



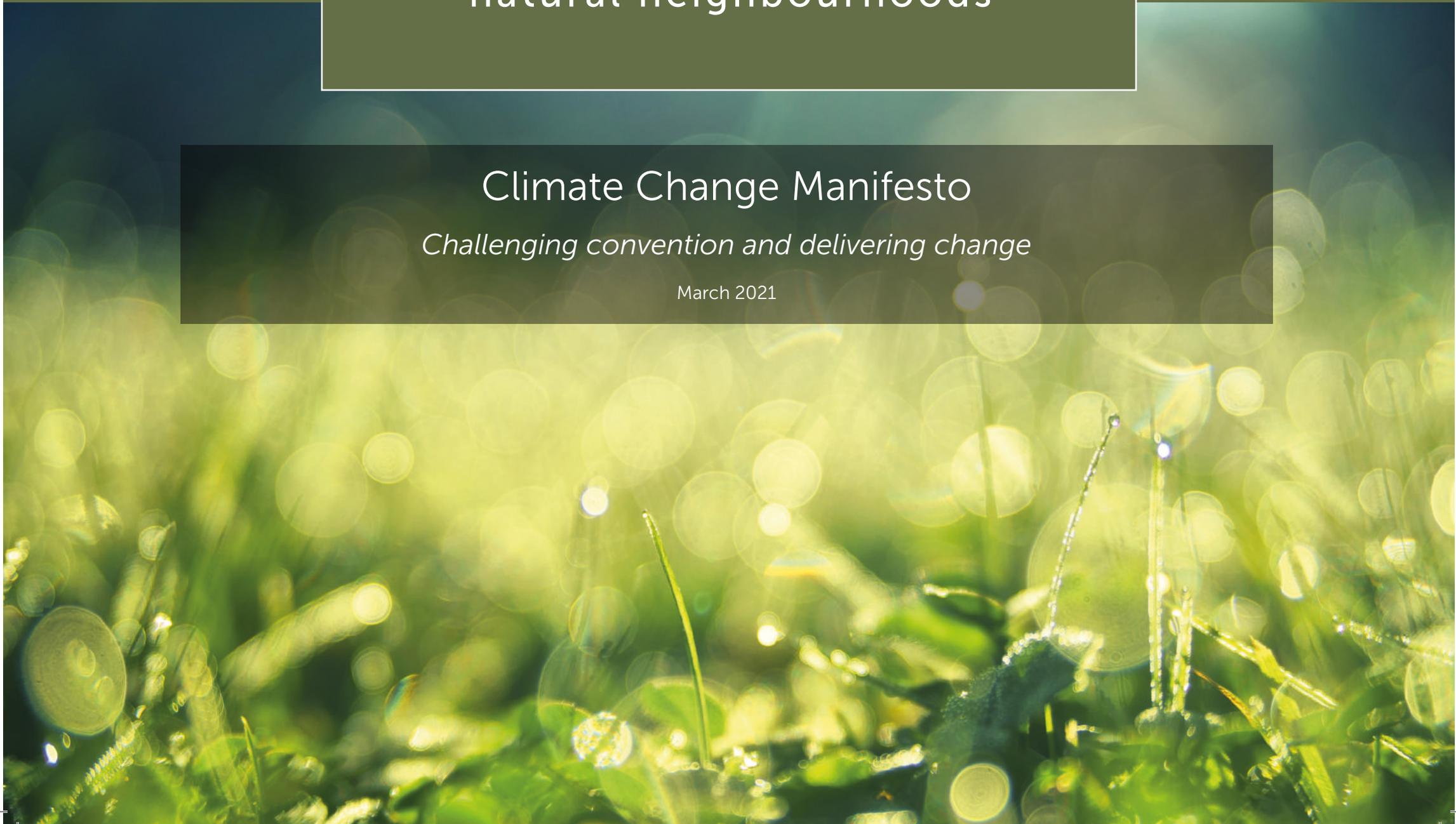
SHARPNESS VALE:

natural neighbourhoods

Climate Change Manifesto

Challenging convention and delivering change

March 2021





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INTRODUCTION

The effects of climate change are rapidly affecting our world, creating an increased number of extreme weather events.

We are now more likely to experience:

1. Rising temperatures;
2. Changes in precipitation patterns;
3. More droughts and heat waves;
4. More extreme weather patterns;
5. Rising sea levels;
6. The melting of the arctic caps.

It is therefore apparent that we will need to address climate change in everything that we do to slow the rapidly increasing temperatures across the globe.

New development has a role to play in slowing down climate change. It is now important that we engineer change in human behaviour so that the way we live and work in the future has a significantly reduced impact on global warming.

This document sets out how the **Sharpness Vale** development can help slow down global warming, simply by changing the way we do things, challenging convention and delivering transformational change.

This document constitutes our promise to deliver sustainable development in a direct attempt to tackle the climate emergency.



2. THE CLIMATE CHANGE IMPERATIVE

1. Climate change has been created by the long-term shift in average weather patterns across the world. Humans are a significant contributor to the release of carbon dioxide and other greenhouse gases into the air which causes global temperatures to rise, resulting in long-term changes to the climate.
2. Whilst burning fossil fuels produces energy, it also releases greenhouse gases such as carbon dioxide, methane, and nitrous monoxide into the air. Consequently, large quantities of these gases have built up in the atmosphere and create a 'blanket' around the planet that traps the heat from the sun and causes the earth to heat up. This is a leading cause of increasing global temperatures and to reverse this trend we now need to create development that is not reliant on fossil fuels.
3. If we continue to burn fossil fuels and cut down forests, the planet could warm by more than 4°C by 2100. This warming could fundamentally change life on earth, with potentially dramatic consequences. We have already begun to experience an increase of extreme weather events as a result of climate change.
4. It is now an imperative to cut greenhouse gas emissions by moving away from the burning of fossil fuels and making a switch to renewable energy sources to stabilise and help reduce the effects of climate change.
5. The most crucial step now is to make big and rapid reductions in global greenhouse gas emissions. There are many different ways this can be done, and the development industry has a responsibility to engineer these changes in all future developments.



THE UK CLIMATE CHANGE AGENDA

6. The UK became the world's first major economy to pass a law committing the country to a target of 'net zero' emissions by 2050. In June 2019, the UK government underlined its commitment to building on the UK's proud tradition of climate leadership by amending the Climate Change Act (2008) to set a new target of achieving net zero greenhouse gas emissions by 2050.
7. To achieve net zero emissions, the UK will need ambitious action in all sectors of the economy, including influencing and changing the way we undertake new development to accommodate the growth we need for the future. New growth will need to be supported by technological innovation as well as robust policy frameworks that supports transformational change. Such change cannot be brought about by repeating convention.
8. The global shift towards a low carbon economy is an opportunity, that will help develop and deliver new technologies, services and infrastructure required to drive cleaner, sustainable growth that can be shared throughout the UK and across the globe. This country's modern Industrial Strategy will help support clean growth and this transition and investment into a low carbon future, will ensure the UK economy reaps the benefits of providing the technologies to support such a future.
9. Cutting emissions and growing the economy go hand-in-hand with improving:
 - a. our homes,
 - b. improving business and industry efficiency,
 - c. accelerating the shift to low-carbon transport,
 - d. enhancing the benefits and value of our natural resources,
 - e. and delivering a clean, smart and flexible power system fit for the future.
10. To have a greener future, we cannot afford to delay implementing these changes now.



Climate Change Act 2008



GLoucestershire's CLIMATE CHANGE AGENDA

11. Gloucestershire released its climate change strategy in December 2019 with the aim of creating a carbon neutral county by 2050 and reducing carbon emissions by 80% by 2030. All Gloucestershire councils have now declared a climate emergency and have signed up to these ambitious targets.
12. A Gloucestershire Climate Change Summit was held on the 21 May 2019 that was devised to highlight the climate changes issues in the County and how global warning could be tackled. The Sharpness Vale development was show-cased at the Summit demonstrating how changes in the way we did development could bring about transformational change. The project was met with warm support from the audience.
13. The Summit showed that there is a lot of concern about climate change amongst both residents and businesses within the County and slowing down and addressing climate change is now a priority in the County.
14. The highest Carbon emissions in Gloucestershire are attributed to the following sources:
 - a. Transport 35%
 - b. Domestic 31%
 - c. Industry and Commercial 35%
15. Therefore, changes in the way we live, work and travel are essential to reduce our carbon emissions in the County.
16. The County is therefore committed to the following actions:
 - a. Ensuring that all new public buildings and residential and commercial developments support the move to zero carbon and improve resilience.
 - b. All new development sites should deliver high quality green infrastructure in line with the 'Building with Nature' standards.
 - c. A review the Local Transport Plan in view of the climate change emergency, encouraging a significant shift in travel behaviour that will reduce car emissions in the County. Scrutiny will therefore be given to all forms of transport modes in the County including:
 - i. Public and community transport;
 - ii. Cycle;
 - iii. Freight;
 - iv. Rail;
 - v. Walk; and
 - vi. Highways.
 - d. Identify ways to reduce carbon emissions in our highway's investments.
 - e. Buy only 100% renewable electricity.
17. The Sharpness Vale development can address and deliver all of these objectives for Gloucestershire and will help accelerate change that will reduce carbon emissions within Gloucestershire and create an exemplar development for the County.





STROUD DISTRICT COUNCIL'S CLIMATE CHANGE STRATEGY

18. Stroud District Council has launched its own climate change strategy in Autumn 2020, with some ambitious targets to ensure that the District has a fast-tracked approach to delivering carbon neutrality by 2030. The Council's draft strategy includes some of the following ideas to help achieve their objectives:

- a. To have carbon neutral planning policy shaping the built environment across all sectors.
- b. The current Local Plan places sustainable development at its heart; and the ongoing Local Plan Review seeks to embed the 2030 carbon neutral goal into the next Plan.
- c. The District will aim to have at least 6,000 new homes in the District built to improved energy performance standards.
- d. To achieve an increase from 12% to 45% renewable generation within the District and have identified and achieved the offset requirement that will achieve neutrality.

- e. To have 90% of commuters currently travelling less than 5km by car, using public/active travel.
- f. The Districts main town centres, with the exception of resident vehicles, will be car free.
- g. Removing our dependence upon the private car.
- h. Electrically-assisted bicycles (e-bikes), to be prioritised and used to replace car travel, and cut car carbon dioxide (CO₂) emissions by up to 50%.
- i. Our district has seen 22% growth in rail users since 2010/11 indicating the potential there is in rail transport. The strategy therefore aims to increase rail use in the District to 50% up on the 2010/11 baseline.

19. These targets are ambitious but are wholly achievable within the Sharpness proposal.





HOW WILL SHARPNESS HELP DELIVER THE CLIMATE CHANGE STRATEGY FOR GLOUCESTERSHIRE

A truly sustainable development can only be created with the implementation of a well thought out and comprehensive green infrastructure at the heart of the development. It is difficult and expensive to retrofit a sustainable framework into existing development simply because older developments are of their time and not designed to embrace the modern technologies and transport systems needed to deliver transformational change necessary to reduce climate change.

Sharpness Vale has had the Climate Change Agenda at the heart of its design and has influenced every aspect of the masterplan and design. The development has been designed to challenge convention and deliver transformational change, within a viable development, that will be delivered by reputable developers who are passionate about creating resilient, sustainable, and happy communities for the future.

The key principles of the design of Sharpness Vale have been to:

- ensure that the development is free from fossil fuels;
- we have the opportunity within the development to travel less in everything we do;
- all new buildings are efficient with regard to energy and heat so that they consume less throughout the year;
- there is less waste from the community and there are green veins created throughout the development that absorb carbon and create bio-diversity enhancements.



1. Transportation

- a. The proposed transportation system for this new community is revolutionary and unconventional for Gloucestershire. It is primarily centred on getting people out of their cars and making personal modes of transport far more direct and convenient for all members of the community. The personal transport corridors will be designed for personal modes of transport only, which will include walking, cycling, electric bikes, scooters, electric scooters, and other forms of personal electric transport. These corridors will link up all the residential neighbourhoods to the settlement's employment, commercial, community and educational facilities, making it quicker to travel by these modes of transport within the community, than by car. These personal transport corridors will also incorporate a green infrastructure from the outset so that they will become 'green transport corridors'.
- b. For those who wish to travel further, the developer has spent a considerable amount of time and investment working with Network Rail, Stroud District Council, Siobhan Baillie MP and the Department of Transport to reinstate a passenger service onto the Sharpness Branch Line that will provide an hourly passenger service to Cam & Dursley and Gloucester. From Cam & Dursley, it will also be possible to get a service that takes commuters into the heart of Bristol. In successive phases, the developer is also looking at re-instating the southern cord, to provide a direct rail service into Bristol from Sharpness. This is one of the only new developments within Gloucestershire that has prioritised the re-instatement of the rail service to create direct modal shift away from the car.
- c. The development will also provide a network of demand responsive public transport, that will ensure that groups of people can travel to where they want, when they want. The developer is therefore working with Zeelo, to ensure that demand responsive public transport is available to every resident within the new community. This form of transport is regarded as being far more sustainable than your standard bus service and it is more likely to ensure that vehicles will be full when they travel rather than the empty buses that we currently see travelling between settlements.

2. Heat and Energy

- a. We are currently working with renewable energy providers to ensure that there are renewable energy sources on site that will provide energy to the development and the surrounding communities from the outset of the development and for successive phases.
- b. Alongside the generation of renewable energy we are also investigating the localised storage of that energy so it can be made available when needed, not just when it is generated.

3. Green Infrastructure

- a. The development will be designed around the retention and integration of the existing habitat framework, with green and blue corridors providing attractive and valuable movement routes for both people and wildlife. These corridors will connect large areas of new valuable habitats that are provide enhanced opportunities for notable species, connect with the local landscape and deliver significant net gains in biodiversity.

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- b. The development will provide a new nature reserve and wetland area adjoining the riverbank to enhance the Severn wildlife designations and increase their resilience to future sea level rises.
 - c. New recreational areas will be provided adjoining and throughout the development, so that residents have significant areas of recreation without the need to venture into the nature reserve or wildlife designations.
 - d. 55% of the site will be green space and will be developed to meet 'Building with Nature' standards, thereby ensuring the delivery of significant multifunctional benefits for future residents, wildlife and water.

4. Building design

- a. The development will design and deliver sustainable buildings for the future. All the buildings on the development will take a fabric first approach, to ensure that they are well designed and insulated so that they do not consume large amounts of energy and do not require significant amounts of heating.
- b. All new buildings will be designed for green energy only and will not be designed to burn fossil fuels and will not be required to be retrofitted to embrace green technology in the future.

5. Implementation and delivery

- a. All of the above will be delivered and implemented in the first phase of development.
- b. The development principles will be secured by a developer's handbook to ensure that all development partners create a truly sustainable environment.
- c. The infrastructure will be designed so that it can be expanded into successive phases of development post 2040, to provide certainty over the location and sustainability of future development.





THE DEVELOPERS MANIFESTO

1. The Sharpness Vale Development will be designed to address the climate change agenda.
2. We will design and develop a green infrastructure with the development from the outset, that can be extended into successive phases of development post 2040.
3. The development will provide a genuine mix of uses to ensure that people have the opportunity to both live and work in the same community without the need to travel further afield.
4. By design, we will get people out of their cars and make travel in and around the community more convenient by personal modes of transport on segregated personal transport routes.
5. We will reconnect the passenger rail service so longer distance journeys can be undertaken by rail.
6. We will create a demand responsive public transport service from the outset so that public transport to and from the settlement will be more convenient and efficient.
7. The entire development will get heat and energy from renewable energy sources only.
8. The design of the development will be based on green corridors that will deliver biodiversity enhancements centred on the *building with nature* design and philosophy.
9. All new buildings will be designed to take renewable energy sources without the need for expensive retrofitting.
10. Sharpness Vale will be an exemplar for Gloucestershire.





