

100 MILES

Wilder

PIONEERING SUSTAINABLE LIVING AND NATURE'S RECOVERY

The Wildlife Trusts believe in a future where nature is a normal part of our everyday lives and where wildlife thrives across the landscape. To achieve this, we need a Nature Recovery Network: to put space for nature at the heart of our planning and farming systems and bring nature into the places where most people live their daily lives.

Nature is vital for society, providing food, clean water, fresh air and the enrichment of our health, but in a country that is one of the most nature-depleted in the world, this area is one of the most damaged. There are beautiful sites for wildlife, from the Chiltern beechwoods and chalk grasslands, to the wetlands of Osmoor and the Fens, but only a small fraction of nature-rich land survives. To rebuild this base upon which society depends, and make the area sustainably prosperous, the proposals for the area between Oxford and Cambridge need to be based on what nature needs to recover.

With this in mind, the proposals for the Oxford to Cambridge Growth Arc, as they are currently being planned and delivered, simply won't work. Without proper assessment, government cannot know whether the area could support the current proposals and stay within environmental limits for nature, carbon and water.

The current planning system does not address the needs of society when dealing with such development. The climate emergency and extinction crisis require us to think differently about planning and placemaking. Instead of a piecemeal approach, there should be a strategic plan for the whole of the Oxford to Cambridge Arc, in which water stress, transport, housing, climate obligations and nature's recovery can all be considered together. In this way, development can be delivered without damage to the environment and in a way that produces places in which people can benefit from a thriving natural environment that supports healthy lifestyles.

Our alternative vision for 100 miles of wilder landscape in which to live, work or visit presents a new way of thinking about how places should be planned, with nature and people's wellbeing at the centre. A solution fit for the 21st century.

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A VISION FOR BRITAIN IN 2040

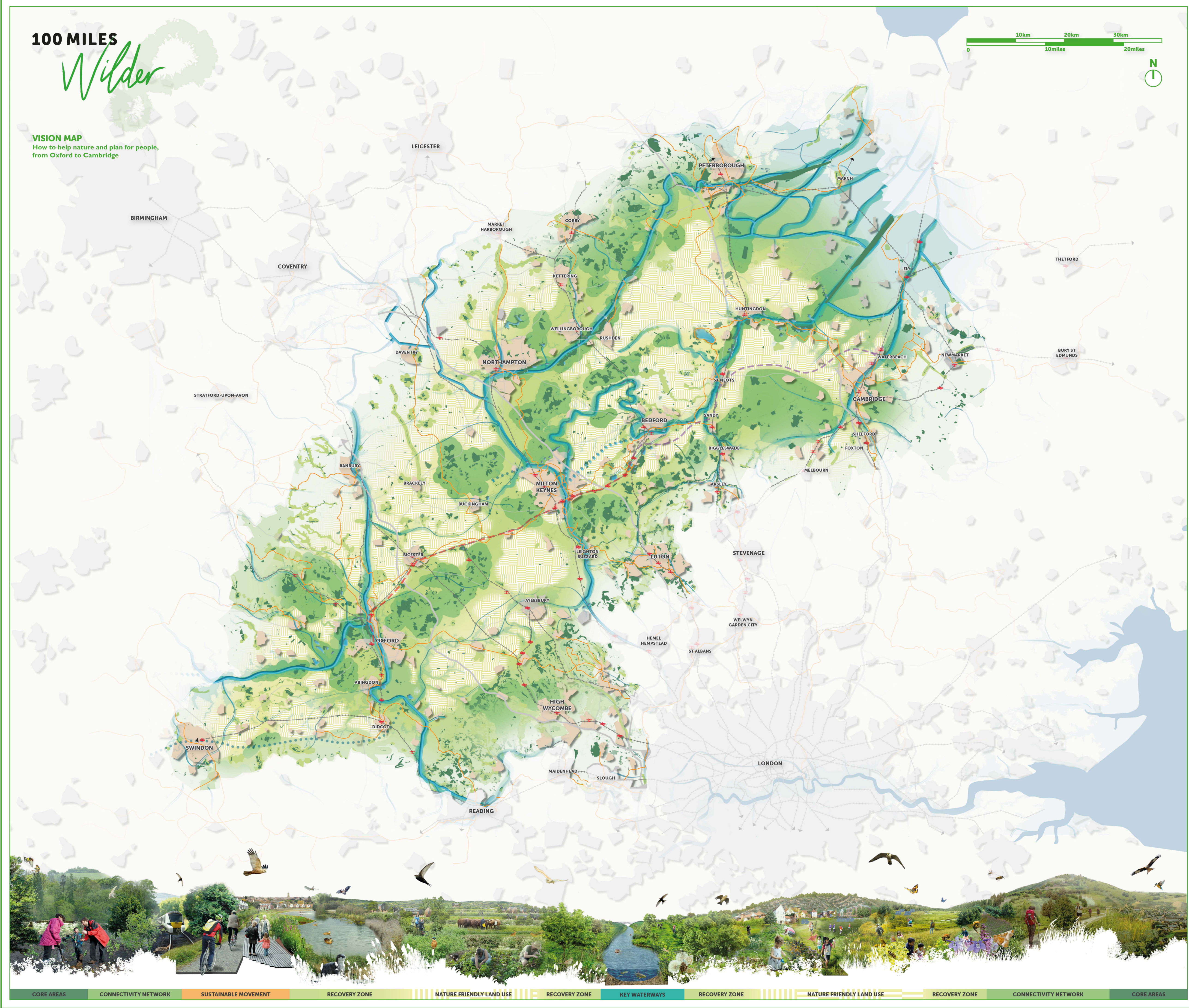
This proposal is part of the wider vision for Nature's Recovery Network, a joined-up system of places important for wild plants and animals, on land and at sea. Our vision is for a landscape where wildlife is abundant, development is green, cities are wilder, the countryside is buzzing, soils are healthy and water is plentiful and clean.

A recovering landscape:



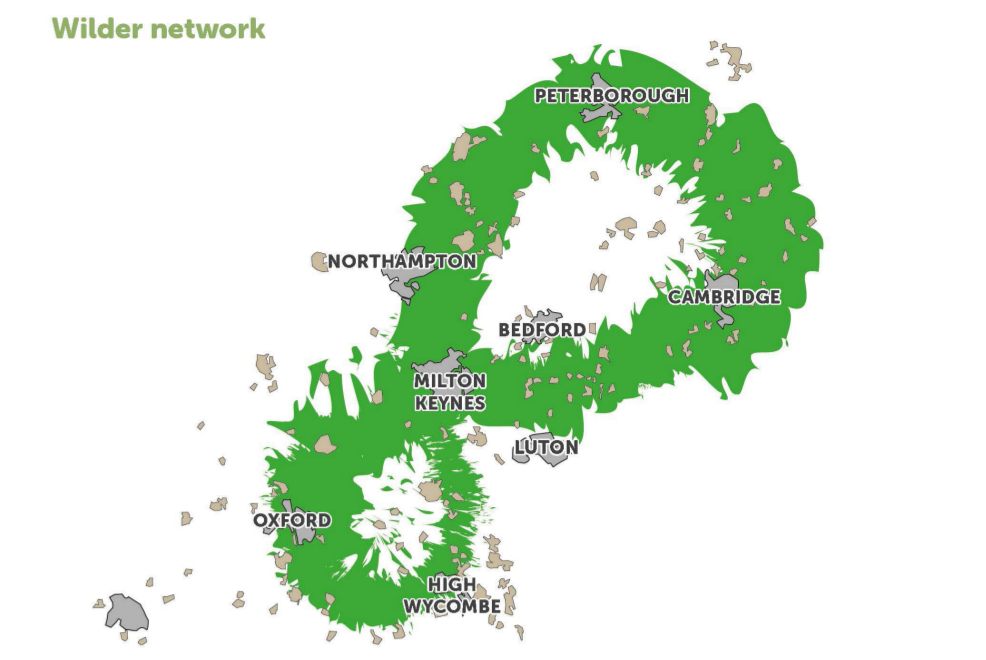
VISION MAP KEY

- Natural Network**
 - Core Areas of Existing High Value for Nature
 - Connectivity Network
 - Recovery Zone
 - AONB
 - Nature Friendly Land Use
 - Flood Zone 2
 - Key Waterways + Rivers
 - Future Waterway Links
- Transport Network**
 - Existing Railway Lines
 - Existing Railway Stations
 - Proposed East-West Railway Oxford to Bedford
 - Sustrans Cycle Routes
 - Existing Motorways
 - A Roads
 - Lower-impact alternative route for East-West Railway from Bedford to Cambridge
- Places**
 - Settlements within the Oxford to Cambridge Arc
 - Settlements beyond the Oxford to Cambridge Arc

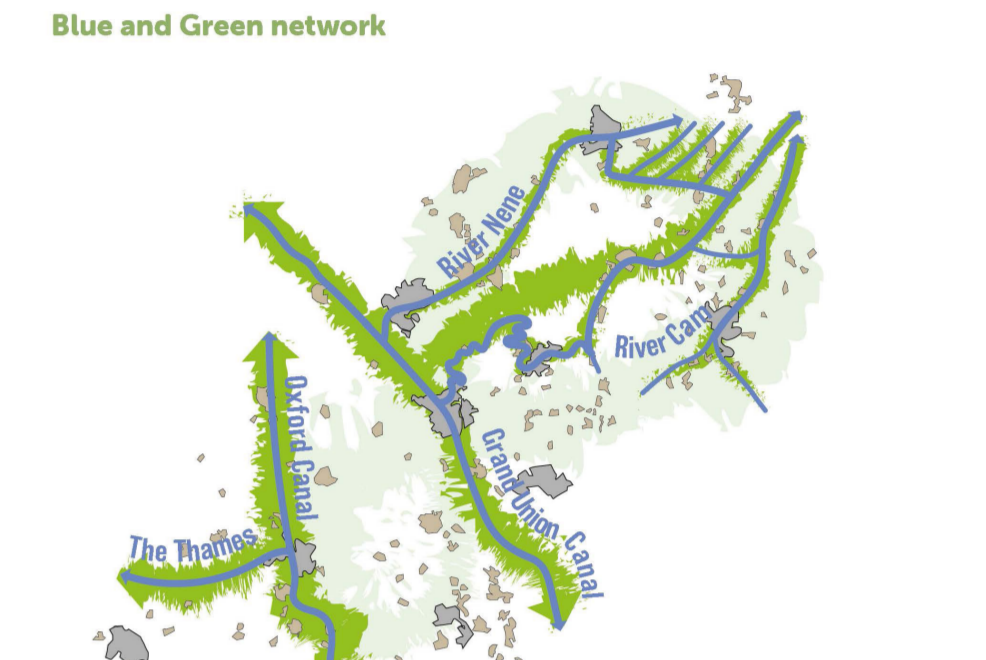


CORE AREAS CONNECTIVITY NETWORK SUSTAINABLE MOVEMENT RECOVERY ZONE NATURE FRIENDLY LAND USE RECOVERY ZONE KEY WATERWAYS RECOVERY ZONE NATURE FRIENDLY LAND USE RECOVERY ZONE CONNECTIVITY NETWORK CORE AREAS

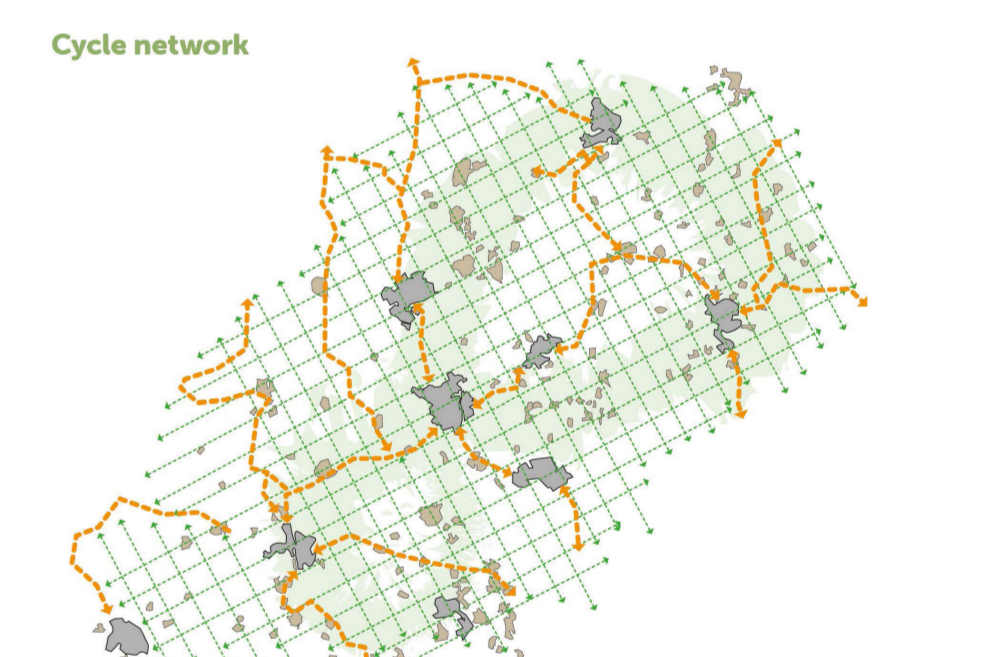
LIVING NETWORKS FOR WILDLIFE



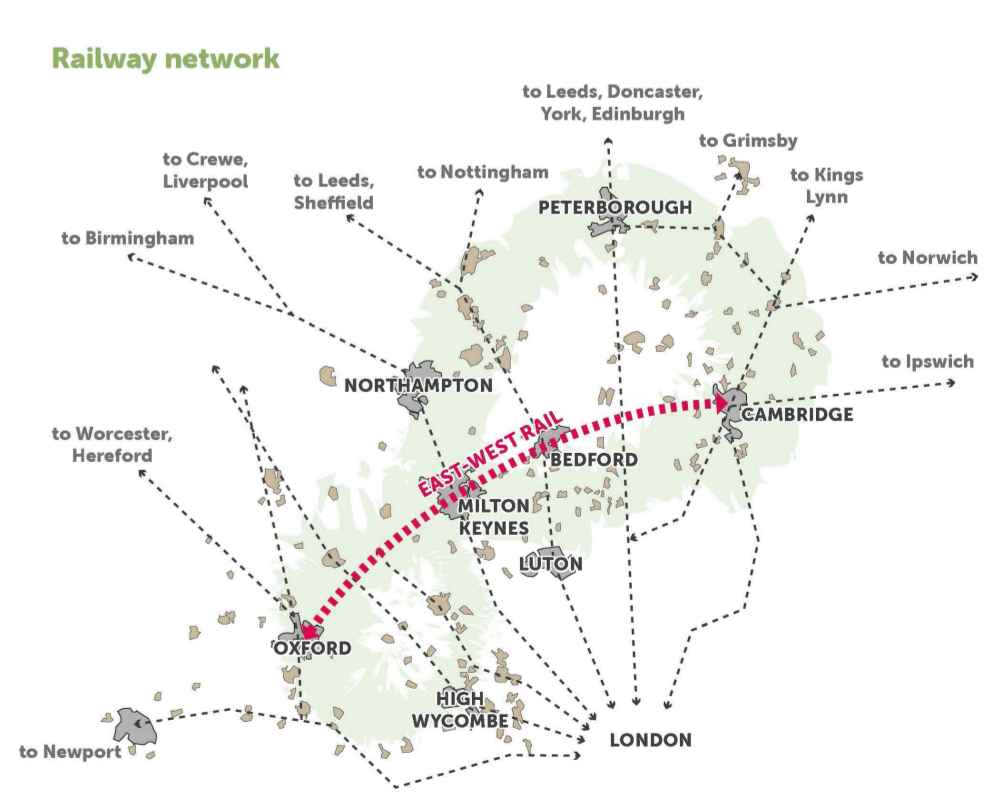
The wilder network is a big, bold plan to protect the wildest places, connect them together and increase the overall area available to wildlife, creating a living legacy for generations to come.
 It is a pioneering vision to establish a network where nature can recover and wildlife can thrive.



The natural blue and green network connects people to nature; encouraging people to move sustainably by providing access to settlements and wild areas along new and enhanced pedestrian, cycle and boating connections.
 Natural corridors allow wildlife to move and migrate freely across the region, linking natural habitats along vibrant green corridors and restored blue waterways.



A concept for a better, more permeable cycle network, strengthening the existing national routes with a 'green grid' of new walking + cycling paths, allowing people to navigate the landscape and encouraging sustainable, slow movement.



The east-west rail is a major opportunity to change the way people move across the region, as the railway network expands away from the London-centric model. Consideration of sustainable transport options will be important in informing the most sustainable locations for development.

THE PRESENT CRISIS FOR NATURE IN THE UK

The hard truth
We are facing a climate emergency and ecological crisis. Catastrophic species loss means the way we experience nature is different today compared with the experiences of our parents and grandparents.

We rely on the natural environment to provide us with the resources we need to live, including food, water and oxygen. Nature sustains us and we are part of it. Our natural habitats take years or even centuries to establish. Once lost they are difficult to replace, but we have the skills and experience to reverse these declines. We must fight to conserve the wildlife that we have left and find every opportunity to enable nature to recover.

Environmental Issues

Habitat loss has unintended consequences. These include soil erosion, loss of pollination services, increased risk of flooding and pollution of water courses. Once environmental degradation begins it is difficult to reverse.

At the same time, cities and urban expansion place pressure on natural resources. The Southeast of the UK for example has extremely high levels of water stress.

The Intergovernmental Panel on Climate Change predicts that global temperatures will increase by 1.5°C by 2050 and will continue to cause long-term changes to the climate, resulting in sea-level rises and increasing the risks of drought, floods, and extreme heat. This will exacerbate the current environmental and biodiversity crises, and affect our way of life.

Health and wellbeing

We are also seeing increasing social and health inequality. For the first time in a century, we are likely to see life expectancy decline as a result of increasing levels of obesity. Our built environment contributes to this and to other preventable illnesses. Elevated levels of pollution result in respiratory and other diseases.

We are more stressed, have less time and spend more time commuting than ever. Mental health problems are also on the rise, especially amongst young people. There is an urgent need to rethink how we live our lives. Re-establishing a connection with nature is a vital part of a healthy lifestyle.

The need for housing

Addressing the lack of affordable housing is a Government priority. Some assessments suggest that 4 million homes are required to meet our national housing need. Shelter and others have referred to our current predicament as a housing crisis which particularly affects young people. There are many vulnerable people facing a lifetime of expensive rent.

We need new homes that cater for a range of needs, such as 'Lifetime' homes, that enable us to adapt to different stages of life, and a mix of tenures that offer long term security and sense of community.

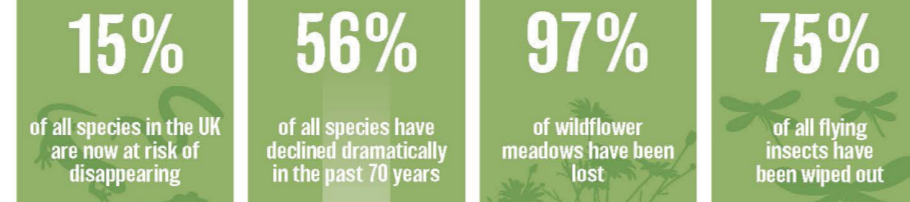
What happens if we do nothing?

If we do not change the way in which we plan and deliver different types of infrastructure, we will see an acceleration of species loss, with knock-on consequences for our own health, wellbeing and social and environmental sustainability. If we continue to build in the same way, we will get the same results: increased congestion, pollution and continued deterioration in quality of life. The economic cost of this will be felt from increased social care requirements to the impacts of flooding and a fall in agricultural productivity.

What happens if we do something?

We can decide the future we want to create. We can redesign how we live and work. We can put nature first and reconnect with our wildlife. We can create communities that support healthy lifestyles. We can take advantage of innovation to create new ways of connecting and sustaining communities. By rediscovering the value of nature and enabling communities to reconnect with wildlife and each other, we can capture the full social and environmental value of this approach.

Ecological Loss



Climate Emergency



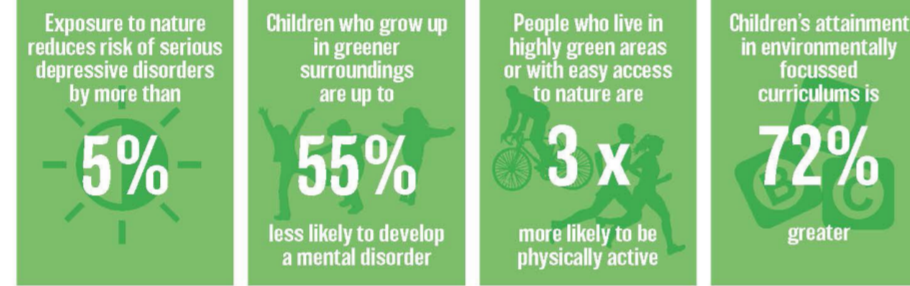
Health Impact



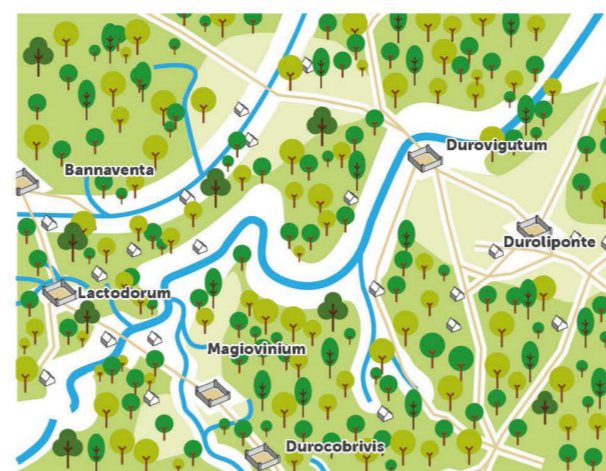
Healthcare Costs



Natural Benefits



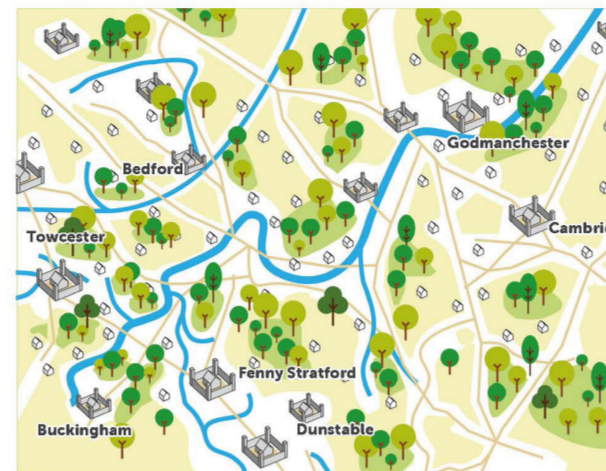
OUR HISTORY OF DECLINE



Increasing pressures on the environment mean we continue to lose the precious wildlife that enriches our lives and is essential to our health and wellbeing.

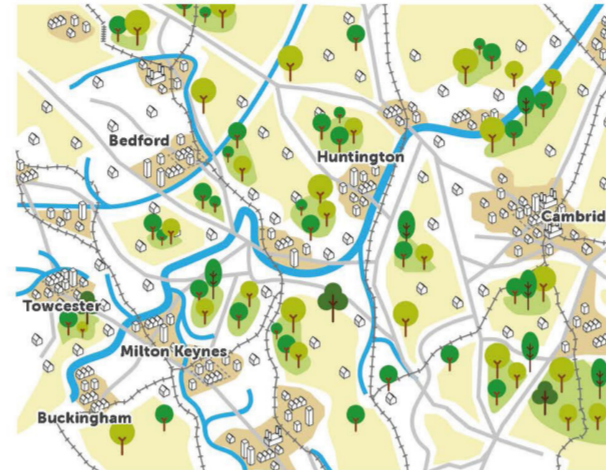
Roman era

Looking through historical records and mapping, it is evident that much of the UK's natural woodland was lost by the end of the Roman era.



15th century
Settlements and farmland expanded through medieval times to the 15th century, further depleting woodland coverage.

Agricultural land coverage has significantly altered the character of the UK's landscape.



20th century
The urban + suburban expansion of places and infrastructure designed for the car.

The way we have developed and managed our land has eroded and severed the natural environment, forcing nature to retreat into isolated pockets of landscape.



21st C Vision
A pioneering and aspirational vision to restore the natural environment and wildlife in one of the most nature depleted regions in the UK. Creating a nature recovery network that stitches nature-rich areas together with a natural green mosaic that improves connections for wildlife and health and wellbeing for people. A 21st century solution we desperately need.

WHAT DOES NATURE NEED?

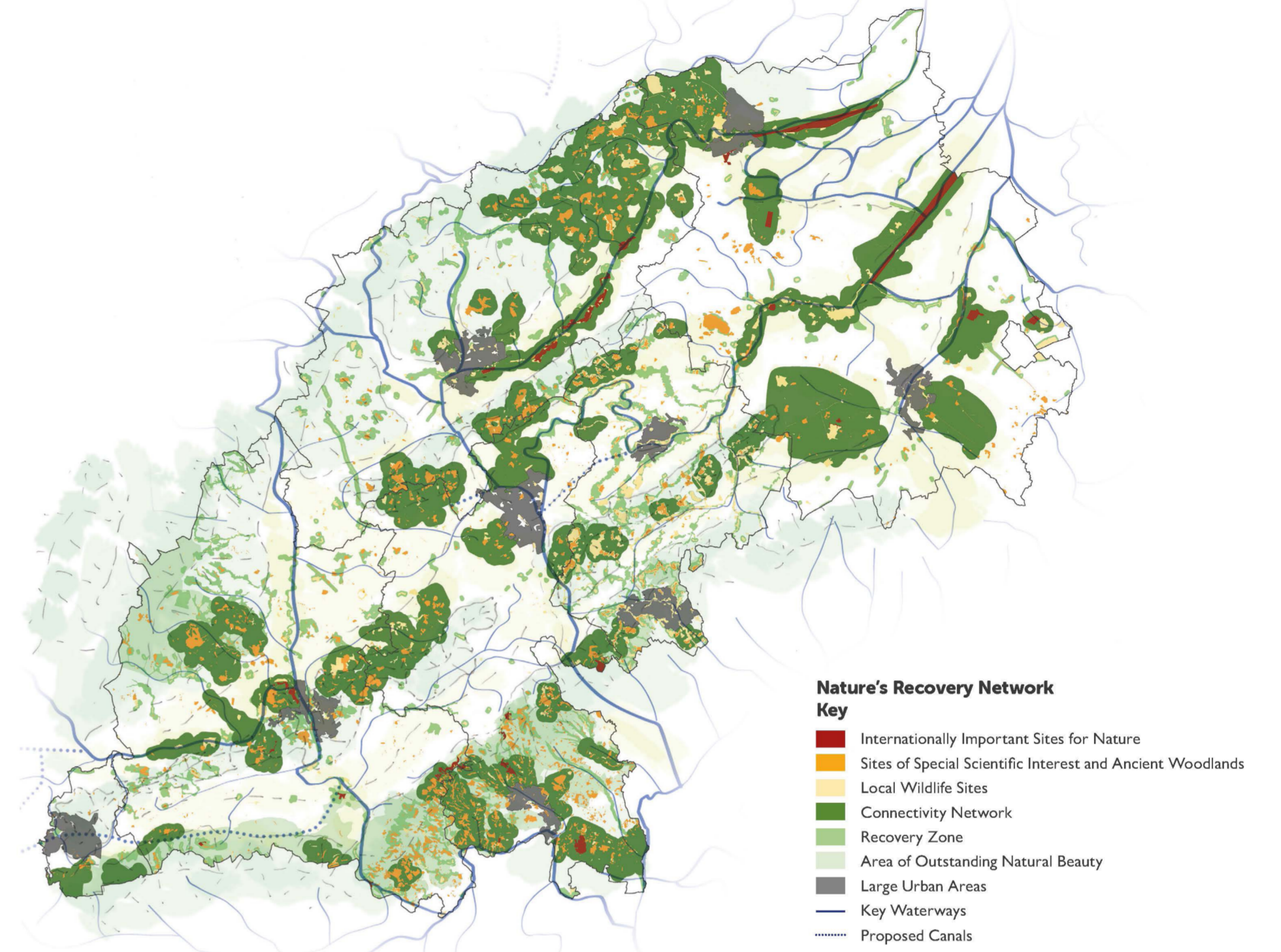


Nature's Recovery Network

A joined-up system of places important for wildlife. This is the ambitious network that eventually re-connects our fragmented nature.

The Connectivity Network and Recovery Zones on the map show opportunity areas where nature can most easily spread to newly created habitat. The aim is for a high proportion of land in this zone to contribute to Nature's Recovery Network.

Outside the network must be nature friendly. All land use should include sustainable practices and features that provide habitat for wildlife.



PRINCIPLES FOR BUILDING NATURE'S WAY



Planning for Nature

It is essential to understand environmental capacity before planning and setting targets for development; all development in the Arc should be set within a single strategic plan informed by a strategic environmental assessment, full public consultation and independent examination.

Nature Centred Design

Development should be designed from the outset with nature in mind, targeted at places where it can have a positive environmental impact and contribute to a Nature Recovery Network.

Build In The Right Places

Building in the right places goes beyond aligning strategic land for housing with transport infrastructure, it should preserve the wildest places and avoid impacting on precious core sites and foodzones. Never build on ancient or high-value habitat. Always ensure that nature's corridors and networks are maintained.

Restorative Water Management

It is vital that groundwater and aquifer restoration is prioritised in the region to ensure that water stress does not become more severe. This means increasing storage in the flood plain with natural habitats, and slowing rainfall with sustainable urban drainage and natural swales in new development areas.

Giving Back To Nature

New developments and settlements should give back to nature and deliver a net gain for wildlife. This could include funding through a Wildlife Infrastructure Levy or habitat creation schemes to capture carbon at a strategic level.

Natural Space Provision

Access to nature should be a human right. New places should interweave natural landscape with housing and movement networks in a way that draws nature in and gives everyone equal access to living landscapes. We recommend at least 50% of new development is comprised of natural green space.

Right To Access Nature

The landscape should be considered a cultural asset. Everyone should have access to nature and leisure activities such as nature trails, walking and cycling.

Compact is Key

Getting the density right is about creating places that are compact, social and walkable. Well-designed compact places integrate natural intensity with efficient urbanism, creating strong communities and enhancing wellbeing.

Nature Friendly Farming

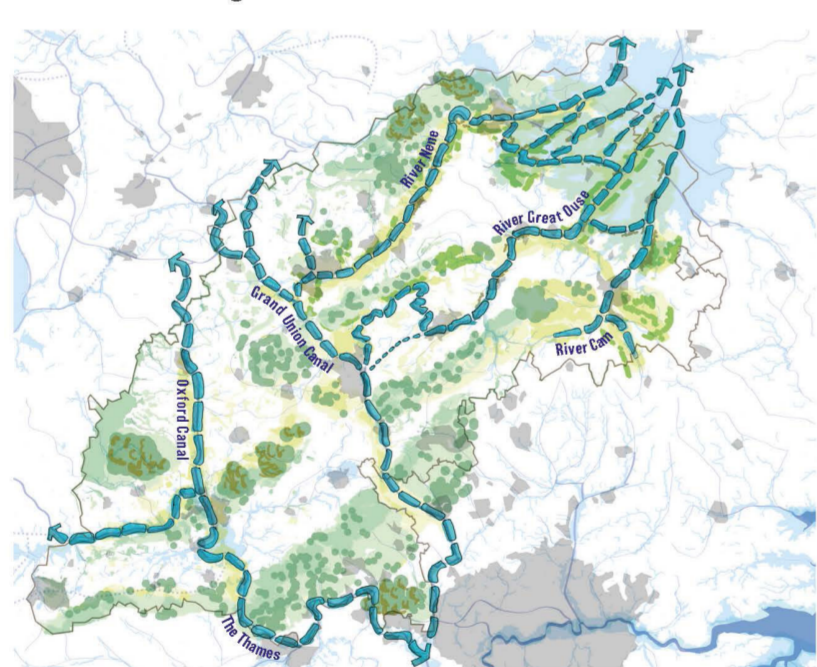
The Arc contains large areas of nationally important farmland. Promote and support nature friendly agricultural practices that are better for wildlife, our health and our long-term economy. Enable people to make informed choices about local, seasonal, sustainably grown food.

Active + Aligned Travel

Encourage people to move sustainably by providing interconnected and easy to use travel services. Slow movement networks that link up to decarbonised public transport will help people to shift their habits and make better everyday decisions about how they move.

A LANDSCAPE-LED APPROACH

Water & Flooding



Ridges & Valleys

Taking a landscape-led approach means understanding and prioritising nature's needs first.

The region's geography is defined by ridges and valleys, structuring the area along corridors that run from the southwest to northeast.

Most tranquil areas

Interspersed with remnant forests, meadows, grasslands and fens, the region comprises various national landscape character areas that have largely been influenced by human activity and retain little of their original character.

Landscape Character

Key waterways include the Thames, River Nene, River Great Ouse and River Cam. Flood mapping reveals the importance of the waterways and fenlands to the northeast of the region, which drain towards the Wash nature reserve on the east coast. Development in these areas could exacerbate flooding issues upstream, and negatively impact the water stress the region is already beginning to experience.

Tranquillity data reveals the most tranquil areas across the region, where one can appreciate dark skies at night and quiet retreat in the day.

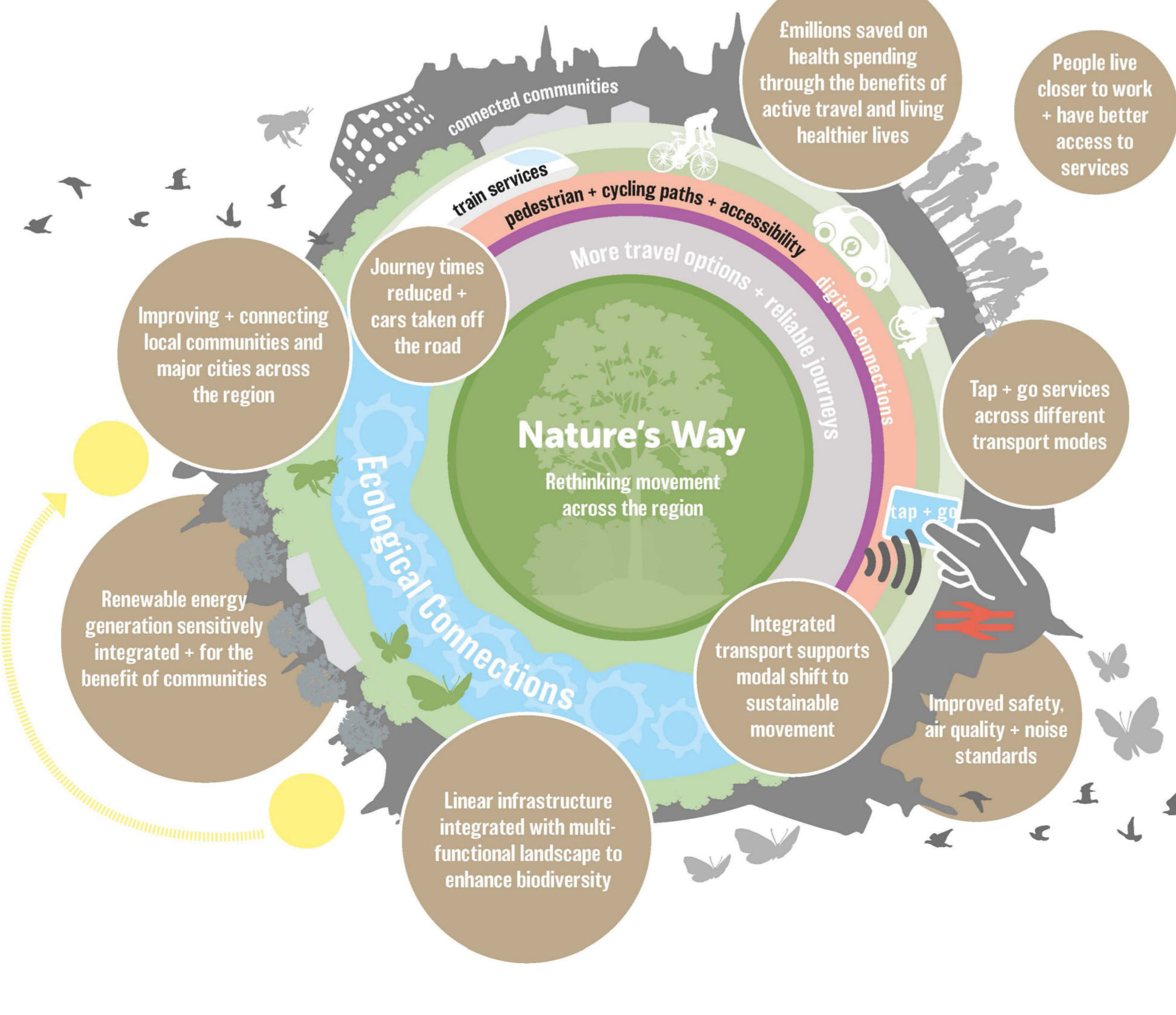
Nature's Recovery Network has been overlaid with the various geographical constraints and characters, to create a network that will holistically protect, connect and provide room for nature to recover.

RETHINK MOVEMENT ACROSS THE REGION

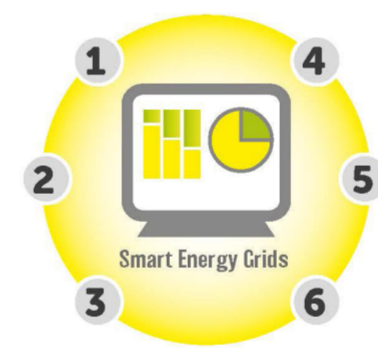
Rethinking movement across the region

Our vision includes rethinking the way in which we plan and design movement within the corridor so it is more joined up and takes advantage of the natural landscape. This means prioritising active travel and planning development that is easily accessible to local services.

We need to change how we plan for new infrastructure, shifting the conversation away from capacity and speed, to redefine the problem we are seeking to solve in the context of social and environmental needs.



ZERO CARBON LIVING



1. Renewable Energy

Mega fact: 24% - contribution from energy supply to UK total carbon emissions (BER, 2017)



The falling cost of renewables and innovations in energy storage is enabling a shift towards decentralised energy generation. Local generation can also provide community benefits.

2. Decarbonised Transport

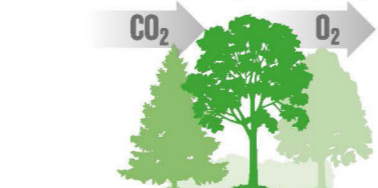
Mega fact: 27% - contribution from transport to UK total carbon emissions (BER, 2017)



The movement hierarchy needs to prioritise people through active travel and local service provisions. Communities can be supported by interconnected public and shared transport services designed to integrate with renewable energy sources.

3. Carbon Removal

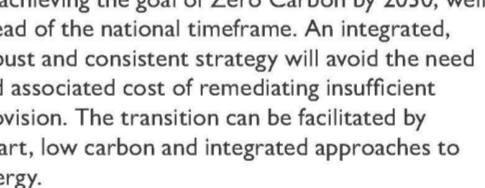
Mega fact: 35 MtCO2e per year - removal potential through investment in natural assets across the UK (Royal Academy of Engineering, 2018)



In addition to emission reduction, removal of carbon from the atmosphere is essential to achieve net zero carbon emissions by 2030. Natural assets such as woodlands, habitats and well-managed soils capture carbon effectively.

4. New Passive Homes

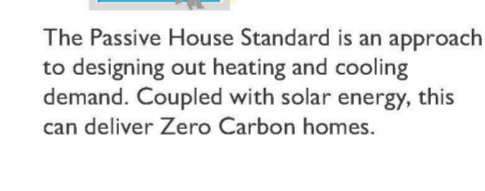
Mega fact: 75% - reduction in heating demand compared to current building regulations standard of 60 kWh/m2/yr (The Environmental Design Pocketbook, 2015, p238) (BER, 2017)



The Passive House Standard is an approach to designing our heating and cooling demand. Coupled with solar energy, this can deliver Zero Carbon homes.

5. Building Retrofit

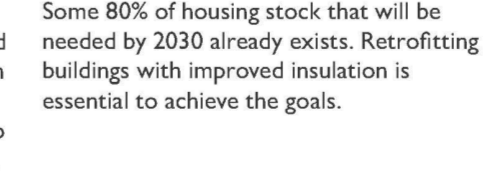
Mega fact: 30-80% - emission reduction by 2030 through low-carbon retrofit or refurbishment (Ecofys & Innovate UK, 2014)



Some 80% of housing stock that will be needed by 2030 already exists. Retrofitting buildings with improved insulation is essential to achieve the goals.

6. Sustainable Agriculture

Mega fact: 80% emissions reduction potential by 2030 with major land use changes and efficiency improvements (ICL, 2018)

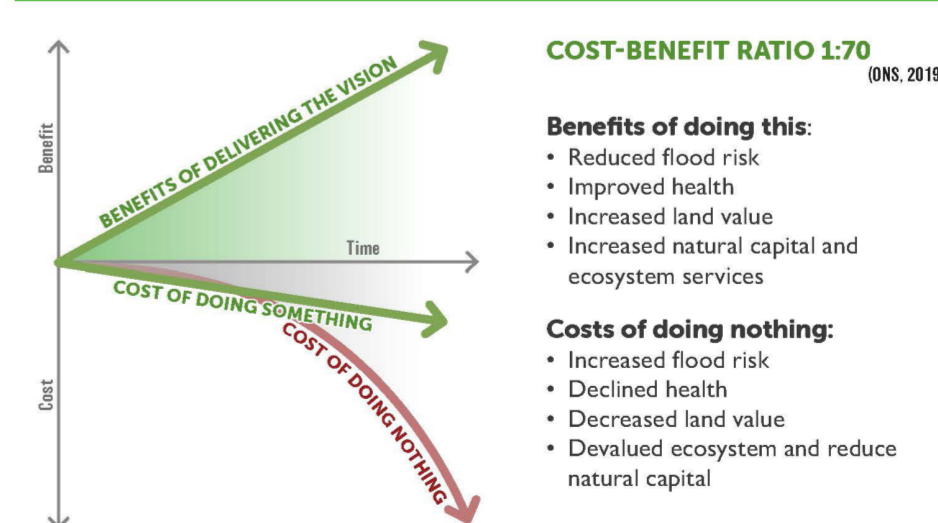


Agricultural and farming practices are shifting so that they can preserve and restore critical habitats, improve soil health and reduce emissions.

HOW CAN WE DO THIS?



THE BIG BENEFITS



Cost-benefit ratio

The decision to invest in infrastructure is normally based on a comparison of cost to benefit. Whilst we have lots of data to help build cost estimates, historically we have been very poor at understanding the true value of benefits that are difficult to monetise. However, recent advances in evaluating social and environmental value mean that we have more sophisticated tools for considering benefits beyond the redline boundaries of development. This includes consideration of the significant mental and physical health benefits that result from contact with nature and reduced costs of social care. We can also evaluate environmental benefits accruing from increasing natural carbon sinks, reduced flood risk and improved pollinator services. For every £1 invested in natural capital, the ONS estimates a £70 social and environmental benefit.

