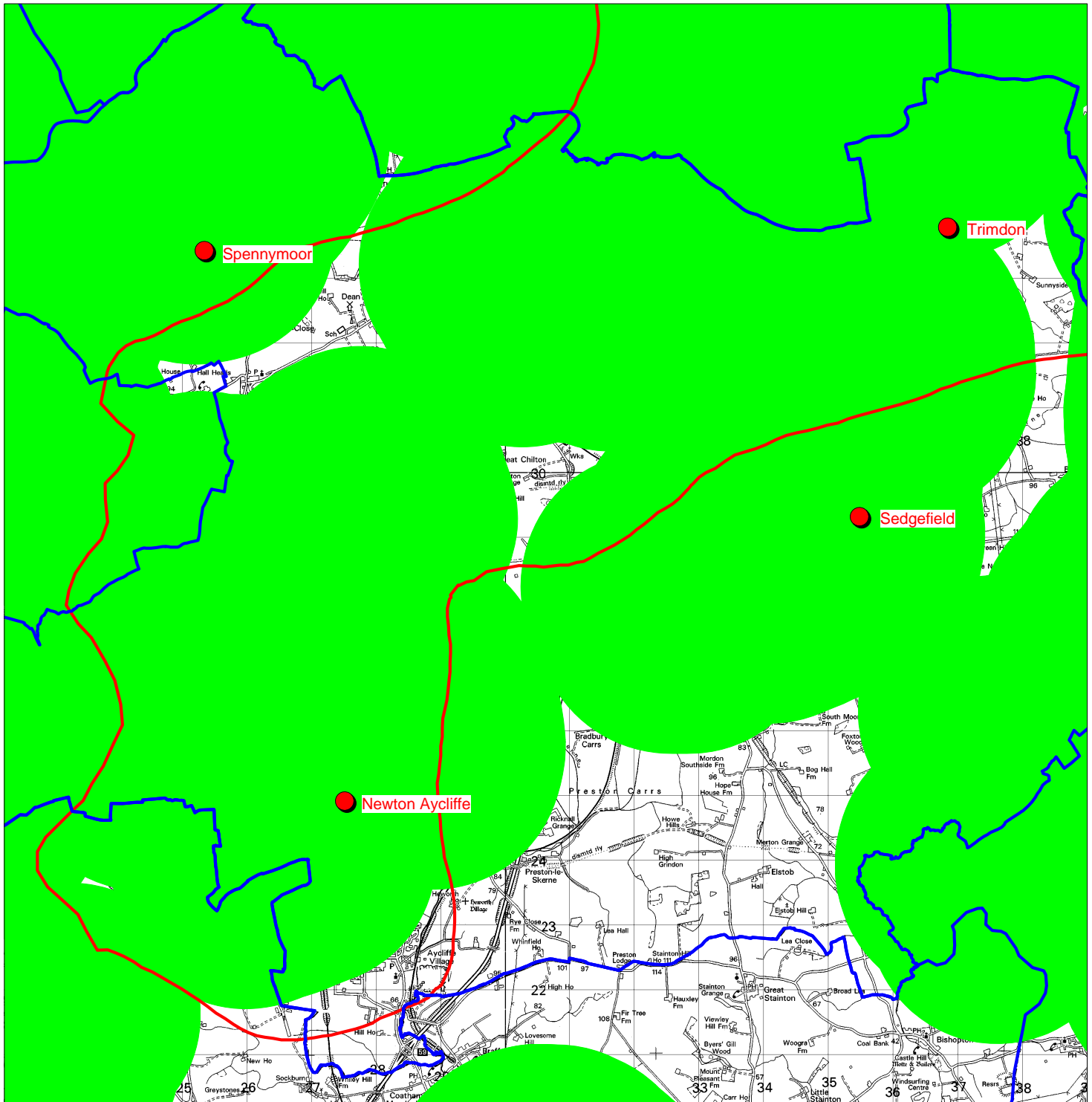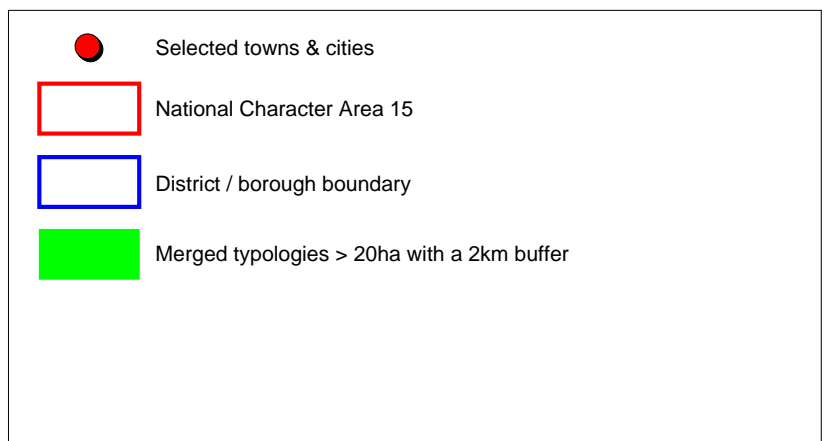- Merged typologies > 20ha with a 2km buffer

Map 24 -
Combined typologies of greenspaces >20ha with a 2km buffer

Seahar

Hetton-le-Hole

Easington Lane

Easington

Sherburn

37
Cemy

Thornley

Peterlee

Key

● Selected towns & cities

☐ National Character Area 15

☐ District / borough boundary

▮ Merged typologies > 20ha with a 2km buffer

Map 25 -
Combined typologies of greenspaces >20ha with a 2km buffer

37
Cem
Thornley

● Peterlee

39

● Trimdon

Sunnyside

● Hartlep

North Urn
Fm

105
Elwick

Ho

Dove Cote

38

Three Gates
Fm
Hotel

46

96

66

49

● Sedgefield

47

37 31

West Pastures

Springwell
House Fm

Claxton
Grange

South Moor
Fm
Foxton
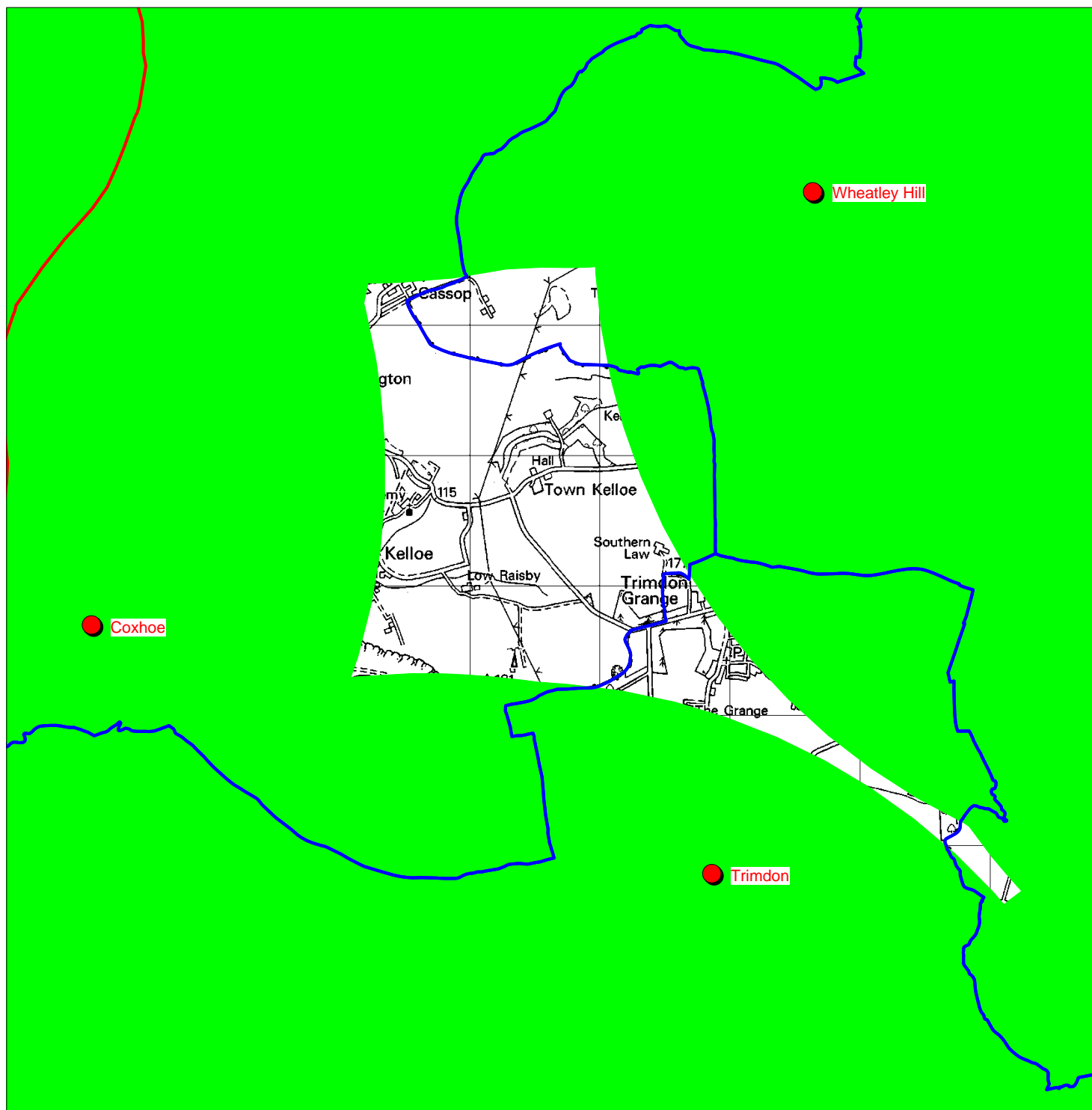Wood

Limestone
Landscapes

Access
The
Company

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Key

● Selected towns & cities

National Character Area 15

District / borough boundary

Merged typologies > 20ha with a 2km buffer

Map 26 -
Combined typologies of greenspaces >20ha with a 2km buffer

Spennymoor

Trimdon

Sedgefield

Newton Aycliffe

Key

- 🔴 Selected towns & cities
- ▭ National Character Area 15
- ▭ District / borough boundary
- ▭ Merged typologies > 20ha with a 2km buffer

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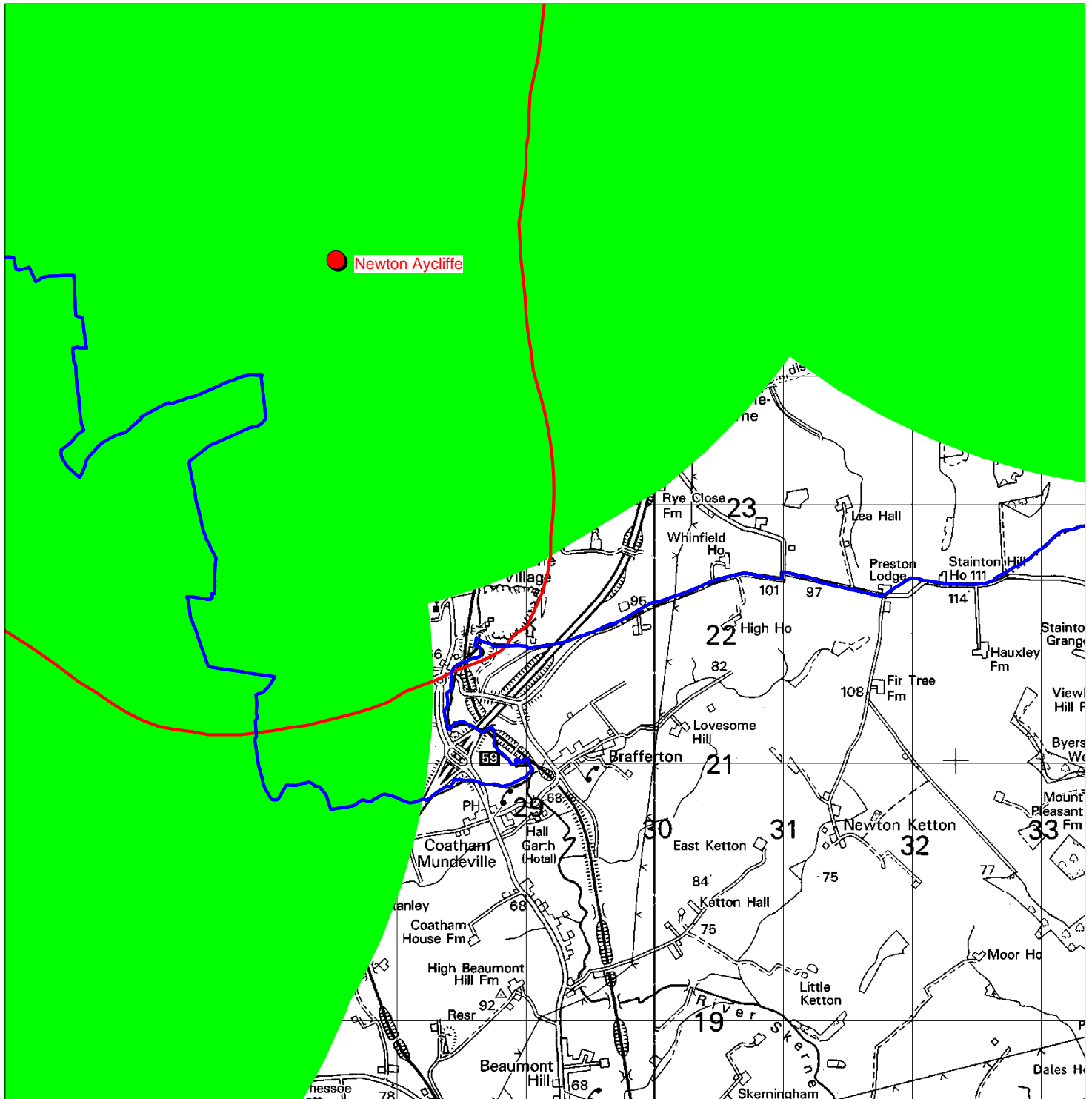Produced by The Access Company under sub-licence for Natural England 100046223 [2009].

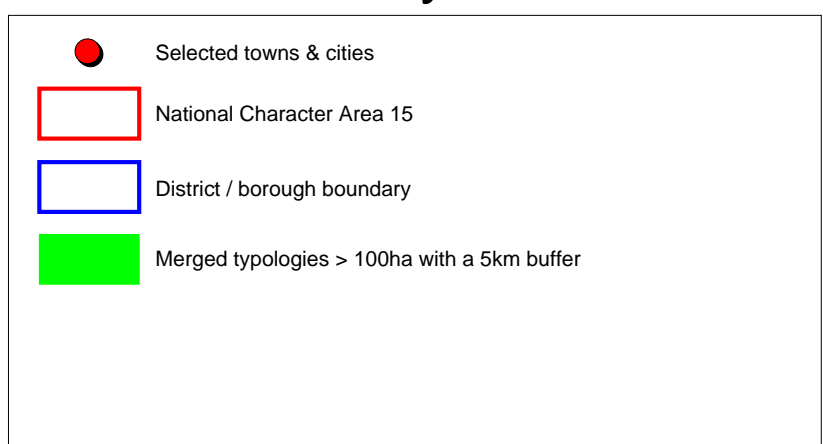Limestone Landscapes

The Access Company

Map 27 -
Combined typologies of greenspaces >100ha with a 5km buffer

Wheatley Hill

Cassop

gton

Ke

Hall

115

Town Kelloe

Kelloe

Low Raisby

Southern Law

17

Trimdon Grange

The Grange

Coxhoe

Trimdon

Limestone Landscapes   Access

Key

● Selected towns & cities

National Character Area 15

District / borough boundary

Merged typologies > 100ha with a 5km buffer

Map 28 -
Combined typologies of greenspaces >100ha with a 5km buffer

● Newton Aycliffe

Rye Close Fm
Whinfield Ho
Lea Hall
23
Preston Lodge
Stainton Hill
Ho 111
101 97
114
Village
95
22 High Ho
Stainton Grange
82
108
Fir Tree Fm
Hauxley Fm
View Hill
Lovesome Hill
Byers
59
Brafferton
21
29 68
PH
30
East Ketton
31
Newton Ketton
32
33 Fm
Mount Pleasant
Hall Garth (Hotel)
Coatham Mundeville
84
75
77
tanley
68
Coatham House Fm
Ketton Hall
75
Little Ketton
Moor Ho
High Beaumont Hill Fm
Resr 92
19
River Skerne
Beaumont Hill 68
Dales H
nessoe
78
Skerningham

Key

●	Selected towns & cities
□	National Character Area 15
□	District / borough boundary
�▭	Merged typologies > 100ha with a 5km buffer

Limestone Landscapes   Access Company

Map 29 -
Combined typologies of greenspaces >500ha with a 10km buffer

Sherburn
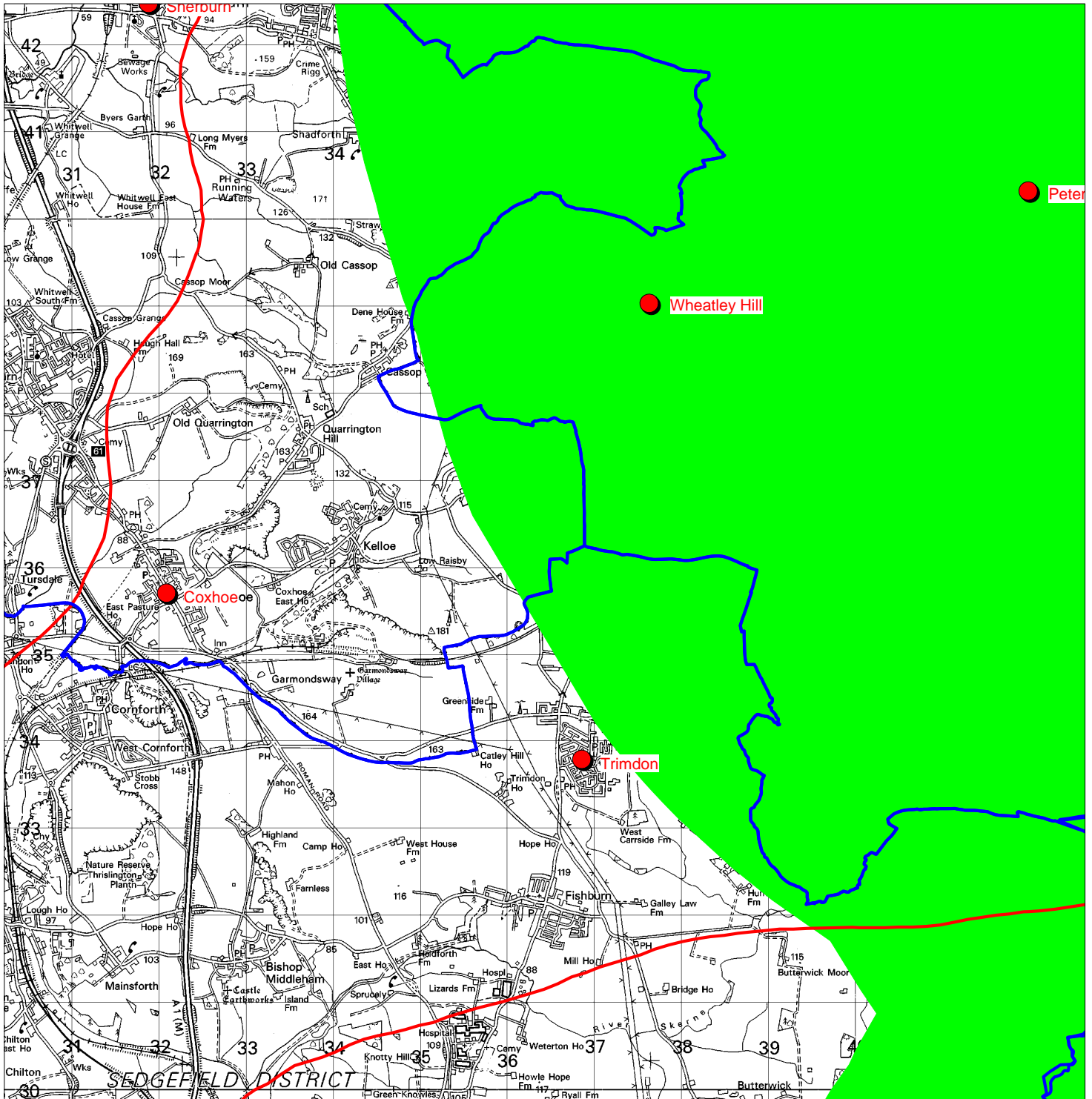
Peter

Wheatley Hill

Coxhoe

Trimdon

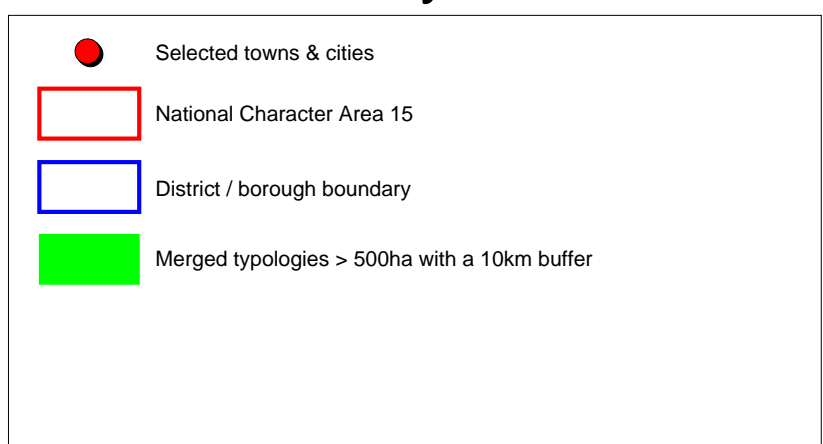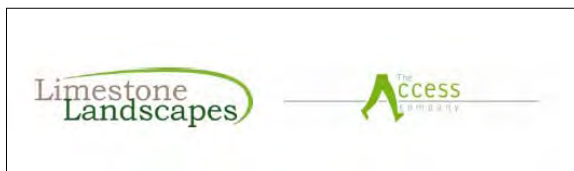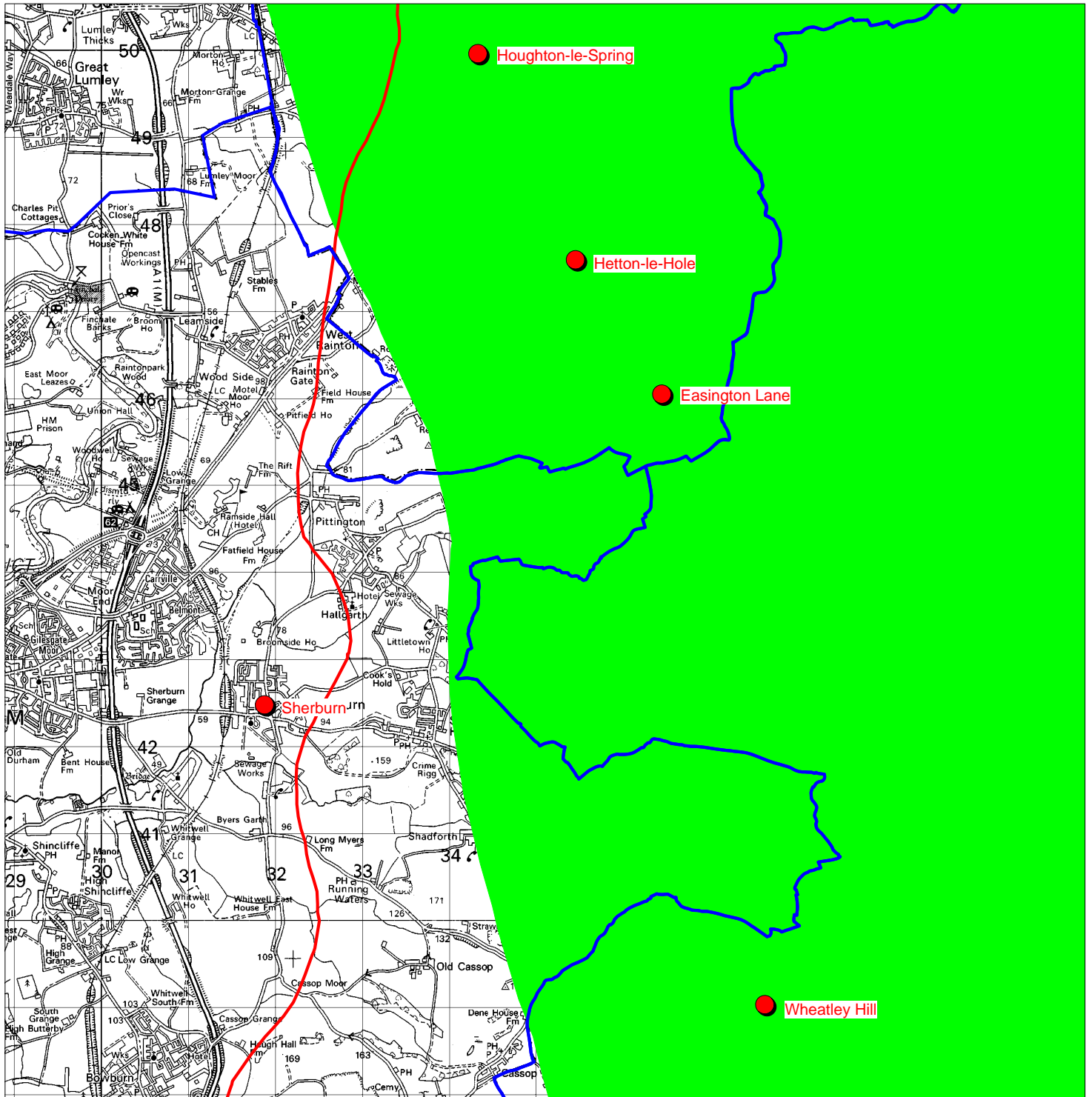SEDGEFIELD DISTRICT

Limestone Landscapes

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Key

●	Selected towns & cities
▢	National Character Area 15
▢	District / borough boundary
▮	Merged typologies > 500ha with a 10km buffer

Map 30 -
Combined typologies of greenspaces >500ha with a 10km buffer

Houghton-le-Spring

Hetton-le-Hole

Easington Lane

Sherburn

Wheatley Hill

Limestone Landscapes

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Key

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- ▭ District / borough boundary
- ▮ Merged typologies > 500ha with a 10km buffer