



One City
Ecological
Emergency
Strategy

A strategy for an ecologically resilient, wildlife-rich Bristol by 2030



“Bristol was the first UK city to declare an Ecological Emergency. This is our city’s opportunity to come together and take positive action for nature while tackling some of our biggest challenges.”

Marvin Rees
Mayor of Bristol



“It’s not too late to reverse the declines in wildlife that are undermining our planet’s natural life support systems. We know the changes that are needed to restore wildlife and ecosystems - and where they’re in place, they’re working. Over the next ten years we need to put these changes in place in Bristol and surrounding areas to ensure that people and wildlife can survive and thrive”

Ian Barrett
Chief Executive, Avon Wildlife Trust
Chair, One City Ecological Emergency
Strategy Working Group



“The Ecological Emergency is a challenge for us all, but one we will only tackle through partnership, inclusion and involving everyone’s ideas for the future of our wildlife”

Savita Willmott
Chief Executive
The Natural History Consortium
Coordinator, One City Ecological Emergency
Strategy Working Group



Foreword

In 2020, Bristol partners came together to declare an ecological emergency. Our city's wildlife, ecosystems and habitats are vitally important to us all, as the loss of biodiversity affects our lives in many ways, from the insects that pollinate our food to the green spaces that enhance our resident's health and wellbeing.



This strategy is our city's first co-ordinated effort to confront the ecological decline we face and put forward solutions that match the urgency and scale of the issue.

We recognise how this strategy links with many of the city's biggest challenges. For example, Bristol needs quality and sustainable housing and improved transport infrastructure, and we've committed to become a carbon neutral city by 2030. Meeting the city's needs whilst also responding to the ecological emergency will require difficult discussions and trade-offs – and we must maintain a holistic approach. This strategy outlines a clear direction in line with our One City Plan and the Sustainable Development Goals, and provides a blueprint for organisations, individuals and communities to define their own action plans to support nature's recovery.

As we launch this strategy, the world is facing unprecedented challenges recovering from Covid-19. We know that this is a difficult time, but it is also more important than ever to pull together to help nature. We believe that nature is one of Bristol's best assets, and vital to our economic and health recovery. Of course there will be costs to deliver this strategy, but [recent studies show](#) that the benefits of protecting natural spaces outweigh the costs at least five to one.

People are at the very heart of this strategy and will determine its success. That's why a key focus must be to find new ways for people from every part of the city to get involved with this work and access the benefits it will bring – in other words it must be fair, just and inclusive.

Bristol has already suffered major losses in wildlife, for example there are 96% fewer swifts and starlings in our city than there were in the 1990s. The good news is that we know the major things we can do, now, to help wildlife today. This strategy sets out four areas to start a conversation with individuals, organisations and businesses:

- How we can protect and support the natural spaces that support us
- How we can stop using pesticides that damage nature
- How we can stop pollution, at source, that damages important ecosystems
- How we can all think about the wider choices we make, and the footprint we have on the planet.

**Please join us
on this journey.**



Taking action together

We need a radical transformation in the way we manage our city and the surrounding countryside if we're to halt and reverse declines in wildlife and restore a healthy natural environment for people and wildlife.

We need action at every level, from individuals to large organisations. From our gardens, to our road verges, our green spaces, to our business parks and new developments - we need to change the way we're interacting with nature, because what we're doing now isn't working.

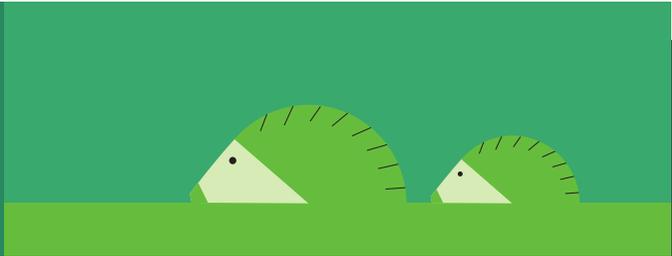
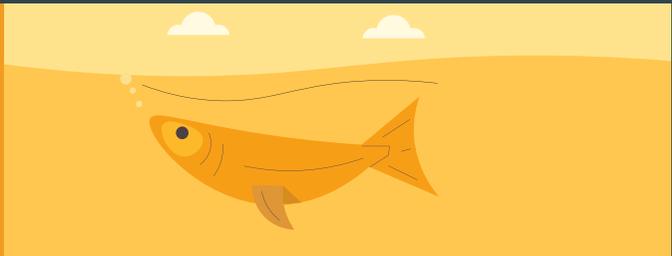
This strategy sets out our vision and ambition for 2030. It has been co-ordinated by Bristol's One City Environment Board, on behalf of the City Office and the One City Boards and in consultation with a working group of around 35 organisations around the city. It is a partnership plan, rather than a strategy owned solely by Bristol City Council or any other individual organisation. We will need the collaboration of multiple partners across the city to reach our goals.

Too often, the benefits of a healthy natural environment are not shared equally and we need to ensure that the actions we take are fair, just and inclusive. Everyone has a part to play in restoring a healthy natural environment and everyone should enjoy the benefits.

We call on you, as people who live, work, visit and invest in Bristol, to join with us in a decade of transformation to restore the natural systems on which we depend – to protect and restore our ecosystems alongside climate action.

Key strategic goals

FAIR • JUST • INCLUSIVE

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|--|--|
| <p>Space for nature</p> <p>At least 30% of land in Bristol to be managed for the benefit of wildlife by 2030</p> |  |
| <p>Pesticides</p> <p>Reduce the use of pesticides in Bristol by at least 50% by 2030</p> |  |
| <p>Pollution</p> <p>100% of Bristol's waterways to have water quality that supports healthy wildlife by 2030</p> |  |
| <p>Our wider footprint</p> <p>People and businesses to reduce consumption of products that undermine the health of wildlife and ecosystems around the world</p> |  |

This strategy is

- A strategy to set a shared vision for Bristol in 2030.
- A strategy that will need the collaboration of multiple partners across the city.
- Based on the best available scientific evidence.
- Created to sit alongside Bristol's existing strategic documents such as the [One City Plan](#) and the [One City Climate Strategy](#).
- Intended to be fair, just and inclusive for everyone in Bristol.

This strategy is not

- An action plan. We will need city partners to work together to agree how to meet the key strategic goals.
- Perfect. We are facing an ecological emergency and we are acting as quickly as we can to respond.
- Static. We will look to update and refresh the strategy as the world evolves in terms of knowledge, technology, legislation and policy and as we develop new ways to measure our progress.

The Challenge

Nature is collapsing at an alarming and unprecedented rate. Globally we have lost 60% of wild invertebrates and up to 76% of insects since 1970. In the UK there are 30 million fewer hedgehogs than in 1950. And here in Bristol, numbers of once common songbirds like swifts and starlings have dropped by more than 96%.

Why is nature disappearing so quickly?

In urban areas, housing developments, commercial building and roads have replaced and fragmented wildlife habitats.

In the countryside, powerful machinery has enabled us to transform the landscape, to tidy up the scrub where nightingales used to thrive, to drain the wet areas that were once full of wading birds like curlew and lapwing.

We have tidied away the places where wildlife used to live, we have paved over our front gardens and filled up the holes in our buildings where birds used to nest. We've treated wildflowers that wildlife relies on as weeds that need to be removed.

What wildlife loss means for Bristol

These losses in wildlife matter to all of us – not just to nature lovers or those who enjoy watching wildlife documentaries on TV.

These losses matter to all of us because of the crucial role that wildlife and ecosystems play in supporting life on earth.

Trees, shrubs and plants absorb carbon dioxide, provide oxygen and water, regulate flooding, prevent soil erosion and much more.

Insects and other wildlife break down the leaves that fall in the autumn, animal dung, fallen wood and other detritus – creating rich soils for more plants to grow. Our lives depend on the work of these tiny organisms, many of them invisible to the naked eye.

More than 75% of the food crops we eat are reliant on insect pollination. Without insects, we simply wouldn't get a harvest. In China's Sichuan Province, some farmers are already forced to hand pollinate their pear trees because the bees that used to do it have disappeared.

Nature is also good for our health and wellbeing. Studies show again and again that spending time in green spaces reduces the risk of conditions like type II diabetes, cardiovascular disease, stress and premature death.

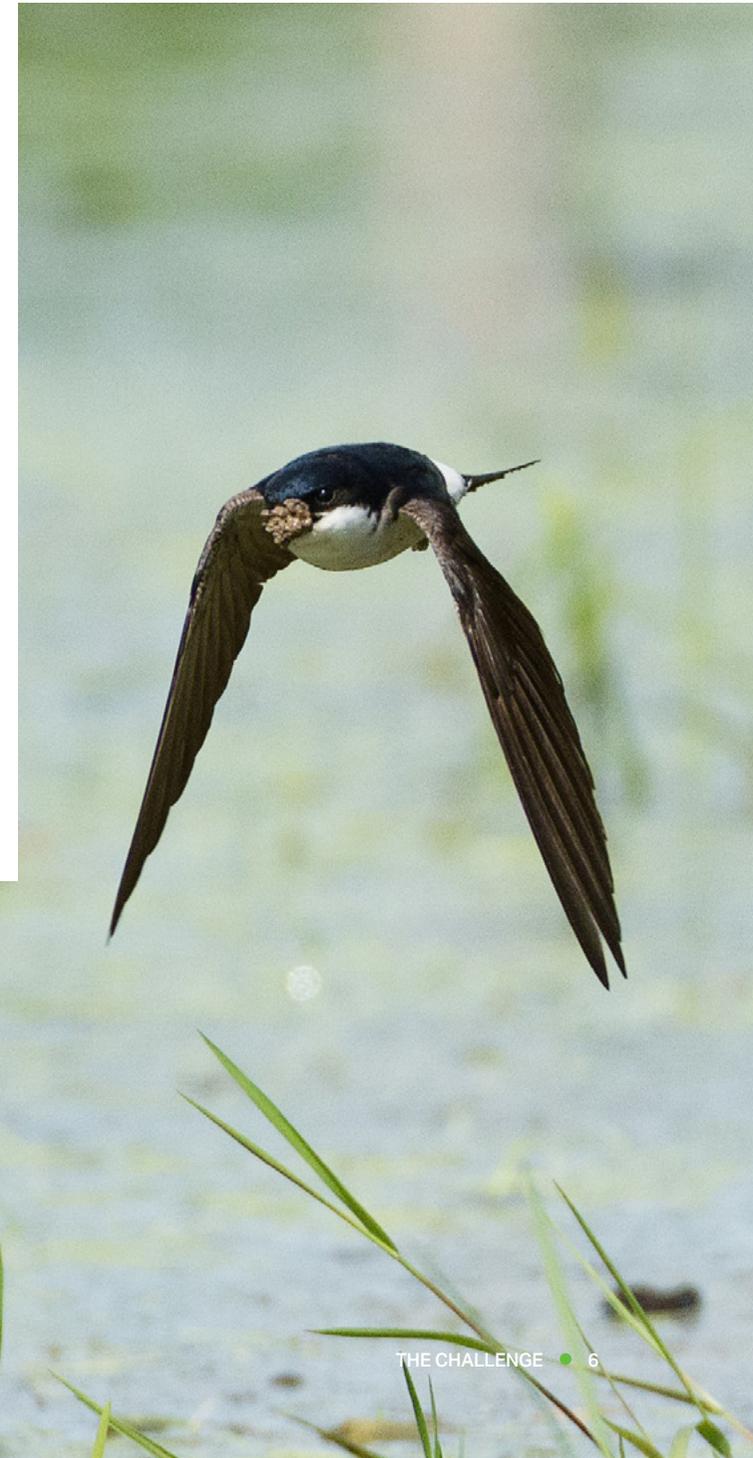
Taking species out of ecosystems is like taking bricks out of a wall. It will last for some time, but at some point it will collapse.

Extinction is forever

More than 15% of UK species are already at risk of extinction. This will get worse with climate change; the IPCC estimates that 20-30% of the species on Earth may be at risk of extinction once the climate warms by an average of 1.5°C, the global target under the Paris Agreement. Most ecosystems will struggle if the planet warms by more than 2°C. Climate change is happening too quickly for many species to adapt.

We need to tackle the twin threats of climate and ecological breakdown to save our planet for people and wildlife.

Fortunately it's not too late to act and we know the solutions, but we need to act now. We need to make the next ten years a decade of transformation, to make Bristol a haven for wildlife by 2030.



Our Vision

From today, we will work together as a city to ensure that 30% of Bristol's land is managed for nature. We will create space for nature, and unite to find new, fair and inclusive ways to reduce and eliminate the threats to habitats and wildlife. Together we will take action for nature so that both people and wildlife can benefit.

Delivering in partnership with city strategies:

The Ecological Emergency Strategy sits alongside other key strategies in Bristol, under development by the One City Boards, such as the One City Climate Strategy.

Delivering in partnership with the One City Plan:

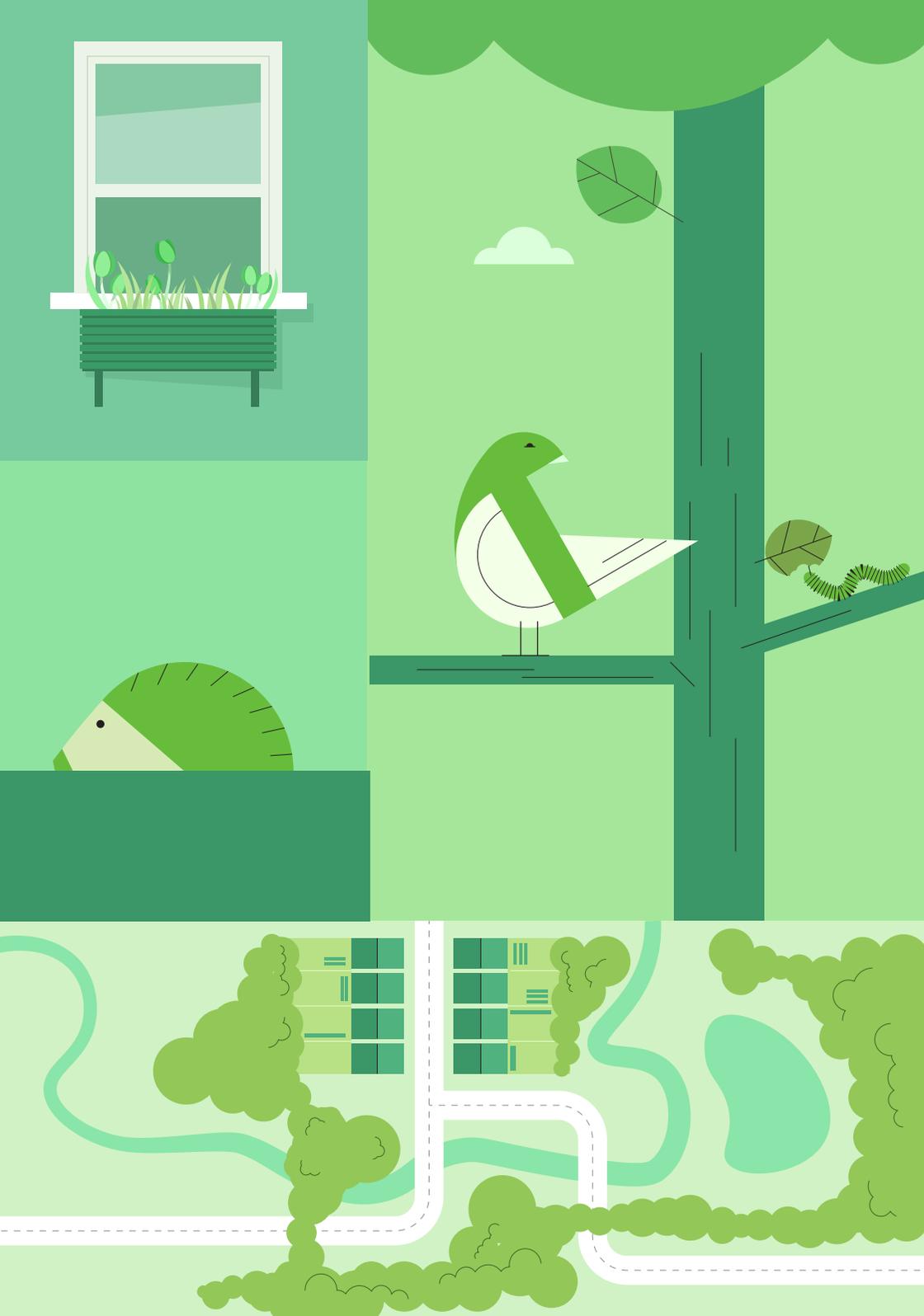
This plan has been written in sight of the current One City Plan, and will feed back into the process for future amendments of the plan. The Ecological Emergency Strategy will help provide a rationale for taking an ambitious approach to key targets within the plan, and accelerating progress where possible.

Delivering in partnership with the Sustainable Development Goals:

The [Sustainable Development Goals](#) link the environment, society and our economy. As Conservation International notes: "The SDGs provide an unprecedented opportunity to protect and maintain our "natural capital" — the sources of the benefits that nature provides to humanity, such as climate regulation, fresh water and biodiversity. Nearly a third of SDG targets depend on nature to be achieved."

As Bristol continues to understand the opportunities for a city to make progress on the SDGs in partnership, the implementation of the Ecological Emergency Strategy will deliver across a range of targets.





Making Space For Nature

As a city, we must find new spaces for nature to thrive throughout our urban landscape



If we are to halt the decline of wildlife and start to restore nature's abundance, we need to stop destroying wildlife habitats. We need to restore and extend what remains and we need to create new spaces for nature. We need to ensure that wildlife is able to move between these habitats, moving from a patchwork of isolated green spaces to a connected ecological network where wildlife and people can thrive.

Conserving and restoring habitats and ecosystems is a key part of the global Sustainable Development Goals, which recognise that they are the foundation of life on the planet and key to our own survival. Around 15% of land worldwide is currently protected for wildlife and there is a growing international recognition that this is not enough. The United Nations Convention on Biological Diversity (CBD) is proposing to adopt a target of 30% of land being managed for wildlife by 2030.

Around 15% of Bristol (1,787 hectares) is currently protected for wildlife, with 86 Local Wildlife Sites across the city in addition to nationally and internationally protected areas such as the Avon Gorge and Severn Estuary. We have several active partnerships of wildlife charities, local groups and public bodies working together to protect and improve habitats across the city, without which more would have been lost. We know though that not all of our wildlife sites are in good condition and some are under threat.

If we are to reverse the decline of wildlife and build healthy resilient ecosystems for the benefit of people and wildlife, we know that we need to do more.

The good news is that there is plenty of land in Bristol that can be managed for the benefit of wildlife and we can all play a part. Gardens and green spaces, city parks and allotments, roadsides and cycle routes, rooftops and balconies, school playgrounds, business parks and housing estates can all be a part of Bristol's Nature Recovery Network. Changes like growing wildlife-friendly flowers, shrubs and trees, letting lawns grow long, adding ponds, nest boxes, bug hotels and hedgehog corridors, or just letting a patch grow wilder can all help. The more varied spaces and the more people involved the better!

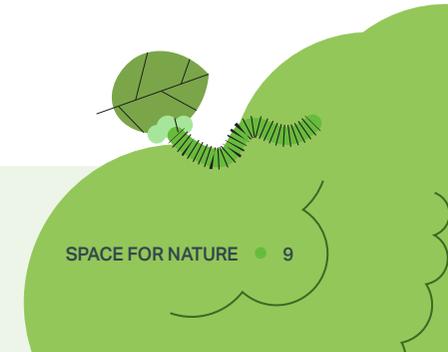
We will also need targeted action to improve habitats in locations that will fill gaps in the connectivity and functioning of Bristol's ecological networks. Preliminary mapping of habitats in the West of England is now complete. This work has identified strategic sites and opportunities to expand a Nature Recovery Network across the whole West of England region. The next step is to zoom in and make plans on a Bristol city level.

These are hugely ambitious targets and will require significant investment at all levels, as well as new national laws and local policies that ensure that remaining habitats are protected, connected and restored.

The challenge for us as a city is to do this alongside meeting our targets for the sustainable development of more homes, better transport systems and an economy that works for everyone, as set out in the One City Plan.

A Nature Recovery Network is a joined-up network of habitats that allows wildlife and people to survive and thrive

Check out the actions you can take for wildlife at www.avonwildlifetrust.org.uk/actions



Building with Nature

As we seek to achieve the ambitions of the One City Plan in areas including housing, transport, energy and the economy, we need to ensure we're doing so in ways that help us restore the functioning ecological networks on which people and wildlife depend.

"Regenerative" approaches to urban design and land management provide opportunities to reverse damage and have a net positive effect on the environment.

As a city, we are aiming to build more than 33,500 new homes by 2036 and develop more than 60 hectares of land for industry. This is both one of the biggest threats to wildlife in the city and one of the biggest opportunities.

Development has been a significant driver of loss of wildlife in urban areas, with buildings, roads and other transport routes contributing to the destruction and fragmentation of habitats. We need to ensure that we're learning lessons from the past and building new houses and transport links that put back lost habitats and wildlife corridors.

The government is legislating to require developers to provide "net gain" for nature, where more habitat has to be put back than is lost to new developments. Bristol City Council is working with neighbouring authorities to ensure that net gain is achieved across the West of England Combined Authority area.

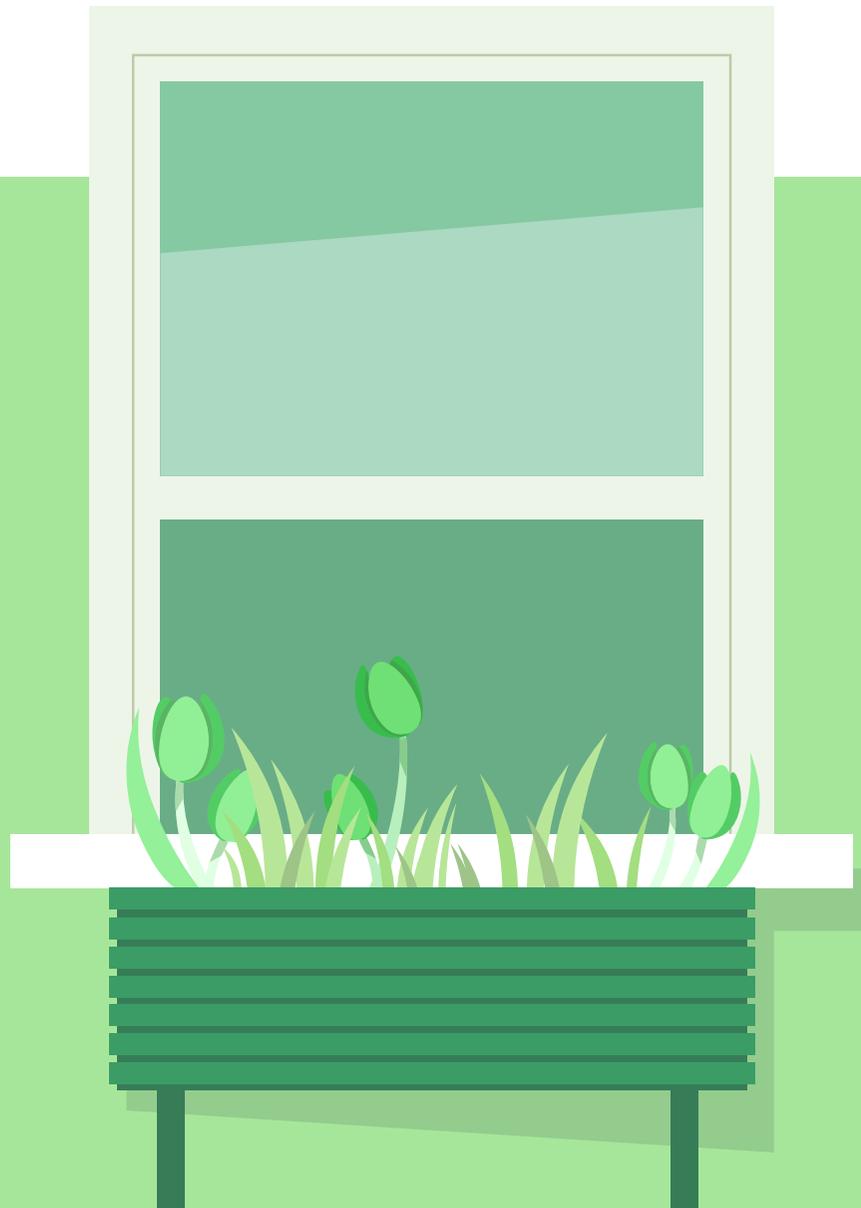
Planning policies are a key tool in ensuring that development happens in the right way and in the right place. A joint "green infrastructure strategy" for the West of England has been agreed which sets out how the Nature Recovery network should be protected and enhanced.

As the city develops, we know we need greener developments that retain and integrate habitats and green space and incorporate new green roofs, living walls and amenity spaces. We also need greener streets connecting the city with street trees, pollinator corridors in central reserves and wildlife habitats in roundabouts, verges and public squares.

Quality standards frameworks such as Building with Nature set out how plans and developments can work for people and wildlife. The One City Plan includes a target that all new developments should achieve the highest standards for wildlife, water and wellbeing by 2036. We need to bring that target forward to 2030 at the latest.

But it's not just new areas where we need to ensure we're building back better. We need to make sure we're making space for nature, in existing houses, offices and highways.

Some of this can be achieved through wildlife gardening and the creation of wildlife corridors, but we also need to replace some of the lost nesting and resting places that our buildings used to provide through the addition of features such as bird boxes, swift chimneys and bat bricks.



Nature-based Solutions

Working with nature provides the opportunity to tackle the ecological emergency in ways which also help us to achieve wider One City Plan aims.

Healthy habitats absorb carbon and reduce urban temperatures, building resilience to the effects of climate change.

Habitats can be designed to help provide sustainable urban drainage systems with reed beds, ponds and swales that improve water quality and slow the flow of water to reduce flooding.

Urban Food

The One City Plan aims to establish much more food growing within the city, which has the potential to reduce the impacts of agriculture elsewhere and help restore habitats across the city. Evidence shows that allotments and smallholdings are some of the most biodiverse habitats in cities. Regenerative approaches to food growing help to replenish the soil, manage water and restore wildlife in ways that support production as well as providing wider benefits.

Avon Wildlife Trust's [Grow Wilder](#) site in Stapleton is an exemplar of this approach and the Bristol Food Network's [Going for Gold](#) project offers links to practical advice on how to grow food in nature-friendly ways.

Wildlife-friendly food growing areas have the potential to play a big part in our Nature Recovery Network, if appropriate land can be found across the city. We need to ensure that we retain space for nature and provide growers with the support and training they need to grow food in ways that help restore our natural environment.

Say No to the Mow

Wildlife and pollinators need wildflowers. With over 97% of meadows destroyed since the 1930s, all remaining green spaces are now a vital refuge for pollinators and other wildlife. Wildflowers can be encouraged in many garden lawns, roadsides and amenity grasslands simply by changing grass cutting regimes.

Just outside Bristol, the verges of the A369 near Easton in-Gordano, have been managed for wildlife for the last 30 years. Regular mowing by the Council has been replaced by late hay-cropping, with the cuttings taken off to reduce fertility and allow wildflowers to thrive. Now designated as [St George's Flower Bank Local Nature Reserve](#), this roadside meadow is home to a host of wildflowers, including primroses, cowslips, oxeye daisies and rare pyramidal and bee orchids.

[Plantlife's guidance](#) sets out some of the options for managing grassland for wildflowers. Dorset County Council have taken this approach to their roadside verges, which has helped to reduce management costs by around £100,000 over three years as well as delivering an abundance of wildflower-rich roadsides.

If we are to build a wildlife-rich city with space for nature, then we need to:

Protect remaining wildlife habitats and care for them better

Work together to provide more habitat for wildlife throughout the city, getting everyone involved through positive actions such as mowing their grass less, growing pollinator-friendly plants and leaving wild spaces for nature

Plan and develop a Nature Recovery Network for our city and identify where targeted work will have the greatest impact in restoring the functioning and resilience of Bristol's ecological networks

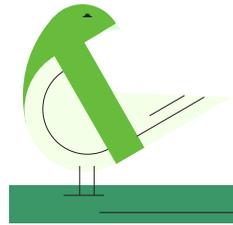
Ensure the Nature Recovery Network is at the heart of local planning policy at both a Bristol and West of England level

Ensure that new developments adopt the highest standards of design, working with nature to provide positive benefits to people and wildlife

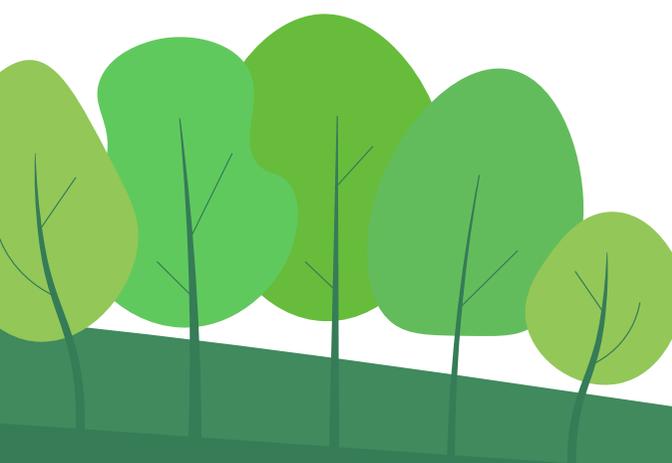
Look at how existing parks and green spaces, streets and buildings can be enhanced to increase the diversity and abundance of wildlife within the city

Create and restore habitats which absorb carbon, reduce flooding and improve water quality to provide nature-based solutions to the city's needs

Support wildlife-friendly food growing across the city, ensuring that there is space for nature, with



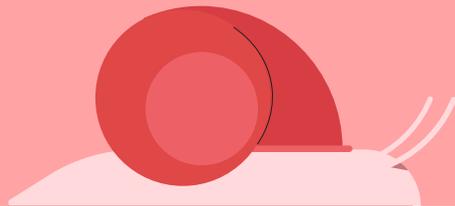
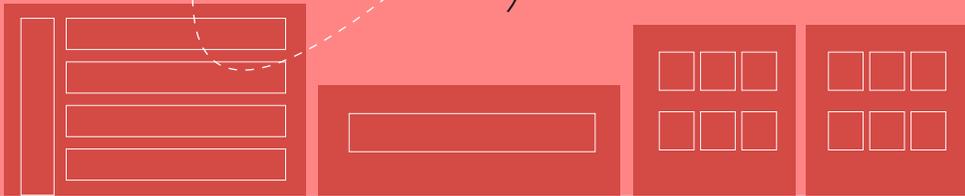
Goal:
At least 30% of land in Bristol to be managed for the benefit of wildlife by 2030





Pesticides

As a city, we must challenge the use of pesticides at all levels and find alternatives, starting today



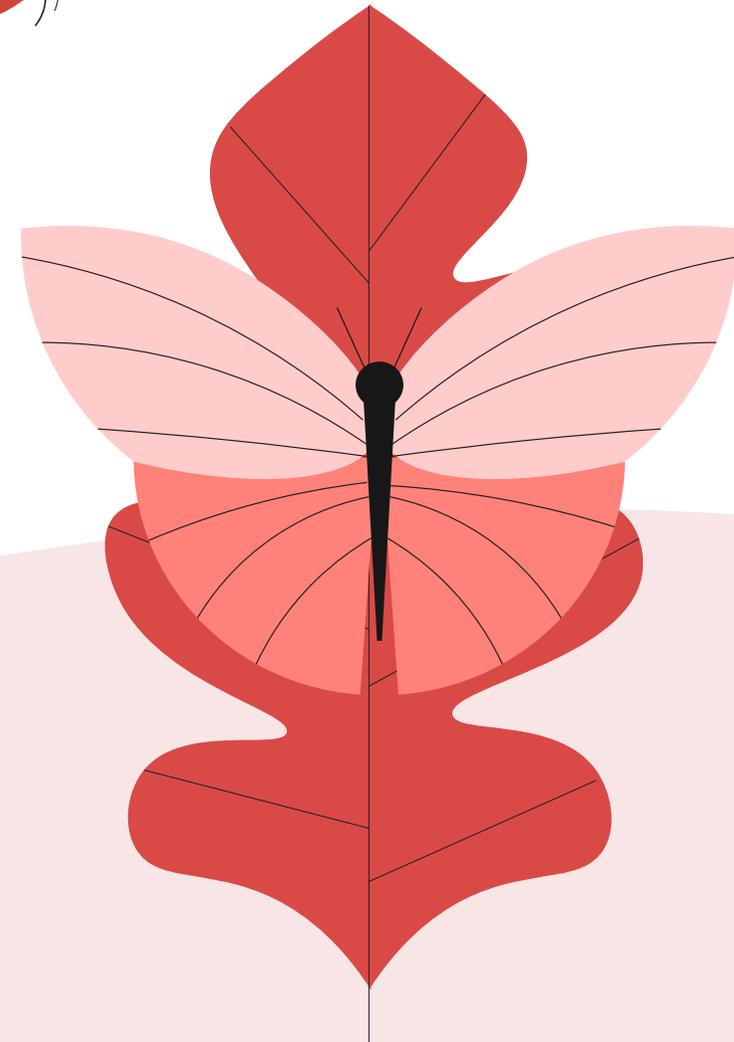
Biocides of all types are designed to kill living organisms, so are harmful to nature. Research is ongoing to understand the impact of herbicides and insecticides in widespread agricultural use have on people and the environment.

However, we already know that use of pesticides is one of the two major factors (along with the destruction of habitats) in the decline of insects, which underpin our ecosystem. Bees, butterflies and other key pollinators support our food sources and other major crops, and provide a valuable food source for other key species. The dangers of some pesticides are widely known. Glyphosate, the ingredient in many weed killers, was reclassified in 2015 as a 'probable carcinogen' by the International Agency for Research on Cancer (IARC) and there are wide spread education campaigns and calls for it to be phased out. Neonicotinoid pesticides, often used to treat seeds and other crops are known to be harmful to bees, aquatic invertebrates and birds.

Many landowners and land managers, including those with gardens or allotments, still use pesticides and may not be aware of the impact on nature. Some labels are misleading, and some

land managers are using old products that have since been banned. Bristol City Council is undertaking internal discussions to explore options on our public land and green spaces and we also need to look at how we can work together to reduce the use and impacts of pesticides on private land.

Many of the "weeds" we target with herbicides are actually wildflowers which have huge benefits for wildlife. Dandelions for instance provide food for bumblebees, solitary bees and honeybees, hoverflies, beetles, and butterflies such as the peacock and holly blue. Goldfinches and house sparrows eat the seed. Yet many gardeners miss out on the spectacle of watching this wildlife, because we wage such a war against them as weeds. If we are to see nature return at scale in our city, we need to change our approach and enjoy the rambunctious, sometimes messy variety of abundant nature and all of the life it supports.



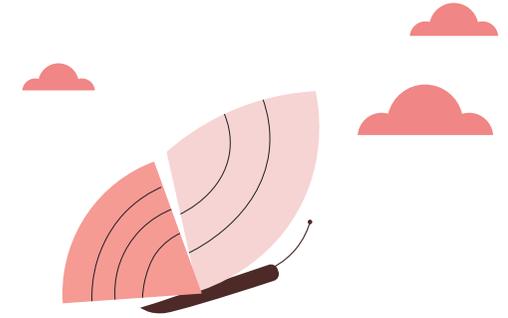
If we are to reduce our city's reliance on ecologically-damaging pesticides, we know we need to:

Invite Bristol's landowners to join us in this city-wide ambition by declaring the volume of pesticides they used in 2019 or 2019/20 so that together we can create a baseline to set our target

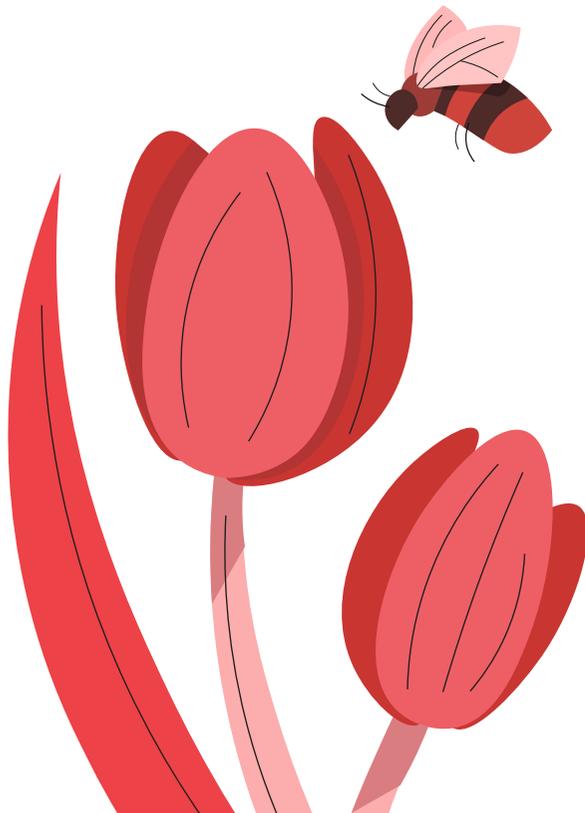
Support Bristol City Council as they work towards a 50% reduction in two years, and create a work stream to explore additional areas of reduction

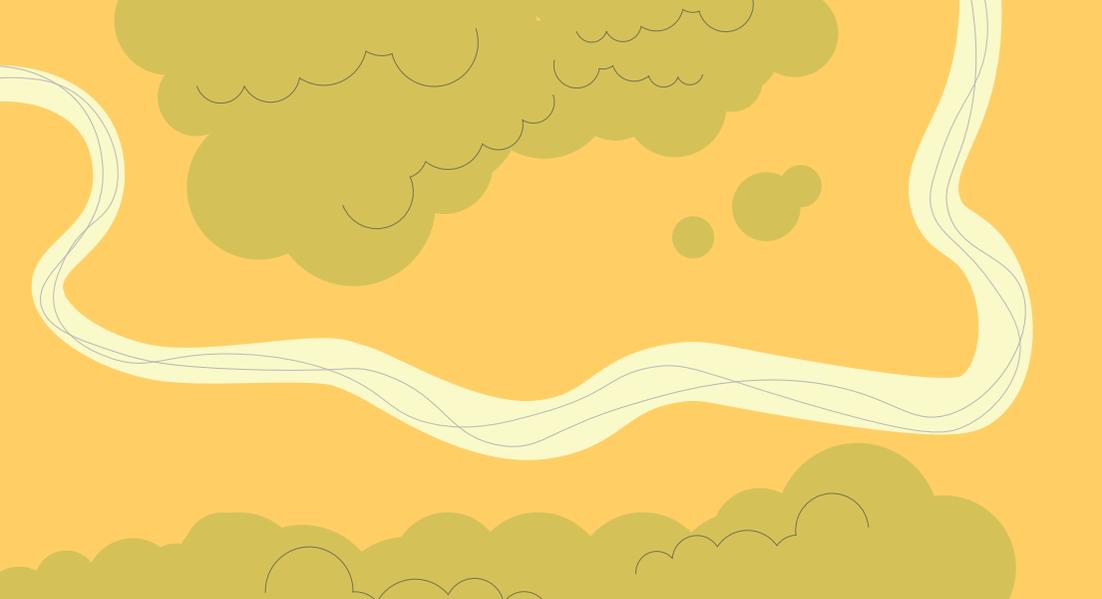
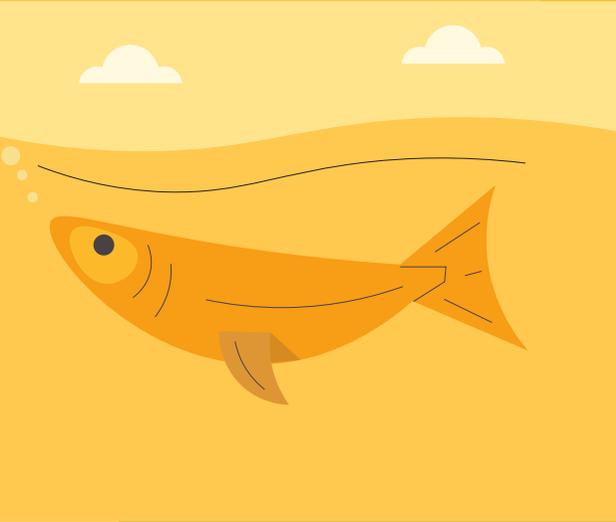
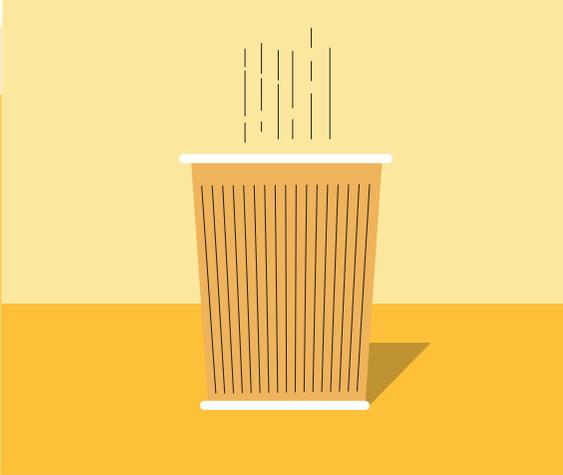
Work together as a city to identify instances of pesticides being used purely for aesthetic reasons and seek to start to eliminate their use immediately while we seek solutions for less straightforward areas and contexts. This includes an invitation to all communities in Bristol to join together in eliminating or reducing use of pesticides on allotments, gardens and commercial land, as well as easily accessible and freely available science-based information about pesticides alongside advice and guidance on alternative methods of weed and pest control.

Work together as a city to share best practice and support progress on our goal. This could include an annual 'Pesticide Amnesty' day, to provide Bristol's public with an opportunity to safely dispose of existing products and raise awareness about this target, and supporting businesses to promote alternative methods



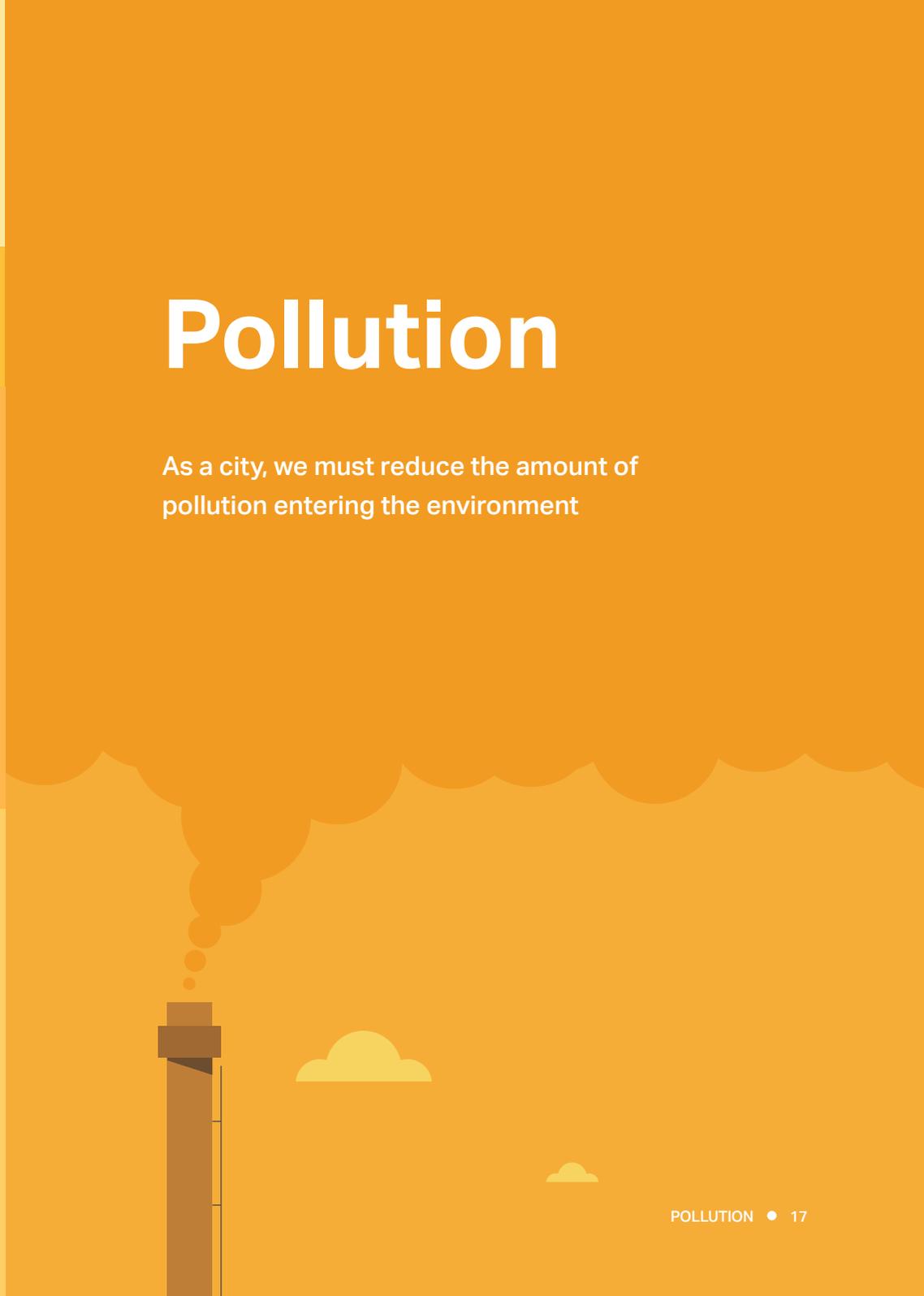
Goal:
Reduce the use of pesticides in Bristol by at least half.





Pollution

As a city, we must reduce the amount of pollution entering the environment



Pollutants from many sources threaten wildlife today. Air, light and noise pollution all have impacts on the abundance of wildlife in a city.

Aquatic environments, especially rivers are particularly sensitive to pollutants and contaminants which can accumulate in the water. This makes water pollution a key focus for this strategy.

Work is already underway to improve the water quality in Bristol's rivers, waterways and harbour. As natural systems are restored, Bristol's Floating Harbour and New Cut could be wildlife-rich nature corridors teeming with a wide range of plants, fish, pollinators and birds.

Legislative changes since the 1970s have succeeded in reducing the amount of sewage and industrial pollution in rivers. However, there are growing issues with new pollutants such as microplastics and pharmaceuticals which get into the water courses and accumulate there. Pesticides and fertilisers can run off into waterways and storm and sewage drains can overflow raw sewage into rivers after heavy rainfall.

Single-use plastic items are also a key source of pollution. According to the One City Plan, Bristol must be free of single-use plastics by 2035. But before then, we must stop the flow of single-use plastic into our waterways, where it is wreaking havoc on bird and marine life.

Thanks to the awareness raised by Sir David Attenborough and others, the plastic crisis has been well documented. Plastic items such as food packaging and soft drinks bottles are often washed into rivers and out to sea, killing large numbers of marine mammals and birds. Studies show that if current trends continue, there may be more plastic in the ocean than fish by 2050. This is made worse by littering, as waste items find their way into water systems due to widespread impermeable surfaces in cities like roads and pavements.



Stopping plastic pollution at source

Water fountains installed in Bristol City Centre in 2019 will save Bristolians half a million pounds and prevent 50 miles of plastic bottle waste every year. We need to unlock and upscale more solutions like this to tackle plastic pollution in our city.

If we are to reduce the amount of pollution in Bristol, we know we need to :

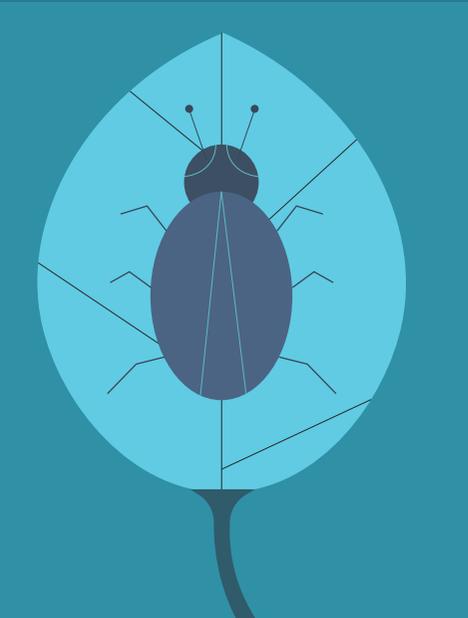
Work together as a city on infrastructure that affects our waterways. This includes new and effective ways to reduce littering in urban areas, as litter often ends up in watercourses; limiting the amount of impermeable surfaces in our city which cause surface water runoff and increase the flow of litter into waterways; working with landowners to reduce fertiliser and pesticide loads in Bristol's water; and increasing the uptake of Sustainable Drainage Systems (SUDs) to slow the flow of water, and provide treatment and amenity space to improve river water quality.

Work together as a city to tackle the pollution that enters our waterways. This includes storm and flood sewage drains that overflow into our waterways; raising public awareness through sewer misuse campaigns around wet wipes and fats, oils and greases which can cause overflow; and reducing the amount of pharmaceuticals entering the water from Bristol, for example by making Bristol a leading centre of social prescribing rather than medicines which accumulate and take a long time to break down in the environment.

Work together as a city to understand and tackle microplastics and microfibres. This includes encouraging businesses, manufacturers and suppliers to collaborate to address the microplastics issue, and running campaigns to support everyone to find ways to stem the flow of microplastics and microfibres into our waters.

Work together as a city to tackle single-use plastics. This includes food outlets, retailers, workplaces, universities and council buildings eliminating single-use plastic items from their operations and supply chain as soon as possible and replacing with environmentally advantageous alternatives; and developing city-wide infrastructure that makes reuse schemes financially and technically viable, allowing more people to access reusable options (e.g. milk deliveries, reusable cups)

Goal: 100% of Bristol's waterways to have water quality that supports healthy wildlife by 2030



Our Wider Footprint

As a city, we must inspire Bristol's people and organisations to be conscious consumers and keep nature in mind





In Bristol and around the world, there is growing demand on natural resources. We must find ways to support people at all levels to better understand the impact of their actions on nature and wildlife, both here in Bristol and further afield, so we can manage and reduce our city's ecological footprint.

There is a growing body of information designed to help businesses understand their impacts and dependencies on nature. But in many cases these materials may be difficult to implement for businesses without a dedicated environmental team with specialist knowledge, or without the financial resources to hire outside help. This presents a challenge to provide appropriate information, resources and support to Bristol's business community in order for biodiversity, businesses and the city of Bristol to benefit from action. This is particularly true of small and medium sized enterprises (SMEs) which make up around half of the trading companies in Bristol.

The things we buy can often have negative environmental impacts in the place they come from – whether its deforestation, use of harmful chemicals or using scarce or endangered resources.

We are not always aware of this impact due to the complexity of global supply chains, but whether it's food, timber, water or palm oil – there are many things we buy, use and consume here in Bristol that may be contributing to ecological decline in places further afield.

If we are to limit the ecological damage done by Bristol's people and businesses regionally, nationally and globally, then we need to:

Provide and recommend resources for businesses to help them understand how their procurement decisions impact ecology in the UK and across the world. Such resources include the [Natural Capital Protocol](#) and the [SHIFT](#) online platform.

Encourage Bristol's businesses to adopt sustainable sourcing policies for products with high ecological impacts such as palm oil, soy, paper, timber, fish and beef – which may include the use of third party certifications.

Look closely at our food sources, as intensive agriculture is the primary driver of wildlife decline across the UK. We can choose to support farming methods that proactively regenerate living soils and need no artificial inputs.

Eat less and better meat, support local small-scale farmers and try plant-based diets, as intensive meat and dairy production is linked to global issues including inefficient use of land and resources and the destruction of wildlife habitats (including deforestation).

Reduce food waste by working with businesses and individuals to improve purchasing decisions and food use.

Provide guidance and resources to empower people to invest in pensions and savings products with stronger ethical policies and more positive biodiversity footprints.

Maintain and implement mandatory standards for new housing developments in Bristol to achieve a water efficiency level of 110 litres or less per person per day and find new and effective ways to encourage people to use less water at home and at work to leave more water in the aquatic environment and reduce the need to construct new water sources





Putting people at the heart of Bristol's nature recovery

People are central to the success of this strategy. Without the involvement and buy-in of a wide range of people and organisations all over Bristol, this strategy will fail.

The stakes couldn't be higher. It's essential that we collaborate in unprecedented ways around the city and draw on our most innovative and creative solutions to take steps towards a thriving, nature-rich city that will benefit everyone.

The Covid-19 lockdown of 2020 has highlighted the benefits of living in a city with clean air and has placed an increased value on our green spaces. Research shows that a greener urban environment is better for people's health and wellbeing, which also positively impacts some economic measures, like worker productivity and increased footfall. There is also some evidence suggesting that more biodiverse green spaces are better for people's health and wellbeing than less diverse ones. In other words, people show preference for a wooded parkland or meadows over amenity grassland. This

gives a strong indicator that the planned Nature Recovery Network in Bristol would bring myriad benefits to our city which would be far-reaching and near impossible to quantify.

We also recognise the need to make sure this strategy is for everyone. Every one of Bristol's people has the potential to benefit from spending time closer to nature and access all the associated health and wellbeing benefits. But we know there are cultural barriers and economic factors that prevent equal access to green spaces. For example, some people from visible ethnic minority backgrounds feel uncomfortable spending time in nature as they are underrepresented there. Other people feel less able to access green spaces outside the city centre without their own private transportation. We can

work together to address and overcome these barriers. To do so, we will need involvement from every community in Bristol.

There are huge opportunities to overlap this One City Ecological Strategy with the recovery from the Covid-19 pandemic - for example with more walking and cycling space, more home working, fewer car journeys and the repurposing of space.

We warmly welcome and invite organisations and businesses to share their ideas on how to make this strategy fair and inclusive for all Bristol's people.

We can all help to tackle the Ecological Emergency



There are a huge range of actions that individuals can take to help halt ecological decline, connect with the natural world, and access the health benefits of nature. Rather than try to create an exhaustive list, [The Natural History Consortium](#) has created an “Actions for Nature” framework, to help everyone think of the kinds of actions that are meaningful to them.

Take less

Reduce your personal impact on the natural world by cutting down waste and consumption.

Every time we avoid consuming something we don't need, we are taking positive action for nature. Every product we buy or activity we take part in draws some kind of resource from the natural world, big or small. So by taking small steps to reduce what we consume, we can make a big difference that seriously adds up over time.

Choose better

Switch to more sustainable products and services, supporting a nature friendly economy

From food to travel and electricity to entertainment, we all need to consume products and services to live healthy, comfortable, modern lives and some of them we would find very hard to live without. By choosing to switch to alternative products and services that showcase their environmental credentials, we can reward those companies for their efforts and promote a more wildlife-friendly economy.

Demand more

Lend your voice to encourage policy makers, businesses and institutions to be more nature friendly

As citizens, constituents, consumers and voters we have a great deal of collective influence over the decision makers that provide the structure for society. Those with the power to influence large-scale change follow the priorities of people like you, so let them know that nature is a big priority for you and thank those you see doing a good job!

Give back

Give nature a helping hand by volunteering, creating a space for nature or supporting a charity

Big or small we all have the power to make a direct contribution to supporting nature in our neighbourhoods. Give your time as a volunteer for a community project or leave some space in your garden for nature, help monitor wildlife on your doorstep as a citizen scientist or gift a bit of cash to an organisation to take action for nature on your behalf.

Conditions for success

The strategy is full of ambition, but as a city we cannot succeed alone. To be able to support the required level of nature regeneration to address the ecological emergency in Bristol, we will need the support of partners and policymakers both regionally and nationally. We aim to work in partnership to promote high standards, leading by example through our work.

This includes our neighbouring local authorities and the West of England Combined Authority (WECA) and our national government. We call on our regional and national government to:

- Develop a strategy for investment in natural capital for Bristol and the West of England
- Provide dedicated funding for projects that restore wildlife habitats and natural ecosystems and help to create the Nature Recovery Network, thereby helping to address the ecological emergency and delivering benefits to people and wildlife.
- Ensure all developments, including strategic projects, within the West of England deliver a net gain in biodiversity and stringent standards for resource efficiency
- Maintain and strengthen protection for wildlife as we leave the EU, including:
 - Legally binding targets to improve the environment and biodiversity
 - A duty on Government to establish Nature Recovery Networks across our towns, cities and the countryside to provide enough space for wildlife to recover and for everyone to be able to enjoy wildlife and wild places.
 - An independent environmental watchdog that can take action against the government and local councils if they break the law
 - Strong measures for the protection and recovery of wildlife in the Agriculture and Fisheries Bills that are going through Parliament



Next Steps

We've seen the evidence. We've identified the solutions. We know what we need to do. Now the challenge is to make it happen.

This won't be easy. Our city is formed of a complicated web of systems and presents a number of challenges that we must face. Measurement and data collection is one; there are still gaps in our evidence base which we will need to work on. Some of the challenges are geographic, some are socio-economic. Many of these challenges will still be there whether we act now or in ten years' time, when it might already be too late. We don't have the luxury to delay any longer, time is running out fast. The time has come to join together as a city and scale up these solutions. The longer we leave it to get started, the more work we'll need to do to catch up.

Key actions

Three things we need to happen immediately are:

1

An analysis of Bristol's ecological networks to identify gaps and opportunities to enhance their functionality and resilience

2

Establish the Bristol Wildlife Index to establish the baseline and track change towards 2030

3

Review Bristol's operations on pesticides and verge mowing

City partners are reviewing the ecological target dates in Bristol's One City Plan with the view of bringing them forward in light of need for urgent action.



| The Challenge | The Causes | Wildlife at Risk | Why It Matters | Our Solutions |
|--|---|---|--|--|
| <p>Nature is declining at unprecedented rates:</p> <p>Globally 68% decline in wild vertebrates since 1970</p> <p>Nationally 30m fewer hedgehogs since 1950s (-95%)</p> <p>44m fewer nesting birds since 1960s (-20%)</p> <p>Locally 96% decline in swifts and starlings since 1990s</p> <p>Insects Worldwide declines in insects are undermining the basis of food chains</p> <p>76% Declines in German nature reserves</p> <p>75-98% Declines in Puerto Rican Rainforest</p> <p>>90% Declines in insect eating birds in the UK</p> | <p>Land Use Change Development of roads and buildings has reduced and fragmented wildlife habitats</p> <p>Wet areas and scrub on farms have been drained and tidied</p> <p>Pollution Average 17 annual pesticide applications to each UK field</p> <p>Globally, 100,000 marine mammals die every year as a result of plastic pollution</p> <p>Microplastics found in 50% of invertebrates in Welsh rivers</p> | <p>Current rates of species extinction are 100 to 1,000 times higher than the background rate and the rate is increasing</p> <p>1 in 8 bird species is threatened with global extinction</p> <p>More than 40% of amphibian species and more than a third of all marine mammals are threatened.</p> <p>41% of insect species are threatened with extinction</p> <p>15% of UK species are at risk</p> <p>Climate change will have an increasing impact</p> <p>20-30% of the species on Earth may be at risk of extinction if the climate warms by an average of 1.5°C</p> | <p>In addition to their intrinsic value, wildlife and ecosystems provide essential services on which we all depend:</p> <ul style="list-style-type: none"> • Climate Regulation • Clean air & water • Nutrient Cycling • Soil Formation • Decomposition • Pest Control • Food for other species • Health & Wellbeing • Pollination <p>Around 75% of the crops grown by humans require pollination by insects</p> <p>£34 trillion of economic value generation – over half of the world’s GDP – is moderately or highly dependent on nature and its services</p> <p>The World Economic Forum’s 2020 Global Risks Report ranks biodiversity and ecosystem loss as one of the top 5 threats humanity will face in the next 5 years</p> | <p>At least 30% of land in Bristol to be managed for the benefit of wildlife by 2030</p> <p>Reduce the use of pesticides in Bristol by at least 50% by 2030</p> <p>100% of Bristol’s waterways to have water quality that supports healthy wildlife by 2030</p> <p>People and businesses to reduce consumption of products that undermine the health of wildlife and ecosystems around the world</p> |

Acknowledgements

The One City Environment Board is grateful to the organisations that supported the development of the Ecological Emergency Strategy, in particular:

Photos courtesy The Wildlife Trusts:

Cover: starling murmuration (c) Terry Whittaker/2020VISION; wildflower meadow (c) Guy Edwardes/2020VISION; red-tailed bumblebee and girl in summer meadow (c) Jon Hawkins Surrey Hills Photography; pearl-bordered fritillary butterfly (c) Donald Sutherland; wildlife gardening (c) Tom Marshall.

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North Somerset Council

The Good Wardrobe

Twelve

University of West of England

Wessex Water

West of England Nature Partnership

Woodland Trust

Yoke