



















We are creating a network of natural neighbourhoods that are exemplar of sustainable living and innovation, with infrastructure planned and delivered from the outset.







A unique opportunity to create easy alternatives to reliance on the car.

Sharpness already has an operational railway line. We think it is time for people to be able to use it again.

Network Rail have formally confirmed that they concur with the timetable study commissioned to explore the viability of restoring passenger train services to Sharpness.

The study concluded that a service for one train per hour between Sharpness and Gloucester can be accommodated within the timetable today. The addition of a further service, to provide two trains per hour to Sharpness can be accommodated in the future, on the basis of track and signal improvements on the branchline and some amendments to the signalling on the approach to Gloucester station were completed.

The costs of undertaking this work have been included in an outline business case for re-opening the railway. The improvements overall would allow trains to run at higher operational speeds to a new station at Sharpness Vale. All of this work has been included in the outline business case which is part of the submission made by Stroud DC to the "Restoring your Railway" bidding process.

HIGHLIGHTS AND KEY BENEFITS OF THE PROPOSAL



and using personal transport routes to access all the services and facilities within the neighbourhood and for longer distance journeys, to use the reinstated railway to access Cam, Gloucester and beyond.

Over 50% of the site is greenspace which will create a new area of similar size to Rodborough Common that will become an important greenspace for Gloucestershire and nationally.

BOOST TO LOCAL ECONOMY



£857million

Estimated construction investment over 35-year build programme.1



591

Direct construction roles and indirect/induced jobs supported per annum during build phase.



£714million GVA2

Economic output contribution from jobs supported by activities at the site over 35-years (present value³).



6,152

Economically active and employed residents estimated to live in the new housing.



£65million

Estimated contribution to economic output per annum.



£36million

Annual expenditure on convenience and comparison goods.



Of which is estimated to be retained within Stroud4.



10ha

new employment land



£10.3million

Estimated annual increase in Council Tax revenue.



£880,000

Estimated annual business rates generated by the employment floorspace.



54%

Of employed residents estimated to be working in higher value/higher income occupations.

2. GVA, or gross value added, is the measure of the value of goods and services produced in an area, sector or industry.

Where future benefits are calculated over a longer time frame, they have been discounted to produce a present value.
 Drawing on research from the Stroud Retail Study Update. July 2013.

The construction cost has been estimated using the BCIS Online Tecl and is exclusive of external works, contingencies, supporting infrastructure, fees, VAT, finance charges etc. It is based on average prices for each ficonspace type in the South West Jacoessed 16/03/2021).







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THE INTEGRATION OF ROUTES THAT SUPPORT ALLOTMENTS TO PROVIDE CHILDREN WALKING OR LOCAL FOOD, OCCUPATIONAL CYCLING/SCOOTING TO AND THERAPY AND AS A MECHANISM FROM SCHOOL SAFELY AND OF SOCIAL INCLUSION EASILY

CLEAR NETWORK OF FOOTPATHS AND CYCLEPATHS MAKING THE DEVELOPMENT WELCOMING FOR PEDESTRIANS, CYCLISTS & OTHER PERSONALISED TRANSPORT

TREES AND HEDGEROWS
INTEGRATED WITHIN
DEVELOPMENT FOR WILDLIFE,
SHADE AND IMPROVED AIR
QUALITY

1. INTRODUCTION

"We are going to create a low carbon, low energy new settlement for Gloucestershire to meet the climate change agenda".

- 1.1 This document has been produced in support of Stroud 1.3

 District Council's Local Plan Review and demonstrates how land at Sharpness can help to provide a significant amount of the new growth requirements for Stroud within a sustainable new settlement.
- 1.2 It sets out the background, rationale and vision for the development of new natural neighbourhoods at Sharpness that are exemplar of low energy living. The proposals comprise of:
 - A new mixed use community, that will allow people to live and work in the same place, reducing their need to travel further afield.
 - Planned growth for up to 2,400 homes to meet the district's needs up to 2040;
 - A further 2,600 homes after 2040 to create a community of approximately 5,000 homes;
 - New jobs through 10ha of dedicated employment land and other jobs generated by the development;
 - Community facilities such as sports provision, shops and other services as part of a mixed use centre based around the new railway station;
 - A new Secondary School, new 3FE Primary School and the expansion of Newtown Primary School to 2FE in the first Phase and further primary schools beyond the plan period;
 - A Nature Reserve and extensive area of Suitable Alternative Natural Greenspace (SANG)

- This is the third iteration of the vision document to keep everyone informed of our evolving project. The other documents were provided in September 2018 and November 2019.
- 1.4 The site is being promoted by Sharpness Development LLP which is a partnership between GreenSquare Group and Lioncourt Strategic Land.
- 1.5 GreenSquare brings its extensive experience of delivering socially sustainable communities and Lioncourt brings commercial experience that will enable the practical delivery of the place and its multistructural infrastructure requirements over the full term of the development phases.



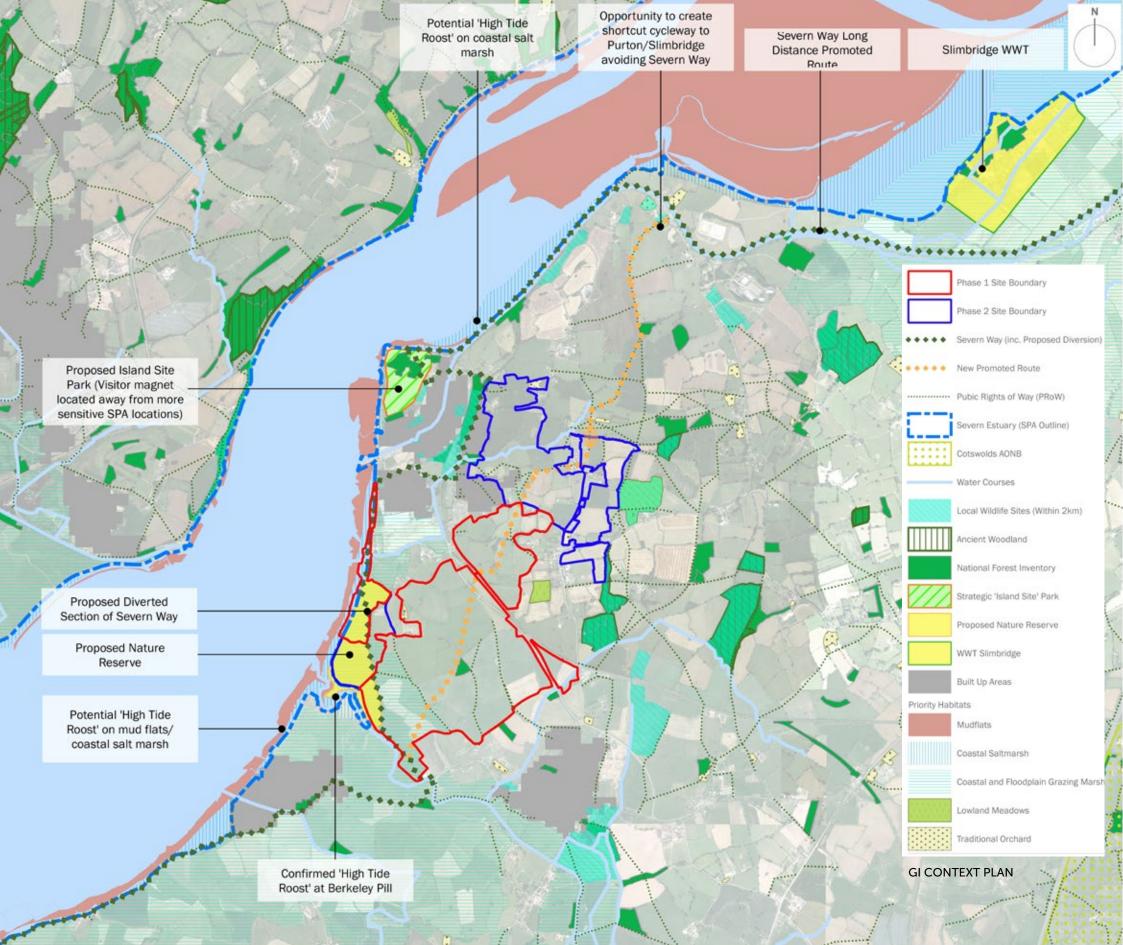
2. THE VISION

- 2.5 Extensive dialogue has been carried out with delivery partners and stakeholders including Natural England, Stroud District Council, Network Rail, Gloucestershire Country Council, VoBRG, DfT, Zeelo, the Environment Agency and Building with Nature to continue to develop this bespoke and innovative approach. This dialogue will continue.
- 2.6 The new neighbourhoods will aim to reduce the carbon footprint of its residents and visitors. Energy efficient building methodologies, systems and equipment will support low use of energy throughout the lifetime of the buildings. The development will not use fossil fuels and will be totally reliant on green energy sources from the outset.
- 2.7 On the strength of meetings now held to date with Network Rail, we are also designing our scheme to include the re-opening of the railway line at Sharpness to passenger services, including the construction of a new station. We envisage that service to develop from an initial hourly service to become twice hourly from Sharpness to Cam and on to Gloucester. A dedicated coach service will link Sharpness to Gloucester, Stroud and Bristol City Centre and the various business parks and employment centres providing a quick and reliable option for commuters. Further smart bus services will be incorporated from the outset helping to lessen the demand for car ownership and usage and all accessible through an integrated "Mobility-asa-Service" app. There will also be enhanced delivery of electric vehicle charging points across the site.

- 2.8 We are partnering with Virgin Media to deliver lightning fast broadband with top average speeds of 1Gbps to the area. Access to higher speed broadband can bring great social and economic benefits through:
 - Helping to improve quality of life through increased access to services as well as enabling the wider use of the more social and recreational uses of the Internet which can help to reduce social isolation;
 - Enabling new and existing business opportunities to prosper and maintain competitiveness in the market; and
 - Enabling a greater ability for home working which can help to reduce the need for commuting by car for employment purposes.
- 2.9 A fast broadband network will also assist with public transport connectivity enabling the provision of accurate real time information on public transport services.

"The supply of large numbers of new homes can often be best achieved through planning for larger scale developments, such as new settlements..., provided they are well located and designed...."

(NPPF para 72)



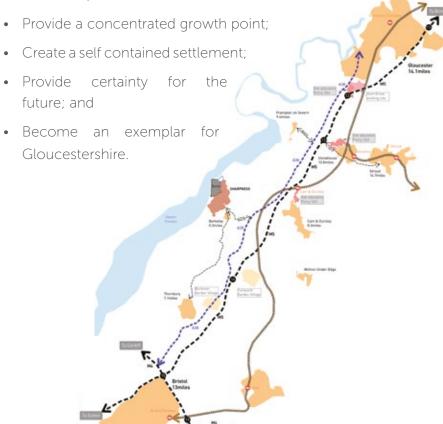
3. WHY AT SHARPNESS?

STROUD DISTRICT LOCAL PLAN

- The Stroud District Local Plan was formally adopted by the Council on the 19th November 2015 and sets out the strategy for development in the District until 2031. However, as part of the adopted Plan, Stroud District Council made a commitment to an early review of the Plan commencing within five years of adoption or by December 2019, whichever is the sooner.
- 3.2 The Council is now undertaking the process of reviewing the current Local Plan to ensure it remains up-to-date and, importantly, can meet future needs up to the period of 2040. In that context, Sharpness provides a unique and exceptional opportunity to secure sustainable development to meet the District's needs to 2040 and beyond.
- 3.3 As part of this review, Stroud District Council is due to begin consulting on its Draft Local Plan Review which identifies the potential for the development of a new sustainable settlement at Sharpness under site reference PS36 (new settlement at Sharpness).
- 3.4 As noted in the Draft Local Plan for consultation, the proposed allocation of land at Sharpness is not envisaged as an extension to the existing settlement of Newtown & Sharpness, but as a distinct new settlement in its own right.

CURRENT SITUATION

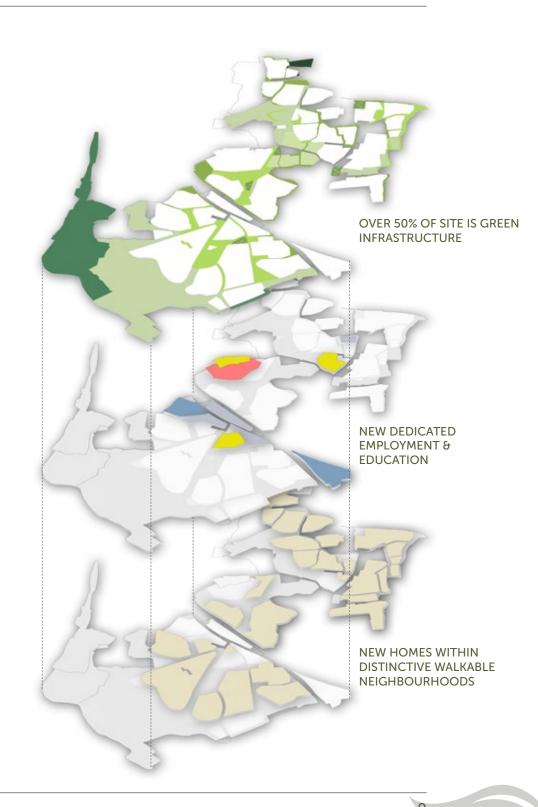
- Sharpness has existing rail infrastructure, waterways, capacity for improvements/change to the highway infrastructure, existing employment and heritage interest. It has a unique character and has a rich historic context, it is an area relatively unconstrained which offers many opportunities.
- 3.6 The development will provide certainty in the direction of growth for the future of the District. The aim is to:
 - Design something different that will provide sustainable benefits now and planned growth for the future;



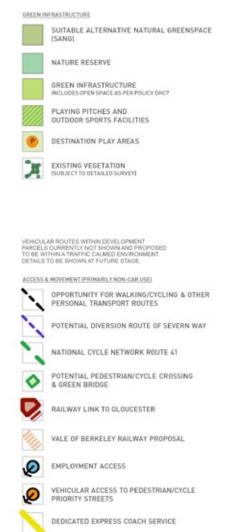


4. THE POTENTIAL SCALE OF DEVELOPMENT

- 4.1 Our preliminary studies have established that growth at Sharpness provides a realistic and deliverable development opportunity. Reopening the railway to passenger services creates the scope for development on a larger scale than hitherto in Stroud District, meeting housing need in a sustainable way for many years to come.
- 4.2 The Masterplan shows how 5,000 new homes, together with employment, a new secondary school, primary schools, community facilities and retail can be accommodated within the site.
- 4.3 The design of the new neighbourhoods at Sharpness will provide a distinct and innovative design response that creates a strong character and sense of place. The Masterplan is not a detailed or fixed design, but the first steps in shaping a place that is flexible enough to provide guidance on the development of the area, whilst providing specific enough guidance to ensure the area is designed appropriately.
- 4.4 The creation of a Neighbourhood Design Manual will ensure design quality is delivered and will be part of the planning process. The new neighbourhoods will incorporate modular, traditional and self-build homes as well as being inclusive and future-proofed for the lifetime of the residents, providing inter-generational living.



OVERALL 5,000 HOME LAND USE PLAN 10 SHARPNESS VALE: natural neighbourhoods





- 4.5 The Land Use plan opposite shows the land use disposition and key principles within the masterplan.
- 4.6 A new railway station at the heart of the scheme becomes a focal point for public transport services, and links to a series of complementary land uses. Bus based public transport services of all types will link into this central area too. Proposed new access points from the B4066 for the employment areas, bus only and main accesses would lead to a strategically positioned mixed use centre. The green corridors radiate out from the mixed use centre providing vistas to the Severn Estuary and promoting the creation of a walkable place and a well-connected movement network within a network of green corridors accessible by all users.
- 4.7 The design will provide well-connected distinct new neighbourhoods. Existing topography naturally defines what will form the extension of the existing neighbourhoods such as Sharpness, Newtown, Brookend and Wanswell. A series of green corridors will further define the edge of these neighbourhoods as well as provide walking / cycling / scooting route networks which will provide connections to public transport, employment, leisure, amenity and health facilities.

KEY:

- 1 NATURE RESERVE
- 2 SUITABLE ALTERNATIVE NATURAL GREENSPACE (SANG)
- 3 NEW RAILWAY HALT
- 4 NEW EMPLOYMENT LAND
- 5 NEW MIXED USE CENTRE CONTAINING SHOPS, COMMUNITY FACILITIES AND DIFFERENT RESIDENTIAL ACCOMMODATION
- 6 NEW SECONDARY SCHOOL
- 7 NEW 3 FORM ENTRY PRIMARY SCHOOL
- 8 EXPANSION OF SHARPNESS PRIMARY SCHOOL TO PROVIDE 2 FORM ENTRY
- 9 BATTERY STORAGE AREA (SEPARATE APPLICATION)
- 10 NEW DESTINATION PLAY AREA
- 11 NEW SPORTS FACILITIES WITH CHANGING PAVILION
- 12 EXISTING BRIDGE ACROSS THE RAILWAY
- 13 NEW FOOT/CYCLE BRIDGE ACROSS THE RAILWAY
- 14 AREAS OF SUSTAINABLE URBAN DRAINAGE

- 4.8 The character of the new neighbourhoods will be influenced by the surrounding landscape and the existing settlements which in turn will give this area a strong identity and character. To the south of the B4066, the character of the neighbourhood will be strongly influenced by its connection to the estuary.
- 4.9 Designing for the scale of development from the outset has clear advantages and opportunities in planning social, physical and green infrastructure in a comprehensive manner. This is a clear advantage of the proposals at Sharpness. It will include a range of facilities sufficient to meet future users' basic needs on-site, allowing them to 'live life locally'.
- 4.10 The intention will be for the neighbourhoods to grow organically in the future in a logical and sustainable manner benefiting from the new infrastructure created by the initial development. In this way, the District will have a concentrated growth point for its future, taking away the anxiety of where tiers of growth may end up in the future.

5 KM LEISURE ROUTE 2.5KM LEISURE ROUTE ELDERLY / DEMENTIA FRIENDLY ROUTE SEVERN WAY TRAIL

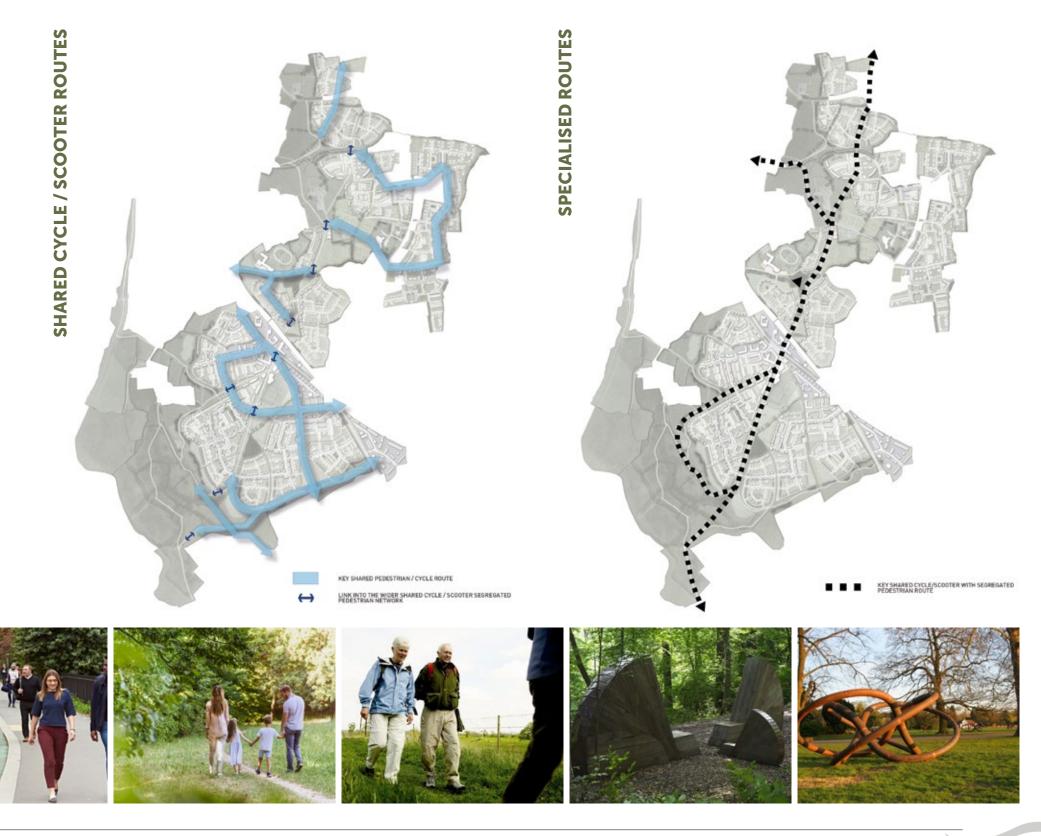
4.11 These diagrams show how the different types of personalised transport routes have been considered. We see a variety of travel opportunities at Sharpness and are therefore designing a series of routes and trails that provided different functions. Some of these routes will have segregated cycling/scooting lanes, some will be shared with all users and some will be just for walking whether its is for recreation or travelling to destinations such as schools or employment.

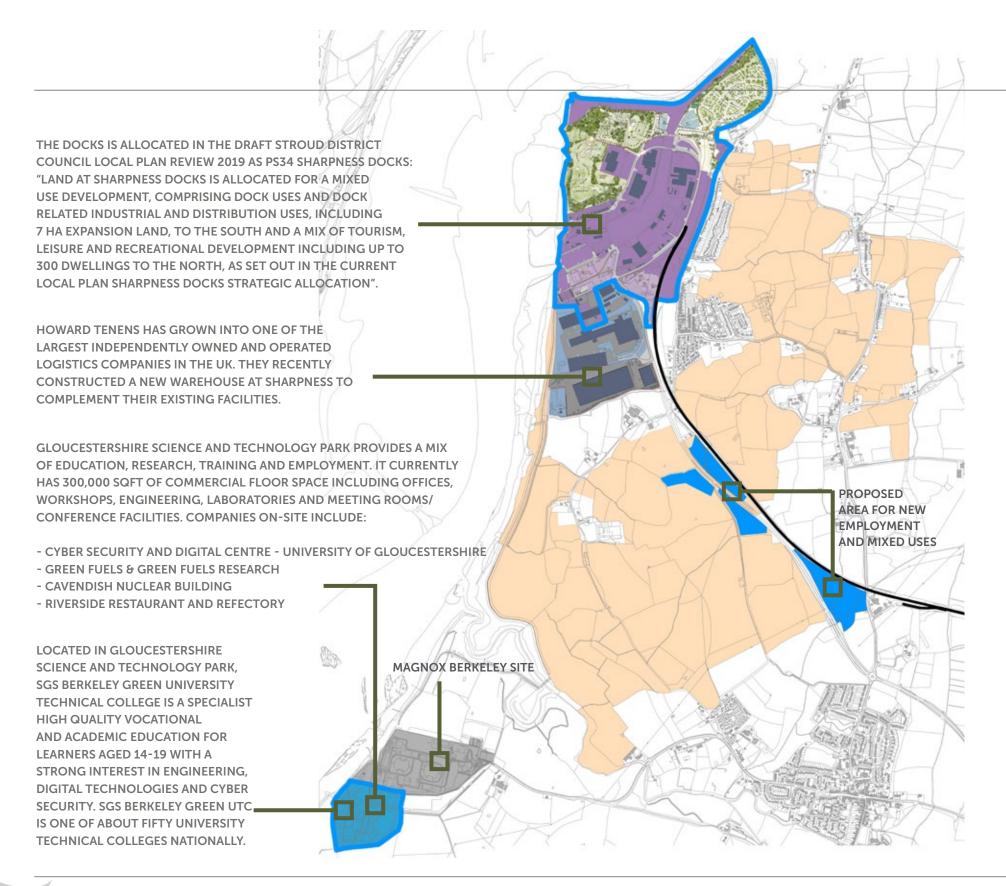
WALKING ROUTES KEY PEDESTRIAN ROUTES IN THE SANG EXISTING PUBLIC RIGHT OF WAY











5. NEW & EXISTING JOBS

- 5.1 Stroud District has a proud heritage of manufacturing, innovation and entrepreneurship. The District has nurtured and grown many entrepreneurs and their businesses, many of whom have become national success stories and employ large numbers of people that provide great support to the local economy.
- 5.2 Stroud District has relatively low levels of unemployment but there are too few jobs in the District itself to meet the needs of the resident workforce. As a consequence, there are high levels of daily commuting out of the District to work. Good employment land is also very scarce in the District, with very few accessible sites.
- 5.3 Stroud particularly lacks modern office premises and small, well serviced industrial sites. Modern businesses are currently looking for well serviced, accessible and flat employment land. There are not many of these sites within the District and those that are available are occupied quickly.
- 5.4 Sharpness already has existing employment areas, mainly based around the docks or at Gloucestershire Science and Technology Park. The site has been at the cutting edge of science and technology for over 40 years, mainly in support of the commercialisation of nuclear power.
- 5.5 Now Gloucestershire Science and Technology Park is home to Cutting-Edge Science and Technology and Digital Technologies and Cyber Security.



GLOUCESTERSHIRE SCIENCE AND TECHNOLOGY PARK



HOWARD TENENS LOGISTICS - SHARPNESS



SOUTH GLOUCESTERSHIRE AND STROUD UNIVERSITY TECHNOLOGY COLLEGE



HOWARD TENENS LOGISTICS - SHARPNESS

"Sharpness principally has an employment role (although its residential and leisure functions are likely to grow)....."

(Stroud District Council Local Plan Review 2019)



SOUTH GLOUCESTERSHIRE AND STROUD UNIVERSITY TECHNOLOGY COLLEGE



- 5.6 One of the primary aims of Sharpness Vale is to create a self-contained community where people can choose to live and work in the same settlement and thereby reduce the need to travel longer distances. However, in order to achieve this ambition, it will be important that the new development delivers new employment land at the initial stages of development.
- 5.7 The development will provide 10-hectares of dedicated employment land that will allow for a range of business types to nurture fledgling businesses as well as to support indigenous businesses that are looking to expand and grow. In response to the global pandemic, the development will also ensure that its residents have the ability to work from home, by designing homes that have suitable workspace as well as an immediate connection to broadband services. In addition, the development will also look to provide a workhub, that will be a central facility that residents can use for meetings and other office services.
- 5.8 The development is looking to pursue the delivery of a gigabit-level broadband network with Virgin Media, which will facilitate faster communication links for the businesses on site as well as support additional home working.

- 5.9 The ambition will be to attract some of the entrepreneurial talent which currently goes elsewhere to find modern business space and to ensure we develop a range of knowledge intensive businesses on the site, right from the beginning of the development.
- 5.10 These new jobs will be within the Growth Zone identified by GFirst LEP. Irrespective of this, market signals have indicated that this is an attractive location for business growth due to its accessible location as well as being flat, serviceable land.
- 5.11 New housing will also help support a local workforce making the site suitable and attractive for local businesses.

"10ha of dedicated employment land providing new jobs as well as jobs within the schools, shops, bus services, maintenance of housing etc"





6. MOVEMENT & TRAVEL



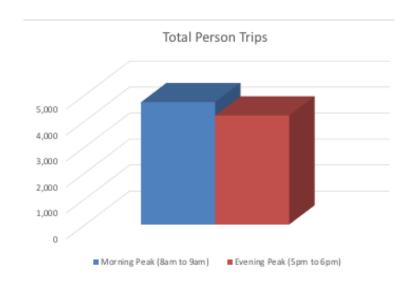
- 6.1 Primary Travel Principles for Sharpness:
 - Reduce the need to travel;
 - Positive planning for emerging personal modes of transport;
 - Greater accessibility within the community; and
 - Longer distant travel by public transport, including a train link.
 - Reduction in emissions from carbon based transportation
- 6.2 Sharpness is therefore developing a wholly sustainably focused strategy for Access and Movement. The philosophical approach to this is two-fold:
 - Looking to the future, at emerging trends and changes in behaviour, technology and attitudes to create a place that is resilient to changes like necessary climate change responses, and;
 - Planning positively for people to use sustainable modes, and hence providing for the outcome that we want to see rather than the one that may occur with a more passive approach.

"Pedestrians spend 40 per cent more (in local businesses) each month than car drivers"

Transport for London research

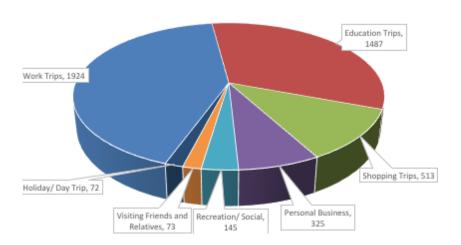
- 6.3 This means that we will make maximum use of the resources and capacity that is already available:
 - We want as many people as practically can, to meet their daily needs for work, shopping, education and leisure within the Sharpness settlement;
 - We want to bring the railway back into use for passengers, providing a regular service to Cam & Dursley and onwards to Gloucester;
 - We want to provide bespoke, high quality coach services to key employment and education destinations that are a genuine alternative to the private car;
 - We want to provide neat, tidy, easily understandable local bus services that link places that people need to go and want to go;
 - We want people to be able to use smart phone technology to plan, book and access all types of travel mode in real-time, on the go, and with the option of covering it with a monthly subscription; and
 - We won't limit car use if people really want to use this mode, but we aren't planning to provide any extra capacity for them, as we know that this simply exacerbates the temptation to get in the car for unnecessary trips.

- 6.4 Simplistically, we are going to focus on the morning and evening peak periods, when the whole network is under stress, and we are going to make sure that almost everyone could complete the journey they need to make by a sustainable mode. This means providing for walking, cycling and lots of other emerging personal transport modes, like electric scooters.
- 6.5 For journeys further afield, we will have made sure that there is a seat available for them on a bus, coach or train that matches where they need to go.
- 6.6 We have used census and other National survey data and statistics related to the Sharpness area to analyse the destinations that people will want to go to. Based on these patterns, we think that there will be around 4,700 person trips in the morning, and 4,200 in the evening:

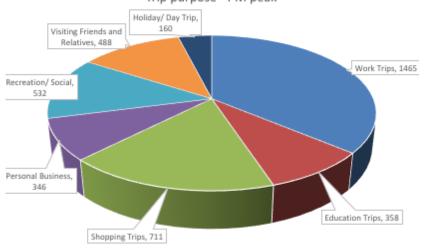


6.7 And they will be travelling for a whole range of purposes – like this:

Trip purpose - AM Peak



Trip purpose - PM peak



"Most people want to live their lives as conveniently as possible but will also be influenced by personal responsibility, think of societal attitudes and trends towards waste/recycling and how they have changed hugely over 30 years. The Covid-19 pandemic is accelerating this for movement trends and the local living agenda".

6.8 We calculate just over 2,000 people will need to travel to and from Sharpness from outside in the peak periods.

For these people to travel sustainably following the current trends, we will need these services each hour:

	Morning Peak	Evening Peak
Berkeley & Sharpness		
Cam & Dursley		
Bristol & South Gloucestershire		
Gloucester		
Stroud & Stonehouse		

- 6.9 In reality, we think these might be a bit different when Sharpness is established if there is a new train service, twice every hour, to Gloucester then more residents might look to find work there rather than in Bristol where most of the existing pattern of movement is targeted. We will evaluate how much this might change as part of our on-going work and particularly with the change in working patterns following the COVID 19 pandemic..
- 6.10 Some of the bus services will be combined, as not all of them will be full so there won't need to be quite as many actual buses as the graph suggests. But for those heading to Bristol and its wider conurbation, quite a few of these will be dedicated to take people efficiently to a particular business park or common employment destination. Services like this have run really successfully between South Wales and Bristol and at numerous business parks so this isn't a new idea!
- 6.11 Hence, the aspiration is that the sustainable transport measures provided alongside the scheme would provide for every trip that may need to be undertaken within or beyond the development without relying on the car.



- 6.12 This approach isn't expected to be cheap though. Providing the movement infrastructure necessary to make this work will be expensive to establish although we are confident that it will be able to sustain itself once a "critical mass" is achieved at Sharpness. But our plan is that, although this significant investment may need to be made into these sustainable modes, this should minimise the amount of highway capacity upgrades.
- 6.13 There will be no sanction on the use of the car it just won't be the most convenient mode to move around Sharpness by some margin. Sharpness residents and visitors will be free to choose this mode if they wish, but no concession will be made in respect of this mode of transport.
- 6.14 The Sharpness Movement Strategy will make it really easy for those that want to adopt a sustainable lifestyle from the outset, day one, as soon as they move in.
- 6.15 One such piece of technology is the use of 'Mobility as a Service' (MaaS) that will be accessible to residents and occupiers of the development, and to existing communities.

"Sharpness will embrace future technology that enables people to more easily access different modes of transport".

- 6.16 The MaaS service would provide access to a range of services within the using a bespoke journey planning app that can book tickets all within a fixed monthly subscription. It would include:
 - Rail tickets to Sharpness Branch Line services as soon as they are up and running;
 - Bookings for the tailored, express coach services;
 - Tickets for the local bus services;
 - Booking with local taxi providers, Uber and other on demand services;
 - Cycle hire facilities probably provided by others on site, but available through MaaS;
 - Access to personal modes of transport; and
 - Car hire and pooling for Battery Electric Vehicles.





- 6.17 We have given some considerable thought to how we will achieve the forecast outcome that we want at Sharpness.

 There will be a range of components, but the headline ones are likely to be these:
 - Upgrading the Sharpness railway line to passenger trains, with a new service to Cam and Gloucester. This will require a new station at Sharpness, track and signal improvements that can be programmed alongside re-signalling works and appointment of a suitable operator. We have met with Network Rail, Gloucestershire County Council and the Vale of Berkeley Railway Group in respect of our proposals. Network Rail have formally confirmed that they concur with the timetable study that has been undertaken to explore the viability of incorporating passenger train services to Sharpness.
 - Operating a high quality, express coach service to Gloucester, Stroud and Bristol, and key employment nodes around the city. This would use the "Zeelo" model to utilise chartered coach resources on routes designed to unashamedly maximise the commuter patronage.

- Commit to early years express coach services in advance of the railway being regenerated. People should be able to rely on this from the first day they move in, so they can adopt the movement strategy easily and without needing any stopgap car reliance.
- Marketing towards specific individuals –
 recognise the unique place that Sharpness is,
 and the amazing links it will have to Gloucester
 and Bristol, and sell it to people who want that
 lifestyle.
- Recognise that getting the peak periods right is key – that is when we need everyone to adopt non-car based travel, as that is when the network is most stressed. We can afford to be more relaxed about how people travel outside of the busiest periods. All the sustainable modes will be available – but it is the peak period travelling we are really targeting.







- Make sure there is a mix of employment uses on site. These should complement the existing jobs available in Berkeley and around the docks, and provide a real progression of career opportunities and grades of job to allow people to work locally, but stay local as they progress and develop.
- Provide flexible start up and "one-man band" spaces for people at both ends of their careers to use.
- Designing neighbourhoods that allow people to work from home.

- Provide flexible approaches to parking, so that as less car ownership occurs over time, these spaces don't become unnecessary hard paved areas but can be re-purposed as green spaces, development plots, play spaces, community gardens, allotments and more.
- Non-car Green Ways & Corridors unadopted routes to maximise every opportunity to use every possible mode for getting around safely walking, jogging, bikes and scooters, electric bikes and scooters, Segways, motorised skateboards any method that makes it easy to get around. Some of these are currently illegal to use on highways so we will keep these routes threaded across and around the development unadopted so that people can use the latest and easiest technology to get around.







Berkley Pill 9 Natural play trail set within woodland and meadow spaces. O Entrance Green Space with urban character 0

28

GREEN INFRASTRUCTURE VISION

7. DELIVERING A WEB OF GREEN INFRASTRUCTURE

- 7.1 The Landscape Vision is to create a new community at Sharpness Vale that is sensitively embedded within the existing green infrastructure network, and build on the strong sense of identity based on the distinctive landscape characteristics of the site. The flatter, open character of the southern end of the site near the River Severn, contrasts markedly with the more undulating, smaller field parcels and river corridors that characterise the areas to the north of the railway line.
- 7.2 As a 21st Century development, Sharpness Vale will accommodate new ways of living post-Covid and in a net zero-carbon future. As issues of wellbeing, health and accessibility to open space become increasingly important, the proposals seek to provide a rich tapestry of uses for the residents to enjoy using for exercise, play and social functions whilst maintaining the protection of the SPA.
- 7.3 The backbone of the green infrastructure network is conceived as a wide green corridor, a 3.6km long axis that crosses the Sharpness Vale area from north to south. This green structure connects communities together whilst providing a green setting that prevents coalescence between existing villages. Several other green corridors radiate off from this primary route, and form nodes at the intersections where various outdoor functions occur.
- 7.4 Together this green network also serves an equally important role as a sustainable movement system, with wide routes provided for the use of not only walkers and cyclists, but it is envisioned that other

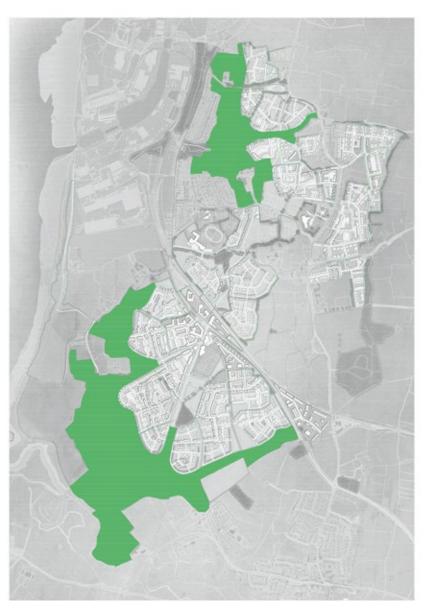
- new, sustainable forms of electric personal transport will be used to move around the site.
- 7.5 The landscape strategy for Sharpness Vale includes:
 - A formal park with planting, seating and 'destination play' facilities in the southern area;
 - A sports hub located withing the central area having several sports fields and community facilities within easy reach of the whole development;
 - Areas for food production, orchards and other community and social functions including potential for a farm shop and associated uses;
 - A nature reserve alongside the Estuary forming a buffer to the SPA;
 - Suitable Alternative Natural Greenspace providing a transition between the nature reserve and public open space;
 - Existing and new native woodland, hedgerows and trees: to help assimilate development into the landscape, whilst providing important linked habitat, refuge, shelter, shade, food, materials and visual amenity; and
 - Sustainable water systems including linear swales and raingardens running along green corridors, ponds, wetlands and scrapes to form a connected system for the attenuation and cleaning/filtration of surface water.
 - The retention and enhancement of existing habitats and creation of new valuable habitats to deliver significant net gains in biodiversity.

AN AREA THAT RESTRICTS PUBLIC ACCESS

AN AREA THAT MANAGES ACCESS



NATURE RESERVE



SUITABLE ALTERNATIVE NATURAL GREENSPACE (SANG)

AREAS THAT ARE PERMEABLE AND HAVE A VARIETY OF ACCESS



PUBLIC OPEN SPACE

over 50% of the site is greenspace

(excluding incidental areas, gardens and schools which provide additional greenspace)

Greenspace is provided at approx four times the amount required by Local Plan Policy DHC7

A Distinctive Landscape Identity

- 7.6 The Severn Estuary creates a unique landscape setting for the individual Sharpness neighbourhoods. Views and physical links to the estuary are created through direct axial lines along GI corridors that incorporate sustainable and non-car based movement in a similar way to the 'Copenhagen Model' or early Garden Village concept diagrams.
- 7.7 The baseline landscape character presents distinct variations: whilst the northern area has an undulating topography with greater structural vegetation creating a more enclosed and intimate feel, the southern area is predominantly more open arable land with less structural vegetation and with remarkable views to the Severn Estuary. The design will respect and capitalise on these distinctions.
- 7.8 The British landscape is not, and never has been, a static environment, but has continuously evolved in response to functional needs, technological advancement, population dynamics and climate pressures. Development at Sharpness will respect (protect, conserve and enhance) baseline character, but more importantly, it can create new and more diverse and beautiful landscapes and townscapes.
- 7.9 There are listed farm buildings on-site and nearby which, in some cases, have associated land that makes a positive contribution to their significance and forms a location from where their significance can be appreciated. The openness of this land will need to be preserved, and the listed buildings can continue to be read and appreciated within the new landscape.

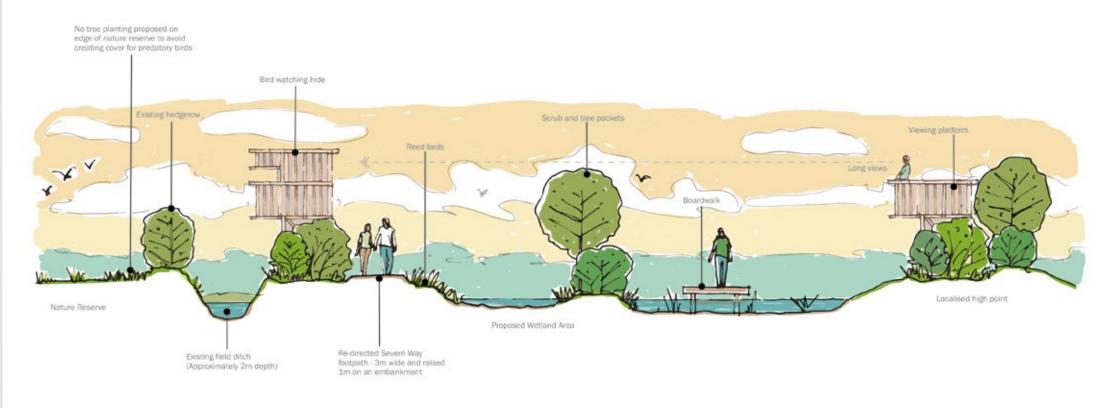




PRECEDENT IMAGERY



VIEW FROM WITHIN SITE LOOKING TOWARDS THE ESTUARY AND THE DOCKS OVER OAKHUNGER FARM AND HOWARD TENENS BUILDINGS

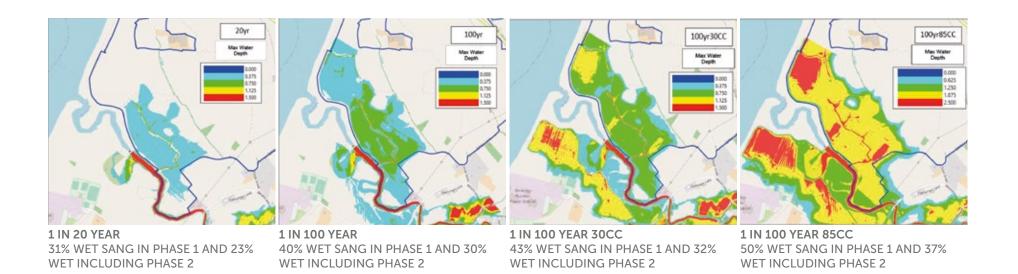


GREEN INFRASTRUCTURE INDICATIVE SECTION



Hydrology

- 7.10 Flood risk and drainage technical work is currently ongoing and the masterplan and proposals for the SANG located adjacent to the Severn Estuary and the Little Avon have been through extensive dialogue with the Environment Agency, Natural England and Stroud District Council. There are numerous watercourses and ditches within the site and vicinity of the site and full hydraulic modelling of the on-site watercourses is currently being undertaken as well as updated tidal modelling to confirm flood extents, depths, velocities and the potential impacts of climate change at the site.
- Floodplain extents have been extracted from the Little Avon fluvial model along with data points from 2D EA LiDAR data to give an indication of peak water levels for the various modelled return periods across the south of the site. This enables us to understand the use and design of the proposed SANG and Nature Reserve. The following percentages give an idea of how much of the SANG will be dry during different flood events. The SANG design will also create additional dry areas to these through the creation of raised pathways and boardwalks. The remainder of the public open space within the site and the SANG to the north of the site is relatively unconstrained to these flooding events.

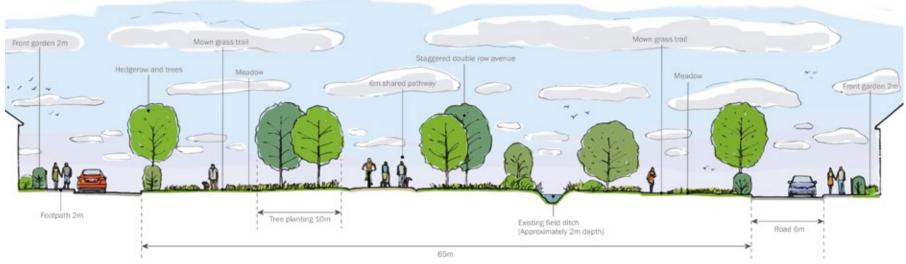


Strategy for Suitable Alternative Natural Greenspace

- 7.12 Sharpness Vale is set next to the Severn Estuary which is designated as a RAMSAR site, Special Protection Area (SPA) and Special Areas of Conservation (SAC). These are statutory designations of the highest (International/European) nature conservation value and reflect the importance of the Severn's estuarine habitats and passage of wintering birds that visit the estuary each year.
- 7.13 By definition, the purpose of Suitable Alternative Natural Greenspace (SANG) is a network of multifunctional greenspace that provides a welcoming, attractive, high-quality informal natural green space experience at an appropriate scale to be effective in diverting potential visits away from a European designation.
- 7.14 Sharpness Vale will deliver substantial areas of SANG (8ha SANG/1000 residents).

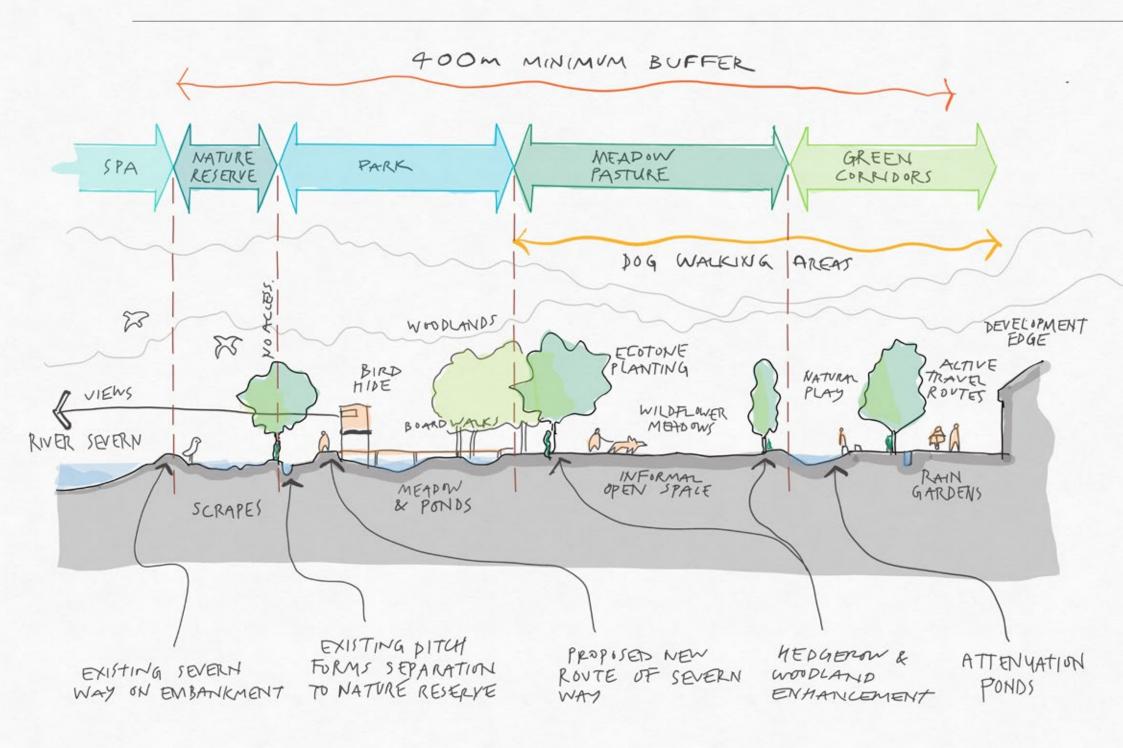
MAIN AVENUE INDICATIVE SECTION

- 7.15 The distribution and design of the SANG landscape areas has been considered in detail following consultation with key stakeholders to ensure that it does not form a draw towards the SPA that could encourage recreational use in that area. The approach taken is to provide SANG within one large area in Phase 1 and one large area in Phase 2.
- 7.16 These larger SANG areas are interconnected through a permeable web of green infrastructure, which is integrated throughout the proposals to allow easy access to green space for all residents from their doorstep without the need to travel. The SANG design has been developed in collaboration with Natural England and Stroud District Council in order to not only provide attractive and accessible spaces for dog walking and informal recreation for future residents but also deliver a wide range of benefits including creating valuable habitats and movement corridors for local wildlife and assisting with the attenuation and filtration of water.









ECOLOGICAL BUFFER CONCEPT

Habitat Protection and Creation – Proposed Ecological Buffer

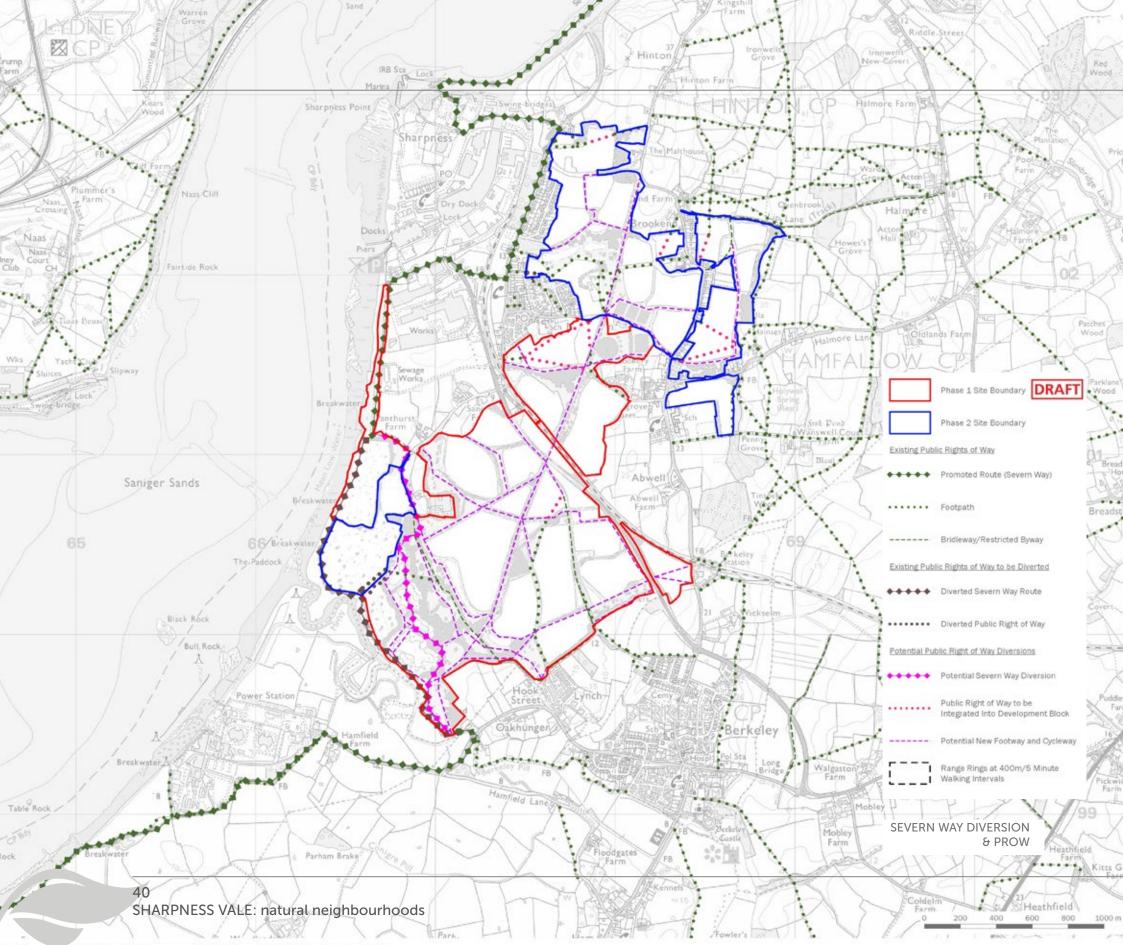
7.21 The critical consideration is management of recreational impacts to the SPA, and in this regard a detailed strategy has driven the masterplan and SANG strategy. No development is proposed within a minimum of 400m from the Severn Estuary SPA/RAMSAR/SAC. Within this buffer area the landscape strategy has been carefully designed to locate 'passive' uses as part of the SANG offering, with non-SANG areas of inaccessible Nature Reserve adjacent to the estuary and forming a physical buffer to it. This approach prioritises the SPA whilst also allowing for low-impact, controlled use of the open space by residents.

Biodiversity Gain

7.22 Comprising predominantly of large intensively sheep grazed pasture of relatively low ecological value, the proposals have been designed around the retention of the more valuable habitats, including the hedgerow and woodland network which forms the basis of the GI framework. This, combined with the quantum of SANG and nature reserve areas proposed, means that the proposals include over 50% green space and offer a notable opportunity to deliver significant net gains in biodiversity that delivers tangible benefits for local habitat and species interests. Preliminary biodiversity calculations have confirmed this position, demonstrating that site is capable of delivering net gains of greater than 40% thereby significantly exceeding emerging planning policy requirements and serving to demonstrate the opportunity that Sharpness Vale provides for long-term ecological enhancements.







Severn Way Diversion

- 7.23 It is proposed to divert part of the Severn Way National Trail inland to protect the most sensitive part of the SPA near Berkeley Pill which is the key high tide roost area for overwintering birds. This is a key mitigation measure, designed to remove recreational use by walkers on the Severn Way embankment and thereby improving the status quo by reducing existing recreation levels at the high tide roost, and also increasing the area of suitable non-disturbed habitat.
- 7.24 The drawing opposite shows the extent of the existing Severn Way Public Right of Way section to be stopped-up, and the route of the proposed diversion. The diverted section is approximately 2.25km from Berkley Pill alongside the estuary frontage to an approximate level with Panthurst Farm.
- 7.25 The proposed diversion route is set back from the existing Severn Way embankment by c.200m and follows a network of existing deep field ditches for the most part, which forms a natural barrier to access. This edge will be strengthened with new planting and the formation of an ecozone through sensitive management. Where the diversion route cuts across the field to the south with no currently defined edge, a ha-ha, complete with ditch will be created to form a visually open barrier that restricts access to the reserve.

- 7.26 Visitors will be able to enjoy views back across the estuary at three locations where viewing platforms/ bird hides will be provided. This will allow a visual connection to the wider landscape without harming the ecology.
- 7.27 Management of the public rights of way network will minimise disturbance impacts through: strategic planting, landscaping and fencing in sensitive locations to minimise dog incursions. Dogs will generally be allowed off-lead in the SANG areas, but will be required to stay on lead throughout the wetland area. Clear signage and demarcation of areas (using field gates) will provide dog-walkers with information and alternative routes.

Nature Reserve

- 7.28 The intervening land between the re-routed Severn Way and the estuary will be transformed into a nature reserve, acting as a disturbance buffer to the SPA. The Nature Reserve will be inaccessible to visitors except within the northern extent prior to the Severn Way diversion inland. In this area, access will be closely managed through measures such as fencing and screening.
- 7.29 Consultation has been undertaken with WWT Slimbridge in relation to the management of the new Nature Reserve. An enhanced wetland ecology will be formed through the creation of 'scrapes' (areas that will be roughly excavated to allow for standing water to form and a diversity of habitats formed based on differing levels of wetness, varying seasonally and at times of flood. This approach will allow for the natural colonisation of reedbed and marginal/aquatic vegetation to thrive, as well as pockets of scrub and wet tolerant tree species towards the edges of the space.







Blue Infrastructure Strategy

Flood modelling has been undertaken to confirm the 7.32 fluvial and tidal floodplain extents across the site.

The provision of raised footpaths and board walks will ensure the usability of the area following extended wet periods or rare flooding events. It is anticipated that arisings from construction, as well as excavated material from the formation of scrapes and ponds in the landscape areas can be used to create slightly elevated footpaths for the primary routes i.e. the diverted Severn Way and the connection to the primary axis through the development.

Education Program

A programme of education is proposed to ensure new residents and visitors understand the value of the SPA and the importance of minimising recreational impacts. This would include information leaflets for new owners and potentially a code of conduct for responsible dog owners, along with a wardening scheme. Similar schemes operate at other coastal sites in the UK, for example Bird Aware Solent and Bird Aware Essex Coast.

7.33 Different spaces within the SANG will be enclosed with hedgerows to allow dogs free reign in certain areas, and gated in others, with signage clearly displayed to demarcate different recreational areas – such as where dogs are to be kept on a lead at all times.

7.34 Provision of bird hides and wildlife interpretation boards and wildlife hibernaculum's provide the opportunity for learning about nature and allowing people to take ownership and pride in their nature reserve.





8. COMMUNITY & EDUCATION

- 8.1 Education at Sharpness will be provided through the new primary schools or secondary school or benefit from the specialisms in Engineering, Manufacturing, Cyber Security and Digital Technologies for young people aged 14 to 19 at Berkeley Green UTC. This creates various options for existing and new families at Sharpness and a unique offer for young people.
- 8.2 The number of schools shown in the Masterplan is based on initial discussion with Gloucestershire County Council and based on a growth scenario of 5,000 homes. Currently a 6FE Secondary School site is shown reserved along with two 3FE Primary Schools, early years provision and the expansion of Sharpness Primary School to 2FE.
- 8.3 All of the schools have all been located directly along strategic green infrastructure routes to encourage opportunities for walking, scooting and cycling and are located near a proposed bus stop and access to the railway station. The secondary school is provided within 1500m of all new homes and existing homes in Sharpness whilst also being accessible by foot, scooter or cycle from Berkeley. The primary school sites have been evenly distributed across the site to be within 600m walking distance of residential areas and are located on the green spine running north south through the development that importantly provides a car free route for children to use between their homes and the schools.
- 8.4 A centrally located mixed use area is shown on the Masterplan located next to the railway station. A further smaller area of community facilities is shown to the north of the site. The mixed-use area also uses this green spine connects into the wider green infrastructure network and will provide a range of facilities including employment, convenience retail, cafe, community building, pop up shops, event space and starter units/workshops.

SAFE, ATTRACTIVE AND CONNECTED **OPPORTUNITIES** PEDESTRIAN AND CYCLE ROUTES THE STREAM CORRIDORS AND TREE BELTS PROVIDE QUALITY CYCLE STORAGE AT THE FOR INVERTEBRATES. BAT ROOSTS, BIRD BOXES NATIVE, WILDLIFE FRIENDLY STRUCTURE TO THE PLACE WITH MULTI- FUNCTIONAL HOMES AND CYCLE PARKING REPTILES, HEDGEHOGS AND OTHER WILDLIFE PLANTS IN GARDENS AND ROLES IN THE PROVISION OF GREEN SPACE, HABITAT, FACILITIES IN THE LOCAL CENTRES AND AND MAMMALS WITHIN LANDSCAPING FEATURES DESIGN INTO BIODIVERSITY GAIN, SUSTAINABLE DRAINAGE, DEVELOPMENT AREA **EMPLOYMENT AREAS BUILDINGS** RECREATION AND HEALTH, MOVEMENT AND ACCESS FOR WILDLIFE BUT ALSO FOR RESIDENTS AS PART OF THE COMPREHENSIVE CYCLING AND WALKING NETWORK "Well-planned networks of high-quality, multi-functional green space help enhance biodiversity, make cities more resilient and contribute to the physical and mental health of people." Professor Alister Scott, Chair Building with Nature Standards Board

9. BUILDING WITH NATURE



9.1 We have been developing the masterplan in 9.2 accordance with the Building with Nature (BwN) Standards. We are fortunate that team members involved in the project are approved BwN assessors and are therefore designing the scheme to achieve Design Accreditation. Having Building with Nature involved from an early stage of the planning and design process will enable Sharpness to provide high quality green infrastructure and promote its benefits to the future population.

"Building with Nature introduces a positive way of thinking about new development. By providing an opportunity for people and nature to flourish together, Building with Nature sets the standard for places that existing and future communities can enjoy and be proud of."



- BwN helps to create places where people want to live, work and play; places where people can enjoy the environment around them; and places where people can have happier and healthier lives. It is a locally developed initiative which has come about through a collaboration between Gloucestershire Wildlife Trust and the University of the West of England therefore it is particularly relevant to the proposed development. There are standards contained within the following groups:
 - Core Standards (CORE) Distinguish a green infrastructure approach to planning and development from a more conventional open and green space approach.
 - Wellbeing Standards (WELL) Aim to secure the delivery of health and wellbeing outcomes through the delivery of green infrastructure features.
 - Water Standards (WAT) Aim to provide green infrastructure to effectively manage water quantity and quality, increase flood resilience, and maximise opportunities for amenity.
 - Wildlife Standards (WILD) Aim to ensure that green infrastructure allows nature to flourish, both within the boundary of the development, and at a landscape scale.



10. DELIVERABILITY & NEXT STEPS

- 10.1 Preliminary technical studies have established that 10.4 development at Sharpness provides a realistic and deliverable development opportunity. The new neighbourhoods will benefit from designed and integrated infrastructure from the outset, that can be expanded into successive phases.
- 10.2 With the potential to deliver a genuinely mixed use community that will include new employment opportunities on a 10ha business park as well as up to 5,000 new homes, together with a comprehensive package of accompanying social and physical infrastructure, it is clear that Sharpness could provide 10.5 a steady stream of employment and housing to help sustainably meet the growth requirements of Stroud District up to 2040 and beyond.
- 10.3 The development will comprise a combination of innovative approaches to green infrastructure, distinct neighbourhoods, education, community facilities and retail. This document has identified that 10.6 it is possible to develop the land in a sensitive and sustainable way and our ambition is to deliver an exemplar development. The site benefits from access to the national railway network and strategic road network and has the potential to improve the existing infrastructure. It will also be designed to address flood risk, landscape and heritage issues.

- O.4 Sharpness will also provide the opportunity to provide new jobs, open space and new and improved public transport services. Sharpness provides a unique opportunity to create a district-scale, holistic, multifunctional network of green open space. This web of Green Infrastructure is an essential component of the DNA of Stroud District and would create a healthy environment supporting residents' wellbeing, significant net gain in biodiversity in terms of both habitat and wildlife species and a beautiful townscape and landscape character.
- In this context, the development will respect the setting and will accord with the principles of high quality design, best practice and sustainability to create a new place that is rich, varied and sympathetic to its environment. The aim is to achieve an exemplar development with a strong identity and 'sense of place.'
- 10.6 Importantly, the new neighbourhoods are specifically designed to remove our reliance on fossil fuels and consequently reduce our carbon output. Through creative design we are aiming to deliver transformational change in the way we both live and work and thereby creating a new and more resilient community for the future.

















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