STONEWATER

# Building resilience through nature

## Stonewater's Nature Recovery Framework



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# Introduction

## Nature recovery in housing

Stonewater owns and manages **40,000** homes for **93,000** customers and is responsible for maintaining **339** hectares of communal land. This scale gives us a unique opportunity and responsibility, to shape places where people and nature can thrive together. By planning and designing with communities and the environment in mind, we create sustainable homes and neighbourhoods that stand the test of time.

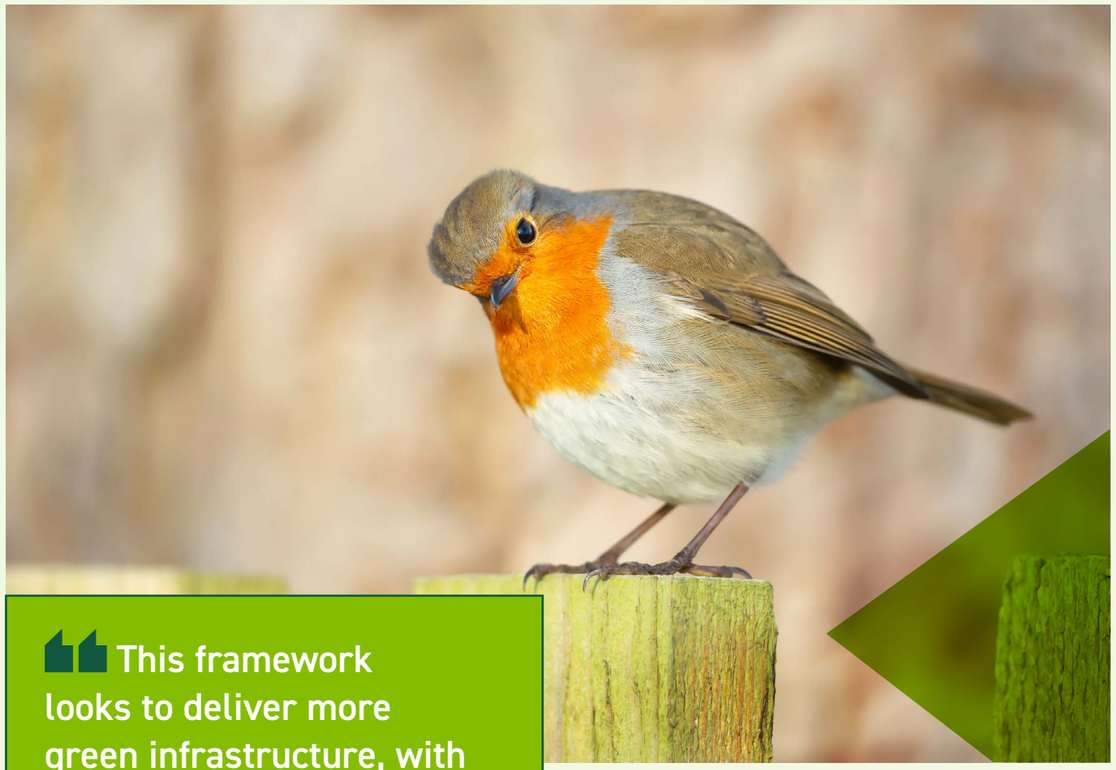


Residents gardening at Star Ground, Holt. *Image courtesy of gcp Chartered Architects*

We believe that balancing human needs with environmental health is fundamental to building a better future. As a housing association, we are accountable for the safety and habitability of our homes. We see this duty as going further, strengthening the resilience of our homes and land to the growing pressures of climate change, while actively contributing to wider environmental improvement.

We must ensure that we are compliant with environmental legislation at a local, regional, and national level by preserving natural habitats, protecting endangered species, and ensuring new developments do not harm ecosystems. We also need to be flexible and respond to regulatory changes as they arise.

As part of legal frameworks, such as the Environment Act 2021, Local Nature Recovery Strategies (LNRS) are legally recognised tools for improving biodiversity and nature recovery and are aligned with and complement a broader range of national and international legislation, aimed at protecting and restoring biodiversity. LNRS are plans developed by local authorities, with input from a wide range of stakeholders including housing associations, designed to focus on specific needs at a local and regional level. Key aspects of LNRS include identifying and mapping key natural areas, setting targets for recovery and identifying projects that will enhance connectivity.



> This framework looks to deliver more green infrastructure, with customers as the direct beneficiaries.

Aligning Stonewater's biodiversity goals with local authority LNRS will bring multiple benefits, including increasing opportunities to develop local partnerships and ensuring we are concentrating our efforts in the right places.

In 2024, the government introduced new legislation under the Environment Act 2021 requiring developers to deliver a minimum of 10% Biodiversity Net Gain (BNG) on developments that fall within the scope of BNG. This legislation ensures that developers contribute to the overall goal of not just halting biodiversity loss but actively improving it and making a positive impact on local ecosystems.

We must never underestimate the impact of undertaking small nature recovery initiatives that increase connectivity with the surrounding landscape. We are currently dealing with a climate, nature and health emergency and one solution is to create new assets in a nature-positive way.

Stonewater's Nature Recovery Framework (NRF) sets out the actions we will take to assess, protect and enhance biodiversity across all our homes and new developments. We will need long-term strategic thinking, and this framework looks at the opportunities we have to deliver more green infrastructure, with the health and wellbeing of our customers as the direct beneficiaries of this approach. We will initially test our approach by delivering a pilot project in the South West of England. This project will provide a framework that is scalable and that can be rolled out across all areas, enabling us to share success into the future.



# Our approach

The government's **Nature Recovery Network (NRN)** is a key initiative in the UK designed to help reverse the decline in biodiversity and restore natural habitats across the country. It is supported by measures introduced through The Environment Act 2021 and is integral to achieving the country's environmental goals in relation to:

- **Biodiversity loss**
- **Climate change**
- **Health and wellbeing.**

The NRN takes a landscape-scale approach, by creating more wildlife-rich places that are bigger, better and joined up, and ensuring all aspects of nature recovery are considered and supported.

Stonewater's approach and contribution to helping nature recover aims to mirror the UK's NRN goals.

This will provide us with a solid foundation based around a national framework that is geared towards long-term, sustainable, and impactful nature recovery. It will align our actions with the needs of local communities and the natural environment.

**Our aim is to deliver the following Nature Recovery Framework objectives:**

**OUR THREE PILLARS**

## Biodiversity loss and recovery

**1** Increase and enhance biodiversity on existing schemes.

**2** Reconnect fragmented habitats.

**3** Work in collaboration with others, sharing knowledge and expertise.

**4** Review the way we maintain our land, setting standards for monitoring and management of our estates.

**5** Create wildlife-rich habitats on new developments, achieving a minimum 10% Biodiversity Net Gain, or a higher level where required by local planning policy.

## Climate change resilience

**6** Build resilient communities by planting trees and shrubs.

**7** Improve water efficiency in our homes.

**8** Deliver a strategy for all homes at high-risk of flooding as well as the provision of nature-based solutions in response to environmental risks.

**9** Respond to local water quality and planning pressures by identifying mitigation strategies

## Improved community health and wellbeing

**10** Increase access to well-managed natural spaces that strengthen people's connection to nature.

# Stonewater's nature recovery vision statement:



**To deliver a Nature Recovery Framework across our estates, creating places where nature and our communities can reconnect, and wildlife can thrive.**









# Biodiversity loss and recovery



## State of nature in the UK

Biodiversity loss in the UK refers to the decline or disappearance of various species and ecosystems across the country and is a serious issue that threatens the overall resilience of the environment around us. A healthy, biodiverse environment provides us with essential services such as clean air and water, the food we need to stay healthy and our innate desire to access places where wildlife can thrive. The UK has experienced significant biodiversity loss over the past century due to various human activities, and addressing this issue is critical for both the long-term sustainability of the environment as well as the wellbeing of us all.

**Key drivers of biodiversity loss in the UK include, but are not limited to, habitat destruction and fragmentation from:**

- increased urbanisation
- the increased demand for intensive farming practices
- the expansion of infrastructure development
- pollution entering our water environment
- the accidental or deliberate introduction of invasive species
- the overexploitation of resources such as overfishing and harvesting of natural materials such as wood

The UK's State of Nature Report 2023 (State-of-Nature-Main-Report-2023) found that the abundance of UK terrestrial and freshwater species has declined by an average of 19% since 1970, with 38% of species showing long-term declines and nearly one in six species now threatened with extinction. Habitat fragmentation has occurred across the UK landscape, where continuous habitats have been broken up into smaller more isolated habitats. This leads to the segregation of species and subsequently to local and national species extinctions.

As a landowner, we believe it is important to focus our efforts on reconnecting habitats and collaborating with others to achieve maximum gains for nature.

Climate change is also a key driver which we will cover in the next section.

With the responsibility of maintaining 339 hectares of communal land, we recognise the important role we play in protecting and enhancing places where nature can thrive on our own estates. We will be working with estates services and grounds maintenance contractors to establish clear biodiversity standards for the way we manage land.

# Building resilience to climate change

## Impacts of climate change

Climate change in the UK refers to the long-term changes in our environment including changes to our temperature, sea levels, and other climate-related factors, and are largely driven by human activities. These changes are significant and are due to rising greenhouse gas emissions, particularly carbon dioxide ($CO_2$) and methane ($CH_4$). In the UK, these emissions primarily come from burning fossil fuels for energy. Rising temperatures are further exacerbated by habitat loss due to increased urbanisation, industrial activities and intensive agriculture.


Our annual garden competition.

Green infrastructure, such as woodlands, and blue infrastructure, like wetlands, help to regulate our climate by absorbing carbon dioxide. Implementing green and blue infrastructure can help to reduce urban temperatures, improve air quality, manage surface water and flood risk, and enhance the quality and resilience of the natural and built environment.

Climate change is also having a direct impact on our water environment. Access to clean and plentiful water is essential to life and a water-stressed environment has a direct impact on our health and wellbeing. Water is vital for drinking, sanitation, providing materials and goods, and for food production. A wide variety of plant and animal species live in rivers, lakes, wetlands, and seas and they rely on clean and balanced water to thrive.

Flooding has increased in the UK over recent decades, and the frequency and severity of flood events are expected to rise in the future due to climate change and other factors. Flooding can have a devastating impact on people and communities and can affect the structure and integrity of our properties. The level of damage can be assessed against the severity, duration and the source of flooding e.g. river, coastal or surface water.

## Protecting our customers and properties against climate change

Looking at the provision of sustainable water management practices, including rainwater harvesting, how we recycle waste water and more water-efficient plumbing systems are becoming increasingly important in addressing the growing demand for water (water scarcity). By ensuring the quality of water and its responsible use, communities can support healthier living environments and contribute to the long-term sustainability of water resources for future generations.

It is essential that we identify and regularly review our homes that are at high risk of flooding, as well as developing a strategy with clear actions on how we will mitigate and adapt our homes and communities impacted by flooding.

Identifying local nature-based solutions (NbS) can be one effective approach that has multiple environmental benefits. Nature-based solutions are strategies that use natural systems to mitigate and adapt to climate change. By mimicking natural drainage processes Sustainable Urban Drainage Systems (SUDS) slow down and capture rainfall and reduce the risk of flooding on our homes. There are also co-benefits to this approach including improving water quality by reducing pollution, offering habitats for wildlife and providing a space where communities can access nature. Trees, plants and healthy soils filter pollutants, absorbing and releasing water at a more gradual pace so the downstream communities are impacted far less by flooding.

When building new homes, we will ensure we comply with environmental sustainability and planning requirements. Nutrient and water neutrality are two key concepts that focus on ensuring that development does not harm water quality in designated areas of the UK. By adopting these principles, we will tackle nutrient pollution, promote resilience and conserve natural resources for future generations.

We recognise the need to be ambitious and innovative in our response to climate change. As a landowner and a social housing provider, we have an opportunity to take a co-ordinated approach when responding to this nature emergency, as well as making our homes more resilient to climate change.



# Improved community health and wellbeing

## Connecting with nature

Connecting with nature is essential for both physical health and mental wellbeing. There is growing evidence showing that spending time in natural environments offers a wide range of benefits that contribute to a healthier and more balanced life. Time spent in parks, woodlands, rivers or coastal areas, for instance, help people feel calmer and more relaxed and has been shown to lower stress and reduce feelings of anxiety. Many outdoor activities such as walking, cycling, and gardening promote physical exercise, which is crucial for maintaining health with regular physical activity linked to lower rates of chronic diseases like heart disease, diabetes, and obesity. Nature also provides children with opportunities for physical activity, improving their motor skills, co-ordination and physical fitness. Interacting with wildlife, provides opportunities for all of us to connect with nature. The activity itself offers co-benefits, enhancing our mental wellbeing while also cultivating a greater commitment to preserving our natural environments for future generations.



Westcott Community Garden, Swindon.

Public parks and outdoor spaces encourage social interaction for communities, helping to build connections with friends, family, and neighbours. We know that strong social networks contribute to improved mental health and resilience. Having access to green spaces and nature within urban environments contributes to an overall better quality of life, making cities more liveable and reducing social inequalities by providing equal access to nature for all.

> **“Implementing green and blue infrastructure can help to reduce urban temperatures and enhance the quality and resilience of the environment.”**

In today's world, where urbanisation and technology often lead to a disconnect from the natural environment, it's important to prioritise and make space for regular interactions with nature.

The State of Nature Report 2023 concludes that there is inequality, with people in poorer socio-economic settings having less access to wildlife-rich natural spaces. Evidence shows that by providing equal access to nature we will be creating healthier and happier communities.

We will be taking a community-based approach with our customers at the heart of the decision and planning process, enabling them to make decisions about what nature recovery looks like for them. We will be delivering projects that focus on bringing the biggest benefits to the health and wellbeing of our customers and the wider community, enabling everyone to enjoy and connect with nature where they live, work and play.

Where feasible, we will deliver nature-based interventions for communities including healthy eating, outdoor exercise, education, gardening and nature conservation. We will be looking at ways that our customers can get more involved including developing a programme of Nature Recovery Champions, an initiative where our customers can promote environmental sustainability and protect biodiversity.

# Working in collaboration with others

With the growing recognition of the important relationship between biodiversity and community health and wellbeing, social housing providers are exploring ways to take a collaborative approach to nature recovery. Building strong partnerships will be essential to achieving our ambitions.

## Community involvement and education

We aim to engage with our customers on the delivery of nature recovery projects including the creation of community gardens, communal green spaces, and wildlife corridors. As part of the process, we will send customers a survey which will include information on the scope of the project proposed, explaining the benefits, gauging support, and gathering feedback as well as providing customers with the opportunity to get involved in local projects. This collaboration not only benefits nature but also promotes environmental stewardship amongst residents. Getting involved in nature recovery educational programmes can provide customers with new skills, help them understand how their actions impact the environment and encourage sustainable living practices.

## Funding projects

With growing financial pressures and the cost-of-living crisis, it will be desirable to identify funding mechanisms that will not increase service charges to our customers. When identifying funding sources and resources for environmental projects, the funding will typically come from a variety of public, private, and non-profit sectors including but not limited to government and private business grants, non-governmental organisations (NGOs) and charities. The long-term management and maintenance of biodiversity enhancements may be supported through service charges, helping to ensure ongoing value for money and sustainability.

By diversifying funding streams and building partnerships across sectors, nature recovery projects can secure the funding and resources needed to drive meaningful and lasting environmental change. Collaborating with others will increase access to local knowledge, to achieve shared goals and provide expert advice, and open more opportunities to monitor progress into the future.

**Our partners and stakeholders include:**

- Customers
- Other housing associations
- Communities
- Landowners
- Private businesses
- Parish councils
- Local authorities
- Government, including DEFRA and the Environment Agency
- Non-government organisations, including The Wildlife Trust
- Environmental consultants

We can look towards suppliers and contractors to provide us with social value beyond financial gains. Social value is an approach that makes a positive difference, ensuring that the benefits of nature recovery interventions are felt broadly and equitably within society. We believe that if community engagement is implemented well, it can be a tool to achieve social value. We know that by involving our customers from the start we will be able to deliver projects that provide social value benefits including improving mental and physical health, enhancing community cohesion and increasing our communities' access to nature.



Westcott Community Garden volunteers.



# Maintaining our estates using new standards



With the responsibility of maintaining 339 hectares of communal land, we recognise the important role we play in protecting and enhancing places where nature can thrive on our own estates. We will be working with estates services and grounds maintenance contractors to establish clear biodiversity standards for the way we manage land.

We will review how our land is managed and, where appropriate, adapt our practices to create and enhance habitats that support a diverse range of species. These changes are not only beneficial for wildlife - they are also cost effective. Practices such as reduced grass cutting and introducing wildflower meadows lower maintenance costs over time while creating more diverse, nature rich spaces. We will look at alternative weed control methods, using chemicals as a last resort, working with grounds maintenance contractors on training and identifying alternative methods. By reducing the negative impacts of chemicals, including pesticides and herbicides, we can improve soil health and create healthier, more sustainable environments.

We will develop a tree strategy that helps us look after our trees safely and responsibly, while creating greener and more pleasant places for our customers to live. The strategy will guide how we care for existing trees, plant new ones in the right places, and increase tree cover where this benefits communities the most. It will also support local wildlife and make our neighbourhoods healthier and more resilient, ensuring that our trees are managed in a sustainable and affordable way for the long term.

> **"Practices such as reduced grass cutting and introducing wildflower meadows lower maintenance costs over time while creating more diverse, nature rich spaces."**

Changes in how we maintain our land will lead to widespread, small-scale interventions that can be impactful for nature recovery.

# Reputation and leadership in nature recovery



Bishops Lane, Ringer, Social Housing Development of the Year, Bricks awards 2026.

We are also committed to creating a collaborative space for professionals working within the housing sector to share knowledge, challenges, and successes in embedding biodiversity within our organisations. Creating a network and space for peers across the housing sector to come together and learn from each other is very important to us. This network can provide unlimited opportunities where everyone benefits from a collective effort. Social housing providers share the same drive and ambition to protect and improve the environment both to enable nature to thrive but also to offer a beautiful and healthy space for our customers to feel more connected with nature.

BIODIVERSITY IN HOUSING

**With these drivers in mind, we have been integral in establishing the 'Biodiversity in Housing Network' with the purpose of providing a collaborative space for housing providers to:**

- share knowledge, expertise and resources
- share new ideas, solutions, challenges and insights
- share opportunities for partnership and collaboration
- highlight upcoming events, training and legislative or regulatory changes
- share funding opportunities
- provide valuable feedback and a source of support for each other



# Nature recovery project delivery

Stonewater's nature recovery projects will be designed to promote biodiversity, mitigate against climate change and reconnect our customers with the natural environment. To be effective involves careful planning, ensuring we select sites that provide optimal benefits for all but not forgetting some of the smaller environmental wins we can make. The following methodology relates to the approach we will be taking to restore and enhance our communal green spaces.

## Methodology

The implementation of projects will involve the following steps:

1. **Key biodiversity and social indicators:** We will select sites for nature recovery based on the indicators highlighted in the table below.

2. **Measuring biodiversity**: To assess the condition and opportunities available on a site we will use geographical information systems (GIS) to map out habitat types (trees, shrubs, grasslands). We will also use existing habitat condition surveys to measure the biodiversity baseline (prior to delivery) and uplift (post-delivery). Tools will be used to inform an improvement programme and monitor performance over time.

3. **Project planning:** We will develop a detailed plan that will establish the primary goals of the nature recovery project, estimating costs, securing funding, and understanding resources required to carry out the project effectively.

4. **Regulatory compliance and permissions:** We will ensure the project is in compliance with local and national regulations and laws, is aligned with, and where possible complements, local nature recovery objectives i.e. LNRS.

5. **Stakeholder engagement and collaboration:** We will ensure there is commitment to proposed projects by creating strong relationships with communities, local and national government, non-government organisations and the private sector. The design and delivery of the nature recovery projects will be based on feedback gathered from Stonewater customers as well as other interested parties.



6. **Mapping data:** The data we collect will be displayed in a map and will highlight areas that are rich in biodiversity and areas that require nature recovery intervention.

7. **Completion and long-term stewardship:** We will work with estates services, grounds maintenance contractors and partners to develop long-term maintenance plans as well as evaluating the project challenges and successes in meeting goals.

8. **Monitoring:** We will monitor all projects for 12 months after completion and carry out a habitat assessment once a year to calculate biodiversity uplift against the original baseline.

9. **Reporting and sharing knowledge:** We will network with others including other housing associations, sharing project successes, challenges and lessons learnt. We will share progress in our annual Environmental, Social & Governance (ESG) Report as well as providing regular updates across our business and with our customers.

# Measuring success: Biodiversity and social indicators

Indicators are measurable metrics that can be used to track our progress and provide data for reporting purposes. We will use the following biodiversity and social indicators to measure our effectiveness and performance, and ensure we are focusing on the right outcomes:

## Core biodiversity and social indicators

**Habitat & biodiversity:**
- Area of habitats restored or protected
- Biodiversity increased from baseline assessment

**People & collaboration:**
- Number of customers and volunteers involved
- Level of collaboration established to support project success

**Climate resilience:**
- Increased community resilience to climate change
- Evidence of projects adapting over time through monitoring

**Funding & long-term delivery**
- Funding and resources identified for delivery and maintenance

## Optional (high priority) biodiversity & social indicators

**Ecological connectivity:**
- Increased habitat connectivity
- Improved habitat provision for priority species (see Appendix 1)

**Invasive species and water:**
- Reduced size and number of invasive species (see Appendix 2)
- Improvements in water quality and water resources across homes and estates

**Community resilience:**
- Delivery of nature-based interventions
- Reduced flood risk and improved community resilience



# South West nature recovery pilot project

To test our approach to nature recovery, we will be delivering a pilot project across the South West of England. We aim to:

- Identify and outline the set of pressures impacting the South West including, nutrient neutrality, flooding, drought, priority species decline, invasive species.
- Develop a customer engagement framework that will identify the needs of our customers.
- Identify the opportunities for collaboration and partnership with others including internal stakeholders, local experts and linking in with local nature recovery strategies (LNRS).
- Exploring the use of GIS tools to identify what environmental data and evidence is available to us.
- Develop a project plan template from the implementation of nature recovery projects including available resources, timescales and funding mechanisms available.

### We will take the following actions:

**Actions for nature recovery across Homes and Development directorates**

**April 2026 – March 2028**

**Homes in the South West**

- Undertake an engagement programme to understand our customers and internal teams' dependencies on nature and what improvements they would like to see to assist us in designing nature recovery projects.
- Deliver a minimum of two scalable nature recovery projects per year on existing homes that will directly benefit the health and wellbeing of our customers.
- Identify and form partnerships with others operating in the South West to ensure long-term viability of projects.
- Share lessons learnt and work with others in the sector to produce a framework on what 'good' nature recovery looks like.
- Produce a framework for delivering scalable biodiversity projects that can be rolled out across all areas including long-term monitoring of nature recovery projects.
- Provide customers with water efficiency advice via Stonewater's Customer Hubb / other campaigns including working with others i.e. water companies, NGOs.

**Development in the South West**

- Work with the Development team to integrate biodiversity net gain (BNG) into site selection and achieve minimum requirements of 10% net gain on all new developments.
- Work with estates services and grounds maintenance contractors ensuring there is a robust handover from Development to estates services, guaranteeing long-term maintenance and stewardship is in place on new build projects.
- Seek opportunities for biodiversity accreditations on new builds.
- Explore opportunities to deliver nutrient neutrality mitigation projects in offsetting new developments.
- Explore opportunities to install sustainable urban drainage systems (SUDS) in new developments, alleviating flooding and increasing green space.
- Calculate the average water consumption of all new homes.
- Explore water re-use methods/technologies for new schemes (harvest rainwater/grey water recycling).

# Nature recovery case study

## 104 homes at Edencroft, Highworth, Wiltshire

This case study highlights a nature recovery project aimed at restoring and enhancing green space delivered in Highworth, Wiltshire. The communal spaces on the scheme were poor quality with only a few, very old trees in situ. Over time, urban regeneration had led to habitat fragmentation with little or no available habitat for wildlife. This project identified measures we could take to increase the environmental health of the scheme and to also bring improvement to the overall health and wellbeing of the local community.



Edencroft, a nature recovery success story.

**The following key biodiversity and social commitments were achieved:**

- **Created a safe space where communities can connect with nature:** We planted a variety of trees, including the creation of a community orchard.
- **Worked with our customers to develop a nature recovery project:** We sent out a customer survey, gathering feedback which we fed into the design the nature recovery project.
- **Identified experts and formed partnerships to make the project a success:** We formed partnerships with Wiltshire Wildlife Trust, Swindon Borough Council, Community Forest Trust, environmental consultants and local grounds maintenance contractors to ensure the project delivered the desired outcomes for people and nature.
- **Increased the community's resilience to climate change:** By increasing green infrastructure we reduced the impact of urban overheating and surface water flooding.
- **Increased biodiversity from baseline assessment by restoring and creating habitats for nature to thrive:** The planting of trees has created more habitats for wildlife.
- **Identified funding and resources for project delivery and long-term maintenance:** Secured DEFRA "Trees for Climate" funding to support tree and hedgerow planting, including 15 years of ongoing maintenance. Collaborative working between our Sustainability and Estates Services teams, alongside local grounds maintenance providers, will ensure protection, management and stewardship of all biodiversity measures.
- **Connected fragmented habitats:** We used GIS mapping tools and worked with local experts to make decisions and take actions that would increase connectivity to the surrounding landscape.
- **Delivered a priority species recovery programme:** We are continuing to work in partnership with others to develop the next phase of this project which aims to benefit priority species including hedgehogs and swifts.



# Appendix 1

## Priority species in the South West of England

| Priority Species | | Distribution |
|---|---|---|
| **Plants** | Cowslip (Primula veris) | All South West counties |
| | Common bee orchid (Ophrys apifera) | Bristol, Dorset, Gloucestershire, Somerset, Wiltshire, Bristol |
| | Yellow rattle (Rhinanthus minor) | All South West counties |
| | True fox hedge (Carex vulpina) | Dorset (scarce), Gloucestershire, Somerset, Wiltshire |
| | Mistletoe (Viscum album) | Bristol, Gloucestershire, Somerset, Wiltshire |
| | Black poplar (Populus nigra ssp. betulifolia) | Gloucestershire, Somerset, Wiltshire |
| **Insects** | Stag beetle (Lucanus cervus) | Bristol, Dorset, Gloucestershire, Somerset, Wiltshire |
| | Shrill carder bee (Bombus sylvarum) | Somerset (Somerset Levels) |
| | Field cricket (Gryllus campestris) | Dorset |
| | Hairy dragonfly (Brachytron pratense) | Dorset, Gloucestershire, Somerset, Wiltshire |
| **Butterflies/moths** | Small blue (Cupido minimus) | Dorset, Gloucestershire, Somerset, Wiltshire |
| | Glanville fritillary (Melitaea cinxia) | Somerset |
| | Purple emperor (Apatura iris) | Dorset, Gloucestershire, Somerset, Wiltshire |
| | Marsh mallow moth (Hydraecia osseola) | Gloucestershire (Severn Vale), Somerset (Somerset Levels) |
| **Mammals** | Water vole (Arvicola amphibius) | All regions |
| | Hedgehog (Erinaceus europaeus) | All South West counties |
| | Common pipestrelle bat (Pipestrellus pipistrellus) | All South West counties |
| | Brown long-eared bat (Plecotus auritus) | All South West counties |
| | Hazel dormouse (Muscardinus avellanarius) | Devon, Dorset, Gloucestershire, Somerset, Wiltshire |

# Appendix 1

## Priority species in the South West of England

| | Priority Species | Distribution |
|---|---|---|
| **Reptiles/ amphibians** | Common lizard (Zootoca vivipara) | All South West counties |
| | Great crested newt (Triturus cristatus) | Dorset, Gloucestershire, Somerset, Wiltshire |
| | Slow worm (Anguis fragilis) | All South West counties |
| | Common frog (Rana temporaria) | All South West counties |
| **Birds** | House sparrow (Passer domesticus) | All South West counties |
| | Starling (Sturnus vulgaris) | All South West counties |
| | Common swift (Apus apus) | All South West counties |
| | Turtle dove (Streptopelia turtur) | Dorset, Gloucestershire (scarce and localised), Somerset, Wiltshire |
| | Nightingale (Luscinia megarhynchos) | Gloucestershire (very scarce) |

## Invasive species

| Invasive Species | Distribution |
|---|---|
| Floating pennywort (Hydrocotyle ranunculoides) | Dorset, Gloucestershire, Somerset, Wiltshire |
| Himalayan balsam (Impatiens glandulifera) | All South West counties |
| Japanese knotweed (Reynoutria japonica) | All South West counties |
| Giant hogweed (Heracleum mantegazzianum) | Devon, Gloucestershire, Somerset, Wiltshire |



# Appendix 2

## Glossary of terms

**Biodiversity** - the variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable.

**Biodiversity in Housing Network (BHN)** - Network of housing providers, working together to share good practice and support each other in delivering nature recovery strategies.

**Biodiversity Net Gain (BNG)** – a development and land management approach that aims to leave the natural environment in a better state than it was before.

**Blue infrastructure** - a term for water features in urban areas, such as ponds, lakes, streams, rivers and wetlands.

**Blue space** - an outdoor environment that features water and is accessible to people and can be natural or man-made. Blue spaces include rivers, lakes, oceans, ponds, and fountains.

**Climate change** - Climate change refers to a large-scale, long-term shift in the planet's weather patterns and average temperatures.

**Ecology** – The science of how living creatures interact within their environments.

**Ecosystems** - a biological community of interacting organisms and their physical environment.

**Ecosystem services** - the benefits that people receive from ecosystems, also known as natural capital.

**Environment Act 2021** - UK legislation aimed at addressing environmental challenges and improving environmental protections across England that sets out the government's long-term environmental goals and establishes legal frameworks to tackle issues such as biodiversity loss, pollution, climate change, and resource management.

**Environmental mitigation** - the process of reducing or avoiding the negative impacts of human activities on the environment.

**Greenhouse gas emissions** - refer to the release of gases into the earth's atmosphere that trap heat, contributing to the greenhouse effect and global warming, including carbon dioxide ($CO_2$) and methane ($CH_4$).

**Green infrastructure** - a network of multi-functional green space and other green features, urban and rural, which can deliver quality of life and environmental benefits for communities.

**Green space** - an area of grass, trees, or other vegetation set apart for recreational or aesthetic purposes in an otherwise urban environment.

**Habitat** – The area in which a plant or animal lives.

**Habitat destruction** - refers to the process by which a natural habitat is completely altered or eliminated, typically due to human activities such as deforestation, urbanisation, agriculture or infrastructure development.

**Habitat fragmentation** – a process by which large areas of habitat are divided into smaller, isolated pieces. This can happen due to human activities like building roads, or natural processes like volcanic eruptions or forest fires.

**Heat island effect** – urbanised areas that experience higher temperatures than outlying areas. Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests and water bodies.

**Intensive farming** – refers to a farming system that aims to maximise the output of crops or livestock per unit of land area through the use of high levels of inputs, such as synthetic fertilizers, pesticides, herbicides, and advanced irrigation techniques.

**Invasive species** - are non-native organisms (plants, animals, or microorganisms) that are introduced to a new environment, either accidentally or intentionally, and cause harm to the ecosystem, economy, or human health.

**Local Nature Recovery Strategy (LNRS)** - strategic plans developed by local authorities to improve biodiversity and support nature recovery at a local or regional level and are part of the UK government's broader approach to achieving environmental targets outlined in the Environment Act 2021.

**Long term stewardship** - a holistic approach to ensuring that places are well-managed and can thrive in perpetuity.

**Nature based solutions** – actions that protect, restore and sustainably manage natural ecosystems to address societal challenges.

**Nature recovery** – the process of restoring, creating and connecting habitats so that wildlife and ecosystems can recover.

# Appendix 2

## Glossary of terms (contninued)

**Nature Recovery Network (NRN)** - a strategic approach to improving biodiversity and restoring ecosystems by creating and enhancing interconnected networks of natural habitats.

**Net zero** - the point at which the amount of greenhouse gas produced is equal to the amount removed from the atmosphere.

**Nitrates** – nitrogen-based compounds that can enter waterways from fertilisers, wastewater and runoff, contributing to nutrient pollution and poor water quality.

**Nutrient neutrality** - a planning principle that ensures new development in designated areas does not add extra nutrients, such as nitrates or phosphates, into nearby rivers, lakes and wetlands.

**Nutrient pollution** - occurs when too many nutrients, mainly nitrogen and phosphorus, are added to bodies of water and the atmosphere.

**Social value** – refers to the benefits and positive impact that an action, decision, or project has on society, beyond just economic or financial outcomes.

**Species** – A group of individual animal, plant or fungal types that interbreed with each other but not with other species.

**Species extinction** - refers to the complete disappearance of a species from Earth, meaning that no individuals of that species remain anywhere in the world.

**Stakeholders** – employees, customers, partners, contractors, local communities and regulators.

**Sustainable homes** – are residential buildings designed and built to minimise their environmental impact while maximising energy efficiency, resource conservation, and overall sustainability.

**Sustainable urban drainage systems (SUDS)** - refer to a range of techniques and practices designed to manage surface water runoff in an environmentally friendly way.

**Total area of the site** – the area within the site boundary.

**Urbanisation** - refers to the process by which an increasing percentage of a population moves from rural areas to urban areas, leading to the growth and expansion of cities and towns.

**Water cycle** - the cycle of processes by which water circulates between the earth's oceans, atmosphere, and land, involving precipitation as rain and snow, drainage in streams and rivers, and return to the atmosphere by evaporation and transpiration.

**Water neutrality** - a planning concept in water-stressed areas that ensures new development does not increase overall demand on local water resources.

**Water pollution** - the release of substances into subsurface groundwater or into lakes, streams, rivers, estuaries, and oceans to the point that the substances interfere with beneficial use of the water or with the natural functioning of ecosystems.

**Water quality** - a measure of how suitable water is for a specific use, based on its physical, chemical, and biological characteristics.

**Water resources** – water resources are natural resources of water that are potentially useful for humans, for example as a source of drinking water or irrigation water.





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