

# **ACCESS NETWORK MAPS**

## **GUIDANCE ON DEVELOPMENT AND FUTURE USES**

### **Introduction**

1. The 'Access Network Map' was developed by Natural England to inform its work to improve opportunities for people to enjoy the natural environment. This map shows, across England, the relative abundance of accessible land in relation to where people live. Due to issues explained below, the map does not, and cannot, provide a definitive statement of where intervention is necessary. Rather, it should be used to identify areas of interest which require further exploration.
2. The data from which the Access Network Map is compiled is available to regional teams to develop the access network maps for their area. This will provide a valuable tool to help staff understand the distribution of accessible land across the region and target work on access-related projects. It comprises one of the datasets in the Holdings Assessment Toolkit and should be used in targeting Higher Level Stewardship (HLS).
3. This document provides guidance to regional and national teams on how they may use the Access Network Maps to support Natural England's work, both internally and when working with external partners.

### **BACKGROUND TO THE ACCESS NETWORK MAPS**

4. "Natural England believes that places where people can enjoy the natural environment should be improved and created where they are most wanted"<sup>1</sup>. Access Network Maps help support this work by providing means to assess the amount of accessible land available in relation to where people live. They combine all the available good quality data on access provision into a single dataset and relate this to population. This provides a common foundation for regional and national teams to use when targeting resources to improve public access to greenspace, or projects that rely on this resource.

### **What the maps show**

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<sup>1</sup> From Natural England's draft policy on Access

5. The Access Network Maps are compiled from the datasets available to Natural England which contain robust, nationally consistent data on land and routes that are normally available to the public and are free of charge. The criteria adopted to select the datasets, and those datasets used, are listed at Annex A.
6. Due to the quantity and complexity of data used, it is not possible to display clearly on a single map the precise boundary of accessible land for all areas. We therefore selected a unit which would be clearly visible at a variety of scales and calculated the total area (in hectares) of accessible land in each. The units we selected are 'Lower Super Output Areas' (LSOAs), which represent where approximately 1,500 people live based on postcode. To calculate the total area of accessible land for each we gave the linear routes a notional width of 3 metres<sup>2</sup> so they could be measured in hectares. We then combined together all the datasets and calculated the total hectares of accessible land in each LSOA.
7. LSOAs are different sizes because they represent where 1,500 people live rather than a fixed unit of area. Those in urban areas are invariably smaller than rural ones. To display the amount of accessible land as a total for each LSOA would introduce a skew into the results, because a given number of hectares of accessible land in a small LSOA would provide proportionally more access than the same number in a large LSOA. To overcome this, we calculated the proportion of the LSOA that is accessible, ranked the LSOAs according to the percentage accessible, and divided these into eight equal groups. The final maps show which LSOAs have the highest percentage of accessible greenspace in dark green and those with the lowest in dark red, with other LSOAs in paler shades in between. Areas for which we calculate zero access or have no data are in black.
8. To illustrate the effect of presenting the data as a proportion of the size of the LSOA, we compared maps for Suffolk (see N:\Regulatory Services and Access\Work Areas\Integrating Access\Guidance doc maps).
9. The final Access Network Map for England is also available on this link.
10. The maps only show areas where there is access for recreation on foot. There may also be 'higher rights' such as horse-riding, but mapping these was out of the scope of this project.

### **Issues to be aware of when using the maps**

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<sup>2</sup> A 3 metre width was chosen to be consistent with approach used by Natural England in targeting agri-environment schemes

11. The data used to compile the maps has a good level of accuracy. There are, however, some factors that may influence the final ranking of the LSOAs. The main issues to be aware of are:

- i. the proportion of access in urban areas is likely to be under-represented because we do not have consistent data on accessible parks and gardens, which can be quite extensive;
- ii. there will be means to access greenspace not included in the datasets we hold; whilst many of these will make a relatively minor contribution, they may be significant in some areas (e.g. canal towpaths, derelict open land);
- iii. no distinction is made between the datasets used in relation to the 'quality' of access they provide; and
- iv. ranking of the LSOAs does not indicate whether access provision is evenly spread over a LSOA or skewed towards one part of it.

12. These issues are explained in greater detail at Annex B.

## **USES OF THE ACCESS NETWORK MAPS**

13. The Access Network Maps are primarily a tool to aid understanding of the distribution of accessible land, and to target resources to improve access opportunities. However, they can also be regarded as a measure of the access 'asset base', which may in turn influence our approach to working with partners. For example,

- where the access resource is good and the 'asset base' strong, our priority may be to focus on effective management of the asset and creating links from it to less well resourced areas; and
- where the access resource is poor and the 'asset base' weak, our priority may be to focus on creation and enhancement of existing opportunities.

14. We have explored uses of the maps with other national teams, and regional colleagues have discussed them with their partner organisations. Recommendations for uses of the maps are summarised below.

### **Using national scale maps**

15. *Assigning resources.* The Access Network Maps illustrate those regions across England (and areas within regions) that have particularly good or poor provision. At this level the Map is useful to identify priorities and assign resources between and within regions.

16. *Supporting publications and campaigns.* The Maps have proved a useful means to illustrate priority areas in regional planning and strategy documents, and campaigning material such as the Health campaign. If using them for this purpose, care should be taken to ensure issues arising from the lack of some data is made clear.

17. *Targeting.* We have explored with national teams scope to use the maps to help target their work in delivering Outcome 2 objectives which rely on provision of greenspace. For example -

- *Access to Nature.* We overlaid the Access Network Map at a county scale with the 10% most deprived areas using the Index of Multiple Deprivation. This intersect highlights areas with poor access provision and/or high deprivation which are used as target areas for Access to Nature grants [N drive link].
- *Healthy walking programme.* We overlaid the Access Network Map with the 20% of areas with the lowest Life Expectancy, to identify target areas where health and access provision are low (see N:\Regulatory Services and Access\Work Areas\Integrating Access\Guidance doc maps)<sup>3</sup>.

18. In both cases, the target areas did not necessarily suffer from poor access provision. This suggests that in some areas the focus of any intervention may be to connect people to their natural environment or improve its quality or accessibility, rather than the need to open up new areas of greenspace. In this way the Access Network Map provides context on the access resource in target areas.

19. *HLS targeting.* Natural England's Holdings Assessment Toolkit (HAT) has been developed to assist local agri-environment advisers in targeting HLS. The Access Network Mapping data has been included in this alongside other national datasets. This enables advisers to assess the relative access provision of a holding in which they are interested, or search for holdings where access provision is poor. Use of this facility by regional teams is discussed at para 27.

### **Preparing and using regional maps.**

20. ***Advantage of having a regional map.*** The national Access Network Map ranks the LSOAs according to their accessibility in relation to all other areas across England. This provides consistent means to target resources on a national scale. However, for targeting resources within the region, regional

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<sup>3</sup> To do this we converted the Access Network Map data to show Middle Super Output Areas because the health data is held in that format

teams should re-run the data to show the ranking within their area. The Access Network Map data, and guidance on its use, are available for regional teams' use at N:\Regulatory Services and Access\Work Areas\Integrating Access\Guidance doc maps .

**21. *Improving quality of the maps.*** Regional teams can supplement the maps with data they hold locally which will add detail to the maps. In doing so, however, they should be clear about which datasets may introduce inaccuracies into the results. Any datasets used should be selected carefully with the objective of the study in mind. Below are some examples of datasets that should not be used to enhance Access Network Maps:

- Community Forest and National Park data include large areas which are not accessible to the public, such as built up areas or intensively farmed land;
- English Heritage or National Trust parks and gardens are often accessible only at specified times or have other conditions attached, such as an entry fee. Where this is the case, those conditions may limit who can enjoy them so the data should not be included.
- Some datasets, such as that for allotments, relate to 'greenspace' which is not normally accessible. Whilst this is of value in understanding the 'greenness' of an area, it should not be included if the maps are intended to measure actual access provision.
- Licensing issues may preclude our use of the data, or use of the data may be subject to a fee. Conditions should be checked carefully before the data is used (see para 27 and Annex C)

22. The most significant dataset we need to acquire to improve the accuracy of the maps is that collated by local authorities on greenspace, mainly for urban areas. Planning Policy Guidance note 17 (PPG17) suggests the types of land that may be included. This data is available in some areas but not across the whole of England. To include it in some areas but not others would add inconsistency into the maps, so we have omitted it from the national data. Where regional teams have good 'PPG17 data' for their area they should consider including it.

23. If Regional teams include any additional datasets in their Access Network Maps they must ensure the correct copyright statements are displayed (see guidance at Annex C).

**24. *Using the maps to understand greenspace provision.*** Access Network Maps identify areas where access provision is relatively good/poor. Due to the

issues referred to at Annex B they do not, and cannot, provide a definitive statement of where intervention is necessary. Rather, they should be used to identify areas of interest which require further exploration.

25. The Access Network Map and the detailed data it is based on are available on Webmap<sup>4</sup>. Having opened the Access Network Map display, it is possible to zoom in on an area of interest and, at a scale of about 1:50,000, the display will default to showing the datasets from which the Access Network Map is compiled. Resources such as aerial photography, Rights of Way Improvement Plans and local surveys may provide qualitative information to supplement the maps.

**26. *Exploring qualitative issues.*** Some of the datasets relate to land that is more intensively used than others (see Annex B). For example, Rights of Way or Country Parks may be well used across their entire extent, whereas on large blocks of Forestry land or CROW access land the public may tend to walk on tracks representing only a relatively small proportion of the site. The Access Network Maps do not account for this because of the difficulty of assessing the intensity of use. However, it is possible to add weighting into the maps to reflect the extent to which the access provided through different datasets is utilised by the public. Regional teams may use this tool where they hold information on public use or preference.

**27. *HLS targeting.*** Data contained in Natural England's Holdings Assessment Toolkit (HAT) (see para 19) is collated nationally and passed to regional teams for their use. Regional teams should prepare regional versions of the Access Network Mapping data to include in the HAT, for reasons explained at para 20. Regional access co-ordinators should ensure agri-environment advisers take this into consideration when targeting HLS. More information about HAT is available at

<http://neintranet/daytoday/guidance/agri-environment/hlstargeting/Pages/holdingstoolkit.aspx>

**28. *Working with partners.*** Regional teams who have shared the access network maps with partners report that feedback is good, with partners expressing an interest in the technique and also requesting access to the data. The main areas of interest to date have been -

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<sup>4</sup> Webmap is an internal GIS resource available to all Natural England staff on their desktops. It is not available externally. To connect to it, go to the Intranet page and type Webmap into the address bar.

- prioritising Green Infrastructure investment justified by the need to improve access opportunities;
- understanding requirements for access provision around Growth Points and in the planning system; and
- as means to identify areas with poor greenspace provision, as a rural equivalent to the Accessible Natural Greenspace standards.

29. The maps and their component data represent an opportunity to encourage partnership working to lever funds and stimulate investment in quality places. The Access Network Maps and the dataset can be shared externally, subject to licensing issues and suitable caveats about the completeness of the data (see below).

### **Licensing and copyright**

30. The Access Network Map is a product that Natural England has developed and we are therefore able to share the consolidated dataset with partners for their internal use. However, we are not necessarily able to share the individual datasets with partners due to the licensing conditions attached to each dataset. Advice on licensing conditions is at Annex C.

### **Caveats**

31. In any publication using the Access Network Maps, or when sharing the maps or dataset with partners, it is strongly recommended that the incomplete nature of the data used is made clear. The wording used on the March 2009 version of the Access Network Map is

“This map is compiled from the best data available to Natural England at March 2009. Some publicly accessible areas are not included where data is lacking. The map should therefore be regarded as indicative rather than complete.”

### **Further information**

32. For further advice, contact

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## Datasets used in Access Network Maps

Natural England holds a wide range of datasets relating to access to greenspace. These are of varying quality, and many include land which is not always freely accessible to the public. We therefore applied the following criteria to select which datasets to use:

- Data is consistently available across all Natural England regions
- Natural England holds or is licensed to use the data for this purpose
- Quality of the data is believed to be good and does not require any further verification
- Land identified is normally available for public use, including pedestrian and higher rights where appropriate
- Access to land identified is free at the point of entry (excluding car parking charges etc)

Applying these criteria, we included the following datasets:

- ✓ Agri-environment access
- ✓ CROW access land (including registered common land and dedicated land)
- ✓ Country Parks
- ✓ Cycleways\*
- ✓ Doorstep Greens
- ✓ Local Nature Reserves
- ✓ Millennium Greens
- ✓ National Trails\*
- ✓ Public Rights of Way\*
- ✓ National Nature Reserves
- ✓ Village Greens
- ✓ Woods for People (Forestry Commission data including Woodland Trust accessible land)

(\*Linear data)

## ISSUES TO CONSIDER WHEN USING THE ACCESS NETWORK MAPS

The Access Network Maps are compiled from the best data available to Natural England. However, there are some issues that may affect the conclusions that can be drawn. These are set out below.

**Availability of data.** Some of the key datasets on publicly accessible greenspace are not yet available consistently across England. There will, therefore, be areas in which the accuracy of the maps can be improved as more data is collated.

The most significant dataset that we do not have for the whole country is that for parks, gardens and other greenspaces primarily in urban areas. Planning Policy Guidance 17 (PPG17) encourages local authorities to collate this data and lists the types of greenspace that could be included. However, it leaves to the discretion of local authorities which types of greenspace are included, and the format and attribution of the dataset.

Some, but not all, local authorities have collated this data and, of those that have, not all that data is in a format suitable for use in the Access Network Maps. To avoid introducing a skew into the data we have therefore omitted it from the national map.

To assess the contribution made by the 'PPG17 data' we developed two Access Network Maps for Bristol (for which we hold good PPG17 data), with and without the data. The results show that inclusion of the PPG17 data significantly increased the ranking of the LSOAs against the national scale. It is evident, therefore, that the amount of accessible land in most urban areas will be under-represented compared with those in rural areas.

It is likely that over time further nationally robust datasets will become available - for example, land accessible through Inheritance Tax Exemption, land with historical access rights<sup>5</sup> and coastal access. Other datasets are already in existence but cannot currently be used in the Access Network Maps for reasons of licensing, quality or format. Natural England can update the national map from time to time as such data becomes available. Evidence team has responsibility and expertise in this area.

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<sup>5</sup> Land with access rights of the types listed at Section 15 of the Countryside and Rights of Way Act 2000

The datasets used have been selected because they are available nationally. Regional teams may hold data at a regional or local level which they could include in the maps in their area to improve accuracy where they are confident it is robust. (Data will only be included in the national map where it is consistently available across England.)

**Intensity of use of the access provided.** The Access Network Maps treat the constituent datasets as giving the same potential access to people. In reality, this is likely to vary. For example, National Trails are likely to provide consistently easy access and be well used along their entire length. In contrast, a block of Open Access land or Forestry land may in practice only be accessed along certain routes, and other areas may be difficult to access (e.g. bog or thick wood). The data on Open Access land and Woods for People contribute the highest amount of accessible land (see graph below). It is possible to add 'weighting' into the datasets to reflect the extent to which the public find them easy to use. This is discussed at para 26.

An alternative would be to re-run the data omitting certain datasets. This was piloted in the East Midlands, omitting CROW access land from the maps because of the potential skew it introduces by adding a high hectareage of land which is not in practice always easy to access. The resulting map showed a similar pattern in the ranking of LSOAs but the polarisation between well provided and poorly provided areas was less acute.

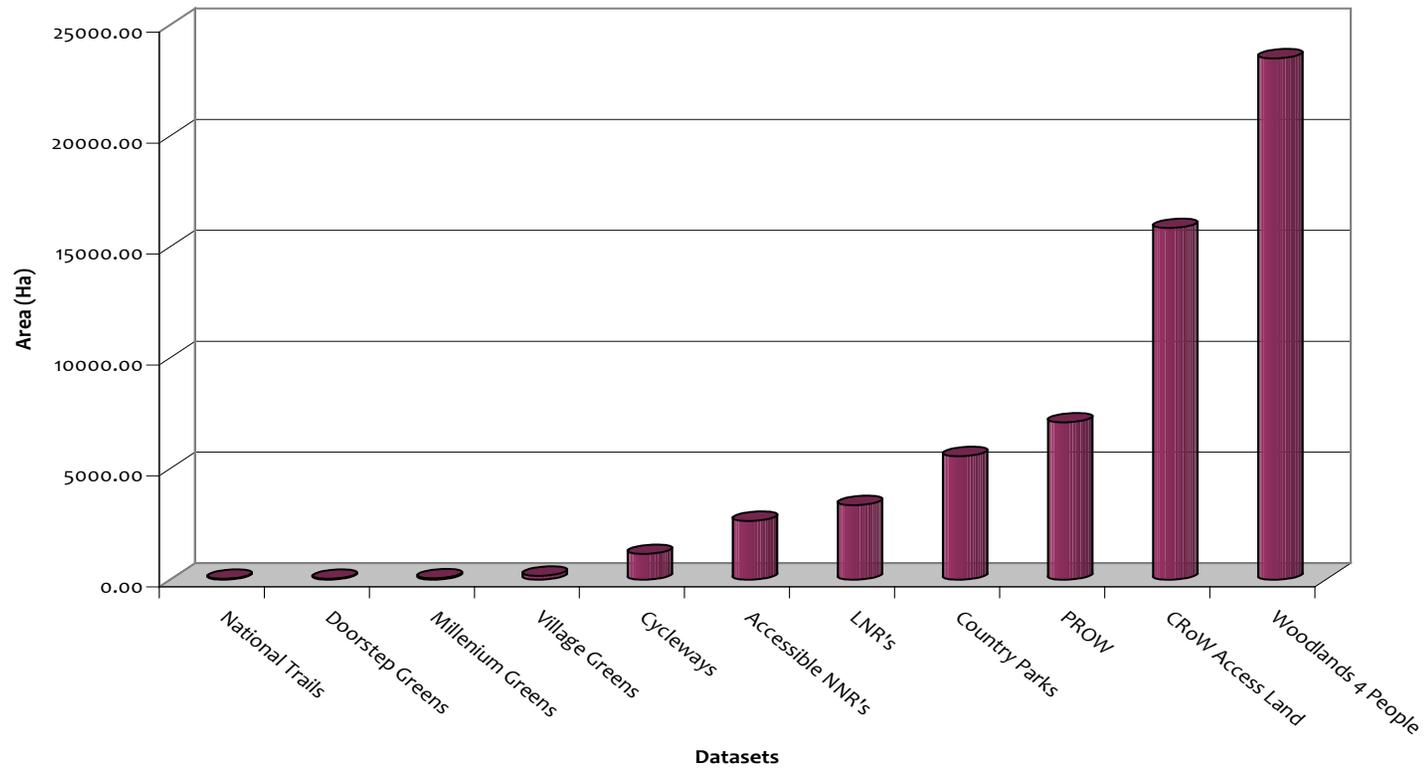
Discussions with partners have not reached agreement on how this should be done, but it remains a potentially useful tool to explore.

**Distribution of access across the LSOA.** The ranking of the LSOA gives no indication of whether the access provision is evenly spread across the area or is grouped in one area. Examination of the constituent datasets on Webmap will illustrate the distribution across the LSOA. There is a GIS tool to assess this but we have not piloted it.



# CHART TO SHOW THE CONTRIBUTION MADE BY DATASETS COMPRISING THE ACCESS NETWORK MAPS (for the West Midlands)

Integrated Access Datasets Ranked In Order Of Total Hectareage (Ha) Across The West Midlands



## DATA LICENSING AND COPYRIGHT

The Access Network Map is a product that Natural England has developed and we are therefore able to share the consolidated map and geographical dataset with contractors and/or for partnership working, for their internal use, subject to Natural England's standard Terms of Use. However, we are not necessarily able to share the individual datasets with partners due to the licensing conditions attached to each dataset.

Of the constituent datasets, the following are available externally on Natural England's download site:

- Country Parks
- Doorstep Green
- Local Nature Reserves
- Millennium Greens
- National Nature Reserves

Natural England owns the following datasets (but they are not on Natural England's download site). We can supply them externally provided they are accompanied with Natural England's Terms of Use:

- Agri-environment access
- CROW Access land
- National Trails

We are licensed to use the following for internal business use; any organisation seeking permission to use these datasets should refer to the source organisation:

- Cycleways – source is Sustrans
- Village Greens – source is Defra
- Woods for People – source is Forestry Commission

The Public Rights of Way dataset is an amalgamation of data collected by local authorities each with their own licencing terms and conditions. Due to this variability in source and conditions, and the fact that this dataset has never been updated, the decision was made to keep it for internal business use.

A copyright statement must be included in any publication of the Access Network Maps, or any extract from them. This must acknowledge all the sources from which the data is derived. The following wording should be used:

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Cycle route data supplied by Sustrans.

If Regional teams publish maps in which they have included datasets in addition to those above, they must ensure any necessary additional copyright statements are displayed.