

## Stroud Open Space and Green Infrastructure Study



# Berkeley Cluster Sub Area Analysis Report (Part 2 of 2)

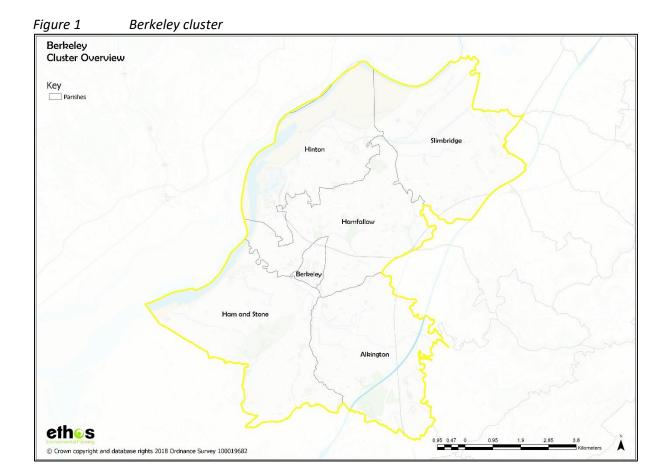
Final June 2019



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#### 1.0 Geographical area and population

The Berkeley sub area comprises the Parishes of Alkington, Berkeley, Ham and Stone, Hamfallow, Hinton and Slimbridge as shown in figure 1. The population of this area is 7,146 (ONS mid-year estimate 2017).



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

This cluster of parishes lies in the Severn Vale at the south-western corner of Stroud District, close to the boundary between Gloucestershire and South Gloucestershire. Berkeley is a historic market town, which today acts as a local service centre for a rural hinterland. Many residents of these parishes commute out of the District for work, leisure and anything other than convenience shopping (Bristol and Thornbury are within easy reach). The closure of Berkeley Nuclear Power Station had an impact on local employment opportunities, but the development of the Gloucestershire Science and Technology Park is providing new opportunities for growth. Sharpness Docks is a thriving and busy port but has scope for new development focusing on the leisure and tourism potential of the Gloucester-Sharpness canal and its Severn Estuary location. The area is blessed with some beautiful landscape and valuable estuarine habitats, which are nationally and internationally protected. These parishes are also home to some of the District's major tourist attractions: notably, Berkeley

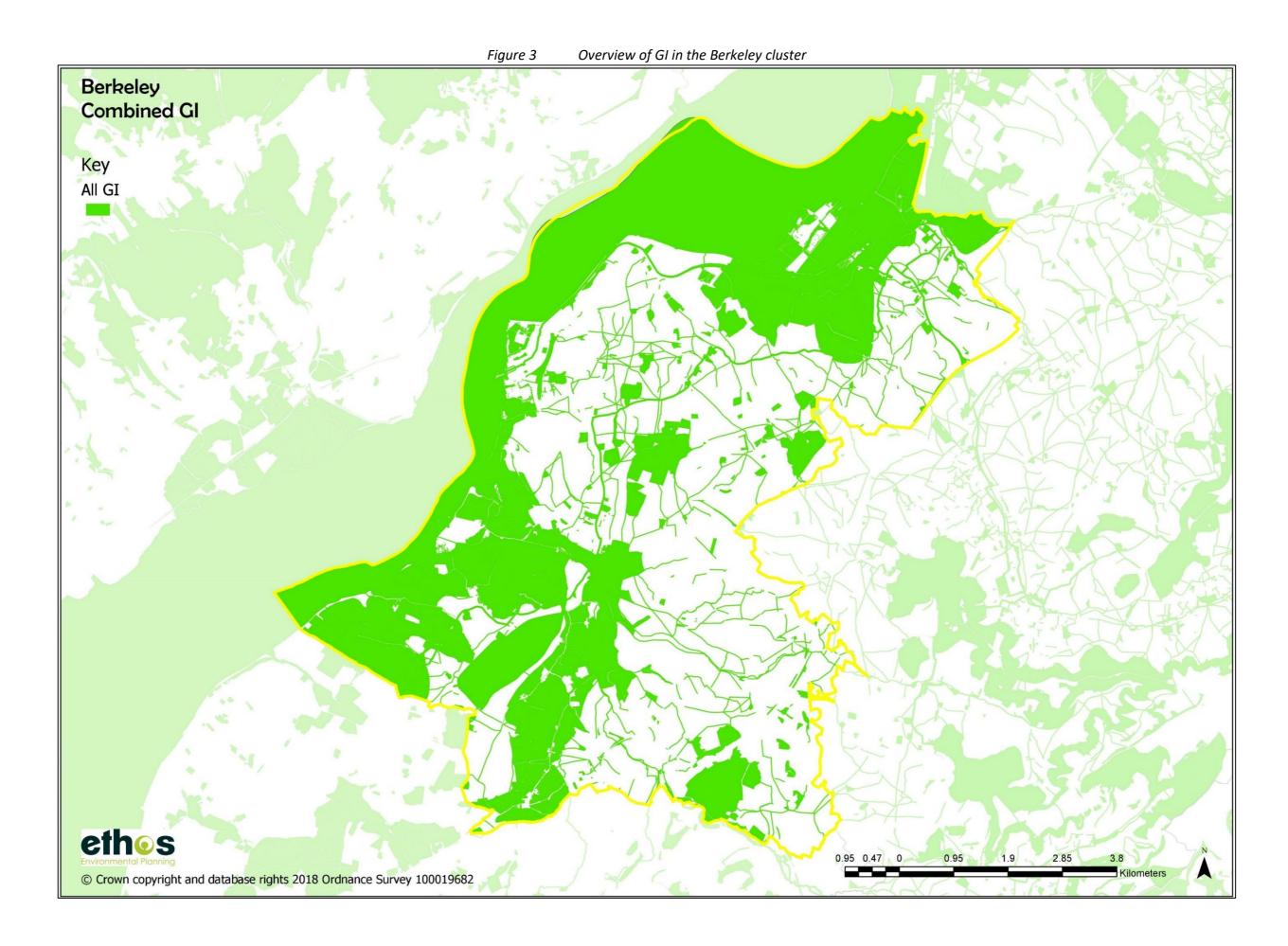
Castle, The Jenner Museum, Cattle Country Adventure Park and the world-renowned Wildfowl and Wetlands Trust at Slimbridge.

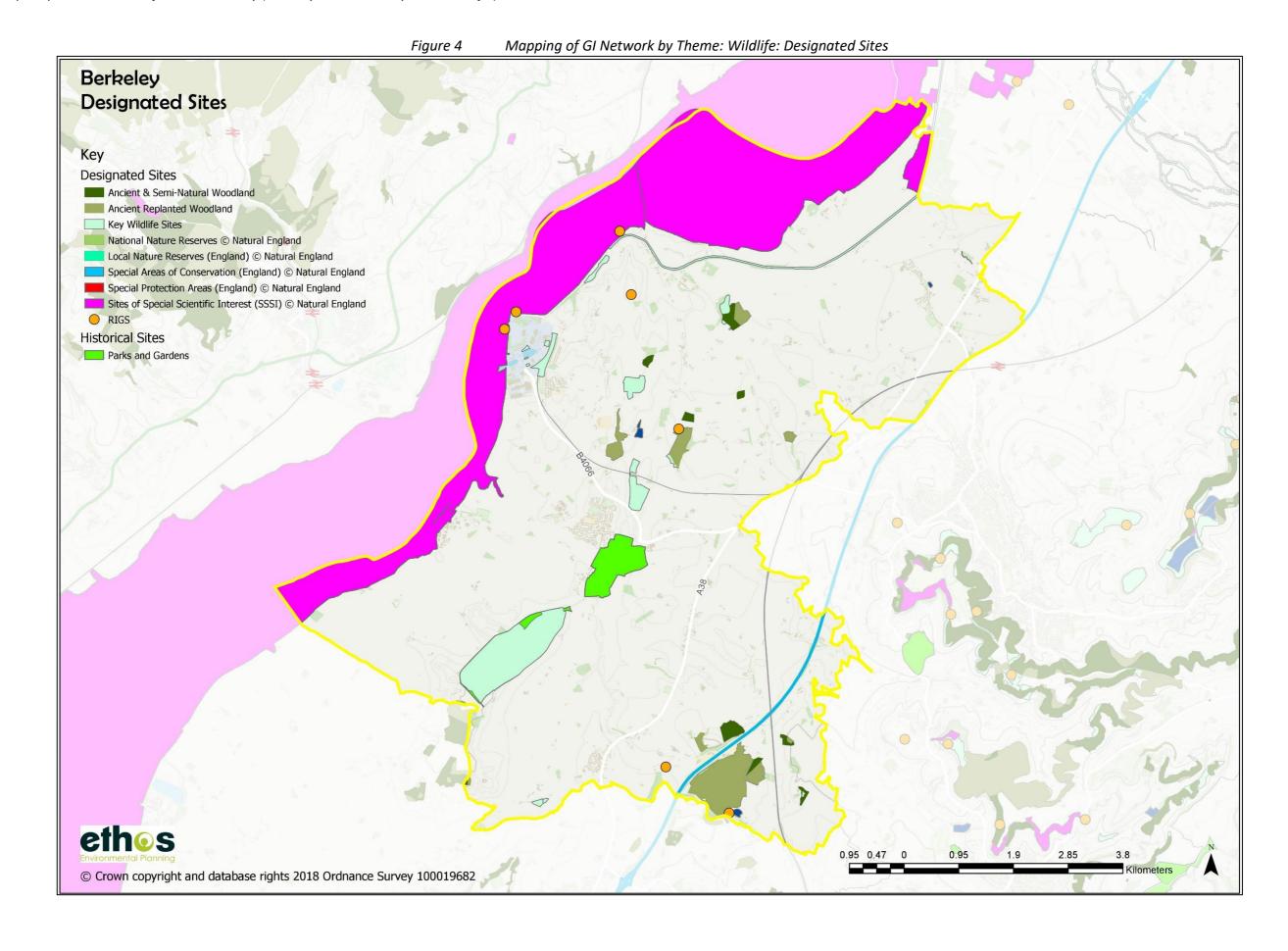
#### 2.0 Existing provision of open space and GI

Figure 2 shows the existing open spaces that have been mapped and included within the Berkeley 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 Berkeley cluster, and figures 4 to 8 provide a breakdown of the GI by theme, which includes landscape considerations.

Overview of open space in the Berkeley cluster Figure 2 Berkeley **Open Space Provision** Key Cluster Boundary Parish Boundary Open Space Accessible Natural Greenspace Allotment Amenity Greenspace over 0.15ha Cemeteries and Churchyards Slimbridge Community Orchard Education Outdoor Sport (Fixed) Outdoor Sport (Private) Park & Recreation Ground Play (Child) Play (Youth) ethos





Berkeley Conservation (Priority Habitats) Key Priority Habitats Frampton Sand Coastal and floodplain grazing marsh Coastal saltmarsh Deciduous woodland Good quality semi-improved grassland Lowland meadows Mudflats No main habitat but additional habitats present Purple moor grass and rush pastures Traditional orchard Strategic Nature Areas Nature Improvement Areas 0.95 0.47 0 © Crown copyright and database rights 2018 Ordnance Survey 100019682

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

Mapping of GI Network by Theme: Wildlife: National Character Areas (NCAs) and Landscape Character Areas (LCAs) Figure 6 Berkeley Landscape Character Areas Key National Character Areas Landscape Character Assessment Escarpment foot slopes Kingswood Vale - North Little Avon Basin Little Avon Mid-Valley 84231 Lowland Plain Lowland Ridges Sandstone Ridge Severn Vale Grazing Marshland Triassic Ridge Wooded Cambrian Ridge Wooded Lowlands Severn and Avon Vales ethos Bristol, Avon Valleys and Ridges 0.95 0.47 0 © Crown copyright and database rights 2018 Ordnance Survey 100019682

Berkeley Water Key — Canals Priority River Habitat Slimbridge WWT Rivers/Streams Lakes/Surface Water Floodzone 2 ethos © Crown copyright and database rights 2018 Ordnance Survey 100019682

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

Berkeley Wellbeing - Access Key — NCN (Sustrans) Existing Cycle Route --- Proposed Cycle Route Severn Way Cotswold Way — Public Rights of Way Accessible Open Spaces (Ethos Mapping) Access Network Top 12.5% of LSOA's Bottom 12.5% of LSOA Clusters ethos © Crown copyright and database rights 2018 Ordnance Survey 100019682

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 Berkeley 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 Berkeley cluster

Typology	Existing Provision (ha)	Existing Provision (ha/1000)	Required Provision (ha)	Required Provision (ha/1000)	Supply (ha)	Supply (ha/1000)	Overall supply
Allotments	4.11	0.58	2.50	0.35	1.61	0.23	SUFFICIENT SUPPLY
Community Orchards	0	0	N/A	N/A	N/A	N/A	N/A
Amenity Green Space	4.94	0.69	2.86	0.40	2.08	0.29	SUFFICIENT SUPPLY
Parks and Recreation Grounds (Combined)	6.36	0.89	8.58	1.20	-2.22	-0.31	UNDER SUPPLY
Park and Recreation Grounds	6.24	0.87	N/A	N/A	N/A	N/A	N/A
Outdoor Sport (Fixed)	0.12	0.02	N/A	N/A	N/A	N/A	N/A
Play (Child)	0.44	0.06	0.43	0.06	0.01	0	SUFFICIENT SUPPLY
Play (Youth)	0.11	0.02	0.43	0.06	-0.32	-0.04	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	21.10	2.95	N/A	N/A	N/A	N/A	N/A
green space							
Education	8.44	1.18	N/A	N/A	N/A	N/A	N/A
Churchyards and Cemeteries	3.48	0.49	N/A	N/A	N/A	N/A	N/A
Outdoor Sport (Private)	8.06	1.13	N/A	N/A	N/A	N/A	N/A

As can be seen from the table above, within the Berkeley cluster, there is an overall sufficient supply of allotments, amenity green space and children's play space against the standards, with shortfalls in parks and recreation grounds and youth play space. The total shortfall is 2.52 ha.

#### GI

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

Table 2 GI assets

Priority Habitats	Area (ha)
Coastal and floodplain grazing marsh	2004.67
Coastal saltmarsh	148.83
Deciduous woodland	183.72
Good quality semi-improved grassland	71.92
Lowland calcareous grassland	0
Lowland dry acid grassland	0
Lowland meadows	23.98
Mudflats	64.26
No main habitat but additional habitats present	177.05
Purple moor grass and rush pastures	8.21
Traditional orchard	52.98

Nature conservation, AONB, geology and historic sites	Area (ha)
Ancient Woodland	152.98
KWS	342.62
LNR	0
NNR	0
RAMSAR	1322.96
SAC	1163.06
SPA	1322.96
SSSI	1351.15

Nature conservation, AONB, geology and historic sites	Area (ha)
RIGS	7 <sup>1</sup>
AONB	11.49
Registered Parks	4.09
SAM	11.49

Rivers and Canals	Length (m)
River Severn	7909.20
The Gloucester and Sharpness Canal	10434.21
Little Avon River	6616.98
River Cam	2471.08

 $<sup>^{1}</sup>$  This is the number of RIGS, rather than the area, as the dataset is mapped using point data rather than polygons.

#### 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 Berkeley 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) Berkeley **Allotment and Community Orchard** Access Map Key Allotment Purton Allotments 15 Minute Walking Buffer Community Orchard 15 Minute Walking Buffer Cluster Boundary Output Area Centroid (2011 Census) Church Lane Allotments Settlement Boundaries Parish Population under 1000 Population Over 1000 Oldminster Road Allotments Breadstone Woodford ethos © Crown copyright and database rights 2019 Ordnance Survey 100019682

Figure 10 Access to amenity green space (13 minutes' walk time) Berkeley **Amenity Greenspace Access Map** Key Amenity Greenspace over 0.15ha 13 Minute Walking Buffer Cluster Boundary Output Area Centroid (2011 Census) Sharpness Dockers Club Settlement Boundaries Sharpness Picnic Area Breadstone Bevington Court Meadow ethos © Crown copyright and database rights 2019 Ordnance Survey 100019682

Berkeley Park & Recreation Ground, AGS and Outdoor Sport (Private) Access Map Key Park & Recreation Ground 13 Minute Walking Buffer Amenity Greenspace over 0.15ha Purton 13 Minute Walking Buffer Sharpness Dockers Club Outdoor Sport (Private) Tyning Crescent Slimbridge Playing Fields and Pavilion 13 Minute Walking Buffer Sharpness Recreation Ground Cluster Boundary Box Road Output Area Centroid (2011 Census) Halmore Settlement Boundaries Jubilee Playing Fields Parish Sharpness Picnic Area Population under 1000 Oldlands Cricket Ground Population Over 1000 Breadstone Hamfields Leisure Tennis Courts Park View Road Recreation Ground Stone Cricket Club Court Meadou ethos © Crown copyright and database rights 2019 Ordnance Survey 100019682

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

Figure 12 Access to children's play space (10 minutes' walk time) Berkeley Play (Child) Access Map Key Play (Child) 10 Minute Walking Buffer Cluster Boundary Purton Output Area Centroid (2011 Census) Settlement Boundaries Parish Sharpness Population under 500 Sharpness Play Area Population over 500 Slimbridge Play Area Halmore Box Road Play Area Jubilee Play Area Breadstone Hamfields Play Area 2 Canon Park Hamfields Leisure Play Area Park View Road Play Area Woodford Court Mead Play Area ethos © Crown copyright and database rights 2019 Ordnance Survey 100019682

Figure 13 Access to youth play space (15 minutes' walk time) Berkeley Play (Youth) Access Map Key Play (Youth) 15 Minute Walking Buffer Cluster Boundary Purton Output Area Centroid (2011 Census) Settlement Boundaries Parish Population under 1000 Sharpness Skate Park Population Over 1000 Jubilee Playing Fields MUGA Breadstone Woodford ethos 2 km © Crown copyright and database rights 2019 Ordnance Survey 100019682

Figure 14 Access to accessible natural green space (960m buffer) Berkeley ANGS Access Map Key Purton Hulks Accessible Natural Greenspace 960m Linear Buffers **Cluster Boundary**  Output Area Centroid (2011 Census) Settlement Boundaries Parish Population under 500 Sharpness ANGS Population over 500 Baylands Meadow Breadstone ethos © Crown copyright and database rights 2019 Ordnance Survey 100019682

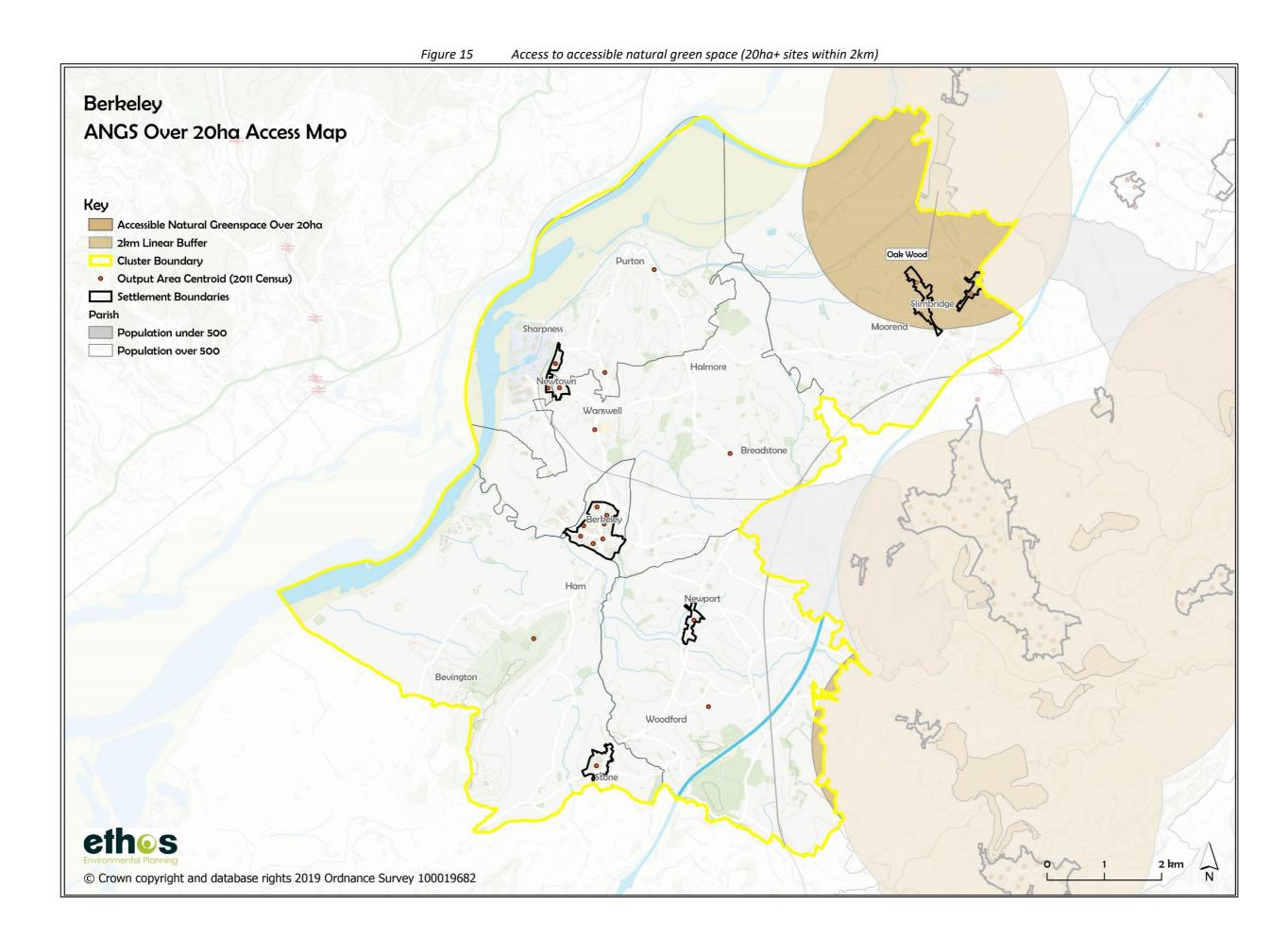


Figure 16 Access to accessible natural green space (100ha+ sites within 5km) Berkeley ANGS Over 100ha Access Map Key Accessible Natural Greenspace Over 100ha 5km Linear Buffer **Cluster Boundary** Purton Output Area Centroid (2011 Census) Settlement Boundaries Parish Population under 500 Population over 500 Breadstone Woodford ethos © Crown copyright and database rights 2019 Ordnance Survey 100019682

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 Berkeley cluster

Typology	Current Access				
Allotments and	There are no community orchards within the cluster. However,				
community orchards	access to allotments is generally good across parishes with over				
	1000 people, although there is a gap in access in Slimbridge.				
Amenity Green Space	There is generally good access to amenity green spaces within				
	the key settlements of the cluster, however there is a gap in				
	access in Newport, and to the east of Slimbridge.				
Parks and Recreation	Good access across key settlements in parishes with over 1000				
Grounds	people, with amenity green space providing access to open				
	space in Stone (but none in Newport). There is a small gap in				
	access to the east of Slimbridge.				
Children's play space	Good access across key settlements, with a gap in access in				
	Newport, and to the east of Slimbridge.				
Youth Play space	In those parishes with over 1000 people, there are large gaps in				
	access in Berkeley town, but good access in the other settlement				
	areas - Sharpness and Slimbridge.				
Accessible Natural	Large gaps in access against all standards.				
Green Space	It should be noted that the Severn Way and the public right of				
	way network also provides an important element of access to				
	open space and the countryside.				

#### GI

Figure 8 (section 2) shows the PROW network and key walking and cycling routes.

As can be seen, there is good access along the Severn Way long distance footpath, which also links with accessible open space, and is connected to the wider PROW network and the Sustrans National Cycle Network. There is a good network of PROW, although there are areas where connectivity could be improved e.g. improving safe walking and cycling routes between villages (as identified in the Local Plan Review Emerging Strategy (2018) — see section 6 below).

When analysing access against the Natural England Access Network Mapping (also see figure 8), it shows that the area has an average to low relative abundance of accessible open space. However, there are limitations with this data as explained in section 7.6 of the main report (part 1).

#### 5.0 Open Space and GI Quality Assessment

#### **Quality audit results**

Figure 17 provides a summary of the quality audit results for the Berkeley cluster. As can be seen, the majority of open spaces assessed are good quality (with a score of A). There is

however 1 open space (Hamfields Leisure Centre Play Area) that has been assessed as poor quality (with a score of C).

Figure 18 illustrates how each open space scores in relation to it's quality in terms of it's contribution to GI against the 3 themes – wellbeing, water and wildlife. As can be seen from the figure below, generally sites were good to average<sup>2</sup>.

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

<sup>&</sup>lt;sup>2</sup> Only parent sites were considered for their contribution to GI.

Table 4 Quality audit results

						Open	Open		
Site				Open Space		Space	Space	GI Total	
ID	Site Name	Typology	Description of Site	Suggestions	GI Suggestions	<b>Total Score</b>	Grade	Score	GI Grade
		Accessible	Excellent meadow area						
	Sharpness	Natural	with high GI value and	Potential to install					
4272	ANGS	Greenspace	well managed paths.	informational signage.	None.	86.66	Α	9.33	Α
			An incredible large area						
			following the coast and						
			canal, the area has						
			ample information and						
			historical welcoming						
		Accessible	signage. Access from		Excellent area for				
	Purton	Natural	both ends with decent		biodiversity, no				
4273	Hulks	Greenspace	path following the canal.	None.	suggestions.	93.00	Α	8.67	Α
				There are few bins on					
				the site but it is very					
				clean and					
	Tyning	Amenity	Amenity lined with	neighbourhood seems					
404	Crescent	Greenspace	mature trees.	to take care of it.	None.	86.66	Α	7.00	В
			Very well kept						
			residential amenity with						
		Amenity	paths, lighting, trees and						
436	Baylands	Greenspace	shrubs.	None.	None.	85.00	Α	6.33	В
			Attractive small amenity						
			with informal paths used						
			by dog walkers at time						
	Park View	Amenity	of audit. Connected to						
491	Road	Greenspace	recreation grind by style.	None.	None.	72.86	Α	7.67	Α
				The paths are quite					
			Amenity site with path	misshapen and might					
	Court	Amenity	network, mature trees	need some attention					
516	Meadow	Greenspace	and bins.	soon.	None	84.44	Α	6.70	В
			A patch of amenity with						
		Amenity	informal football and		Increase species				
536	Court Mead	Greenspace	bench.	None.	richness in margins	82.00	Α	5.70	В

						Open	Open		
Site				Open Space		Space	Space	GI Total	
ID	Site Name	Typology	Description of Site	Suggestions	GI Suggestions	Total Score	Grade	Score	GI Grade
			A large grass amenity						
	Court	Amenity	with mature trees, bin,	Remove strip of hard					
542	Meadow	Greenspace	bench.	standing	None	78.89	Α	6.30	В
			A very attractive village						
			green with high quality						
			bench, cycle parking,						
			dog bin, community						
			noticeboard and variety						
		Amenity	of trees and fairly long						
3168	Ham Green	Greenspace	grass.	None.	None	87.00	Α	6.7	В
			Fairly unattractive						
			residential amenity used						
		Amenity	as car park but with	Install seating and					
4271	Dock Road	Greenspace	some formal planting.	relandscape	None	73.75	Α	4.00	С
				The grass is worn					
			Two patches of	through in many places					
		Amenity	residential grass	and would benefit					
472	The Leys	Greenspace	amenity, each with tree.	from reseeding.	None	64.28	В	4.7	В
	Cla a mara a a a a		Fainh, dilamidakad aika	C	la sussessible diversity.				
	Sharpness	A ! t	Fairly dilapidated site	Grass needs reseeding	Increase biodiversity				
4260	Dockers Club	Amenity	with car parking for	in places and room to	with wildflowers and	50.00	D	4.2	D
4269	Club	Greenspace	adjacent cemetery.	plant more diverse.	new trees.	59.00	В	4.3	В
		0	A large playing fields						
	Hamfields	Outdoor	with ample parking, bins						
F02	Leisure	Sport	and seating lined by	Name	Mana	70.00		6.00	
503	Centre	(Private)	trees and hedgerow.	None.	None	78.00	Α	6.00	В
	Climate wilder		A large playing field with						
	Slimbridge	Davidson I	village hall car park and	Cite and die					
	Playing	Parks and	tree lined margins.	Site could be sign					
400	Fields and	Recreation	Plenty of benches and	posted better from the		77.00			
402	Pavilion	Grounds	bins on site, very clean.	road.	None	77.00	Α	6.00	В

						Open	Open		
Site				Open Space		Space	Space	GI Total	
ID	Site Name	Typology	Description of Site	Suggestions	GI Suggestions	Total Score	Grade	Score	GI Grade
			Exemplary site with						
	Sharpness	Parks and	modern facilities, wide						
	Recreation	Recreation	range of biodiversity and						
440	Ground	Grounds	clear signage.	None.	None	95.00	Α	7.70	Α
			A good quality playing						
			field used by local						
		Parks and	football club. Gated						
		Recreation	entrance points with						_
452	Canon Park	Grounds	signage prohibiting dogs.	No issues.	None	83.00	Α	6.00	В
					Increase biodiversity				
					along the sites				
				The site is virtually	boundary e.g. by				
				hidden from the road	planting species rich				
	Park View		Gated recreation ground	with no signage. the	hedgerow, which				
	Road	Parks and	with uneven surface,	grass is also overgrown	could also help to				
400	Recreation	Recreation	large open play and	and the landscape	hide the chainlink	75.55	_		
489	Ground	Grounds	basketball half.	uneven.	fence.	75.55	Α	5.70	В
			High quality gated play						
			area with good range of						
	Sharpness	DI (OL ILI)	equipment in good			00.00	_		
447	Play Area	Play (Child)	condition.	None.	N/A	93.00	Α	N/A	N/A
			Good quality infant to						
			teen play area with zip						
	Sharpness		line and climbing area.						
	Youth	( 11)	All in very good						
448	Provision	Play (Child)	condition.	None.	N/A	85.00	Α	N/A	N/A
			A large play area with						
	Park View		varied and high quality						
	Road Play		equipment, plenty of						
488	Area	Play (Child)	seating and bins.	None.	N/A	89.00	Α	N/A	N/A

Site				Open Space		Open Space	Open Space	GI Total	
ID	Site Name	Typology	Description of Site	Suggestions	GI Suggestions	Total Score	Grade	Score	GI Grade
			A very good play area						
			with excellent wooden						
			equipment. Unable up						
	Court Mead		take photos due to use						
535	Play Area	Play (Child)	at the time of visit.	No issues.	N/A	91.00	Α	N/A	N/A
			A fairly dilapidated play	Repair broken					
	Slimbridge		area with some broken	equipment or install					
403	Play Area	Play (Child)	equipment.	new equipment.	N/A	58.00	В	N/A	N/A
			A very unloved play area	Retrofit with new and					
			with broken signage at	more interesting					
			entrance and antiquated	equipment and repair					
454	Canon Park	Play (Child)	equipment.	signage.	N/A	54.00	В	N/A	N/A
			A disused play area with						
			poor access, broken						
			swings although the						
	Hamfields		climbing frame is good						
	Leisure Play		quality. Appears to be	Resurface play area					
507	Area	Play (Child)	private.	and repair swings.	N/A	35.00	С	N/A	N/A
	Sharpness		Very high quality MUGA						
446	Skate Park	Play (Youth)	and skate ramp.	None.	N/A	91.11	Α	N/A	N/A

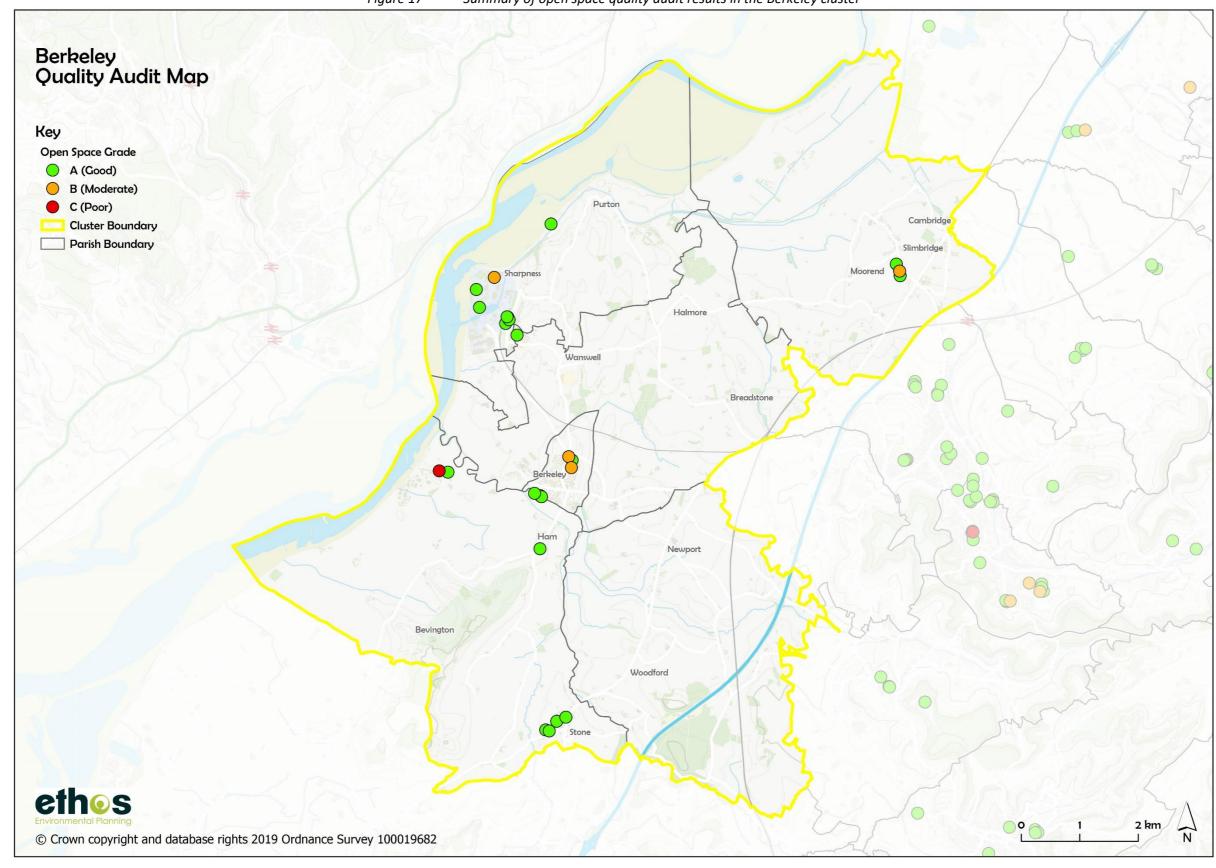


Figure 17 Summary of open space quality audit results in the Berkeley cluster

Figure 18 Summary of open space GI quality scores Berkeley **Quality Audits** Key All GI **Quality Audits** GI Total 1 (worst) Tyning Crescent Slimbridge Playing Fields and Pavilion 10 (best) Sharpness ANGS
Sharpness
Skate Park Park
View
The Leys
toad Park View Road
Recreation Ground Hamfields Leisure Play Area ethos 0.95 2.85 0.95 0.47 0 © Crown copyright and database rights 2018 Ordnance Survey 100019682

#### **Condition of SSSIs**

ethos

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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, these SSSI's are largely in favourable condition, although there is scope to improve the condition of the Seven Estuary and Upper Severn Estuary SSSI.

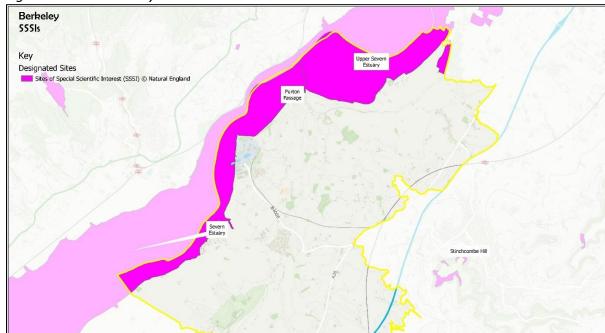


Figure 19 Berkeley SSSIs

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

Site Name	Designation	Size (ha)	Description/features of interest	Condition summary
Purton Passage	SSSI	4.09	An important locality for vertebrate palaeontology. Rocks of Upper Ludlow age are exposed and include bone beds which are the most productive bone beds of their age. There are a diverse and abundant range of fish remains which includes plates of Cyanthaspis banksi which even though are abundant at this location are rarely found elsewhere.	100% Favourable.

Site Name	Designation	Size (ha)	Description/features of interest	Condition summary
Severn Estuary	SSSI	645.02	The Severn Estuary forms part of a larger area which includes the Upper Severn Estuary SSSI, and is also protected as an SPA and RAMSAR site. The tidal range and classic funnel shape makes this unique in Britain and worldwide. The intertidal zone of mudflats, sand banks, rocky platforms and saltmarsh is one of the largest and most important in Britain. The estaurine fauna includes internationally important populations of wildfowl, invertebrate populations of significant interest and large populations of migratory fish including the rare and endangered Allis Shad.	95.80% Favourable. 2.43% Unfavourable - no change. 1.69% Unfavourable - declining.
Upper Severn Estuary	SSSI	702.03	A site of international conservation importance consisting of the uppermost part of the Severn Estuary and its marginal saltmarsh and pastureland. It also has international ornithological importance supporting more than 10,000 wintering wildfowl.	85.85% Favourable. 3.31% Unfavourable - recovering. 10.84% Unfavourable declining.

#### **Natural England National Habitat Network Mapping**

The Natural England National Habitat Network mapping also indicates that the is 'restorable habitat' within the Berkeley 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. This relates to the coastal floodplain grazing marsh priority habitat. 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 Berkeley cluster. An explanation of how these growth figures have been calculated is provided in section 7.2.2 of the main report (part 1).

Standard for new provision Requirement for 7,690 people Typology (Ha/1000) (Ha) Allotments 0.35 2.69 **Community Orchards** 0.15 1.15 Amenity Green Space 0.40 3.08 Park and Recreation Ground 1.20 9.23 Play Space (Children) 0.06 0.46 Play Space (Youth) 0.06 0.46 Natural Green Space 1.00 7.69 Total 3.22 24.76

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

#### 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.

As can be seen from figure 20, the key GI corridors are the Severn Estuary and associated grazing marshland (this is a strategic GI corridor as identified by the GLNP (shown in yellow) – although the yellow area does not cover all of the grazing marshland priority habitat, it is considered that this area is included as part of the strategic GI corridor).

In addition to this, a number of locally important GI corridors have been identified as follows:

- C) Doverte Brook linking coastal flood plains in Berkeley to woodlands south of Dursley.
- H) Frampton Moors to Berkeley grazing via Meadows KWS and Bushy Grove.

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

- 1. Improvements to cycle and pedestrian routes in line with SA5 allocation. Protect and enhance Purton Hulks SSSI and Purton Timber Ponds Key Wildlife Site. This area has also been identified by Natural England as a Fragmentation Action Zone.
- 2. Potential to improve connectivity between various traditional orchards e.g. through wildflower margins to provide corridors for pollinators
- 3. Potential to improve PRoW and protect and enhance stream and associated habitats between Berkeley Heath Water Meadows and Berkeley Castle grounds (both coastal floodplain grazing marsh priority habitat). In addition, protect and enhance adjoining priority habitats further north (semi-improved grasslands, purple moor grass and rush pastures and lowland meadows).

- 4. Improvements to biodiversity/flood defences from SA5a employment allocation and potential link for wildlife to KWSs such as Tintock Wood and Berkeley Meadow. Also identified by Natural England as a Potential Network Join. Potential to link allocation to existing cycle route to the east.
- 5. Identified in local plan review to improve walking and cycling connectivity (which should protect and incorporate habitat for the dispersal of wildlife).
- 25. Proposed Cam, Dursley & Uley Greenway.
- 27. Protect and enhance Gloucester and Sharpness Canal corridor for biodiversity and access.

#### **Strategic Site Allocations**

#### Site Allocation SA5a: South of Severn Distribution Park

Allocated for B2 -B8 employment uses, has planning consent. The development of the site will provide contributions to off-site highway works including public transport, pedestrian and cycle links to Newtown, Berkeley and Dursley, and other infrastructure including flood defences and biodiversity.

#### Site Allocation SA5: Sharpness Docks<sup>3</sup>

Development will deliver dock uses and dock related industrial and distribution uses (in the South) and a mix of tourism, leisure and recreational uses, supported by new housing (in the North). This will include a community football pitch, community gardens, informal green space, landscaping incorporating existing hedgerows and trees, SuDS and cycle and pedestrian routes. This allocated site is currently undetermined.

#### Example of how open space and GI requirements would be determined:

The example has been provided below for illustrative purposes, so that the Council can apply this to other allocated sites that come forward.

Strategic Site Allocation SA5 falls within the Severn and Avon Vales National Character Area and the Sandstone Ridge and Severn Vale Grazing Marshes Landscape Character Areas. The key priorities and statements of environmental opportunities for these areas are identified in tables 5 and 6 of the main report (part 1, section 5.2). The masterplan for this allocated site should address these priorities, in addition to the GI principles (section 6.2) and recommended policy (section 8) set out in part 1.

<sup>&</sup>lt;sup>3</sup> Allocated in the current Local Plan 2006 – 2031, but currently undetermined (as March 2019). Site Allocation SA5a was given consent in 2016.

In terms of open space requirements, all open space would be expected to be provided on site (as with all allocated sites) in the following quantities (based on 300 dwellings and an average household occupancy of 2.3):

Table 7	On-site open space	requirements	for SA5 based on	300 dwellings

Typology	Standard for new provision	Requirement for 690 people
	(Ha/1000)	(Ha)
Allotments	0.35	0.24
Community Orchards	0.15	0.10
Amenity Green Space	0.40	0.28
Park and Recreation Ground	1.20	0.83
Play Space (Children)	0.06	0.04
Play Space (Youth)	0.06	0.04
Natural Green Space	1.00	0.69
Total	3.22	2.22

For this allocation, whilst the policy is for all open space to be provided on site, the allocation includes existing open spaces, and therefore the masterplan for SA5 needs to address how existing open spaces could be improved as well as new provision of open space in accordance with the standards.

#### **Emerging Local Plan**

The Local Plan Review Emerging Strategy (2018) sets out the following priorities and draft vision for the Berkeley 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 from Newport to Berkeley
- Promoting tourist opportunities in Berkeley town centre and the river estuary for tourism and increasing tourist accommodation opportunities<sup>4</sup>.

Draft vision to 2040: "Growing two new villages and boosting local vitality by making the most of our natural resources, leisure and tourism..."

New communities at Sharpness and at Wisloe Green will help to meet the housing and employment needs of the District, whilst delivering a step change in services and facilities available to the local area. Following Garden City principles, the mix of uses, design quality and an accessible layout within a green setting will deliver a truly sustainable pattern of living for new and existing local residents.....

.....The new settlement at Sharpness, together with improvements to the working environment and leisure amenities at the Docks and the development of Gloucestershire Science and Technology Park at the former Nuclear Power Station site, will provide a local boost. These will act together with other attractions (including Berkeley Castle, Dr Jenner's Museum,

<sup>&</sup>lt;sup>4</sup> Needs to ensure that impacts on the Severn Estuary are avoided/mitigated.

Slimbridge Wildfowl and Wetlands Trust and several safe and attractive walking and cycling routes) to raise the profile of this part of the District.....

....Villages and hamlets may see small scale development in response to identified local needs, boosting their ability to remain sustainable and thriving communities. Where possible, safe walking and cycling routes will link places together....

.....Conservation and management of the area's distinctive built heritage, precious estuarine landscape and habitats will remain high priorities, as will resilience to climate change and associated flood risk.

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Key GI Corridors and Opportunities Figure 20 Berkeley Key Opportunities and Corridors Key Strategic Site Allocations All GI **Green Corridors ♦** District Strategic Green Infrastructure **Key Opportunities** Key Opportunities ethos

#### 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 protection and new provision of open space; and
- Facilities that may be surplus to requirement.

#### **Existing provision to be enhanced**

Section 5 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:

- The Leys (B)
- Sharpness Dockers Club (B)
- Slimbridge Play Area (B)
- Canon Park Play Area (B)
- Hamfields Leisure Centre Play Area (C)

The GI quality scores and recommendations should also be considered.

A desktop assessment has also identified potential to improve the condition of the Seven Estuary and Upper Severn Estuary SSSI (from SSSI condition assessments), and the Coastal and Floodplain Grazing Marsh Priority Habitat (from the Natural England National Habitat Network Mapping).

#### 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 Berkeley cluster, there is sufficient supply of allotments, amenity green space and children's play space. There is little opportunity for amenity green space to be upgraded to park and recreation grounds and/or accommodate youth provision (to reduce the shortfalls in these typologies) due to the small sizes of these spaces.

#### Identification of areas for new provision of open space

The assessment has identified that there is an existing quantitative shortfall in the provision of parks and recreation grounds and youth play space, therefore, the need to protect existing facilities and maximise opportunities for securing new open space is key. Although there is sufficient supply of allotments, amenity green space and children's play space, there are gaps in access to these facilities, and therefore on site provision of these typologies may still be required - the requirements for on site provision will depend on the size and location of new development.

Table 6 sets out the overall requirement for new open space provision within Berkeley cluster from new development, which is 24.76 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.

Table 7 shows the requirements for on-site provision of open space for Strategic Site Allocation SA5, which totals 2.22ha.

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):

- 6. Improvements to cycle and pedestrian routes in line with SA5 allocation. Protect and enhance Purton Hulks SSSI and Purton Timber Ponds Key Wildlife Site. This area has also been identified by Natural England as a Fragmentation Action Zone.
- 7. Potential to improve connectivity between various traditional orchards e.g. through wildflower margins to provide corridors for pollinators
- 8. Potential to improve PRoW and protect and enhance stream and associated habitats between Berkeley Heath Water Meadows and Berkeley Castle grounds (both coastal floodplain grazing marsh priority habitat). In addition, protect and enhance adjoining priority habitats further north (semi-improved grasslands, purple moor grass and rush pastures and lowland meadows).
- 9. Improvements to biodiversity/flood defences from SA5a employment allocation and potential link for wildlife to KWSs such as Tintock Wood and Berkeley Meadow. Also identified by Natural England as a Potential Network Join. Potential to link allocation to existing cycle route to the east.
- 10. Identified in local plan review to improve walking and cycling connectivity (which should protect and incorporate habitat for the dispersal of wildlife).
- 25. Proposed Cam, Dursley & Uley Greenway.

27. Protect and enhance Gloucester and Sharpness Canal corridor for biodiversity and access.

### 2.7.1 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 parks and recreation grounds and youth play space and the supply of children's play space only just exceeds the minimum requirement, therefore these typologies are not considered as surplus.

Although there is sufficient supply of allotments and amenity green space against the standard this does not mean they are surplus, as any loss of facilities may result in gaps in access. The planned growth in the area is also likely to put pressure on existing facilities and before any decision is made if these sites may be surplus, they should be considered for meeting shortfalls in parks and youth play space, or other typologies where there are gaps in access.

Irrespective of this, the role that amenity green space and allotments (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.