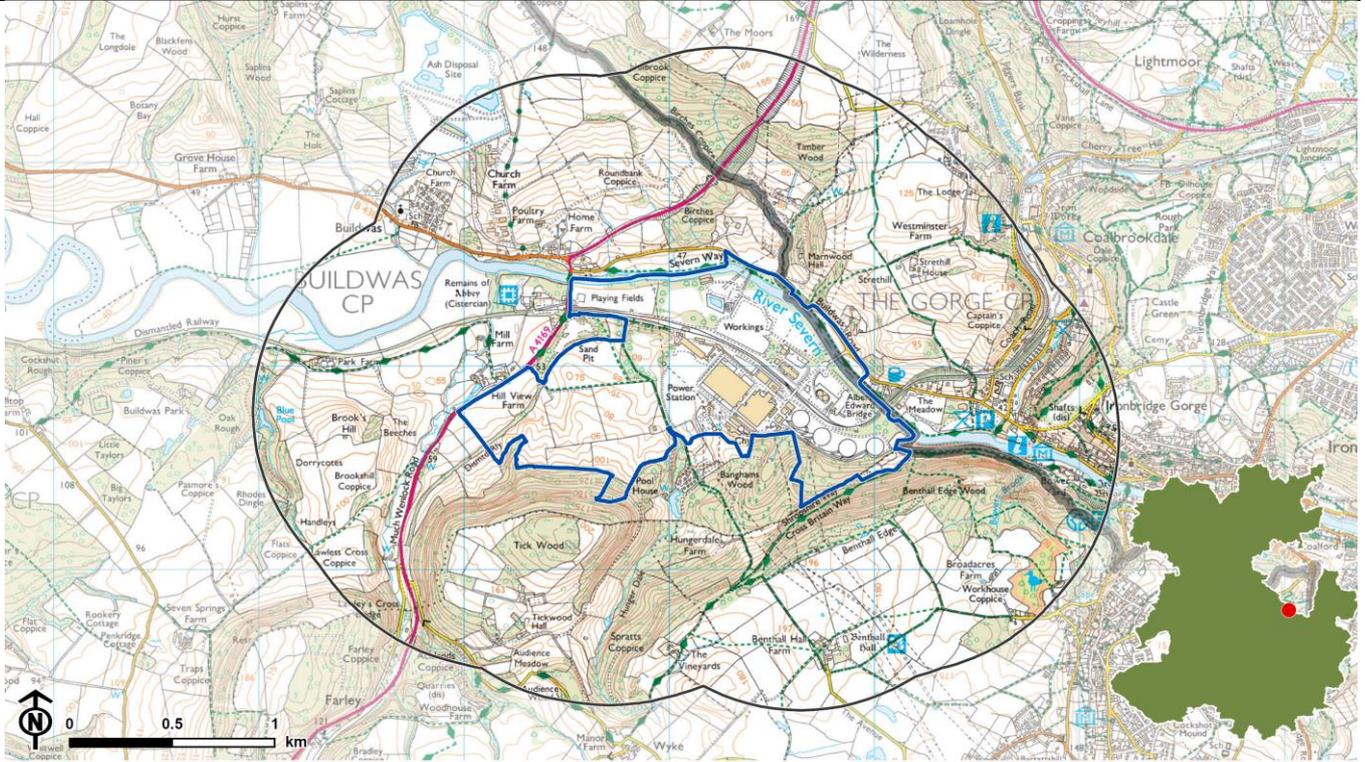


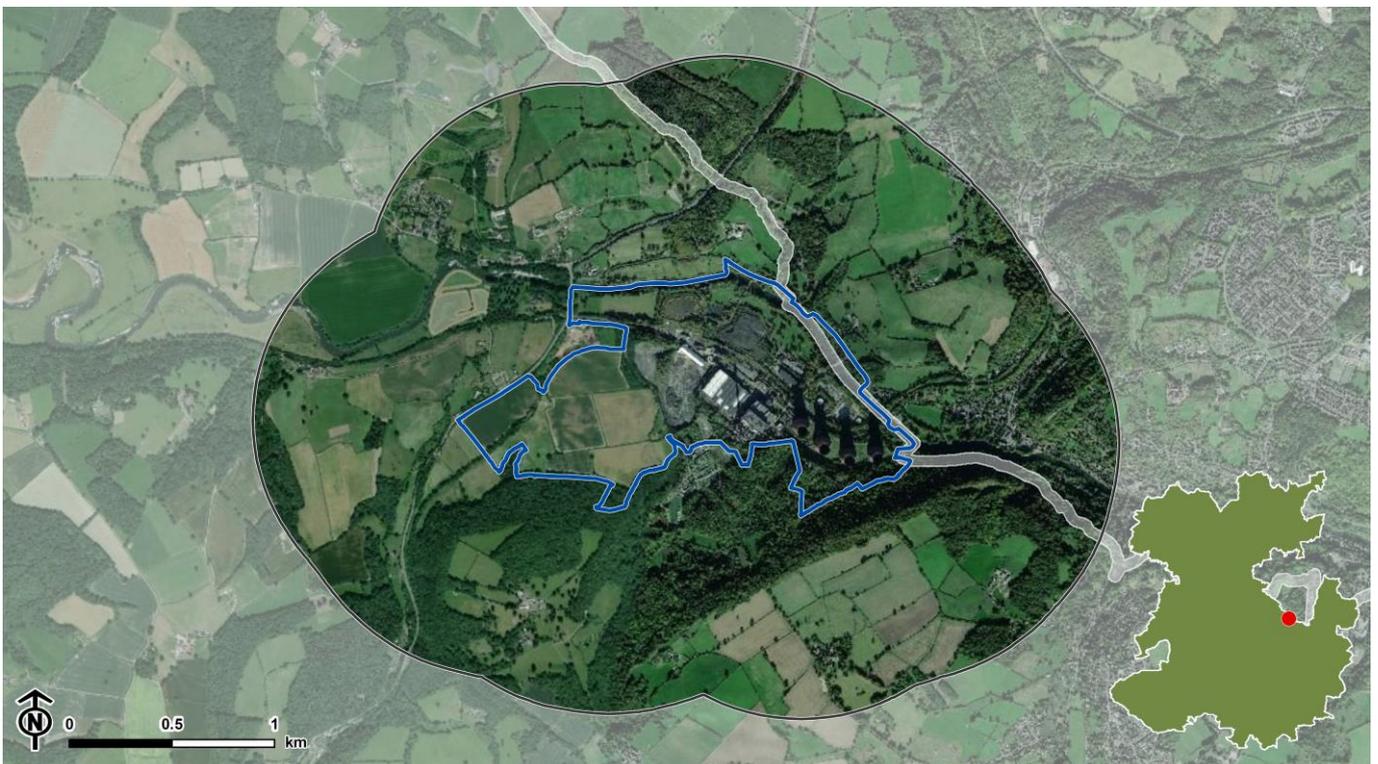
Strategic Site – Ironbridge Power Station

Location



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CB:KC EB:Chamberlain_K LUC 10924-00_000_Location_OSbase 27/07/2020 Source: SC, LUC, OS



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Summary of Settlement Study Area and Location

Introduction

The former Ironbridge Power Station is a Strategic Site in the Shropshire Pre-Submission Draft Local Plan (2020). The study area boundary as defined within this Green Infrastructure Strategy is 1km from the defined site limits. The study area partially overlaps Broseley (Key Centre) in the south east and is approximately 1.2km north east of the Much Wenlock (Key Centre) study area. Part of the area extends into Telford and Wrekin Local Authority Area. Assets within this area are considered, but no opportunities or recommendations have been identified in areas outside Shropshire.

The former Ironbridge Power Station site is located on the banks of the River Severn, south of the village of Buildwas. It is a 140ha partly brownfield site including former Power Station infrastructure and redundant ancillary facilities including a social club, golf course, sports pitches and Grade 3 agricultural land. The power station ceased operation in 2015 and demolition of the site began in 2019, in preparation for redevelopment.

This pro-forma should be reviewed alongside the pro-forma for Broseley to understand strategic linkages between the Ironbridge Strategic Site and the neighbouring settlement.

Development Context

Emerging proposals for the site involve a mixed-use development including around 1,000 dwellings, around 6 hectares of employment land and the provision of local services and facilities within a village centre.



Buildwas Abbey Scheduled Ancient Monument
Woodland



Tick Wood and Benthall Edge SSSI and Ancient

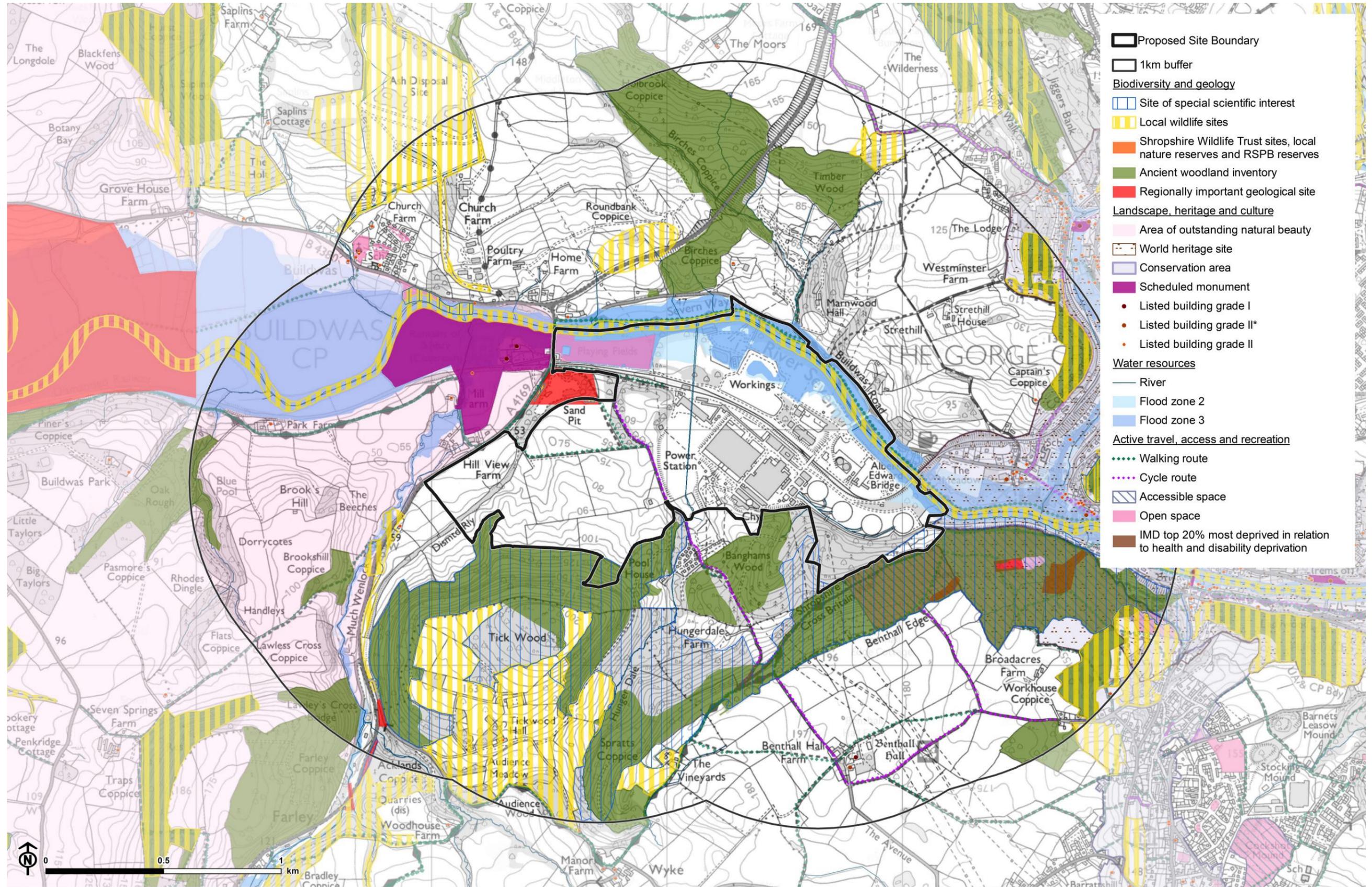


The Severn Way Long Distance Footpath



Shropshire Way Long Distance Footpath

Existing Green Infrastructure Assets and Key Constraints



- Proposed Site Boundary
- 1km buffer
- Biodiversity and geology**
- Site of special scientific interest
- Local wildlife sites
- Shropshire Wildlife Trust sites, local nature reserves and RSPB reserves
- Ancient woodland inventory
- Regionally important geological site
- Landscape, heritage and culture**
- Area of outstanding natural beauty
- World heritage site
- Conservation area
- Scheduled monument
- Listed building grade I
- Listed building grade II*
- Listed building grade II
- Water resources**
- River
- Flood zone 2
- Flood zone 3
- Active travel, access and recreation**
- Walking route
- Cycle route
- Accessible space
- Open space
- IMD top 20% most deprived in relation to health and disability deprivation

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CB:KC EB:Chamberlain_K LUC 10924-02_002_ExistingGIAssets 27/07/2020 Source: OS, LUC, NE, HE, DCLG, EA

Existing Green Infrastructure Assets and Constraints

Theme	Existing Green Infrastructure Assets / Constraints
<p>Key Theme 1: Biodiversity and Geology</p> 	<p>Biodiversity:</p> <p>Designated Sites</p> <ul style="list-style-type: none"> ■ Nationally designated SSSIs include Tick Wood and Benthall Edge. This is an extensive area of ancient native mixed deciduous woodland north and west facing scarp slopes overlooking the Severn Gorge. The majority of the site has been recorded as ‘Unfavourable Recovering’ by Natural England, with understory areas which have become scrubbed over resulting in reduced grassland cover. A number of Environmental Stewardship Agreements are currently in place to assist management. SSSI Impact Risk Zones associated with Tickwood and Benthall Edge SSSI cover the full extent of the study area and apply to all planning applications. ■ Buildwas Sand Quarry SSSI (Favourable) and Buildwas River Section SSSI (Favourable) are located towards the western boundary of the study area. The associated Impact Risk Zone is relatively localised but again applies to all planning applications. ■ Lodge Field LNR is located on the eastern fringe of the study area within Telford and Wrekin Local Authority. ■ Non-statutory LWS designations occur at Audience Meadow, River Severn (Cressage Bridge to Coalport), Buildwas Roadside Verge, Birches Coppice, Devil Dingle and Workhouse Coppice and Meadows LWS. <p>Notable and Priority Habitats</p> <ul style="list-style-type: none"> ■ Ancient and Semi-Natural Woodlands are located at Tick Wood, Benthall Edge Wood, Brookhill Coppice, Banghams Wood. These are ecological features with multiple designations. ■ Ancient Replanted woodland is located at Banghams Wood and Holbrook Coppice. ■ Priority Habitats include Deciduous Woodland within upland parts of study area, Coastal and Floodplain Grazing Marsh to west of Buildwas Abbey on southern bank of River Severn, Good Quality Semi-Improved Grassland and Lowland Meadows dispersed within Tick Wood, Spratts Coppice and in the Marnwood Hall area. ■ A number of Shropshire Environment Network corridors are located within the study area, including along the River Severn, the woodlands at Tick Wood, Benthall Edge and Banghams Wood and northern sections of the site at Holbrook Coppice and Devil’s Dingle. ■ Natural England Habitat Network Mapping identifies habitat areas of creation network enhancement zones 1 and 2 associated with the woodland to the northeast of the study area (outside the proposed site allocation) in Telford and Wrekin (associated with Lydebrook Dingle, Lincoln Hill and the ancient woodland that connects these). Enhancement zones 1 and 2 are also located in the south of the study area (outside the proposed site allocation) associated with Tick Wood / Benthall Edge. ■ Local Wildlife Sites are noted at Audience Meadow, River Severn (Cressage Bridge to Coalport), Buildwas Roadside Verge, Birches Coppice, Devils Dingle, Captain’s Coppice and Workhouse Coppice and Meadows. <p>Species</p> <ul style="list-style-type: none"> ■ Protected plants, amphibians and invertebrates are, in general terms, clustered through the River Severn Corridor and the wooded escarpment which extends through the designations of Tick Wood, Benthall Edge Wood and Banghams Wood. ■ Priority flowering plant species are found at their densest at the border between the deciduous woodland and open farmland. ■ Badger activity has been recorded in the study area.

	<ul style="list-style-type: none"> Please note species records only reflect what was present when the surveyor was on site and may not be exhaustive of the true species and geographic spread within the study area. <p>Geology</p> <ul style="list-style-type: none"> There are no recorded RIGS within the study area. There are a small number of Local Geological sites noted within the study area at Buildwas Sand Quarry east of the A4169, and at Benthall Edge Wood.
<p>Key Theme 2: Landscape, Heritage and Culture</p> 	<p>Landscape</p> <ul style="list-style-type: none"> The western part of the site is located within the Shropshire Hills Area of Outstanding Natural Beauty (AONB), designated for its geological formations, rich heritage and scenic views which create a landscape of contrast. There are key views towards the Shropshire Hills AONB from lowland areas west of the Power Station site The landscape within the study area surrounding this Strategic Site is located within National Character Areas 65: Shropshire Hills and 66: Mid Severn Sandstone Plateau¹. The landscape is further defined within five Landscape Character Types; Wooded Hills and Estatelands, Wooded Estatelands, Riverside Meadows, Principal Wooded Hills and Wooded River Gorge. The dominant landscape features are associated with the River Severn and floodplain, wooded ridges and river valleys and estate landscapes. Farmland is mainly pastoral, and settlements are linear, focused around river corridors and crossings³. Mature vegetated boundaries form strong elements within the landscape and away from the Power Station site there is a strong sense of place, tranquillity and remoteness. <p>Heritage</p> <ul style="list-style-type: none"> The remains of Buildwas Abbey, a Scheduled Ancient Monument (English Heritage) are located in the north western part of the study area Ironbridge Gorge World Heritage Site, designated in recognition of the area's unique and unrivalled contribution to the birth of the industrial revolution, is located on the eastern boundary of the study area and links with the Severn Gorge Conservation Area. A number of prominent Listed buildings are evident within the area, most notably at Benthall Hall (National Trust) and Tickwood Hall (Private).
<p>Key Theme 3: Water Resources</p> 	<p>Fresh Water Assets</p> <ul style="list-style-type: none"> The River Severn runs west-east through the study area. A number of north-south tributaries interconnect into the main channel, including Bower's Brook. <p>Flooding</p> <ul style="list-style-type: none"> Whilst the River Severn and its main tributaries provide green corridors, they also present fluvial flood risk to rural communities. The flood zones near this site are wide (700m in parts) in the west due to low-lying, flat topography, and narrow as the river enters Ironbridge Gorge². There are several tributary river valleys for the River Severn located within the study area including Bowers Brook and Lamhole Brook. There is a small reservoir located south of the River Severn as part of the former Ironbridge Power Station infrastructure and a large pond located west of Banghams Wood within Poolview Caravan Park. <p>Pollution</p> <ul style="list-style-type: none"> A large area on either side of the A4169 has been identified as a Surface Water Nitrate Vulnerable Zone, defined by DEFRA as an area which is at risk from agricultural nitrate pollution.

¹ The Shropshire Landscape Typology, 2006

² The Environment Agency Flood Map for Planning (Rivers and Sea), 2019

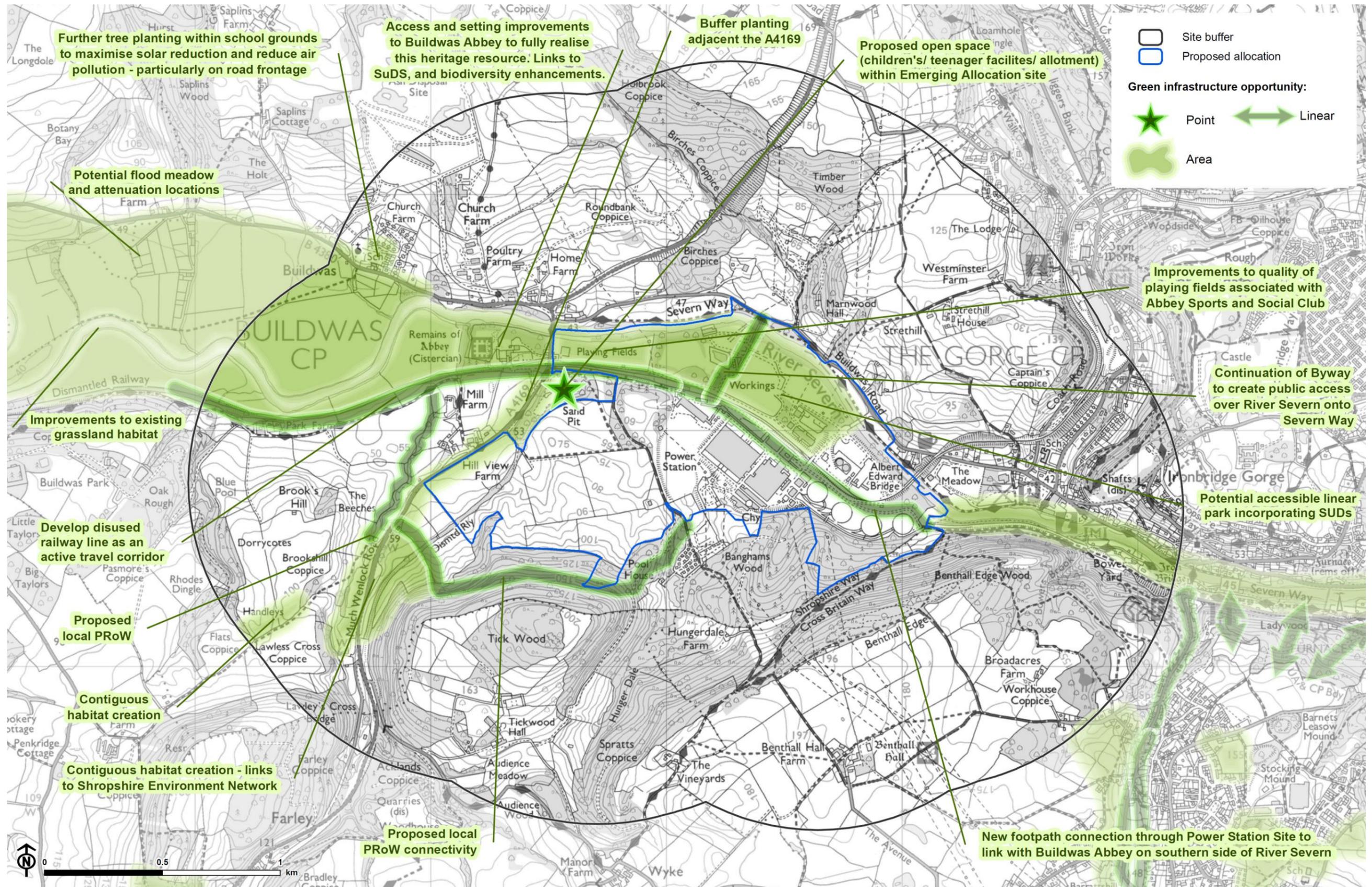
	<p>Sustainable Urban Drainage Systems (SUDs)</p> <ul style="list-style-type: none"> ■ The Shropshire Outline Water Cycle Study (2010) suggests that a combination of infiltration and attenuation interventions are likely to be suitable within this area. ■ The Former Ironbridge Power Station is a proposed allocation according to the Shropshire Local Plan Review, 2019. There are also several small-scale domestic planning applications within the semi-urban and more rural parts of the study area. There is opportunity for SUDs applications within these developments.
<p>Key Theme 4: Active Travel, Access and Recreation</p> 	<p>Transport Context</p> <ul style="list-style-type: none"> ■ The A4169 passes through the study area in a north-south direction connecting Much Wenlock with Telford. ■ The current development proposals for the site include the provision of a new railway station. <p>Active Travel</p> <p>Walking</p> <ul style="list-style-type: none"> ■ A number of PROW and Bridleways are located within the study area south of Benthall Edge Wood. ■ Large parts of Tick Wood, Spratts Coppice and Banghams Wood are not publicly accessible. ■ The Shropshire Way long distance footpath connects around 200 miles of the Shropshire Hills in the south with the historic towns in the north of the county. In the study area, the route passes through Coalbrookdale, across the River Severn and along Benthall Edge. ■ The Severn Way long distance footpath starts on the Plynlimon plateau in Wales and passes along the entire Severn Valley to Bristol. Within the study area it mainly follows the course of the river, circumnavigating Buildwas Abbey to the south. <p>Cycling</p> <ul style="list-style-type: none"> ■ National Cycle Route 45 is located on-road in the east of the study area within Telford and Wrekin LA, linking back into Shropshire south of Little Hill in the north and east of Broseley in the south. The section which runs through Shropshire is known as the Mercian Way. <p>Access and Recreation</p> <p>Open Space</p> <ul style="list-style-type: none"> ■ There is a derelict golf course, part of the former Ironbridge power station complex, located south of the River Severn. ■ Within neighbouring Telford and Wrekin LA, there are a number of publicly accessible open spaces including Dale End Riverside Park, north of the River Severn.

<p>Key Theme 5: Health and Wellbeing</p> 	<p>Health</p> <p>Health Deprivation</p> <ul style="list-style-type: none"> ■ The IMD relating to health indicates that the most health deprived portion of the study area is in the south east, south of Benthall Edge Wood, which is in the 50-60% least health deprived areas in Shropshire. The proposed site allocation itself is within the lowest 70-80% least deprived area in Shropshire, therefore overall health deprivation is not considered to be a key issue for this study area at present. <p>Childhood obesity</p> <ul style="list-style-type: none"> ■ Public Health England data shows that childhood obesity is not a significant issue for the site. <p>Air Quality</p> <ul style="list-style-type: none"> ■ There are no recorded AQMA within the study area. <p>Wellbeing</p> <p>Accessible Open Space</p> <ul style="list-style-type: none"> ■ The Open Space Assessment undertaken by LUC to inform this GI Strategy identified the following baseline provision of open space. <ul style="list-style-type: none"> – Accessible Open Space: 0ha per 1000 persons (2018 population base). Analysis shows that the eastern part of the study area falls within the 400m access buffer for open space access in relation to natural and Semi-Natural Green Space located within the neighbouring settlement of Broseley. – Allotments: 0ha per 1000 persons (2018 population base). – Provision for Children and Teenagers: 0 spaces in total. ■ See the Open Space Assessment appended to the GI Strategy Report for more details. <p>Noise Pollution</p> <ul style="list-style-type: none"> ■ There is identified road noise 24 hours a day on the A4169 Much Wenlock Road from Brookshill Coppice throughout the study area north into Telford and Wrekin LA³.
<p>Key Theme 6: Climate Change</p> 	<p>Tree cover</p> <ul style="list-style-type: none"> ■ Formal urban green space is restricted to Buildwas village. Tree cover is predominantly limited to boundary vegetation. ■ The grounds of visitor attractions such as Buildwas Abbey and Benthall Hall provide significant quantity and quality of mixed broadleaved tree cover (National Forest Inventory). ■ Much of the key PROW infrastructure is located within woodland. ■ A block of climate resilient tree species is located in Workhouse Coppice on the eastern fringe of the study area. <p>Flooding Climate Change Allowance</p> <ul style="list-style-type: none"> ■ The majority of the existing Flood Zones have been modelled as Higher Central according to The Strategic Flood Risk Assessment⁴. this identifies that the flood zone in the area of the Severn, which runs along the north of the site, is likely to expand from the current Environment Agency flood zones.

³ Accessible Natural Green Space Mapping, 2018

⁴ Strategic Flood Risk Assessment, 2018

Green Infrastructure Opportunities



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Key Green Infrastructure Opportunities

Theme	Green Infrastructure Opportunities
<p>Key Theme 1: Biodiversity and Geology</p> 	<ul style="list-style-type: none"> ■ The Shropshire Environmental Network and Natural England Habitat Network within the study area should be managed to ensure that they are enhanced to support wildlife populations. ■ There is potential for additional Countryside Stewardship Agreements to build on existing Environmental Stewardship Agreements at Benthall Edge Wood and to safeguard qualifying features and supporting ecosystem of Tick Wood and Benthall Edge SSSI (understorey grassland). ■ The semi-natural habitat mosaic buffering Benthall Edge Wood SSSI could be extended to link with Spratts Coppice, Banghams Wood and Workhouse Coppice and create a reinforced contiguous habitat alongside a cohesive management plan across the area, particularly in response to increased recreational demand due to the new development. ■ The Green Corridor along the northern edge of the Ironbridge Gorge World Heritage Site, encompasses Lodge Field LNR. There is opportunity to link wetland and grassland habitats through the Ironbridge landscape towards the River Severn and LNR and the Shropshire Border, bolstering green infrastructure on the southern banks with further links to Benthall Edge Wood. ■ Deciduous woodland along the River Severn Shropshire Environmental Network corridor should be protected and enhanced which would benefit not only the wildlife corridor but also recreation. ■ Enhanced management practice should be implemented to ensure continued longevity of ancient and semi-natural woodland at Tick Wood, Benthall Edge Wood, Brookhill Coppice, Banghams Wood and Replanted Woodland at Banghams Wood and Holbrook Coppice. This should include management plans, particularly in relation to increased recreational demand associated with future population growth. ■ There is also significant opportunity to extend woodlands within the study area and create contiguous networks interlinking ancient woodlands, nearby plantations and key features including along the River Severn and the A4169 Much Wenlock Road (also referred to in Key Theme 5). ■ Priority grassland habitats around Buildwas Abbey could be enhanced through management of invasive species and planting of marginal and ephemerally wet areas within the flood zone. Such interventions would also provide secondary drainage benefits with a landscape more resilient to flooding. Biodiversity improvements could link with opportunities identified in Theme 2 and Theme 6 to create a more robust habitat mosaic. ■ Local Friends Groups should be engaged to maintain management standards and maximise local knowledge and ownership. Key investments should focus on creating additional links to habitats of national importance. ■ Local quarry sites both in-use and disused offer the opportunity for remediation, particularly for the provision of semi-natural greenspaces.
<p>Key Theme 2: Landscape, Heritage and Culture</p> 	<ul style="list-style-type: none"> ■ Access to and the setting of Buildwas Abbey and Benthall Hall should be enhanced to create an improved visitor attraction. Car parking, footpath improvements and appropriate planting would all provide enhanced infrastructure. ■ The proximity of the Ironbridge Gorge World Heritage Site to other key green infrastructure features creates an opportunity for strategic links to improved connectivity and accessibility. Improvements such as interpretation, or enhanced identity for example through artwork installations should also be considered.

<p>Key Theme 3: Water Resources</p> 	<ul style="list-style-type: none"> ■ Flood meadows and nature-based solutions to flood risk areas adjacent the River Severn should be introduced and enhanced, for example, by provision of a linear park. This could include agricultural land south of Buildwas and within the Former Ironbridge Power Station site, south of the River Severn. Access within these areas could also be improved within these meadow areas with potential for the creation of new semi-natural linear parks as part of overall development masterplans. This landscape could incorporate the derelict golf course discussed in Theme 4. ■ Further enhancements could also include bank reinforcement / stabilisation, dredging and removal of modifications where appropriate. ■ Roadside buffer planting along the A4169 Much Wenlock Road, as identified within Theme 5, would also create a natural defence against surface water nitrate run-off from adjacent agricultural land. ■ The new emerging mixed use development, car parks and key access points including potential improvements to visitor attractions such as Buildwas Abbey should all employ SUDs approaches.
<p>Key Theme 4: Active Travel, Access and Recreation</p> 	<ul style="list-style-type: none"> ■ The redevelopment of the site should incorporate suitable open space in accordance with Shropshire planning policy requirements. It is recommended that as part of the open space provision, a new semi-natural linear park is created to the south of the River Severn. The Abbey Sports and Social Club could be enhanced and absorbed into this park. The derelict golf course would have the potential to be redeveloped into a habitat rich flood meadow with enhanced access, and the potential for natural play (refer to Theme 5). ■ Further to the new park recommended above, new multi-user routes should be provided as part of the redevelopment of the Former Ironbridge Power Station Site with links from the east (Ironbridge Gorge World Heritage Site) along the southern banks of the River Severn towards Buildwas Abbey and the west, and across the river utilising an existing crossing and connecting with the Severn Way. ■ Improved footpath surfacing could also be introduced on existing routes with higher usage, particularly those which connect key green infrastructure features, such as Benthall Edge Wood, Benthall Hall and Ironbridge Gorge World Heritage Site. ■ New pedestrian routes could be created through Tick Wood to increase connectivity and access to this key asset and linking to others such as Benthall Edge Wood. This would also link PRow 0409/7/1 with Bridleway 0409/16/5 creating local level circular walks around Tick Wood. ■ Access points on the Shropshire Way, particularly at junction points with Ironbridge Gorge World Heritage Site could be improved with interpretation and identity markers. ■ The disused railway line which dissects the site east-west has potential to be developed as an active travel corridor. This would link existing PRowS and the Severn Way Long Distance Footpath to the west of the site, across the River Severn with links to Ironbridge town. ■ There is potential to improve local level access links to NCN Route 45, including the multi-user routes discussed above within the Former Power Station site, connecting potential new development with existing facilities. ■ Existing open spaces, including Benthall Edge Wood could be improved through physical interventions, aligned with access and habitat improvements as previously discussed.
<p>Key Theme 5: Health and Wellbeing</p> 	<ul style="list-style-type: none"> ■ Providing improved access to the landscape is considered to be of high importance. Improved access to walking routes and to the countryside surrounding Benthall Hall and Benthall Wood have already been noted in previous themes. ■ Allotments and play facilities should be included as part of any development of the Former Ironbridge Power Station site. These facilities should be accessible to existing as well as new communities, ideally within appropriate proximity to the A4166 Much Wenlock Road (western boundary of the site). ■ Opportunities to make Tick Wood accessible, and the creation of accessible pedestrian and multi-user routes as discussed in Theme 4 would improve accessibility to green space within the central part of the study area. ■ Planting buffers along the eastern and western sides of the A4169 Much Wenlock Road would have real and perceived benefits in reduced noise pollution with multi-functional benefits in creating contiguous habitats and reducing air pollution.

**Key Theme 6:
Climate Change**



- Tree planting has been identified as a significant opportunity within previous themes, particularly Theme 1. In this study area, there is further opportunity to increase tree cover / planting of locally appropriate and climate change resilient species in the grounds of Buildwas Academy (primary school), particularly on the road frontage and also within Dale End Park to assist in climate change adaptation.

Summary of key opportunities						
Semi-natural linear park creation at Former Ironbridge Power Station Site, south of River Severn	✓	✓	✓	✓	✓	✓
Flood Meadow creation in agricultural land south of Buildwas	✓	✓	✓			✓
Habitat enhancement and creation within River Severn Floodplain	✓	✓	✓			✓
New multi-user connectivity created through emerging allocation site with links to the River Severn				✓	✓	✓
Inclusion of provision for children and teenagers and provision of allotments within development proposals				✓	✓	✓
Accessibility improvements at Benthall Edge Wood				✓	✓	✓
Develop disused railway line as an active travel corridor				✓	✓	✓
Accessibility provision through Tick Wood				✓	✓	✓
Enhanced setting and accessibility at Buildwas Abbey	✓	✓		✓	✓	
Buffer planting along the A4169	✓	✓	✓			✓
Additional planting at Buildwas Academy	✓	✓				✓