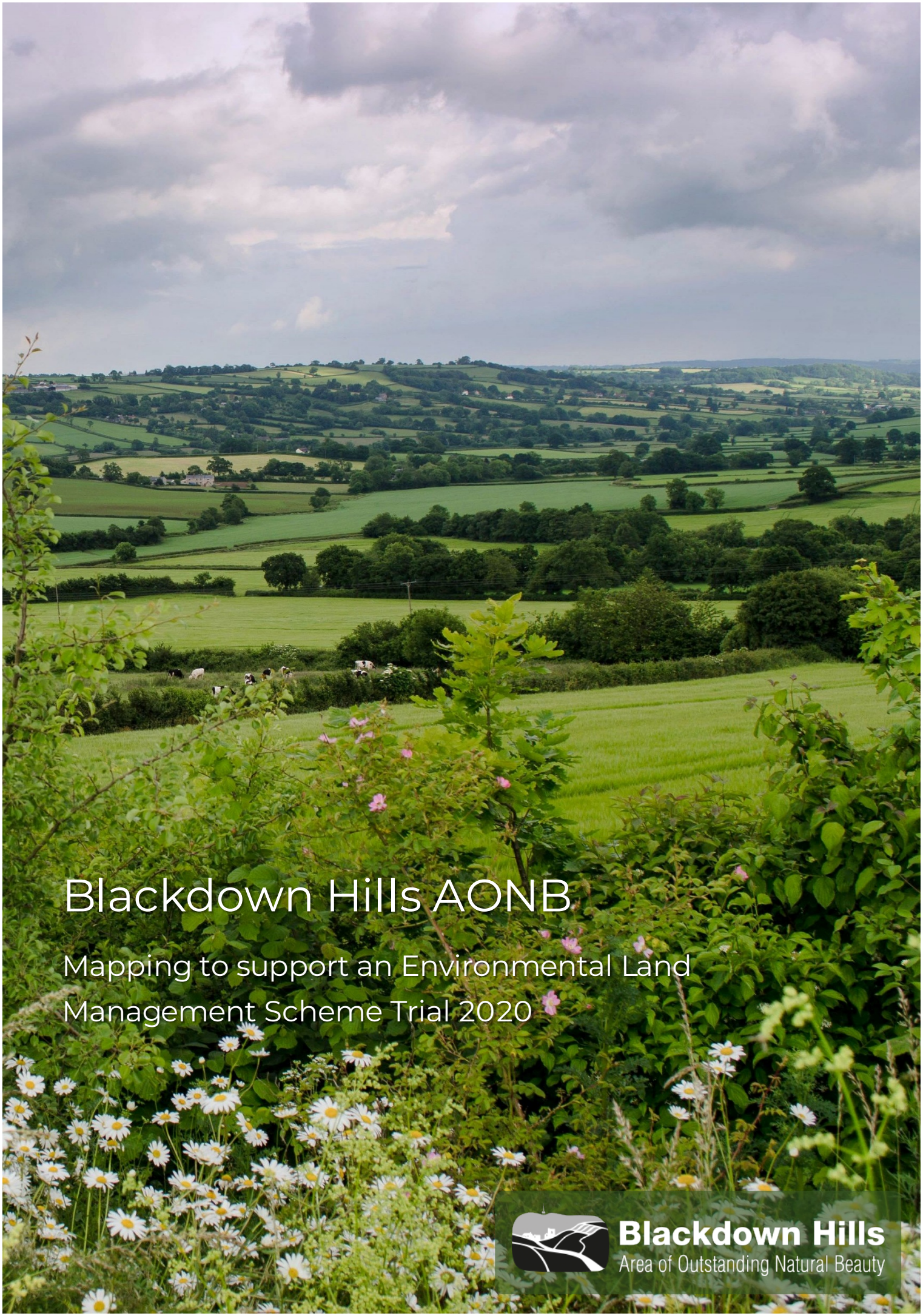


Blackdown Hills AONB

Mapping to support an Environmental Land Management Scheme Trial 2020

Blackdown Hills
Area of Outstanding Natural Beauty

Introduction

This report summarises the mapping process that has been undertaken to support the Blackdown Hills AONB Environmental Land Management Scheme Trial (2020).

Contents:

Environmental Land Management Scheme Trial 2020

This Environmental Land Management System (ELMS) trial for the Blackdown Hills AONB is part of a National Association of AONBs (NAAONB) collaboration, 'Farming for the Nation: AONBs as Test Beds for a new Environmental Land Management System', that includes a selection of AONBs from across England. This project has been set up under Devon County Council, via the Blackdown Hills AONB, and is supported by Defra funding (administered and led by the National Association of AONBs). The purpose of the 18 month project is to work in collaboration with other AONBs to trial elements of the Environmental Land Management Scheme. The scheme is expected to move into a series of pilots from 2021 onwards and then be rolled out in 2024/25. The role of the NAAONB is to collate, administer and provide co-ordination of the participating AONBs.

Mapping to Support Natural Capital Understanding and Site Selection

A series of data collation and mapping exercises have been carried out to support the project. The first phase involved gathering and mapping datasets to highlight the distribution and condition of natural features across the AONB, with close consideration to the benefits they provide to the wider community. These maps will be reviewed by the project partners and used to inform the selection of priority areas within the AONB, where farmer engagement and advice will be focused.

These AONB-scale maps support the development of a Landscape Spatial Framework that will be closely linked to the Blackdown Hills AONB Management Plan.

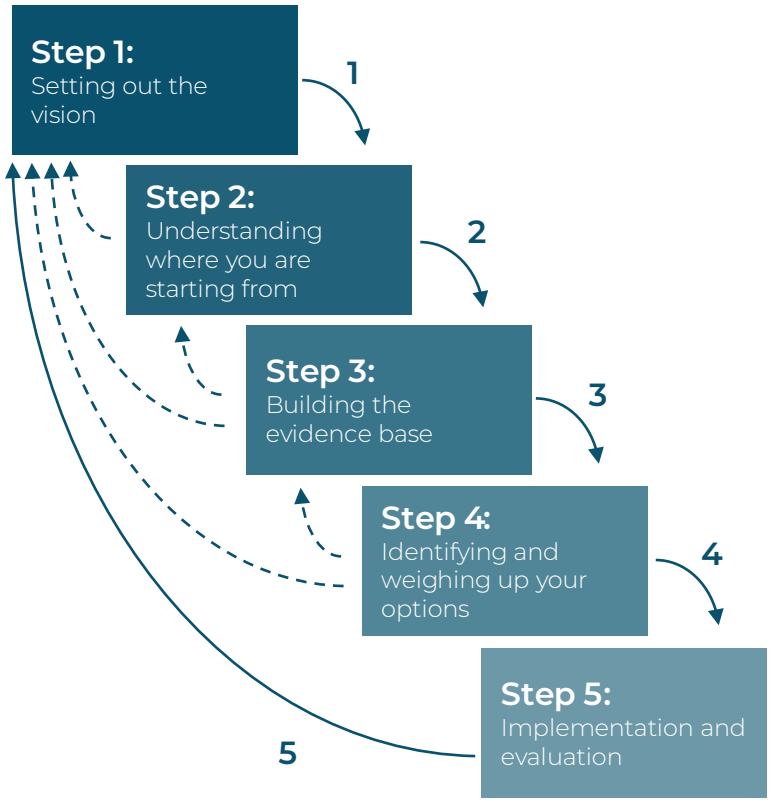
A Natural Capital Approach

The Blackdown Hills AONB ELMS Trial is based on a natural capital approach.

The Natural Capital Committee defines natural capital as 'the elements of nature that directly or indirectly produce value to people, including ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and functions.'.

The committee recommend following the steps below in order to successfully take a natural capital approach to environmental projects. This includes working with stakeholders to find shared priorities, understand the current situation, make use of the best available evidence and then work collaboratively to plan and take action.

This report focuses on steps 2 and 3 of the natural capital process, describing the distribution and condition of natural features (assets) across the landscape and exploring how this relates to the services and benefits they provide to the local community.



Adapted from the Natural Capital Committee's publication 'How to do it: a natural capital workbook'

Data Limitations

The maps and tables presented throughout this report are based upon the best available data, within the time and budgetary scope of the project. There is a wide variety of datasets available to use for natural capital mapping projects; however they are often limited, for example in terms of restricted access, spatial resolution or extent, accuracy, or frequency of updates. The Blackdown Hills AONB ELMS team will be assessing the advantages and limitations of all of the project work, including data, evidence and mapping, as part of the trial.

Report Structure

This report describes the mapping process that has been undertaken to support the Blackdown Hills AONB ELMS trial 2020. The mapping process comprises two key phases:

- AONB-wide – broad-scale mapping to understand natural capital distribution, condition and associated ecosystem services and benefits, to support the selection of priority areas.
- 2 x priority areas – finer-scale mapping to understand the aforementioned natural capital characteristics in more detail and support farm advisor activities.

This report focuses on the first phase; the AONB-wide mapping for priority area selection. Each mapping phase follows the process described below.

Mapping Process

1. Overview Maps

A selection of maps describing the broad character of the AONB, including landscape character, population distribution and land use.

2. Natural Asset Quantity

Mapping the quantity and spatial distribution of a range of natural habitats and features across the landscape.

3. Natural Asset Quality

Mapping the condition of natural assets.

4. Ecosystem Services and Benefits

Using datasets to explore how well the natural assets are performing key functions and assessing the level of ecosystem services and benefits received by local communities.

5. Priority Areas for Action

Using the datasets to support the identification of priority areas for action.

Map Format

The majority of maps in this report are presented using the 'report card' style layout shown below. Each report card shows a map and key data layers for the feature/theme in question. It also highlights which habitat types and ecosystem services are relevant to this feature.

Title

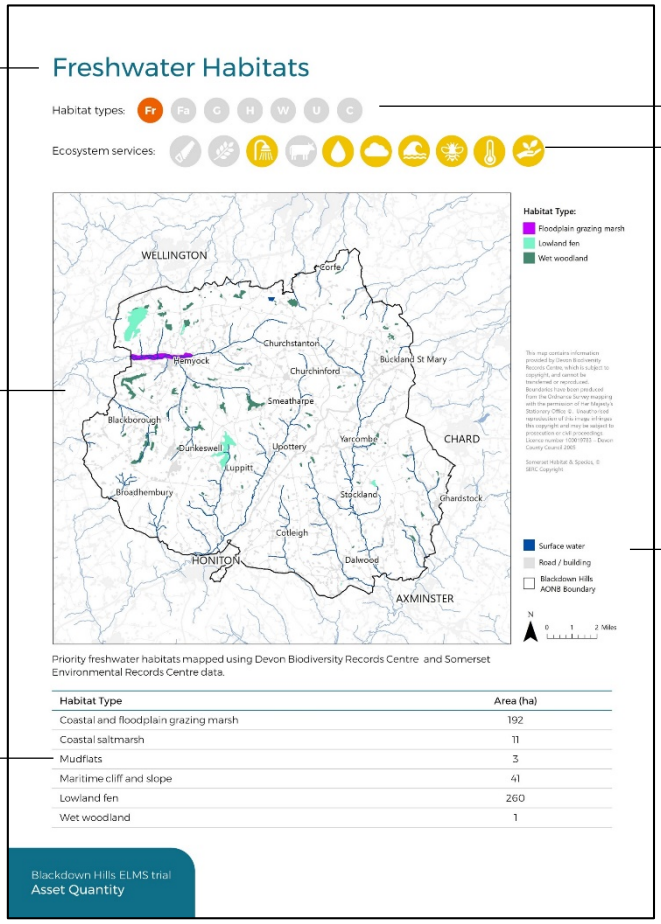
Describes the feature or theme in question.

Map

Displays datasets that describe the feature or theme in question

Data summary table

Provides summary statistics regarding the data displayed on the map



Habitat types

Icons describe the habitats related to the feature/theme in question.

Ecosystem services

Icons describe the ecosystem services related to the feature/theme (e.g. provided by, or impacted upon).

Map details

Information including the map key and data references.

Habitats Key:

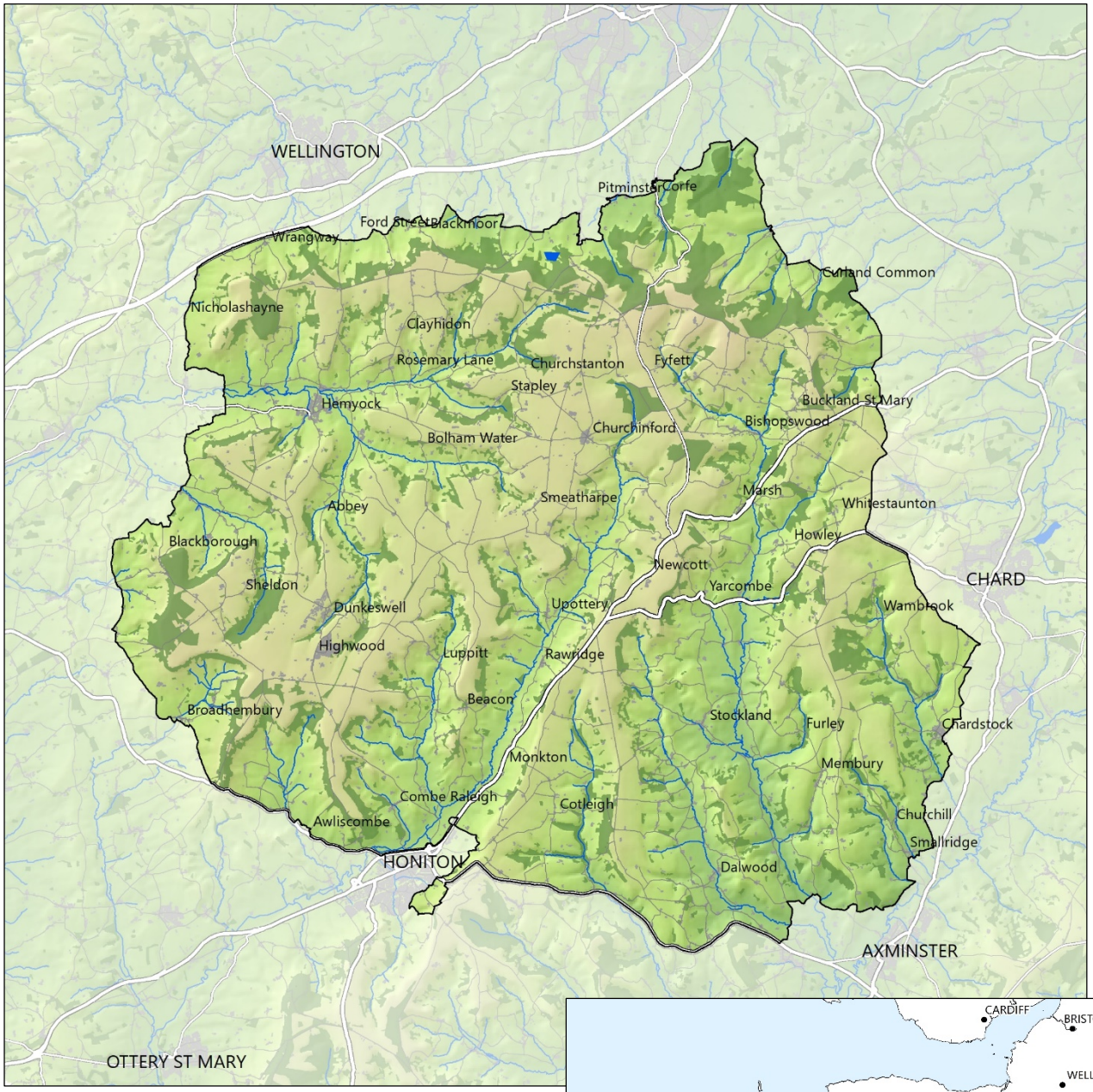
- Fr Freshwater
- Fa Farmland
- G Grassland
- H Mountain, moor & heath
- W Woodland
- U Urban
- C Coastal

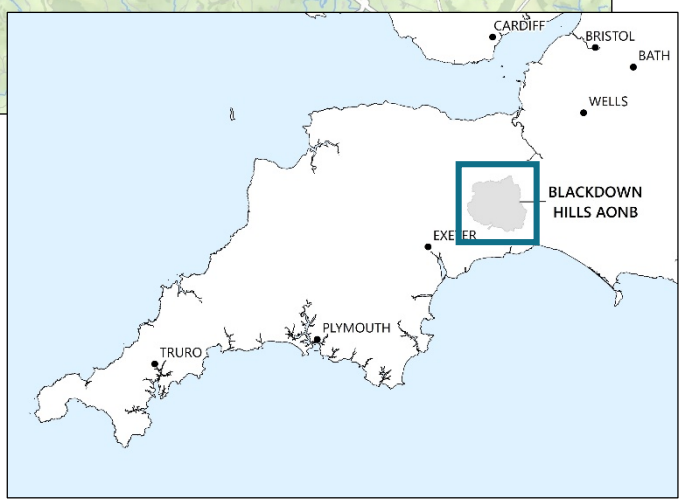
Ecosystem Services Key:

- Materials (timber, hay etc.)
- Crops
- Water supply
- Reared animals (livestock)
- Water quality
- Air quality
- Flood protection
- Biodiversity
- Climate regulation
- Cultural services

Blackdown Hills Area of Outstanding Natural Beauty

Covering an area of approximately 370km^2, the Blackdown Hills AONB is situated in East Devon, bordering both Devon and Somerset. It was designated in 1991 for its isolation, tranquillity and quintessential English countryside, as well as its biological and geological diversity.

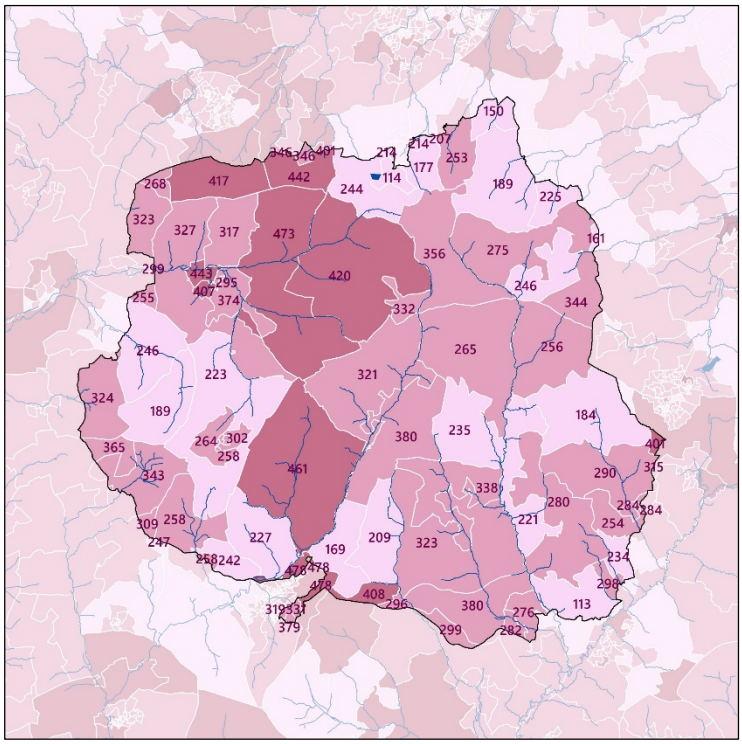




A complete list of data sources is included on pages 39 and 40.

Population

The 2011 UK Census provides population counts per Census Output Area (as shown on the map). The total population count for output areas that intersect the AONB is relatively small (~23,000), with larger conurbations (including Taunton and Honiton) situated just outside the AONB boundary. The most densely populated areas within the AONB are found within Dunkeswell and Hemyock.

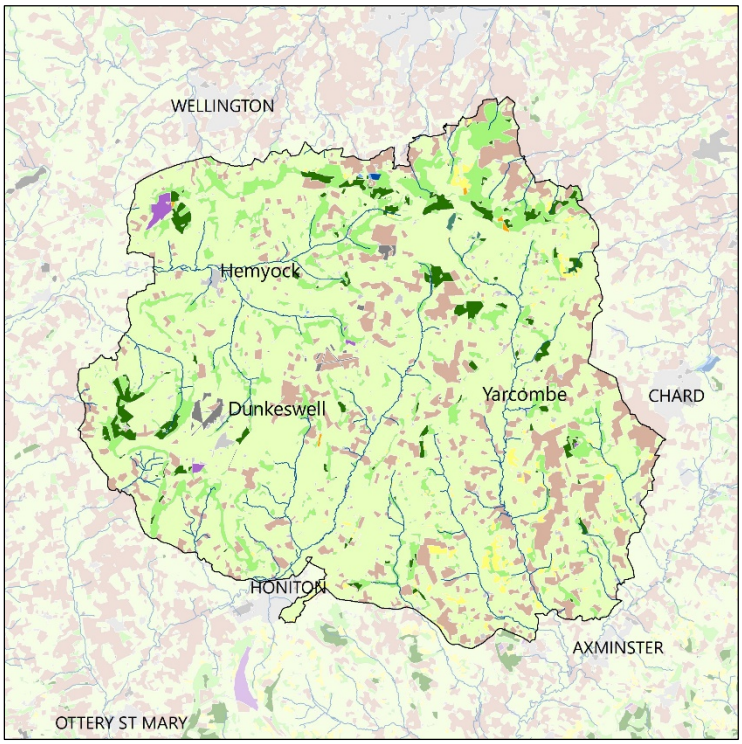


Population count per census output area (2011):

High: 809

Low: 111

N.b. For AONB and 10km radius



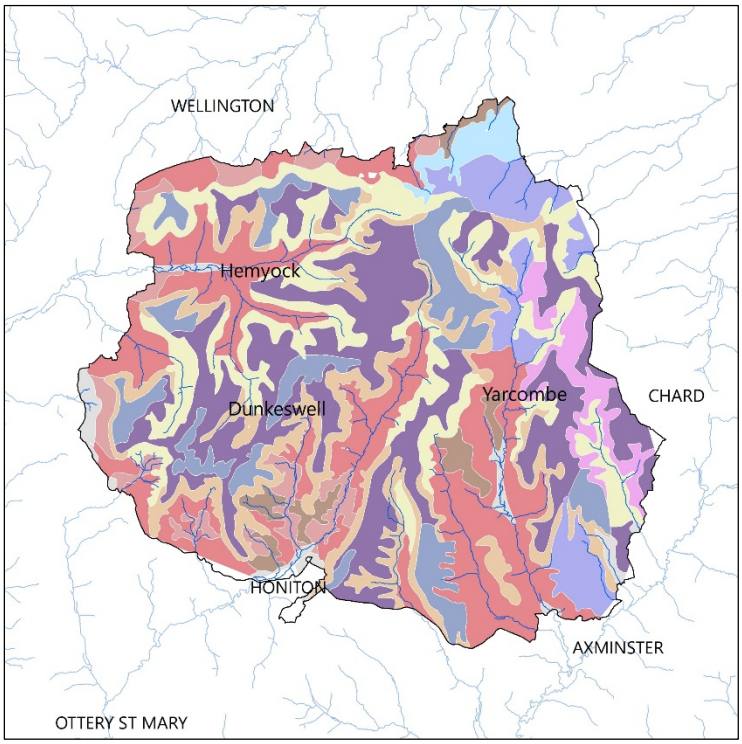
Land Use

The CEH Land Cover Map 2015 is derived from satellite data and shows the 'UK Biodiversity Action Plan Broad Habitats' classes. The AONB is largely dominated by improved grassland, with arable farms interspersed primarily around the centre and east. There are a number of woodlands, as well as natural grasslands and wetlands.

Land Cover Type (2015):

- Broadleaved Woodland
- Coniferous Woodland
- Arable and Horticulture
- Improved Grassland
- Neutral Grassland
- Calcareous Grassland
- Acid Grassland
- Fen, Marsh and Swamp
- Heather
- Inland Rock
- Saltwater
- Freshwater
- Supra-littoral Sediment
- Littoral Sediment
- Saltmarsh
- Urban
- Suburban

A complete list of data sources is included on pages 39 and 40.



Soil Type

There is a wide variety of soil types in the AONB, owing to the unique geology of the area. Soil type (as well as condition) is a hugely important factor influencing water quality, flooding and productivity, as well as other ecosystem services.

Soil Type:

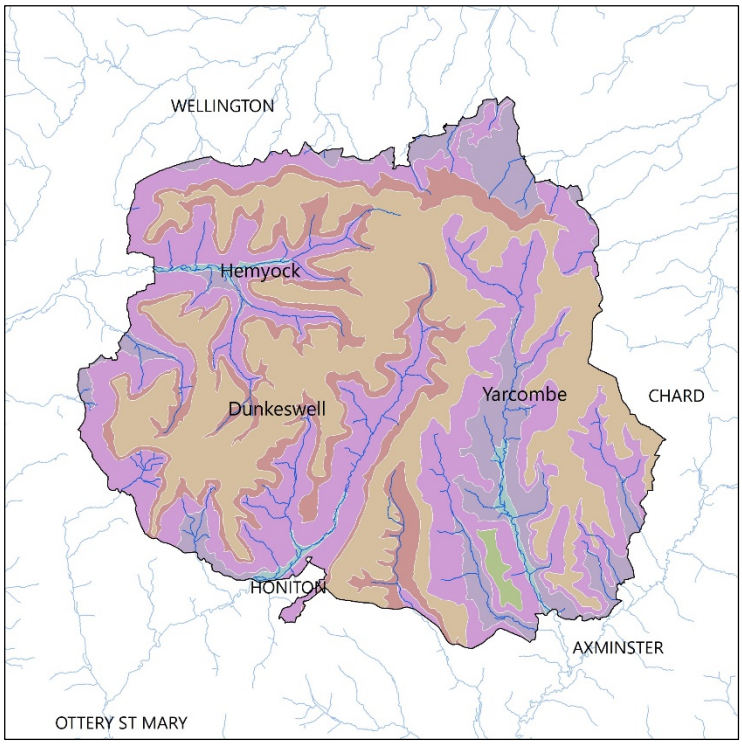
- BATCOMBE - deep loam to clay
- BEARSTED 2 - loam over red sandstone
- BROCKHURST 1 - seasonally wet loam to clayey over red shale
- CHARITY 1 - deep silty to clay
- DENCHWORTH - seasonally wet deep clay
- DUNKESWELL - seasonally wet deep silty to clay
- Evesham 1 - deep clay
- HENSE - seasonally wet deep peat to loam
- WHIMPLE 3 - deep red loam to clay
- WORCESTER - deep clay
- Other

Land Character

Devon's landscape character assessment divides the county into discreet landscape character units, based on their distinctive identities. There are 37 Landscape Character Types across Devon, 7 of which are present within the AONB.

Devon Landscape Character Type:

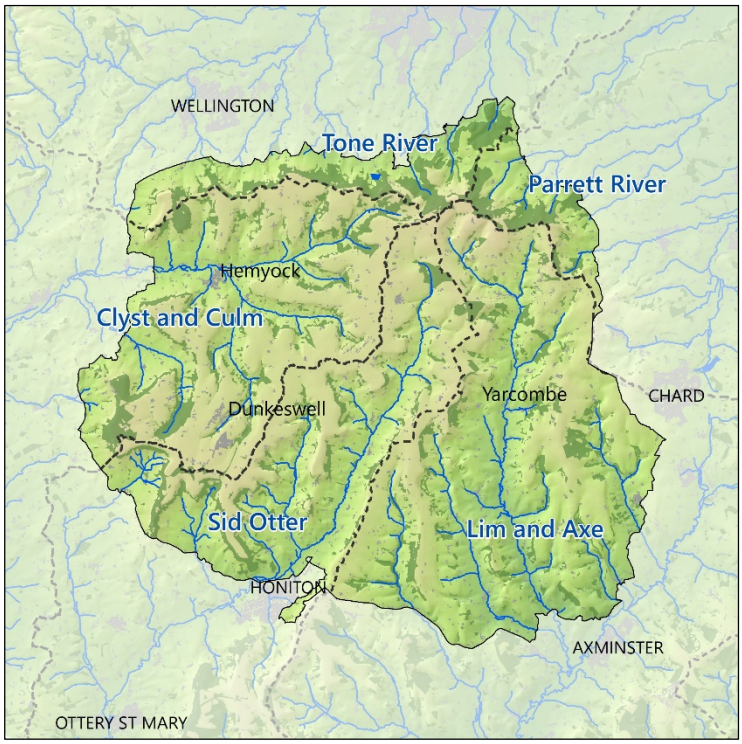
- Lower rolling farmed and settled valley slopes
- Main cities and towns
- Open inland planned plateaux
- Sparsely settled farmed valley floors
- Steep wooded scarp slopes
- Upper farmed and wooded valley slopes
- Wooded ridges and hilltops

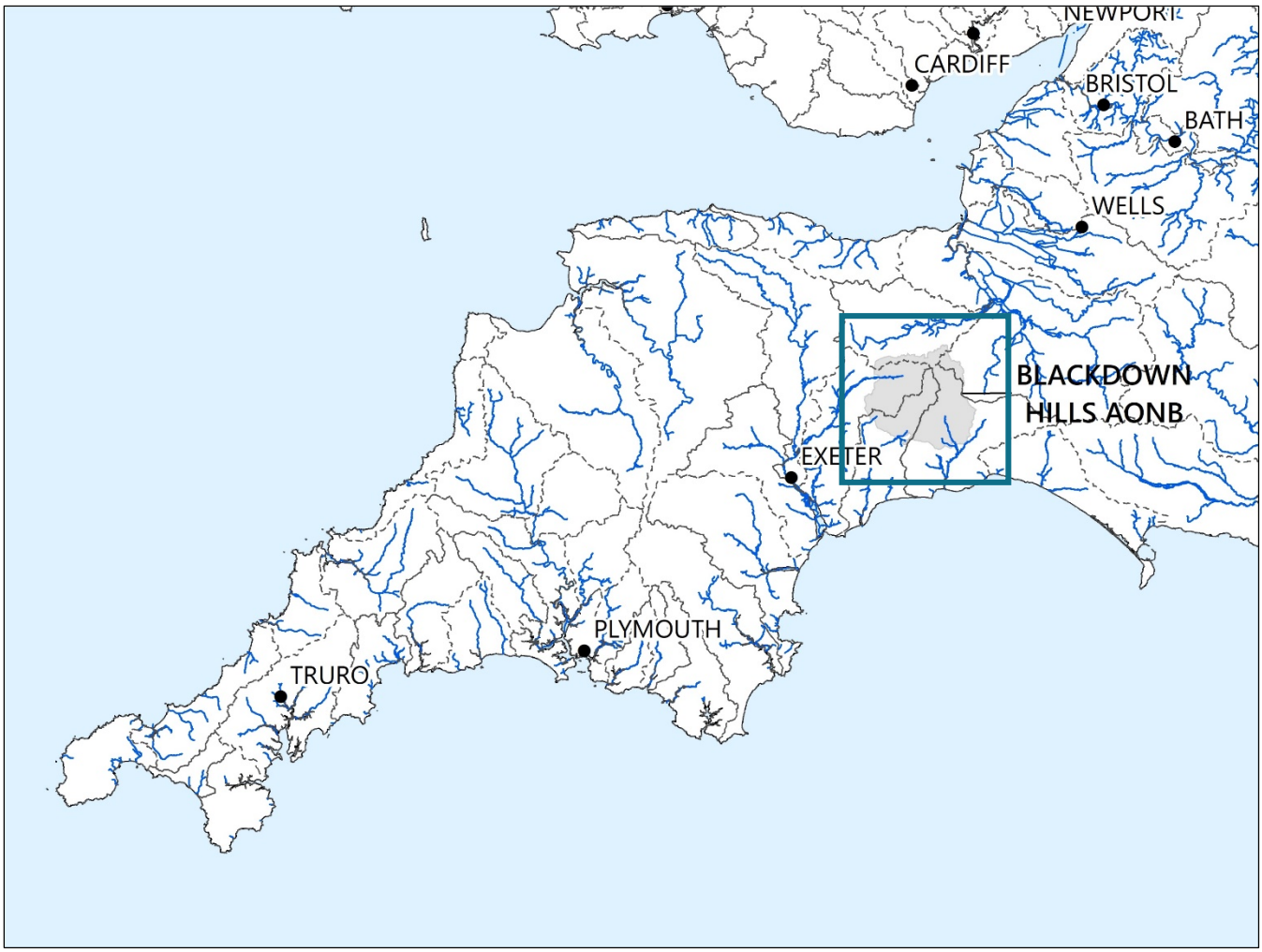


A complete list of data sources is included on pages 39 and 40.

River Catchments

The Blackdown Hills AONB is hydrologically connected to five distinctive river systems, contributing flow to the rivers Tone, Parrett, Culm, Otter, and Axe. The map to the right shows these river catchment boundaries (based on Environment Agency Operational River Catchments). This unique position means that is connected to both the north and south coasts. River catchment boundaries are important considerations for land management options, as land-based activities can have a significant impact on the quantity and quality of water downstream.





A complete list of data sources is included on pages 39 and 40.

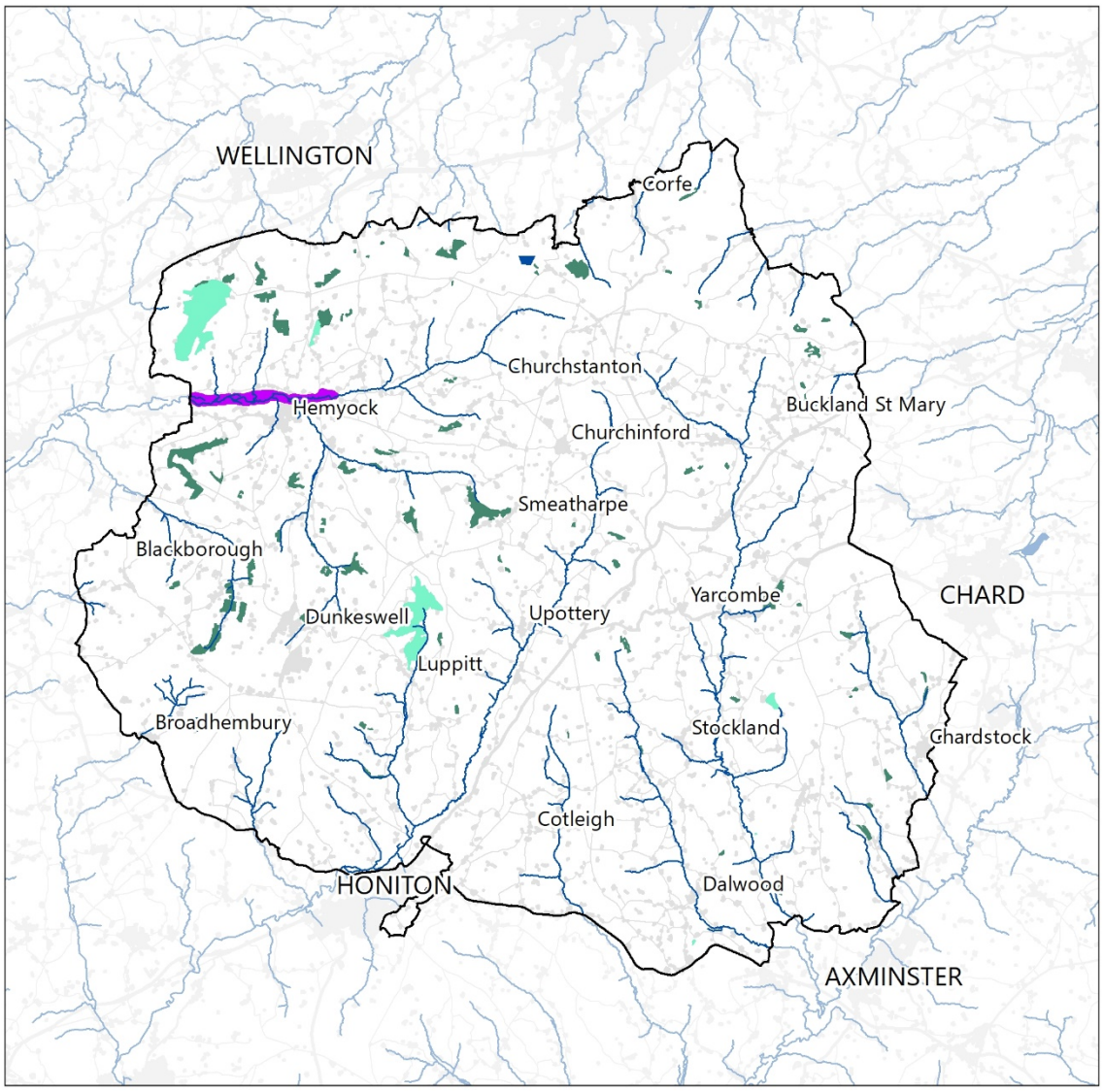
Asset Quantity

This chapter displays a range of maps and tables describing the quantity and spatial distribution of natural assets across the Blackdown Hills AONB. It includes a range of broad habitat types, as well as physical terrain characteristics. The ecosystem services provided by each of these asset types are highlighted in the key. The **quantity** of natural assets has a significant influence on the degree of ecosystem services they provide and subsequently the level of benefit received by local populations.

Freshwater Habitats

Habitat types: **Fr** Fa G H W U C

Ecosystem services:



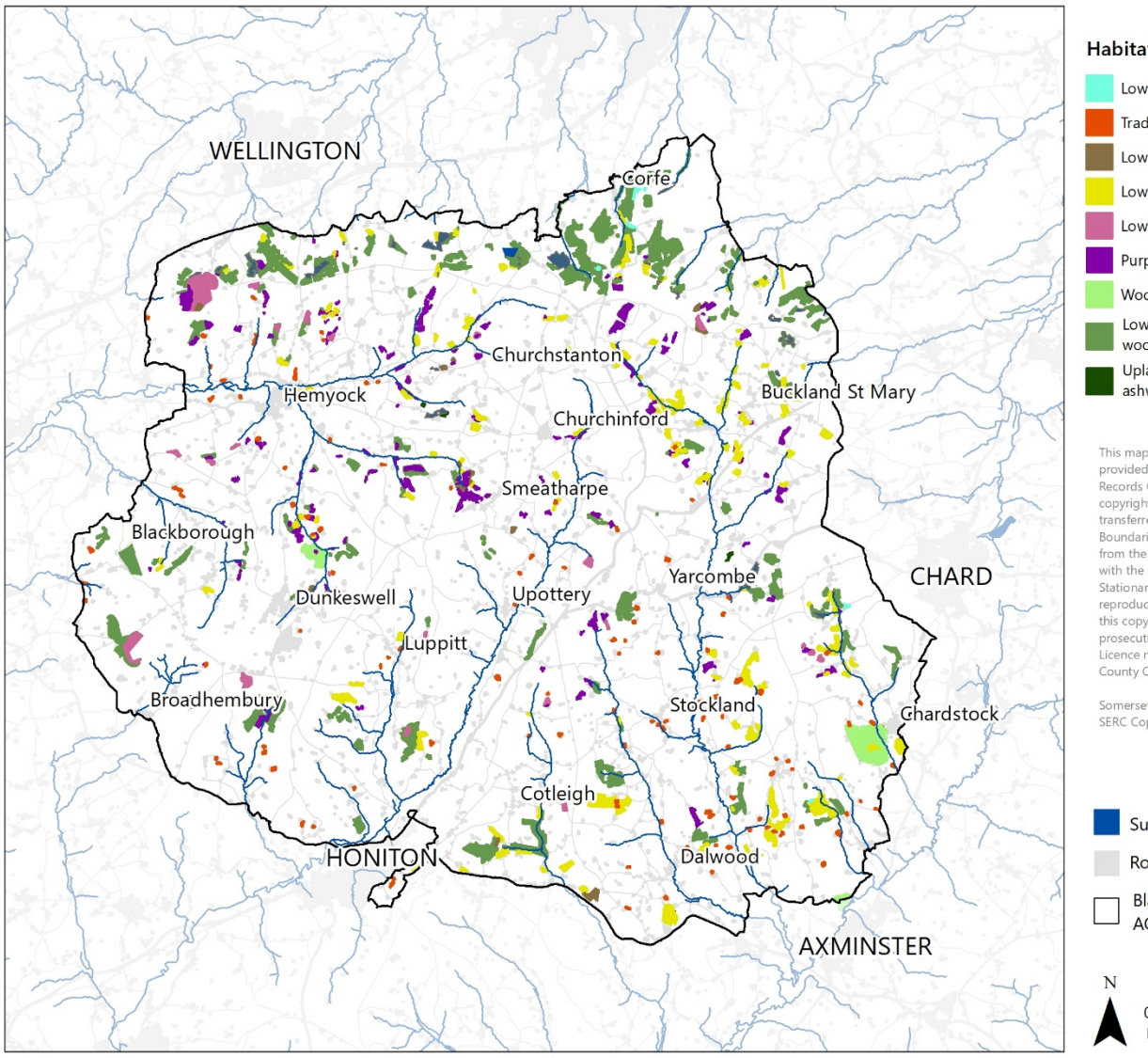
Priority freshwater habitats mapped using Devon Biodiversity Records Centre and Somerset Environmental Records Centre data. A complete list of data sources is included on pages 39 and 40.

Habitat Type	Area (ha)
Floodplain grazing marsh	65
Lowland fen	268
Wet woodland	392

Terrestrial Habitats

Habitat types: Fr Fa G H W U C

Ecosystem services:



Priority terrestrial habitats mapped using Devon Biodiversity Records Centre and Somerset Environmental Records Centre data. A complete list of data sources is included on pages 39 and 40.

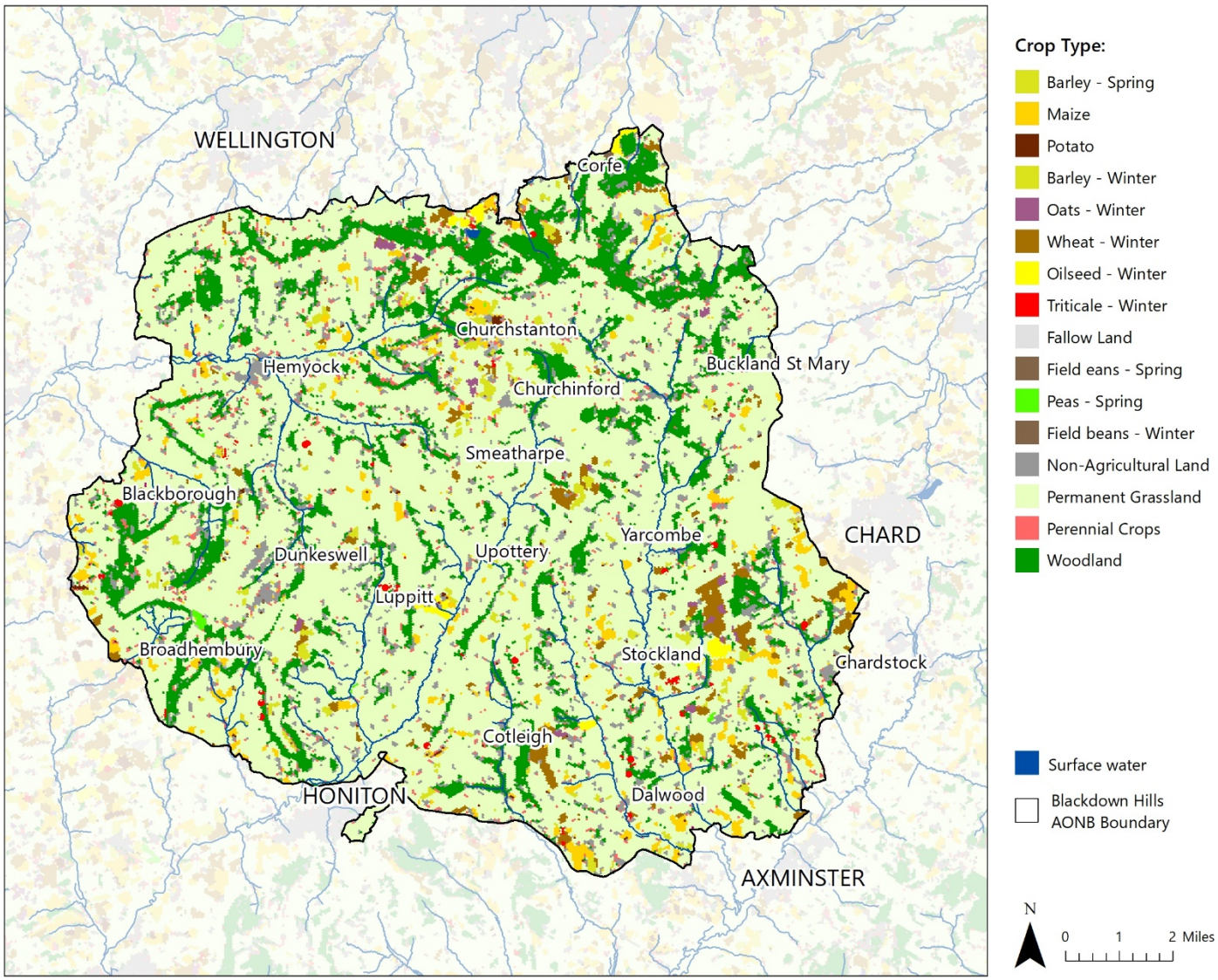
Habitat Type	Area (ha)
Lowland calcareous grassland	5
Traditional orchards	50
Lowland dry acid grassland	28
Lowland meadow	376
Lowland heath	108

Habitat Type	Area (ha)
Purple moor grass and rush pasture	293
Wood pasture & parkland	127
Lowland mixed deciduous woodland	920
Upland oakwood or mixed ashwood	4

Farmland

Habitat types: Fr **Fa** G H W U C

Ecosystem services:



Distribution of crop types mapped using the Crop Map of England (CROME) 2019. A complete list of data sources is included on pages 39 and 40.

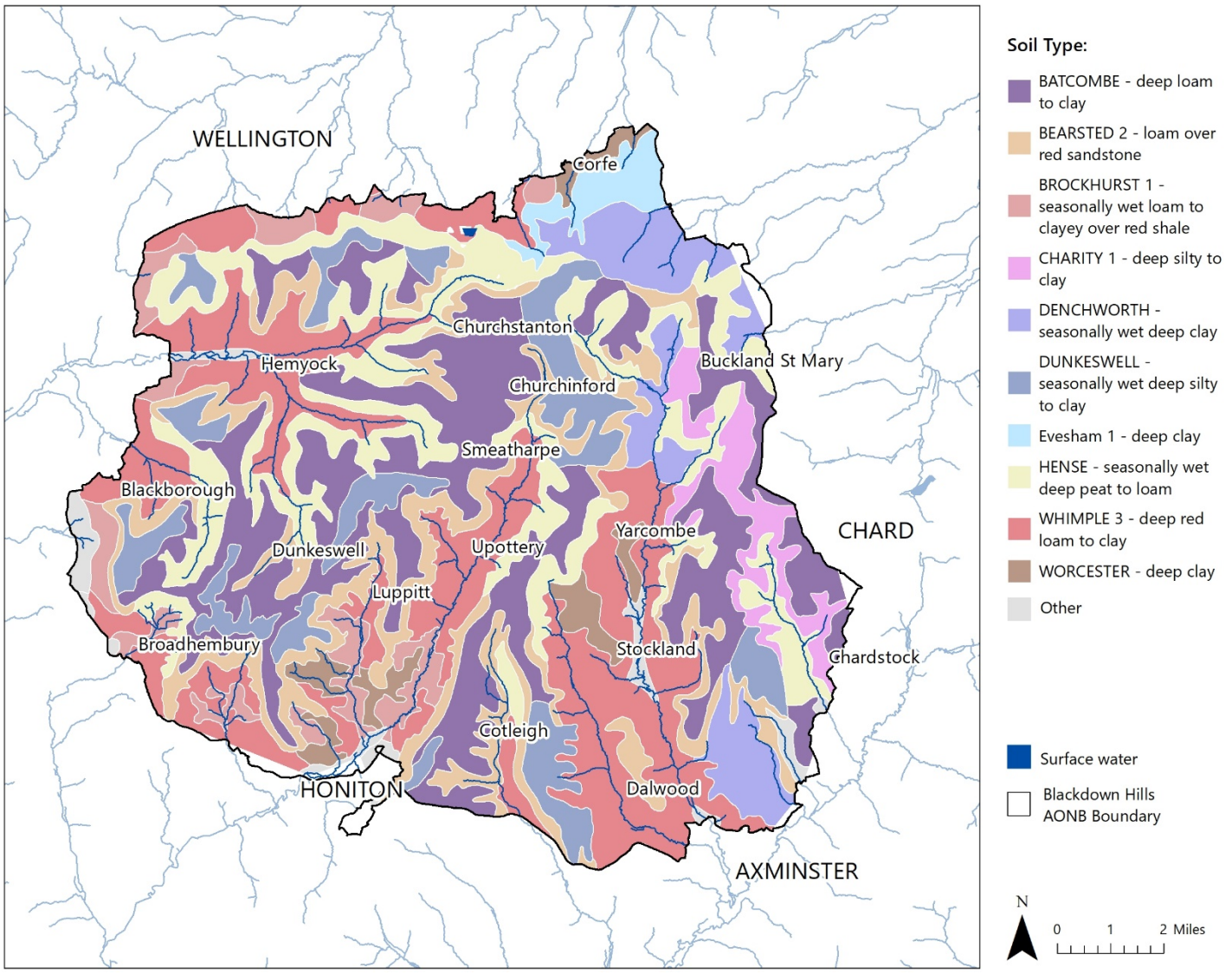
Crop Type	Area (ha)
Barley – Spring	208
Maize	1,036
Potato	73
Barley – Winter	365
Oats – Winter	96
Wheat – Winter	772
Oilseed – Winter	160
Triticale – Winter	22
Fallow Land	104

Crop Type	Area (ha)
Field beans – Spring	12
Peas – Spring	30
Field beans – Winter	53
Non-Agricultural Land	2,249
Permanent Grassland	26,178
Perennial Crops	863
Woodland	5,102

Soils

Habitat types: Fr Fa G H W U C

Ecosystem services:



Dominant soil association type mapped using Cranfield University NSRI's NATMAP Vector dataset. A complete list of data sources is included on pages 39 and 40.

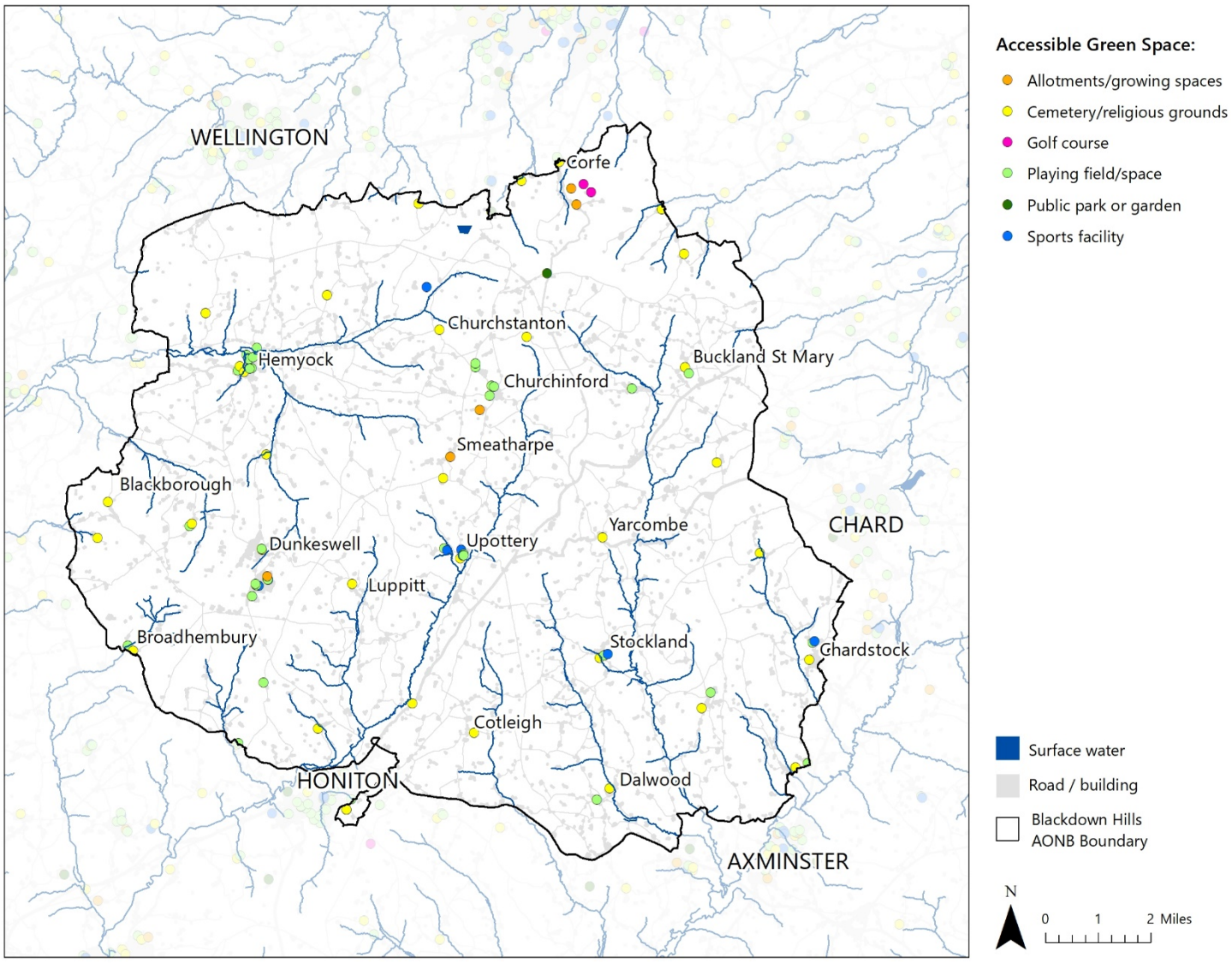
Soil Type	Area (ha)
BATCOMBE – deep loam to clay	7754
BEARSTED 2 - loam over red sandstone	4555
BROCKHURST 1 - seasonally wet loam to clayey over red shale	1652
CHARITY 1 - deep silty to clay	1187

Soil Type	Area (ha)
DENCHWORTH - seasonally wet deep clay	2181
DUNKESWELL - seasonally wet deep silty to clay	3186
Evesham 1 - deep clay	640
HENSE - seasonally wet deep peat to loam	5450
WHIMPLE 3 - deep red loam to clay	8403
WORCESTER - deep clay	938

Urban Natural Spaces

Habitat types: Fr Fa G H W **U** C

Ecosystem services:



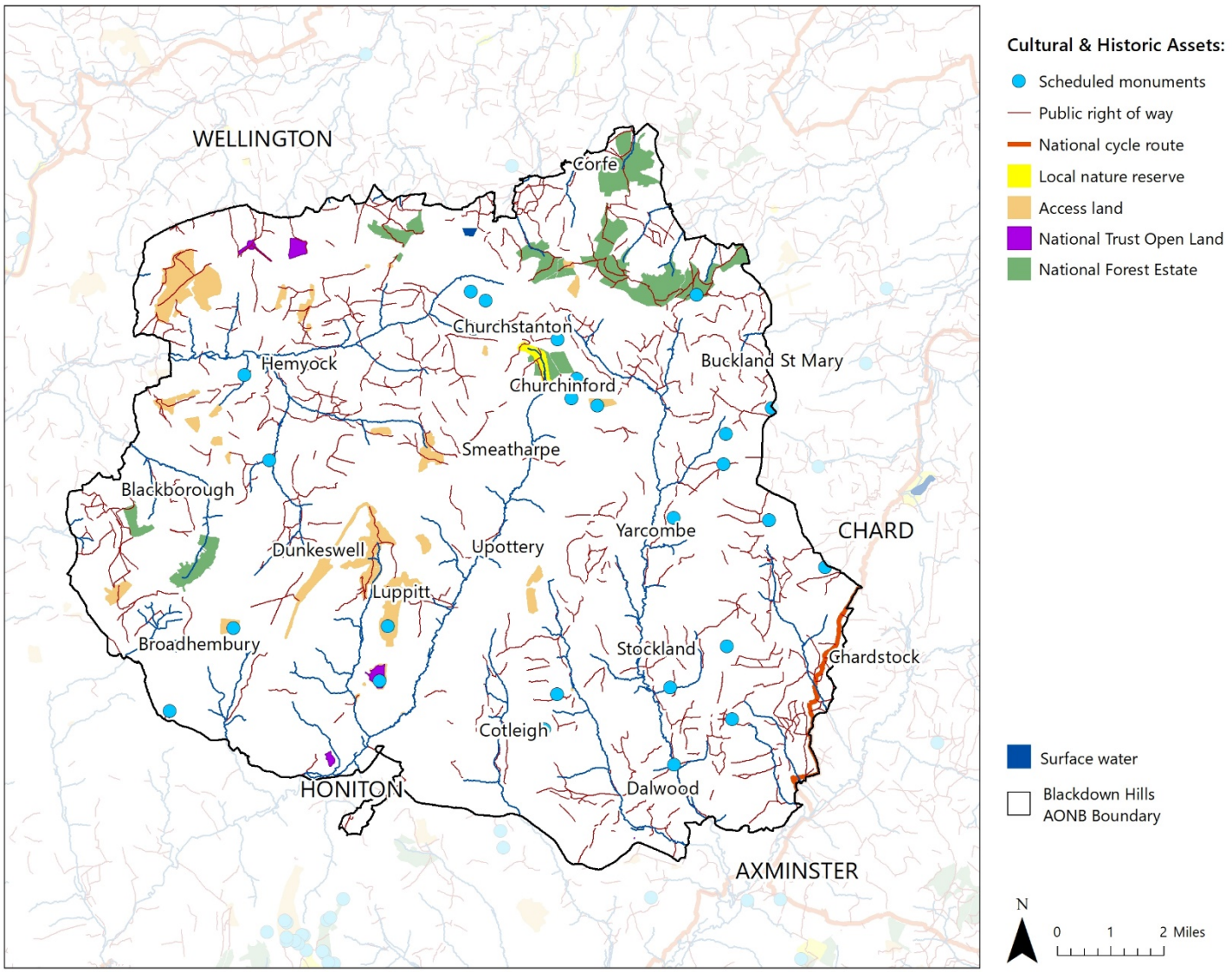
Accessible urban green spaces mapped using Ordnance Survey's Open Greenspace dataset. A complete list of data sources is included on pages 39 and 40.

Green Space Type	Count
Allotments/growing spaces	5
Cemetery/religious grounds	15
Golf course	40
Playing field/space	29
Public park or garden	3
Sports facility	2

Cultural & Historic Natural Spaces

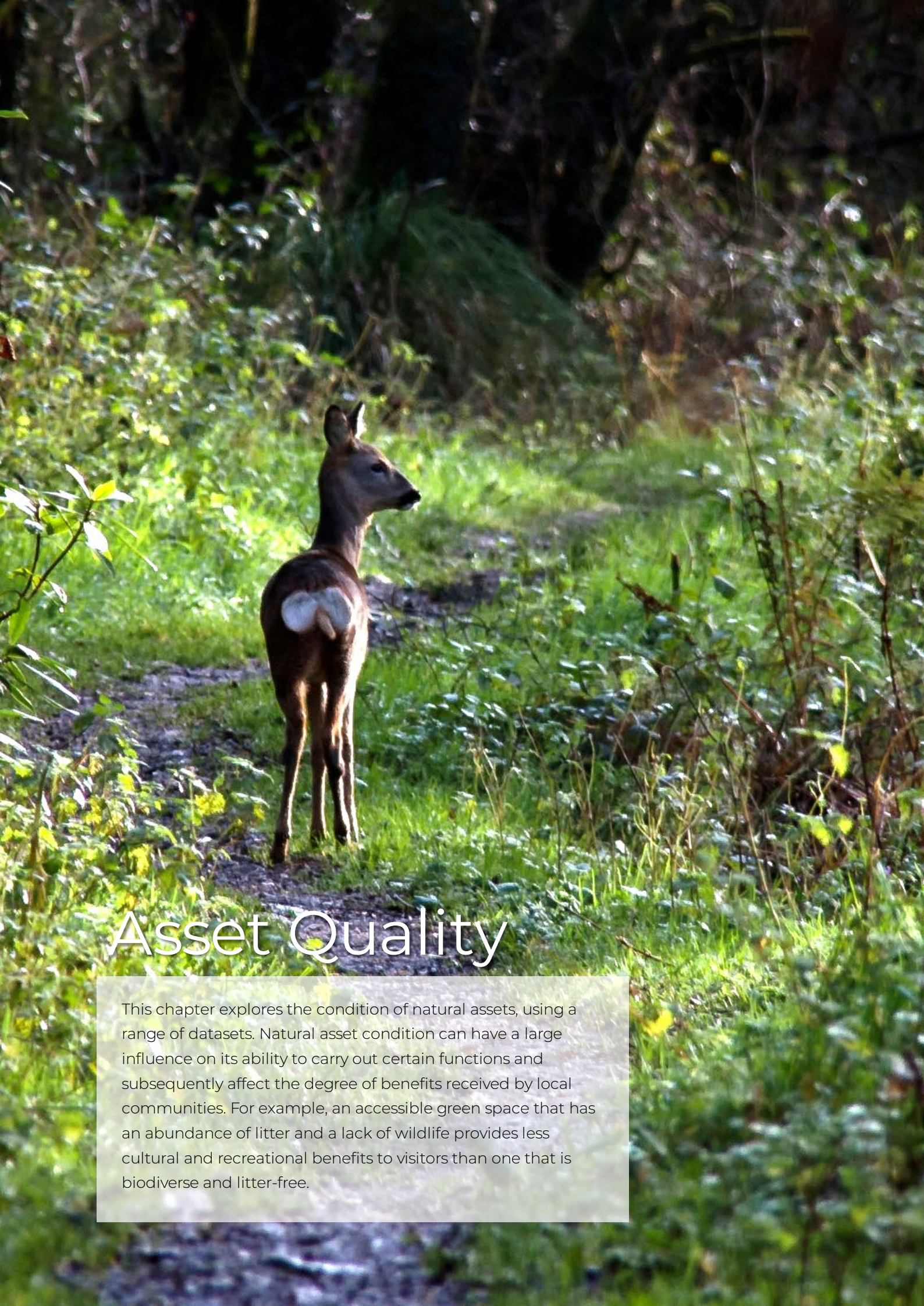
Habitat types: Fr Fa G H W U C

Ecosystem services:



Cultural and historic natural assets mapped using a range of datasets. A complete list of data sources is included on pages 39 and 40.

Asset Type	Count / length (m) / area (ha)
Scheduled monuments	26
Public right of way	435,027
National cycle route	4,547
Local nature reserve	22
Access land	641
National Trust Open Land	65
National Forest Estate	1,081



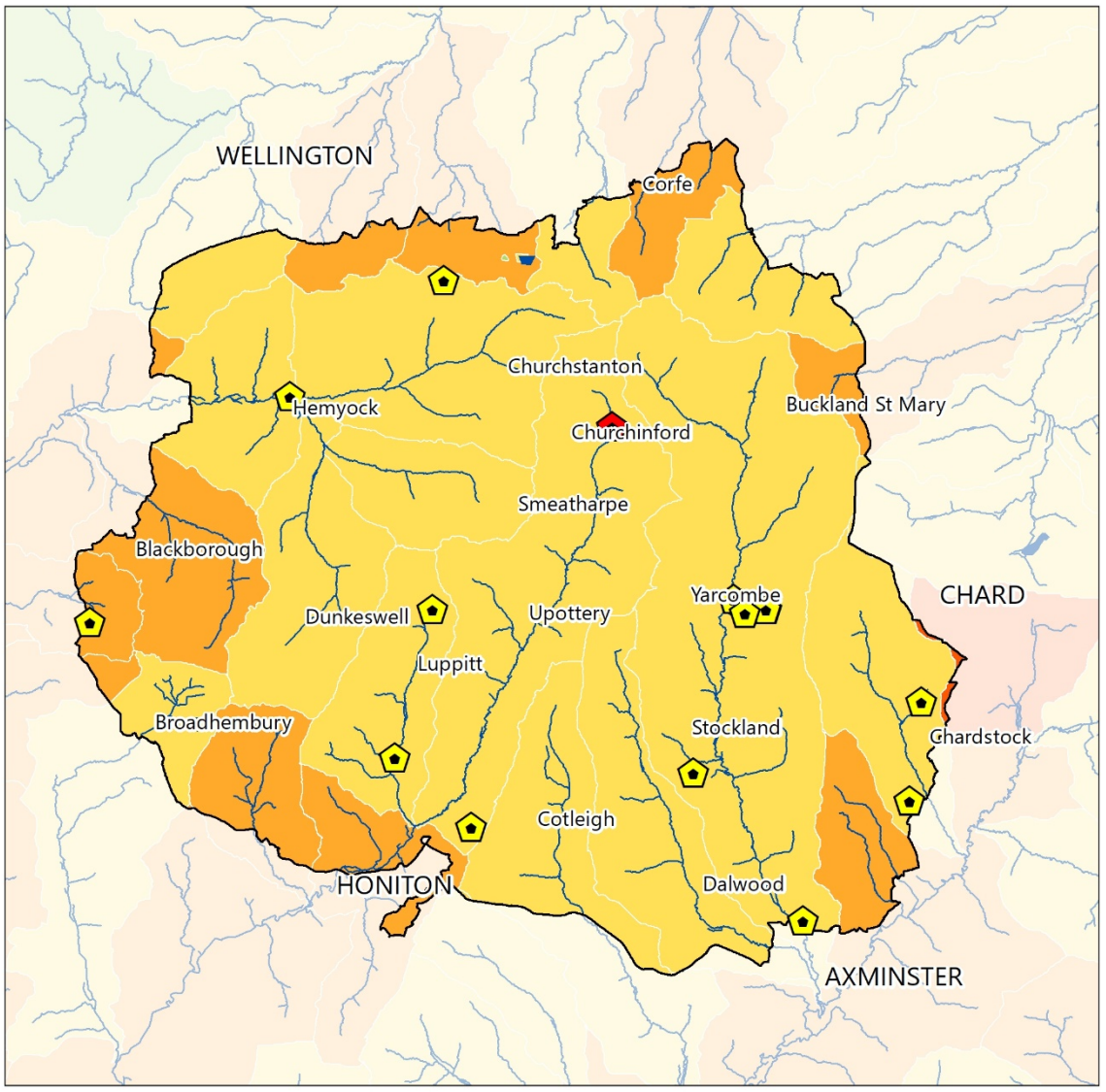
Asset Quality

This chapter explores the condition of natural assets, using a range of datasets. Natural asset condition can have a large influence on its ability to carry out certain functions and subsequently affect the degree of benefits received by local communities. For example, an accessible green space that has an abundance of litter and a lack of wildlife provides less cultural and recreational benefits to visitors than one that is biodiverse and litter-free.

Condition of Rivers

Habitat types: **Fr** Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

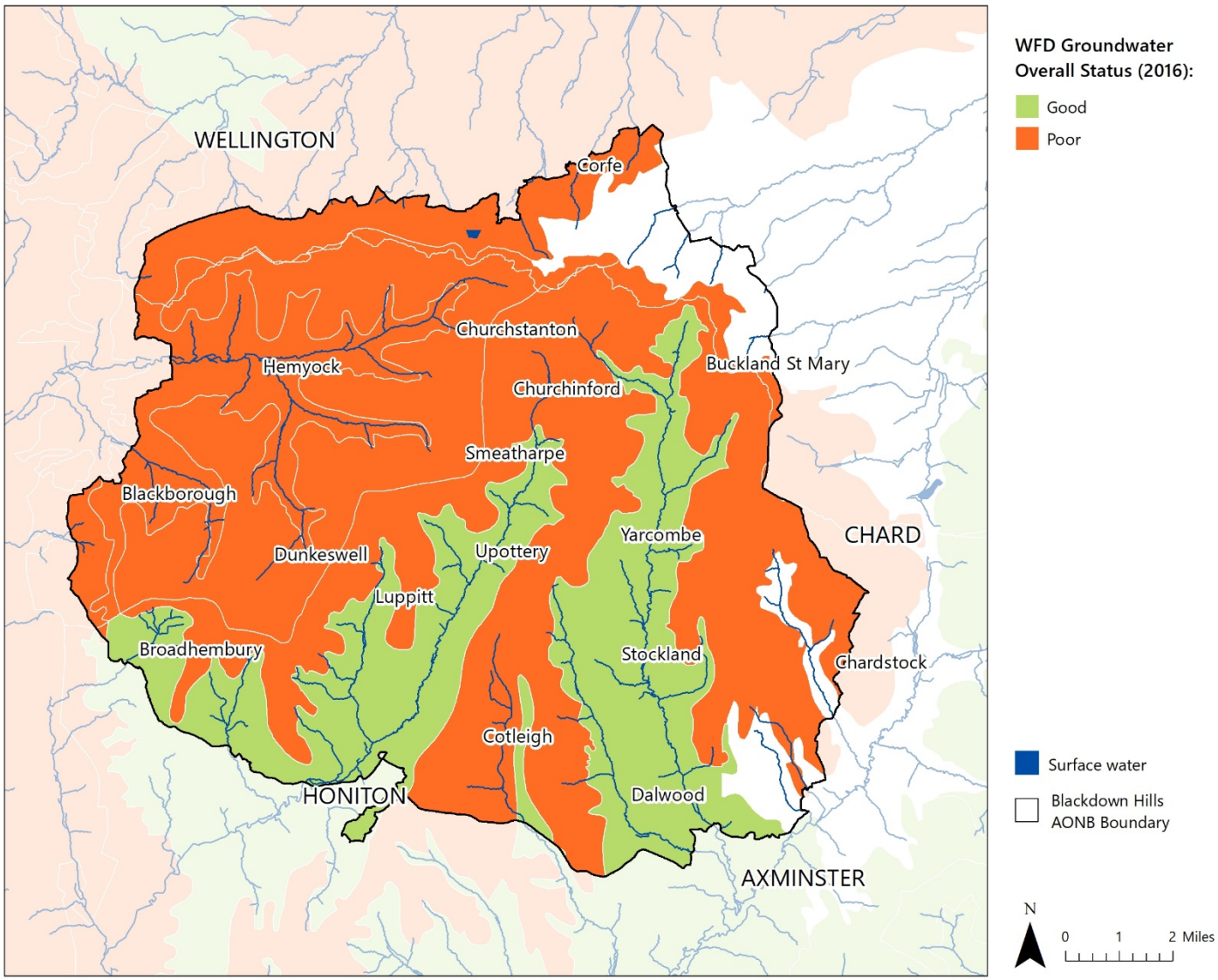
Pollution Incident Water Category	Count
Category 1 (Major)	1
Category 2 (Significant)	15

River Catchment Overall Status	Area (ha)
High	0
Good	2
Moderate	29,979
Poor	6,947
Bad	40

Condition of Groundwater

Habitat types: **Fr** Fa G H W U C

Ecosystem services:



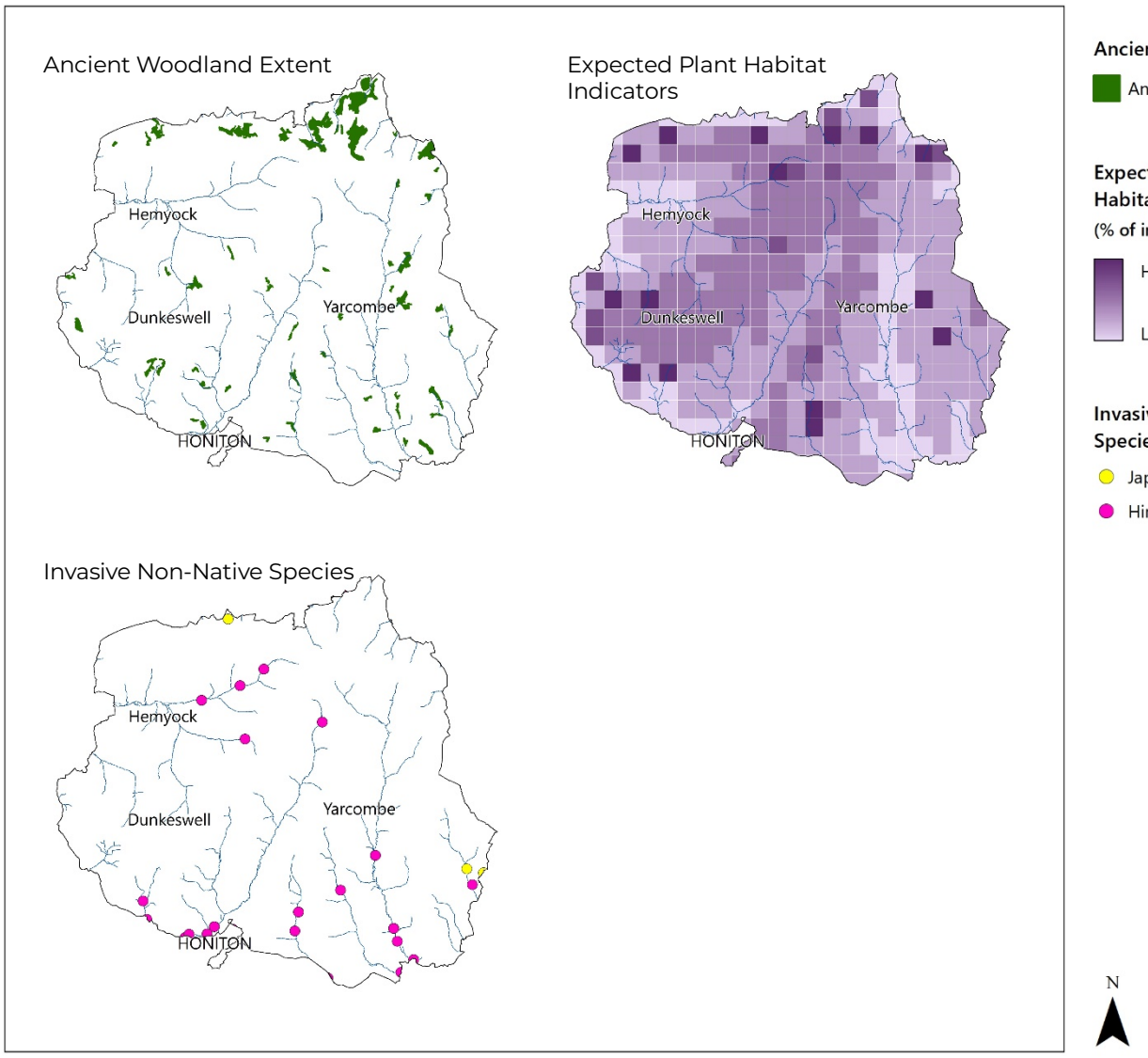
A complete list of data sources is included on pages 39 and 40.

Groundwater Overall Status	Area (ha)
Good	9454
Poor	25,166

Condition of Vegetation

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

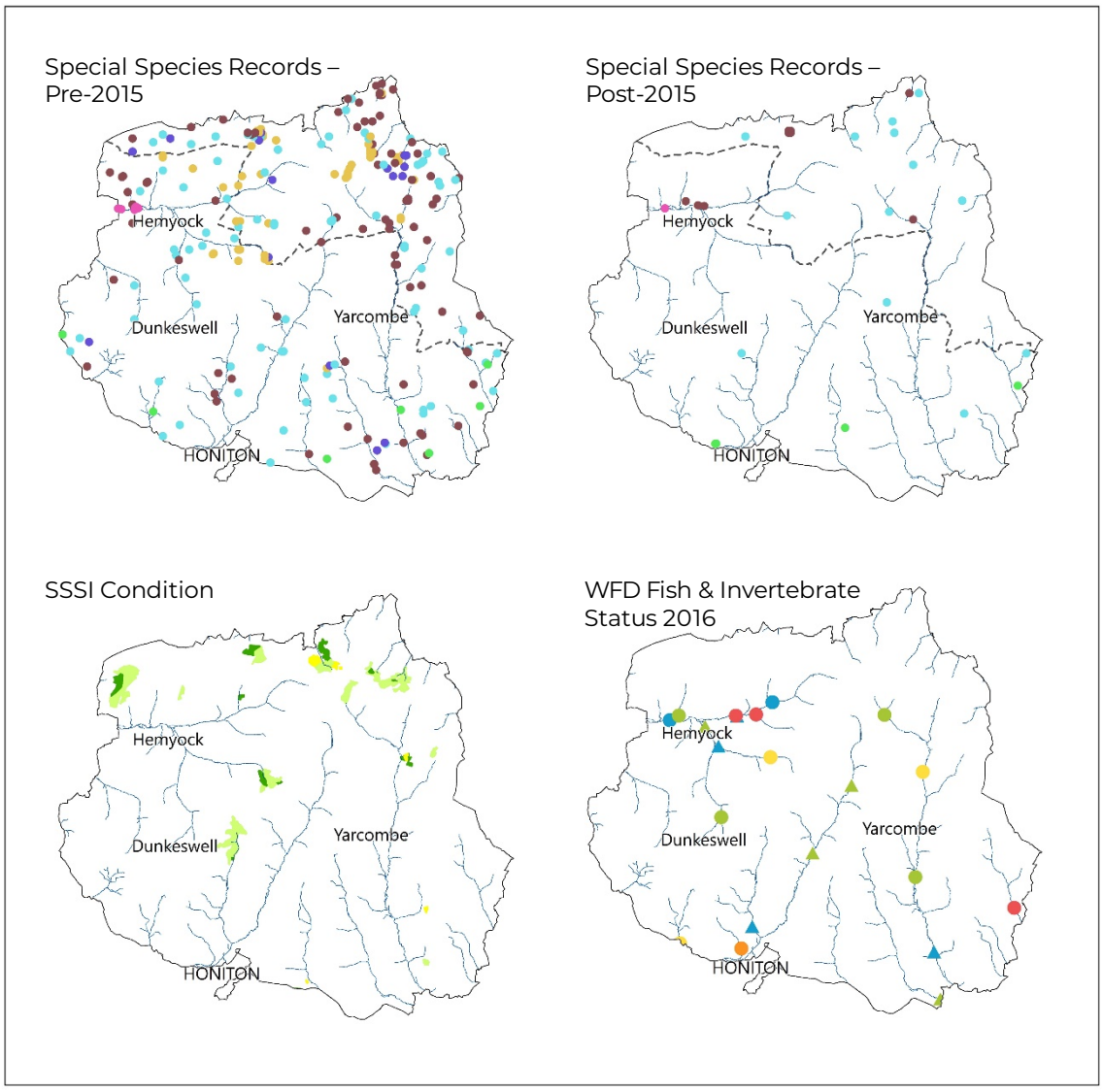
Ancient Woodland	Area (ha)
Ancient woodland	867

Species	Count
Japanese Knotweed	2
Himalayan Balsam	40

Condition of Habitats for Wildlife

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40. Please note: the collection of Special Species Records varies between the counties of Somerset and Devon.

Species	Pre-2015	Post-2015
Greater Horseshoe Bat	9	6
Brown Hairstreak	179	12
Hazel Dormouse	420	129
Marsh Fritillary	46	0
Pearl-bordered Fritillary	298	0
White-clawed Freshwater Crayfish	51	2

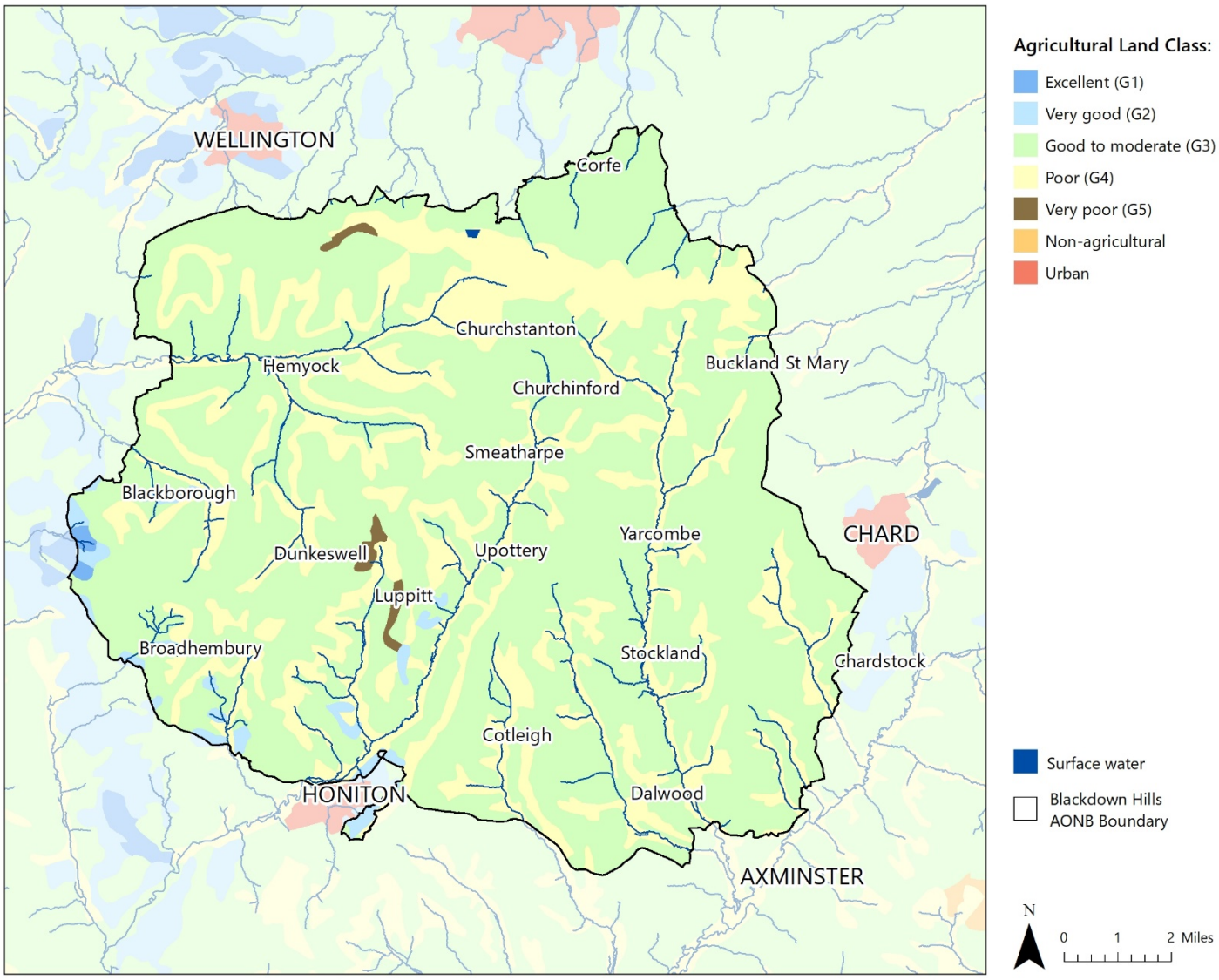
Classification	Fish	Invertebrate
High	2	4
Good	4	4
Moderate	2	0
Poor	1	0
Bad	3	0

SSSI Condition	Area (ha)
Favourable	122
Unfavourable – recovering	477
Unfavourable – no change	40

Condition of Agricultural Land

Habitat types: Fr **Fa** G H W U C

Ecosystem services:



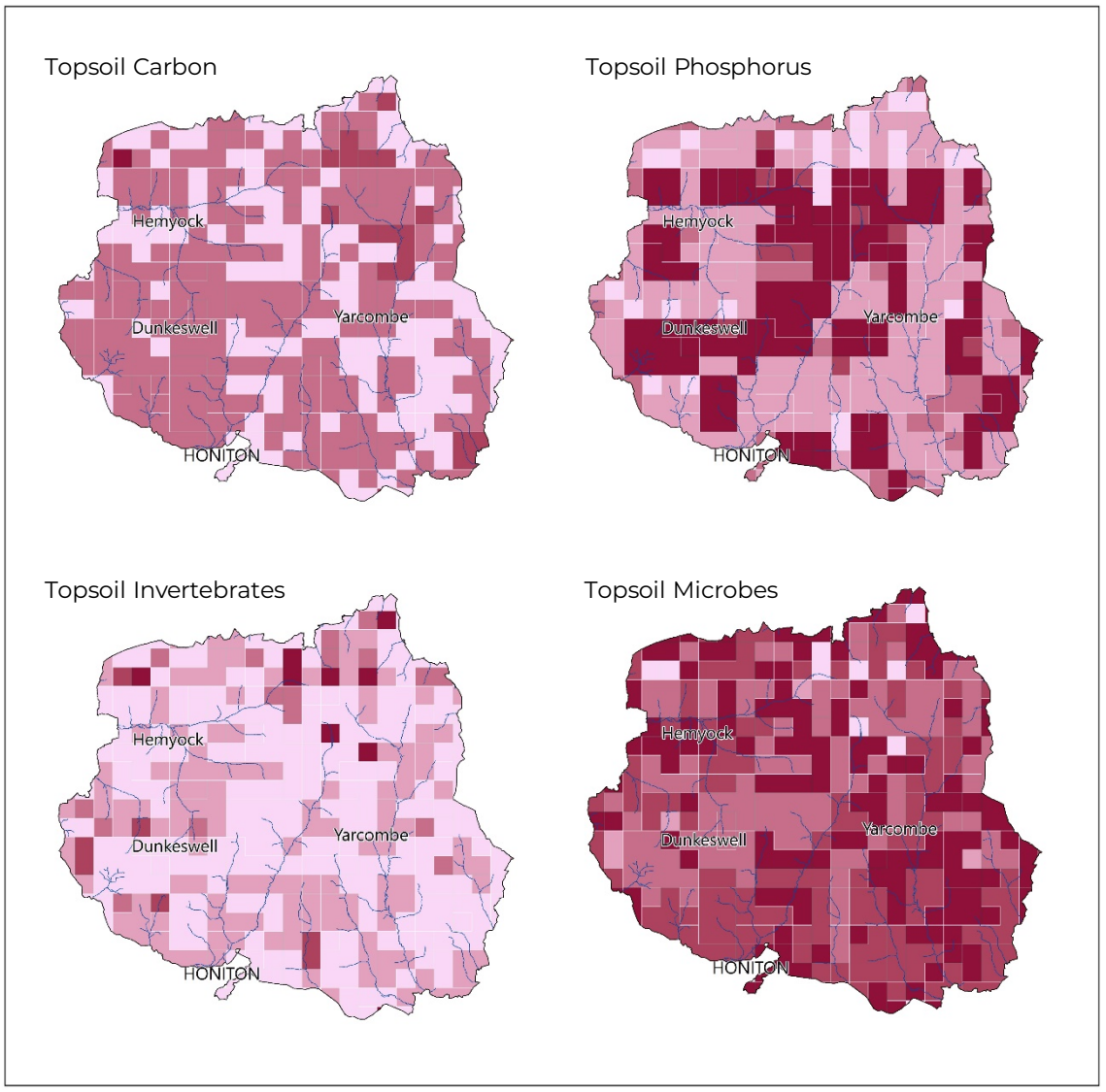
A complete list of data sources is included on pages 39 and 40.

Agricultural Land Class	Area (ha)
Excellent	68
Very good	533
Good to moderate	25,894
Poor	10,295
Very poor	168
Non-agricultural	0
Urban	0

Condition of Soil

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

Natural England & UKCEH Natural Capital Maps

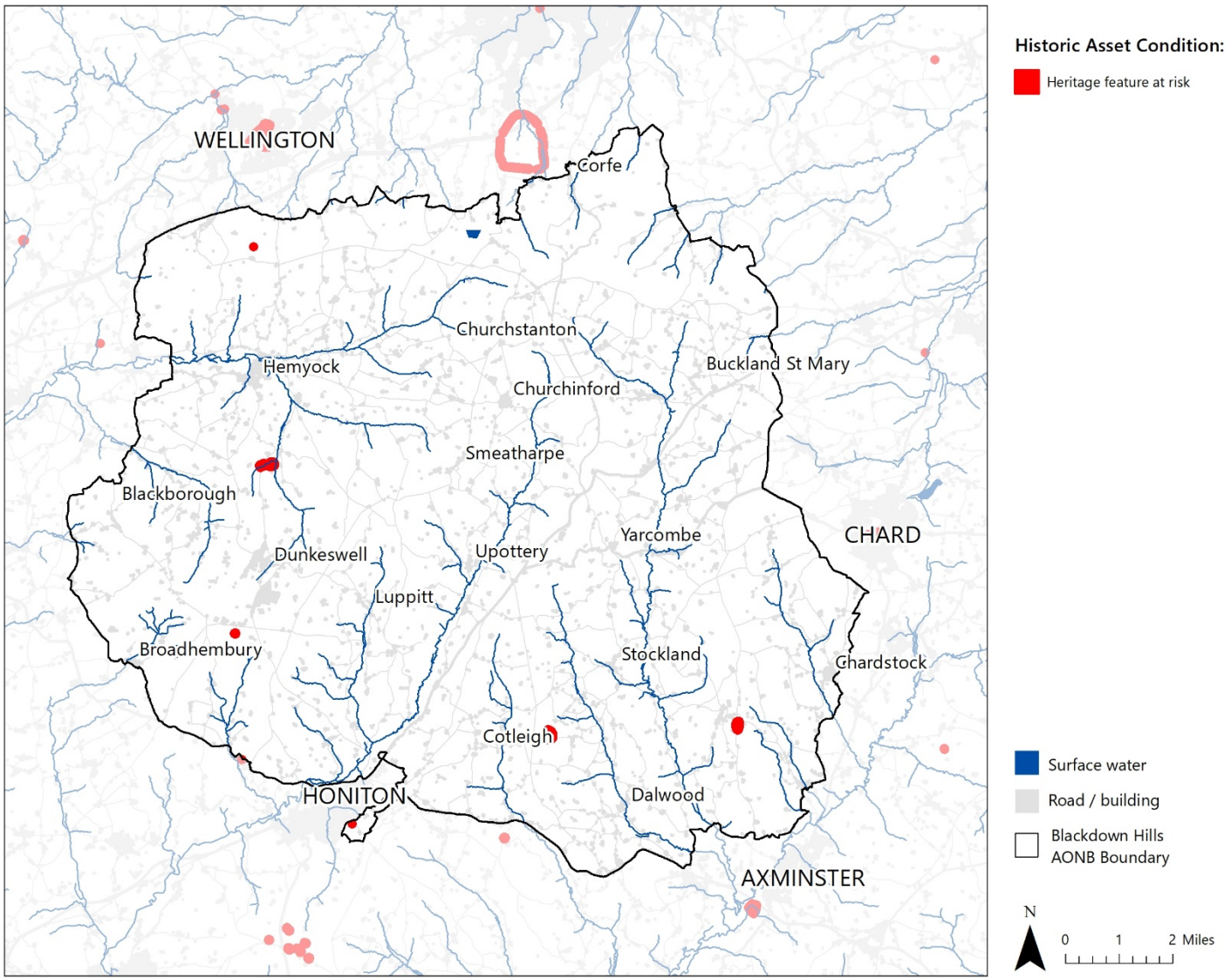
In 2016, Natural England and UKCEH collaborated on a project to produce a suite of England-wide natural capital maps, at a 1km scale. The mapping used CEH's EcoMap tool and incorporated additional datasets (including CEH Countryside Survey sample data) to produce maps of natural capital and their underpinning ecosystem services. The suite of ten maps include; soil carbon, soil nitrogen, soil pH soil phosphorus, soil bacteria, soil invertebrates, headwater stream quality, carbon in vegetation, nectar plant diversity for bees, and plant indicators for habitats in good condition.

More information can be found here:
https://eip.ceh.ac.uk/naturalengland-ncmaps/reportsData

Condition of Historic Assets

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

Historic Asset:	Count
Scheduled Monument	12

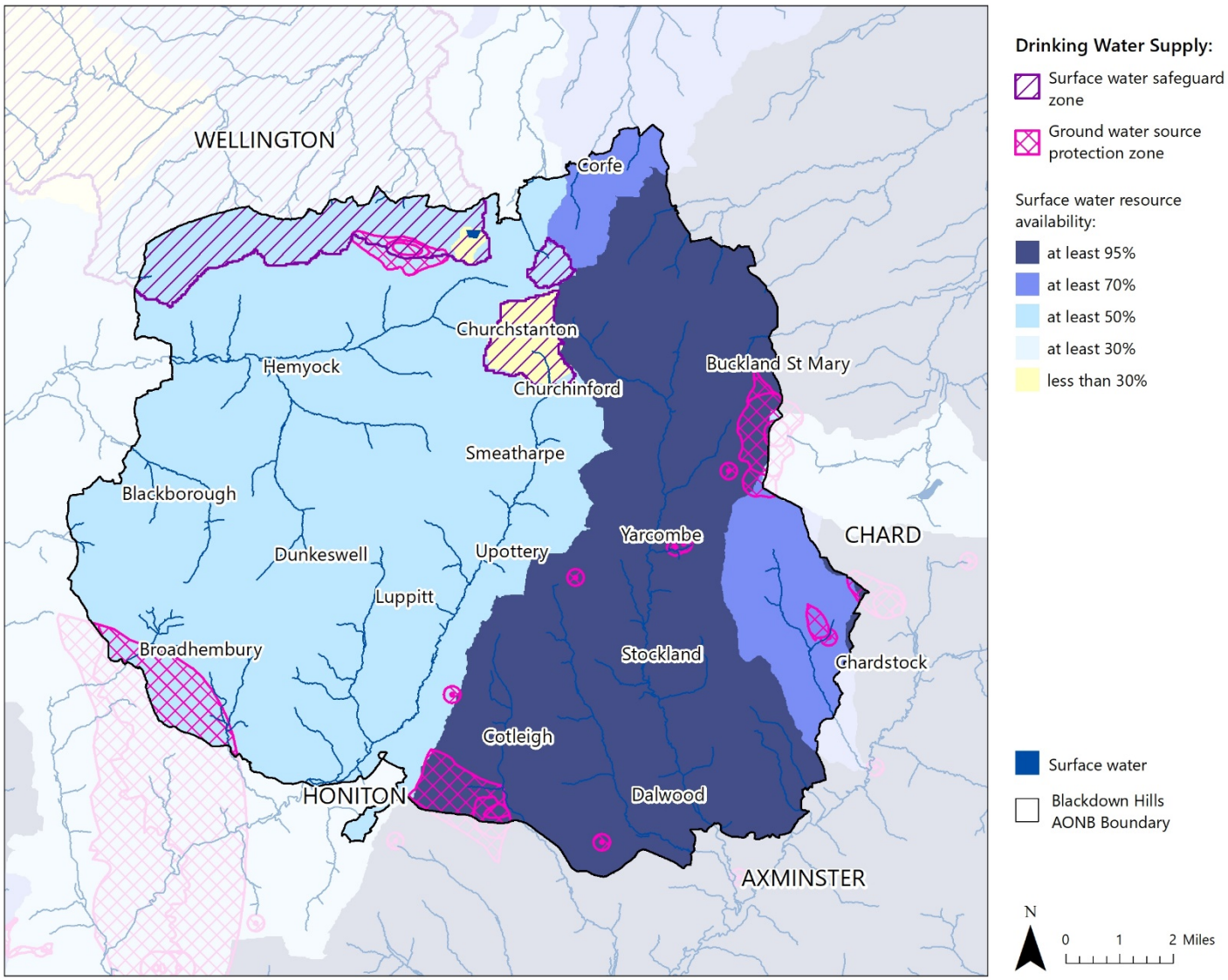
Ecosystem Services & Benefits

While previous chapters have focused on the natural assets themselves, this chapter explores the level of ecosystem services provided by different natural assets and the benefits (or lack of benefits) they provide to local communities.

Drinking Water Supply

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

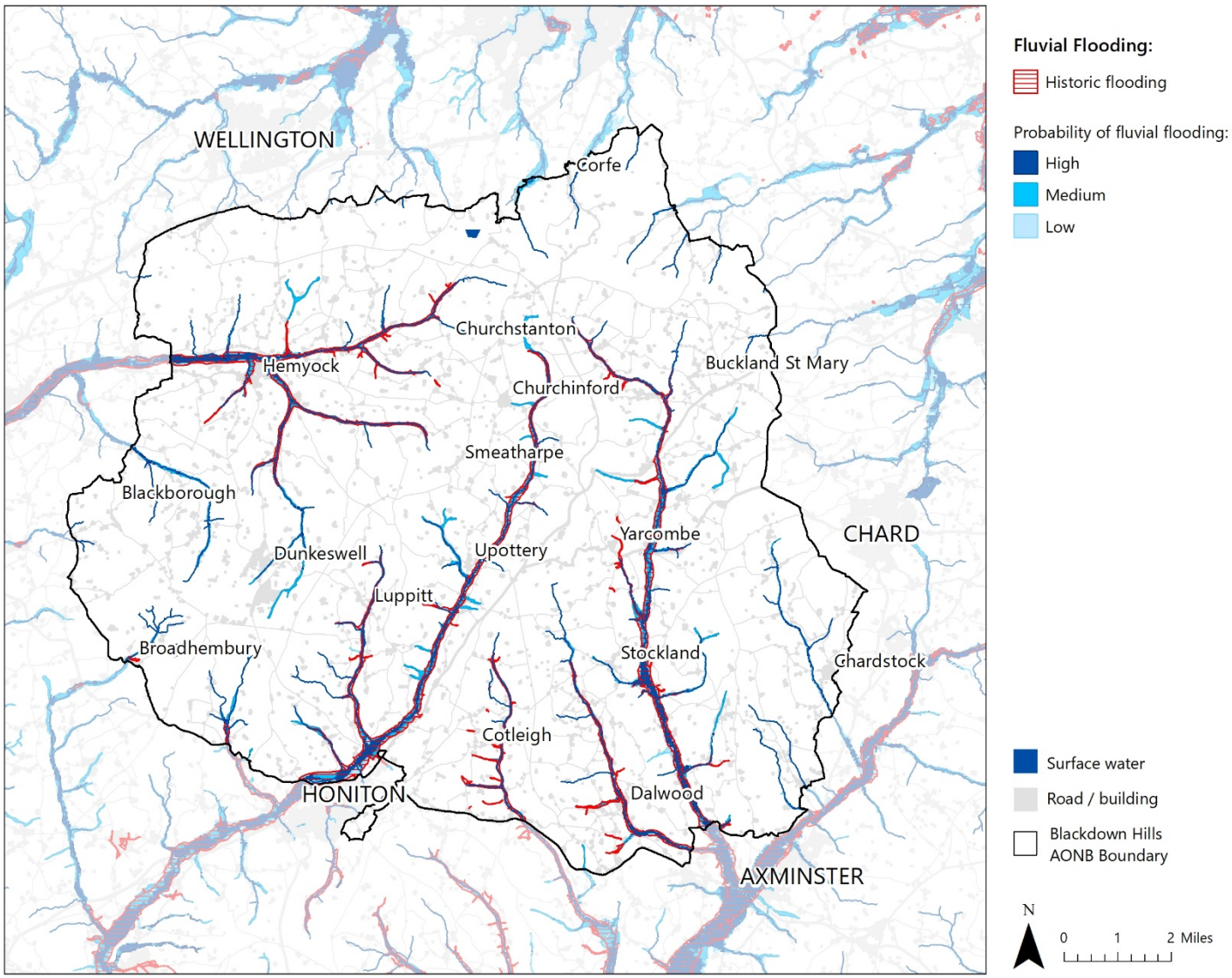
Drinking Water Supply	Area (ha)
Surface water safeguard zone	2,273
Ground water source protection zone	2,656

Surface water resource availability	Area (ha)
At least 95%	13,501
At least 70%	2,619
At least 50%	20,278
At least 30%	0
Less than 30%	560

Flood Risk (Fluvial)

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

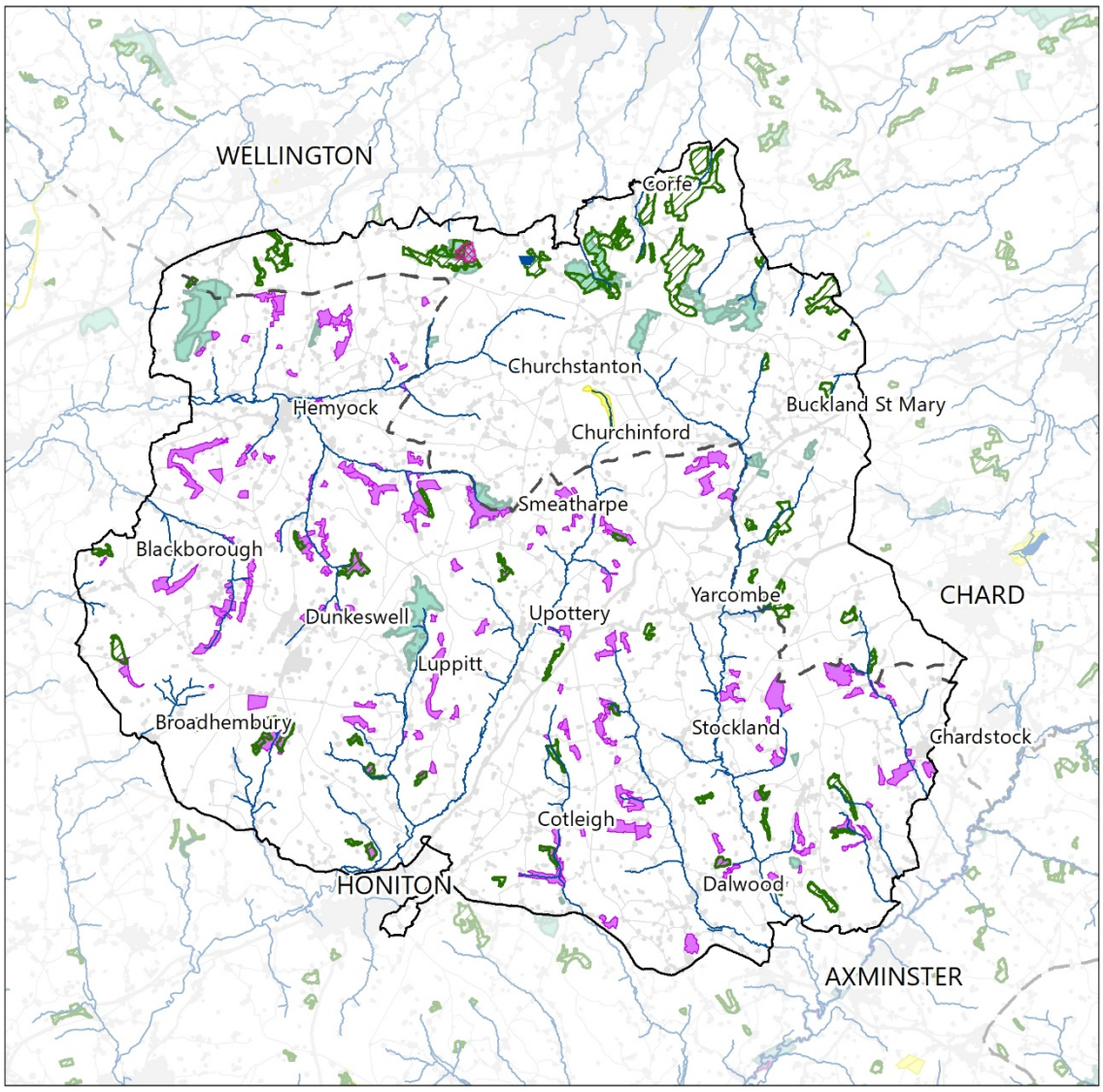
Fluvial Flooding	Area (ha)
Historic flooding	1,019

Probability of fluvial flooding	Area (ha)
High	549
Medium	453
Low	351

Biodiversity

Habitat types: Fr Fa G H W U C

Ecosystem services:



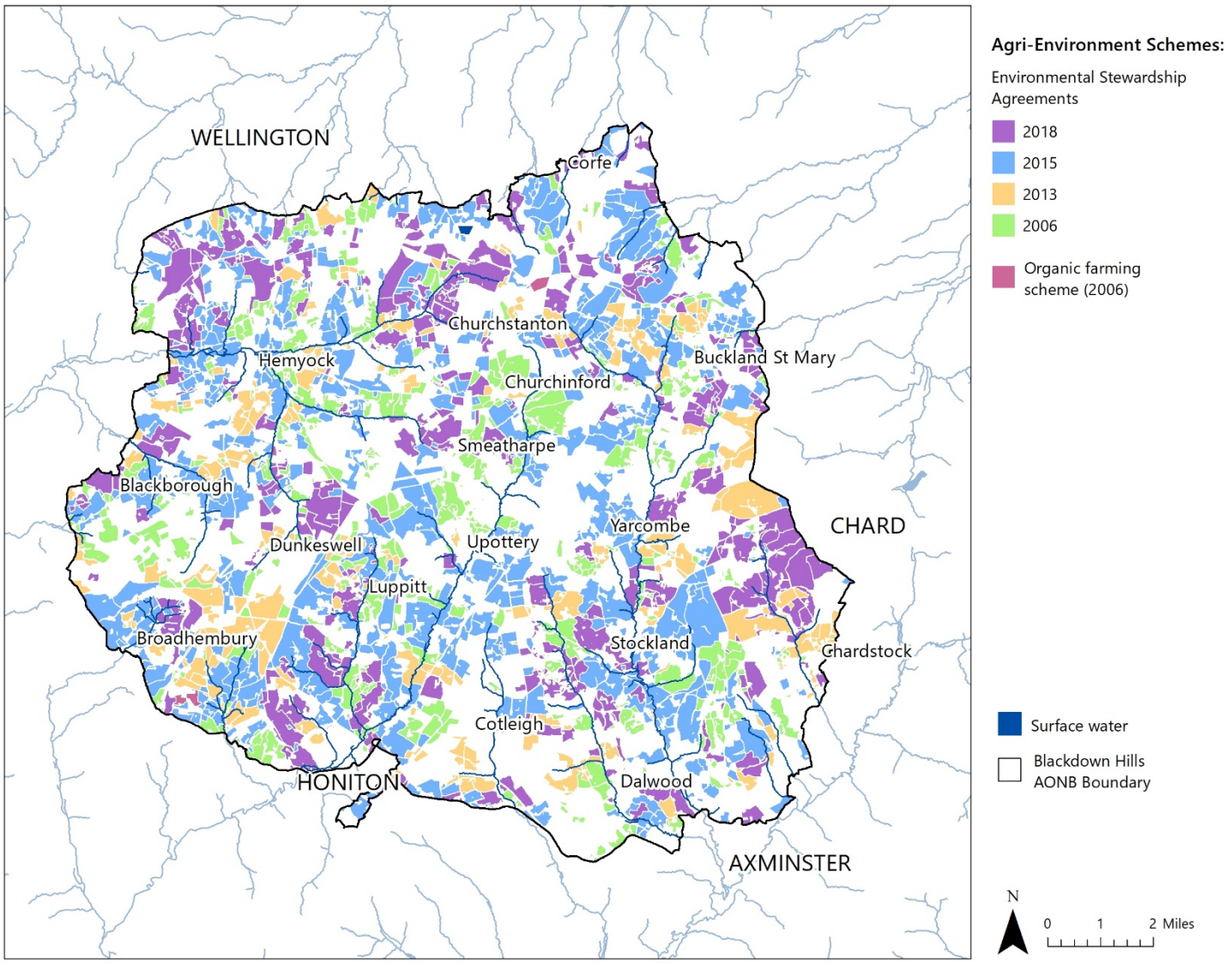
A complete list of data sources is included on pages 39 and 40.

Wildlife Sites	Area (ha)
Special Area of Conservation	20
Ancient woodland	867
SSSI	639
Local nature reserve	22
County Wildlife Site (Devon)	1,251

Materials, Crops and Livestock

Habitat types: Fr Fa G H W U C

Ecosystem services:



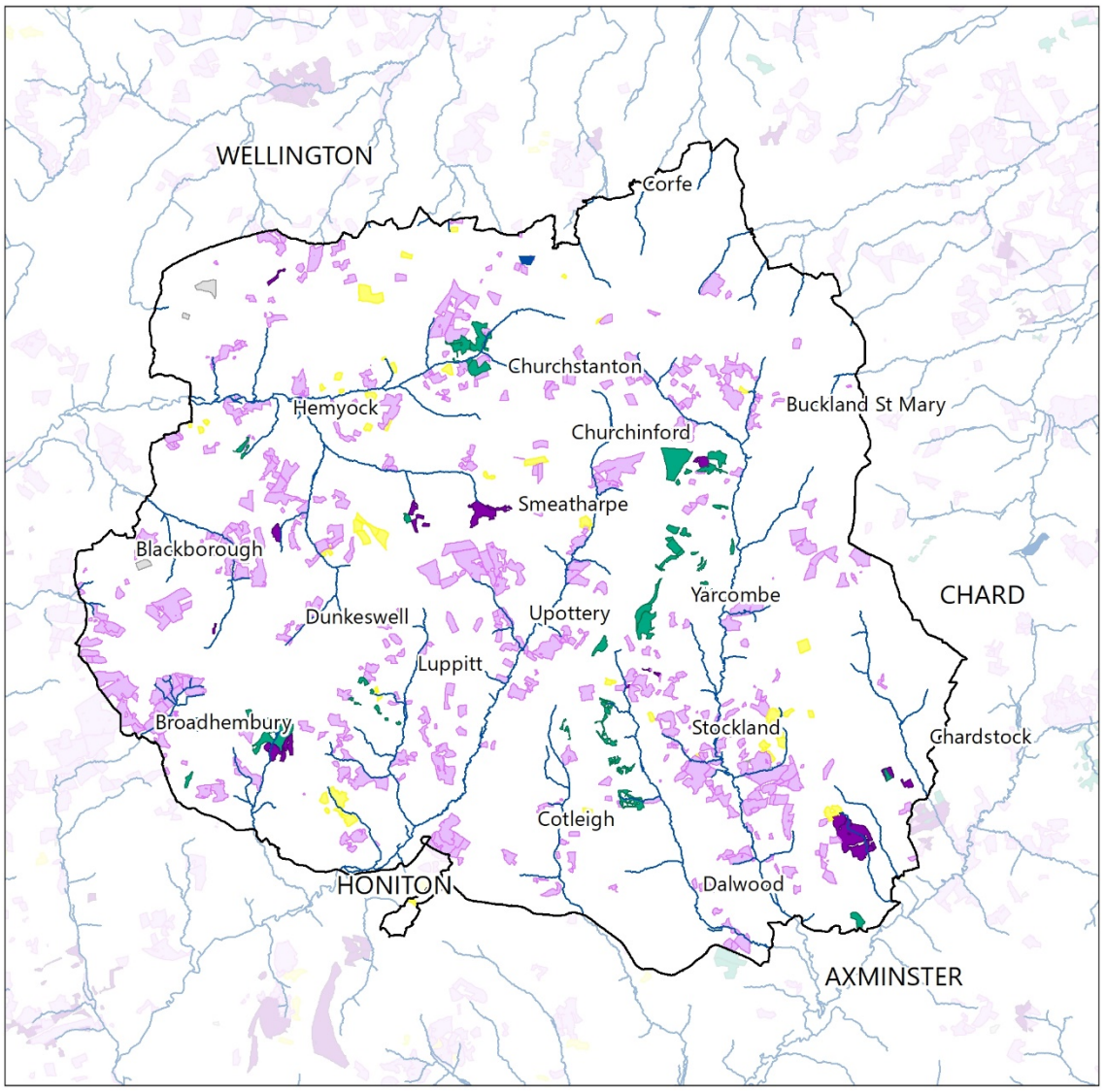
A complete list of data sources is included on pages 39 and 40.

Environmental Stewardship Agreements	Area (ha)
2018	5,376
2015	14,043
2013	12,581
2006	11,452
Organic farming scheme	492

Materials, Crops and Livestock (cont.)

Habitat types: Fr Fa G H W U C

Ecosystem services:



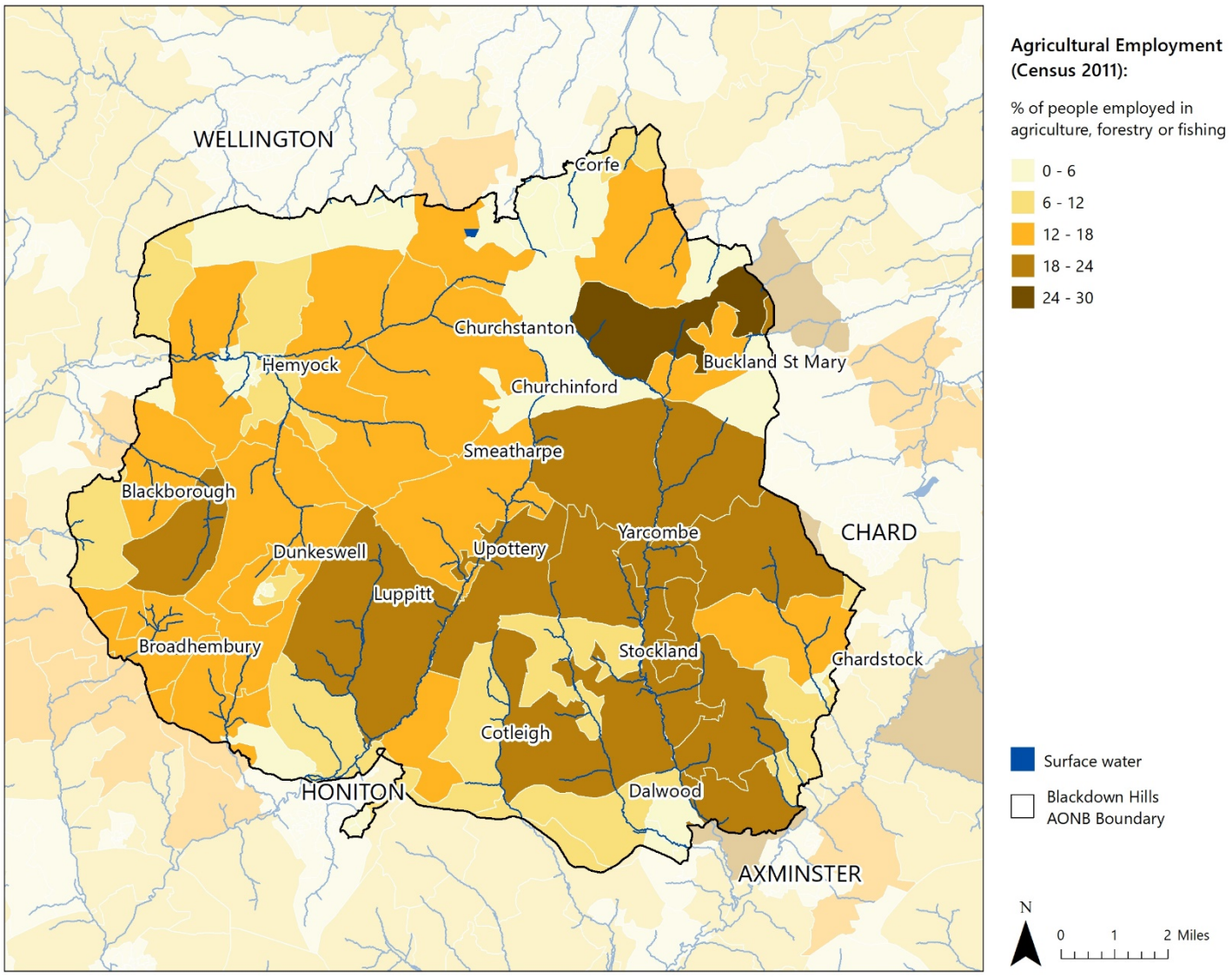
A complete list of data sources is included on pages 39 and 40.

Countryside Stewardship Scheme Uptake	Area (ha)
Countryside Stewardship (Higher Tier)	223
Countryside Stewardship (Middle Tier)	4,029
Hedgerows & boundaries	210
Woodland management plan	322
Other	0

Materials, Crops and Livestock (cont.)

Habitat types: Fr Fa G H W U C

Ecosystem services:



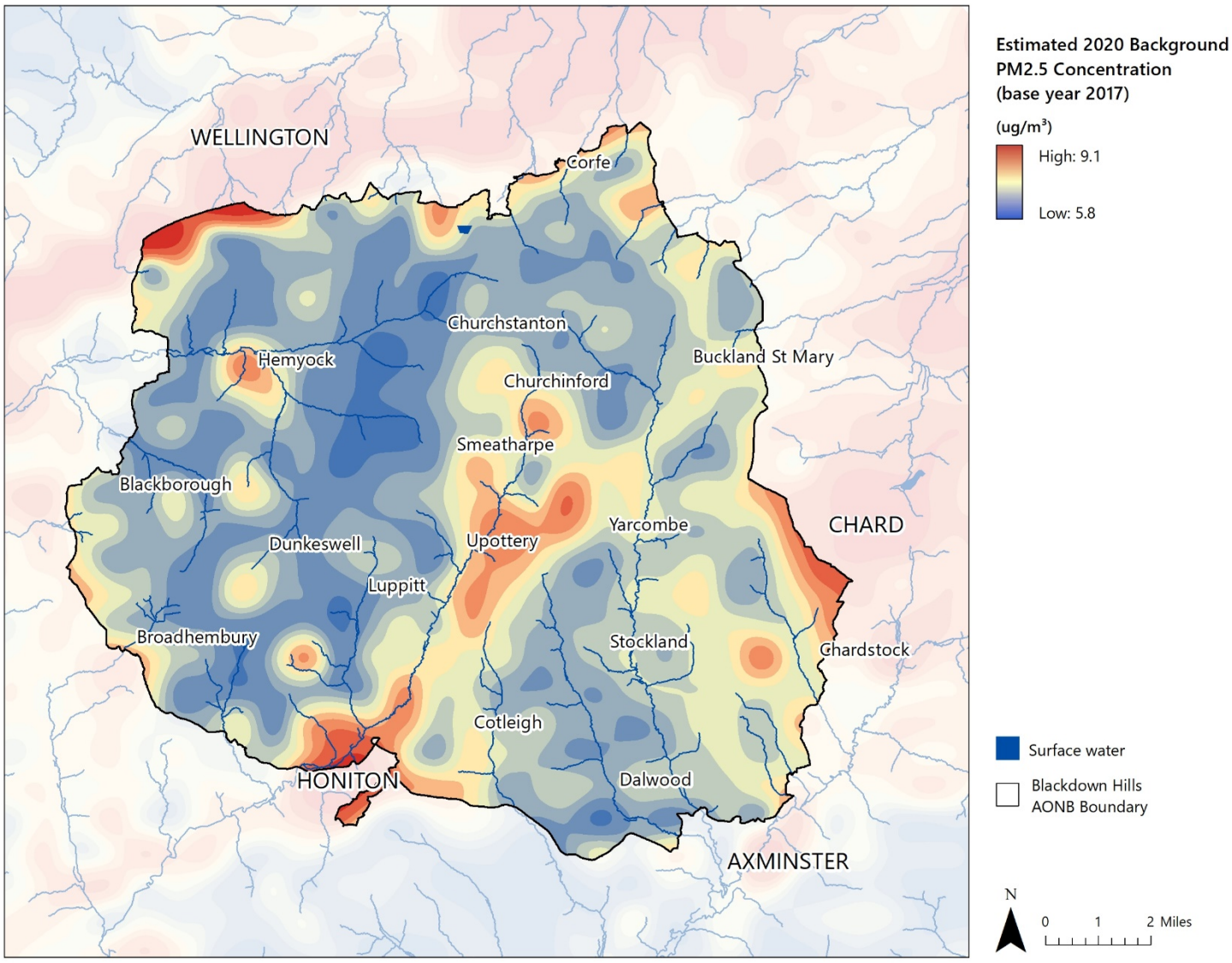
A complete list of data sources is included on pages 39 and 40.

Agricultural Employment	Area (ha)
0 – 6	4,307
6 – 12	5,746
12 – 18	14,003
18 – 24	11,887
24 – 30	1,016

Air Quality

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

Defra UK-AIR Background Air Quality

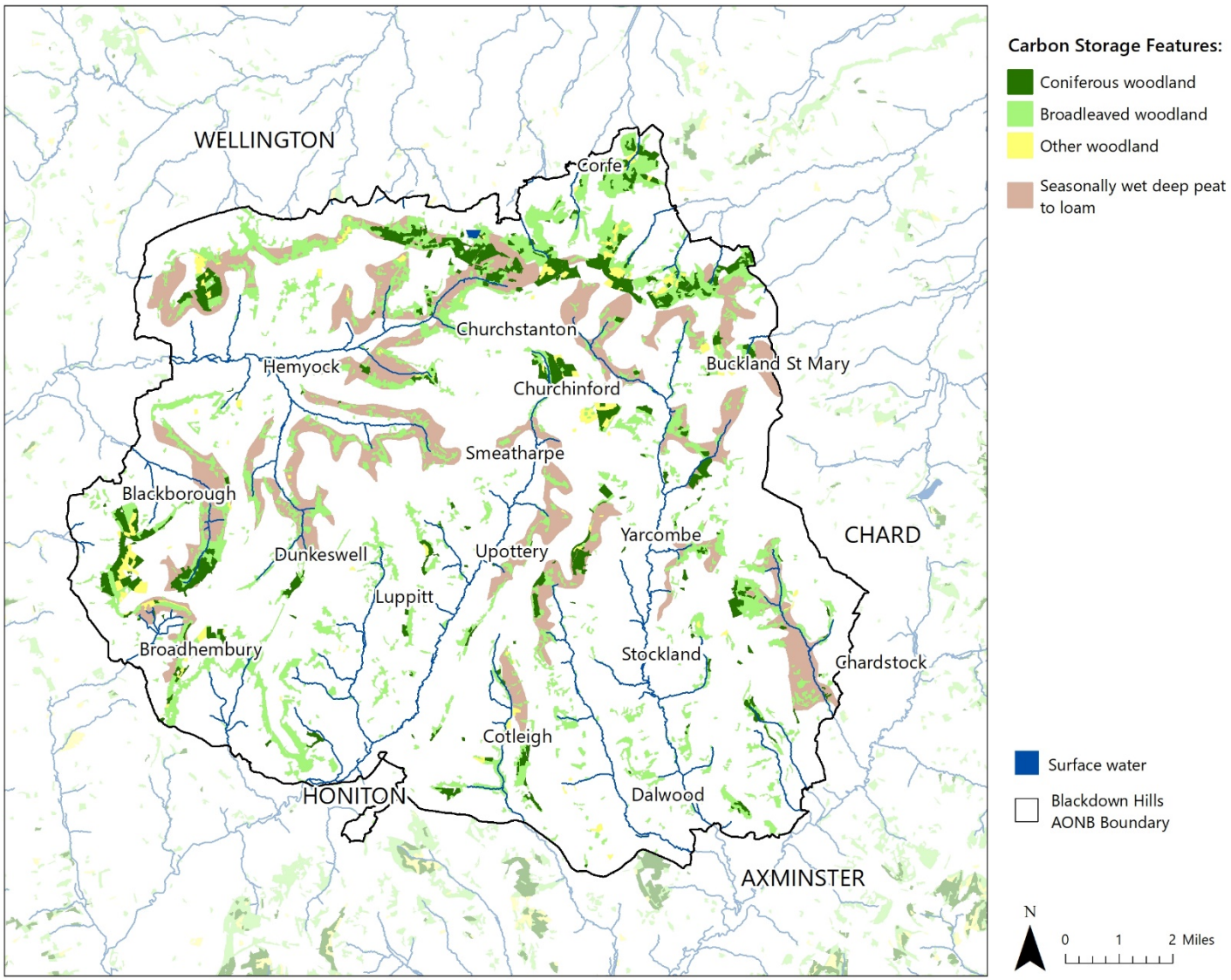
Defra UK-AIR provides a range of air quality datasets including 2017-based background maps for years 2017 to 2030 for NO_x, NO_2, PM_{10} and $PM_{2.5}$. The 2017 reference year background maps are based on monitoring and meteorological data for 2017.

More information can be found here:
https://uk-air.defra.gov.uk/data/laqm-background-home

Carbon Storage

Habitat types: Fr Fa G H W U C

Ecosystem services:



A complete list of data sources is included on pages 39 and 40.

Carbon Storage Features	Area (ha)
Coniferous woodland	1,189
Broadleaved woodland	3,892
Other woodland	318
Seasonally wet deep peat to loam	5,450

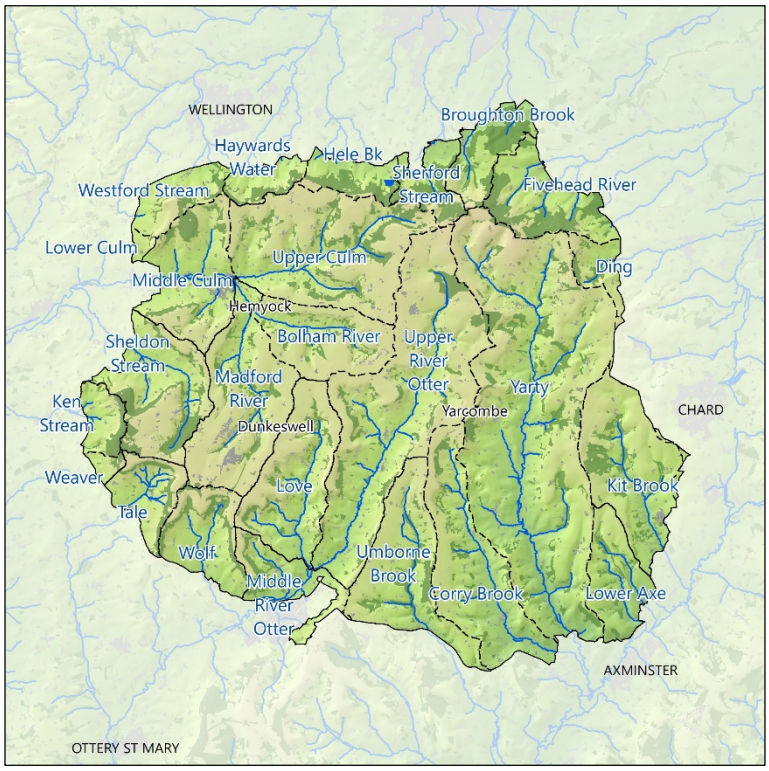
Priority Areas for Action

This chapter reviews and summarises the key datasets that have been presented in previous chapters. After considering the quantity and quality of natural assets, as well as the ecosystem services and benefits they provide, the next step is to identify priority areas for action. The maps will support project partners in their decision-making process, regarding where to focus the farm advice and engagement activities being carried out as part of the ELMS trial.

Mapping Priority Areas for Action

The maps and datasets presented throughout this report are important for understanding natural capital within the Blackdown Hills AONB. This information collectively provides a broad understanding of spatial patterns in the character and condition of natural assets and the services they provide.

The next step is to use this collection of data to identify priority areas for action on the ground. To support this decision-making process, the following pages present some of the key datasets, summarised by hydrological catchment boundaries (a useful spatial unit for environmental management) and classified into five priority classes; very high; high; medium; low; very low. This mapping exercise allows the user to quickly visualise and compare broad patterns across a collection of datasets. It is not intended to replace closer inspection of previous maps and data.

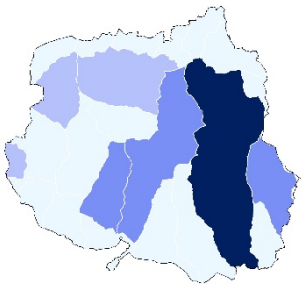


The map above shows the hydrological catchment boundaries (WFD river water body catchments) used in this mapping exercise.

Water Quality

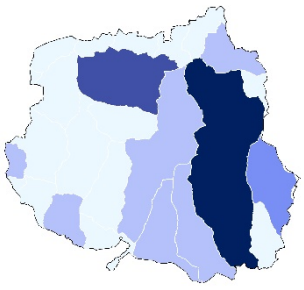
WFD river overall status (2016).

Priority class		
Very high	-	Bad
High	-	Poor
Medium	-	Moderate
Low	-	Good
Very low	-	High



No. of category 1+2 pollution incidents (2001-18).

Priority class		
Very high	-	>3
High	-	3
Medium	-	2
Low	-	1
Very low	-	0



Area of maize (2019) (ha).

Priority class		
Very high	-	>160
High	-	120-160
Medium	-	80-120
Low	-	40-80
Very low	-	0-40

Priority Class:

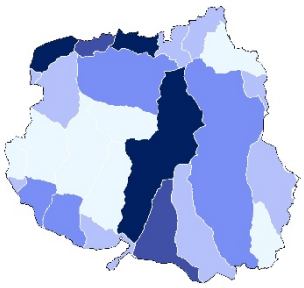
- Very high
- High
- Medium
- Low
- Very low

Mapping Priority Areas for Action

Water Resources

Surface water resource availability (% of time).

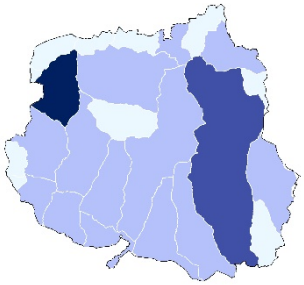
Priority class		
Very high	-	Less than 30%
High	-	At least 30%
Medium	-	At least 50%
Low	-	At least 70%
Very low	-	At least 95%



Area of drinking water protected areas (ha).

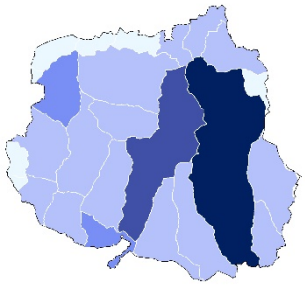
Priority class		
Very high	-	>450
High	-	300-450
Medium	-	150-300
Low	-	0-150
Very low	-	0

Flood Risk



No. of properties at fluvial flood risk.

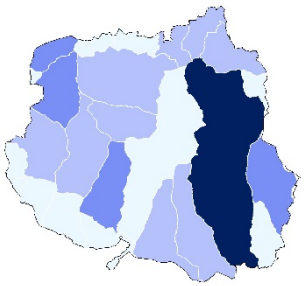
Priority class		
Very high	-	>90
High	-	60-90
Medium	-	30-60
Low	-	0-30
Very low	-	0



Area of agricultural land at fluvial flood risk (ha).

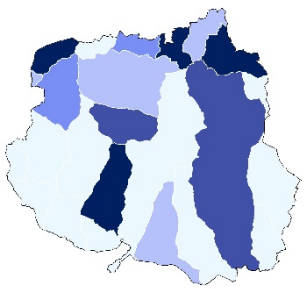
Priority class		
Very high	-	>210
High	-	140-210
Medium	-	70-140
Low	-	0-70
Very low	-	0

Habitats and Biodiversity



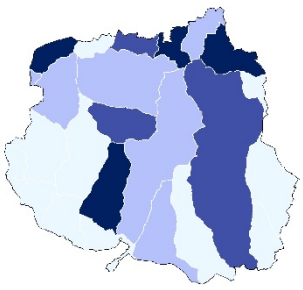
Area of priority habitats (ha).

Priority class		
Very high	-	>280
High	-	210-280
Medium	-	140-210
Low	-	70-140
Very low	-	0-70



Area of unfavourable SSSI condition (ha).

Priority class		
Very high	-	>60
High	-	400-60
Medium	-	20-40
Low	-	0-20
Very low	-	0



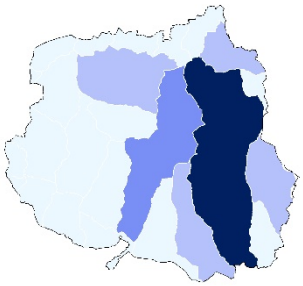
Area of wildlife designations (ha)

Priority class		
Very high	-	>90
High	-	60-90
Medium	-	30-60
Low	-	0-30
Very low	-	0

Mapping Priority Areas for Action

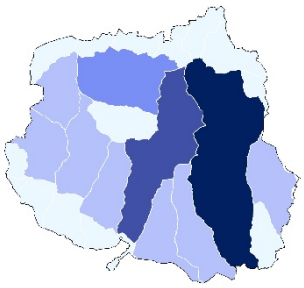
Priority Class:
- Very high
- High
- Medium
- Low
- Very low

Materials, Crops and Livestock



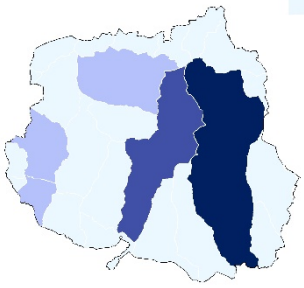
Area of arable land (2015) (ha).

Priority class		
Very high	-	>1000
High	-	750-1000
Medium	-	500-750
Low	-	250-500
Very low	-	0-250



Area of pastoral land (2015) (ha).

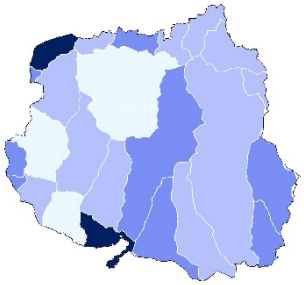
Priority class		
Very high	-	>4000
High	-	3000-4000
Medium	-	2000-3000
Low	-	1000-2000
Very low	-	0-1000



Area of land in Countryside Stewardship scheme (ha).

Priority class		
Very high	-	>1000
High	-	750-1000
Medium	-	500-750
Low	-	250-500
Very low	-	0-250

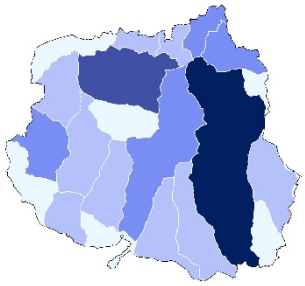
Air Quality



Average PM2.5 Concentration (2020) (ug/m³).

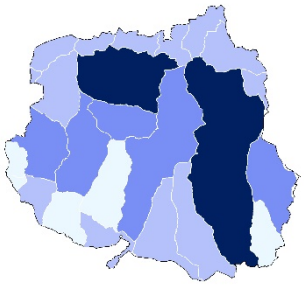
Priority class		
Very high	-	>7.0
High	-	6.9-7.0
Medium	-	6.8-6.9
Low	-	6.7-6.8
Very low	-	6.6-6.7

Climate Regulation



Area of woodland (ha).

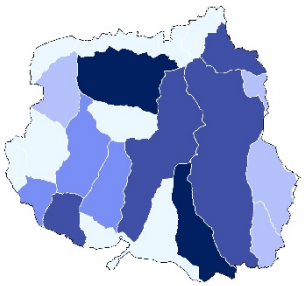
Priority class		
Very high	-	>600
High	-	450-600
Medium	-	300-450
Low	-	150-300
Very low	-	0-150



Area of peaty soils (ha).

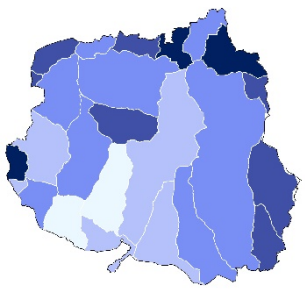
Priority class		
Very high	-	>750
High	-	500-750
Medium	-	250-500
Low	-	1-250
Very low	-	0

Cultural and Historic



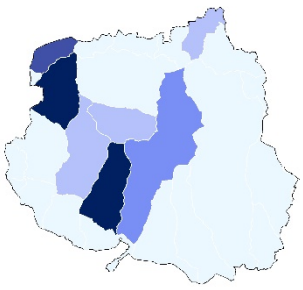
Area. of scheduled monuments (ha).

Priority class		
Very high	-	>6
High	-	4-6
Medium	-	2-4
Low	-	0-2
Very low	-	0



Density of Public Rights of Way (m/ha)

Priority class		
Very high	-	>20
High	-	15-20
Medium	-	10-15
Low	-	5-10
Very low	-	0-5



Area of access land (ha)

Priority class		
Very high	-	>120
High	-	90-120
Medium	-	60-90
Low	-	30-60
Very low	-	0-30

Next Steps

The data and maps presented throughout this report will be scrutinised and discussed by members of the Blackdown Hills AONB ELMS trial steering group. It will support an informed decision-making process for identifying priority areas within the AONB, where land owner engagement will be carried out and works targeted.

Dataset Sources

Centre for Ecology and Hydrology (CEH)

- Land Cover Map 2015

LCM2015 © and database right NERC (CEH) 2019. All rights reserved.

Rowland, C.S.; Morton, R.D.; Carrasco, L; McShane, G.; O'Neil, A.W.; Wood, C.M. (2017) Land Cover Map 2015 (vector, GB). NERC Environmental Information Data Centre.

CEH and Natural England

- Expected plant habitat indicators

Maskell, L; Henrys, P.A.; Norton, L; Smart, S. (2016). Model estimates of expected diversity of positive plant habitat condition indicators. NERC Environmental Information Data Centre. https://doi.org/10.5285/cc5ae9b1-43a0-475e-9157-a9b7fccb24e7

- Topsoil carbon; topsoil phosphorus, topsoil invertebrates; topsoil microbes

Contains data supplied by Natural Environment Research Council. © UK Centre for Ecology & Hydrology. Contains British Geological Survey materials © NERC 2014. Contains Ordnance Survey data © Crown copyright and database right 2007.

Cranfield University NSRI

- NATMAP Vector

Soils Data © Cranfield University (NSRI) and for the Controller of HMSO 2019

© Centre for Ecology and Hydrology

© The James Hutton Institute

Devon Biological Records Centre

- Priority habitats (Devon)
- Special species records (Devon)
- County Wildlife Sites (Devon)

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Licence number 100019783 – Devon County Council 2005

Devon County Council

- Devon Landscape Character Type
- Public Rights of Way

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Environment Agency

- Operational river catchment boundaries

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- WFD river catchments cycle 2
- WFD monitoring site data 2016
- Catchment Abstraction Management Strategy for surface water (cycle 2)
- Ground water source protection zones
- Historic flooding
- Surface water safeguard zones
- Risk of flooding from rivers and sea

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- Pollution incidents

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- WFD surface waterbody status 2016

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- WFD ground water catchments cycle 2
- WFD ground waterbody status 2016

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Dataset Sources

Forestry Commission

- National Forest Inventory

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- National Forest Estate

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Historic England

- Scheduled monuments

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- Heritage features at risk

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National Trust

- National Trust Land Always Open

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Natural England

- Areas of Outstanding Natural Beauty
- Ancient woodland
- CROW access land
- Countryside Stewardship Scheme 2016 Management Areas
- Local nature reserves
- SACs
- SSSI units

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- Agricultural land classification

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NBN Gateway

- Invasive non-native species records

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Nomisweb

- Census 2011 – population count
- Census 2011 – employment sector

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Office for National Statistics

- Output Areas

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Ordnance Survey

- Vector Map District
- Open Greenspaces
- Terrain 50
- Open Rivers
- Boundary Line
- Open Map Local

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Rural Payments Agency (RPA)

- Crop Map of England 2019 (CROME)

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Somerset Environmental Records Centre (SERC)

- Priority habitats (Somerset)
- Species records (Somerset)

Somerset Habitat & Species, © SERC Copyright

Somerset County Council

- Public Rights of Way

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Sustrans

- National cycle route

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UK-Air and Defra

- Estimated 2020 background PM2.5 concentration (base year 2017)

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