



# Protected Landscapes Partnership

## 30by30 Potential in National Landscapes, National Parks and National Trails

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### Executive Summary

Protected landscapes in England have significant potential to contribute to the government’s commitment to protect and conserve at least 30% of land for biodiversity by 2030. 38.2% of National Parks and National Landscapes are potentially suitable due to their unique landscapes, rich biodiversity, and existing management frameworks.

National Trails provide an opportunity to add the connectivity needed for our landscapes to function as an ecological network. Trail buffer regions of 5km add 380,000Ha of potential 30by30 land, meaning the protected landscape family could provide 41% of England’s commitment to protect and conserve at least 30% of land for biodiversity by 2030.

This analysis gives a starting point for considering what is an ambitious and realistic target for protected landscapes and draws attention to the differences between individual protected landscapes.

### Background

The global initiative to protect at least 30% of land and sea for nature by 2030 (30by30) was formally adopted at the UN Biodiversity Summit COP15 in December 2022, as part of the Global Biodiversity Framework. In line with this, the UK has committed to achieving the ambitious 30by30 target. Defra has provided initial guidance on what could be included in this target through its recent publication, *Delivering 30by30 on Land in England*<sup>1</sup>, with final criteria due to be released by the end of the year. The indicative map produced by Defra suggests that the majority of National Parks (NPs) and National Landscapes (NLs) have the potential to contribute to 30by30. While Defra were not suggesting that these areas in their entirety will be able to contribute, this number has faced scrutiny for being unrealistically high given that a large area of NPs and NLs is farmland, towns and villages.

NP and NL bodies recognise the need for ambition and the importance of contributing more proportionally to the 30by30 target than the rest of the country. NPs and NLs are crucial for native plants and wildlife, containing extensive areas of designated sites, deciduous woodland, peat, and priority habitats. This research aims to provide an evidence base as a starting point for assessing the ambitious yet realistic potential of individual protected landscapes (PLs, including National Trails) to contribute significantly to the 30by30 goal.

This document outlines the methodology used to explore the potential for 30by30 land in PLs and explores the results.

### Potential 30by30 areas

The mapped potential 30by30 areas include regions which already have some protections or management in place, and habitats with important biodiversity value. The criteria used to identify these areas help determine which regions and habitats have the potential to contribute towards the 30by30 goal without significant land use changes, given support from landowners, land managers, targeted action, and investment. The term 'potential 30by30 areas' refers to broad areas and does not imply that these entire areas will be able to contribute to 30by30 in the future.

This analysis does not separate currently qualifying areas from potential areas because the criteria have not been released yet and we are assessing the broad potential areas in PLs.

Areas mapped as 'Potential 30by30 Areas':

- Protected Sites (SSSI, SAC, SPA, Ramsar)
- Local Nature Reserves
- National Nature Reserves
- Priority habitat
- Additional areas of deciduous woodland
- Ancient woodland
- Wood pasture and parklands
- Deep peat
- Surface water

Ancient woodland, wood pasture and parklands, deep peat and surface water were not included in the original Defra analysis. Areas included in the original Defra map that we chose not to include are:

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<sup>1</sup> [Delivering 30by30 on land in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/publications/delivering-30by30-on-land-in-england)

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- NPs and NLs in their entirety, because not all land within the NPs and NLs has potential for 30by30, for example, intensively farmed areas, towns, and villages.
- Nature Recovery Projects, as the relevant parts are covered by other designations and land use types.
- Country Parks, with Wood pasture and Parkland included instead.

Defra's original report also highlights significant areas we have not yet mapped that will contribute to 30by30, including Landscape Recovery projects, agri-environment agreement land outside this framework, Local Wildlife Sites, private estates, public estates, areas under habitat restoration outside this framework and biodiversity net gain sites.

### Methodology

Analysis was carried out in ArcGIS Pro. The England Coast Path layer was dissolved to one line and merged with the National Trails. A 5km buffer was applied. To calculate the area of overlapping buffers, this buffered layer was unioned with itself and the identical buffers were deleted with 'delete identical'.

All land-use layers were cut to the England mean low water line, so intertidal zones are included<sup>2</sup>. Each land-use type was first considered on its own, using pairwise intersect with PL boundaries to provide a total percentage and hectareage in PLs for each land use type.

We then used a hierarchy-based approach to combine the individual layers and avoid double counting, based on that developed by Bruce Winney (Appendix I). Data layers were used in sequence so that where one area has been counted it was excluded from subsequent analysis. The individual layers were hierarchically combined using the 'Merge' and 'Dissolve' tool in ArcGIS software.

### Results

The average proportion of the National Parks (NPs) and National Landscapes (NLs) with potential for counting towards 30by30 is **49.7% for NPs and 30.4% for NLs**. However, the diversity of landscapes means there is significant variation (Figure 1 and 2). Overall, these numbers suggest NPs and NLs could potentially contribute 38.2% of their land to 30by30, which is 9.3% of England's total area. In context, that means nearly 1/3 of the target could be achieved in about a quarter (24%) of England's land.

We extended this analysis to National Trails (NTs), to see how the whole protected landscape family could contribute to 30by30. We selected a region of 5km on either side of each NT, to represent the broad area over which the NT designation could have influence. On average, 29% of this 5km buffer of NTs has potential to count towards 30by30. This excludes any overlaps between buffers. Nearly half of this 30by30 potential is outside of NPs and NLs, adding an additional 380,000Ha to the 30by30 potential. When NTs are included, the numbers suggest protected landscapes (NPs, NLs, and NTs) could contribute 31.6% of their land to 30by30, which is 12.3% of England.

The contribution of different habitats and designations to the total 30by30 potential across all PLs is shown in Figure 4. Protected sites (SSSIs, SPAs, SACs, Ramsar sites, Local Nature Reserves and National Nature Reserves) contribute the largest potential 30by30 area (47%), and all other habitats also contribute significantly.

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<sup>2</sup> This method to cut data to PL boundaries only counts the area of SSSIs and other designated sites that are within PLs. This is different from the method used by the Protected Landscapes Targets and Outcomes Framework to produce the SSSI statistics, where all SSSIs with more than 10% of their area within PLs are counted. This is to avoid double counting the areas outside PL boundaries when looking at national 30by30 potential.

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### *Assumptions and Limitations*

Some areas of NPs and NLs overlap. The significant areas of overlap are North Norfolk Coast NL/The Broads NP (726ha) and Arnside Silverdale NL/Lake District NP (35ha). The total area for all PLs accounts for these overlaps. However, summing the other areas separately may result in a slight overestimation due to overlaps.

Significant areas of NT 5km buffers overlap with other NT buffers or NPs and NLs. The total area for all NTs and all PLs (NTs, NLs, and NPs) accounts for these overlaps. However, summing areas separately will result in a significant overestimation due to overlaps

The totals for different land use types should not be summed together as there are many overlaps.

Data is for England only so only the English part of the Wye Valley NL and Offa's Dyke NT has been included.

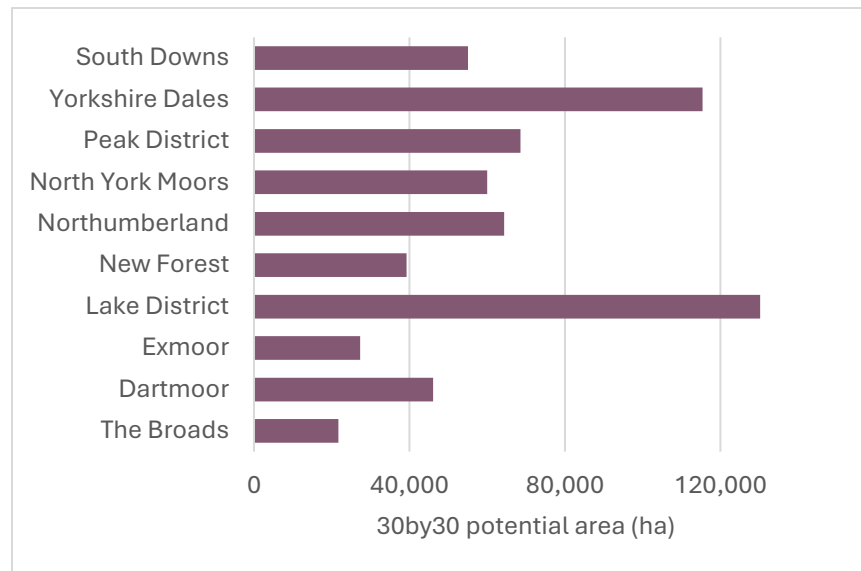
### *Summary*

Protected Landscapes have the potential to contribute significantly towards the government's 30by30 commitment. 38.5% of National Park and National Landscape area is potentially suitable even without significant land use change due to their unique landscapes, rich biodiversity, and existing management frameworks. National Trails provide an opportunity to add the connectivity needed for our landscapes to function as an ecological network. Trail buffer regions of 5km add 380,000Ha of potential 30by30 land, meaning the Protected Landscape family could provide 41% of England's commitment to protect and conserve at least 30% of land for biodiversity by 2030. Meeting this potential depends on targeted action and investment, enabling the support of landowners, land managers and communities across Protected Landscapes.

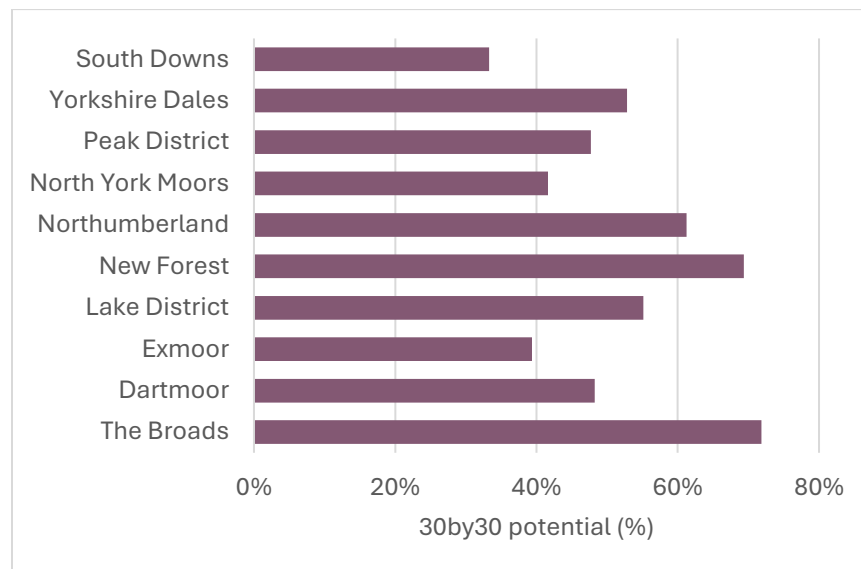
This analysis gives a starting point for considering what is an ambitious and realistic target for Protected Landscapes and draws attention to the differences between individual Protected Landscapes.

While these general criteria give rough national estimates, further analysis and local discretion is important for refining these findings.

**1. (a) National Parks: potential 30by30 area**

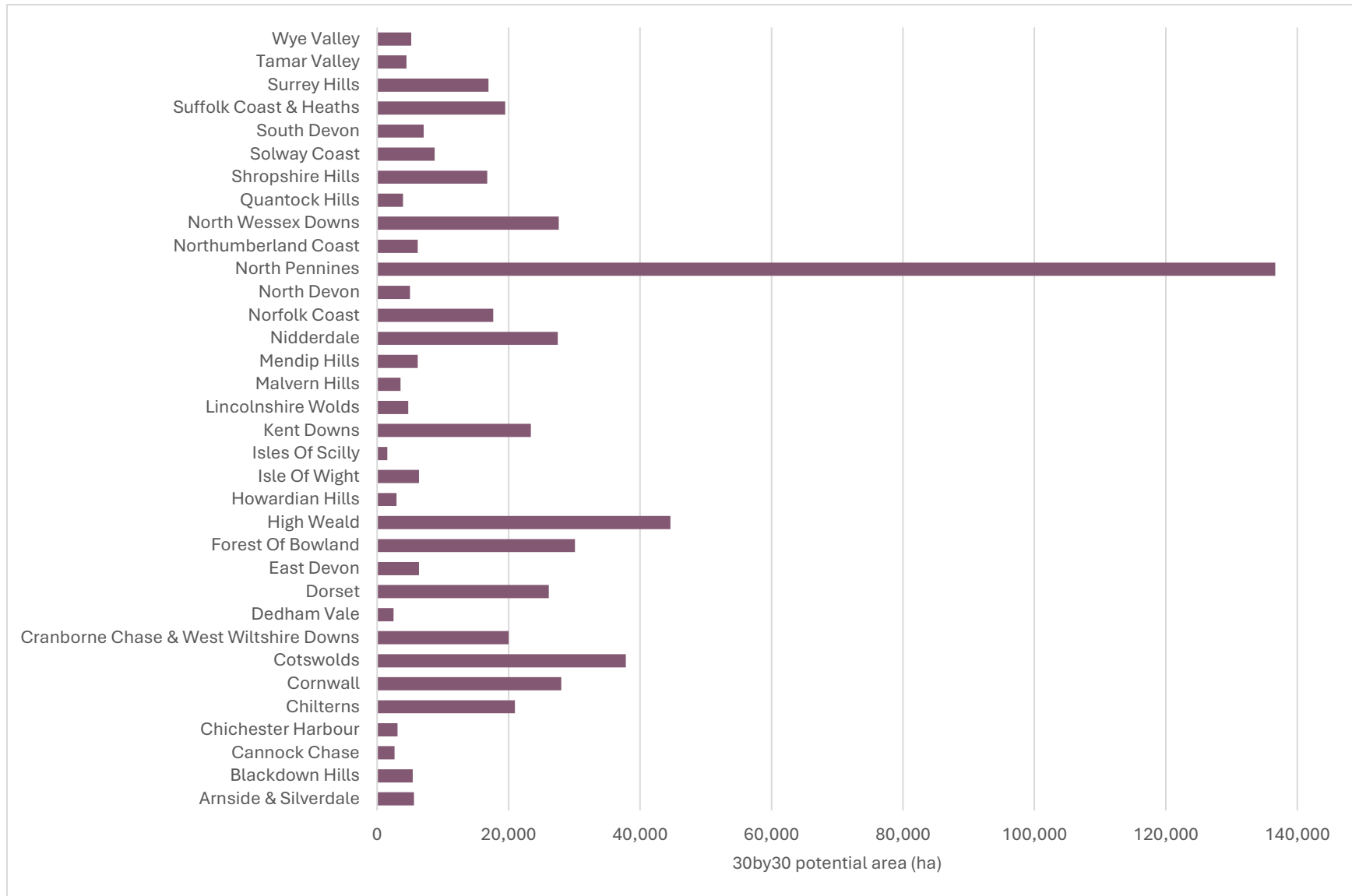


**(b) Proportion of National Park area with 30by30 potential**

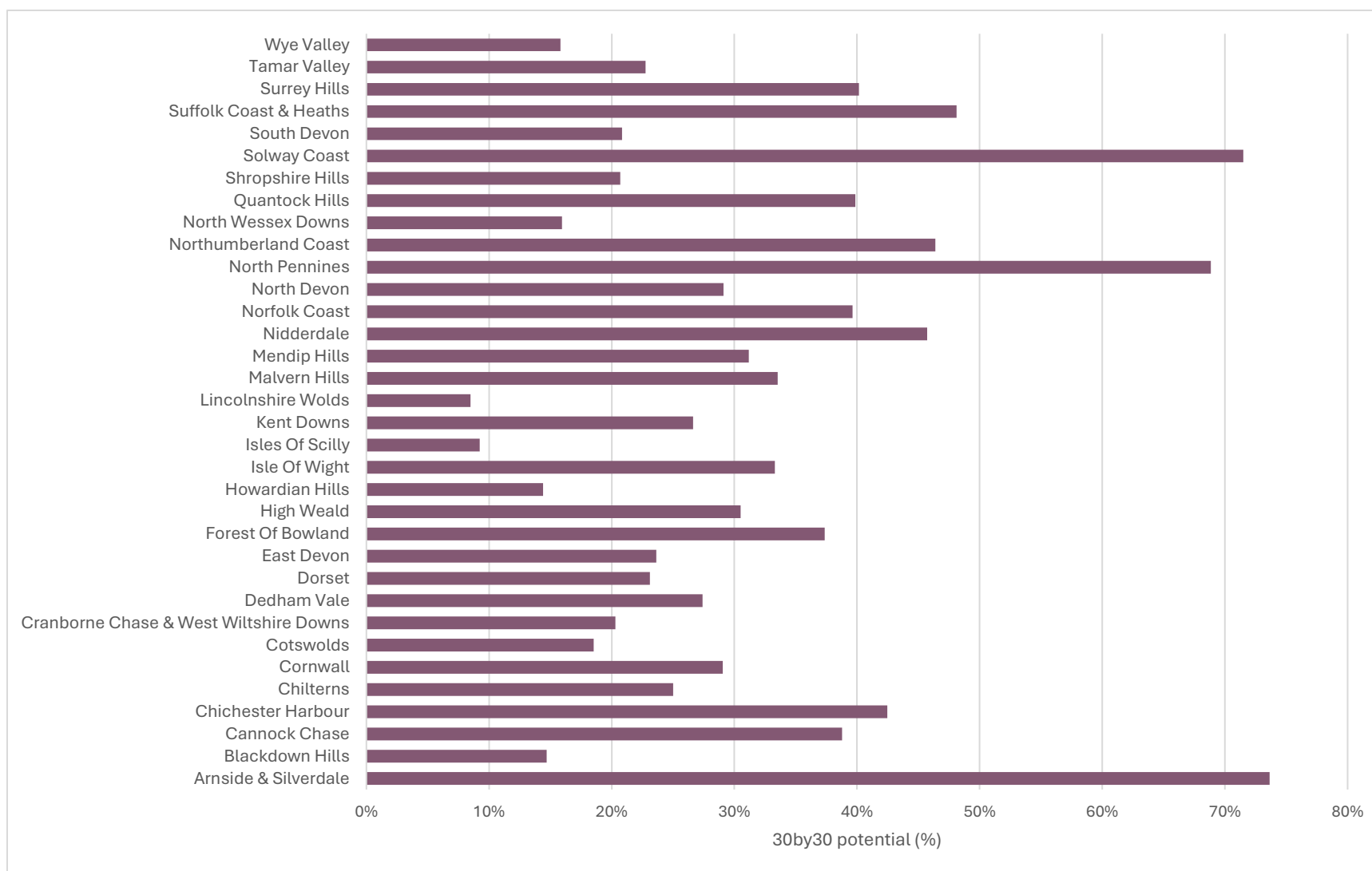


**Figure 1.** The potential 30by30 land in the National Parks in (a) hectares, and (b) percentages of National Park area.

## 2. (a) National Landscapes: potential 30by30 area

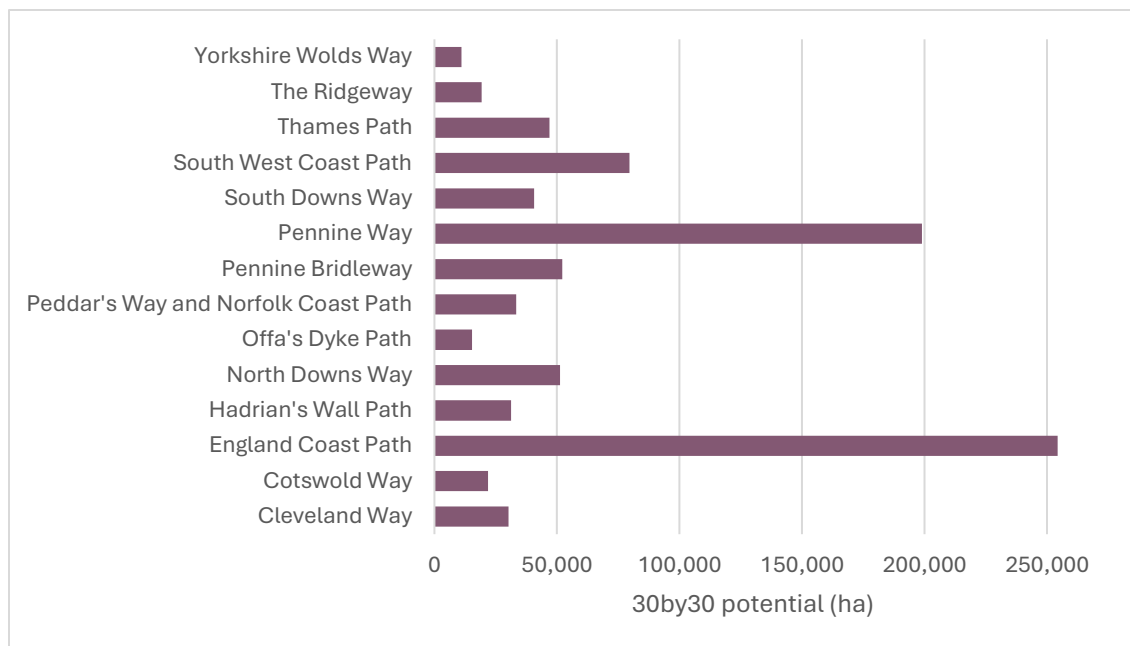


**(b) Proportion of National Landscape area with 30by30 potential**

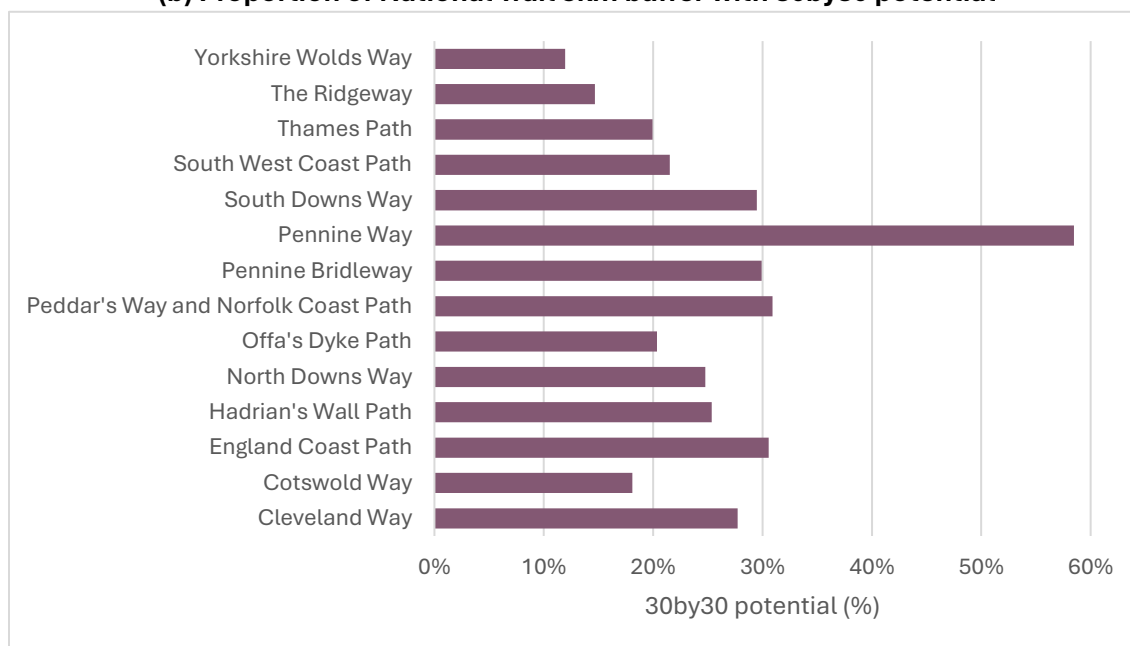


**Figure 2.** The potential 30by30 land in National Landscapes in (a) hectares, and (b) percentages of National Landscape area.

### 3. (a) Area of National Trail 5km buffer with 30by30 potential



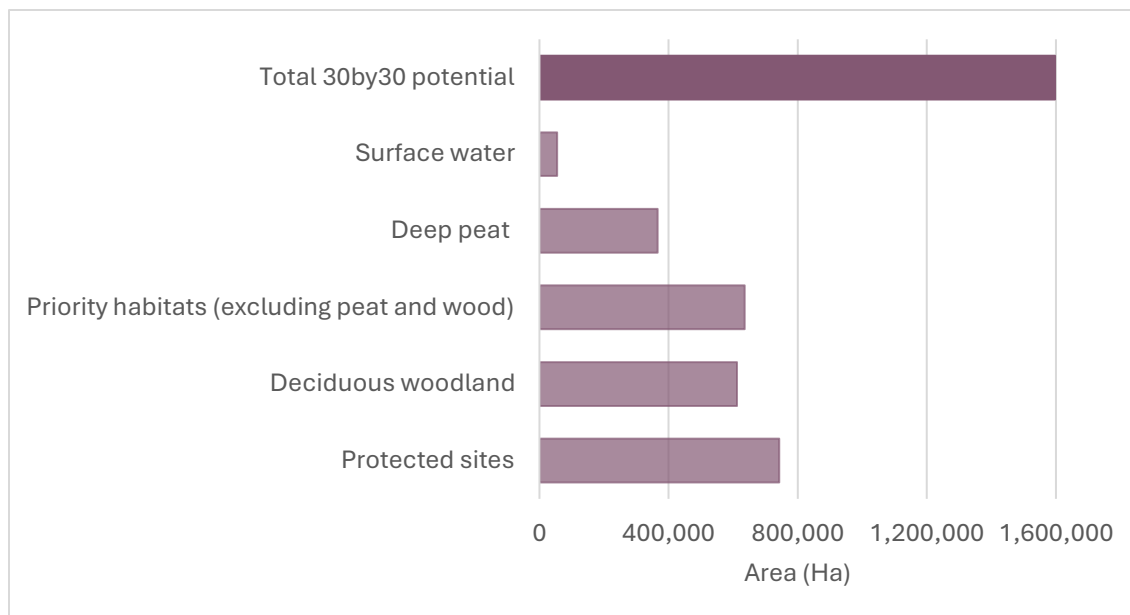
### (b) Proportion of National Trail 5km buffer with 30by30 potential



**Figure 3.** The potential 30by30 land in the National Trails 5km buffer, in (a) hectares, and (b) percentages. The buffers significantly overlap, so summing the totals will result in an overestimate.



#### Designations and habitats contributing to 30by30 potential in Protected Landscapes



**Figure 4.** The designations and habitats contributing to the total 30by30 potential in Protected Landscapes (National Parks, National Landscapes and National Trails). The total 30by30 potential area accounts for overlaps between the habitats and designations, summing individual areas will result in an overestimate due to overlaps. Only the areas of the National Trails 5km buffer that falls outside of NPs and NLs are included in this analysis, to avoid double counting. Protected sites includes SSSIs, SPAs, SACs, Ramsar sites, Local Nature Reserves and National Nature Reserves.

## Appendix

### Appendix I Hierarchy of data inclusion

Hierarchy of data inclusion and filters applied to data layers, ensure there is no double counting at each step.

Designation/ Land use Data	Notes
Sites of Special Scientific Interest (SSSI)	
Special Protection Areas (SPA)	
Special Area of Conservation (SAC)	
Ramsar	
Local Nature Reserves	
National Nature Reserves	
National Forest Inventory	Filtered to categories 'Assumed woodland'; 'Broadleaved'; 'Mixed mainly broadleaved', 'Coppice'.
Ancient Woodland	Ensure no conifer in Ancient Woodland data: overlay and erase NFI layer filtered to categories 'Conifer', 'Felled', 'Ground prep', 'Low density'.
Wood pasture & Parkland	Ensure no conifer in Wood pasture and Parkland data: overlay and erase NFI layer filtered to categories 'Conifer', 'Felled', 'Ground prep', 'Low density'.
Priority Habitat Inventory	Filter and exclude 'Deciduous Woodland'; 'Traditional Orchards'; 'Upland Heathland'; 'Blanket Bog'; 'Lowland Raised Bog' create non-woodland/non-peat PHI layer.
Peat	Filter Peaty Soils Location data to category 'Deep Peaty Soils'.
Surface water	Surface water from OS OpenMap Local

### Appendix II. Data sources

Sites/Habitats	Link	Date Accessed
SSSIs	<a href="#">Sites of Special Scientific Interest (England)   Natural England Open Data Geoportal (arcgis.com)</a>	10/04/2024
SACs	<a href="#">Special Areas of Conservation (England)   Natural England Open Data Geoportal (arcgis.com)</a>	10/04/2024
SPAs	<a href="#">Special Protection Areas (England)   Natural England Open Data Geoportal (arcgis.com)</a>	10/04/2024
NNRs	<a href="#">National Nature Reserves (England)   Natural England Open Data Geoportal (arcgis.com)</a>	10/04/2024
LNRs	<a href="#">Local Nature Reserves (England) - data.gov.uk</a>	10/04/2024
Ramsar	<a href="#">Ramsar (England) - data.gov.uk</a>	10/04/2024

PHI	<a href="#">Priority Habitats Inventory (England) - data.gov.uk</a>	10/04/2024
NFI	<a href="#">National Forest Inventory England 2020   Forestry Commission (arcgis.com)</a>	10/04/2024
Ancient Woodland	<a href="#">Ancient Woodland (England) - data.gov.uk</a>	25/04/2024
Surface Water	<a href="#">OS OpenMap Local   Data Products   OS (ordnancesurvey.co.uk)</a>	25/04/2024
Wood pasture & Parkland	<a href="#">Wood Pasture and Parkland (England)   Natural England Open Data Geoportal (arcgis.com)</a>	25/04/2024
Mean Low Water	<a href="#">OS OpenMap Local   Data Products   OS (ordnancesurvey.co.uk)</a>	25/04/2024
Peaty Soils Location Data	<a href="#">Peaty Soils Location (England)   Peaty Soils Location (England)   Natural England Open Data Geoportal (arcgis.com)</a>	25/04/2024
National Landscape Boundaries	<a href="#">Areas of Outstanding Natural Beauty (England) - data.gov.uk</a>	10/04/2024
National Park Boundary	<a href="#">National Parks (England)   Natural England Open Data Geoportal (arcgis.com)</a>	10/04/2024
National Trails	<a href="#">National Trails (England)   Natural England Open Data Geoportal (arcgis.com)</a>	15/07/2024
King Charles III England Coast Path	<a href="#">King Charles III England Coast Path Route - data.gov.uk</a>	15/07/2024