

Stroud Open Space and Green Infrastructure Study



Wotton Cluster Sub Area Analysis Report (Part 2 of 2)

Final June 2019



Ecology | Green Space | Arboiculture | GIS

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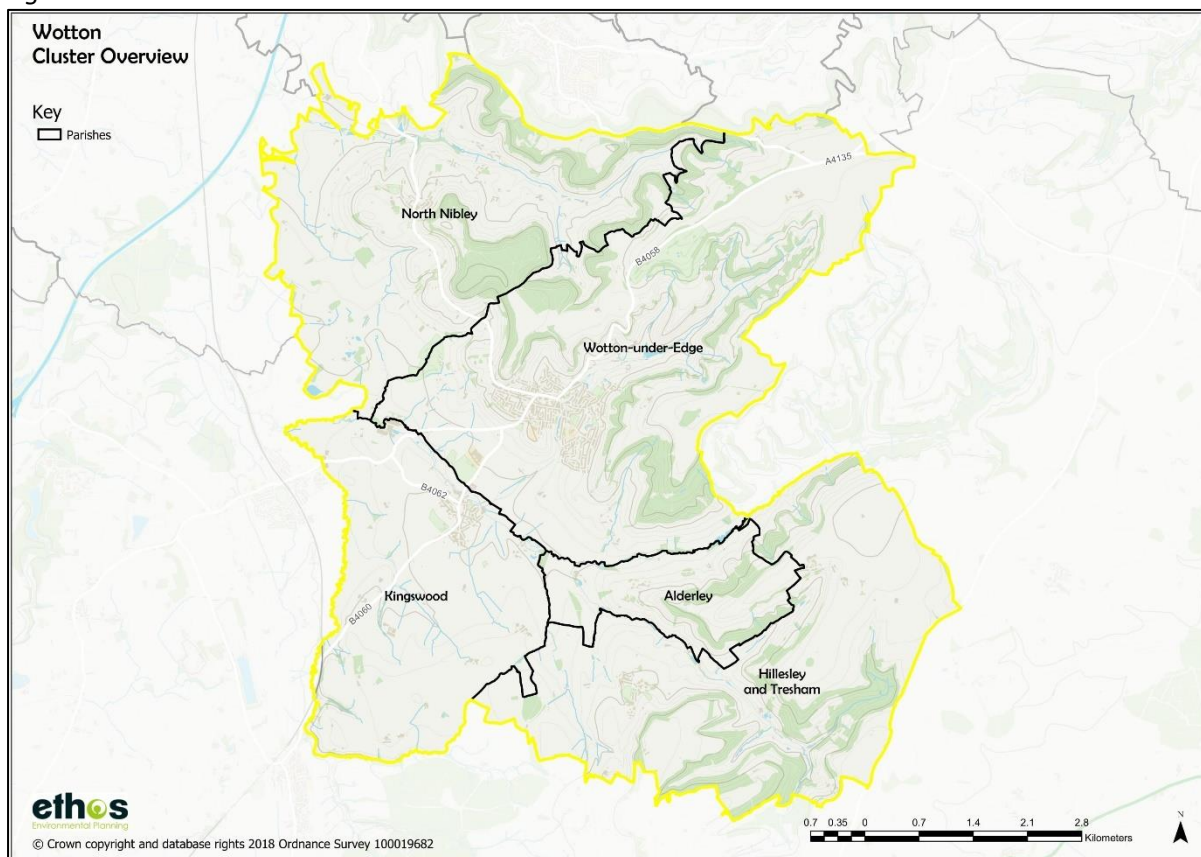


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1.0 Geographical area and population

The Wotton cluster comprises the Parishes of Alderley, Kingswood, Hillesley and Tresham, North Nibley and Wotton-under-Edge as shown in figure 1. The population of this area is 8,759 (ONS 2017 mid-year estimate).

Figure 1 Wotton cluster



The Local Plan Review Emerging Strategy (2018) provides a summary of this area as follows:

This is a largely rural area on the western escarpment of the Cotswolds, overlooking the Severn Vale. Wotton-under-Edge sits on a ledge below the Cotswold Escarpment and is crossed by the Cotswold Way national trail and Monarchs Way long-distance path. The centre of the town (one of the District's former market towns, which grew as a wool and cloth-trading centre) is a Conservation Area and sits within the Cotswolds AONB. Surrounding villages and hamlets look towards Wotton-under-Edge as a local service centre. Renishaw Ltd is a major employer, based just outside the village of Kingswood. Most working people commute to surrounding towns and cities (it is relatively close to Thornbury, Yate and Bristol), but the town itself is still commercially active. There are a good range of shops and services in the town including an agricultural market, a local cinema and swimming pool.

2.0 Existing provision of open space and GI

Figure 2 shows the existing open spaces that have been mapped and included within the Wotton cluster. The map is intended to be indicative – maps by Parish (appendix 1) and a GIS database has been provided to the Council.

Figure 3 provides an overview of the GI network/assets within the Wotton, and figures 4 to 8 provide a breakdown of the GI by theme, which includes landscape considerations.

Figure 2 Overview of open space in the Wotton cluster

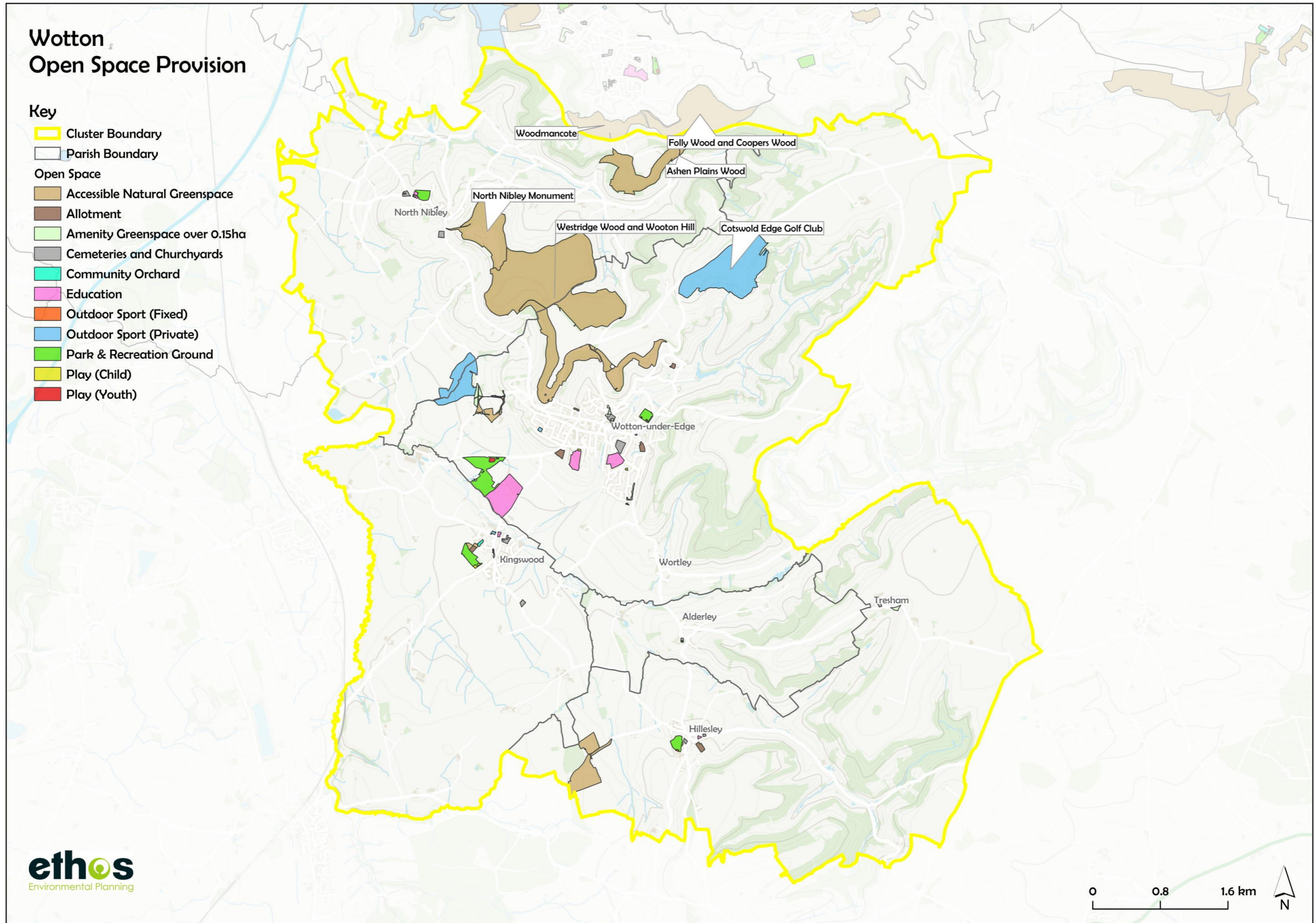


Figure 3 Overview of GI in the Wotton cluster

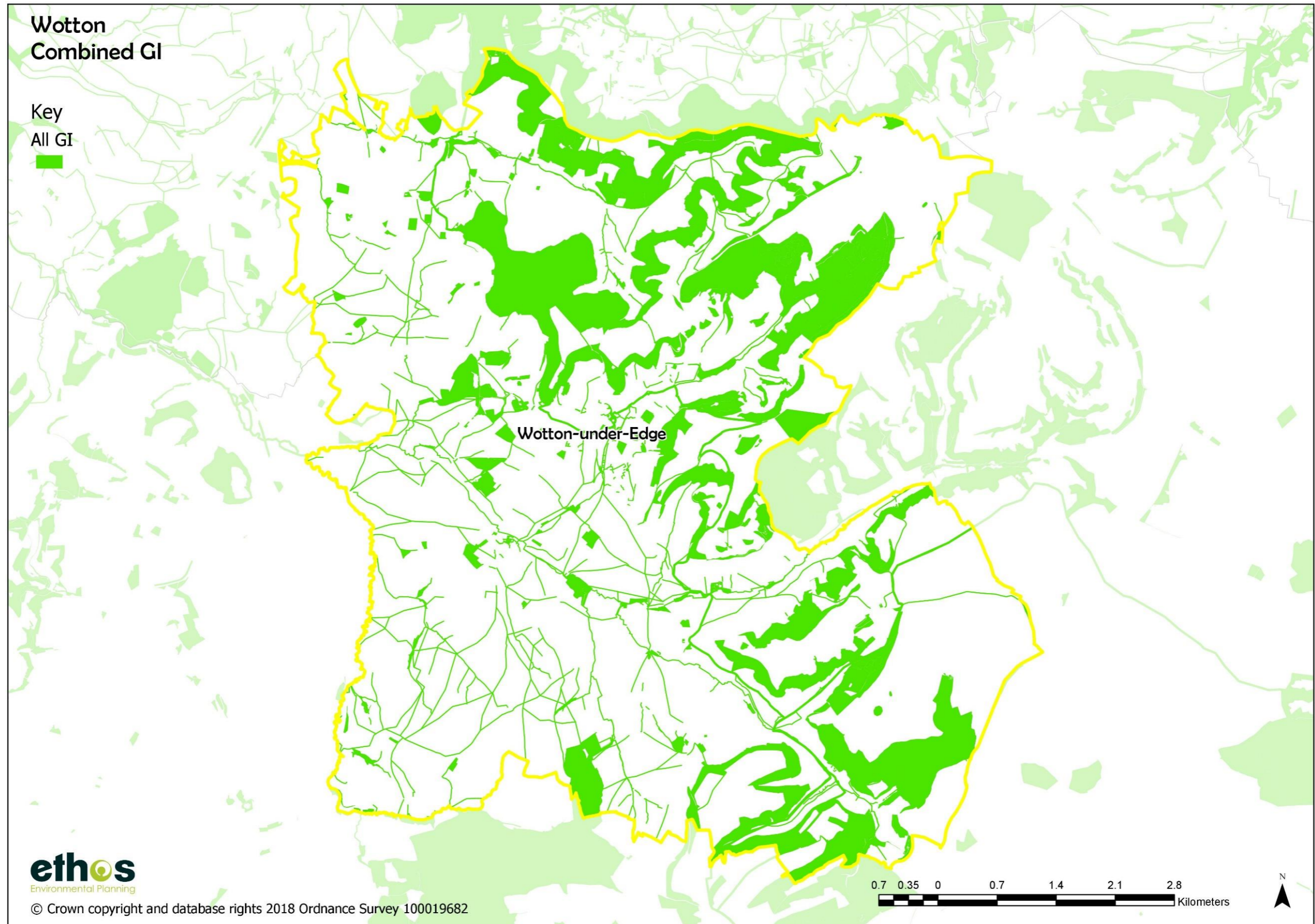


Figure 4 Mapping of GI Network by Theme: Wildlife: Designated Sites

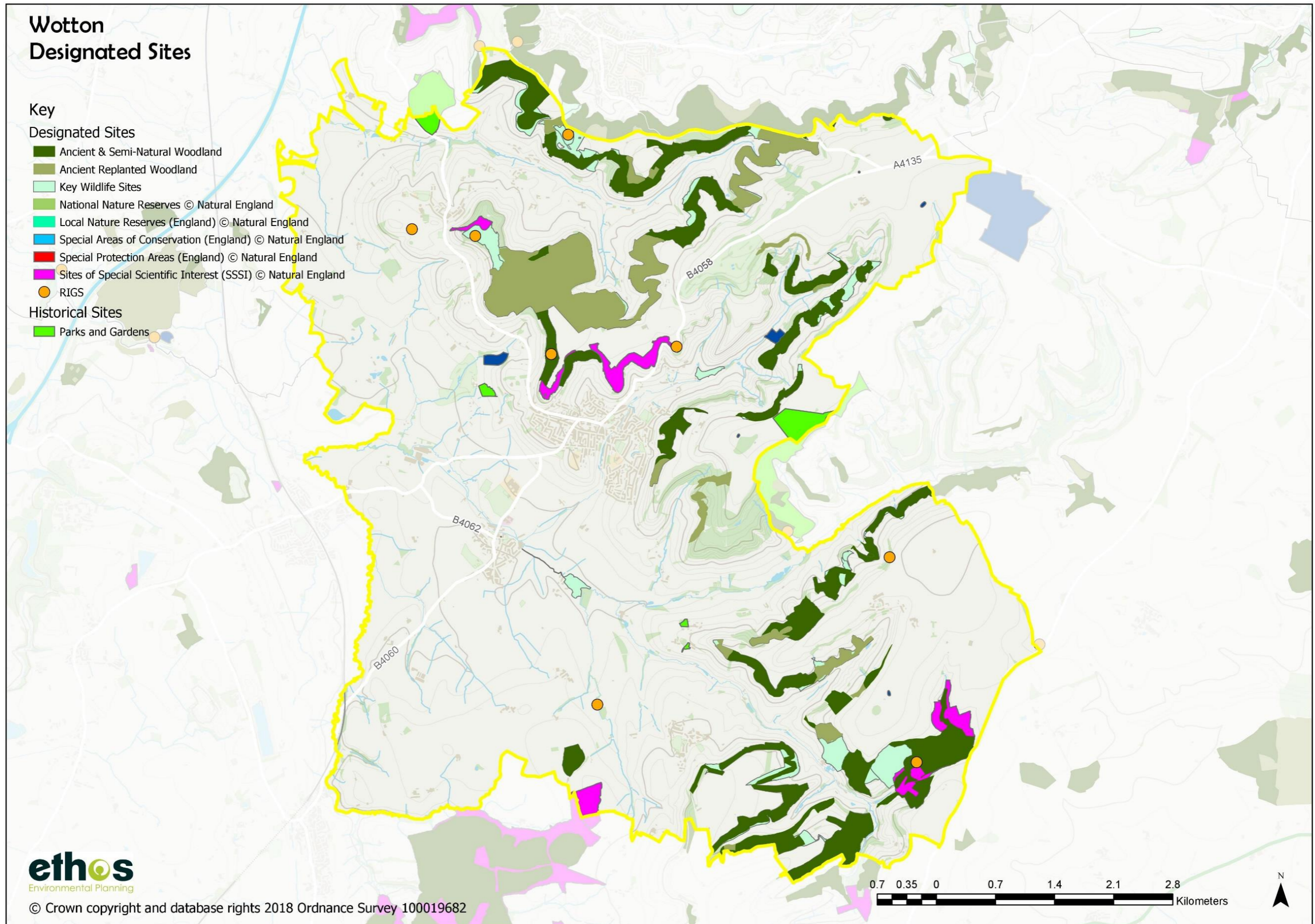


Figure 5 Mapping of GI Network by Theme: Wildlife: Priority Habitats, Nature Improvement Areas (NIAs) and Strategic Nature Areas (SNAs)

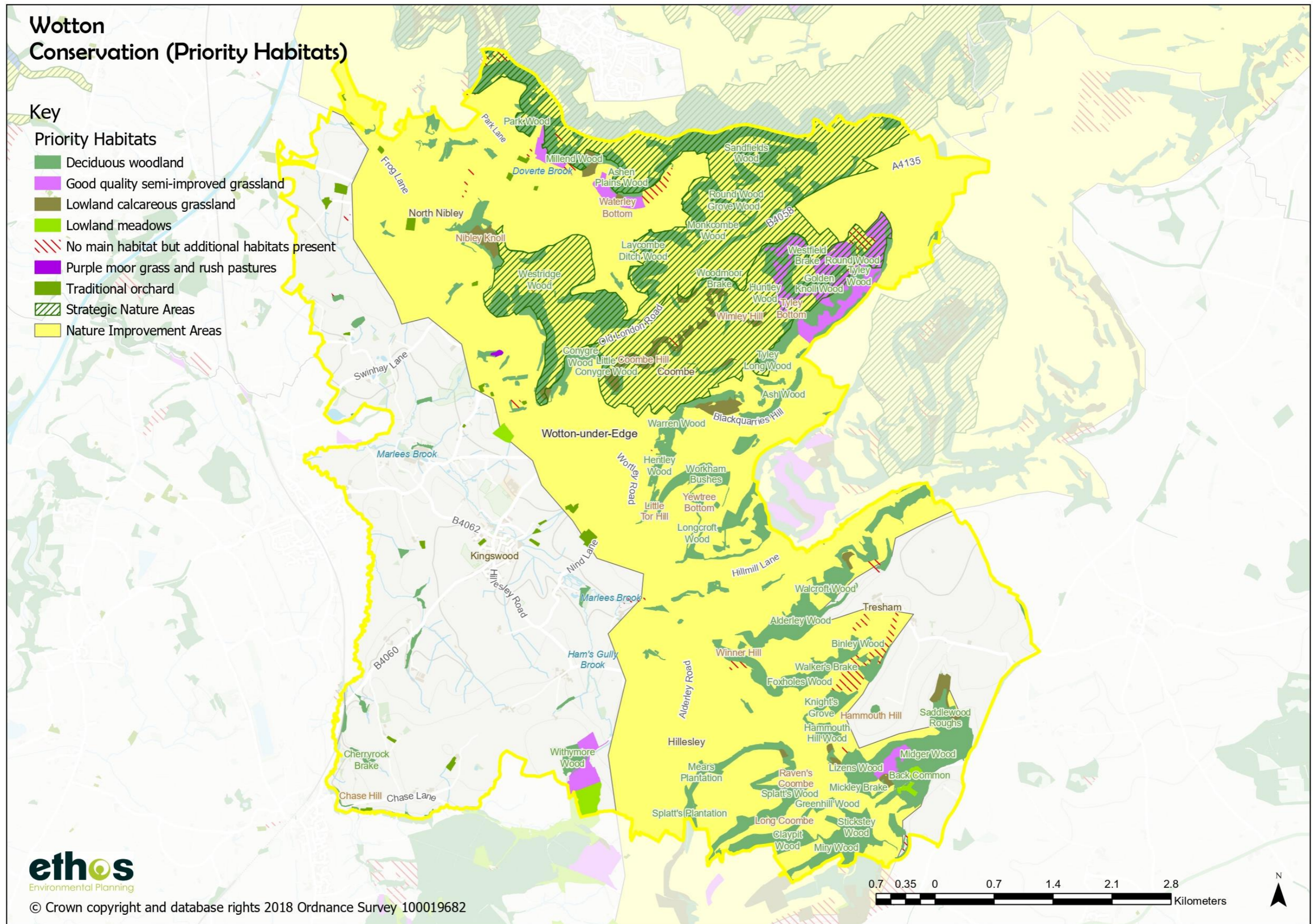


Figure 6 Mapping of GI Network by Theme: Wildlife: National Character Areas (NCAs) and Landscape Character Areas (LCAs)

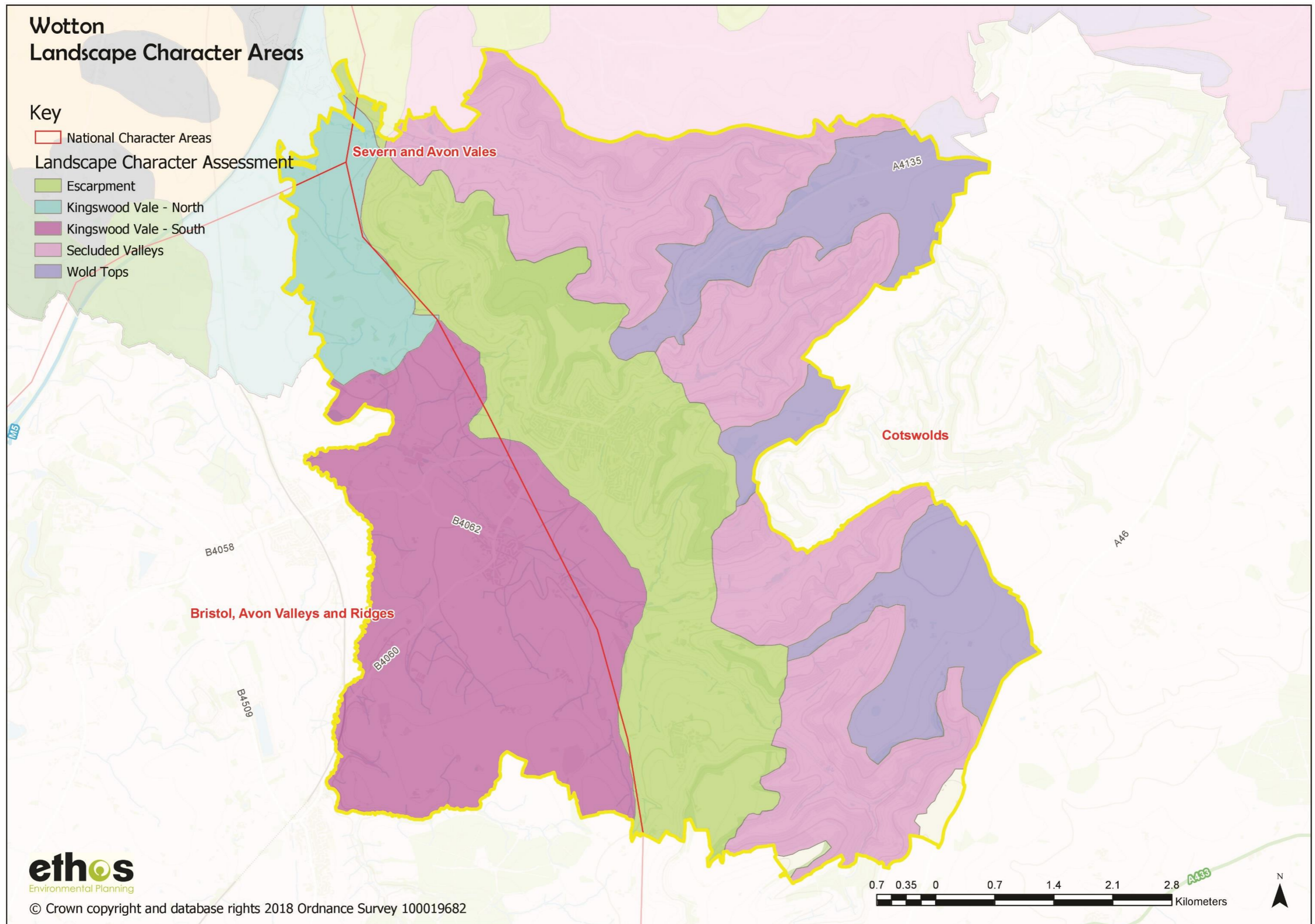


Figure 7 Mapping of GI Network by Theme: Water: Canals, Rivers/Streams, Lakes/Surface Water, Priority River Habitat, Floodzone, Source Protection Zones

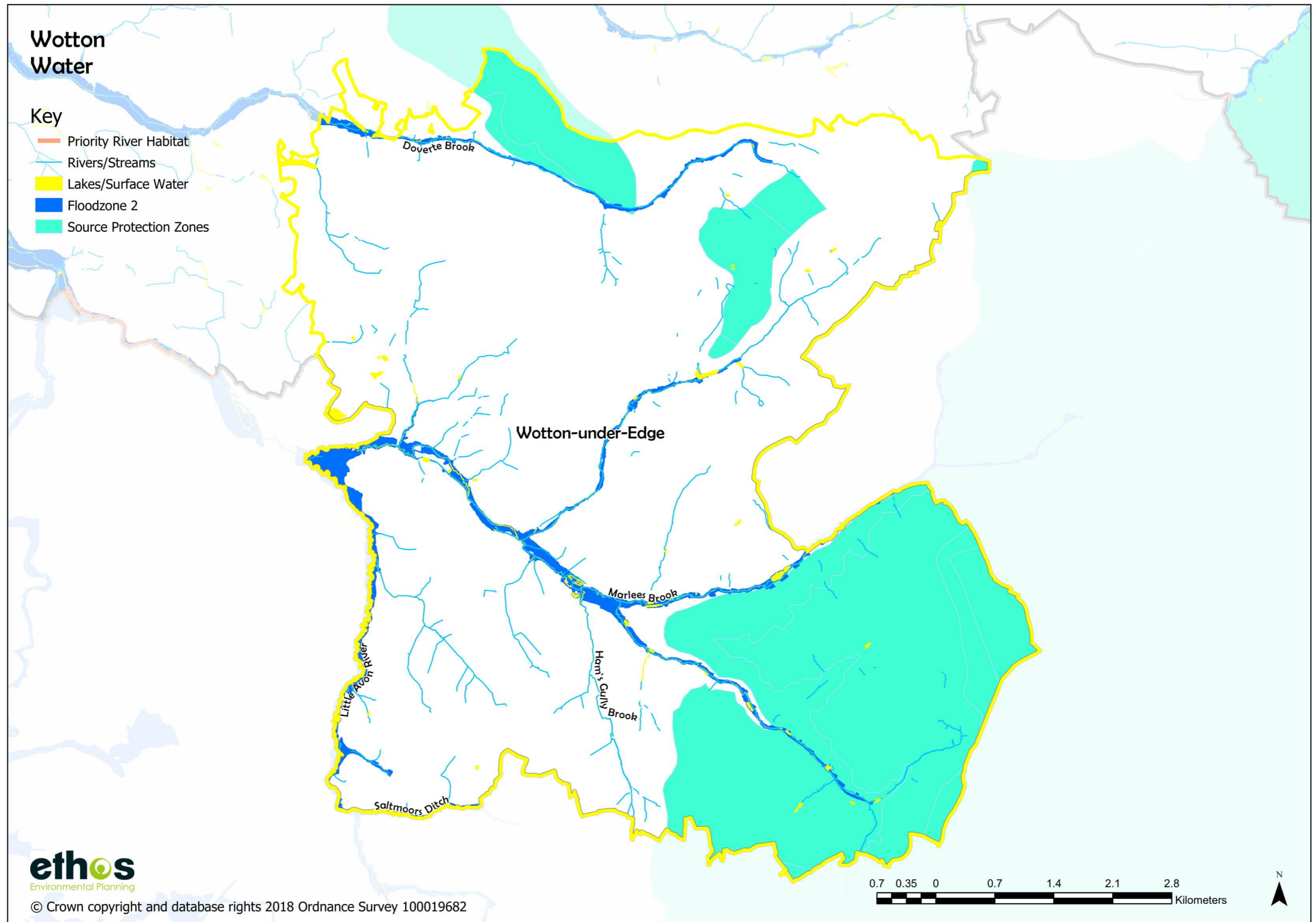
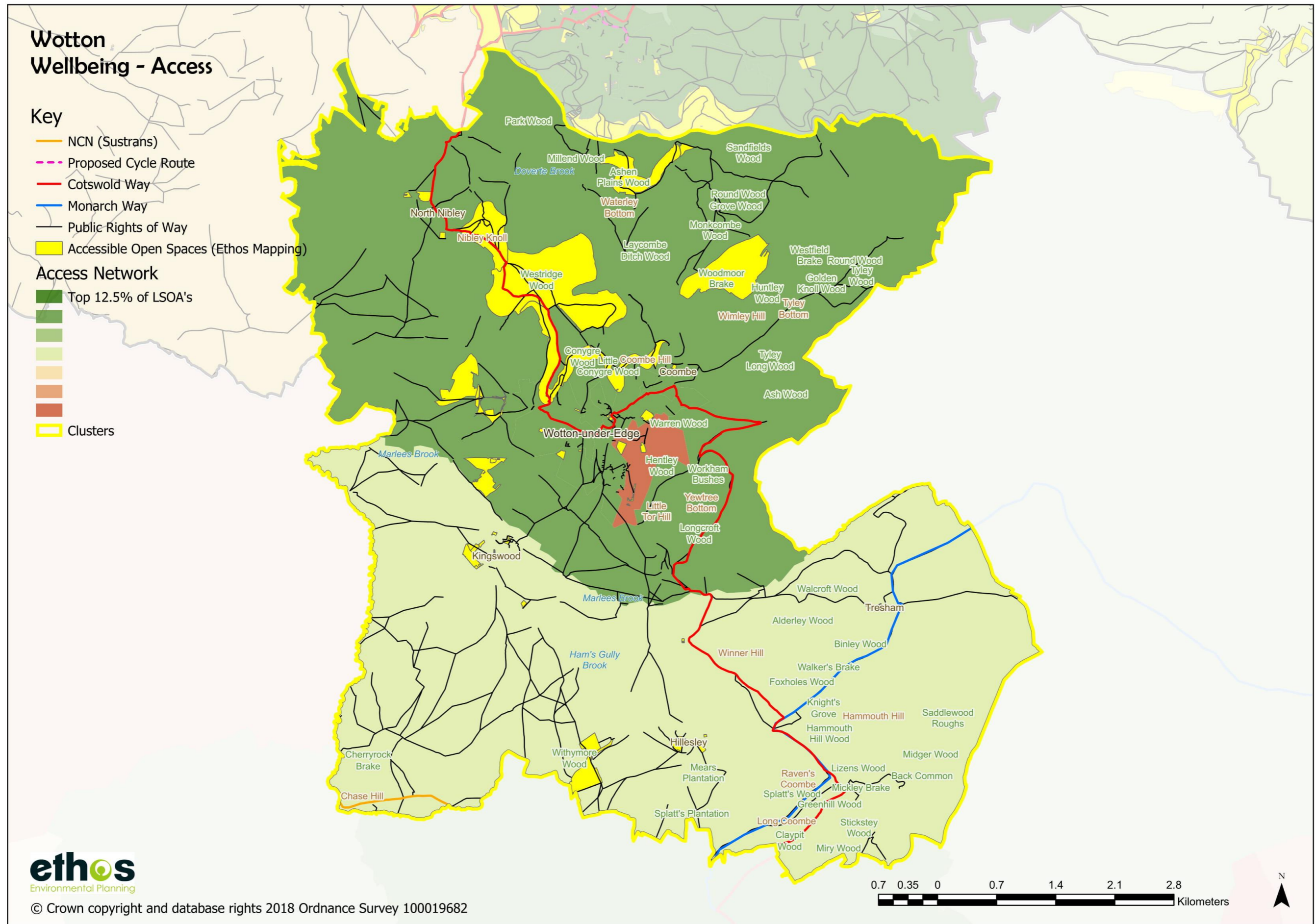


Figure 8 Mapping of GI Network by Theme: Wellbeing: Accessible open space, PROW and key walking and cycling routes



3.0 Analysis of existing quantity of open space and GI

Open Space

Table 1 shows the provision and supply of open space within the Wotton cluster, using the Stroud quantity standards and ONS 2017 mid year population estimates to assess supply. Figures are provided in hectares and hectares per 1000 population.

The figures for 'Park and Recreation Grounds (Combined)' includes a combination of the following typologies:

- Park and Recreation Ground; and
- Outdoor Sport (Fixed).

Existing quantity figures are also provided for a number of typologies where there are no quantity standards for existing provision, these typologies are:

- Accessible Natural Green Space (existing provision analysed using the ANGSt standards);
- Community orchards;
- Education;
- Churchyards and Cemeteries; and
- Outdoor Sport (Private).

Table 1 Existing provision and supply of open space in the Wotton cluster

Typology	Existing Provision (ha)	Existing Provision (ha/1000)	Required Provision (ha)	Required Provision (ha/1000)	Supply (ha)	Supply (ha/1000)	Overall supply
Allotments	2.56	0.29	3.07	0.35	-0.51	-0.06	UNDER SUPPLY
Community Orchards	0.25	0.03	N/A	N/A	N/A	N/A	N/A
Amenity Green Space	2.19	0.25	3.5	0.40	-1.31	-0.15	UNDER SUPPLY
Parks and Recreation Grounds (Combined)	16.67	1.9	10.51	1.20	6.16	0.7	SUFFICIENT SUPPLY
<i>Park and Recreation Grounds</i>	<i>16.59</i>	<i>1.89</i>	<i>0</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<i>Outdoor Sport (Fixed)</i>	<i>0.08</i>	<i>0.01</i>	<i>0</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Play (Child)	0.48	0.05	0.53	0.06	-0.05	-0.01	UNDER SUPPLY
Play (Youth)	0.33	0.04	0.53	0.06	-0.2	-0.02	UNDER SUPPLY

Typology	Existing Provision (ha)	Existing Provision (ha/1000)	Required Provision (ha)	Required Provision (ha/1000)	Supply (ha)	Supply (ha/1000)	Overall supply
Accessible natural green space	209.01	23.86	N/A	N/A	N/A	N/A	N/A
Education	16.93	1.93	N/A	N/A	N/A	N/A	N/A
Churchyards and Cemeteries	3.71	0.42	N/A	N/A	N/A	N/A	N/A
Outdoor Sport (Private)	0.33	0.04	N/A	N/A	N/A	N/A	N/A

As can be seen from the table above, within the Wotton cluster, there is an overall sufficient supply of parks and recreation grounds against the standards, with a shortfall in allotments, amenity green space, play (child) and play (youth) The total shortfall is 2.07 ha.

GI

The following GI assets have been identified within the Wotton Cluster:

Table 2 GI assets

Priority Habitats	Area (ha)
Coastal and floodplain grazing marsh	0
Coastal saltmarsh	0
Deciduous woodland	704.74
Good quality semi-improved grassland	90.86
Lowland calcareous grassland	49.75
Lowland dry acid grassland	0
Lowland meadows	15.34
Mudflats	0
No main habitat but additional habitats present	49.13
Purple moor grass and rush pastures	0.61
Traditional orchard	13.86

Nature conservation, AONB, geology and historic sites	Area (ha)
Ancient Woodland	584.45
KWS	552.24
LNR	0
NNR	0
RAMSAR	0
SAC	0
SPA	0
SSSI	112.29
RIGS	8 ¹

¹ This relates to the number of RIGS, not the area, as the dataset uses points rather than polygons.

Nature conservation, AONB, geology and historic sites	Area (ha)
AONB	4120.13
Registered Parks	23.26
SAM	10.74

Rivers and Canals	Length (m)
Marlees Brook	7728.46
Little Avon River	3685.55
Doverte Brook	3588.48
Ham's Gully Brook	1824.06
Saltmoors Ditch	400.85

4.0 Analysis of existing access to open space and GI

Open space

This section provides maps showing access to different types of open space across the Wotton Cluster area using the Stroud access standards (more detail is provided in section 7.3 of the main report (part 1)).

These access maps show where the gaps in access are to the different open space typologies (using Census Output Areas and settlement boundaries) against the access standards, and are to be used in conjunction with the analysis of supply of open space (see table 1) to help identify where the priorities for new open space provision are and also which open spaces should be protected i.e. those spaces that if lost, would create a gap in access.

Figure 9 Access to allotments and community orchards (15 minutes' walk time)

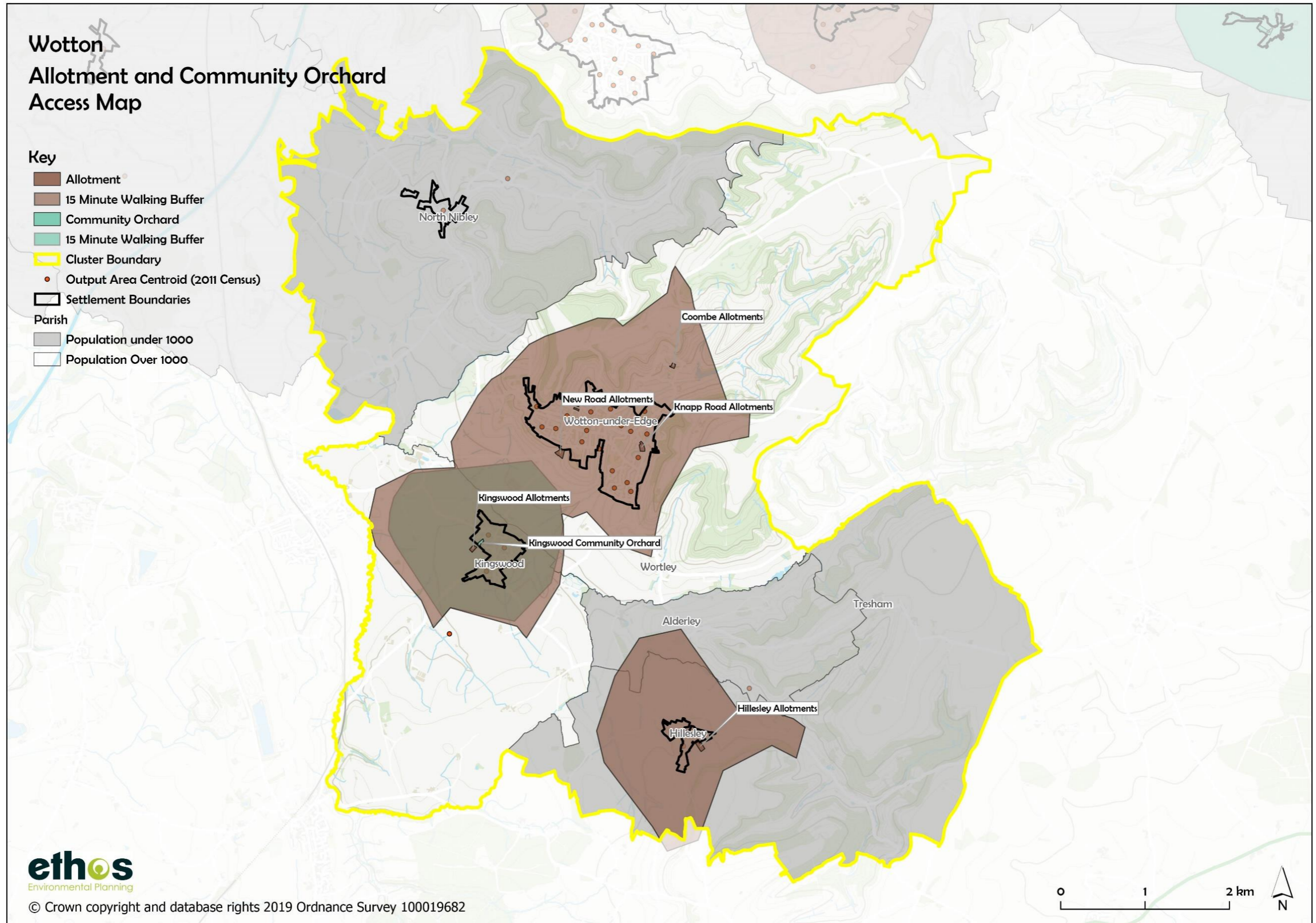


Figure 10 Access to amenity green space (13 minutes' walk time)

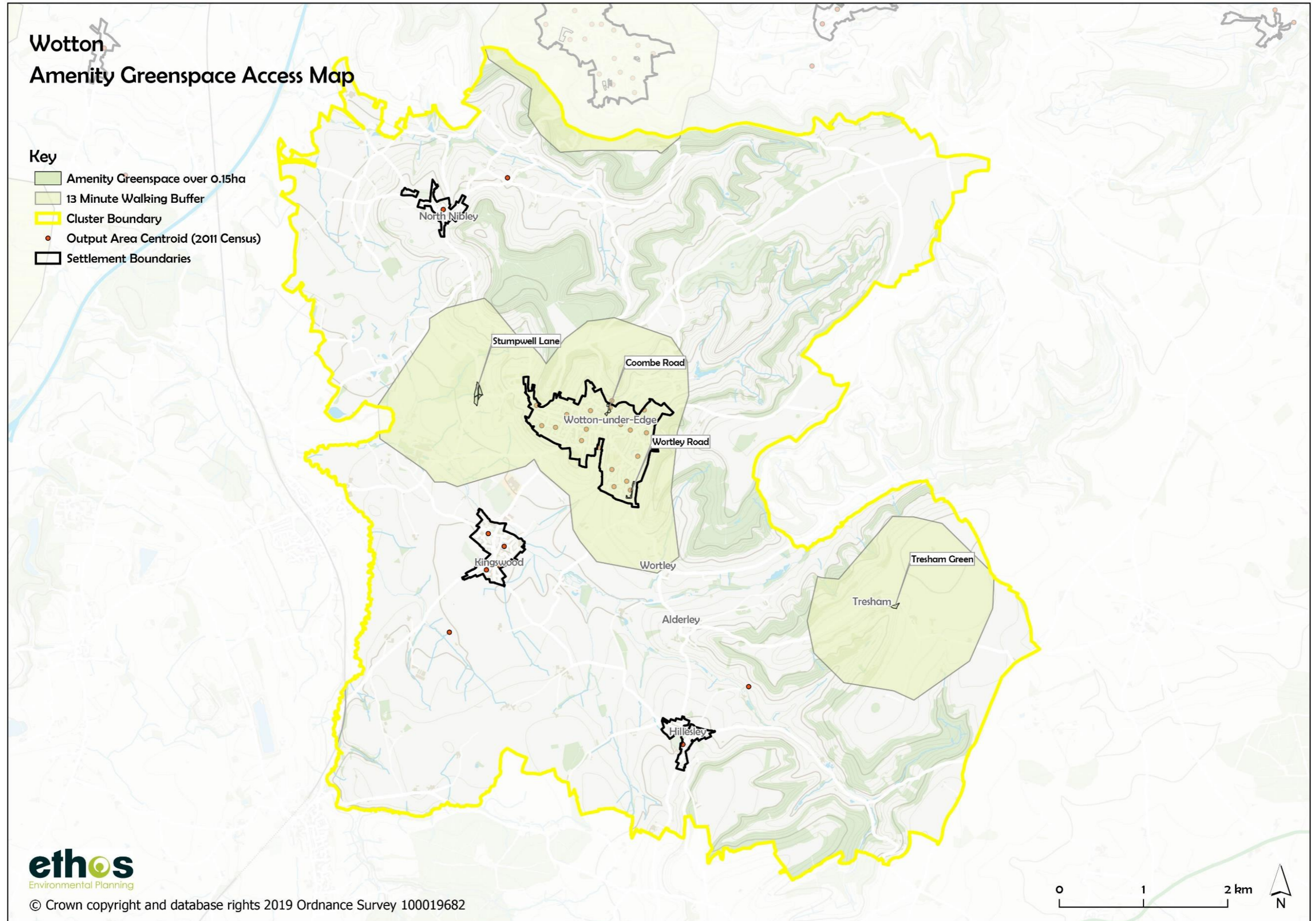


Figure 11 Access to parks and recreation grounds, amenity green space and outdoor sport private (13 minutes' walk time)

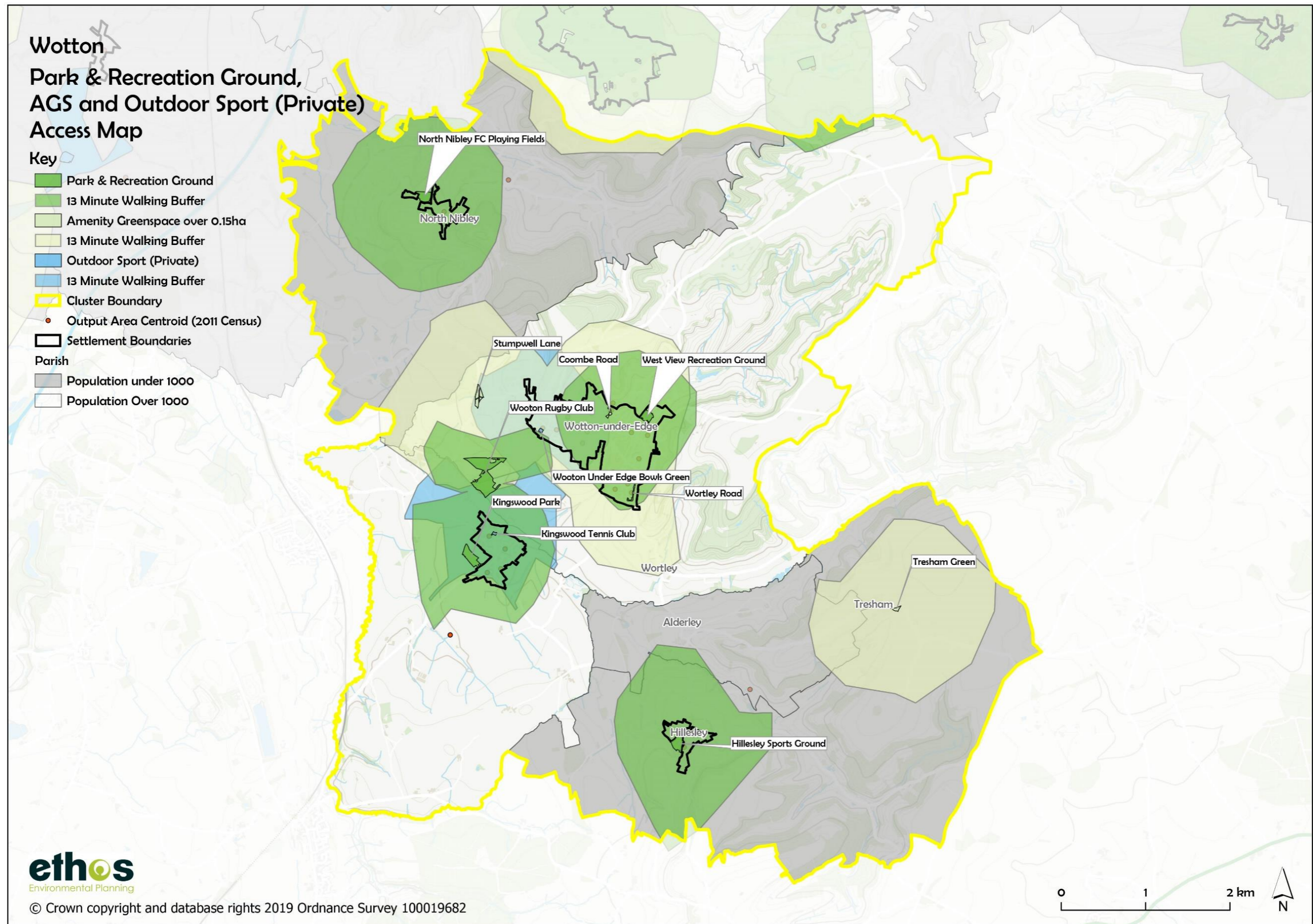


Figure 12 Access to children's play space (10 minutes' walk time)

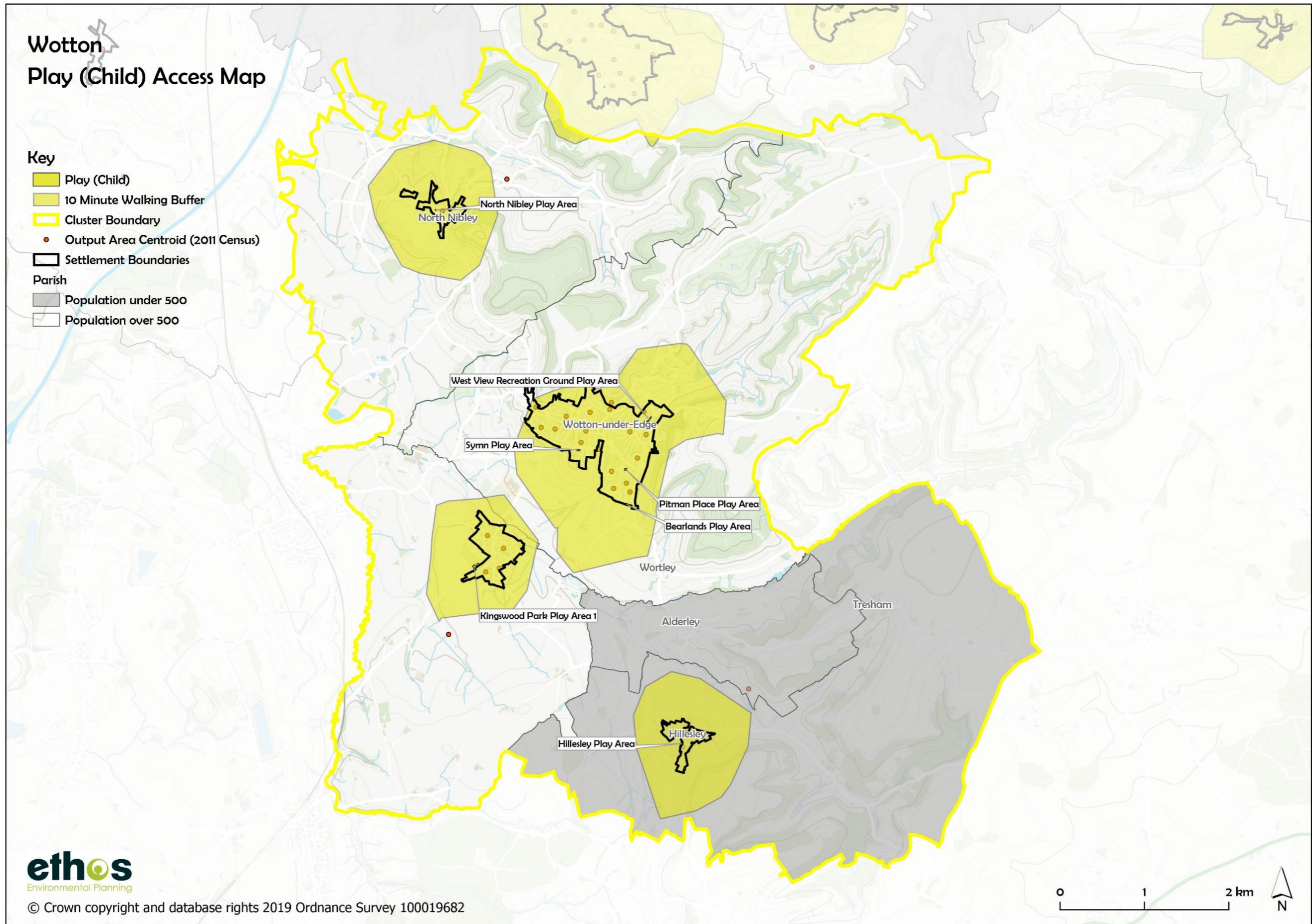


Figure 13 Access to youth play space (15 minutes' walk time)

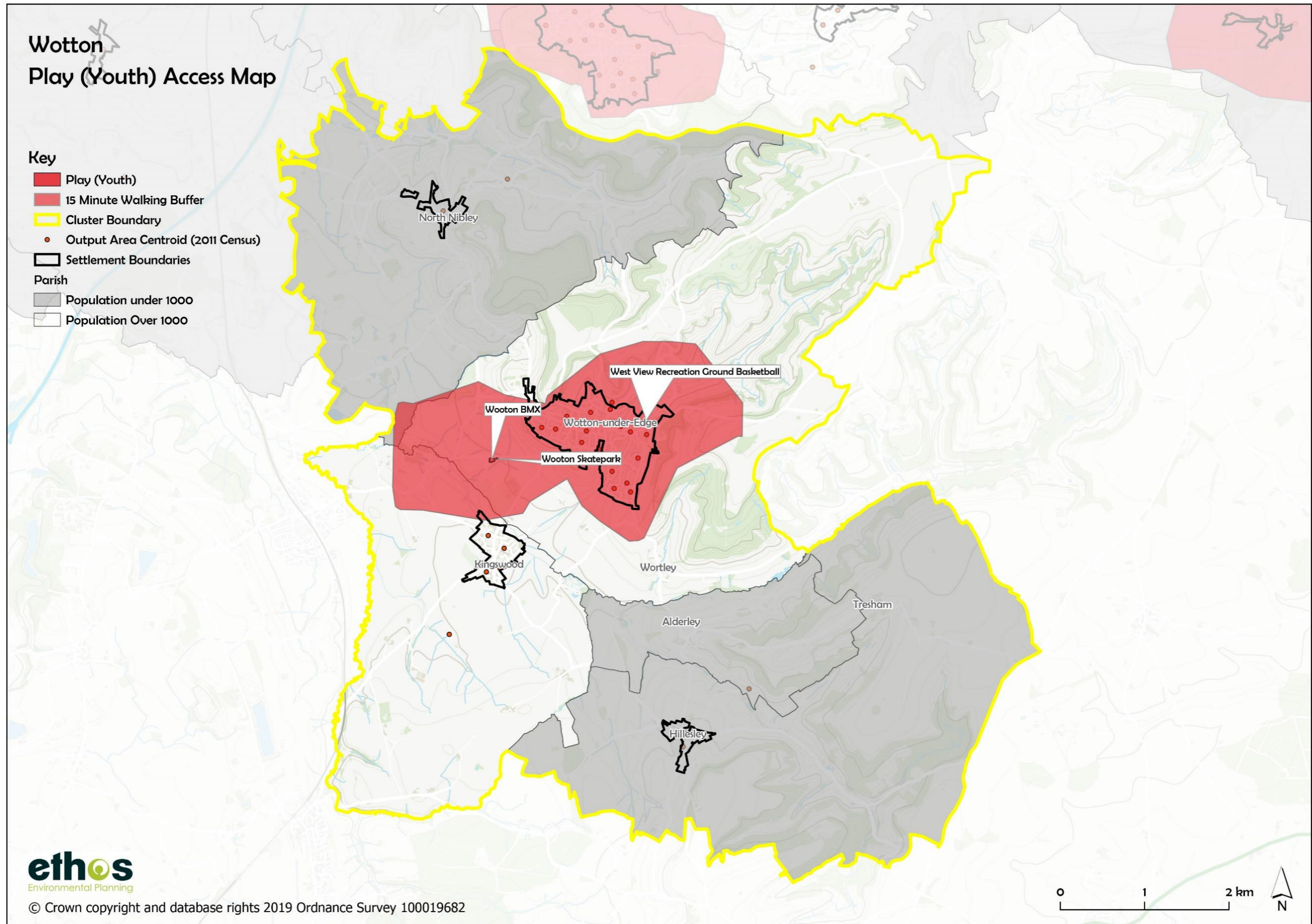


Figure 14 Access to accessible natural green space (960m buffer)

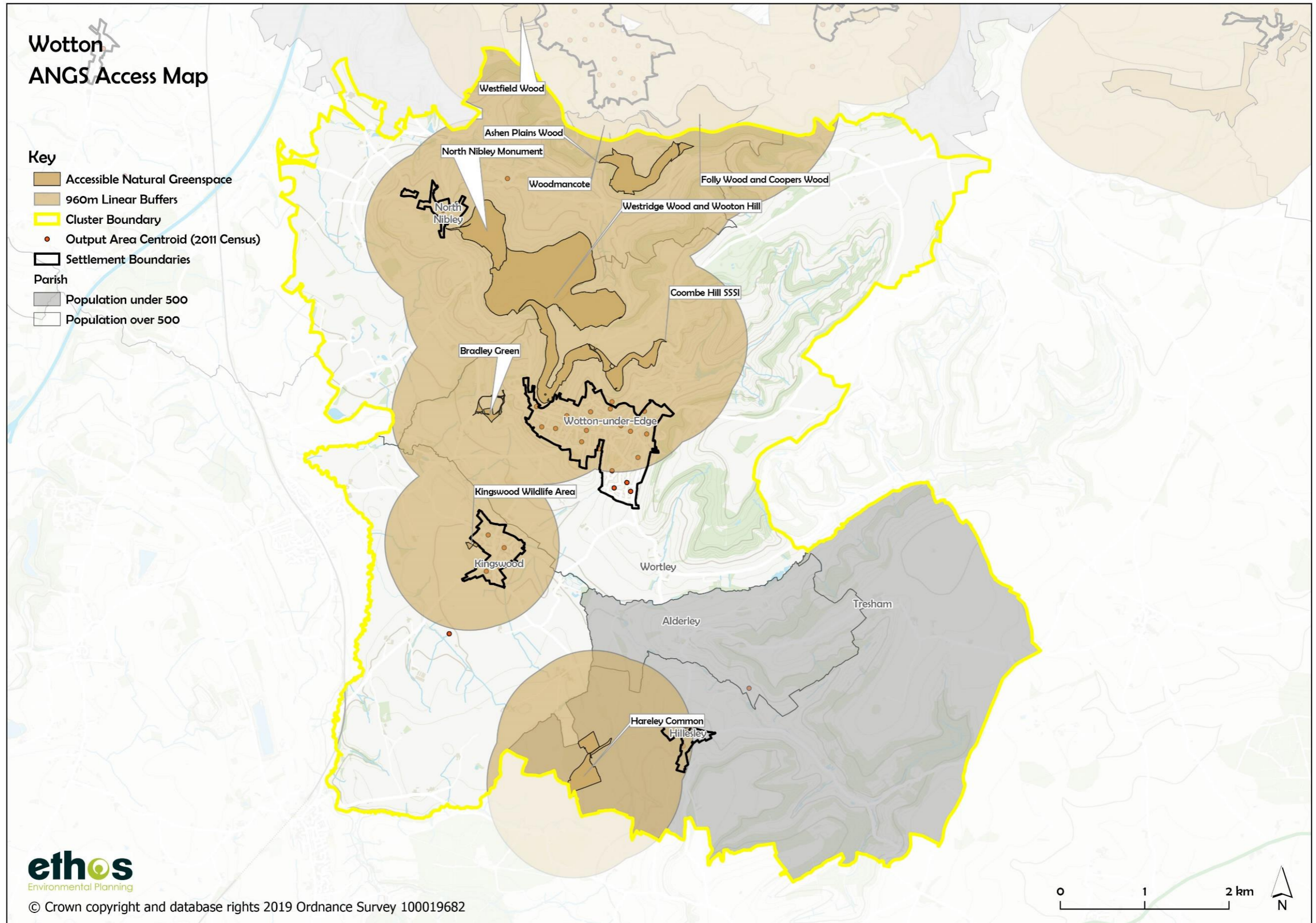


Figure 15 Access to accessible natural green space (20ha + sites within 2km)

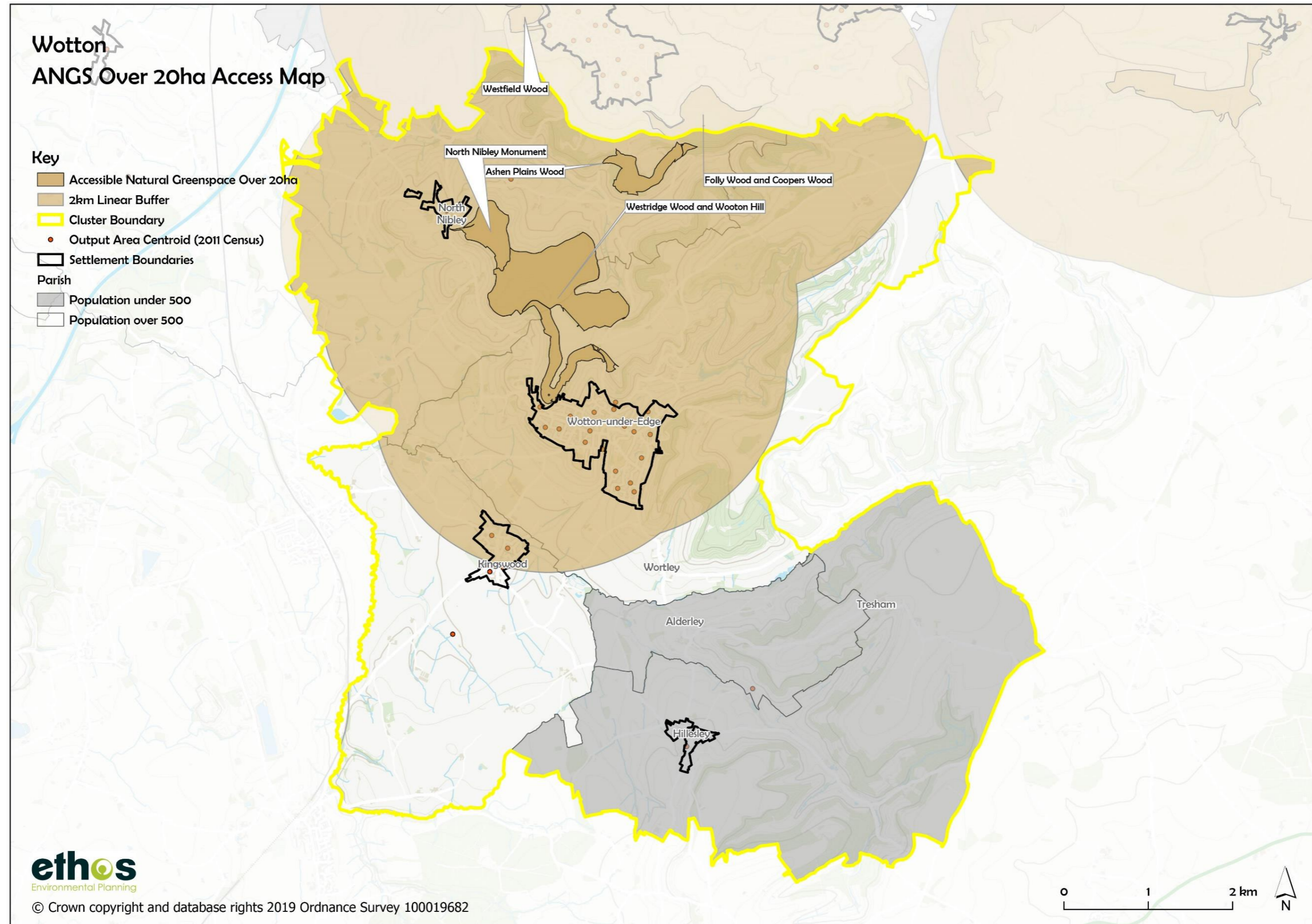


Figure 16 Access to accessible natural green space (100ha + sites within 5km)

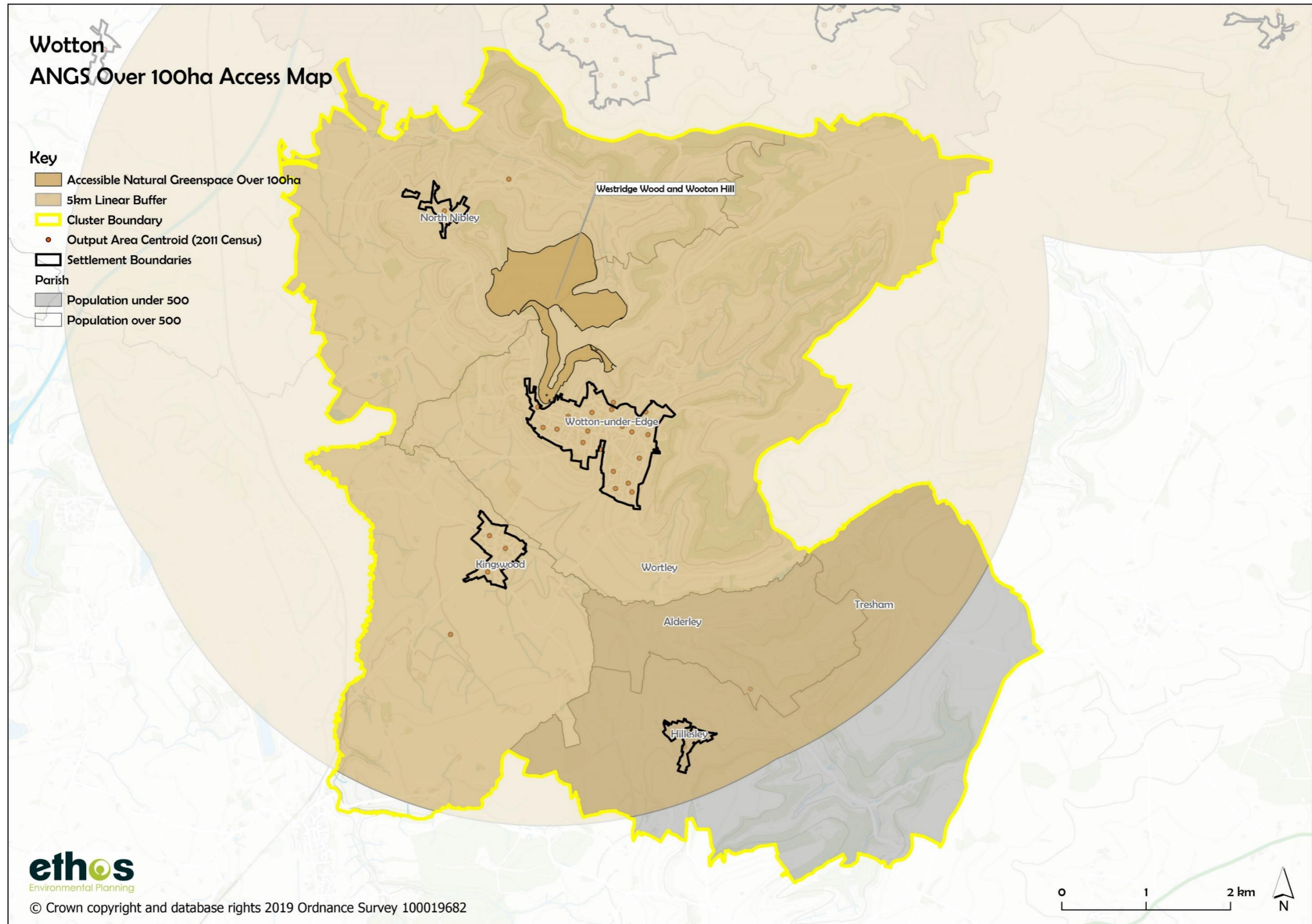


Table 3 below summarises the access maps provided at figures 9 to 16, highlighting any gaps or access issues.

Table 3 Summary of existing open space access issues for the Wotton cluster

Typology	Current Access
Allotments and community orchards	Good access to allotments in parishes with over 1000 population.
Amenity Green Space	Gaps in access in North Nibley, Kingswood and Hillesley.
Parks and Recreation Grounds	Access to parks and recreation grounds is good across the parishes with over 1000 population.
Children's play space	Access to children's play space is good across the cluster with all the settlements with populations over 500 having access.
Youth Play space	Gap in access in Kingswood.
Accessible Natural Green Space	Generally good access against the 960m access standard with a small gap in the south of Wotton-under-Edge settlement. Also good access against the ANGSt standards 100+ ha but against the 20+ha standard there is limited access for the southern part of the cluster.

GI

Figure 8 (section 2.0) shows the PROW network and key walking and cycling routes.

As can be seen, the Cotswold Way provides good access through the cluster, linking with accessible open spaces. The Monarch Way to the south of the cluster also links to the Cotswold Way, and the PROW network link to these key routes and accessible open spaces, although there appears to be a lack of PROW in the south east of the cluster.

When analysing access against the Natural England Access Network Mapping (also see figure 8), it shows that the northern area of the cluster generally has a good relative abundance of accessible land (there is also a higher proportion of PROWs and accessible open spaces in this area) whereas the southern area has less relative abundance of accessible land. There are limitations with this data as explained in section 7.6.2 of the main report (part 1).

5.0 Open Space and GI Quality Assessment

5.1 Quality audit results

Figure 17 provides a summary of the quality audit results for the Wotton cluster. As can be seen, the majority of open spaces assessed are good quality (with a score of A), however 2 open spaces were assessed as being poor quality (with a score of C).

Figure 18 illustrates how each open space scores in relation to its quality in terms of its contribution to GI against the 3 themes – wellbeing, water and wildlife. As can be seen from the figure below, sites were assessed as being good to average².

A summary of the quality and GI audit results from the Wotton cluster is provided in table 4 below.

² Only parent sites were considered for their contribution to GI.

Table 4 Quality audit results

Site ID	Site Name	Typology	Description of Site	Open Space Suggestions	GI Suggestions	Open Space Total Score	Open Space Grade	GI Total Score	GI Grade
4266	North Nibley Monument	Accessible Natural Greenspace	Incredible site with well managed woodland and meadows and monument. Variety of mature broad leaves trees, excellent paths and benches at summit.	None.	None.	97	A	10	A
4263	Harley Common	Accessible Natural Greenspace	This site has no signage and doesn't feel publicly accessible although it is common land. grazed field.	Add some signage and facilities.	None.	36	C	7	B
561	Stumpwell Lane	Amenity Greenspace	A large roadside grass amenity with species rich hedgerow. informal paths serves the neighbouring new development.	Potential to install some seating.	The site is good although some wildflower planting would dramatically improve it.	77.5	A	8	A
614	Coombe Road	Amenity Greenspace	A very attractive visual amenity with formal planting, paths, mature trees and dog bins.	None.	None.	95	A	6.67	B

Site ID	Site Name	Typology	Description of Site	Open Space Suggestions	GI Suggestions	Open Space Total Score	Open Space Grade	GI Total Score	GI Grade
635	Wortley Road	Amenity Greenspace	Roadside visual amenity buffer with formal planting and mature trees, decent tarmac path.	None.	None.	86.67	A	5	B
715	North Nibley Village Hall	Amenity Greenspace	A small amenity surrounding the village hall with trees, bins and bench near gated play. Active community noticeboard.	None.	Wildflower Planting.	91	A	6	B
3576	Tresham Green	Amenity Greenspace	A small millennium green with almost hidden access point, well-built steps and a few benches. Most of the site is thick scrub.	Clear some paths through the scrub.	None.	83	A	7.67	A
8	Hillesley Sports Ground	Parks and Recreation Grounds	Large open playing field for cricket with wild planted margins and natural play.	Improve welcoming signage to increase accessibility.	Could have more trees at the margins.	79	A	7.33	A
576	Kingswood Park	Parks and Recreation Grounds	A large playing field with village hall parking, good quality benches, teen shelter and hedgerow margins.	The signage from the road is quite easy to miss and could be improved, it currently only says village hall.	The landscape is well managed although there is potential to increase biodiversity in	84	A	7	B

Site ID	Site Name	Typology	Description of Site	Open Space Suggestions	GI Suggestions	Open Space Total Score	Open Space Grade	GI Total Score	GI Grade
					the margins with more trees or wildflowers.				
321	West View Recreation Ground	Parks and Recreation Grounds	A clean playing field with ample bins and seating and secure entry points. High quality grass with sports markings and a good variety of play.	None.	Potential for wildflower planting at the fringes.	94	A	7.33	A
722	North Nibley FC Playing Fields	Parks and Recreation Grounds	A large playing field with cricket and football, plenty of benches and bins lining the margins and well-maintained grass.	None.	Increase diversity of planting at the margins as it is sparse in places.	90	A	6.67	B
16	Hillesley Play Area	Play (Child)	Very attractive and well-maintained wooden play equipment.	None.	None.	88	A	N/A	N/A
575	Kingswood Park Play Area 1	Play (Child)	A small open play area with four infant swings and two normal swings with picnic bench on grass landscape.	Potential to add more equipment although not necessarily due to neighbouring play area.	None.	73	A	N/A	N/A

Site ID	Site Name	Typology	Description of Site	Open Space Suggestions	GI Suggestions	Open Space Total Score	Open Space Grade	GI Total Score	GI Grade
603	Symn Play Area	Play (Child)	A gated large play area with natural wooden equipment, benches and bins. Grass surface and new soft impact flooring.	None.	Potential for some wildflower planting at the borders.	92	A	6.33	B
624	West View Recreation Ground Play Area	Play (Child)	A long open play area with dated but well-maintained equipment and impact flooring.	More modern equipment could be considered later.	None.	85.56	A	N/A	N/A
716	North Nibley Play Area	Play (Child)	A well maintained, gated play area with two weighted gates.	Equipment is in very good condition but dated and basic and could be upgraded.	None.	96	A	N/A	N/A
3048	Pitman Place Play Area	Play (Child)	A defunct play area with broken equipment and littering and drug taking.	The site either needs a compete retrofit or dismantling.	The site could be repurposed entirely.	18	C	4.67	B
626	West View Recreation Ground Basketball	Play (Youth)	An interesting, well maintained multigames wall with soft impact flooring.	Potential for signage to offer play suggestions.	None.	85.56	A	N/A	N/A

Figure 17 Summary of open space quality audit results in Wotton cluster

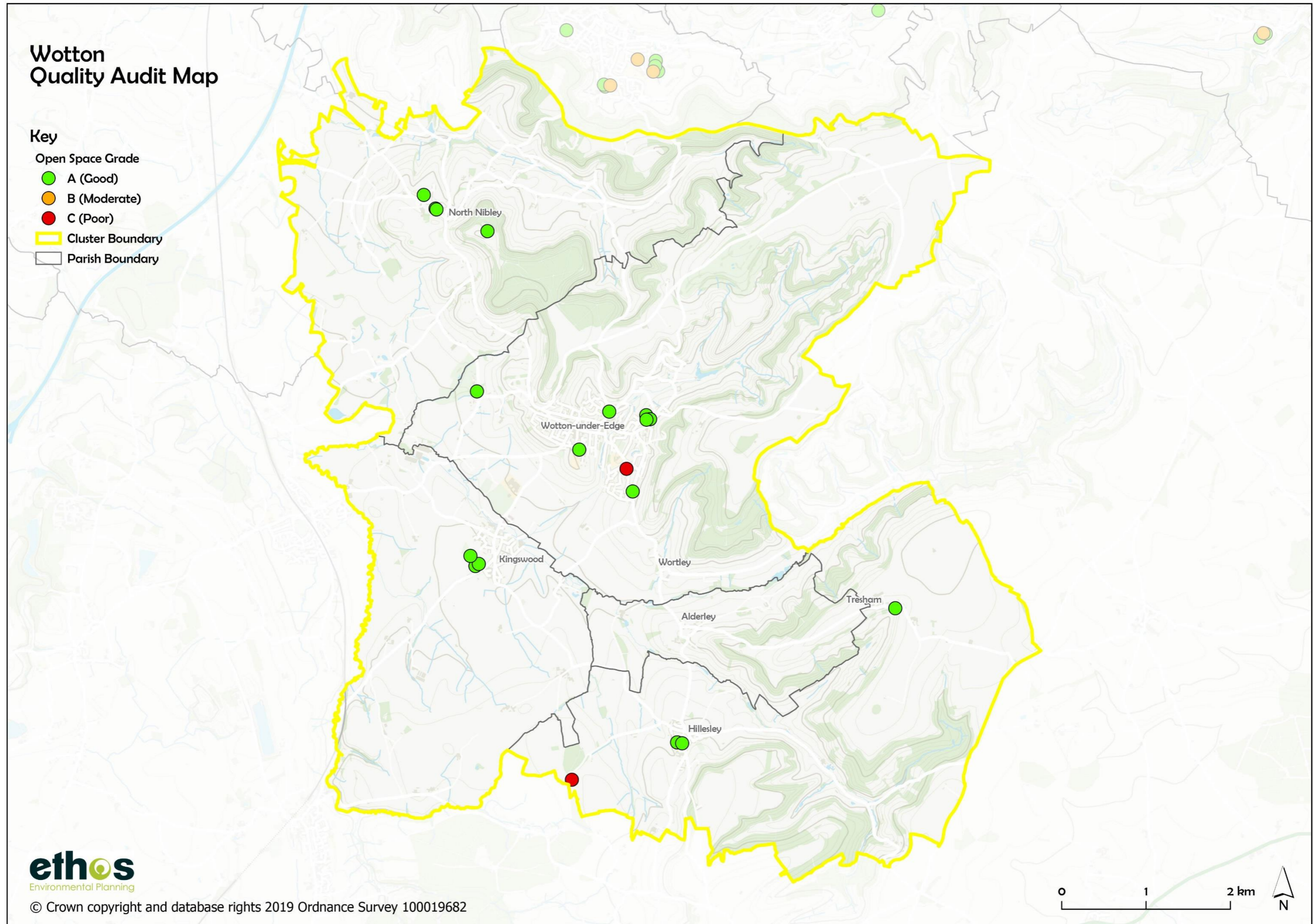
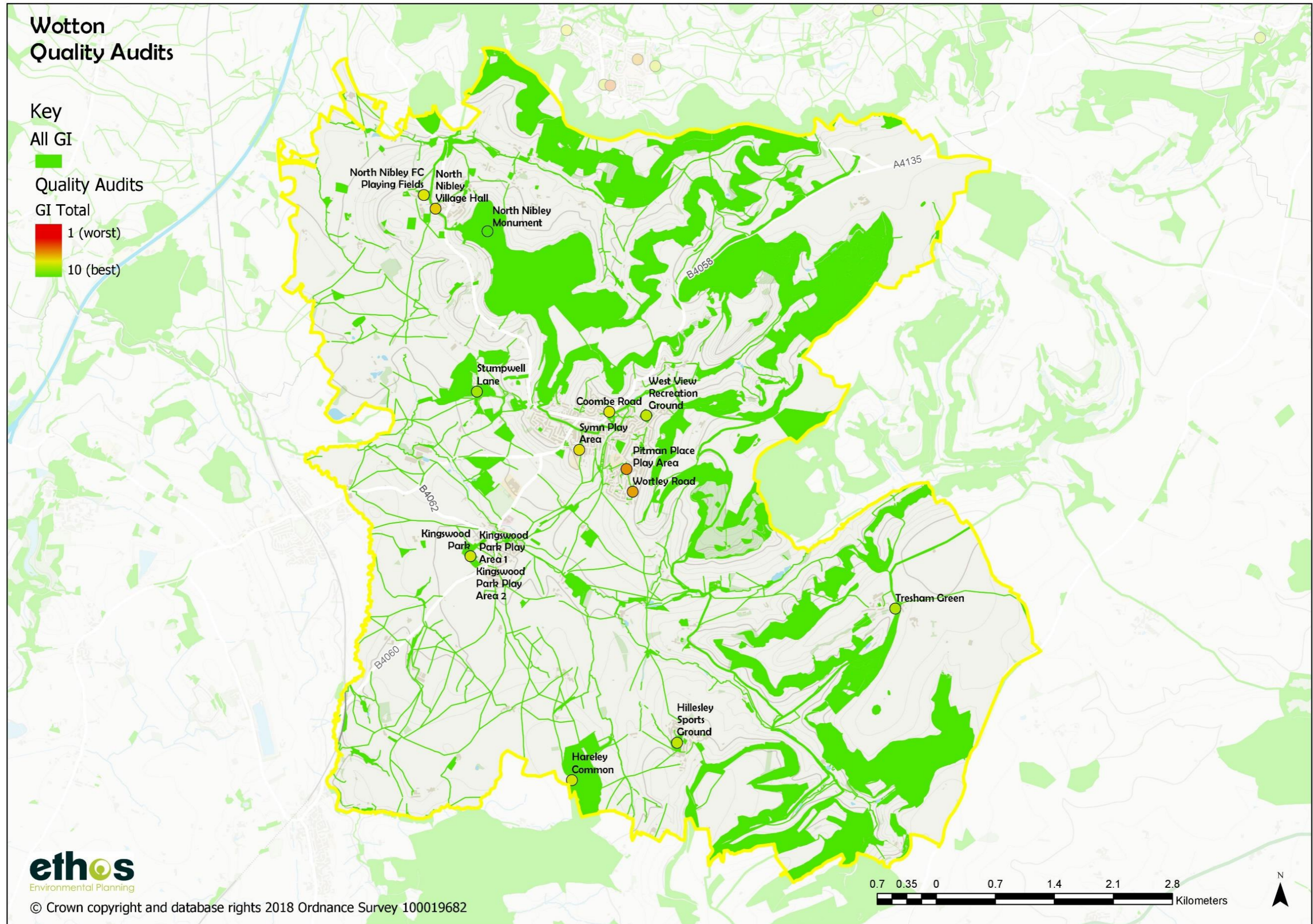


Figure 18 Summary of open space GI quality scores



5.2 Condition of SSSIs

In addition to the audits of open space, a desktop audit of the quality of designated sites/GI within the Cluster has also been undertaken. The following table shows the condition summary (as of February 2019) of SSSIs within the cluster. As can be seen, Nibley Knoll and Yarley Meadows are in a favourable condition, although there is scope to improve the condition of Coombe Hill, Lower Woods, Midger and Wotton Hill SSSI.

Figure 19 Wotton SSSIs

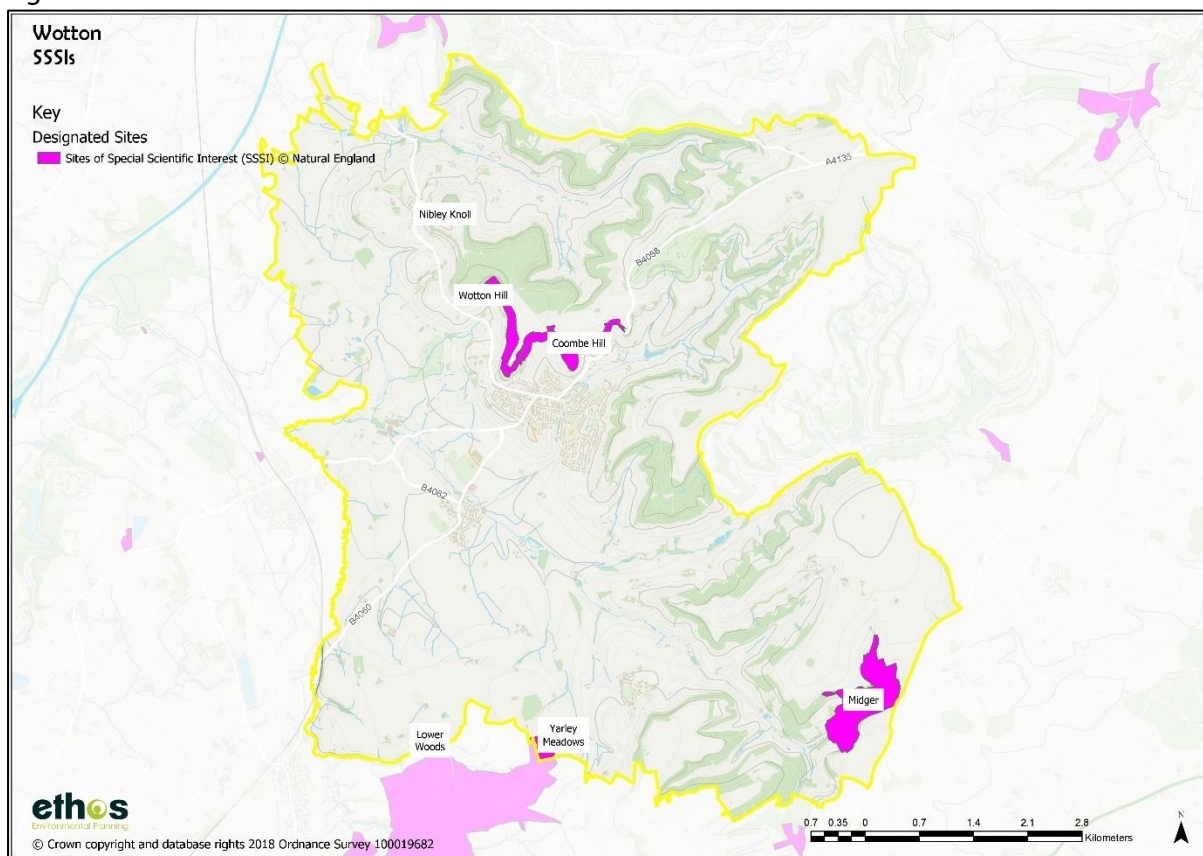


Table 5 Condition summary of SSSI's sites within the Wotton cluster

Site Name	Designation	Size (ha)	Description/features of interest	Condition summary
Coombe Hill	SSSI	15.52	A large area of flower rich, unimproved limestone grassland. It is one of a few sites which has the nationally rare limestone woundwort. Coombe Hill is ranked in the top ten sites for abundance of herbs in the turf.	84.17% Favourable. 15.83% Unfavourable – recovering.
Lower Woods	SSSI	0.30	The most extensive ancient woodlands in Avon which have boundaries that have been remained unchanged for 200 years.	37.30% Favourable. 62.70% Unfavourable – recovering.

Site Name	Designation	Size (ha)	Description/features of interest	Condition summary
Midger	SSSI	58.51	Part owned and managed by the Gloucestershire Trust for Nature Conservation, this site comprises of a variety of habitats which include ancient woodland and/unimproved calcareous grassland. Also, an outstanding assemblage of breeding butterflies has been recorded.	94.66% Favourable. 5.34% Unfavourable – declining.
Nibley Knoll	SSSI	3.06	An important geological locality showing a thick section of Lower and Middle Jurassic rocks, spanning the junction between Aalenian and Bajocian Stages. This provide one of the best illustrations in the Cotswolds of the effects of this important phase of earth movement.	100% Favourable.
Wotton Hill	SSSI	25.89	Part of the site is owned by the National Trust, and the other part is managed by Gloucester Trust for Nature Conservation. Wotton Hill is an area of woodland, scrub and grassland lying on the Jurassic scarp of the Cotswolds. There are two main areas of ancient woodland dominated by beech, and the site supports rich flora including the nationally restricted stinking hellebore and the nationally rare limestone woundwart. The site also includes important exposures of rocks of the lower and middle Jurassic Period.	94.59% Favourable. 5.41% Unfavourable – recovering.
Yarley Meadows	SSSI	9.03	Characterised by nationally rare Common Knapweed-Crested Dog's-tail type. It has a dominating grass including Sweet Vernal, Crested Dog's tail and Yorkshire-fog. There are also frequent areas of Red Fescue and Quaking-grass. In the wetter areas of the meadows, Glaucous Sedge, Hairy Sledge, Soft-rush and Hard Rush are present.	100% Favourable.

5.3 Natural England National Habitat Network Mapping

The Natural England National Habitat Network mapping also indicates that there is 'restorable habitat' within the Wotton cluster - areas of semi-natural habitat where the primary habitat is present in a degraded or fragmented form and which are likely to be suitable for restoration.

See main report (part 1), section 7.6, figure 25 for overview map.

6.0 Future need for open space and GI corridors and opportunities

Open Space

The table below shows the quantity requirements for open space provision from the predicted population growth resulting from housing development within the Wotton cluster. An explanation of how these growth figures have been calculated is provided in section 7.2.2 of the main report (part 1).

Table 6 Open space requirements from new development within the Wotton cluster (up to 2040)

Typology	Standard for new provision (Ha/1000)	Requirement for 455 people (Ha)
Allotments	0.35	0.16
Community Orchards	0.15	0.67
Amenity Green Space	0.40	0.18
Park and Recreation Ground	1.20	0.55
Play Space (Children)	0.06	0.03
Play Space (Youth)	0.06	0.03
Natural Green Space	1.00	0.46
Total	3.22	2.08

GI

The figure below shows the key GI corridors within the cluster, and key opportunities for enhancing the network in terms of connectivity (both for biodiversity/wildlife corridors and access for people). Improvements in terms of quality/functionality of GI are considered in section 5.0.

As can be seen from figure 20 the key GI corridors are the strategic GI corridor as identified by the GLNP (shown in yellow), which relates to the Cotswold Escarpment and Valley SNA and in addition, a district/locally important GI corridor has been identified as part of this assessment, as follows:

C) Doverte Brook linking coastal flood plains in Berkeley to woodlands south of Dursley.

Opportunities for enhancing the connectivity of the network have also been identified as follows:

17) Protect, enhance and connect fragmented calcareous grassland.

18) Biodiversity improvements to Monarch Way to link habitats (hedge/tree planting).

19) Link priority habitats including deciduous woodlands and semi-improved grassland via traditional orchards. Potential access improvements along existing PRoW.

Strategic Site Allocations

There are no site allocations within this cluster.

Emerging Local Plan

The Local Plan Review Emerging Strategy (2018) sets out the following priorities and draft vision for the Wotton cluster:

Local community representatives have highlighted the following key local issues and top priorities in relation to open space and GI:

- *Designing safe walking and cycle routes and achieving a better public transport system.*
- *Conserving the Cotswold Area of Outstanding Natural Beauty*

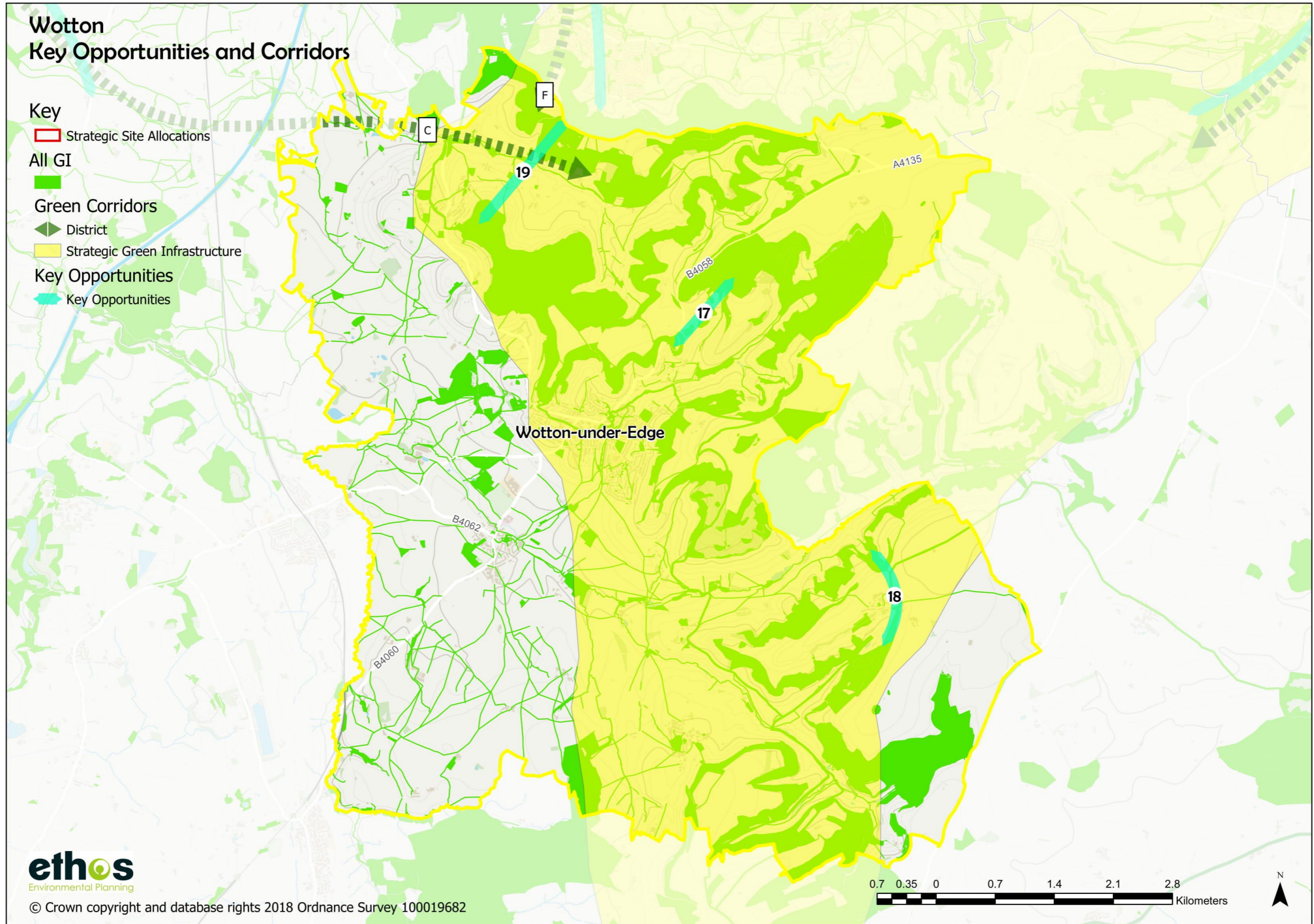
Draft vision to 2040: "Improving access to jobs, services and facilities in the south of the District, to boost local sustainability and community vitality..."

Wotton-under-Edge itself will continue to be an historic town set within a green and pleasant environment which capitalises on its proximity to the Cotswold Way.....

.....Wotton meets the everyday needs of its surrounding rural communities, although its sensitive location in the landscape will prevent further outward growth.....

.....Across the area, small scale local businesses are encouraged, supported by farm diversification and including low-impact tourism related activities....

Figure 20 Key GI Corridors and Opportunities



7.0 Open Space and GI - Summary of priorities for the area

This section brings together the analysis of the existing quantity, access and quality of open space and GI and considers future requirements for open space from population growth, and considers the following priorities:

- Existing provision to be enhanced;
- Opportunities for re-location/re-designation of open space;
- Identification of areas for new provision of open space; and
- Protection of open space (and consideration of sites that may be surplus to requirement).

7.1 Existing provision to be enhanced

Section 5.0 provides a summary of the open space quality scores drawn from the quality audit.

When development sites are brought forward, consideration should be given to the potential to improve those sites that scored C (poor) or B (average) sites.

The list of sites that scored B or C are as follows:

- Harley Common (B)
- Coombe Road (B)

The GI quality scores and recommendations should also be considered.

A desktop assessment has also identified potential to improve the condition of Coombe Hill, Lower Woods, Midger and Wotton Hill SSSI (from SSSI condition assessments).

7.2 Opportunities for re-location/re-designation of open space

Opportunities to relocate or re-designate open spaces draws on both the quantity and access analysis. In the case of the Wotton cluster, there are shortfalls in the supply of all open space typologies, except parks and recreation grounds, where there is also good access.

Although there are shortfalls in the supply of allotments and children's play space, there is good access against the standard, and therefore existing spaces should be expanded and quality/capacity improved where possible.

There is a gap in access to youth play space in Kingswood, and there may be potential to accommodate new provision of this typology within Kingswood Park.

There is also good access to accessible natural green space, with a small gap in the southern part of Wotton-under-Edge.

7.3 Identification of areas for new provision of open space

Consideration of supply and gaps in access, and therefore the key areas for new provision are identified in the section above. However, in terms of new provision from development, this will depend on the size and location of the development, and all typologies of open space may still be required on-site (for example, if a large development falls in an area with no existing access).

Table 6 sets out the overall requirement for new open space provision within the Wotton cluster from new development, which is 2.08 ha. This is based on the predicted population growth, however this assumes that all provision will be on-site, which will not be the case in reality as many developments will be too small, and therefore CIL contributions will be required for off-site provision and/or improvements.

The GI corridors and opportunities map (figure 20, section 6) sets out the framework for protecting and enhancing GI.

Key opportunities for enhancing the connectivity of the network have been identified as follows (each number relates to the arrows on the map at figure 20):

17) Protect, enhance and connect fragmented calcareous grassland.

18) Biodiversity improvements to Monarch Way to link habitats (hedge/tree planting).

19) Link priority habitats including deciduous woodlands and semi-improved grassland via traditional orchards. Potential access improvements along existing PRow.

7.4 Protection of open space (and consideration of sites that may be considered as surplus)

All open space and GI will be afforded protection unless it can be proved it is not required i.e. it's loss would not result in deficiencies in quantity, access or quality, and would not have a negative impact on the GI network in terms of functionality/connectivity.

There are shortfalls in all typologies (except for parks and recreation grounds), therefore these typologies are not considered as surplus.

Although there is sufficient supply of parks and recreation grounds against the standard, they cannot be considered as surplus, as any loss of facilities would result in gaps in access. The planned growth in the area is also likely to put pressure on existing facilities, and they should be considered for meeting shortfalls in the other typologies.

Irrespective of this, the role that parks and recreation grounds (and all open spaces) perform in relation to GI also needs to be considered, and even if the loss of a site would not have quantity or access impacts, it may have an impact on the functionality or connectivity of the GI network (e.g. in terms of nature conservation/biodiversity). Therefore, any potential loss

of open space would need to demonstrate that there would not be negative impacts on open space quantity, access and quality, or the functionality of GI network.