Open Agenda

Environment Scrutiny Commission

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160 Tooley Street, London SE1 2QH

Supplemental Agenda One

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Agenda Item 8

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Biodiversity scrutiny review report

October 2024

Environment Scrutiny Commission

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Executive Summary

Loss of biodiversity globally means the earth is now undergoing a sixth mass extinction event, largely driven by loss of habitat and further compounded by climate change. The UK is classified at one of the world's most nature-depleted countries, with nearly one in six of species at risk of extinction[1] and lower tree cover than the majority of European nations.

A primary driver of loss of biodiversity in the UK has been the early industrialisation of our food system, although there are other pressures to do with consumption, population and development.

Given the urban character of Southwark, the pressures that the borough's nature and biodiversity face arise primarily from competing demands for land for housing and infrastructure. (The countryside faces additional pressures from intensive farming.) These development pressures are more likely to increase rather than decrease. Recent examples of the pressures are the loss of valuable brownfield habitats due to development, and the paving over of front gardens to provide personalised parking space, especially now to charge EVs.

There are, however, opportunities to make more of our existing green and blue spaces and to work with stakeholders and residents to increase habitat for wildlife. The recent Southwark Land Commission report 'Land for Good' provides a framework for managing more land for the benefit of people and the planet and provides synergy through relationships and a well aligned and coherent framework for many of the review's recommendations.

This is a pivotal moment for the council to enhance its approach to biodiversity. There is an expanding array of duties for Local Authorities in respect of improving biodiversity, including delivering Biodiversity Net Gain (BNG) in Planning and enhanced Biodiversity Duty and reporting requirements.

Adopting 30 x30 and the Global Biodiversity Framework

The loss of natural habitats in the wider countryside reinforces the need to ensure that opportunities to enrich our natural environment are embraced, wherever they arise. Nature conservation in cities is, therefore, increasingly important in the context of the global trend of biodiversity decline. London is almost 50% green and blue space and qualitative enhancement of biodiversity in these areas can make a significant contribution. It is also particularly important, as the inevitable competition for land resources in an urban environment will always limit expansion of green and blue space to some degree.

Biodiversity has a UN convened process similar to that relating to Climate Change. The 15th Conference of the Parties (COP15) was held in Montreal in 2022, and led to the international vision of living in harmony with nature by 2050, the global

[1] Page 2 & 3 State of Nature, 2023

agreement to protect 30% of land and oceans by 2030, and the adoption of the Kunming-Montreal Global Biodiversity Framework (GBF).

It is increasingly appreciated that the loss of biodiversity ought to be treated as an emergency, alongside reducing carbon emissions, and this is recognised in Southwark's Climate Emergency Strategy and Action Plan. The Commission recommends that 30 X 30 and the Global Biodiversity Framework be adopted to align local and global ambition. This requires a radical new approach that will improve Southwark's resilience to the Climate and Biodiversity Emergencies, delivering more land for habitats and, over the longer term, benefit residents by bringing them closer to nature.

Ecological Networks: 'More, Bigger, Better and Joined up', Making Spaces for Nature

National policy in the UK has been driven by the overarching vision in the Making Space for Nature report, 2010, chaired by Professor John Lawton. This influential report for government called for a step change in provision for nature, setting out a vision for landscape -scale Ecological Networks to deliver habitat restoration and re-creation through 'More, Bigger, Better and Joined up' spaces for nature. The focus is on conserving wild plants and animals at the landscape, regional and ecosystem level, by improving connectivity , better protecting existing sites, and increasing the amount of habitat through expanding existing sites and creating new sites. This is a key theme of our review.

The Making Spaces for Nature report has influenced many of the policies and plans including the National Biodiversity Strategy 2020 and development of 48 regional Local Nature Recover Strategies (LNRS), one of which will cover London, to deliver a regional Ecological Network.

Ecological Networks are closely aligned with Green Infrastructure Strategies, as these map out provision of green spaces that benefit both wildlife and people. Natural England provided guidance on producing Green Infrastructure Strategies in 2023 and the GLA is conducting a piece of work mapping Green Infrastructure to support the delivery of the London LNRS.

Ecological Networks are already recognised in the majority on Southwark's strategies and plans. Furthermore, both planning policy and the Climate Emergency Strategy and Action Plan recommend that green or wildlife corridors be used to guide habitat protection and restoration, however, there is still no formally agreed map setting these out.

Southwark Nature Action Plan (SNAP) 2020 said that further work will be delivered to develop Ecological Networks, and this is anticipated to feed into the Local Nature Recovery Strategy. While other councils, such as Lambeth, have produced Green Infrastructure Strategies, and used them to map out Ecological Networks, Southwark has not produced a strategy yet.

A key recommendation is that the council undertakes its own mapping exercise to develop Green Infrastructure Strategy for the borough, to strategically plan out Ecological Networks. These will enable the joining up and better protection of our many existing wildlife habitats (designated as SINCs) along wildlife corridors, and plan where to prioritise improving and increasing wildlife habitats.

There is research, commissioned in 2015 as part of a review of SINCs, that the council can use as a foundation to for this essential task of mapping Ecological Networks for the borough.

More and Bigger habitat

A key message of both the COP 15 and the UK's 2010 Making Space for Nature report was that we need *more* habitat, covering a *bigger* area. Size matters, as many sites are too small to sustain a population of species, and this is particularly true of many urban sites.

The amount of ongoing urban development in Southwark and the pressures on land for other needs including housing and infrastructure, mean that increasing the size of existing habitat areas in the borough, and creating more habitat areas will not be easy. However, there are many incremental steps that, taken together, can make a big difference. Two of the most significant are managing existing non-habitat green and blue spaces better so they become wildlife habitat, and systematic and strategic de-paving.

Depaved as default , wherever possible

There is a huge amount of wasted land in Southwark, where potentially life-supporting soil is trapped beneath little-used hard surfaces. Depaving hard surfaces increases both space for more habitat and improves flood attenuation, particularly when combined with rain gardens or other types of Sustainable Drainage Systems (SuDS),.

Southwark Nature Action Volunteers conducted a sample survey of pockets of paved land in Camberwell. Extrapolating this exercise across the borough demonstrated that there could be around 3 hectares (30,000m2) of largely unused and unnecessarily paved land in Southwark that could easily be made available for planting. If land dedicated to parked vehicles is also included, then this greatly increases the area under consideration. There is growing potential here as car dominance decreases and active travel increases, which is the aim of the Streets for People Strategy.

The Commission would like to see both an increase in soft planting provided in new streetscapes schemes and a programme of strategic depaving. This ought to be linked to Southwark's ambitious tree planting programme, so that we move towards a future where trees are located in a wider habitat, with ideally at least two trees in each pit surrounded by herbaceous planting to support greater wildlife. Octopus Gardens in Bermondsey is a good example of an area being improved by removing hard standing and adding more soft planting and demonstrates the potential to recover paved land to make space for biodiversity:

Octopus Garden, Dunton and Lynton Roads, 2022 / The garden view from Lynton Road, 2023

Indisputably, any moves to restore the natural water attenuation capacity of land across our borough reduces the demand placed on increasingly overloaded sewer and drainage infrastructure, and helps address the elevated flood risk associated with climate change.

Reducing the paving over of front gardens

Wholesale paving of front gardens began in 1995, when the government relaxed planning regulations. National Park City estimates that today 75% of all front gardens in London, an area estimated as more than 40 times the size of Hyde Park, have been covered with impermeable hard surface. The estimated area of green lost is more than 40 times the size of Hyde Park. This trend is set to increase as demand for home charging of electric vehicles (EVs) increases.

The damage done by the loss of these formerly green spaces is huge, leading to a significant increase in flooding and loss of biodiversity. In response to extensive flooding in several English cities in 2007, regulations were introduced specifying that paved areas in front gardens larger than 5m2 should be permeable or include soakaways within the property boundary, however, these regulations have been frequently disregarded and enforcement is poor. Furthermore, historically created parking spots in front gardens are frequently too small to accommodate modern cars which, accordingly, frequently overhang and obstruct the public footway. The council's own design standard has not been updated to reflect increased vehicle size so even new hardstandings can leave cars protruding across the pavement from the outset.

The review considers what powers the council has to reduce or mitigate this loss including through its somewhat limited powers to restrict the associated installation of dropped kerbs. This may be possible where there is high parking stress and a CPZ. There is also an opportunity to provide residents with advice on how to reduce the impact of hard standing and retain as much greenery and permeability as possible. Pavement Channels to facilitate domestic charging of EVs parked at the

kerbside offer a potential solution, and government guidance is anticipated following a number of pilots.

Better

A lot of habitat is required to support a diverse range of insects, small mammals and birds. We can also create a more hospitable habitat for nature by eliminating the use of pesticides as far as possible and adopting other wildlife friendly practices in our existing green and blue spaces.

Creating more habitat in our existing green and blue spaces

The way we manage parks, verges, housing land, and gardens impacts either positively or negatively on nature and biodiversity. Small changes such as “no mow May”, leaving deadwood, using more native plants, harvesting rainwater, and planting for the whole life cycle of insects can make a huge difference.

The commission heard from *Insectinside*: a local resident, Penny Metal, has documented over 600 species of invertebrates in a small park in Peckham which has a strategic connection to a large railway corridor SINC. This was facilitated by encouraging more wildlife friendly park maintenance. The wildlife charity Butterfly Conservation told us that most parks in Southwark could support 20-25 species of butterfly.

The UK has half a million hectares of garden, which cover a larger area than all of our nature reserves and offer significant potential to improve habitats for wildlife. More and more groups and residents are becoming engaged in wildlife-friendly gardening. The London Centre for Wildlife Gardening is based in Peckham and is well placed to assist with this .

SINCs

Southwark is doing very well to have 89% of SINCs in active management. Active management of SINCs is one of the most important steps we can take and Southwark Biodiversity officers have paid close attention to this task. There is, however, work to be done on improving the implementation of SINCs management plans, which can be variable.

The Commission also recommends the council pays more attention to buffering sites by reducing artificial light and noise and preventing further development around the margins of SINCs. Many urban SINCs are small and suffer from pronounced *edge effects*, where the margins are inhospitable to wildlife, thus reducing the overall habitat area.

Pesticide Free

The review also considers how Southwark can minimise, or even eliminate the use of glyphosate and other pesticides (including herbicides), given their proven harms to biodiversity and human health.

Parks ceased the scheduled use of pesticides prior to 2018; from a policy perspective, glyphosate could be still be used in controlled spot applications against

invasive species such as Japanese knotweed, although no cases have been reported in recent years. Meanwhile, pesticides are still used on some estates and streets.

The Commission heard from Lambeth Council on the subject of its Community Weeding Scheme, which was introduced to encourage residents to take on the task of manually weeding their own streets instead of the council spraying them. Over time the more Lambeth residents joined the scheme, volunteering to hand weed. Lambeth Council no longer sprays streets with pesticides, There has been a surge in rare species of wild plants and growing numbers of residents appreciating and welcoming wild plants on their streets. Officers have been involved in ensuring that residents understand which species can be left and which ones need to be removed (e.g. buddleia, which is invasive and can cause structural problems).

There are other approaches that the Commission recommends the council explore: for example, Glastonbury Council found that using a foam system to control weeds was cheaper than either hand weeding or pesticide use. Pesticide Action Network (PAN) reported that going pesticide free can be cost neutral or even cost negative after the initial investment stage.

Joined up

Southwark Nature Action Volunteers (SNAV) co-optees' evidence particularly focused on this theme, and the creation of two different sorts of wildlife corridors: one for wildlife only and one for nature and people. SNAV's map identifies areas in Peckham Rye, Canada Water and the Old Kent Road where there are needs and opportunities to restore missing links. Our existing protected habitats (SINCs) would form the core area, and these would be joined up through the existing linear network, such as green paths, railway cuttings and rivers. This work ought to feed into the development of Ecological Networks.

Bolder

The Commission would urge ambition here to expand the number of green routes through the city and explore the vision shown by other cities who have daylighted covered rivers to provide arteries through the city for recreation and restoration of marginal river habitat.

More animated

There is growing evidence that community participation in the management of natural habitats in a sustainable way, is good for people, wildlife and the economy. Increasingly, conservation efforts are switching to engaging local communities and institutions in the management of habitats.

The Council's devolved Cleaner Greener Safer fund has empowered local parents and schools across the borough to apply for funding to build green walls, and resident groups to reclaim spaces for nature, with public gardens and mini forests being established and tended throughout the borough.

The encouragement, definition, and development of Public-Common Partnerships, as suggested in the Southwark Land Commission Report, has great potential to increase community engagement while potentially lightening some of Southwark Council's burden of management.

In the course of the review the Commission dealt largely with officers who understood the value of biodiversity and were making important changes to benefit wildlife. However, it is clear that not all council employees, contractors and sub-contractors are necessarily aware of the council's ambitions to improve biodiversity, or how this might shape the work that they do. A training programme for officers is required. This must build and renew, on an ongoing basis, the knowledge and commitment needed to ensure that spaces are managed to maximise biodiversity.

Food and Biodiversity

The consumption and production of food in cities can play a significant role in supporting more biodiverse friendly farming.

Whilst intensive monocultural farming is often almost completely devoid of wildlife, the opposite is true of many allotments and community growing spaces, which are often rich sources of biodiversity. These spaces can be very productive and help build connections to nature; both the food produced and activity involved can contribute significantly to our residents' health and well-being. The council created the role of a Community Gardening Coordinator in 2020, which is currently job shared. The coordinators are supporting local people to grow food and are seeking to expand the plots of land available for growing. Even more can be done here by mapping out more plots and enabling more residents to access growing space. The Commission also recommends that Council Assembly declares a Right to Grow, which will complement our existing Right to Food.

The council can also do more to support the wider production and sale of Agroecological food which is aligned to natural processes, equitably produced, and local controlled. The UN has, since at least 2010, identified Agroecology as the most highly endorsed solution to climate, biodiversity and food crises. The Global Biodiversity Framework also endorses this approach. The UN calls for transformative change to towards modes of agricultural development that are 'highly productive, highly sustainable and that contribute to the progressive realization of the human right to food'. This is in the context of identifying unsustainable agriculture and food systems as a primary cause of biodiversity loss as well as of the water and climate crises.

Agroecology is closely aligned to Food Sovereignty, which is an international concept used by small scale farmers (rural and urban) and encompasses localising the food system, including training and support for local markets. There are projects the council already supports, such as the Walworth Neighbourhood Food Model, that we could replicate and scale up to deliver a range of benefits for people and planet.

In conclusion

Southwark has many beautiful parks, many well protected habitats, and a long tradition of investing in improving the borough's biodiversity, including recognising the need for the expertise of Ecology Officers and now Community Gardening Coordinators. We have many enthusiastic gardeners and food growers in our communities and an active voluntary sector, supporting the delivery and development of the Southwark Nature Action Plan.

Southwark Biodiversity Partnership is comprised of committed local groups and stakeholders who play an important role in improving local biodiversity. This group nominally overseas the delivery of the SNAP, and this has been enhanced with the appointment of an independent chair. More could be done to enhance their role as local stakeholders in the delivery of the SNAP and to play a leadership role across the borough.

The borough is in a good place to make a step change in increasing biodiversity. Working with local stakeholders, the community, the voluntary sector, developers and residents to increase the amount and the quality of habitat in a planned and strategic way will be instrumental in achieving this goal.

Introduction

This review is mainly aimed at the council but is also seeking to increase collaboration by the council with the community, voluntary sector and, where appropriate, businesses.

The Commission considered the following themes :

i. The biodiversity requirements of the Environment Act (2021) have significantly increased the duties of local authorities and regional government to improve biodiversity, which makes the review particularly timely. New requirements include enhanced Biodiversity Duty and reporting requirements, mandatory Biodiversity Net Gain (BNG) in planning and the requirement for regional Local Nature Recovery Strategies (LNRS). The council will be contributing to London's Local Nature Recovery Strategy, which will be fed into by all 32 London boroughs and the City of London as 'supporting authorities'.

ii. The overarching vision in the Making Space for Nature report, 2010, chaired by Professor John Lawton, was a key theme of the review. This influential report for government called for a step change in provision for nature by setting out a vision for large-scale habitat restoration and re-creation through ***more, bigger, better and joined up*** spaces for nature. Southwark Nature Action Volunteers co-optee evidence particularly focused on this theme, and the creation of biodiversity networks, improving habitat management and finding ways to increase space for nature by depaving and other measures were a particular focus.

iii. Southwark has recently invested in community food growing. The potential for urban agriculture and local food production to deliver improvements to biodiversity, as well as improve well-being was considered and contrasted with the impacts of intensive farming. In particular the review considered:

- How to increase urban food production as an affordable path to greater food security
- Reducing scope 3 emissions and ecological degradation caused by consumption of food produced from mono-cultures and non-carbon sequestering land use, across the UK and beyond
- Increasing the proportion of food consumed that is produced through agroecology

iv. Accelerating the phasing out of pesticides

v. Stemming or mitigating the loss of planting and permeability in front gardens as residents with cars increasingly prioritise hard standings for private parking, especially to accommodate the switch to Electric Vehicles

vi. Southwark plans and strategies including:
    - Southwark Nature Action Plan (SNAP)

- Southwark Climate Change Strategy and Action Plan
- Southwark's Land Commission
- Southwark's Streets for People strategy, and the associated EV, walking and cycling plans
- Southwark Plan
- Local Flood Risk Management Strategy 2024
- Air Quality Strategy and Action Plan 2017
- Tree Management Policy 2020
- Southwark Food Security Action Plan 2019

Biodiversity context

Assessment of biodiversity

The collective impact of humans on the environment is now increasingly referred to as a ushering in a new geological epoch: the Anthropocene. The combination of systemic pressures (including but not limited to climate change) means we are now undergoing a sixth mass extinction event as the globe faces a loss of biodiversity and accelerating falls in the abundance of species, both of which are impacting on the viability of ecosystems.

International

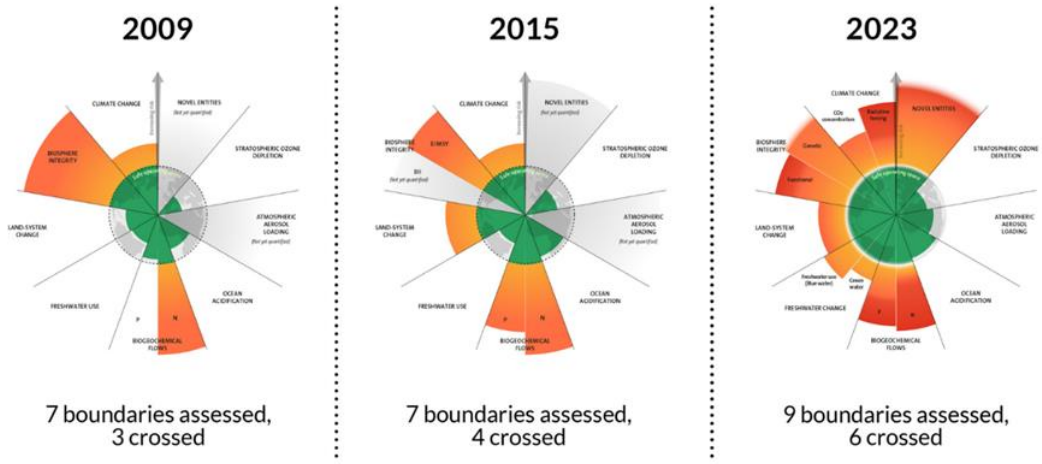
United Nations assessment

The 2019 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report finds that*: 'Nature across most of the globe has now been significantly altered by multiple human drivers, with the great majority of indicators of ecosystems and biodiversity showing rapid decline. Around one million species already face extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss. Without such action, there will be a further acceleration in the global rate of species extinction, which is already at least tens to hundreds of times higher than it has averaged over the past 10 million years'.*[2]

Planetary Boundaries

The most recent (2023) report on Planetary Boundaries finds that the Biosphere Integrity boundary has been crossed – both for loss of genetic diversity and planetary functionality.

[2] SUMMARY FOR POLICYMAKERS OF THE IPBES GLOBAL ASSESSMENT REPORT ON BIODIVERSITY AND
ECOSYSTEM SERVICES



According to the report, the boundary for planetary function of biosphere integrity was transgressed in late 19th Century, a time of large scale land transformation. It highlights that loss and degradation of habitat is the main driver for the depletion of ecosystems and that this is a historical process that has been underway for over a hundred years.

The work on planetary boundaries allows us to see the human impacts on the Earth system across different domains and consider how they interact. It is now well established that climate change impacts negatively on biosphere integrity and, conversely, that biosphere integrity provides resilience against climate change.

There are other interrelationships which are as important – particularly the boundaries that have been crossed for Nitrogen and Potassium, Novel Entities, and freshwater flows. The breaching of Nitrogen and Potassium boundaries is associated with the use of fertilisers, as are some of the Noval Entities, all of which are impacting on biodiversity. The pressure on freshwater flows is also highly relevant to the UK and Southwark.

UK

In comparison with the rest of the world, the UK is not faring well. The 2023 State of Nature report found that the UK, like most other countries worldwide, has experienced a significant loss of biodiversity. The trends in nature examined in the report cover, at most, 50 years, but these follow on from major changes to the UK's nature over previous centuries. As a result, the UK is now one of the most nature-depleted countries on Earth.

Two main drivers of change[3] are summarised by the 2010 Space for Nature report as

- Habitat loss,
- Habitat deterioration.

[3] Page 7 Space for Nature

The report goes on to identify 6 main causes[4] which can be summarised as:

- Increased intensification of farming – facilitated by new technologies and agricultural policy
- Demographic changes , including population growth and increased single occupancy leading to more land being utilised for housing and infrastructure
- Consumption, societal preferences, political and regulatory environment and desire for economic growth driving land use change
- Climate change

The State of Nature 2023 report identifies agricultural intensification as the major driver of biodiversity decline on land in the UK[5]. The report says that a combination of technological advances, use of agro-chemicals and changing agricultural policy has reduced the capacity of farmed landscapes to support wildlife, resulting in widespread biodiversity loss. 71% of the UK's land is managed by farmers and other land managers.

The report finds that while many farmers are now adopting nature friendly practices, which will help specific species and stem losses, these are generally insufficient and overall the trajectory is still towards further decline of species' abundance and loss of genetic biodiversity.

London

While London has also experienced a relative decline in wildlife over the last hundred years, London – even inner London – can be good for wildlife[6].

It has a warm and sheltered climate, accentuated by a significant ***urban heat island*** effect. About 47% of the area is classified as green space. Unlike in the countryside, the green spaces in London are (generally) not being intensively farmed or built upon, as they are mainly parks, cemeteries and other managed areas.

Gardens are another important habitat, although, as the report will discuss later, front gardens are under threat. However, overall, gardens still make an important contribution to habitat, and this may be increasing as people understand the value of wild life gardening.

Policy Context

Global

Biodiversity has a UN convened process similar to that relating to Climate Change. The 15th Conference of the Parties (COP15) was held in Montreal in 2022, and led to the international agreement to protect 30% of land and oceans by 2030, and to the

[4] Page 21 of theSpace for Nature report in section 3.1
'Foresight Land Use Futures: Making the most of land in the 21st century' summarises the Foresight Land Use Futures 2010 report, which was a comprehensive review of the pressures on land-use in the UK.

[5] Page 56 State of Nature 2023
[6] Page 171 The Disappearance of Butterflies https://www.atroposbooks.co.uk/the-disappearance-of-butterflies

adoption of the Kunming-Montreal Global Biodiversity Framework (GBF). This Framework supports the achievement of the Sustainable Development Goals and builds on the Convention's previous Strategic Plans, setting out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. Among the Framework's key elements are 4 goals for 2050 and 23 targets for 2030.

European

The EU has conservation regulations that protect species and habitat, some of which remain in force in the UK post Brexit.

Formerly, the UK was part of the Natura 2000 ecological network. This was superseded by 2019 regulations, which created a national site network on land and at sea, including both the onshore and offshore marine areas of the UK. The national site network includes existing and new Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

The Urban Waste Water Treatment Directive (1991) and The Water Environment (Water Framework Directive) Regulations (2017) provide a framework for managing the water environment in England and Wales, and require that a river basin management plan is prepared for each river basin district.

UK

In 2010 the government commissioned an influential report 'Making Space for Nature: A review of England's Wildlife Sites and Ecological Network 2010' chaired by Professor Sir John Lawton CBE FRS. Lawton's overarching vision is a key theme of the review. This influential report for government called for a step change in provision for nature by setting out a vision for large-scale habitat restoration and re-creation through 'More, Bigger, Better and Joined up' spaces for nature.

The review set out to establish whether or not the UK had a coherent and resilient Ecological Network and explained why in the summary:

Ecological networks have become widely recognised as an effective response to conserve wildlife in environments that have become fragmented by human activities. An ecological network comprises a suite of high quality sites which collectively contain the diversity and area of habitat that are needed to support species and which have ecological connections between them that enable species, or at least their genes, to move.

The review concluded that there are serious short-comings in the English network: wildlife sites are too small, and losses of certain habitats have been so great that the area remaining is no longer enough to halt additional biodiversity losses without concerted efforts. The report also found that, with the exception of Natura 2000 sites and SSSIs, most of England's semi-natural habitats important for wildlife are generally insufficiently protected and under-managed. In addition, many of the natural connections between sites have been degraded or lost, leading to isolation of sites. Furthermore, too few people have easy access to wildlife.

The report called for a step-change in nature conservation, where we embrace a new, restorative approach which rebuilds nature and creates a more resilient natural environment for the benefit of wildlife and ourselves. It highlighted that this will require strong leadership from government, but that it is not a job for government alone, setting out the necessity for effective and positive engagement with landowners and land managers, as well as improved collaboration between local authorities, local communities, statutory agencies, the voluntary and private sectors, farmers, other land-managers and individual citizens.

The overall vision was defined in four words: ***more, bigger, better and joined-up***. The report said that it would not be possible to halt and reverse the collapse of England's wildlife documented without a larger network comprising more areas rich in wildlife, bigger sites, better managed sites, and more inter-connected sites.

This vision has been taken up and amplified by Southwark Nature Action Volunteers and has been used to frame much of the findings of the Commission's review. Lawton's 2010 report also laid the conceptual framework for many of the following government strategies and statutory duties:

A green future '25 Year Environmental Plan' 2018 set out the Government's ambition to leave our environment in a better state than we found it. The 25 Year Environment Plan outlines the steps government proposes to take to achieve this ambition. It contains key targets for biodiversity including creating a nature recovery network.

The National Biodiversity Strategy 2020 for England, Wales and Scotland shifted focus from the habitat and species based approach, where action plans focused on United Kingdom priority habitats and species, to a landscape-scale conservation strategy, with an overall target of halting net loss of biodiversity by 2020. The vision set out to: 'halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people'.

The Environment Act (2021) new biodiversity requirements include enhanced Biodiversity Duty and reporting requirements, mandatory Biodiversity Net Gain (BNG) in planning and regional Local Nature Recovery Strategies.

- **Biodiversity Net Gain (BNG)**
  Biodiversity Net Gain is a mandatory component of the Environment Act (2021) and the Council's Biodiversity Duty. It is a way of creating and improving natural habitats by ensuring that development has a measurably positive impact ('net gain') on biodiversity.
  As of 12 February 2024, BNG is mandatory for major developments (classified as developments of over 10 dwellings), with some exceptions. Developers must deliver a minimum BNG of 10% over the baseline biodiversity value of the site. Small sites are required to meet 10% BNG as of 2 April 2024
- **Enhanced Biodiversity Duty and reporting requirements**

The Environment Act states that the Council must first consider what action it intends to take to conserve and enhance biodiversity, by early 2024. This consideration should include the measures to be taken by the Council to conserve and enhance biodiversity and the specific objectives to deliver these outcomes. The first subsequent Biodiversity Report setting out progress against the agreed priorities, interventions and objectives must be published no later than 1st January 2026.

- **Duty to Consult on the felling of street trees.** This is a new duty under the requirements arising from the Environment Act.
- **Local Nature Recovery Strategy (LNRS)**
  The LNRS is a new system of spatial biodiversity strategies in England, required by law under the Environment Act 2021. There is a requirement for 48 responsible authorities across England to produce Local Nature Recovery Strategies. All the regions will work together to restore, create, and connect habitat. Southwark Council will be contributing to London's LNRS, delivered by the Greater London Authority (GLA).

In January 2023, Natural England launched the new Green Infrastructure Framework. The Green Infrastructure Framework is a commitment in the Government's 25 Year Environment Plan. It supports the greening of our towns and cities and connections with the surrounding landscape as part of the Nature Recovery Network. Networks of green and blue spaces and other natural features can bring big benefits for nature, climate, health and prosperity.

London

In July 2019, the National Park City Foundation confirmed London as the world's first National Park City. Our city is almost 50% green and blue – with thousands of parks, private gardens, allotments, orchards, street trees, green roofs, wetlands, rivers, canals, and ponds.

GLA

The London Environment Strategy sets out how the Mayor will work with others to make sure that London's biodiversity is enhanced and that more Londoners can experience nature.

The London Plan 2021 contains the following policies linked to conservation of natural habitats and ecological management and enhancement:

- London Plan policy Green infrastructure
- London Plan policy Geodiversity
- London Plan policy Urban greening factor
- London Plan policy Sustainable drainage
- London Plan policy Local green and open space
- London Plan policy Biodiversity and access to nature

- London Plan policy Trees and woodlands
- London Plan policy Food growing
- London Plan policy Waterways

London Local Nature Recovery Strategy

The Greater London Authority (GLA) is the designated responsible authority for producing the statutory LNRS for London.

The GLA is working with Southwark as well as all 31 other London Boroughs, the City of London, and the six neighbouring counties (Hertfordshire, Kent, Essex, Buckinghamshire, Surrey, and Berkshire) to produce the London LNRS.

The GLA is using the Space for Nature report theme i.e. that London's ecological network will be 'bigger, better, and more joined up'.

London Green Infrastructure Framework (LGIF)

The GLA is producing a new vision and new spatial framework to target and prioritise green and blue infrastructure across London so that nature and green space can flourish and is accessible to all Londoners. The London Green Infrastructure Framework (LGIF) will be developed alongside the London Local Nature Recovery Strategy (LNRS), with the latter as the biodiversity/nature digital map layer of the LGIF. It will inform any updates to the London Plan and will be completed by Summer 2025

Thames River

In 2006, the European Commission issued a 'reasoned opinion' stating that the UK was failing to comply with the water Directive's requirements for London. In 2010, the Commission started legal proceedings with the Court of Justice of the European Union, which in 2012 found the UK to be in breach owing to the frequency of spills from Combined Sewer Overflows along the River Thames. The near-complete, £10B Thames Tideway project, which includes major work in Southwark, was intended to bring London into compliance with the 1991 Directive.

Southwark Policy and Implementation

This section outlines and reviews the following Southwark plans and strategies:

i. Climate Change Strategy and Action Plan, including the Climate Resilience and Adaptation Strategy and Trees Management Plan
ii. Southwark Plan and delivery of planning policy
iii. Streets for People, and the associated EV, walking and cycling plans
iv. Land for Good - Southwark's Land Commission
v. Enhanced Biodiversity Duty and reporting requirements
vi. Southwark Nature Action Plan (SNAP)

Climate Change strategy and action plan

Southwark Climate Change strategy identifies biodiversity as a key theme, and both the Climate Change action plan and the SNAP are integrated to ensure coherence in the setting and assessing of targets.

Trees

One of the major outcomes of the declaration of the Climate Emergency in 2019 was a commitment to increase tree coverage across the borough, and this is backed by a budget of £5,000,000. The aims of the programme are:

- Maintain and increase tree coverage, with tree planting encouraged amongst residents;
- Make Southwark the first inner London borough to have over 100,000 trees (and endeavour to increase tree canopy to cover 24% of public land);
- Work with local people, schools and community groups to find locations for and plant a further 20,000 trees.

The commission heard that this ambitious programme is well underway, but encountered problems with drought in the summer of 2022 . The service set out a number of steps being taken with contractors and parks teams to improve survival rates. This is supported by the Council's Tree Management Plan (2020), which aims to maintain a healthy, protected and sustainably managed treescape, for the environment, biodiversity and wellbeing of Southwark residents through a set of strategic objectives.

SNAV welcomed the tree planting programme, however they urged the council to ensure that this was integrated with other planting to improve biodiversity and that adoption by the community was encouraged. In particular, they recommended that tree pits are made larger, to accommodate more plants and, ideally, two trees. Officers advised the Commission that where possible the space afforded for tree pits is maximised, however this is often influenced by the width of footways and ensuring there is ample space for pedestrians.

SNAV recommended that at least 50% of trees planted are native species, with a preference for trees that feed pollinators, other invertebrates, and birds.

Officers highlighted the importance of species diversity to ensure current and future resilience against climate change; however, they cautioned that there are only 32 species of native tree, many of which are unsuitable for planting in urban areas, so a 50% native target would not align with current recognized best practice.

Officers said that Ecosystem services provided by urban trees improve resilience and the quality of life in cities in addition to providing social and ecological benefits. Officers added that it is important that Southwark’s tree population remains diverse and is not over reliant on small number of species to provide these ecosystem services benefits as it increases susceptibility to pests, pathogens and climate change.

Officers reported that urban trees are selected according to the criteria set out below, and advised that it would, therefore, not be possible to attribute a percentage figure to provide focus on planting towards either native species or pollinators without deviating from this:

- Tree suitability: Tree characteristics, tree growth, site constraints, soil type.

- Ecosystem services delivery: amenity value, shading, supporting wildlife carbon sequestration.

- Disservices: the unintended problems of some species including high pollen production, proliferation of fruit, raised roots or a degradation in air quality)

- Climate change resilience: for example tolerance to drought, frost hardiness, temporary water logging, response to elevated air temperatures and shortened winter dormancy, and pests and diseases.

The Commission notes that while the above criteria indicate that 'supporting wildlife' is a factor, the biodiversity weighting would benefit from being strengthened, as currently it is subsumed within other considerations including amenity value and carbon sequestration. In particular more a explicit emphasis on choosing trees that that feed pollinators, other invertebrates, and birds , where possible, would be welcomed. This will be particularly important along wildlife corridors, SINCS and in buffer zones, and therefore a reference to Ecological Networks in the criteria would be beneficial. In addition the Commission would like to see the advantages of choosing native trees to be made explicit in the criteria, while acknowledging that importance of diversity, planning for resilience, suitability, and choosing trees that deliver a variety of benefits.

Climate Change Resilience and Adaptation Strategy

The Climate Resilience and Adaptation Strategy sets out the co-benefits of urban greening for reducing heat risk and flood risk whilst enhancing biodiversity opportunities, which is welcome. The Commission noted that the Thriving Nature section of the Climate Change Resilience and Adaptation Strategy referred to work in the Climate Change Strategy and Action Plan to increase habitat and biodiversity. However, beyond some high level objectives in the strategy, it does not discuss habitat protection, habitat creation or de-paving, other than by reference to the creation of green corridors, which as discussed elsewhere has not yet been taken forward.

Southwark Plan and planning policy

The following policies in the Southwark Plan aim to retain and enhance biodiversity:

- P57 Open Space
- P58 Open water space,
- 59 Green Infrastructure,
- P60 Biodiversity,
- P61 Trees.

A review of these policies will be carried out as part of the Southwark Plan review in 2027.

Green Infrastructure Strategy

The London Plan G1 Green infrastructure plan states that '*London's network of green and open spaces, and green features in the built environment, should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits.'*

In addition to the commitment at a Londonwide level, the London Plan also says that: '*Boroughs should prepare green infrastructure strategies that identify opportunities for cross-borough collaboration, ensure green infrastructure is optimised and consider green infrastructure in an integrated way as part of a network consistent with* [the London Plan].

There is a Green Infrastructure policy in the Southwark Plan 2022 (P59, page 196) which says, amongst other stipulations, that developments ought to 'integrate with the wider green infrastructure network', however, as yet there is no coherent green infrastructure network identified, which is a significant gap. Other London councils, including Lambeth, have made more progress.

Green Infrastructure Strategies are designed to be used as a tool in Planning to ensure green space in development is coherent across the borough to maximise benefit to nature and people, and to protect existing natural spaces .

The Space for Nature report recommends that local authorities ensure that Ecological Networks, including areas for restoration, are identified and protected through local planning. In addition, they recommend that: 'before disposal of any public land, the impact on the ecological network should be fully evaluated. Where such land is identified as having high wildlife value (existing or potential) it should not be disposed of unless its wildlife value is secured for the future' . Green Infrastructure Strategies are the appropriate tool to deliver this protection.

Natural England guidance on Green Infrastructure describes this as "the network of green spaces and natural elements that intersperse and connect our cities, towns and villages. It is the open spaces, waterways, gardens, woodlands, green corridors, wildlife habitats, street trees, natural heritage and open countryside. Green infrastructure provides multiple benefits for the economy, the environment and people."[7]

The guide goes on to say this definition encompasses the concept of multifunctional

[7] Page 4 Green infrastructure strategies An introduction for local authorities and their partners, Natural England.

areas of land, which is a key feature of green infrastructure. Individual spaces may have many functions such as:

- providing recreational space for healthy exercise
- providing a relatively tranquil environment;
- providing a place for wildlife to live;
- contributing an attractive green element to the image of an area;
- raising the quality of everyday living and working environments;
- providing flood storage space in times of flood;
- providing a transport corridor for walkers and cyclists;
- helping areas cope with the impacts of climate change;
- providing areas for local food production.

Officers said that the scoping for the Green Infrastructure Strategy, as required by the London Plan, will take place in late 2024, as part of the review of the Southwark Plan. Officers advised that this is best carried out in a joined up way working across various council departments, and in line with a range of parallel work streams which overlap with green space and open space need, including the planned review of SINCs, Open Space Needs Assessments, the SNAP, and the Climate Change Strategy and Action Plan.

Furthermore officers advised that the strategy will need to be considered alongside competing spatial requirements such as for housing and employment. Officers advised that this analysis will be carried out as part of the Southwark Plan review on how to accommodate the borough's ambitious housing targets of appropriate density through allocated sites, and opportunity areas, whilst delivering a cohesive and comprehensive Green Infrastructure Strategy.

For reference, officers provided the existing (adopted) targets as laid out in the Southwark Plan:

- 40,035 homes between 2019 and 2036 (2,355 new homes per annum).
- 58,000 total jobs between 2019 and 2036
-

The Commission agrees that developing a Green Infrastructure Strategy is a significant cross-departmental undertaking, that must take into account many other policies and priorities, as well as engagement with the Southwark Biodiversity Partnership. Nevertheless the Commission's view is that this ought to be commenced and delivered as soon as possible, especially as many existing polices rely upon delivery according to a mapped Ecological Network, which is not yet in place.

The Commission therefore looks forward to seeing the development of the anticipated Green Infrastructure Strategy, together with the forthcoming London LNRS map, and to this being actively implemented and referenced by Planning.

Biodiversity Net Gain (BNG) and Urban Greening Factor (UGF)

Urban Greening Factor (UGF)

Officers confirmed to the Commission that the council has already integrated calculation of the Urban Greening Factor (UGF) into planning applications. 100% of major developments in Q3 2023/24 achieved the required London Plan UGF target of 0.4 for predominantly residential and 0.3 for predominantly commercial sites.

The Commission asserted that UGF target scores must be considered the **minimum benchmark**, and not the maximum required. Moreover, the Commission considered that the 0.4 UGF target should be applied across the board for all Major Developments, both commercial and residential, and that scope for UGF to be applied to smaller projects should also be examined.

Biodiversity Net Gain

As outlined earlier, from April 2024 it is now broadly mandatory for developers to deliver a minimum BNG of 10% over the baseline biodiversity value of all sites under development

Officers reported that in-depth preparation has been undertaken to deliver this including:

- The appointment of an Ecologist in the Planning team to lead on the assessment of BNG
- A free GIS mapping trial with data partner Gigl (Greenspace information for Greater London) to map existing ecological data across the borough in a way which is compliant with the statutory Biodiversity Net Gain assessment tool.
- The inclusion of a monitoring fee for significant BNG in the draft S106 and CIL SPD to cover the cost of the Council executing its duty to check that biodiversity gains on major developments are delivered over a thirty year period.

Officers said that the pre-adoption analysis of applications which have included BNG data before it became a mandatory requirement has shown that the achievement of BNG on a limited number of applications generally exceeds the minimum 10% requirement. This is due to the generally low biodiversity baseline value of many urban sites. However, it should be noted that the metric submitted on these applications were not the Government's final statutory metric and have not been scrutinised by an Ecologist.

Analysis by a Commission co-optee identified that developers of the Bagshot block of the Aylesbury estate have stated in their planning application documents that they will not meet the requirement for 10% BNG. Overall, there is a net loss of green space, although improved habitat quality in the proposed new green areas (e.g. types of proposed planting) brought BNG to nearly 10%. In addition there was no UGF calculation in the documents examined and a concern that the development would not make the minimum 0.4 residential UGF target.

As the Aylesbury development is both within the buffer zone of two SINCs (Burgess Park and Surrey Square) and on a green corridor (East Walworth Green Links), in the Commission's view the development ought to be subject to more stringent greening requirements.

Analysis by officers and a Commission co-optee demonstrate that, given the low biodiversity baseline value of most sites, the absolute increase in biodiversity units in Southwark through the application of BNG has been extremely small. As currently applied, it is not proving to be an effective way to increase biodiversity in Southwark.

The fact that the minimum requirement has tended generally to be achieved onsite suggests that there is scope for developers to achieve a target higher than 10%, effectively signposting developers towards the borough's aspirations.

Officers cautioned that Paragraph 6 of the Biodiversity Net Gain PPG states that:

Plan-makers should not seek a higher percentage than the statutory objective of 10% biodiversity net gain, either on an area-wide basis or for specific allocations for development unless justified.

Officers advised that the potential to increase the minimum BNG percentage will be investigated as part of the Southwark Plan full review when biodiversity policy P60 is updated. This will enable the interrelationship between policies and the Council's differing priorities to be investigated and consulted upon as part of the Southwark Plan review. Officers said that, for example, on urban sites, achieving low carbon development is often reliant on the provision of PV solar panels on roofs, which reduces the amount of space available for biodiverse green roofs. There are, however, solutions that allow green roofs to successfully coexist with solar panels, although they may be more expensive.

In the meantime, officers said that the emphasis will be on encouraging BNG which is multi-functional, suitable to the site context and joined up with surrounding green space and ecological corridors. As noted above, there is no current map of Ecological Networks, including wildlife corridors, available to inform this work.

Officers were asked about the scope for requiring developers to deliver offsite Biodiversity Net Gain on Council-owned land (rather than to external entities which might be based out of the borough or even the UK). To do so would require the Council to establish a Habitat Bank Vehicle (HBV), a legal entity. Officers said that even if the Council decided to do so, the Council would not be able to stipulate that Biodiversity Units are delivered through a Council HBV as the provision of Biodiversity Units operates in a free market. In addition, officers' said that, given that developers appear to be able to deliver 10% BNG onsite, the cost to the Council of establishing a HBV may not warranted. This is supported by the Making Space for Nature report which states that on-site delivery of BNG is preferred to off-site delivery.

The Commission noted some for the problems with non-site based carbon offsetting and was concerned that these could be replicated in off-site BNG. The Commission strongly favours onsite delivery of BNG as the default position

BNG and UGF

The Commission considered that increasing and combining BNG and UGF together would be the best approach: although, when operating from a low baseline, meeting BNG requirements delivers only a small increase in biodiversity of the value of the

BNG metric is that it emphasises habitats and connectivity to wider Ecological Networks.. UGF, meanwhile, places less emphasis on habitats and connectivity per se, but is focused on an absolute outcome in terms of area of green and blue space. Taken together, UGF and BNG can be mutually supportive approaches.

Enhanced Biodiversity Duty and reporting requirements

As set out above the Environment Act states that the Council must first consider what action it intends to take to conserve and enhance biodiversity, by early 2024.

Southwark's First Consideration paper was considered internally on 25th July 2024, and the First Consideration report went to the Cabinet for the 16 September 2024 meeting.

Publication of a Biodiversity Report will will follow, evidencing the policies, actions and progress Southwark has made towards its biodiversity objectives to improve the environment in the 24 months since the First Consideration, by 1 January 2026.

Streets for People

The Streets for People strategy sets out the council's commitment to improve residents' quality of life and take action on climate change by changing how we travel and use streets in our borough. The Streets for People Strategy is themed around 4 areas:

- Streets for Communities
- Streets for Journeys
- Streets for the Economy
- Streets for Nature.

and designed to support:

- cleaner air
- safer and quieter streets with less traffic and fewer accidents
- healthy travel options like walking, cycling or wheeling
- greener and more pleasant spaces for our communities to connect and socialise
- a better place for all who live, work, study and visit

The Streets for People Strategy has three subsidiary plans that the council consulted upon at the beginning of 2024. These cover:

- Electric Vehicles (EV)
- Cycling
- Walking

Streets for People is an excellent framework that is well placed to dovetail with the ecological networks for people and nature that the Space for Nature report recommends under its 'more joined up' vision. Similarly, the strategy is well placed to cohere with the Green Infrastructure Strategy, recommended by Natural England and required by the London Plan .

However, Streets for People suggests only a minimum of 10% of the area of each new streetscaping scheme should be planted. The Commission felt that this is less than would be possible or appropriate in many schemes. While investing in street remodelling for pedestrianisation, it is important to incorporate the maximum area of planting possible, to enhance biodiversity and protect against increasing flood risk. The Commission suggests that consideration should be given to establishing an appropriate UGF to be applied across streetscape designs.

Land for Good : Southwark Land Commission report 2023

The Southwark Land Commission set out to examine how land could be used for the good of people and planet. There were seven recommendations, all of which could be considered relevant to the review in some way:

1: Put social purpose at the heart of land use

2: Map what's there and what isn't

3: Take control of our land and assets

4: Defend and extend affordable accommodation for all

5: Cherish our natural capital and decarbonise our land

6: Give the community real power and voice

7: Disrupt the status quo to unlock bigger changes

There are also detailed priority actions that emerge from the report recommendations which include, under Recommendation 5 (Cherish our natural capital and decarbonise our land) calls for a plan to 'Join up existing green spaces to create a network of Biodiversity Corridors'. As part of this the report draws attention to B-Lines, which are '*a series of 'insect pathways' running through our countryside and towns, along which a series of wildflower-rich habitat stepping stones are being created and restored. They link existing wildlife areas together, creating a network, like a railway, that will weave across the UK landscape'.*

The report notes that in a time of an intense cost-of living crisis, there is a clear need and opportunity for environmentally focussed land use and management decisions to help meet social and ecological objectives. The report notes the value of local growing projects such as Walworth Neighbourhood Food Model and says this ought to be resourced and replicated to enhance food security for Southwark's diverse communities.

Southwark Nature Action Plan

The Council agreed the Southwark Nature Action Plan in 2020, which followed on from two previous Biodiversity Action Plans. This is a detailed document that takes stock of the borough's biodiversity and lays plans for its improvement, many of which have been acted upon.

Key highlights of strengths :

- Good Management of SINCS is a key recommendation in the Space for Nature Report, Lawton 2010. A high percentage of Southwark SINCs are in active management. In 2015 the council conducted a review of present and potential SINCS and produced an action plan for improvement: the 'SINC Review and Borough Ecological Survey of the London Borough of Southwark: Southwark Surveys 2014-2015' to support the SNAP. This was produced by The Ecological Consultancy and finalised in 2016. Recent reports to the Commission indicated 89% are in positive environmental management . Southwark is ranked as the 3rd best council in England for SINCs in positive conservation management.
- Parks have taken concrete steps to increase biodiversity through improvements to habitat management and reduced pesticide use to best practice (i.e. for use only if necessary to control invasive species such as Japanese Knotweed); the council is reviewing its use of such chemicals on streets
- There has been a huge investment of £5 million to plant 20,000 in trees to increase the canopy cover to 24% led by a dedicated Tree officer (as outlined above)
- Rain gardens have been installed in various locations across the borough
- There is an ecological partnership overseeing the SNAP with good engagement and partners delivering important work across the borough
- Biodiversity Net Gain and the Urban Green Factor are embedded in Planning

Mapping out Ecological Networks

The SNAP report of 2020 referred to further work that will be undertaken to develop Ecological Networks, and this is anticipated to feed into the Local Nature Recovery Strategy. Initial mapping of Ecological Networks was undertaken as part of the 2015 SINC review, but this remains under developed. It may be this has been delayed because it was initially anticipated that the Nature Recovery Strategies would be required sooner and at a more local level by government (rather than at a regional London level) , and DEFRA guidance was anticipated imminently.

Once again, as referenced elsewhere in this review, the absence of a Green Infrastructure Strategy and mapped ecological networks is a key gap and weakness.

Community oversight of the SNAP

The governance and oversight of the SNAP could be improved to ensure that the Southwark Biodiversity Partnership and has a clearer terms of reference, and

delivery of the SNAP is reviewed annually, as envisaged at the outset. The Commission welcomes the recent appointment of an independent chair of the Southwark Biodiversity Partnership. Southwark has a very engaged voluntary sector and committed stakeholders and more can be made of this strength by giving the group a clearer remit.

More, Bigger, Better, and Joined Up, Bolder and more Animated

In their evidence to the Commission, Southwark Nature Action Volunteers (SNAV) outlined how the central recommendation of the Making Space for Nature report "more, bigger, better and joined-up" applies to urban areas as much as rural areas.

SNAV proposed actions for Southwark Council under each theme, with an added theme of "more exciting" to reflect the importance of engaging urban society in nature and wildlife. The review expands 'exciting' to consider how bold urban schemes revitalise the city, and take account of the benefits to people and nature of engaging local residents in biodiversity and food growing projects, binging them to life.

SNAV articulated a vision for Southwark as follows:

A person, living anywhere in the borough, should be able to walk or wheel safely to anywhere else in the borough amid a chorus of birdsong increasing through the winter and spring, past fluttering butterflies and buzzing grasshoppers in the summer, and picking edible fruits along the way in the autumn.

And for some of Southwark's many non-human residents:

- *A dragonfly, damselfly, frog or toad should be able to safely and easily travel from one healthy pond to another, with grassy verges and safe hiding places along the way.*
- *A sparrow, dunnock, or blue tit should be able to find plentiful insect, fruit, and seed forage to feed her family within an easy 50m radius of her family nest.*
- *Southwark's more specialised invertebrates should be able to find their native partner plants, survive and thrive. A brimstone butterfly should be able to find a healthy buckthorn shrub on which to lay her eggs, and a common blue should be able to find birdsfoot trefoil, etc.*
- *Bats (of all nine different species known to be living in Southwark) should be able to navigate treelines and waterways easily, forage on plentiful insects, and have safe, undisturbed summer and winter roosting places*.

This vision brings to life the central theme of the Lawton's 2010 Making Space for Nature report, which is the delivery of an Ecological Network, which *'comprises a suite of high quality sites which collectively contain the diversity and area of habitat*

that are needed to support species and which have ecological connections between them that enable species, or at least their genes, to move"[8] .

The report sets out five key approaches to rebuild nature :

(i) Improve the quality of current sites by better habitat management.
(ii) Increase the size of current wildlife sites.
(iii) Enhance connections between, or join up, sites, either through physical corridors, or through 'stepping stones'.
(iv) Create new sites.
(v) Reduce the pressures on wildlife by improving the wider environment, including through buffering wildlife sites

These are illustrated below in the report:

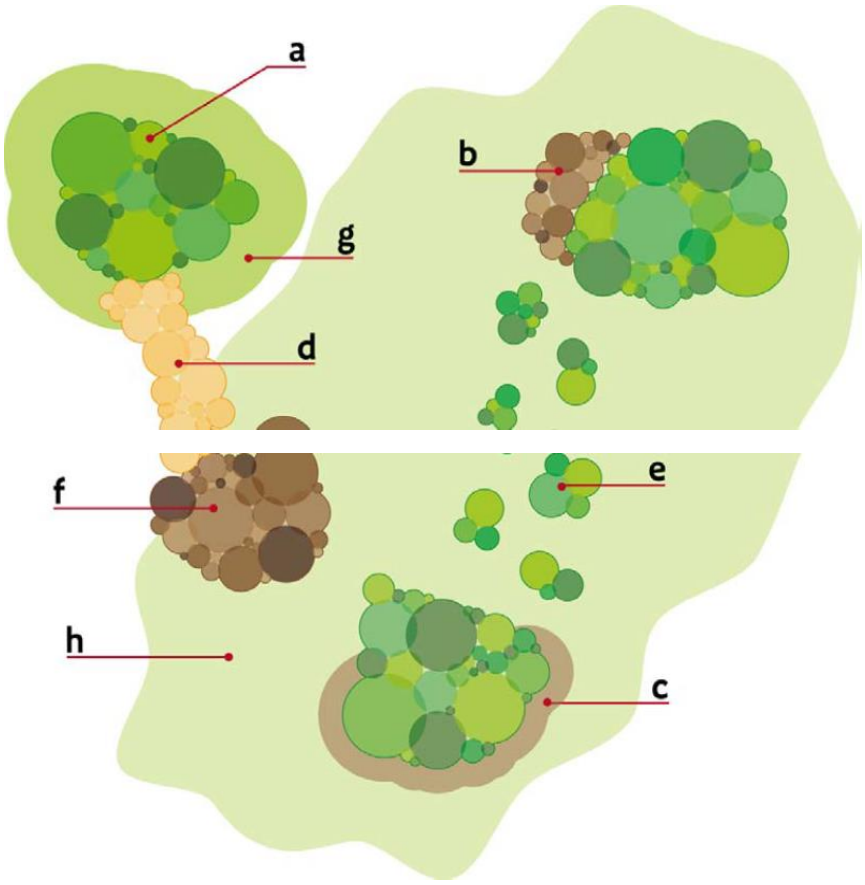


Figure X. Enhancing ecological networks

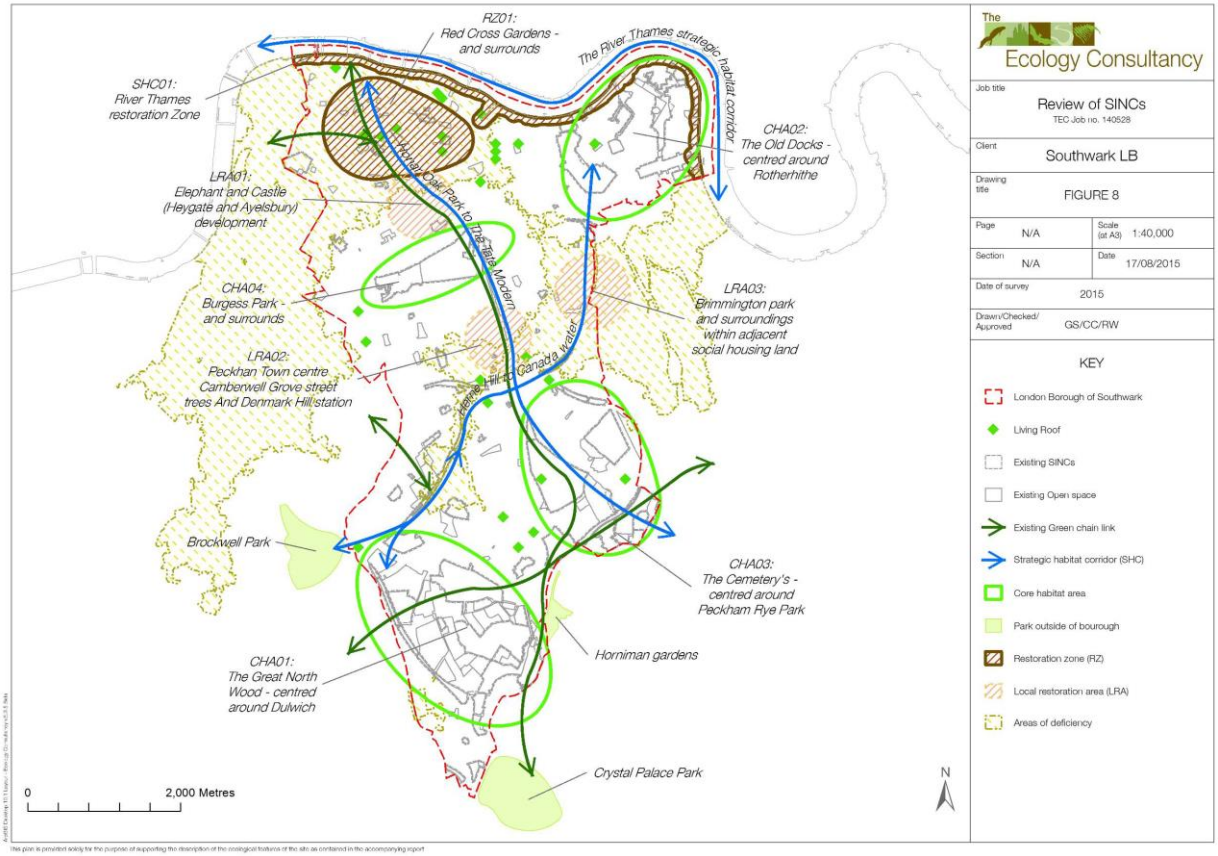
Approaches include: improving the quality of habitat patches (a); making existing sites bigger (b), which can include creating ecotones (enhancing connectivity through a continuous corridor (d) or a stepping stone corridor (e); creating new sites (f); and reducing pressures on sites either by establishing buffer zones (g) or enhancing the wider environment (h).

[8] Page iv Space for Nature, Lawton 2010

The council's existing work on Ecological Networks

The council has taken some foundational steps to deliver Ecological Networks: there is a commitment to develop these in the existing SNAP and references to Ecological Networks are threaded through the Southwark Plan.

The council commissioned a '*SINC Review and Borough Ecological Survey of the London Borough of Southwark: Southwark Surveys 2014-2015*' to support the 2020 SNAP. This was produced by The Ecological Consultancy and finalised in 2016. This included research on developing Ecological Networks. This project identified a number of biodiversity hotspots where clusters of SINC's could be referred to as Core Habitat Areas. The figure below was produced as part of the report and illustrates these and the other components that form the borough's primary ecological network, including three strategic habitat corridors.



The Space for Nature, Lawton, 2010 report sets out good practice in developing Ecological Networks derived from the global and European experience[9]:

[9] See Making Space for Nature Page 16 section 2.2.3 Components of an ecological network referencing Jones-Walters et al. 2009; IEEP & Alterra 2010.

- The network must have clear aims and a vision, including quantified performance targets where appropriate. Without these, it is hard to properly design the network, engage stakeholders or assess success.
- Local stakeholder engagement, including landowners, is critical and they should be involved from the outset.
- Where appropriate, it is beneficial to establish multi-functional use of the network and its component sites, so that local people are not excluded from the benefits it provides.
- There is a need for local flexibility in delivery to reflect local differences in implementation options and aspirations.
- A sound evidence base is essential. This is important at the design stage to ensure the right sites are included to adequately support species and habitats and other ecological assets; for management of the network; and to assess whether it is achieving its objectives.
- There is a need for effective protection of all the network components (not just core areas).
- Proper funding is critical, and this need not be just, or even primarily, from government sources.

More and Bigger

A key message of both the COP Biodiversity Action plan and the UK's Space for Nature report was that we need *more* habitat, covering a *bigger* area.

The COP 15 commitment, known as 30x30, calls for the effective protection and management of 30% of the world's land, fresh waters and oceans by the year 2030. Given London is nearly 50% green and blue space, the Commission recommends that Southwark embrace this objective locally.

Officers advise that, while there is an opportunity to expand the SINC selection in the next SINC review, to ' protect' 30% of Southwark ecologically would require a very radical new system, especially given that it is an inner London borough. The commission welcomes this alongside identifying other ways to increase and protect habitat by working with all sections of the council, communities, landowners, householders and other stakeholders.

While recognising the challenge the Commission nevertheless recommends this as an overarching ambition in preparation for the Biodiversity Report, required by January 2026, and the associated work involved in establishing Ecological Networks.

Size matters and the Making Space for Nature report noted that, whilst important, simply protecting remaining semi-natural habitats, corridors and stepping stones will not be enough: *'the amount of habitat that remains and the small sizes of many of the fragments, mean that the current series of protected sites is insufficient to prevent further loss of species. Nor is it generally appreciated that loss of species from surviving habitat fragments can take a long time; some manage to cling on even though their populations are no longer viable in the long term – an effect called*

an extinction debt (Tilman et al. 2002). This is both bad and good news. Bad because in the longer term the situation is worse than we think. But good because we may be able to avoid paying much of our current extinction debt by both improving the quality of the habitats that remain and by restoring or re-creating habitats that we have lost' (page 45).

The amount of existing urban development in Southwark and the pressures on land for other uses, including housing and infrastructure, mean that neither increasing the size of present habitat areas in the borough, nor creating more habitats will be easy.

However, there are many incremental steps that, taken together, can make a big difference. Two of the most significant are managing existing non-habitat green and blue spaces better so they become wildlife habitat (see Better section) and reducing paving by:

I. preventing the further paving over and loss of front gardens (see Spotlight Strategy - below)
II. systematic and strategic de-paving (see "Spotlight Strategy" - below), and increasing green roof coverage.

Spotlight strategy: Preventing further loss of front gardens as valuable natural resources

Wholesale paving of front gardens began in 1995, when the government relaxed planning regulations to allow vehicle owners to cross the pavement and park on their front gardens, if they had one. Vehicle Footway Crossovers (VFCs) in most cases became permitted development and fed an insatiable desire amongst car owners to have their vehicle stored within sight of their front door. VFCs ultimately rendered whole stretches of public highway unavailable for parking for anyone other than the occupier of the adjacent dwelling, stimulating further demand for offstreet parking and more VFCs, and so on in a vicious circle. The repetitive undulation in the pavement caused by multiple VFCs can be hazardous to some disabled pedestrians and wheelchair users which is at odds with Transport for All's Equal Pavements Pledge adopted by the council. With the growth in EVs, there is now an additional catalyst driving applications for VFCs.

The Commission considered reports including from the Royal Horticultural Society, National Park City Foundation and Ealing Front Gardens Project which highlight how, in the intervening period, London's front gardens have been paved over at an alarming rate. By 2010 approximately 12 square miles of London's front gardens – equivalent to 22 Hyde Parks - had been paved over. By 2015, 50% of all of London's front gardens had been paved over – a 36% increase through the decade.

National Park City estimates that today 75% of all front gardens in London have been covered with impermeable hard surface and the damage done by the loss of these formerly green spaces is huge:

Thirty years ago, London's green front gardens were part of its lungs and sponge – oxygenating the air and soaking up rainwater. Now they're adding to surface water flooding and sewage discharges [into rivers and bathing water], overheating, biodiversity and habitat loss, subsidence and pollution – and leaving local authorities, water companies and transport infrastructure to pick up the pieces.

The considerable environmental damage associated with loss of front gardens has been highlighted by the UK Climate Change Committee, National Infrastructure Commission and Ofwat.

In response to extensive flooding in several English cities in 2007, regulations were introduced specifying that any paving exceeding 5m2 in area should be permeable or or require installation of soakaways within the boundary of the property. However, regulations have been frequently disregarded and enforcement is poor.

Planning powers to reduce the installation of Vehicle Footway Crossovers and associated loss of front gardens

Highways and planning officers were asked to explore what can be done to prevent further losses of front gardens, or failing that, to mitigate the effects of their loss. Highways officers advised that there is a general presumption to grant requests for VFCs due to the 1995 legislation which effectively confers a common law right of vehicular access to residential properties from the public highway. There are some restrictions on granting VFCs, including safety considerations if the proposed location is too near a bus stop or a junction, or where the associated front garden is too small. However, historic VFCs often offer access to gardens that were paved to accommodate much smaller vehicles, and overhang onto to the pavement by much larger modern cars is common.

Under Southwark Council's existing design standard, VFCs are granted for properties with front gardens of a minimum depth of 4.8m from the front of the property to the back of the pavement "to allow vehicles to be parked without overhanging the pavement. However, this minimum depth has not been updated to reflect the considerable expansion in vehicle size. Many modern cars exceed 4.8m in depth and it is common for them to overhang the public footway, obstructing pedestrians.

Officers informed the Commission that there is some leverage in Conservation areas to follow the RHS advice regarding materials and planting, however in a situation where there is no demolition in a Conservation area, or under 5 square metres of hard standing is laid down, options are limited due to permitted development rights.

More advice could be provided to residents explaining the environmental impact of hard standings and how this may be mitigated, in line with the RHS best practice, if they still choose to go ahead.

The council could also increase charges for dropped kerbs. Currently, there is a non-refundable fee of £165 for a feasibility investigation that must be submitted with an application for to Highways. The Commission considered the range of fees that

other London Boroughs charge and officers advised there is room to increase these. Some councils charge considerably more. The construction costs vary but are typically between £1000-2000.

CPZs are used as a condition for refusal of dropped kerbs in the London Boroughs of Haringey and Camden on the basis that dropped kerbs reduce access to parking on the highway. The council may be able to amend the existing departmental standard for crossovers to seek to limit new crossovers in areas with high parking stress/in a CPZ if the crossover would reduce the availability of on-street parking. Meanwhile, the law requires councils to have regard to several factors (primarily safety) when determining crossover applications and the loss of on street parking would be just one factor under consideration. Currently these constraints must be considered on a case-by-case basis

Given the increasing evidence of damage caused by front garden loss, the Commission felt that a unified move to discourage VFCs should be adopted across London.

Anecdotal evidence suggests that parking pressure and the desire to park within view combine as a major driver towards front garden conversions. As CPZs reduce parking pressure, and of themselves can be used as a reason to reject applications for VFCs, they could be an effective tool to stem further front garden loss.

The council may be able to issue an Article IV Direction under planning legislation to restrict the conversion of gardens to hard standing for vehicles. This would mean that every application within the area specified in the order would require planning permission. Officers advised that the council could be liable for any reduction in the property value arising from the loss of the right to install a hard standing/crossover, although the Commission felt that the move would be more likely to enhance property value due to the improved amenity value and reduced flood risk associated with planted and permeable space.

Officers reported that blanket Article IVs are not generally considered appropriate and that the Secretary of State has the power to intervene. Officers believed therefore that there is a consequent risk of appeal with residents seeking redress based in loss of value of parking. Thus using an Article IV is untested and may be a high risk approach.

Installation of Pavement Channels

In addition, the Commission heard from CEOs of 2 companies – Charge Gully and Pavecross – that are pioneering pavement channel mechanisms that enable home charging of EVs parked on the kerbside. If workable, pavement channels could offer the benefits of home EV charging (which is currently significantly cheaper than other options) thus negating the desire to convert front gardens for parking.

Both channel options utilise a similar approach, embedding a channel in the pavement to house an electrical charging cable running from from residents homes to a vehicle parked on the adjacent section of kerbside. In both cases the cable is securely enclosed and the channel is finished flush with the pavement.

This is emergent technology and there are currently hurdles to be overcome in managing permissions under Highway and Planning law. Concerns have been voiced by officers around health and safety, and systems that would need to be implemented to safeguard the public purse when installing, maintaining and removing the channels. Companies sought to provide a range of robust assurances and suggested solutions to all these issues; nevertheless they acknowledged that leadership by central government would provide the best framework to enable local authorities to facilitate installation.

There are ongoing pavement channel trials in East Lothian, Bath and with other local authorities. The government paper ‘Plan for Drivers’ is consulting on measures to increase charge point solutions, supporting pavement channel pilots and developing planning guidance for local authorities.

The Commission considered that pavement channels do provide a potential solution open up home EV charging without the need for a front garden. Residents would be obliged to cover the costs of installation, just as they do with a dropped kerb and could be charged up front for future maintenance costs. Meanwhile, there are bureaucratic obstacles to their implementation and concerns over health and safety to be overcome.

Spotlight Strategy: Systematic De-paving and defaulting to providing a green public realm and provision of Sustainable Drainage Systems (SuDS), wherever possible.

Systematic de-paving is a powerful strategy for releasing new land for planting, providing better conditions for biodiversity, and releasing more space for food growing. The associated increase in green space can also improve citizens’ physical and mental health and wellbeing and increase community pride and engagement. There are significant areas of grey land covered by paving which could provide a perfect opportunity for increasing wildlife habitats in our borough.

Southwark Council’s Climate Change Resilience and Adaptation Strategy, recognises the need to reduce the heat island effect and flood risk. Sustainable Drainage Systems (SuDS or rain gardens) can effectively assist in flood attenuation, cooling and improving biodiversity. Favouring soft planting over hard standing can also contribute significantly to carbon reduction as the production of cement, a vital ingredient in concrete and other types of paving, accounts for 8%of carbon emissions worldwide.

There have been a number of small volunteer-led schemes in Southwark which show the potential. The Octopus Garden project led by the community group Trees for Bermondsey beautifully illustrates the possibilities:

De-paving for the Octopus Garden, Dunton and Lynton Roads, 2022

The garden view from Lynton Road, 2023

The Commission believes that we need a baseline shift so depaved is the default, wherever possible to enhance our Ecological Network. This can be achieved through systematic depaving, and by amending our current approach to streetscape schemes, including our tree planting programme and delivery of SuDs.

Releasing grey land: repurposing more of the public realm, kerbside and car parks for greenery by depaving

There is a huge amount of wasted land in Southwark, where potentially life-supporting soil is trapped beneath little-used hard surfaces.

Public Realm

SNAV have created this map identifying several sites with unnecessary paving, within a small sample area of Camberwell - 1,255m2 within 1.25 square kilometres. Extrapolating this number to the borough as a whole, there may be approximately 28,965m2 (nearly 3 hectors) of little-used, unnecessary hard surface readily available for depaving in Southwark (this is without including any car parks).

Kerbside

Including land dedicated to parked vehicles greatly increases the area under consideration. Lambeth's kerbside strategy calculated that its kerbside area alone, currently 94% of which is used for parking, is equal to 194 football pitches, or 1,158,000m2 (116 hectors) or over twice the area of Burgess Park.

Streets for People

The Streets for People Strategy has suggested that at least 10% of every Highways scheme footprint should be dedicated to planting and nature-based solutions. SNAV asserted that 10% for biodiversity is much less than would be appropriate in many schemes (see Liverpool Grove).

L*iverpool Grove pedestrianisation - a missed opportunity for SuDS and biodiversity. This mostly impermeably paved project is directly adjacent to a large churchyard green space and park. The small amount of planting provided is non-native.*

Almost entirely paved forecourt outside a new development on Thurlow Street. To the right there is concrete seating but no sign of any shade.

Sustainable Drainage Systems SuDS: making better use of water and integrating tree planting and habitat creation with flood resilience.

Water is essential for plants and wildlife; our existing infrastructure diverts most of it straight into sewers. Harvesting rainwater to irrigate planted community spaces and rain gardens would benefit wildlife and help to support viable and permeable green spaces. Areas of Southwark are already prone to surface water flooding and flash floods, and these events can only be expected to become more common with the acceleration of climate change. Increasing the area of vegetated permeable land, which attenuates and allows infiltration of rainwater, is key to adapting our urban environment to these changes. Evaporation is also increased on vegetated land, reducing temperatures and the urban heat island effect.

Rain gardens, also known as Sustainable Drainage Systems (SuDS).

Meristem Design shared information on schemes they have worked on in Southwark and beyond. These modify surface waterflow to more natural rates, allowing vegetation and plants to absorb the majority of the rainwater. Rain gardens also filter water, preventing toxins from entering the sewage system.

Forest Road, Meristem Design, Rain Gardens/ SUDs

A SuDS study in northeast England found that the installation of only six trees, including only two structural tree pits designed for maximum rooting capacity, reduced peakflow between upstream and downstream manholes by 25-30%.

Improving the flood attenuation of pedestrianised projects

The Commission heard that highways pedestrianisation projects are being built with insufficient consideration for run-off reduction.[10]

[10] Whilst Southwark's Developer's Guide for Surface Water Management calls for post-development site discharge rates to be equal to greenfield rates, the same standards do not seem to be applied to streetscape pedestrianisation projects. Southwark Streetscape Design Manual (2020) states that "SuDS design must be integrated into new schemes with careful consideration of the maintenance and management responsibilities". However, it does not give a runoff or peak flow reduction

Tree planting, de-paving SuDS, and underground utilities.

De-paving land creates space for larger-canopied trees to be planted, giving them a healthy environment to establish and mature, so that cooling benefits provided through evapo-transpiration and shade are maximised over time.

The Southwark Streetscape Design Manual (2020) states that “SuDS design must be integrated into new schemes with careful consideration of the maintenance and management responsibilities” and that “tree pits should be constructed as large as possible given the constraints of the site”.

Integrating Tree planting with other planting and SuDS is likely to provide a much better habitat and survival rates for trees. Sealing the soil with hard surfaces stops plant growth from sequestering carbon. Stressed trees, without enough rooting volume to be drought resilient, cease photosynthesizing and become carbon sources rather than sinks.

Southwark’s Tree Section is diligently working to plant more trees, and there is a Tree Policy 2020 to guide this, however SNAV commented that sometimes these trees are being placed awkwardly or inappropriately, in tiny tree pits which do not allow sufficient mature rooting volume or provide significant wildlife benefit. Some of these plantings would offer much greater benefit and long-term survival rates if coordinated with well-designed de-paving and SuDS and located in bigger planting schemes that supported greater biodiversity.

Officers agreed that larger pits are preferred, however they advised underground utilities, pedestrian access, and other amenity consideration all come into play. The Commission acknowledges these constraints, however, there are opportunities to synchronise depaving with other work (as discussed under ‘Dig Once’, below). The Commission notes some areas which have been used as highway for decades will have a high concentration of utilities cables/pipes etc. embedded beneath them, and that areas with utilities lines running close to the surface are not suitable for planting of woody species. However, shallow rooted herbaceous species may still be considered for overplanting, depending on the type and location of utilities lines. Some lines are actually better accessible for service when set in easily replaced herbaceous planting than if buried in concrete; other lines may require hard surface protection. Investigation for de-paving is an occasion for more accurate mapping of underground lines.

Planting for biodiversity

Not all local greening is equal from a biodiversity standpoint. It is important to include site-appropriate wildlife-friendly species, catering for the whole lifecycle of insects, and incorporate more native species.

requirement or any engineering parameters. Susdrain recommends a goal of 50% reduction of peak runoff for each redeveloped site and provides information on different land area and storage requirements needed to meet this goal for the most frequent to less frequent rainfall events. See SNAV Depaving report to February 2024 meeting of the Commission.

Planting should also ideally be in a mosaic, consisting of several “layers”, comprising a variety of native wildlife friendly plants, including groundcover, native grasses or herbaceous plants, and a woody / structural layer that will provide architecture and cover for larger animals such as birds. For this reason, the Commission would like to see much larger tree pits, ideally with more than one tree, and for these trees to be incorporated into bigger habitat creation schemes.

Meanwhile, not every de-paved area needs to be expensively planted and maintained. With proper initial design, it is possible to create green spaces with very high biodiversity value, and acceptable aesthetic value, through initial seeding of wildflowers, tolerance of volunteer plants, annual mowing, and ongoing litter picking. Public awareness and increased tolerance of “weeds” simply as wild plants is already underway as part of the reduction in spraying of glyphosate throughout the borough. This can be enhanced by adopting a Community Weeding scheme, discussed elsewhere. Any de-paved areas engineered as SuDS will have minimal additional maintenance requirements such as periodic unblocking of drains, similar to conventional drainage systems.

Soil

The microorganisms that live in the soil perform essential and often underestimated roles in our biomes and wider ecosystem. Healthy soil biota relies on aerobic reactions and carbon and nutrient cycling, which are severely impeded by soil sealing and compaction under paving.

As part of developing an Ecological Network, soil sampling is advised. This will mean that places with healthy soil can be prioritised and valued. If heavy contamination beneath existing paving is detected, measures must be taken so that toxic materials do not become loose in the environment. However, it is important to note that even if the earth cannot be directly planted there is still the option of planters, including SuDS, and food growing in raised beds.

Opportunities and resources to depave

Depaving Front Gardens

Gardens are an important source of greenery and can provide a rich habitat for wildlife. The UK has half a million hectares of garden, which is a bigger area than all of our nature reserves[11].Unfortunately, front gardens are being increasingly paved over to park cars and EV charging is further catalysing this trend. Measures to prevent further paving over of front gardens are considered essential and are explored in a separate section of this review.

Several councils have put forward successful programmes to encourage residents to depave their front gardens, which Southwark Council could replicate:

- Lambeth Council worked with residents in Kennington, supplying skips and labour to help residents remove unwanted hard surfaces from private space, including front gardens and driveways. Lambeth has provided an open

[11] https://www.sciencefocus.com/nature/a-scientists-guide-to-life-how-to-garden-for-wildlife

invitation (council phone number and email address) for other interested residents to get in touch.

- Hammersmith and Fulham Council have produced a Flood Mitigation Report which proposes an annual public de-paving programme similar to Lambeth's program in Kennington.
- The city of Amsterdam in the Netherlands has a de-paving programme where the city supports any resident wishing to de-pave outside their unit.

Dig once.

The London borough of Enfield has established a "dig-once" programme, leveraging the Mayor of London's Infrastructure Coordination Service to incorporate de-paving, SuDS, and streetscape improvements with already-scheduled necessary subgrade utilities improvements, thereby reducing cost and disruption.

Thames water and Insurance bodies

Indisputably, any moves to restore the natural water attenuation capacity of land across our borough reduces the demand placed on increasingly overloaded sewer and drainage infrastructure. As such, over and above the positive environmental impacts of depaving described, depaving offers potential cost savings to Thames Water; furthermore, the reduced flood risk could also be positive for commercial entities insuring against the risk of flooding. It is possible that, with the right approach, there could be funding streams available from these companies to support depaving.

Resources, cost and value

Southwark's Flood Risk Management Strategy aims to promote the use of SuDS (draft for consultation June 2023), but identifies that funding is an issue. However, it is important to note that there is a difference between de-paving and SuDS and their respective associated costs. Depaving simply means that the top hard surfaces are removed, and soil which allows plants to grow is exposed or added. In contrast, SuDS may include engineered substrates, storage and piping systems, in addition to simpler run-off reduction measures. Schemes incorporating less paving do not necessarily add costs if site works are already being undertaken.

There are also currently many outside funding streams available for de-paving and climate resilience-related improvement schemes, for example flood management funding from the Environment Agency and the Mayor of London funding for rewilding, gardens and food growing.

It is much more cost-effective to de-pave and plant larger, more joined-up areas. In addition, with a larger root zone, the trees have a greater chance of survival, good growth and long life.

The value per square metre of depaved land, as calculated through natural capital accounting methods, is potentially significant considering the land's improved value in terms of contributions to biodiversity, urban cooling, flood resilience, and improved

air and water quality. This potential value should be taken into account alongside the inherent and unquantifiable benefits of biodiverse greenspace.

Examples of successful systemic de-paving strategies employed by local authorities.

In Portland, Oregon, USA, local government has partnered with community organisation De-pave to successfully carry out community de-paving projects for over ten years, so far removing over 22,000m2 of hard surface and reducing Portland stormwater sewer loading by over 60,000,000 litres.

In the small town of Douai, France, systemic implementation of SuDS strategies has reportedly led to the saving of 1 million euros per year, or the equivalent of 30-40% of budget compared to a regular rainwater management system for a town that size. (Herin et Dennin, 2016)

Balancing depaving with amenity, vehicular and pedestrian access requirements

Not everywhere can or should be de-paved. It is essential that de-paving and pedestrianisation projects are thoughtfully and professionally designed, with pedestrian accessibility in mind, including ensuring that disabled parking is available nearby and prioritised over other vehicle parking, and that the mix of surfaces in redesigned areas is appropriate to support access for those with limited mobility. Where hard surfaces are essential for vehicles, the council ought to consider the use of Grasscrete or similar products, which allow both specified vehicle loading and vegetative growth.

Convenience and amenity must be balanced with finding creative ways to maximise biodiversity, habitats and greenery given the myriad of benefits they offer to all.

BETTER

The council can improve biodiversity and better manage existing green space by:

- extending the habitat for wildlife in our many green spaces,
- improving management of our existing SINCs,
- introducing buffer zones around SINCS,
- measuring biodiversity more accurately using AI and bio-acoustics
- improving the wider environment by reducing light pollution,
- eliminating the use of harmful pesticides.

(Eliminating Pesticides is covered at the end of the section in a Spotlight Strategy, as one of the most important interventions the council can make.)

Extending wildlife friendly planting and management in green spaces

A lot of habitat is required to support a diverse range of insects, small mammals and birds. The existing green areas in the city can be improved by increasing the volume, diversity, and variety of plants. Parks, housing estates, gardens, verges, pathways and pockets of land all offer opportunities. Southwark has many large and small parks where habitats could be improved. The UK has half a million hectares of garden, which cover a larger area than all of our nature reserves and offer significant potential to improve habitats for wildlife.

Build it and they will come

Many of our existing green spaces can be managed better for wildlife by reducing cutting, retaining leaf litter and collecting rain water. With relatively small changes to habitats, most parks could support 20-25 species of butterfly.

Over 600 species of insects were identified in Warwick Gardens, a small park in Peckham, located next to a railway cutting SINC. This documentation of insect life was carried out by Southwark Resident Penny Metal from Insectinside and demonstrates that small changes to habitat, such as retaining deadwood, leaving areas undisturbed, and varying mowing and thus grass and plant height can greatly enhance biodiversity.

A layered mosaic

The 2006 report from the Government's Commission for Architecture and the Built Environment, explains that to better support biodiversity, green space must be designed and managed as a more complex "layered mosaic" consisting of:

1. Long grass with seeds and flowers (herbaceous layer)
2. Hedgerows and dense native shrubbery of varying heights, providing cover
3. Understory trees
4. Large canopy trees
5. Leaf litter allowed to remain, providing cover for insects
6. Significant amounts of deadwood (chips, sticks, logs, stumps) – very important for insects at different stages of life cycle.
7. Aquatic zones (with sloping natural banks and equal areas of open water vs associated vegetation

Insects – the base of the food chain

Many insects and other invertebrates in London are limited by the availability of food and water. In creating or improving green spaces, it is important to cater for the whole life cycle, not just adult insects. Pollinator plants (flowers) provide food for adult insects, but other plants are needed to support their immature stages (caterpillars), too, as well as places to shelter overnight and through the winter e.g. ivy.

One of the best habitats for insects is flower rich grassy areas, which thrive on low fertility soil. These have the added benefit of requiring little maintenance.

Many butterfly and moth larvae rely on a single plant species for food. For example, the Brimstone butterfly relies on buckthorn bushes. A thick hedge of native species will provide food, shelter, and nesting sites for a wide range of wildlife.

Water

Community gardens and food growing plots all need sources of easily available water to be sustainable. Officers reported that they do provide stand pipes using water from the Thames, and mobile sources of water, however there is a cost, supporting the view that the installation of waterbuts should be prioritised where possible. For significant annual food growing sites there needs to be a reliable water source in the hot months of summer. Rainwater capture is important but may not suffice.

SNAV highlighted that Southwark could benefit from increasing the number and distribution of ponds. Even very small ponds, if well designed and well managed, can support wildlife such as toads, frogs and dragonflies, and provide a place to grow our incredibly beautiful native wetland plants. Southwark has many mainly hidden rivers: The Peck, Earls Sluice & Neckinger run underground apart from the pond in Ruskin Park and lake in Peckham Rye park. Stretches of water in Dulwich Park and Belair Park are linked to the otherwise hidden Efra. These hidden water bodies present an opportunity to create temporary ponds or "scrapes". Being temporary, they do not support fish, so other species are able to thrive without being eaten. SNAV suggested that Peckham Rye Park would be a good location for this.

Southwark's few existing waterbodies could all benefit from increases in their associated marginal and emergent vegetation, to improve water quality and provide more and better habitat. Along the banks of the Thames, there may be opportunities to work with PLA and Thames 21[12] to explore possibilities for improvements to biodiversity. Officers said a wall set back in Surrey Docks Farm that may be a good location. In addition, there may be an opportunity to create sandbanks to encourage birds that feed on mudflats, e.g. sand martins, black-tailed godwits, or to create reedbeds which support a multitude of invertebrates as well as birds such as reed warblers.

The Making Space for Nature report recommended that public bodies[13]:

- make space for water and wildlife along rivers and around wetlands;
- restore natural processes in river catchments, including in ways that support climate change adaptation and mitigation; and

[12] Thames21.org.uk "…working with communities to improve rivers and canals for people and wildlife."
[13] See recommendation 4 Making Space for Nature report

- accelerate the programme to reduce nutrient overload, particularly from diffuse pollution.

There is increasing public concern with pollution in our rivers. As discussed above the Water Framework Directive Regulations apply to management of the waterways in Southwark and sewerage undertakers should be monitored to ensure ongoing compliance. Southwark should consider targeting the Water Framework Directive "Good Ecological Potential" for its one remaining above ground waterway, the Peck.

Improving the biodiversity management through better practice

The Commission heard evidence from members and through field visits that the practice of council employees, contractors and sub-contractors can be variable. The Commission saw examples of Southwark staff pioneering wildlife friendly land management with reductions in pesticide use, but also heard of poor practice where community gardens had experienced street cleaners pulling up plants they viewed as weeds.

Councillors reported receiving complaints from constituents about mowing verges. A recent members' enquiry about mowing alongside the Surrey canal path revealed that it is managed under a grounds maintenance contract which reads as follows:

"Throughout the year grass will be no longer than 40mm or less than 25mm immediately after cutting and will not be allowed to grow longer than 65mm between cuts".

Officers advised that this is one example from a huge variety of grass cutting specifications in place across the Council and thus not representative of grounds maintenance practices in general. However, the Commission believes that perhaps there are areas that are currently managed under higher maintenance regimes where mowing could be scaled back. Meanwhile, it is recognised that different mowing schedules need to apply to areas such as sports pitches and picnic areas, and that our public spaces must be managed according to their intended use.

Council staff and contractors are often not familiar with methods and techniques of land management for biodiversity. Good management is reliant upon having well written contracts and ensure that managers and workers are communicating and delivering ecology-oriented goals at the ground level. Even once good practice is embedded, this can be vulnerable to changes in personnel in the absence of good training or poorly devised contracts. Best practice needs to be regularly reinforced through proper staff training and contract management.

Promoting wildlife gardening

People are increasingly gardening for biodiversity, and this can be promoted further: more and more, shifting social norms encourage a less ordered approach. Southwark hosts the Peckham centre for Wildlife Gardening and as such has a great local resource.

Management of SINCs

While Southwark is doing very well to have 89% of SINCs in active management, there is work to be done on improving the implementation of SINCs management plans, which can be variable.

In March 2019, one co-ptee wrote a blog for the Friends of Burgess Park noting that 16 species of butterfly had been recorded in the Park. Over the next few years, the active management was continued, and the number of butterfly species increased to 23. This is in comparison to around 16 butterfly species in Dulwich Park, where the management plan is less focused on wildlife-friendly interventions.

This example in Burgess Park shows the beneficial effect that implementing a management plan can have on the wildlife in our parks and green spaces: “build it and they will come”.

Burgess Park, 2017, showing amenity grassland of low biodiversity value

Burgess Park, 2019, showing flower-rich grassland habitat

Ensuring that management plans are in place, and continue to be implemented, should be a priority for the Council. There is evidence that, where management is discontinued - or the plan is not followed - wildlife numbers tend to decrease.

Tackling Anti-Social Behaviour (ASB)
The Southwark Biodiversity Partnership is currently exploring work by the Scottish Forestry Commission on ASB , which emphasises it is a complex problem requiring nuanced and sensitive response, involving various stakeholders and approaches. SINC management plans would benefit from attention to this.

Buffering SINCS

Buffering SINCs is important, particularly in urban areas where sites are often small and, therefore, have more ‘edge effects’.

The edges of sites, such as woodland often have a markedly different characteristics from the whole, making them much less hospitable for many species, thus reduce the working size of a wildlife site (Making Space for Nature, Lawton 2010[14])

There are two main ways to buffer sites: firstly, by making the surrounding environment more wildlife friendly by, for example, reducing or eliminating harmful pesticide use across the borough, becoming a dark sky borough, and reducing traffic.

The second is by buffering the edges, which creates a more wildlife friendly zone around SINCS. This is particularly important for small sites (Lawton 2010). Buffering involves managing the area surrounding a wildlife site in ways which reduce adverse effects on the site itself and sustain positive landscape interactions (Jongman & Pungetti 2004).

Buffering ought to be integrated into the Ecological Networks planning that is taking place in the development of the LNRS and as part of the Green Infrastructure Strategy. The Space for Nature report assumes a 500-metre buffer around urban wildlife sites.

Measuring biodiversity through Bioacoustics

It is difficult to objectively measure the health of wildlife, including the amount and diversity of species present. Bio-acoustic monitoring is an exciting new method to better establish the health and diversity of life in our green spaces. Bio-acoustic monitoring records mammal and invertebrate sounds. This enables species identification, and the measuring of abundance and behaviour in the survey area.

Much of Southwark's current biodiversity survives not only in SINCS, but also in some of the borough's few remaining unmarked marginal habitat areas, as well as parks and gardens. Currently, recording of existing wildlife populations in Southwark is sporadic and haphazard, and little is known of our wildlife populations' numbers, movements or trends.

One of the commission co-optees heard from Professor Kate Jones, head of Ecology and Data Science at UCL, along with the council's Ecology Officer. She recommended that a more complete and systematic monitoring could be accomplished with AI-based bio-acoustic monitoring devices in targeted trial applications. Through the use of this technology, scientists based at the Norwegian Institute for Nature Research (NINA) and the University of Cambridge are reliably tracking 56 species' distributions and dynamics in real time across Norway,[15] enabling better and more targeted biodiversity policy.

Improving the wider environment

[14] See page 72
[15] https://thesoundofnorway.com/

The Making Space for Nature report, Lawton, 2010 notes that the more we improve the wider environment within which wildlife sites sit, the less work we will have to do in other ways to establish a coherent and resilient ecological network[16], although it is not a central theme of the report.

Light pollution and Southwark becoming a dark borough

Artificial light is disruptive to wildlife. The Ecology Officer said that developers are expected to consider light pollution, especially near parks, and there is also generally a curfew applied to the use of floodlights in parks and other open spaces.

SNAV advised that wildlife-friendly lighting includes positioning lights lower and closer together, using motion sensors and the minimum wattage or lumen output necessary, using longer wavelengths (eg red or amber LEDs) that are less disruptive to wildlife, and shielding, with no light above the 90-degree plane from the fixture. Modern technologies can enable motion sensors to shift lumen output or wavelength according to time of night or if pedestrians are detected.

Reducing artificial light in and around SINCS ought to be explored. Bats are particularly sensitive to light pollution. A rare type of bat has been found in local woods, marking an increase its known range. Officers reported that there is a dialogue underway about creating dark bat corridors.

There is a movement to create make London a dark sky city and rewild the night. Canada Water is considered dark.

Spotlight Strategy – Going Pesticide Free

One the biggest changes Southwark Council can make to improve biodiversity is to go pesticide free.

It is now nearly ten years since the WHO published its findings that glyphosate is a “probable human carcinogen”, kick starting a growing international movement to end the use of pesticides in towns and cities. The Commission heard from the Pesticide Action Network (PAN), which campaigns to eliminate pesticide use due to compelling evidence of the multiple harms they cause to humans, pets, wildlife and biodiversity.

Children are most vulnerable to the negative health impacts of pesticides, as are workers exposed to the chemicals during application. Domestic animals who walk where the chemicals have been applied and then lick their paws can ingest the chemicals directly. It is also now well-known that the serious decline of bees and other pollinators, birds and mammals have all been linked to pesticide use[17].

[16] Page 60, Lawton 2010.
[17] See page 4 Going Pesticide Free- A guide for Local Authorities (Information for local authorities - Pesticide Action Network UK (pan-uk.org))

“Pesticides” includes herbicides, insecticides and fungicides. Hundred of tonnes are used in cities every year to control wild plants (particularly on pavements), to prevent insect damage to ornamental plants and to control invasive species.

Many cities are now going pesticide free, driven by growing Public Health concerns, in particular with Glyphosate. Paris has been completely pesticide free for 20 years. According to PAN, all towns and cities of both Belgium and France are now pesticide-free, along with hundreds of other towns and cities across the world

In the UK, Glastonbury was the first council to go pesticide free in 2015.
Hammersmith and Fulham was the first London borough to go pesticide free in 2016
Lambeth Council went the final step and stopped using pesticides on streets during the pandemic.
A growing number of councils now only use pesticides to control invasive species such as Japanese Knotweed. PAN emphasised that if pesticides are to be used to control invasive species, it should be injected into the stem rather than sprayed, to limit the potential harms. There are also ‘electronic control systems’ which kill plant root systems that can be used to exclude even this use.

Southwark Council ended the routine application of pesticides in parks several years ago (before 2018) but continues their use on streets and some estates.
The Commission found that the approach to pesticide use across Southwark’s streets and estates varies. An officer managing an estate in Bermondsey informed the Commission during a visit that he had long shunned use of pesticides in his management area, whereas other areas continued to use pesticides.

Anecdotally, in the south of the borough, residents have noticed that spraying has taken place. Meanwhile, on one street residents have complained that flowers they planted in tree pits had been hoed out by over-zealous street care employees. Whilst removal of flowers was an annoyance, it indicates that manual weeding is taking place.

<u>Lambeth Council Community Weeding Scheme: a case study in staged community engagement approach to reducing pesticide use</u>

PAN recommended a staged approach that engages the public, similar to the approach taken by Lambeth Council.

In 2019 Lambeth Council was approached by urban food growing charity Incredible Edible to end their pavement pesticide spraying and find alternatives to control wild plants. At the time, the council was in a three year contract, which would have been expensive to exit so, as a compromise, the council agreed that streets and communities could opt out if residents would be prepared to do hand weeding. The council promoted this and was pleasantly surprised that 30 streets joined. Then, during the pandemic, the council increased this to 100 streets as residents welcomed the neighbourhood activity. After a further push the council reached 130 streets.

Following this success Lambeth Council stopped spraying and now streets can opt into the Community Weeding Scheme and leave the wild plants to grow throughout

the spring and summer. Residents remove the species that can become trip hazards or harm pavements (e.g Buddleia and Tree of Heaven).

The scheme has been a big success and a botanist recently counted over 70 species on a single street including rare and endangered plants. The Commission was impressed by the Community Weeding Scheme's achievements: both the reduction in pesticide use and the associated community engagement benefits.

Lambeth Council reported that the change process has been largely supported by officers and residents, with 700 champions. The council received far fewer complaints than expected. The Lambeth lead officer told the Commission that the change process has been in part about reframing plants on the pavements as being a benefit to the environment rather than thinking of them as messy plants out of place.

Challenges and costs

Approaches to ending the use of pesticides have varied across the country and come with different costs. Councils such as Lambeth have adopted manual weeding, assisted by community participation. Lambeth Council said that one challenge when they recommissioned the service was that there were not many contractors who were willing to hand weed.

Glastonbury Council conducted a pilot and audit of costs and found that the most cost effect method to control wild plants was through the use of a foam system, which was cheaper than either hand weeding or pesticide use, once the investment in equipment were made.

PAN reported that going pesticide free can be cost neutral or even cost negative after the initial investment stage. PAN has carried out numerous case studies of councils that have gone pesticide free, which could help to guide Southwark Council towards finding the most cost effective way to eliminate use of these harmful chemicals.

Joined up

The Making Space for Nature report emphasises the importance of joining up wild spaces to maintain or strengthen ecological coherence, primarily by increasing connectivity with corridors and 'stepping stones'.

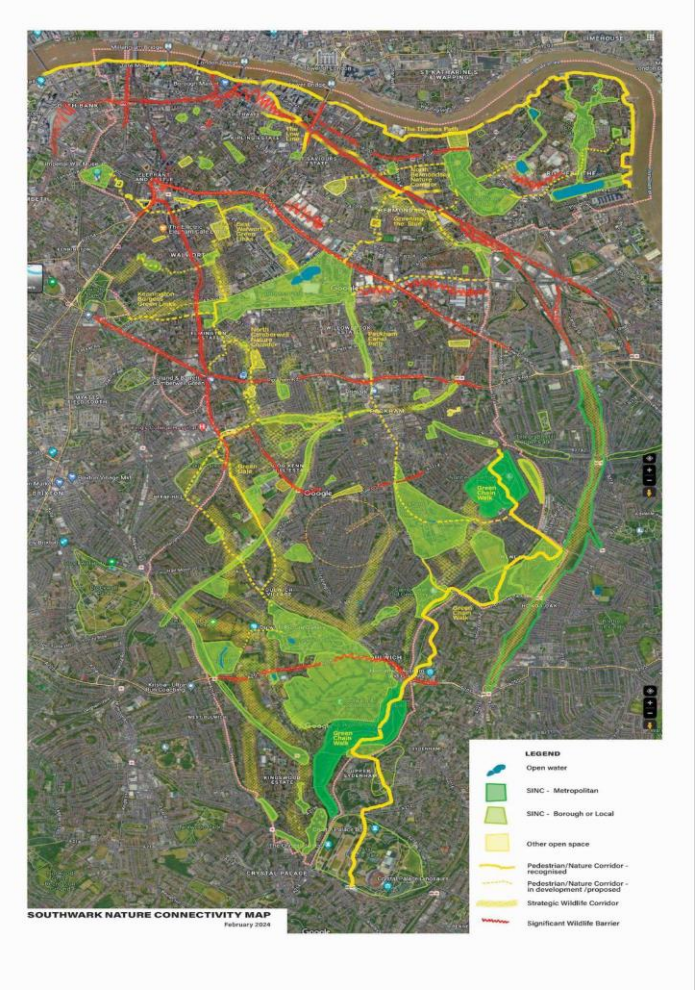
Southwark Nature Action Volunteers Nature corridors

SNAV have proposed two types of nature corridors, set out in a map – see Figure X

1. One for people and nature: 'Pedestrian/Nature Corridors' which connect green spaces. These are continuous, or have very frequent "biodiversity stepping stones".

2. One for nature only: 'Strategic Nature Highways' which are inaccessible areas that are critical for wildlife survival and nature recovery.

This is in line with Making Space for Nature's recommendation that 'Public bodies and other authorities responsible for canals, railways, roads, cycle ways and other linear features in the landscape, should ensure that they better achieve their potential to be wildlife corridors, thereby enhancing the connectivity of ecological networks, and improving opportunities for people to enjoy wildlife'[18].



When presenting this map to the Commission, SNAV highlighted specific points to be noted:

• Peckham's Rye Lane is a major missing link, as nature corridors go there and then get lost;

• Canada Water is an opportunity to connect the Borough SINCs of Southwark Park and Russia Dock Woodland / Stave Hill Ecology Park, Albion Channel and Lavender Pond;

[18] See Recommendation 21 Space for Nature

• Old Kent Road is is a barrier that ought to be made permeable to nature.

SNAV and Butterfly Conservation evidence said that the long term vision is for complete nature connectivity throughout the borough, however the strategic starting point is to focus on connecting SINCs. This echoes the identification of Core Habitat Area in the Ecological Consultancy 2016 report for the SNAP, discussed above.

SNAV advised mapping to enhance existing and new potential green routes/corridors that can connect parks and link up with SINCs to maximise the land available.

When creating wildlife corridors it is important to choose plants that provide a habitat for insects, the base of the food chain. In the meantime Southwark ought to avoid adding any new barriers for wildlife populations such as large expanses of paved areas, and ensure multi-level planting including adequate provision of ground-level planting (that is more accessible to terrestrial species. In addition, the council ought to continue and strengthen efforts to reduce motor traffic that contributes to wildlife mortality and impedes movement due to noise and pollution.

The research conducted by The Ecological Consultancy for the council back in 2016 and SNAV's more recent mapping exercise and ongoing community research are both excellent resources for the council to build upon in developing wildlife corridors, as part of mapping Ecological Networks.

A bolder, more animated, vision

There is an established body of evidence that connecting with nature is good for human health, and that good quality stewardship by humans increases ecological health.

Close proximity to nature increases physical activity, particularly in pre-school children, who prefer to play in natural or wild spaces. The benefits to mental health are even more pronounced with stress and depression alleviated, and attention levels increased in children with ADHD[19].

[19] The Space for Nature report cited the following
'The Royal Commission on Environmental Pollution 2007); many of the benefits are a result of people being more physically active if they have access to natural environments, and overall levels of physical activity across age groups are positively associated with the proximity and accessibility of green spaces to residential areas (Jones et al. 2009), particularly in pre-school children (Baranowski et al. 1993).
Evidence on mental health benefits from contact with nature is even more compelling. Stress and symptoms of depression are reduced (Wells & Evans 2003); concentration and self-discipline are enhanced (Faber Taylor et al. 2002) and levels of admissions for mental illness decrease (Bowler et al. 2010). Attention levels in children with attention deficit disorder increase when they have access to natural spaces (Faber Taylor et al. 2001). Children also often prefer to play in natural or wild places, helping them develop cognitive, physical and social skills (Muñoz 2009).

Bolder

The Making Space for Nature report recommended the establishment of Ecological Restoration Zones (ERZs) that operate over large, discrete areas within which significant enhancements of ecological networks are achieved, by enhancing existing wildlife sites, improving ecological connections and restoring habitats . The report said that ERZs should be proposed and implemented by consortia of local authorities, local communities and landowners, the private sector and voluntary conservation organisations, and supported by national agencies. The London LNRS offers and excellent opportunity to take this forward.

SNAV highlighted the potential for ambitious, large scale projects to excite residents to engage with nature, as well as multiplying the positive impacts for biodiversity by acting at scale.

An existing example of such a project is the recently opened Green Link Walk, which was launched in March 2024. This new 15-mile walking route, the Green Link Walk, has been launched by Transport for London (TfL), the City of London, Southwark, Islington, Hackney and Waltham Forest, and conceived in partnership with a range of different walking and wheeling groups, including Ramblers, London Living Streets, Sustrans and CPRE.

This is the eighth route in the Walk London Network and runs from Epping Forest to Peckham town. It links almost 40 areas of green space. TFL says: *'The new route has been created to increase leisure walking in London, improve Londoners' health and wellbeing, and enhance community access to green space and nature. The Walk London Network is one of the largest walking and wheeling networks of any city in the world and includes the Capital Ring, Green Chain, Jubilee Greenway, Jubilee Walkway, Lea Valley, London Outer Orbital Path, and the Thames Path'.*

Rivers also offer an exciting opportunityproviding some of the most important natural connections. The Space for Nature report says that[20]: '*Rivers provide ecological connections across England. They supply a number of critical ecosystem services, not least water for drinking, crop irrigation and industry, as well as being important places for recreation. They provide a range of wildlife habitats and support species dispersal and migration. As such, their quality and function is very important for ecological networks.'*

A number of cities across the globe have daylighted rivers to provide space for nature and recreation for people, including projects in Seoul, Los Angeles, and Portland, Oregon.

[20] Page 49 Space for Nature

Daylighting the Cheong Gye Cheon River in Seoul, South Korea

Before daylighting the Gheong Gye Cheon River pre-2005.
The river is buried underneath an elevated highway. Photo is part of a historic photo tile mosaic along the now daylighted river. Source https://www.harvestingrainwater.com/gallery/daylighting-buried-waterways-show-the-flow-image-gallery/

After daylighting river.
Gheong Gye Cheon River Festival in 2008.
On average, the river park attracts 60,000 people per day. Its become a major draw for tourists as well as residents. Source: https://www.harvestingrainwater.com/gallery/daylighting-buried-waterways-show-the-flow-image-gallery/

Like many London rivers, sadly the Effra, the Peck, Earl's Sluice & Neckinger run mostly underground apart from the pond in Ruskin Park and lakes in Peckham Rye park, Dulwich Park and Belair Park . The mouth of the River Neckinger forms St Saviour's Dock, a sheltered inlet of the Thames. All of these river segments are within Sites of Interest for Nature Conservation, providing key habitat for freshwater wildlife such as amphibians, fish, water birds, and insects. Officers advised that the council is due to begin ecological improvement works in Peckham Rye Park and Belair Park to expand and enhance wetland habitats whilst reducing the risk of flooding for residents.

The Commission is keen for the council to explore opportunities to expose more of Southwark's rivers as part of more ambitious London wide schemes, noting this would be a logistically challenging in built up areas.

In addition, as discussed above, the River Thames and the recent completion of the Super Sewer may also present an opportunity to engage with the Thames as a natural asset and improve foreshore habitats, for example creating a sand martin bank.

More animated

There is increasing evidence that community management of natural habitats in a sustainable way, is good for people, wildlife and the economy. Increasingly, conservation efforts are switching to engaging local communities and institutions in

the management of habitats. Conservation is seeking to integrate economic activities such as food growing in ecologically sustainable ways. Expanding agroecology has potential to significantly enhance biodiversity.

Other examples of fostering small scale connections with nature include the adoption of trees. A structured example of this is the Portland Urban Forest Project which provides resources for the local community to adopt and look after trees. In Southwark, Herne Hill Treewatch encourages residents to adopt and care for trees on the road where they live. Trees for Bermondsey offers similar opportunities.

Many young trees across the borough did not survive the drought of 2022 and encouraging more local community groups to look after young trees could enhance their survival rates. Officers reported that they have started to engage with schools (6 over the summer of 2023) to encourage more planting both within and beyond the school boundary. . Officers reported that the Peckham Rye Park Tiny Forest initiative engaged over a hundred volunteers and they are seeking to replicate this as a model of good practice.

Nature audits are another way of encouraging connection with nature as well as providing valuable information on biodiversity, and can be carried out by community groups.

Penny Metal of Insectinside, shared her photographs documenting life in the bushes of a small Peckham park, Warwick Gardens (as discussed above in Better).She has photographed and documented over 672 different types of insects. Penny's beautiful photographs have been published and she has presented in a couple of schools. She would like to do more community engagement to engage children and others in appreciating insects, and how smalls changes to habitat can enable insects to flourish. Members suggested an exhibition in the atrium.

Southwark also encourages community participation through the Cleaner Greener Safer fund process, the Community Garden scheme and hosts the centre for Wildlife Gardening in Peckham .

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The encouragement, definition, and development of Public-Common Partnerships, as suggested in the Southwark Land Commission Report, where local community organisations share responsibility for land management with Southwark as the landowner, has great potential to increase community engagement while potentially lightening some of Southwark's burden of management.

Food and Biodiversity

As discussed above the UK's industrialised food system is key driver of loss of habitat, with agricultural intensification identified as the major driver of biodiversity decline on land in the UK .

Adopting and encouraging nature friendly food growing is an important way of reversing this trend, and Southwark is leading the way with our Community Gardening scheme. Local food production is a significant opportunity to increase biodiversity, promote healthy food and encourage a connection with nature.

Food policy

INTERNATIONAL

The right to food is recognised under international human rights and humanitarian law in article 25 of the Universal Declaration on Human Rights.

The United Nations has called for transformative change to towards modes of agricultural development that are 'highly productive, highly sustainable and that contribute to the progressive realization of the human right to food'. This is in the context of identifying unsustainable agriculture and food systems as a primary cause of biodiversity loss as well as the water and climate crises.

The UN has, since at least 2010, identified Agroecology as the most highly endorsed solution to climate, biodiversity and food crises. Reports by the Special Rapporteur on the right to Food and the 2019 report by United Nations Committee on World Food Security (CFS) *Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition* set out the reasons in detail.

The following have been given as a reasons for supporting Agroecology in the 2010 report:

- *The contribution of agroecology to the right to food*
- *Availability: agroecology raises productivity at field level*
- *Accessibility: agroecology reduces rural poverty*
- *Adequacy: agroecology contributes to improving nutrition*
- *Sustainability: agroecology contributes to adapting to climate change*
- *Farmer's participation: an asset for the dissemination of best practices*

Agroecology is not clearly defined and exists on a continuum. In practice this comes down to the extent to which food systems[21]:

(i) rely on ecological processes as opposed to purchased inputs;
(ii) are equitable, environmentally friendly, locally adapted and controlled
(iii) adopt a systems approach embracing management of interactions among components, rather than focusing only on specific technologies

NATIONAL

[21] Page 3 https://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE_S_and_R/HLPE_2019_Agroecological-and-Other-Innovative-Approaches_S-R_EN.pdf

The UK has no overriding policy on food production. It has responded to an independent review: the National Food Strategy and it has an Agricultural Transition Plan 2021 to 2024. The latter has a section which sets out an ambition to link to the 25 year environment plan, Local Nature Recovery Networks and the UN Biodiversity COP 15 vision to protect 30% of England's land for biodiversity by 2030. This paper also outlines initiatives linked to payments for farmers to increase biodiversity.

LONDON

The GLA has a London Food Programme which covers areas including:

- facilitating and supporting the London Food Board;
- implementing the new London Food Strategy; and
- supporting the delivery of projects, programmes and initiatives to help deliver good food for London.

The GLA endorses Capital Growth Network, London's most extensive network dedicated to food cultivation. The network includes voluntary sector groups that the Commission has heard from directly, such as Incredible Edible.

Policy G8 on Food Growing in the London Plan states that boroughs' development plans should:

- Protect existing allotments and encourage provision of space for urban agriculture, including community gardening, and food growing within new developments and as a meanwhile use on vacant or under-utilised sites
- Identify potential sites that could be used for food production.

SOUTHWARK

Southwark is leading the way in food growing and food security in London. The council employs two community gardeners, is committed to expanding allotments provision, and is a Right to Food borough, with a community plan to increase food security.

Growing food on allotments can be productive and, if managed well, can deliver more than four times the yields of arable farms[22]. Home growing does, however, require a competent level of skills and is labour intensive, which is why both more land and community support are crucial to its success .

Community Gardening Service

The Community Gardening service was created in June 2020 with the establishment of 2 fixed-term part-time Community Gardening Coordinator (CGC) posts with a mission to:

[22] https://ourworld.unu.edu/en/home-growing-produces-ten-times-the-food-of-arable-farms

 Be the main point of contact within the council for community gardening and food growing enquiries

 Increase opportunities for residents to access community gardening

 Support a Southwark community gardening network

 Champion community gardening across the council

Incredible Edible of Lambeth, who are active throughout London within the Capital Growth network welcomed this as best practice that they would like to see replicated by other boroughs. Having two gardening coordinators directly employed by the council was considered a vital asset to food growing. In their role championing urban agriculture the gardening coordinators combine technical expertise in growing with a focus on working with local communities.

Incredible Edible supports local food growing groups, including fostering good relationships between residents, with non-violent communication workshops (a communication style that aims to improve understanding and connection through empathy) and other types of support. They emphasized that investing in people and community is very important for projects to thrive. This is often done through voluntary work, and hard to sustain, so having additional capacity from officers is an important asset.

The Capital Growth network event on the 27 April heard from black and marginalised groups such as Coco Collective and Black Farmers Market and both spoke of the difficulties faced by black growers in having sufficient volunteer capacity to remediate sites and access funding, particularly in the context of and a lack of paid work, racism and multiple forms of deprivation.

The co-benefits of food growing for biodiversity

The Community Garden Coordinators highlighted the many co- benefits that food growing has for both for local gardeners and the wider ecological habitat. They provided the below key learning points and benefits associated with local participative food growing projects, drawing on their experience and academic research[23].

- Community gardens should be seen as key green infrastructure in a Climate Action Plan as they mix social and ecological systems as community-based adaptation

[23] The underutilized role of community gardens in improving cities' adaptation to climate change: A review - People, Place and Policy (ppp-online.org)
In defence of urban community gardens - Egerer - 2024 - People and Nature - Wiley Online Library
Andersson, E., Barthel, S., Borgström, S., Colding, J., Elmqvist, T., Folke, C. and Gren, Å. (2014) Reconnecting cities to the biosphere: Stewardship of green infrastructure and urban ecosystem services. Ambio, 43, 4, 445–453. CrossRef link
Archer, D., Almansi, F., DiGregorio, M., Roberts, D., Sharma, D. and Syam, D. (2014) Moving towards inclusive urban adaptation: Approaches to integrating community-based adaptation to climate change at city and national scale. Climate and Development, 6, 4, 345-356. CrossRef link

- Risks: Can be transitory and more complex to support. Cities may prefer more low management green infrastructure such as bioswales, green roofs etc. Southwark is well-placed as it has 2 part-time Community Gardening Coordinator roles to support residents

- Food policies recognise community gardening as key to community engagement, but should also be seen as encouraging informal management and stewardship of green spaces, resulting in more resilient cities (Biggs et al, 2012)

- Community gardens generate ecosystem services like food production, pollination, environmental education, social cohesion which spills into the wider landscape

- Provision of critical lifecycle habitat for species, corridors between different habitats, range of habitats

- Privatisation of land restricts people's ability to practically engage with urban ecosystems

- Increasing people's awareness of how their actions affect the biosphere is not just about proximity to green spaces, stewardship is about getting involved

- Participatory management approaches are critical for harnessing the diversity found in cities

- Adaption actions by local communities can complement actions by local government

Allotment Expansion Guarantee (AEG)

Access to land is a key challenge to expanding food growing in an urban context. In April 2021, following the appointment of the Community Gardener, the council launched the Allotment Expansion Guarantee.

The Community Gardening Coordinators support residents to set up new community gardens and food growing plots (raised beds) on housing land through the AEG. The service has created an AEG Commonplace link that gives information about the process for residents to create new community allotments and maps proposals. The team commissioned a Southwark portal on the national Good to Grow map identifying community gardens across the borough with links to the AEG page. This allows community gardens to advertise plots available and call out for volunteers, as well as advertising events and being a search engine for those looking for nearby growing spaces and community gardens. The team developed the AEG process including site checks, governance agreements, maintenance agreements and plot holder agreements for gardening groups to run these new spaces.

Right to Food

Southwark Council declared itself as a Right to Food Borough, and is working with local businesses, community groups and schools to ensure everyone in Southwark has access to healthy, affordable food within a short walk of their home. A borough-wide action plan to increase household food security has been created, which came out of working with over 60 organisations locally over a year. It has three aims:

- Improved access for food insecure people to pathways of support.
- Improved education and learning about sustainable food.
- Improved access to healthy and affordable food for all.

What more could Southwark do

Biodiversity, urban agriculture , agroecology, and Food Sovereignty

Urban agriculture, particularly in allotments and community gardens, tends to be agroecological, and thus better for biodiversity than either untended land or land use for intensive farming, which, as discussed above, is often deleterious to biodiversity .

Incredible Edible advocates for Agroecology as the most adaptive practice, which is in tune with their core value of kindness, and that growing food in tune with nature supports both biodiversity and production of nutritious food.

The Commission considered a short film by Carolyn Steel which outlines the ideas expressed in her book Sitopia – How food can save the world. Carolyn Steel is also on the board of a volunteer-led organic, regenerative urban farm of the same name In Greenwich. Sitopia is a portmanteau of the Greek words ‘sitos,’ meaning food, and ‘topos,’ meaning place or site. In essence, sitopia refers to the idea of ‘food place’ or ‘food site.’

Steel uses food as a metaphor to explore life and death and how we steward our environment. She draws attention to the soullessness of much of our current food production and how low food prices of supermarkets mask the true costs and consequences industrial farming such as pollution, ecological destruction and the production of poor quality food that prices more sustainable producers out of the market leading to poor diets and health conditions such as obesity. . She calls for us to value food and create a “virtuous cycle” in which “the market would favour foods that nurtured nature, animals and people”. Sitopia reimagines food as sacred, highlighting the cultural importance of our culinary heritage and the social and spiritual significance and sacrifice involved in food production and consumption .

Leanne Werner’s report on Urban Agriculture in North America particularly focused on biodiversity. Her report states that: *If done in the right way, urban farming can lead to an increase in biodiversity. Plant diversity in urban agricultural sites is consistently higher than other forms of green space (Lin & Fuller, 2013; Taylor & Lovell, 2013).’*

She provides examples of spaces that people have used for farming, which are as diverse as the communities farming them:

FoodShare's Burmhampton High School

Burmhampton High School has a three-acre site divided into three areas: one acre for food, one acre for pollinators and the rest an orchard. Most of the plants and vegetables are grown from seeds or plug plants. There are 65–75 different crops and the type of crop grown is decided by the community. Each vegetable patch is divided by pollinators. It is a fully organic farm, and they use landscape fabric over cabbages to deter pests instead of using harmful pesticides.

Toronto Metropolitan University

The roof is divided into various sections including a sacred medicine wheel-shaped planting area where they grow sage, tobacco and sweet grass to name just a few. They often get gate crashers on roof spaces – self-seeded plants that just appear. These plants are not removed as they thrive in this rooftop environment. The roof-top farm produces around 2,500kg of food per year from its market garden section, with around 100 different types of fruit and vegetables from April to October. The farm is fully organic, and uses crop rotation and a drip irrigation system.

City Beet Farm

City Beet Farm follows organic and sustainable farming practices, focusing on soil health, biodiversity and community engagement. The farm has installed a garden, which it maintains, and there are workshops to help residents convert their yards into productive food gardens. Through its efforts, City Beet Farm not only contributes to local food production but also promotes urban greening, biodiversity and neighbourhood resilience

Many North American urban farmers, particularly from black communities, have adopted Food Sovereignty, a framework that overlaps with Agroecology and arose from the La Via Campensia, the international alliance of peasant farmers. It is, therefore, rooted in the global south and advocates for culturally sensitive practices.

The seven pillars of food sovereignty

• Focuses on food for people: The primary purpose of food production and distribution should be to meet the nutritional needs and ensure the food security of people, rather than prioritising profits or export markets.

• Values food providers: Food sovereignty values and supports the rights and livelihoods of small-scale food producers, including family farmers, peasants, pastoralists, fisherfolk and indigenous peoples. It recognises their knowledge, skills, and contributions to food production.

• Localises food systems: Food sovereignty promotes decentralised food systems that prioritise local production, distribution, and consumption. It encourages communities to rely on locally adapted agricultural practices and traditional knowledge.

• Puts control locally: It advocates for democratic control over food systems, allowing communities and individuals to make decisions about food production and consumption that align with their needs, preferences, and cultural traditions.

• Builds knowledge and skills: Food sovereignty emphasies the importance of agroecological farming practices and traditional knowledge in building resilient and sustainable food systems. It promotes education and capacity-building to empower communities to produce their own food.

• Works with nature: It promotes environmentally sustainable agricultural practices that respect the ecological limits of the planet, conserve biodiversity, and mitigate climate change. Agroecology is a central component of food sovereignty, emphasising the integration of ecological principles into farming systems.

• Values food as culture and tradition: Food sovereignty recognises the cultural significance of food and the importance of preserving traditional foodways and culinary traditions. It seeks to protect food diversity and promote culturally appropriate diets.

Right to Grow Bill

Incredible Edible and Capital Growth Network are championing a Right to Grow Bill for councils to take forward. Hull has adopted this already. This is aimed at giving people and groups a positive right to grow food and encouraging councils to commit to this aim and develop the right mechanisms to support food growing in underused land.

Incredible Edible told the Commission that : "*The biggest obstacle to more local food growing is the lack of available land close to people's homes. However, the land is there across our public realm."*

The Commission would encourage this repurposing of land for food growing, particularly grey land now used for car parking and paving.

Southwark Council's Community Gardening Coordinators are already undertaking many of the actions set out in the Right to Grow Bill but a positive endorsement by the whole council of the overall aim, and commitment to undertake all the steps laid out in the Bill, will strengthen the borough's food growing capacity and associated benefits .

Moreover, the bill synchronises with the aims and delivery framework of the Land for Good report by the Land Commission to work with anchor institutions and civil society to deliver the recommendations. The Right to Grow bill is very much about collaboration and Incredible Edible says : "*this new right would create opportunities for communities and the public sector to come together, play to each other's strengths, build trust and make the very best use of public sector land".*

‘The Right to Grow’

This council notes that the cost-of-living crisis and the continued efforts to

recover from the pandemic brings a new focus on ensuring that residents have access to enough fresh food for day to day living.

This council notes:

- The increasing need to put the health and well-being of residents at the heart of our corporate strategies.

- The powerful evidence which demonstrates the link between people’s health and wellbeing and the availability of fresh locally produced food.

- That the cost-of-living crisis is creating real hunger reinforcing the need for healthy fresh food at an affordable price.

- That communities coming together to grow food can radically reduce costs to NHS and social care budgets by reducing loneliness and providing healthy food.

- That there is plenty of under used publicly owned land which could be used for community food growing while also improving the public realm.

This council agrees (or to the extent that the below concern executive functions, recommends to the executive) to adopt a right to grow on council owned land which is suitable or cultivation.

As a result, this council will:

-Identify and produce a map of all council owned land suitable for community cultivation.

- Make this land available for cultivation by a simple license to community organisations at no cost.

- Consider community food growing on sites awaiting development for otheruses on a fixed term basis.

- Write to MPs who represent the council area and ask them to support the Incredible Edible campaign or national right to grow.

In addition the Council will work with partners through the Land for Good delivery process and encourage anchor institutions and civil society to join the council in the above endeavour .

Biodiversity report recommendations

No.	Recommendation	Priority Actions
	Vision: Adopt 30x30 and the Kunming-Montreal Global Biodiversity Framework (GBF).	
1	**Adopt the Biodiversity COP 15 commitment known as 30x30, which calls for the effective protection and management of 30% of the world's land, fresh waters and oceans by the year 2030, as a strategic local aim. Adopt also, the Kunming-Montreal Global Biodiversity Framework (GBF) which aims to "catalyse, enable and galvanize urgent and transformative action". This calls for action at an international, national and local level and, as such, will align local ambition and pride to national and global ambition. This is a proven way to increase commitment to pro-environmental behaviour changes[1].**	Develop the statutory Biodiversity Report (due January 2026) with the GBF and 30x30 aims. Build the 30x30 aim into the development of Ecological Networks and the Green Infrastructure Strategy. Include a commitment to 30x30 and the Global Biodiversity Framework (GBF) in the Climate Strategy and Action Plan. Update the Thriving Nature theme referred to in the Climate Change Resilience and Adaptation Strategy and Climate Change Strategy, to ensure the Climate Change Action Plan includes sufficient provision for biodiversity, including a delivery plan for Ecological Networks, measurable objectives for habitat protection, habitat creation, and de-paving as default, wherever possible. Incorporate a commitment for the Council to see all areas of

[1] See section 5 https://www.frontiersin.org/articles/10.3389/fenvs.2023.1103635/full#:~:text=In%20particular%2C%20the%20present%20study,national%20pride%20have%20higher%20PET
.

		council policy not only through the prism of a Climate Emergency but also through the prism of a Biodiversity Emergency. Communicate the 30x30 and GBD as a global and local ambition to stakeholders and residents, and encourage civil society to adopt the GDF and 30x30 alongside Net Zero by 2030. Review Southwark SINCs with view to increasing size and number. Identify other ways to protect habitat by working with communities, landowners, householders and other stakeholders.
	Strategy: Ecological Networks	
2	**Prioritise development of a Green Infrastructure Strategy to map out a coherent Ecological Network for Southwark**, which (i) Maps current SINCs and green and blue spaces (ii) Identifies opportunities to increase the size of current SINCs. (iii) Joins up or enhances connections between wildlife SINCs, either through physical corridors, or through 'stepping stones'. (iv) Aids the creation of new wildlife SINCs (v) Reduces the pressures on wildlife by improving the wider environment, including through buffer-zones around wildlife SINCs (amended from Lawton, 2010)	Account must be taken of the full range of semi-natural habitats needed by wildlife. Gaps must be identified (e.g. ponds, absent in many areas of Southwark) and plans developed to address these gaps. Consider designing nature-friendly crossings of major barriers to nature, such as Jamaica Road at Southwark Park/King's Stairs and Old Kent Road. Consideration should be given to reducing traffic, noise and artificial light, and to increasing vegetation at key locations, including overhead "canopy bridges". Several of Southwark's existing major wildlife corridors end just short of Peckham's Rye Lane area. Consider designating Peckham as a Missing Link / Biodiversity Connectivity Zone, and

		implementing special measures to encourage the development of wildlife affordances in this area. The Ecological Network, and Green Infrastructure Strategy, should be co-designed and monitored in conjunction with the Southwark Biodiversity Partnership (the Southwark Nature Action Plan (SNAP) reference group), and other local groups/stakeholders, recognizing and building on existing greening efforts by community groups and landowners. The Green Infrastructure Strategy should be led by the council's Planning department, as part of a cross departmental initiativethat recognises the interrelationships between Planning, Climate Change, Parks, Housing, Flood Management, Highways, Air Quality and other departments, while maintaining a co-design approach with the Southwark Biodiversity Partnership. Link the development of Southwark's Green Infrastructure Strategy and local Ecological Network with the development of the citywide LGIF and LNRS, working with the GLAas an active and informed partner. The Green Infrastructure Strategy should: I. identify geographically specific opportunities for cross-borough collaboration, ensure existing green infrastructure is optimised and existing barriers to wildlife movement are reduced, and consider green infrastructure in an integrated way as part of a wider network connecting to neighbouring boroughs.

		II. recognize a buffer zone around SINC boundaries, with attention to reducing artificial lighting, noise, height limits for tall buildings (overshadowing) and traffic and increasing habitat for wildlife through de-paving, and installation of green roofs. III. Look to use development and redevelopment opportunities to provide new green spaces and extend and link existing greenspaces and parks. IV. Integrate Food Growing .
3	**Improve the engagement, governance and oversight of the SNAP by agreeing a Terms of Reference document. Ensure that the Southwark Biodiversity Partnership has a clear remit to report on delivery of the SNAP through the agreed Terms of Reference, including by contributing to an annual report to Cabinet on Biodiversity.**	
	Planning and Construction	
4	**Explore methods of delivering biodiversity improvements through the Planning process,**	Having adopted the London Plan guidance on UGF of 0.3 for predominantly commercial and 0.4 for predominantly residential

	beyond the minimum 10% BNG specified in the Environment Act 2021 when undertaking the 2027 review of the Southwark Plan. This should be combined with more ambitious Urban Greening Factor (UGF) targets. Improvements to both, taken together, are most likely to deliver better outcomes for biodiversity.	developments, the council must ensure that, in accordance with the guidance, these targets are treated as the minimum benchmark rather than the maximum required. Monitor BNG and UGF for compliance, with a view to achieving at least the required10% BNG on-site as well as the UGF floor targets. Ensure continued monitoring and spot auditing of BNG delivery throughout the 30 year period. Explore the following in the review of the Southwark Plan;: • Increasing the BNG to above the present 10% improvement on baseline; • Applying a minimum 0.4 UGF to all major commercial as well as residential projects; • Applying UGF targets to smaller projects as well as major sites; • Adopting higher targets for BNG and UGF at strategic locations, as defined by the Green Infrastructure Strategy/ Ecological Network, such as SINC buffer zones or in areas with poor existing wildlife connections.
5	**Wherever possible new major residential developments should be conditioned to include**	

	grey water recycling and rainwater harvesting, including providing for storage of rainwater in water butts or similar to support community gardening and food growing.	
6	**Explore how domestic planning applications could be conditioned or, at least, applicants could be encouraged to include wildlife friendly features such as green roofs, flow-through planters, rain gardens, swift bricks (for example in cases of loft conversions) and water butts, and to minimise impermeable hard surfacing**	The council should develop and make available on its website a mini-guide for homeowners and developers applying for planning permission for minor developments or home improvements, with information on the benefits of these nature-friendly features. The council's climate change team should engage with Thames Water to explore how more residents can be encouraged to install water buts at their homes, for example, by Thames Water managing the subsidised delivery of water buts to residents. (This could be modelled on the existing composting scheme, where residents can buy compost bins at a subsidised rate and community groups, places of worship and schools are able to claim 2 free bins each.)
	More and Bigger	
7	**Conduct an ecological audit of our parks, estates, verges, schools, sports fields, and pockets of land in order to increase habitat for wildlife, and adopt wildlife friendly practices.** **Conduct this in conjunction with the development of Ecological Networks.**	
8	**Undertake a mapping exercise with ward**	

	councillors and community stakeholders (as recommended by Southwark Land Commission) to identify further land that is currently or can potentially be enhanced for biodiversity. Consider how undesignated open space, such as land currently used for parked vehicles, estate lands, schools, sports field borders, and rooftops, could be transformed and/or managed as places for nature as well as people.	
9	**Depaving has the potential to be a powerful tool against the biodiversity and climate crises. In recognition of this, the Commission recommends the following:** **a)Adopt de-paved as default, wherever possible, in all new Streetscape or housing schemes.** **b) Increase our greenspace by de-paving the many unused areas of existing hardstanding to make room for 'pocket parks', new street trees, hedgerows, rain gardens, food growing spaces and other forms of new planting.**	Integrate de-paved as default with the BNG and UGF approach Employ an internal design review process to ensure that any new streetscape or housing projects incorporate: • green wildlife habitat • SuDS and other permeable spaces to facilitate water attenuation to the maximum extent possible; All projects to redesign our Streetscape and other public realm must be treated as opportunities to improve the borough's biodiversity and flood risk management, rather than purely as functional and/or traffic engineering solutions. Proposals should be flagged as a matter of course with the Southwark Biodiversity Partnership, to ensure that they benefit at the design phase from a wide range of input from landscape architects, horticulturalists, ecologists, urban food growers and community leaders As part of this, ensure that the Streetscape design, Climate Emergency Action plan, SNAP, Streets for People strategy, Local Flood Risk Management Strategy, Southwark Plan and the Tree Management Policy 2020 are updated to provide a coherent

		approach to adopting de-paving as the default, wherever possible. Ensure that teams engaged in design and execution of the above, as well as the teams handling the design and execution of Cleaner Greener Safer projects across the borough, are updated and working in accordance with the ambition to de-pave. Highways department should routinely consider applications from utility companies involving excavation of public space in the light of possible green infrastructure projects. Where possible, any scheduled infrastructure projects which involve digging or de-paving to access underground utilities should be coordinated with permanent improvements to improve permeability, increase public green space and improve bio. Where possible, de-paving should be designed to be integrated with stormwater management at area drains, to “slow the flow.” The council should explore all possible sources of funding for the various depaving initiatives described, including DEFRA, Thames Water, GLA, insurance companies and environmental NGOs like the London Wildlife Trust. Establish a strategic approach to de-paving linked to the Ecological Networks and Green Infrastructure Strategy recommended above. Aim for 30% minimum planting for streetscape schemes. Encourage and enable interested local residents to adopt de-paved sites and contribute to management and maintenance. Work closely with local community to sensibly design de-paved areas in keeping with local needs, and form maintenance agreements for planted areas. Make a program of technical guidance and support available to any

		residents wishing to de-pave their own private land. Where the budget is limited, deliver green spaces with high biodiversity value, and acceptable aesthetic value, by providing an initial seeding of wildflowers, encouraging tolerance of volunteer plants, delivering annual mowing, and ongoing litter picking. Where hard-standing is required and de-paving is considered inappropriate, consideration should be given to whether permeable materials could be used instead of impermeable ones.
10	**The Council should adopt a default position that recognises installation of Vehicle Footway Crossovers (VFCs) and associated hard standings as an environmental and social ill which stands at odds with council policies including the Climate Emergency Action Plan, the Climate Emergency Resilience and Adaptation Plan, the Streets for People strategy and the Equal Pavements Pledge (as the repetitive undulation of pavements due to installation of VFCs can be an obstacle to disabled pedestrians and wheelchair users). For these reasons, the council should actively discourage and take steps to reduce the rate and extent of this loss of front gardens and installation of new VFCs wherever possible, publicise its reasons for doing so and ensure that legal obligations relating to hard standings are enforced.**	a. There should be a presumption against the installation of VFCs where there is a CPZ in place and/or high parking stress. b. The minimum depth of front garden required for a property to be granted a VFC should be immediately increased to 6m, to ensure that it is large enough to accommodate a modern vehicle without obstruction to the public footway. c. Council tenancy agreements should specifically prohibit tenants from paving over front gardens and there should be a presumption against the granting of a VFC. This could be reviewed in exceptional individual circumstances. d. In an effort to inform the public and discourage further loss of front gardens, details of the adverse environmental impacts of loss of planting and permeability from front gardens should be posted on

		the council's website under the section where residents apply for a VFC, and sent to residents in response to their application. (This could be done by setting up a dedicated email address for applications with an automatic response.) Residents should be asked to confirm that they read and understood the information provided before confirming that they wish to go ahead with their application. e. In the event that an application for a VFCs is granted, applicants should be routinely provided with guidance on minimising the adverse environmental impact of the associated front garden conversion, including advice on paving the minimum area required and maximising permeability and planting based on best practice as described by organisations such as the RHS and National Park City Foundation. Applicants should also be informed of their legal obligations in respect of the Town and Country Planning (General Permitted Development) (Amendment) (No. 2) (England) Order 2008 which requires front garden hard surfacing of more than five square metres in area "to either be made of porous material or, if an impermeable surface, to direct runoff to a soakaway area or rainwater storage within the property's boundary" f. Increase the application fee and installation charge for VFCs. The increased charge for installation of the VFC will include all exisiting costs associated with planning, maintenance and implementation, as well

		as the cost of 2 mandatory checks – 6 months and 1 year after installation – to determine that any associated hard standing conforms as a minimum with the Town and Country Planning (General Permitted Development) (Amendment) (No. 2) (England) Order 2008. The upfront charge should also include a deposit sufficient to cover the costs of remedial action should this be necessary to render any installed hard standings compliant. g. The council should enforce against vehicles crossing the public footway where a VFC has been refused. h. The council should speed up the process for delivering disabled bays outside homes of disabled residents to respond to the need for adjacent parking. i. Explore becoming an early adopter of Pavement Channels to facilitate home charging of EVs parked on the kerbside and join a pilot if there is an opportunity to do so or if the government provides the appropriate assurances and planning guidance.
	Better	
11	**Make Southwark a pesticide free borough, to protect biodiversity and to protect our residents from the inherent harms of pesticides. Take a staged approach to eliminating pesticide use**	I. Draw upon the Pesticide Action Network's (PAN) Toolkit for Local Authorities to smooth this transition and, in particular, to understand the alternatives to pesticide use, the relative costs and the challenges;

	from our streets and estates, following on from the elimination of pesticide use from our parks several years ago.	II. Consider replicating Lambeth Council's Community Weeding Scheme . III. To best understand and manage the challenges involved in this change of practice, including obtaining value for money and stakeholder buy in the Cabinet Member and officers should actively engage with counterparts in Lambeth and other councils that have already undertaken this change and gone pesticide free IV. Publicise to residents and landowners the reasons that Southwark is taking this approach, explaining the harms associated with the spraying of pesticides, and use this position to discourage residents and landowners from private use of pesticides.
12	**Proactively encourage and enable the installation (including retrofitting) of well-designed, wildlife-friendly green roof systems on buildings and structures. Projects vary, but on average green roof systems have many of the ecological benefits of de-paving, at approximately half the cost per m2, sometimes less.**	Recognize the significant biodiversity benefits of well designed green roofs can deliver, and particularly encourage their use through Planning in priority locations identified through the Green Infrastructure Strategy. Promote the use of green roofs for agroecological urban farming.
13	**New trees should be located in a broader landscape habitat , and more priority given to their contribution to local ecology and the wider Ecological Network. Where possible, trees should be co-located with other trees and planting, in larger pits or schemes, and in**	Amend the existing criteria for choosing trees to include the following : a) benefit to the wider ecology, with a preference for trees that feed pollinators, other invertebrates, and birds, and which takes account of the advantages of native trees to the ecosystem

	conjunction with SuDs, wherever possible.	b) placement within the wider Ecological Network, including wildlife corridors and proximity to SINCs (to be set out in the forthcoming Green Infrastructure Strategy and London LNRS) Planting should be in as large tree pits as possible within the constraints of the site, preferably with at least two trees to support a mosaic habitat designed to sustain the whole life cycle of insects. Where as possible, trees should be integrated with in SuDS, Encourage and support community trees groups such as Herne Hill Tree Watch and Trees for Bermondsey.
14	**Mandate biodiverse-friendly planting and maintenance in all new schemes including pocket parks, larger park planting schemes and SuDS.** **All new contracts approved through Trees, Housing, Parks, Planning or Highways should be chosen to explicitly enhance and maintain biodiversity.**	All planting must be managed to ensure: • That herbaceous planting is with wildlife-friendly species, with due consideration given to all phases of invertebrate lifecycles, and majority UK native, • that Trees are selected according to the amended biodiversity focused criteria (above) • resilience in case of drought and excess rainfall and the extremes of UK temperatures. Council officers including those managing Cleaning Greener Safer and Devolved Highway Budget projects should be made aware of these criteria. Where contractors/sub-contractors are responsible for the choice of plant species, these criteria should specified in contracts. This is a useful resource

		https://www.lbp.org.uk/downloads/Publications/Management/making-contracts-work-for-wildlife.pdf
15	**Improve the active management of SINCs.**	Ensure the SINC and management plan for each habitat type is in place and well-communicated to all relevant staff. Explicitly include sections for biodiversity-appropriate first response to Anti Social Behaviour (such as community policing, community engagement in activities such as litter picking, CCTV, fencing off sensitive habitat).
16	**Conduct systematic and periodic ecological audits of our parks, estates, verges pockets of land and SINCS, using targeted trial applications of AI-based bioacoustic monitoring devices. Use the information collected to increase wildlife.**	
17	**Increase blue habitat, especially in areas where there are gaps by:** **i. expanding the areas of marginal habitat around the borough's rivers and ponds;** **ii. increasing the number of ponds and wetlands, including temporary ponds.**	Explore whether and how existing underground rivers could be used in some areas of the borough to achieve this ambition.

18	**Southwark should pursue the Water Framework Directive "Good Ecological Status" for all remaining above ground waterways, such as the Peck.**	
	Joined Up	
19	**Provide, recognise, and protect routes for use by wildlife only, as well as for use for active travel, with reference to the work SNAV have done on wildlife corridors for nature and people, as part of the broader piece of work on Ecological Networks.**	
20	**Southwark should work with the GLA to adopt clearer definitions and requirements for nature-friendly "green" corridors, for example including guidelines for minimum widths, sizes, spacing, target species, and types of soil and planting.**	
	More animated	
21	**Encourage, enable and support community and volunteer management of nature, wherever there is interest. As well as reducing costs, this will increase social benefit, educate and enhance the sustainability of wildlife friendly habitat.**	Encourage, define and develop Public-Common Partnerships, as suggested in the Southwark Land Commission Report, where local community organisations share responsibility for land management with Southwark as the landowner
22	**Develop a training programme on biodiversity and wildlife friendly management of green and blue space, targeted at officers and contractors**	Ensure that all teams, including Planning, Climate Change, Parks, Housing, Flood Management, Highways, Air Quality and other departments are aware of our ambitions to address the Biodiversity

	across all relevant roles and grades, suited to their job roles. **This should be an integral part of the staff training already required to ensure that all areas of council policy are seen through the prism of the Climate Emergency and extended to include the Biodiversity Emergency.**	Emergency. Managers and operational staff alike, including staff managing delivery of projects under the Cleaner Greener Safer and Devolved Highways Budget funding streams, must receive training and be properly managed to ensure that wildlife friendly practices are embedded into operations. Training should be repeated at regular intervals for existing staff and embedded in any induction training for new staff. Contractors and sub-contractors should be obliged to adopt the same commitments to biodiversity across their areas of responsibility, including in respect of training their staff.
23	**Proactively promote Southwark's ambition to address the biodiversity emergency and explain steps that the council is taking and plans to take to achieve that end. This will include information explaining decisions taken in response to the recommendations contained in this document, such going pesticide free and other changes in management of green and blue spaces across the borough.** **Develop a programme to engage residents in the appreciation of and connection to nature.**	Use social media and publications such as Southwark Life to explain highlight our ambitions and paths to achieving them. These should include recommendations as to how residents, schools, places of worship and other stakeholders can help to protect and improve biodiversity in their own gardens and local green spaces. Facilitate an exhibition in the Tooley Street Atrium of Insectinside.me and encourage links to Southwark schools. Consider developing livestream wildlife webcams to increase resident involvement in and awareness of Southwark's wildlife.
24	**Actively promote wildlife gardening to residents.**	Promote water butts to households including as recommended above. Deliver this in partnership with the Centre for Wild Life Gardening and other members of Southwark Biodiversity Partnership

	Bolder	
25	Develop ambitious cross borough Ecological Networks , and particularly consider the ecological and social potential of daylighting more of Southwark's Rivers (eg. the River Peck in Peckham Rye Park and River Effra in the south of the borough) and increasing marginal habitat.	
	Food and biodiversity	
26	Make Southwark a "Right to Grow" borough, taking a motion to Southwark Council Assembly adopting 'The Right to Grow'.	A 'The Right to Grow' motion along the lines below would be appropriate: This Council notes: • that the cost-of-living crisis and the continued efforts to • recover from the pandemic bring a new focus on ensuring that residents have access to enough fresh food for day to day living;The increasing need to put the health and well-being of residents at the heart of our corporate strategies; • The powerful evidence which demonstrates the link between people's health and wellbeing and the availability of fresh locally produced food. • That the cost-of-living crisis is creating real hunger, reinforcing the need for healthy fresh food at an affordable price. • That communities coming together to grow food can radically reduce costs to NHS and social care budgets by reducing loneliness and providing healthy food. • That there is plenty of under used publicly owned land which could be used for community food growing while also

		improving the public realm. This Council agrees (*or to the extent that the below concern executive functions, recommends to the executive*) to adopt a Right to Grow on council owned land which is suitable for cultivation. As a result, this Council will: • Identify and produce a map of all council owned land suitable for community cultivation. • Make this land available for cultivation by a simple license to community organisations at no cost. • Consider community food growing on sites awaiting development for otheruses on a fixed term basis. • Write to Southwark's MPs and ask them to support the Incredible Edible campaign and national right to grow. *In addition the Council will work with partners through the Land for Good delivery process and encourage anchor institutions and civil society to join the council in the above endeavor .*
27	**Map food growing plots**	Undertake this mapping as part of a larger piece of engagement work with community stakeholders to release more land for community good (see recommendation X). Commission this mapping work internally or externally. Include as a minimum a public facing element that helps residents to discover ownership of land that could be used to grow food, and also invites local landowners to submit potential food growing plots for community use under license, for a minimum of 5 years.
28	**Update the SNAP to include a community garden plan, which includes the right for residents to**	

	have a garden, orchard, or food growing plots on their estate. Include details on how Southwark can support urban agriculture to increase biodiversity.	
29	**Include a Food Policy in the next update of the Southwark Plan that requires developers to include spaces for urban agriculture, allotments and community gardening.**	
30	**Undertake to support Agroecology through all urban agriculture initiatives and in future iterations of the Southwark Plan and food procurement.**	
31	**Work with the Capital Growth network to monitor and measure how food growing projects in Southwark are improving biodiversity and helping to tackle the ecological emergency.**	
32	**Create new urban farming and community food growing zones alongside new developments (roof tops, schools and new parks and green land).**	Old Kent Road would be a good test site for an integrated and inclusive food growing system.
33	**Support local market initiatives, such as cooperative grocery stores, farmers' markets and other community hubs, in collaboration with food growing projects in the area and initiatives such as the Walworth Neighbourhood Food Model.**	

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Environment Scrutiny Commission

MUNICIPAL YEAR 2024-25

AGENDA DISTRIBUTION LIST (OPEN)

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