Open Agenda

Environment Scrutiny Commission

Tuesday 3 December 2024
7.00 pm
160 Tooley Street, London SE1 2QH

Membership

Councillor Margy Newens (Chair)
Councillor Graham Neale (Vice-Chair)
Councillor Leo Pollak
Councillor Reginald Popoola
Anna Colligan
Simon Saville
Councillor Sabina Emmanuel
Councillor Bethan Roberts
Councillor Hamish McCallum

Reserves

Councillor Rachel Bentley
Councillor Adam Hood
Councillor Youcef Hassaine
Councillor Darren Merrill
Councillor Naima Ali
Councillor Sunil Chopra
Councillor Esme Dobson

INFORMATION FOR MEMBERS OF THE PUBLIC

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Contact Julie Timbrell on 020 7525 0514 or email: julie.timbrell@southwark.gov.uk

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Members of the committee are summoned to attend this meeting
Althea Loderick
Chief Executive
Date: 25 November 2024

PRINTED ON RECYCLED PAPER

Environment Scrutiny Commission

Tuesday 3 December 2024
7.00 pm
160 Tooley Street, London SE1 2QH

Order of Business

Item No.	Title	Page No.

1. APOLOGIES

To receive any apologies for absence.

2. NOTIFICATION OF ANY ITEMS OF BUSINESS WHICH THE CHAIR DEEMS URGENT

In special circumstances, an item of business may be added to an agenda within five clear working days of the meeting.

3. DISCLOSURE OF INTERESTS AND DISPENSATIONS

Members to declare any interests and dispensations in respect of any item of business to be considered at this meeting.

4. MINUTES

Item No.	Title	Page No.

5. SUSTRANS

Alison Litherland, Head of Team, Behavior Change will present.

The below links to Sustrans reports have been provided. The links are to blogs on Sustrans website which give short overviews of the reports with links to the more detailed reports.

- Inclusive guide for cycling in cities
- Disabled Citizen Enquiry
- Access to cycle for people on low incomes
- Cycle Parking for people on low incomes

The item will be conducted as part of a roundtable to provide evidence for the Environmental Health scrutiny review.

6. WHEELS FOR WELL-BEING

Director, Isabelle Clement, Wheels for Well-being will present.

The item will be conducted as part of a roundtable to provide evidence for the Environmental Health scrutiny review.

7. JOYRIDERS

Mariam Draaijer, Chief Executive , JoyRiders will present.

The item will be conducted as part of a roundtable to provide evidence for the Environmental Health scrutiny review.

8. SUPPLEMENTARY PLANNING DOCUMENTS 1 - 183

Juliet Seymour , Head of Policy, Building Control and the Historic Environment will present the enclosed draft Supplementary Planning Documents (SPD):

- Climate and Environment SPD
- Householder Development SPD

9. CABINET RESPONSE TO THE SUSTAINABLE FREIGHT SCRUTINY REVIEW 184 - 191

DISCUSSION OF ANY OTHER OPEN ITEMS AS NOTIFIED AT THE START OF THE MEETING.

Date: 25 November 2024

EXCLUSION OF PRESS AND PUBLIC

The following motion should be moved, seconded and approved if the sub-committee wishes to exclude the press and public to deal with reports revealing exempt information:

"That the public be excluded from the meeting for the following items of business on the grounds that they involve the likely disclosure of exempt information as defined in paragraphs 1-7, Access to Information Procedure rules of the Constitution."

Agenda Item 8

Southwark Council
southwark.gov.uk

DRAFT

CLIMATE AND ENVIRONMENT

SUPPLEMENTARY PLANNING DOCUMENT (SPD)

JULY 2024

FOREWORD

Having declared a Climate Emergency in Southwark, we have focused across departments on delivering our Climate Action Plan, ensuring that we are using every tool to reduce carbon emissions and ensure that we are a borough delivering on net zero and climate resilience. Our Southwark Plan, which was agreed in 2022, includes very stretching targets on the Climate & Environment, including through our Energy Policy P60 which requires a significant reduction of operational carbon emissions through development, exceeding the requirements of the London Plan, and proposals to date around the Future Homes Standard.

This SPD provides additional guidance and best practice around implementation of our environmental sustainability policies and precedes a wider policy review of our Plan to ensure that we are line with the highest level of ambition around carbon reduction, both in operational use and through the construction process itself.

Councillor Helen Dennis
Cabinet Member for New Homes and Sustainable Development
Southwark Council

CONTENTS

CHAPTER 1

INTRODUCTION

1. INTRODUCTION

This section provides an overview of the Climate and Environment Supplementary Planning Document. It sets out how this guidance should be used and who should be using it. It includes a summary of what is required to achieve sustainable outcomes in line with the Southwark Plan for different types of development.

1.1 Overview

Southwark Council declared a climate emergency in March 2019. This means that the council is aiming to do all it can to make the borough carbon neutral by 2030. The Southwark Climate Change Strategy forms part of the road map to achieving this and sets out the key priorities for the council.

This SPD provides guidance to support Southwark Plan policy 'SP6 Climate Emergency'. It does not contain new policy. The SPD will be a material consideration in the determination of a planning application. It aims to help people understand climate mitigation and adaptation actions and provides advice on how to make successful planning applications that are in line with the council's Climate policies. It also sets out best practice for sustainable development in Southwark.

This guidance provides detailed, technical guidance on each of the following topics:

- Energy and sustainability standards
- Minimising flood risk and water efficiency
- Environmental protection and improving air quality
- Green infrastructure, biodiversity and trees
- Movement and transport
- Avoiding waste and minimising landfill

Following this guidance will ensure issues are avoided or mitigated early in the planning process. It provides information on how to meet the required standards for different types of applications. Refer to our website for a list of validation requirements.

1.2 What development does it apply to?

This SPD applies to all development of more than 1 unit that requires a planning application.

This includes:

- Fit outs and refurbishment to existing buildings
- Extensions to existing buildings
- New buildings
- Public domain works such as new or improved open space
- Landscaping works

The document applies to all types of land uses, including housing, offices, industrial development, retail, community and leisure facilities.

For guidance on how to consider climate and environmental issues as part of a householder application see the Householder SPD.

CHAPTER 2

ENERGY & SUSTAINABILITY STANDARDS

2. ENERGY & SUSTAINABILITY STANDARDS

This section provides guidance on the Southwark Plan 2022 policies 'P69 Sustainability Standards' and 'P70 Energy'. Plus, the London Plan 2021 'SI 3 Energy Infrastructure' and 'SI 4 Managing Heat Risks'.

2.1 BREEAM

A BREEAM assessment is a certification of environmental performance in buildings. It is a well-established best practice standard with specific assessments for different types of development.

Thresholds for submitting a BREEAM assessment

All qualifying development (listed below) is expected to be assessed against BREEAM, using the BRE guidance to assess the project at each stage of the process. If the development does not meet the criteria set out at each stage, this should be set out in the BREEAM pre-assessment.

The BREEAM certification used will vary depending on the type of development. Applicants should use:

- For new build non-residential over 500sqm use the BREEAM for New Construction certification.
- For refurbishment over 500sqm use the BREEAM Refurbishment and Fit Out certification. Newly constructed buildings can only be assessed under BREEAM Refurbishment if fit-out works are being carried out on a new-build shell only or shell & core building.
- For minor development under 1000 sqm, a single BREEAM assessment can be done to cover both the new-build and refurbished areas. A BREEAM New Construction or BREEAM Refurbishment and Fit Out can be used, depending on what the predominant use of the assessed floor area is classed as.
- For historic buildings, use notes on compliance set out in the BREEAM Assessment guidance on sustainable refurbishment of heritage buildings.

BRE BREEAM Assessment guidance provides further guidance on the different types of certifications.

Figure 1: Infographic showing the BREEAM pre- assessment ratings required for non-residential development over 500 sqm.

How to conduct a BREEAM assessment

There are four assessment options for BREEAM. The option selected depends on how the development is being handed over to future occupiers, i.e. either fully fitted, simple building, shell & core or shell only.

All developments should aim for fully fitted. Exceptions can be made in certain circumstances where a scheme is being handed over at a different stage. For example, if a development is mixed use and some components of the building will be occupied by different occupiers, it could include ground floor retail being fitted to one standard and the upper floors fitted to a higher standard.

A BREEAM pre-assessment should indicate which rating and credits are being targeted in line with the BREEAM methodology alongside a narrative on the design and indication of likely score. A Post-completion BREEAM assessment will need to be submitted to confirm the target approved in the decision notice and pre-assessment has been achieved before occupation of the building. This will be secured by condition.

Best Practice for BREEAM
Achieve a rating of 'Outstanding' in the Energy Section of the BREEAM assessment. This would be in addition to achieving Excellent overall. Achieving 'Outstanding' scores in Wat 01 and Waste 01

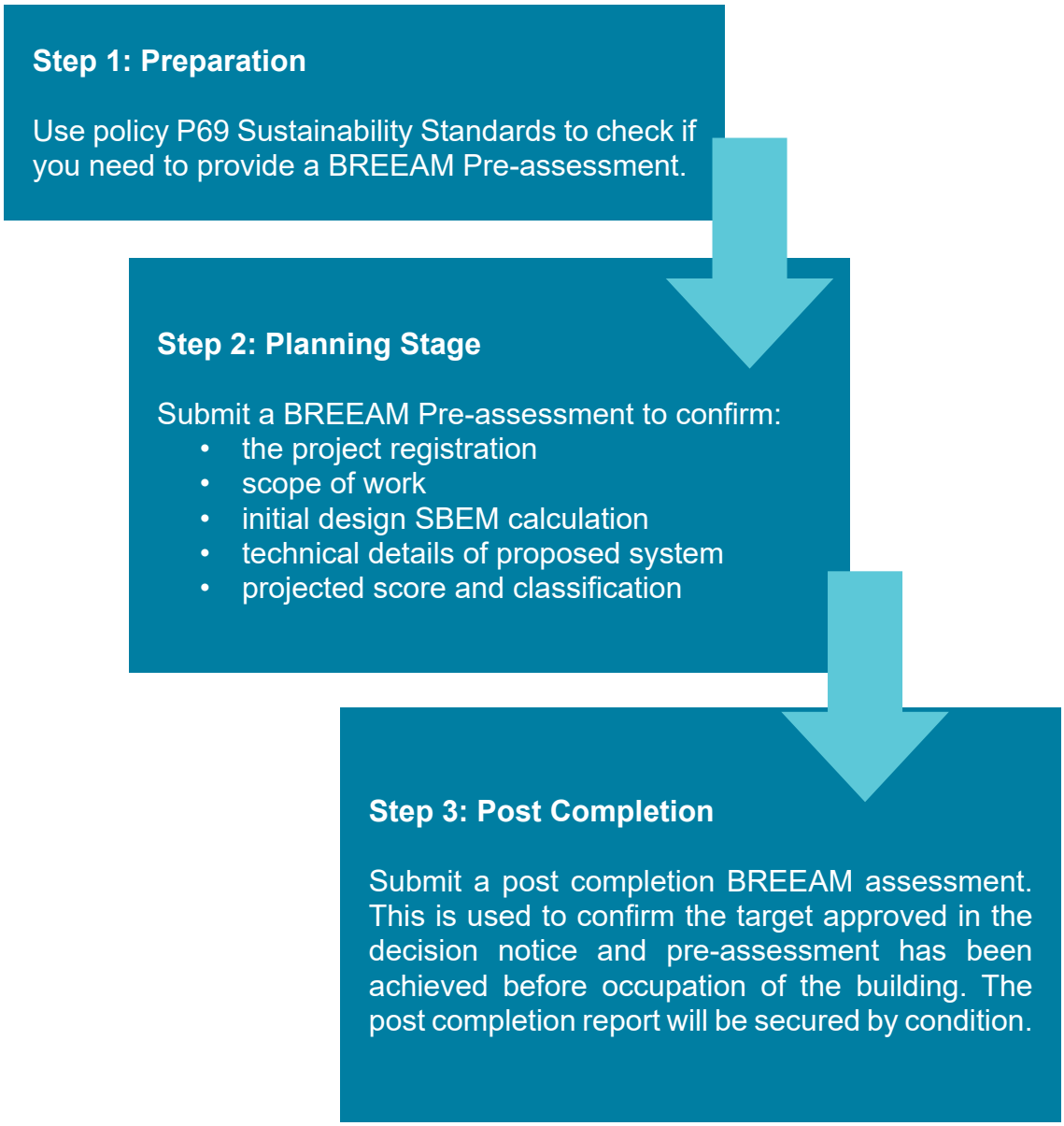

Figure 2: Flowchart showing the 3 main steps to BREEAM certification for non-residential development over 500 sqm.

2.2 Reducing water use

Applications should show how the water demand of the development has been reduced through water efficient design.

Developments should:

- Achieve at least the BREEAM excellent standard for the 'Wat 01' water category or equal for commercial development.
- Achieve at least 1 BREEAM credit for water consumption for Non-residential development

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- Achieve a potable water use target of 105L per person per day for Residential development.
- Include a system to collect rainwater for use in external irrigation/watering, unless this is not feasible due to site constraints.
- Use 100% metering of all new buildings.
- Use highly efficient water saving fixtures, fittings and appliances.

Best Practice for water use
Residential development should achieve a potable water use target of 80L per person per day. To support this, some form of water recycling will be needed. Non-residential development should achieve at least 2 BREEAM credit for water consumption. Connect and use grey-water for all non-potable. This repurposes used water from the washing machine and shower to flush toilets and water gardens.

2.3 Implementing the cooling hierarchy

All development must follow the cooling hierarchy, as set out in Southwark Plan 2022 policy 'P69 Sustainability Standards'. This will help to manage heat risk through the design of a building.

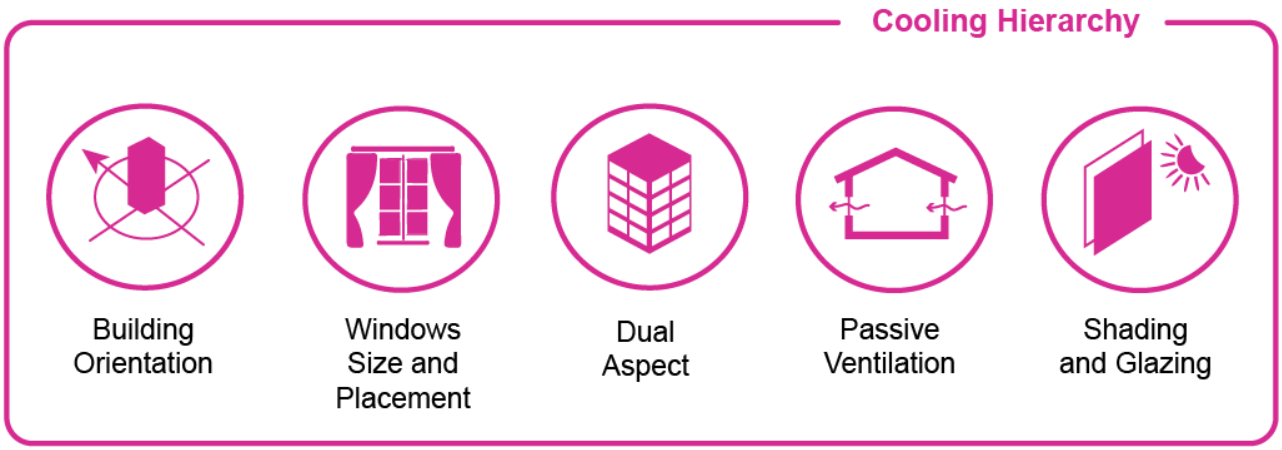

Figure 3: Infographic showing the cooling hierarchy all developments will need to follow manage heat risk through the design of a building

2.3.1 Step 1: Reduce heat entering a building

Glazing

Reducing the proportion of glazing or using solar shading can avoid overheating. G-values can be used to assess solar gains. Solar gains are a measure of how much heat is transmitted through a window from the sun's rays.

Highly glazed buildings, or a high percentage of glazing on northern elevations can contribute to heat loss in the winter. Best practice for windows is a g-value of 0.5 (for schools this can lowered to between 0.4-0.5). Avoid tinted glass or glazing films, with g values of below 0.5 as these reduce useful solar gain in winter. If overheating is a problem, it is better to reduce the proportion of glazing or use solar shading.

Glazing ratios set out the proportion of the building wall that is glazed.

Glazing ratios should be:

- up to 25% glazed on the southern elevation
- no more than 20% on the east/west elevations
- as little as possible on the northern elevation

Orientation

Glazing and external shadings are important to managing overheating risk in the summer. South-facing buildings usually have net heat gain. East/West windows can lead to overheating at the end of the day due to the low angle of the sun.

North-facing single aspect units should be avoided where possible as they can result in heat loss and have limited sunlight. Dual aspect properties have the best potential for cross ventilation and creating useful solar gain.

Residential buildings should:

- Orientate the largest building elevations within +/- 30° of South
- Maximise number of dwellings with a main living room that has at least one window on a wall facing 90° due South.

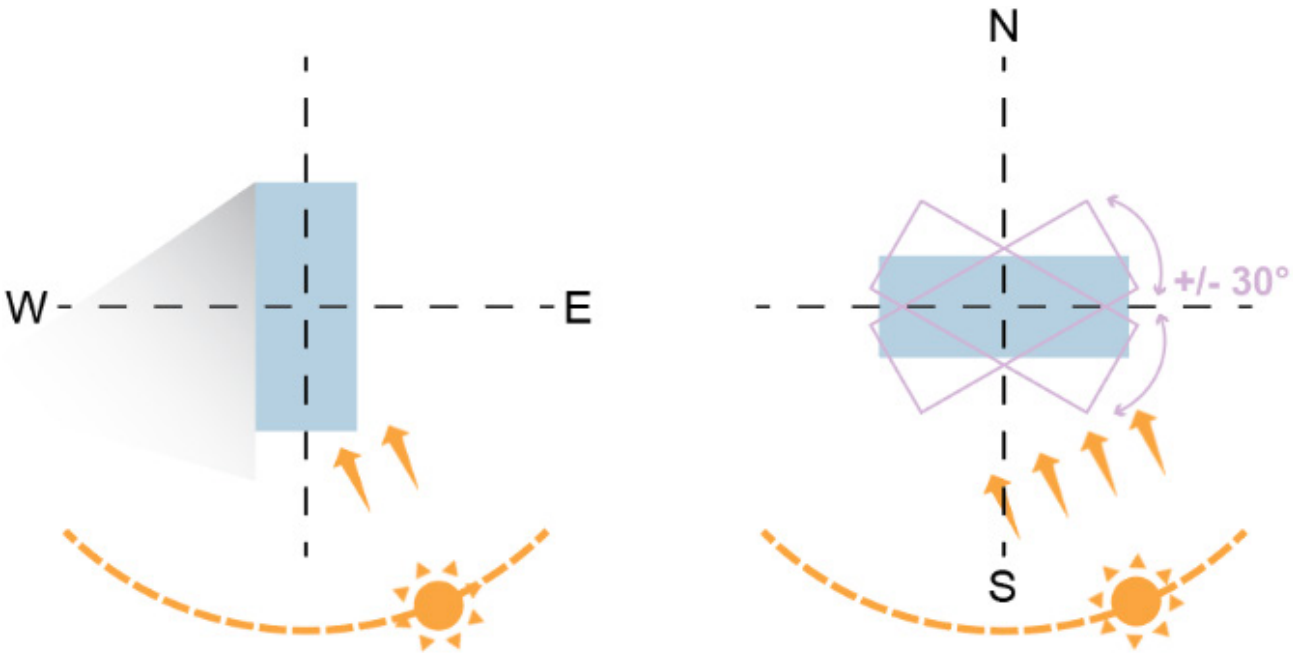

Figure 4: Diagram showing that building orientation facing +/-30° south can allow for more solar gain

External shading

Shading is most effective when external to the window, as this keeps the glass cooler and limits transfer of heat into a room. While thermal curtains are a cost-effective option, this allows the sun to hit the glass and warm the window.

Rooms with windows facing South and West should be designed with shading materials e.g. operable external blinds, shutters. For south facing windows, window shrouds are a good option. This is because they provide some shading from the high summer sun, whilst allowing the low winter sun in.

Form factor

The form factor is calculated by the surface to volume ratio (SVR). The SVR is the ratio between the building's envelope its volume. A more efficient form factor can reduce heat loss.

The ratio between the building's envelope area (EA) and the buildings volume (V) is calculated as:

SVR = EA/ V OR Total heat loss area / floor area = Form Factor

A simple and compact building form is the most efficient. This allows for more consistent installation of insulation. The suggested form factors for different typologies are below:

Typology	Suggested Form Factor
Small scale housing	1.7 - 2.5
Medium and large scale housing	<0.8 - 1.5
Commercial offices	1 - 2
Schools	1 - 3

Windows

Light-coloured materials around windows reflect daylight into buildings with overhangs or inset balconies. Using lighter materials internally can increase light.

Permeable railings can also allow light through.

Roof

White roofs or light colours on the roof and facades helps to reflect heat. Green infrastructure can also be used to keep the building cool.

Careful modulation of wall heights and roofscape can maximise daylight and sunlight into rooms. Roof overhangs, recessed windows and other solar shading can reduce the amount of direct sunlight from high-sun angles during summer months.

2.3.2 Step 2: Minimising internal heat generation

Pipe lengths should be kept minimal in heat distribution infrastructure within buildings – especially for lateral pipework in corridors of apartment blocks. Pipe configurations which minimise heat loss e.g. twin pipes, should be adopted.

2.3.3 Step 3: Managing the heat within the building through exposed thermal mass and high ceilings

Materials with a high thermal mass e.g. concreate, bricks, rammed earth, hempcrete could be used, especially for lateral pipework in corridors of apartment blocks.

2.3.4 Step 4: Passive ventilation

At the earliest design stage, the potential for natural ventilation should be considered. Buildings can be naturally ventilated by wind-driven ventilation or stack ventilation.

Cross ventilation across buildings and rooms can help with temperature control by creating a draft through a room. This can be through windows, doors, vents. High openable windows/ vents allow hot air to escape, and low-level windows allow cool air to enter a space.

Single sided ventilation does not allow for sufficient ventilation.

Cross ventilation with a chimney can be useful for flatted development to allow for more cross ventilation. This can also reduce the reliance and / or need for mechanical ventilation.

Successful natural ventilation is where there are a sufficient number of air changes per hour for the use of a building and the number of occupants. Part F Ventilation Building Regulation sets out how many air changes per hour are required to ventilate a building. Part O Overheating Building Regulation may require more than this to manage heating risk.

Major residential development should:

- Undertake dynamic overheating modelling in line with GLA and CIBSE Guidance using TM59 and TM49.
- Building Regulation Part O Compliance should also be considered throughout the design process.

Major non-residential should:

- Undertake dynamic overheating modelling in line with GLA and CIBSE Guidance using TM52 and TM49.

2.3.5 Step 5: Mechanical ventilation

Materials with a high thermal mass e.g. concreate, bricks, rammed earth, hempcrete could be used. especially for lateral pipework in corridors of apartment blocks.

Mechanical Ventilation with Heat Recovery (MVHR) units should be used if mechanical ventilation is required. These units use warm outgoing air to preheat incoming cold air through a heat exchanger. This provides ventilation while extracting and recirculating existing heat from within a building. MVHR's need a lot of electricity so the units should be highly efficient. They should be used in buildings that are very airtight to maximise their efficiency.

2.3.6 Step 6: Active cooling systems (ensuring they are the lowest carbon options)

Water based cooling systems run cold water through pipes in the floor and / or ceiling to cool the air.

Ground source cooling can be provided by a 'ground source heat pump'. In summer where the ground is cooler than the air, the difference in temperature can be used for cooling.

All major referable development must:

- Follow the GLA overheating requirements. This includes using the Good Homes Alliance Early-Stage Overheating Risk Tool.

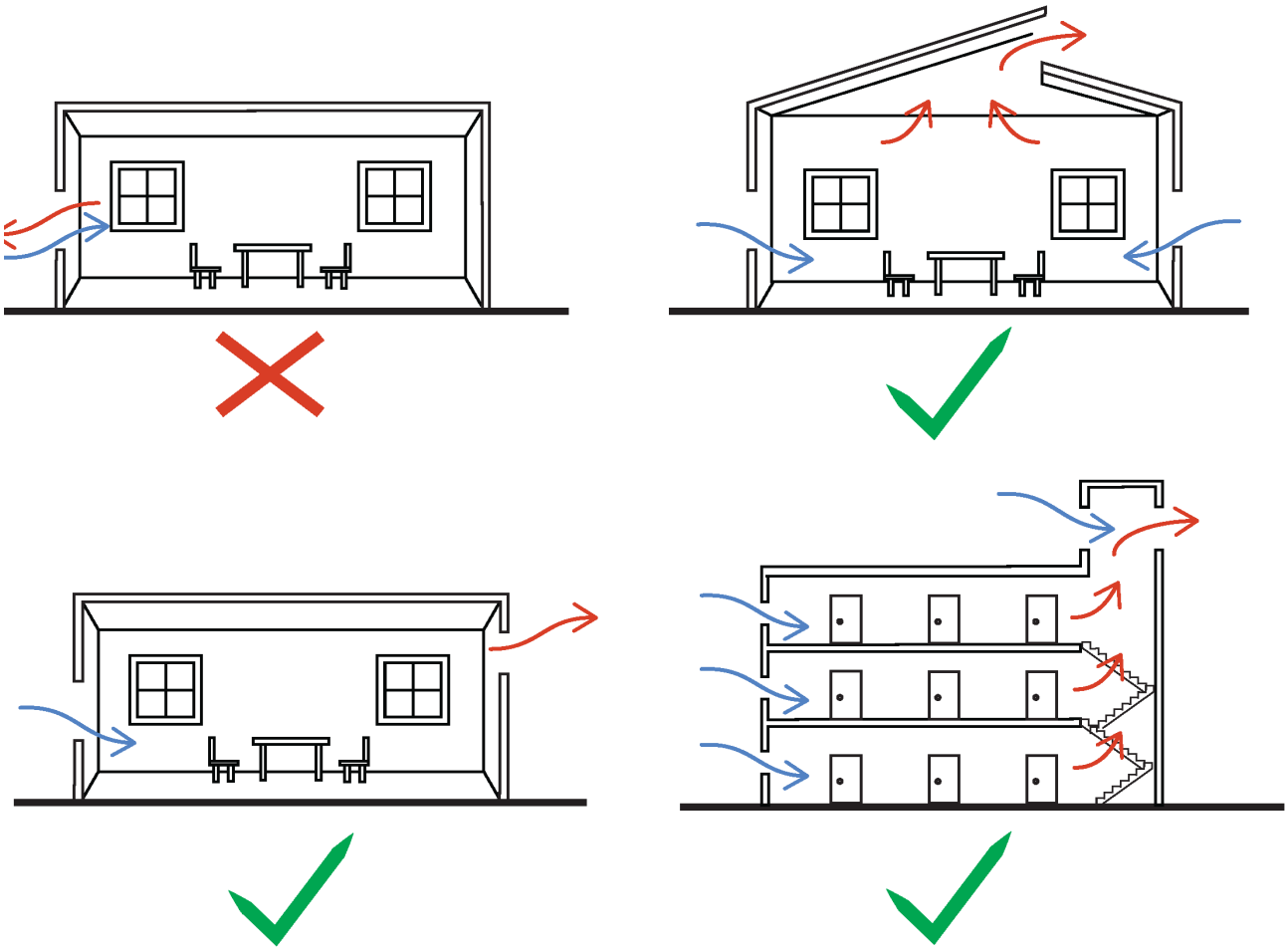

Figure 5: Diagram showing acceptable and unacceptable options for passive ventilation

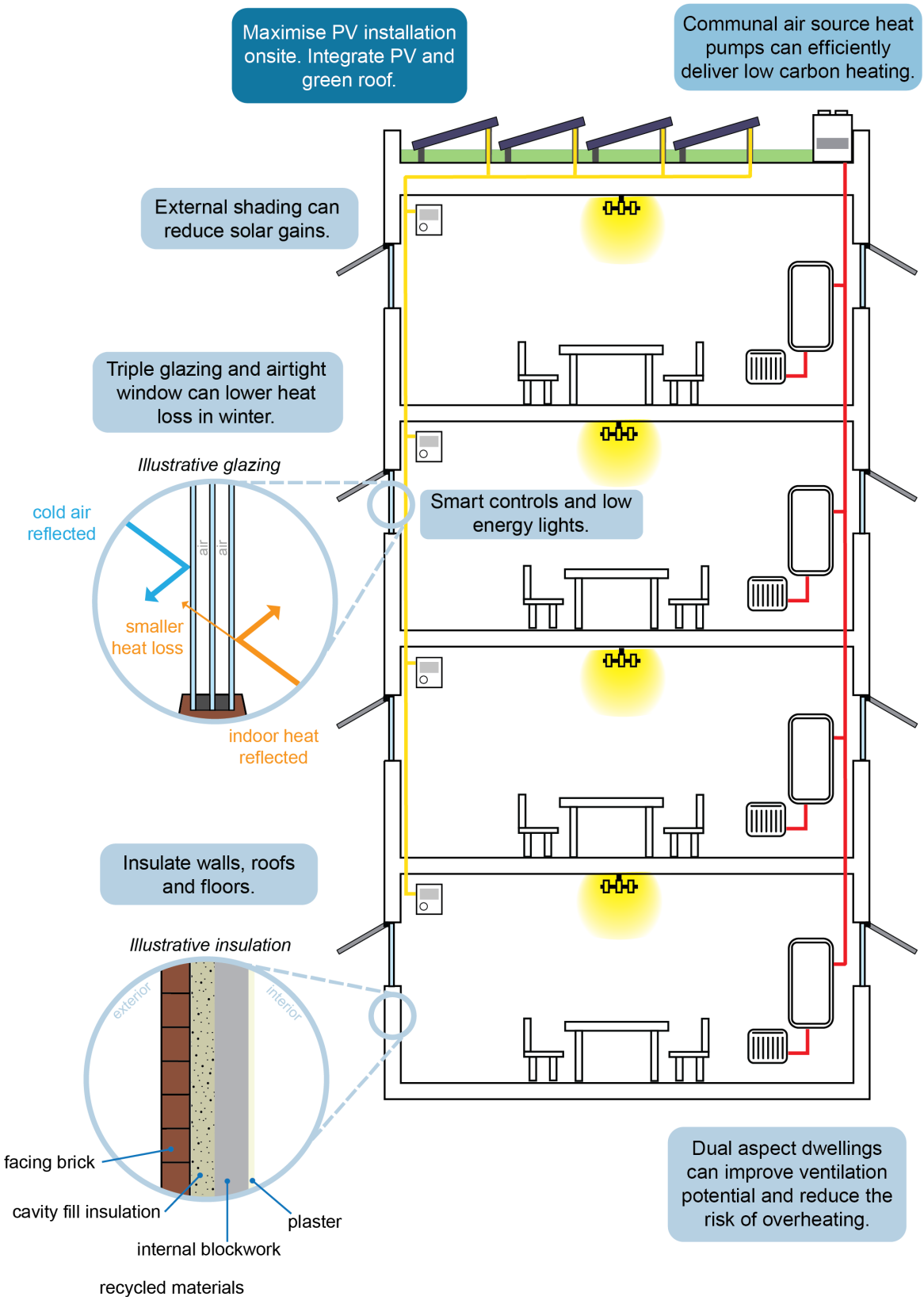

Figure 6: Diagram showing the Whole Building Approach-a list of energy options that should be implemented to achieve net zero.

2.4 Achieving carbon reductions in development

Major development

Applicants of major development must show that every opportunity has been explored to reduce carbon emissions. The reduction in emissions should be set out in the energy statement and be achieved by following the energy hierarchy.

Operational net zero is currently assessed for major development against the baseline set in the Part L Building Regulation Conserving Fuel and Power. For major development, we expect an uplift on this baseline to reduce all operational regulated energy emissions to zero.

All major development that cannot reduce carbon emissions on site to zero, must pay a financial contribution to offset residual carbon emissions to reach the zero-carbon target. Applicants must show that they have worked through each stage of the energy hierarchy before they are eligible to cover the shortfall with a financial contribution.

Part L Building Regulation was updated in 2022. All schemes from January 2023 are expected to assess the percentage uplift against Part L Building Regulation 2021. Refer to the GLA guidance and Southwark's validation checklist for further information.

Modelling of compliance and uplift over Part L

For major development, modelling of Part L Building Regulation should be undertaken in line with the latest GLA Energy Assessment Guidance.

For major and major referable development, a TM54 analysis at RIBA Stage 2 (or at least Stage 3) is helpful to be conducted alongside Part L Modelling to better understand and evaluate the operational carbon.

All development

All development must consider the energy hierarchy in reducing carbon emissions onsite. This should be set out in the planning statement, design and access statement or sustainability statement.

There is no requirement for a full energy assessment with an uplift over Part L for minor developments. Applicants are encouraged to carry out this assessment to understand the carbon emission implications of the development.

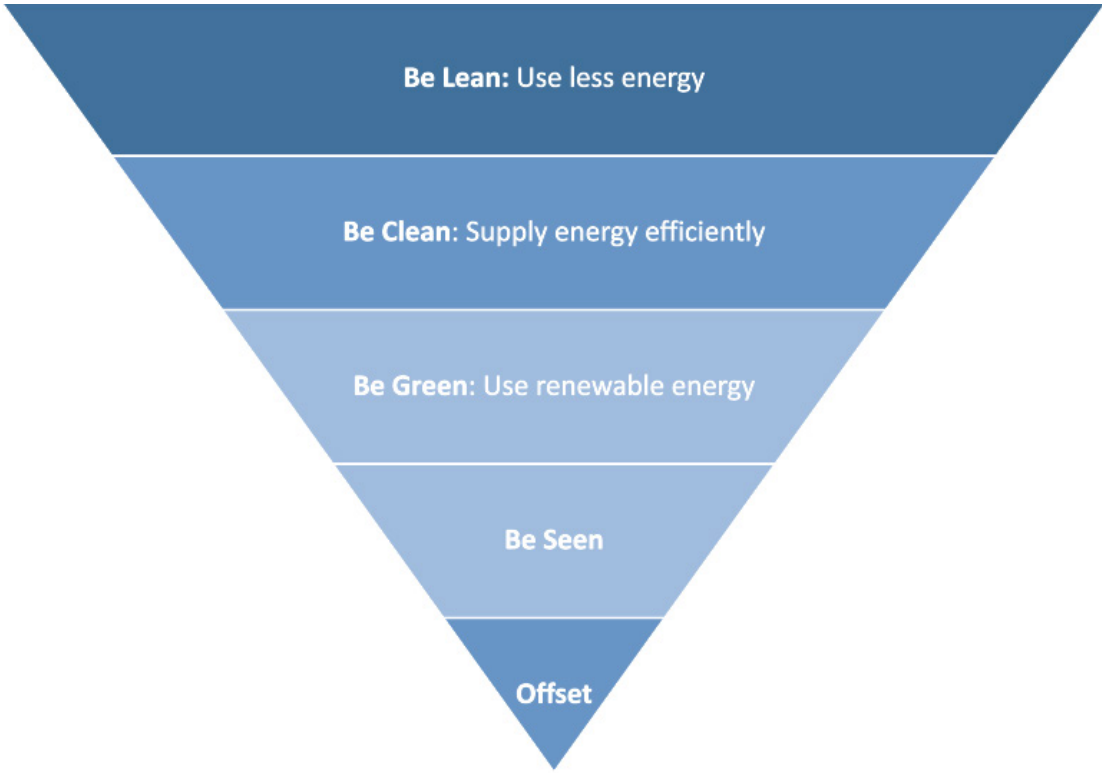

Figure 7: Energy hierarchy for major development

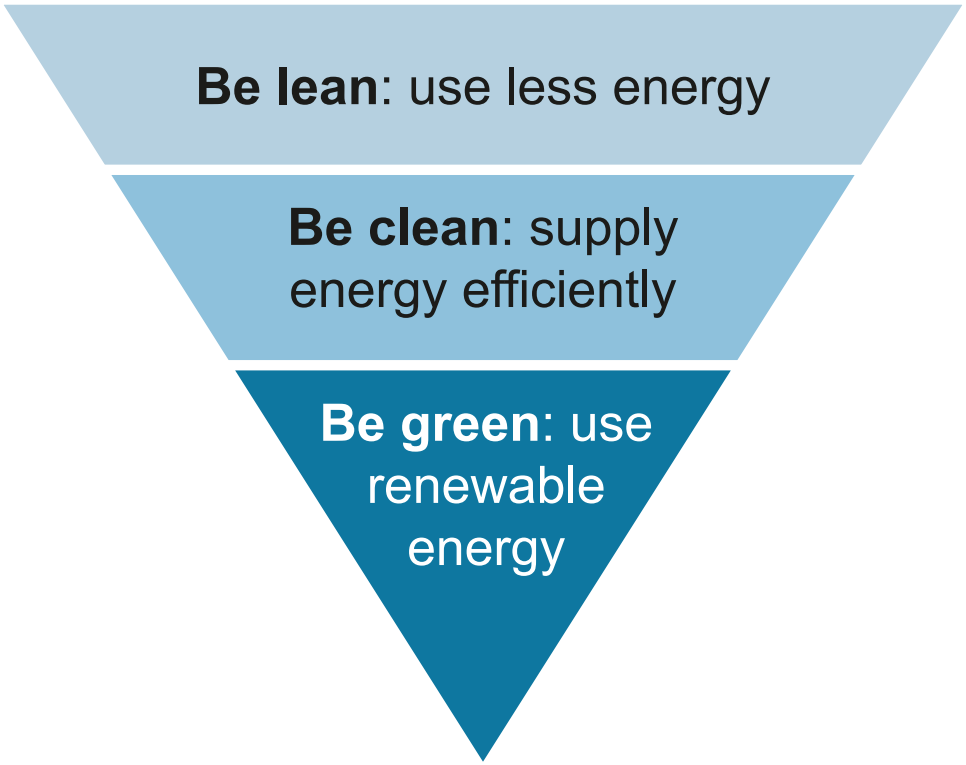

Figure 8: Energy hierarchy for all development

2.4.1 Applying the energy hierarchy

All development must follow the energy hierarchy, as set out in Southwark Plan 2022 policy 'P70 Energy'.

Be Lean – Energy efficient design and construction

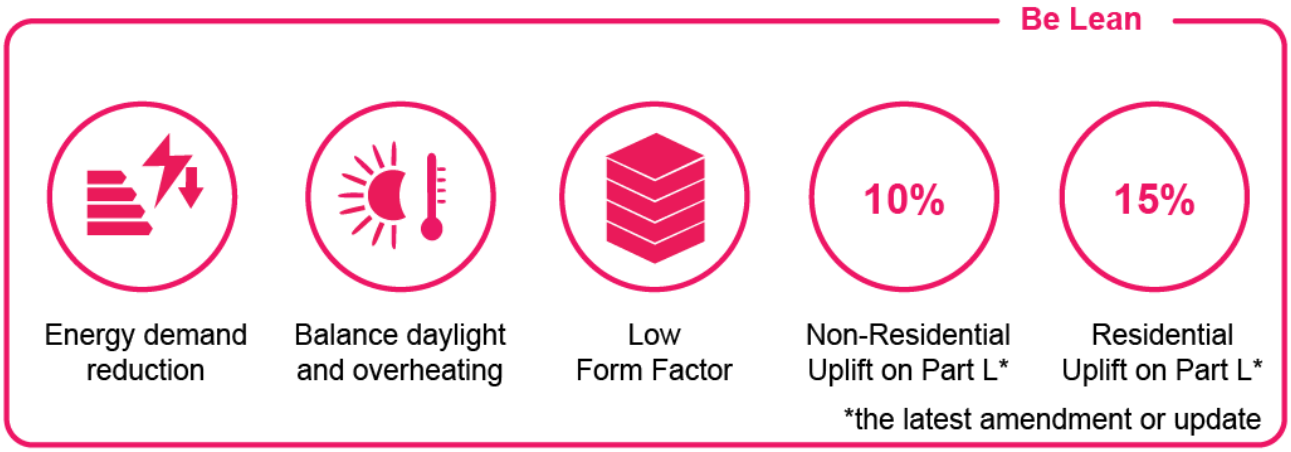

Figure 9: Infographic showing different ways that energy needs can be reduced through energy efficient design and construction; otherwise known as Be Lean.

All development should be designed to reduce energy demand. This encourages a fabric first approach where the building and materials are as efficient as possible.

This can be done by taking the following design actions:

1. Primary energy:

Total energy needed for all domestic applications (heating, hot water and domestic electricity) must not exceed 60 kWh/m2 of living space per year.

2. Reducing energy usage:

For major developments, buildings should be designed to achieve the Energy Use Intensity (EUI) targets set out below:

a) Residential – 35 kWh/m²/year (EUI)

b) Schools – 65 kWh/m²/year (EUI)

c) Office, Hotels, Student Accommodation, and all other non-residential uses – 55 kWh/m²/year (EUI)

3. Space heating demand:

All major developments should be designed to achieve the space heating demand target of 15kWh/m²/year.

4. Thermal Comfort:

a) Avoid complicated building forms that increase the external surface area and the heat loss of the building.

b) Living areas should be comfortable year-round, with no more than 10 percent of the hours each year exceeding 25°C.

c) No thermal bridging

d) Triple glazing with Low E coatings

5. Air tightness:

Development should be designed for high levels of air tightness. This includes window and door seals, seals of flue whilst also balancing the need for ventilation in the right places.

6. Insulation:

a) Allow for a thickness of insulation material that can achieve a conductivity of 0.04 W/m/K with additional space for structure and finishes

b) Ensure the whole structure has been included in u-value calculations for air tightness so that the insulation is fit for purpose to achieve an airtight finish.

c) In new buildings, walls built with cavities and insulation are effective at insulating homes[1].

d) Floors should be well insulated with thick polystyrene or polyurethane insulation.

e) All buildings should be designed for a maximum ~10 W/m² peak heat loss (including ventilation).

1 A wall U-value of 0.26 W m^{-2} K^{-1} is currently (2022) suggested by the UK Building Regulations.

Best practice for U-Values	
Typology	Suggested Fabric U-values (W/m^2.K)
Small scale housing (terraced or semi-detached houses)	Walls 0.13 - 0.15 Floors 0.08 - 0.10 Roof 0.10 - 0.12 Exposed ceilings/floors 0.13 - 0.18 Windows (0.80 triple glazing) Doors 1.00
Large scale housing (four floors and above)	Walls 0.13 - 0.15 Floors 0.08 - 0.10 Roof 0.10 - 0.12 Exposed ceilings/floors 0.13 - 0.18 Windows (0.10 triple glazing) Doors 1.00
Schools	Walls 0.13 - 0.15 Floors 0.09 - 0.12 Roof 0.10 - 0.12 Windows (0.10 triple glazing) Doors 1.2
Schools	Walls 0.12 - 0.15 Floors 0.10 - 0.12 Roof 0.10 - 0.12 Windows (0.12 double glazing) Doors 1.2

Source: LETI Climate Emergency Design Guide

Be Clean – Low carbon energy supply

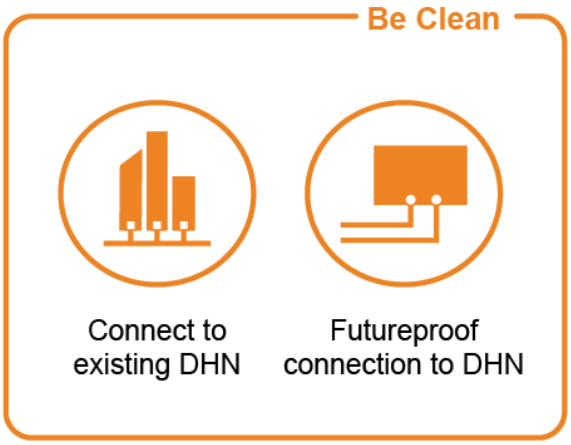

Figure 10: Infographic showing different ways that low carbon energy supplies can be implemented;

Major development

Major developments must follow the decentralised energy hierarchy when deciding on a heat source, as set out in Southwark Plan 2022 policy 'P70 Energy'.

The hierarchy sets out the prioritisation of heat sources for major development:

1. Connect to a District Heat Network (DHN).

2. Explore connection to planned DHN.

3. Futureproof a connection to a DHN.

4. Use heat pumps (ground source, air source, water source); or

5. Use a hybrid system (gas connection with heat pump); or

6. Use electric boilers or instantaneous systems for low energy demands (e.g. domestic hot water); or

7. Create own localised DHN or implement a site-wide low carbon communal heating system; or

8. Explore and evaluate the potential to oversize the communal heating system for connection

The hierarchy is in accordance with the GLA Energy Assessment Guidance, which contains further information.

Applicants must provide a whole life cost analysis if future connection to a DHN is seen to be uneconomic for end users. This analysis should compare the communal and proposed systems. Larger schemes may choose to opt for alternative heating sources such as energy clusters or batteries.

Fact Box: London Heat Map

Use the London Heat Map to determine if there are feasible connections to an existing or planned DHN.

The map covers:

- Heat demand estimates for each building
- Locations of potential heat supply sites
- Locations of existing and proposed DHNs
- A user-friendly visual tool for heat network design and scenario planning
- Extent of London Heat Network Priority Area

Connecting to an existing heat network

A development must connect to a District Heat Network (DHN) where possible. Connecting to an existing DHN will form part of the 'Be Clean' percentage reduction against Part L Building Regulation. The DHN must not exceed the CO_2 emission and primary energy factors set out in Part L 2021. The DHN must also be low carbon.

The applicant must provide confirmation that the network operator has capacity to serve the development, or that the network operator is willing to expand the capacity of the network to support it. This must be set out in the energy statement alongside timescales for connection.

Any additional impact on air quality from an increase in DHN capacity or usage should be considered.

Connecting to a planned or future heat network

If a scheme cannot connect to an existing heat network, it must utilise other low carbon heat sources.

A scheme must futureproof a connection to a DHN if it is within the London Heat Network Priority Area. The connection should not be included in the 'Be Clean' calculations as it is only futureproofed. Futureproofing ensures that developments are adaptable and take account of expected future changes.

Futureproofing a development for connection to a DHN requires:

- A single energy centre supplying the site, where all energy generating equipment is located. This could be a communal system with a single point of connection, served by a single energy centre for the entire site which connects all buildings. This will help to facilitate future connection to an area wide DHN and can be less costly than retrofitting the site for connection at a later stage.
- The energy centre to have capacity for connection to an area wide DHN.
- Sufficient space for specified equipment and any additional equipment that may need to be installed in the future.

Phased developments

Developments that will be delivered in phases should seek to create one energy centre large enough for the entire site. An energy assessment providing a simple schematic of the communal heat network and all development uses connected into it must be provided. This should also include the location of the energy centre.

Where the applicant can provide evidence that a single energy centre is not possible, they must seek to reduce the number of centres. They must also explain how the network will evolve across the development's phasing programme.

Be Green – on site renewable energy generation and storage

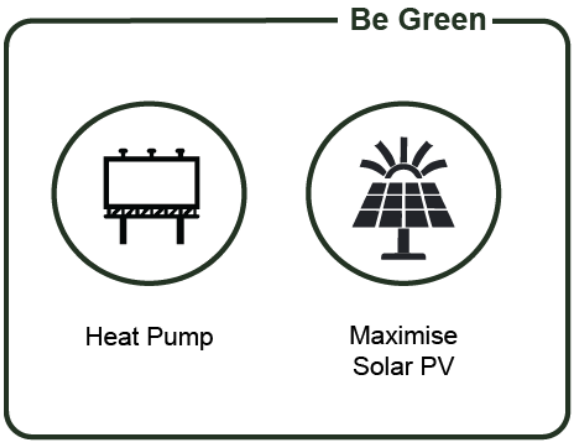

Figure 11: Infographic showing different ways that on site renewable energy generation and storage can be implemented

Major development

All major development must assess options for the use of renewable energy generation onsite. This needs to show how opportunities to produce, store and use renewable energy on-site have been maximised. This should be set out in the energy assessment.

All development

Photovoltaic panels (PV)

All development must consider how to optimise the electricity generation of PVs.

This includes a consideration of:

- Angle
- Orientation
- Roof placement
- Overshadowing (due to existing/future buildings, trees or structures)

South-facing and flat roofs are the most beneficial for solar photovoltaics, or whichever design is most suitable to maximise renewable energy generation.

The GLA Energy Assessment Guidance includes further information in relation to assessing PVs.

Best practice for PVs				
All development	Minor development	Major (Residential)	Major (Offices)	Major (all other non-residential)
Consider the embodied carbon in PV. For example, how far the PV has been transported, or considering alternatives to PV such as PV tiles etc.	Maximise renewables so that 100% of annual energy requirement is generated on-site.	Maximise renewables so that 70% of the roof is covered with PV.	Maximise renewables to generate the annual energy requirement for at least two floors of the development on-site.	All major development proposals to maximise on-site renewable energy generation.

Low carbon heat

The following design actions should be taken.

Residential Development

- Reduce heating and hot water peak demand
- Active demand response measures
- Install heating set point control and thermal storage
- Electricity generation and storage
  - Consider battery storage
- Electric vehicle (EV) charging
  - Electric vehicles turn down
- Behaviour change
  - Incentives to reduce power consumption and peak grid constraints

Non-Residential Development

- Peak reduction demand
- Reduce heating and hot water peak energy demand
- Active demand response measures
- Install heating and cooling set point control
- Reduce lighting, ventilation and small power energy consumption
- Electricity generation and storage
  - Conside battery storage
- Electric vehicle (EV) charging
  - Electric vehicle turn down
  - Reverse charging EV technology
- Behaviour change
  - Incentives to reduce power consumption and peak grid constraints.
  - Encourage responsible occupancy

Best practice for low carbon heat		
All Development	Minor Development	Major Development
• Gas boilers should be replaced with heat pumps, or a connection to a low carbon network • No new gas boilers • No fossil fuels onsite	• Connection to a communal heat source depending on feasibility. The heat source should be low carbon	• Encouraging 'energy clusters' on major or strategic schemes. This is where multiple renewable sources (e.g. DHN connection and PV and a battery) are used • Limit the dependency on fossil fuels for heat generation for peak demand

Best practice for heat pumps

All development

Utilise a heat pump for low carbon heat, after improving the energy efficiency and fabric efficiency using the energy hierarchy.

Heat pump enclosures and acoustic screening can be used to reduce the noise generated from heat pumps. Heat pumps should not increase background noise above 10dB. A noise impact assessment should be undertaken to assess the need for enclosures and acoustic screening.

Major development

Where heat pumps are proposed, a high specification of energy efficiency will be expected to ensure the system operates efficiently and reduces peak electricity demand. This applies to any type of heat pump proposal including air source heat pumps (ASHPs), ground source heat pumps (GSHPs), water source heat pumps (WSHPs) or hybrid and ambient loop types of systems.

For full details on the require information in an Energy Assessments for Heat Pumps, refer to the GLA Energy Assessment Guidance.

2.4.2 Monitoring - Major Applications

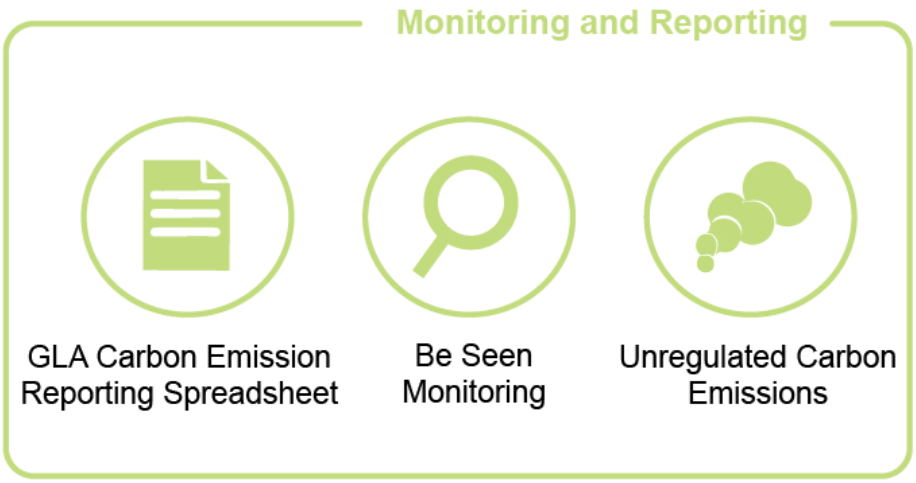

Figure 12: Infographic showing different ways through which operational energy performance is monitored;

The Energy and Environment Pro-Forma submitted at planning stage will ensure consistent data collection, monitoring and reporting.

Along with the Energy and Environment Pro-Forma, major development will need to provide the GLA Carbon Emission Reporting Spreadsheet.

See the S106 & CIL SPD and validation checklist for full monitoring requirements.

Post completion monitoring Be Seen

The requirement for post completion monitoring is secured by S106 agreement. Information must be submitted to the GLA Be Seen Portal. Refer to the S106 SPD for further information.

This monitoring process from planning stage to post completion and in-use stage ensures that the gap between what is consented and what is built is monitored and mitigated against. This is called the Performance Gap. The Be Seen monitoring requirements address the performance gap.

Unregulated carbon emissions

The Part L Building Regulation compliance and uplift percentage are based on modelling which includes only regulated emissions.

Unregulated CO_2 emissions are those which are produced from unregulated loads within a building. This is typically related to cooking and electrical appliances, as well as other small power. Current Building Regulations do not impose a requirement to report such emissions and instead focus solely on regulated emissions.

The calculation of unregulated carbon emissions should be done as part of the compliance with the 'Be Seen' policy and associated guidance.

The latest GLA Be Seen Monitoring Guidance for major development provides further information on reporting unregulated carbon emissions and energy.

All major development must report the unregulated emissions through EUI targets, alongside regulated carbon emissions. This information should also be provided in the GLA Carbon Emission Spreadsheet at the planning stage.

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2.4.3 Carbon offsetting – Major applications

Developments should be designed to the highest performance standards using the stages outlined in the energy hierarchy.

This is to minimise the carbon emissions which are required to be offset from the development. See the S106 & CIL SPD for more information on how the offset is calculated and used.

2.4.4 Whole Life-Cycle Carbon (WLC)

Whole Life-Cycle Carbon (WLC) includes embodied carbon and operational carbon. The purpose of using WLC carbon is to move towards constructing buildings that generate the lowest carbon emissions over their whole lifespan.

Development is required to consider how upfront embodied carbon in existing buildings onsite can be utilised. Embodied carbon should also be considered in decision-making to reduce operational in-use carbon.

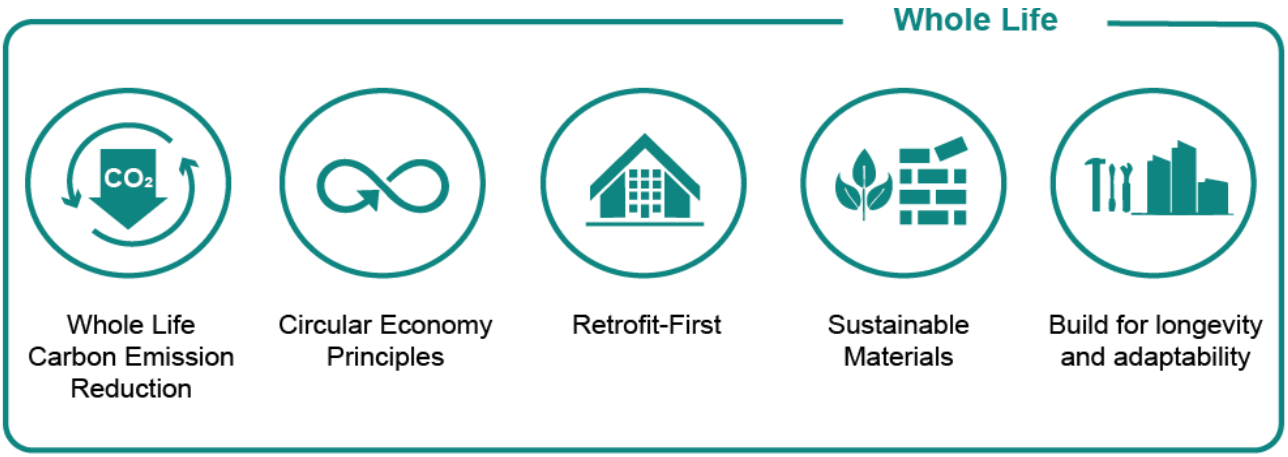

Figure 13: Infograohic showing whole life carbon principles

Major referable

The London Plan states a WLC assessment should be submitted for major referable schemes.

The assessment should be submitted at the following stages:

- Pre-application (where relevant)
- Planning application submission (i.e. RIBA stage 2/3)
- Post-construction (i.e. prior to occupation of the development. Generally, it would not be expected that the assessment would be received three months post-construction)

The template is available on Southwark's validation checklist. Follow the methodology as set out in the GLA WLC Guidance.

WLCAs and Circular Economy Statements are interrelated. It is important to make sure the two documents correlate.

The benchmarks set out in Appendix 2 of the GLA WLCA guidance. Where the benchmarks cannot and have not been met, justification should be set out in the WLC Assessment template spreadsheet.

Selecting a typology to use as a benchmark should be based on the most prominent land use in a development. Where there is not a specific typology for a scheme, the applicant must select the one most similar to their development, i.e. the use of the majority floorspace. Student accommodation schemes should be assessed as residential.

Best practice for Whole Life Carbon			
All Development	Minor Development	Major Development	Major referable
At early design stages, the design should consider: • Retention of structural elements or high impact building layer • Re-use of existing elements • Massing optimisation of new elements • Recycling of existing materials on and offsite • Designing for longevity and flexibility to extend the life of the building	Evidence of WLC consideration at the planning stage in the planning statement or design and access statement	Evidence of WLC consideration at the planning stage in the energy statement.	Development should aim to meet the aspirational benchmarks as set out by the GLA. Applicants are also encouraged to use the LETI 2020 and 2030 embodied carbon targets for upfront carbon modules A1-A2, as well as the RIBA 2030 embodied targets. Design actions could be: • Re-use materials on site, adapt existing buildings and structures. • Assess the embodied carbon implications of operational carbon improvements and reduce the embodied carbon of these measures. • To select low-carbon materials with a long life expectancy. • Minimise operational carbon through a fabric first approach. • Design for flexibility and longevity, considering the future disassembly and reuse of the building site. • Use locally sourced materials. • Utilise efficient and lightweight construction methods.

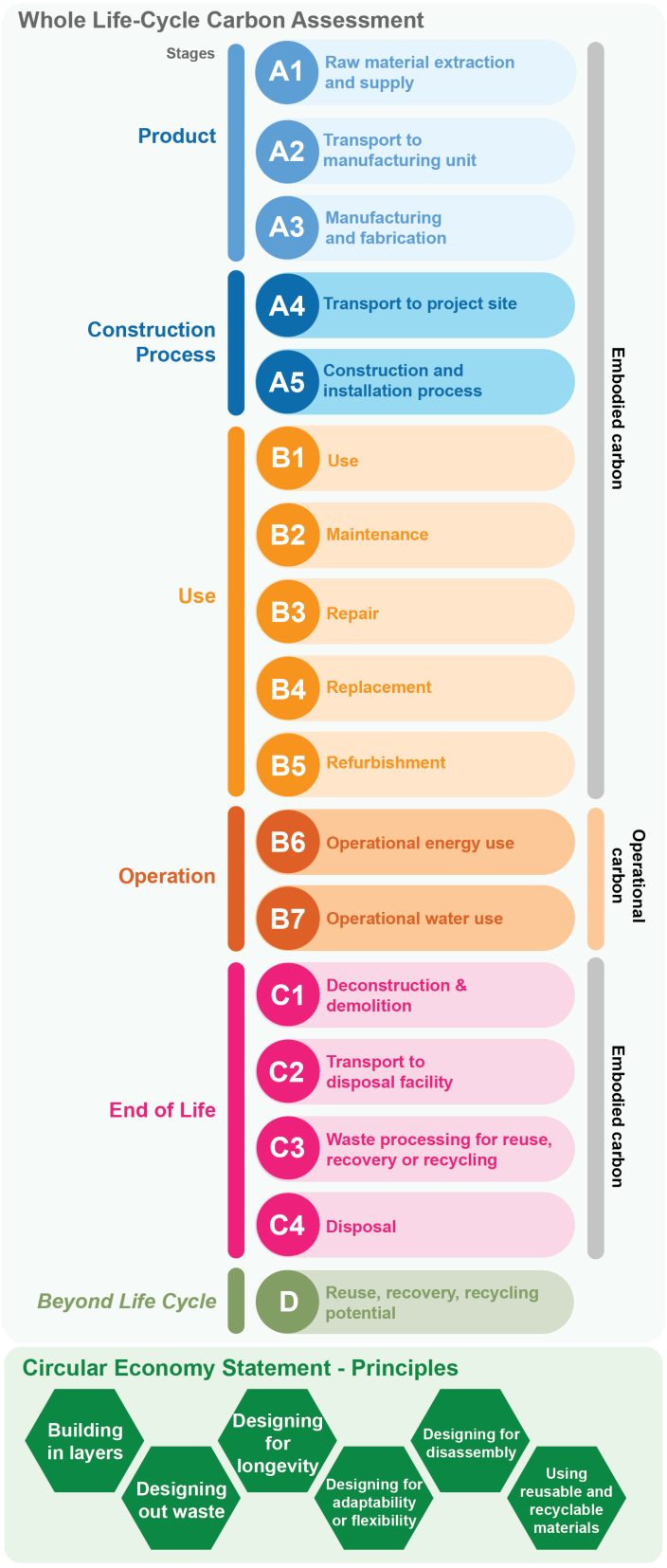

Figure 14: Diagram showing how a whole life cycle carbon assessment (WLCA) is calculated

2.4.5 Circular Economy (CE) statements

Southwark Plan 2022 policy 'P62 Reducing waste' and London Plan 2021 policy 'SI 7 Reducing waste' and supporting the circular economy set out the policy requirements for Circular Economy (CE) Statements.

These statements only apply to major referable planning applications.

Complete the CE Statement in line with GLA Circular Economy Guidance.

Circular Economy Statements are required to be submitted at the following stages:

- pre-application (where relevant)
- planning application submission (both outline and detailed)
- post-construction (i.e. upon commencement of RIBA Stage 6 and prior to the building being handed over. Generally, the assessment would happen no more than three months post-construction). Any changes in design following the submission should be accounted for in the post-construction statement.

The CE Statement consists of a written report and a spreadsheet, with the relevant tab(s) filled in at each stage. Applicants should also submit a written statement to support the spreadsheet. This should provide further explanation, calculation, and supporting evidence. The Project Details section can set out if an application has more than one building and/or circular economy approach.

The Circular Economy Guidance sets out more information on what needs to be submitted at each stage.

Best practice for Circular Economy Statements			
All Development	Major referable	Major referable with clear site	Major referable with existing building onsite
Consider circular economy principles in the demolition, construction and de-construction of buildings by reducing, reusing, and recycling materials.	Utilise CE Statements to assess which approach to retrofitting and refurbishment is appropriate. Maximising opportunities for material reuse and innovative practice. Exceed the targets for recycled materials and diversion of waste from landfill. A pre-demolition audit should be produced at the pre-application stage to inform design decisions around whole life cycle carbon emission reduction and addressing circular economy principles. The best practice CE Statements are 'pioneering'. The GLA Circular Economy Guidance sets out more information on this. For best practice Post Construction Stage Reporting, analysis could be included of structural issues that have to be addressed, and ideas or suggested solutions provided.	Where the site is cleared, the starting point for redevelopment should be to assess what can be reused from the site, materials or elements available on the site. Where it is technically possible and viable to recover these materials, then these materials should be deconstructed and reused. Where these materials cannot be, these should be demolished and recycled.	Where there is an existing building onsite, the starting point for redevelopment should be assessing what can be retained of the existing building. To utilise embodied carbon in the existing buildings, the existing building should be retained and refurbished where it is suited to the new use and requirements, where it is no, the building should be repurposed.

2.4.6 Retrofitting

Southwark Plan 2022 policy 'P70 Energy' and London Plan 2021 Policy 'SI 7 Reducing waste and supporting the circular economy' set out the policy considerations for retrofitting.

The following design actions should be considered when looking at the planning application stage:

All Development	Major Development	Major referable Development
Retrofit should take a fabric first approach. First reducing energy consumption and improving air tightness to improve energy efficiency. The key components of successful retrofit are: • Energy demand reduction • Improved occupant and building health • Long term maintenance plan • Whole Building Retrofit Plan (including lifespan of different building elements) • Measure and report on energy use and heating demand of the building throughout its life • Be innovative in design and approach • Consider WLC emission implications of decisions, especially upfront embodied carbon	• Design should consider embodied carbon emission reduction. • Embodied and operational carbon should be weighed up in decisions. Provide evidence and full justification to show this trade off.	• Use Circular Economy Statements to assess how existing materials onsite can be re-used or recycled. This includes whole buildings and structures. Circular Economy Statements can be helpful in the assessment of demolition instead of retrofitting. • Use the WLCAs to achieve the benchmarks for the most relevant development type. • In line with GLA Guidance, design decisions should assess the embodied and operational carbon. • Balance the embodied carbon cost of design decisions to improve operational carbon savings.

Best practice for retrofitting

A Whole Buildings approach to retrofitting is considered best practice. A Whole Buildings approach should consider the lifespan of each building component and how it can be retained, improved or recycled and re-used to reduce WLC emissions.

A Whole Building Retrofit Plan should include:

1. Set out key building information, constraints, risks, and opportunities.
2. Set out the key works proposed along with related strategies and details.
3. Set out the sequence of work.
4. Be appropriate in the plan's level of detail and intervention for the project.
5. Include a plan for monitoring and reporting energy consumption.
6. The plan should stay with the building and be passed on from owner to owner.

The energy hierarchy can be applied to retrofitting as set out below:

Be Lean	Remove fossil fuel heat sources and replace with low carbon alternatives. For example: Heat Pumps. Install insulation – this may vary in different contexts but some opportunities to install insulation are in: • Solid and cavity wall • Roof/loft • Under floor • Pipework • Glazing for windows and doors • Draught proofing • Living roofs Air tightness should be improved including triple glazing Design for passive ventilation where possible, before mechanical ventilation is considered. Upgrade to lower LED lighting EUI of 50 kWh/m²/yr Space Heating Demand of 50 kWh/m²/yr Hot water demand target of 20 kWh/m²/yr including additional allowance for homes <75m³ (+5 kWh/m²/yr) Reduce the space heating demand and EUI as far as is practicable for the building/situation.
Be Clean	For major development, schemes should still utilise the decentralised energy hierarchy to assess the feasibility of a DHN to supply decentralised low carbon heat. Schemes not able to utilise an existing heat network for connection should still follow the process set out previously to futureproof a connection to the DHN.
Be Green	Development should maximise renewables onsite, aiming for around 40% of roof area covered in PV panels. An integrated green roof with solar panels is considered best practice. For minor schemes, solar battery storage is encouraged, where the renewable energy generation exceeds the energy demand onsite.

CHAPTER 3

MINIMISING FLOOD RISK

3. MINIMISING FLOOD RISK

This section provides guidance on Southwark Plan 2022 policy 'P68 Reducing flood risk'. It also relates to London Plan 2021 policies 'SI 12 Flood risk management' and 'SI 13 Sustainable drainage'.

3.1 Flood risk in Southwark

Planning decisions must consider the current and long-term implications for flood risk. This ensures that the risk to communities is minimised and flood resilience is improved.

Parts of Southwark (mainly in the north) are within the River Thames flood catchment area and within flood zones 2 (medium risk) and 3 (higher risk). The area benefits from tidal defence infrastructure, but a risk of flooding remains.

Part of the borough is also within a Critical Drainage Area. The validation checklist sets out requirements for a Site-Specific Flood Risk Assessment depending on what area the site is within.

Applicants should check Southwark maps to see what flood zone their site is within. These zones are the same as the Environment Agency flood risk zones. Further information can be found in Government guidance.

Certain steps need to be followed when reaching a planning decision on development in areas of higher risk areas. Development should be made safe for its lifetime, without increasing flood risk in other places. Flood risk needs to be managed by suitable adaptation measures and the advice of flood risk management authorities taken into account.

The National Planning Policy Framework (NPPF) explains how some land uses are more vulnerable to flooding than others. More vulnerable uses should be directed to areas of lower flood risk. Uses that are highly vulnerable if a flood occurs include:

- Buildings that will be occupied by the emergency services;
- Basement dwellings;
- Caravans and mobile homes intended for permanent residential use; and
- Installations requiring hazardous substances consent.

If a development site is in a high risk flood area, applicants should submit information on the sequential test and exception test as part of their Site Specific Flood Risk Assessment.

3.2 Site-specific Flood Risk Assessment

Developments that meet any of the following criteria must submit a site-specific flood risk assessment:

- Located in flood zone 2 or 3
- Sites of more than one hectare
- Basement extensions
- Major applications in Critical Drainage Areas for surface water flooding
- Located in flood zone 1 where there is a critical drainage problem as notified by the Environment Agency.

This must be submitted with a planning application. Applicants must show that suitable sites are not available in an area with a lower risk of flooding ie, that the development meets the Sequential Test. If the Exception Test applies, applicants should include detail on how the site meets the test.

Applicants must also show that the development will not increase flood risk in the surrounding area. A flood exceedance flow diagram or drawing should be provided to demonstrate this.

3.3 Basement Impact Assessments (BIA)

A Basement Impact Assessment (BIA) will be required as part of your planning application if your application is for a new or extended basement. A BIA will evaluate the direct and indirect implications of the proposed basement. This document must be prepared and self-certified by a qualified chartered engineer or a chartered geologist.

When a BIA is required, this should be specific to the site and the proposed development. The assessment will depend on the scale, location and complexity of the scheme. A screening exercise should be undertaken to determine the level of detail required. The stages of the BIA should include screening, scoping, site investigation and study (as required). It should conclude with the final impact assessment.

The Southwark Basement and Flooding Guide for Developers and the Southwark Developer's Guide to Surface Water Management sets out more information on this, including what should be assessed.

3.4 Sequential test

The sequential test aims to steer new development to areas with the lowest risk of flooding. It is a risk-based approach which takes all sources of flood risk and climate change into account.

Government guidance should be followed. The proposed development site should be compared with other available sites to find out which has the lowest flood risk. If it is not be possible to find comparable development sites in low-risk areas, the sequential test should compare reasonably available sites:

- Within medium risk areas; and
- Then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas

Applicants must submit a Sequential Test if:

- The development is within flood zone 2 or 3
- A Sequential Test has not previously been completed for the development type on the site.

The second point only applies if;

- The proposed development is the same use as that which the site was originally allocated
- There have been no significant changes to the known level of flood risk to the site, now or in the future, which would affect the outcome of the Sequential Test.

3.5 Exception test

The exception test may be required depending on:

- the outcome of the Sequential test
- the the vulnerability of the site and the development. This is assessed using the NPPF Flood Risk Vulnerability Classification and Table 2 of the Flood Risk and Coastal Change Guidance.

For the Exception Test to be passed, the following two points must be met:

- the development would provide wider sustainability benefits to the community that outweigh the flood risk;
- the development will be safe for its lifetime, taking account the vulnerability of its users, without increasing flood risk elsewhere, and that flood risk will be reduced overall.

Things to consider may include the re-use of land as part of a local rengeration scheme, or the provision of affordable housing and social infrastructure.

3.6 Flood Resilient Design

Development will need to be made safe from flooding through the site layout and design of the buildings.

This can be achieved through flood resilient design measures. These include, but are not limited to;

- Locating the most vulnerable on upper levels or in lower risk areas of the site
- Ensuring buildings do not block key flood routes
- Riasing floor levels
- Designing site layout to provide space for water to flow, away from buildings and evacuation routes
- Incorporating high quality sustainable drainage on site, such as rain gardens and attenuation ponds.
- Use of resilient construction materials. Note that these cannot be used as a reason to justify planning approval, but are a measure to increase resilience and recovery in the event of a flood

Less vulnerable uses (such as shops and offices) should be located at ground floor level. Basements should generally be avoided or used for storage, servicing or parking purposes only. Sleeping areas should not be located below the predicted 1 in 200 year flood level.

Best Practice for flood resilient design

Flood resilient design can reduce the damage from water entering a building. This should be factored into developments in addition to flood resistant design. This will limit damage if flood resistant design measures fail. This is important since flood resistance cannot be guaranteed.

3.7 Sustainable Drainage Systems (SuDS)

Sustainable Drainage Systems (SuDS) describes methods which manage surface water drainage in a way that mimics the natural process. SuDS help to slow the flow of water leaving a site by providing attenuation.

SuDS can also provide broader benefits such as providing greenspace for wildlife improving biodiversity. Other benefits include the capture and re-use of site runoff (rainwater harvesting) for irrigation and non-potable uses.

To manage surface water as part of a new development, applicants should follow the guidance below.

All applicants required to provide SUDs must demonstrate:

- Evidence that the drainage hierarchy has been fully considered and appraised.
- Calculations demonstrating that surface water is being discharged from the site at a suitably reduced rate.
- Calculations demonstrating that proposed SuDs features are operational for the design storm events.
- Proof of an allowance for climate change (40%) within design calculationse operational for the design storm events.
- Attenuation volume consideration.
- A maintenance and management regime for proposed SuDS features including Owner.

All Development Minimum Requirements:

- Development should not increase flood risk on or off site and be designed to be safe and resilient to flooding.
- Development should have finished floor levels are set no lower than 300mm above the predicted maximum water level where they are located within an area at risk of flooding.
- Development close to the river should be set back by 10m.
- Development should not increase surface run-off leaving the site (measured in litres per second per hectare) at peak times. This should be controlled so that it is the same for all storms expected in a 1 in 100 year period.
- Development should not increase the area of non-permeable areas.
- Drainage must meet the minimum requirements of Part H of the Building Regulations.
- Drainage should be designed not to flood for the 1 in 30 year return period.

Additional Major Development Minimum Requirements

- Use water-sensitive urban design and SuDS. This should bring surface water runoff down to greenfield runoff rates.
- Show how they have followed the drainage hierarchy as set out in London Plan Policy SI 13 Sustainable drainage and Southwark Plan Policy P68 Reducing Flood Risk.
- Underground attenuation systems or sewer discharge should be a last resort, Infiltration, discharging via a watercourse, and above ground attenuation are preferred.
- An overview of common types of SuDS measures that may be suitable for installation within Southwark is included in Appendix B of the SFRA. 1 Applicants must complete and submit the council's Sustainable drainage systems (SuDS) proforma. This sets out how SuDS will be implemented on the development site.

3. Finished floor levels

Flood risk can be mitigated by ensuring habitable floor levels are raised above the maximum flood water level.

Floor levels should be raised by the following recommended amounts, as a minimum:
In areas at fluvial flood risk:

- 300 mm above the 1% AEP event plus climate change water level;

In areas at risk of tidal flooding due to breach in the Thames Tidal Defence:

- 300 mm aabove the maximum water level caused by a defence breach, including consideration of climate change

This is in line with Southwark's Strategic Flood Risk Assessment (SFRA) section 5.2.6, Surface Water Management Plan and Flood Risk Management Strategy.

Flood resistance and resilience measures should be adopted where this is not achievable or flood depths of above 600 mm are anticipated. These measures should mitigate the potential damage to property in case of flooding. Measures will depend on the estimated flood depth and type of development. Further guidance can be found from the Environment Agency.

Best Practice for SuDs

If designed well, SuDS can have multiple benefits for a development. This includes helping to achieve Biodiversity Net Gain (BNG) and enhancing site design and landscape character.

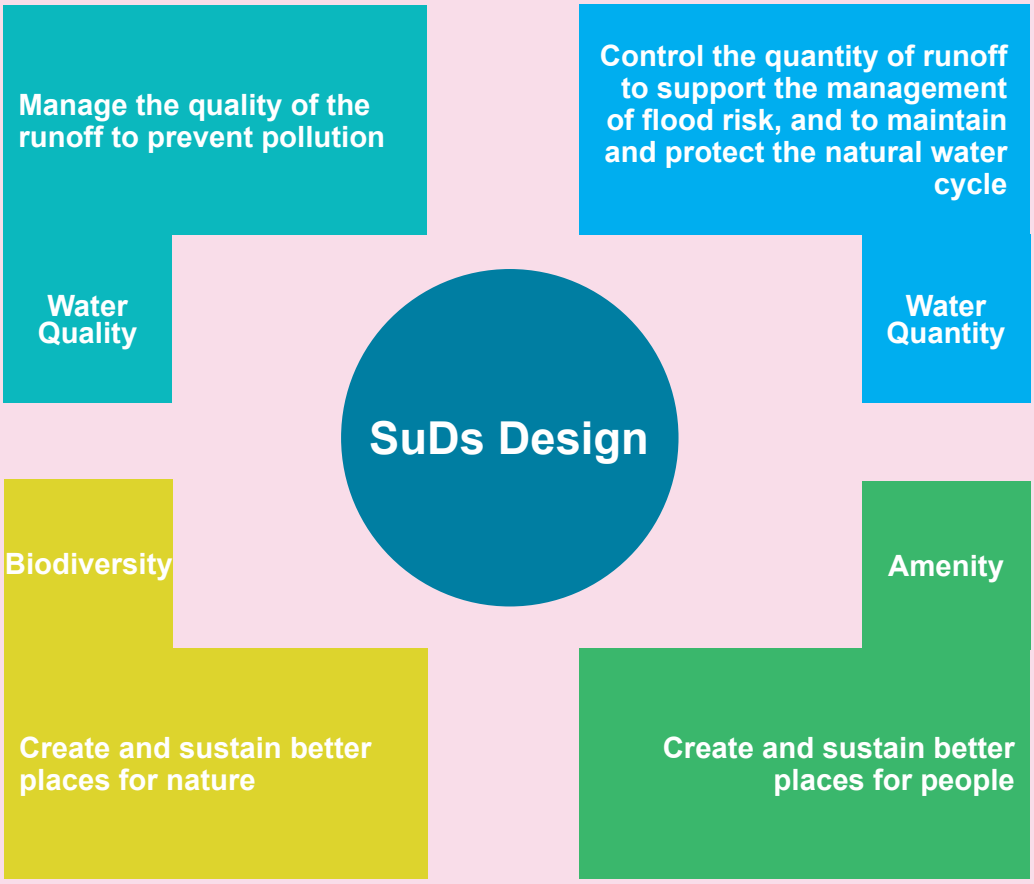

Figure 15: Diagram showing the benefits of Sustainable drainage systems (SuDS) (Source: CIRIA SuDS Manual)

CHAPTER 4

AIR QUALITY & ENVIRONMENTAL PROTECTION

4. AIR QUALITY & ENVIRONMENTAL PROTECTION

This section provides more detail on how Southwark Plan 2022 policies will be applied. These include 'P65 Improving air quality', 'P66 Noise pollution and soundscapes', 'P65 Protection of amenity', and 'P64 Contaminated land and hazardous substances'. It also relates to the London Plan 2021 policies 'SI 1 Improving air quality' and 'SI 2 Minimising greenhouse gas emissions'.

4.1 Air quality

Southwark Plan policy 'P65 Improving air quality' and London Plan policy 'SI 1 Improving air quality' set out the policy requirements for improving air quality.

There are various sources of air pollution in Southwark. The main sources are road transport, gas boilers, commercial cooking, and construction. Air Quality will need to be considered when designing developments, especially if using natural ventilation.

All of Southwark has been designated an Air Quality Management Area (AQMA). This is because there are widespread areas of the Borough which exceeds the national Air Quality Objectives for NO_2 and PM_{10}. The GLA also identify Air Quality Focus Areas (AQFA) that exceed the EU annual mean limit value for NO_2 and have high human exposure.

There are a series of Air Quality Focus Areas in Southwark and on the borough boundary. These can be seen in the Southwark Air Quality Action Plan and Technical Guidance on Air Quality. These can also be viewed on Southwark Maps.

4.1.1 Air quality neutral

All developments are required to be air quality neutral in line with part (B) of London Plan 'Policy SI 1 Improving air quality'. The Air Quality Neutral London Plan Guidance provides advice on how to show that a development is air quality neutral.

4.1.2 Air quality assessments - Major applications

Major applications also need to submit an air quality assessment. The council's validation checklist sets out what applicants need to submit. The air quality assessment includes the following sequential steps:

1. Preventing exposure. This can be done by eliminating, isolating or replacing sources and activities with alternatives.

2. Reducing and minimising exposure through mitigation.

3. Offsetting a new development's air quality impact. Applicants can do this by contributing to air quality improvements elsewhere in Southwark.

4.1.3 Air quality positive - Major referable development

Applications for major referable development must include an Air Quality Positive Statement. This should form part of the Environmental Impact Assessment (EIA).

More information can be found in the Air Quality Positive London Plan Guidance.

Best practice for air quality

The following measures can help minimise emissions or mitigate against them:

- Suitable form, layout and orientation can increase dispersion of pollution.

- Good ventilation
  - » This should consider ambient air pollution and humidity. For example, locate air intakes away from sources of poor air quality.

- If there is a new combustion plant, consider the flue location and discharge velocity at planning stage.

- Road traffic emissions are the main source of severe air pollution in London.
  - » Development can help tackle this by prioritising walking, cycling and public transport. See the sustainable transport chapter for more information.

4.2 Light pollution

Artificial light provides valuable benefits to society. These include extending opportunities for sport and recreation and improving the sense of safety. Yet, it has the potential to become 'light pollution'.

This is where excessive light spill is harmful to wildlife or a source of annoyance to people.

Lighting assessment

A lighting assessment will be required for all development proposing external lighting. It will also be required for applications involving works to areas of public access.

A lighting assessment should consider and include the following:

- layout plan with beam orientation
- schedule of the equipment in the design
- hours of operation
- light levels and spillage
- Impact on biodiversity
- Illuminance contours (with properties surrounding the development)
- The size of the lights/light fittings
- for projecting signs - mark the distance from the edge of the sign to the kerb edge

All exterior lighting should be designed to prevent obtrusive light from affecting any sensitive receptor.

External lighting must:

- Be in line with the Institute of Lighting Professional (ILP) Zone Standards;
- Be designed to minimise glare and light spill;
- Avoid conflict with traffic lighting, road and/or river users;
- Consider priority habitat designations;
- Use illumination levels that are no more than required for the purpose;
- Be energy efficient;
- Be visually unobtrusive, using discrete fittings and cabling; and
- Be appropriate to the character of the area in design and intensity.

Facilities with floodlights or significant external lighting may be subject to planning conditions. These conditions may restrict the times of lighting operation. The existing character of an area may influence what level of lighting it is acceptable.

Development sites on or next to a Site of Importance for Nature Conservation (SINC) are especially sensitive. In these cases, applicants should provide a lighting strategy to show how the impact of lighting on biodiversity has been mitigated. Refer to the chapter 5 for more detail.

4.3 Odour

Development must avoid creating odours that harm amenity. This is most often a consideration for restaurants and hot food takeaways. It also applies to some manufacturing processes and waste treatment or transfer sites.

Where development and land use create unwanted odours, these must be mitigated against.

4.3.1 Extraction system details

Restaurants and hot food takeaways must have suitable extraction systems. Applicants should submit details of this as part of the planning application.

This should include:

- Floor plans showing ductwork locations, kitchen layout and surrounding uses;
- Elevations showing ductwork and discharge points;
- Section plans showing cooking arrangement and extraction hood;
- Full technical specification of extraction system including fans, odour abatement and noise control;
- System maintenance requirements.

All kitchen extraction systems should include a suitable odour abatement plant. This should include more than cleanable coarse and fine filters. For example, carbon filters, electrostatic precipitation and UV/ozone treatment.

Developers may need to demonstrate that suitable duct space has been provided through the building to the roof level to accommodate the proposed or any future extraction flue. Flue outlets should also be at high level.

In some cases, a condition may be applied to planning permission. This may relate to maintenance of the extraction system or involve keeping records showing compliance.

4.3.2 Odour assessment

Applications for some other types of commercial sites may also be likely to harm amenity. In these cases, an odour assessment should be submitted as part of the application. This should include odour dispersion modelling.

4.4 Noise and vibration

Developments must use good acoustic design to achieve internal sound standards. Developments should not rely on insulation of the building envelope alone.

Southwark applies the Agent of Change principle to manage noise impact. This requires the person initiating a change to mitigate against the impacts on new and existing users from the change.

4.4.1 Noise impact assessment

For major developments that will generate noise, applicants must submit a noise impact assessment. This also applies to major developments that are likely to be affected by an existing source of noise.

A noise impact assessment must be prepared by a qualified acoustician.

It should detail:

- Noise exposure categories;
- Associated impact and mitigation measures;
- Layout, design and insulation;
- Information and plans about all plant equipment;
- Comprehensive measurement of examples of the noise source from existing sites operating elsewhere;
- Comparison and verification of measured data against existing data sources where possible. For example, from scientific literature or international standards;
- Assessment of the existing background level at the receptor location;
- Calculation of the predicted specific noise level at different locations. These include the façade, gardens and amenity areas of sensitive receptors. This should be based on relevant obtained data;
- Comparison of noise levels to relevant general standards. For example, WHO standards and BS8233:2014;
- Full consideration of the impact of LAF max noise. For example from door slams, ball strikes, shouts or whistles;
- Consideration of the character of the noise. This should include whether it may exacerbate the impact on amenity

The council's Environmental Protection technical guidance for noise sets out further detail.

4.4.2 Noise management plan

In some cases, ongoing noise management and control will be particularly important. In these cases, a noise management plan will be required for major development.

Best practice for noise

Good acoustic building design

Buildings should be designed to mitigate noise impacts. This includes building layout and location or noise sensitive uses. This is more effective than measures based on the materiality of the building.

Design outcomes that can minimise these impacts include:

- Location of buildings on the site to minimise noise exposure. This includes maximising separation of noise sources and sensitive receptors. It also involves the use of buildings or topography to screen noise.
- Layout of habitable rooms within buildings to reduce exposure to more noise-sensitive rooms.
- Ensuring dwellings exposed to high noise levels are dual aspect. This will provide each unit with access to a relatively quiet façade when possible.
- Access to relatively quiet external amenity space
- Measures to reduce noise at source and\or on the transmission path where possible.

Noise Mitigation Measures

Sometimes the building design and layout are unable to completely mitigate noise impacts. In these cases, materials and other detailed design measures include:

- Relocation of plant or noise-generating activity.
- Substitution for alternative or quieter plant or processes.
- Reduction in source noise levels via engineering methods. For example, lower-noise fans, flow smoothing on duct bends etc.
- Change in working practices or processes to reduce noise. For example, changing times of operation, reducing fan\jet power).
- Use of duct attenuators; acoustic barriers and acoustic absorption.
- Vibration isolation and/or damping.
- Enclosure of plant in insulating enclosures.
- Insulation of building envelopes.
- Enclosure of plant in insulating enclosures.
- Insulation of building envelopes.

4.5 Land contamination

Land contamination is most likely to arise from previous uses. It may also arise from an adjacent site that had industrial activity on it. Southwark's industrial history means that some brownfield sites may be contaminated. This is a material consideration for the purposes of Town and Country Planning. Owners and developers must establish the extent of potentially harmful materials.

Developers should identify the impacts of development at the design stage. This includes temporary, permanent, and cumulative impacts. Developers must assess the potential risks from contamination. This should consider local circumstances and the proposed use. This needs to be submitted as part of a contaminated land assessment.

4.5.1 Contaminated land assessment

If a proposed development is on or near a site that is potentially contaminated, a contaminated land assessment must be carried out. The applicant must also take remediation measures. This also applies to any proposed development with a basement.

A detailed site investigation has multiple purposes;

1. To find out if the building or land are contaminated with dangerous material
2. To assess the contamination that is present.
3. To find out if it could affect human health or the environment.

Where there is a potentially contaminated site the following steps will need to be taken:

- For basement developments, if a site investigation is required it should be in the footprint of the area to be developed. I.e., within the actual area where the basement will be.
- Industrial development applications should include information on expected waste discharges. They should also explain how risks of pollution are being avoided. Where there will be discharges into waterways, a permit from the Environment Agency may be required.

4.6 Demolition plan and construction and environmental management

The impacts of construction and demolition can be detrimental to the environment. There can also be impacts on the health and safety of users of the site and its surroundings. These impacts include air quality, noise, odour, traffic and land contamination,

The council is a Highway Authority. This means it has a statutory obligation to minimise the impact of any works on its highway. This is set out in the Traffic Management Act 2004 (s.16. Network Management Duty). The applicant must demonstrate how they will carry out construction safely using public highways. They must explain how they will minimise and control vehicular movements to reduce road danger.

4.6.1 Construction Environment Management Plan (CEMP)

All major development and some minor applications in highly sensitive locations will need to provide a Construction Environment Management Plan (CEMP) post approval. Preparing and negotiating a CEMP early on with the council will streamline development. It will also minimise detrimental impacts to the road network, the community and local businesses.

A CEMP provides a developer with an outline of what activities on public highways are acceptable.

This to ensure that:

- All activities are undertaken safely. This is to minimise the risk to the public as well as to operatives.
- Impacts on road users are minimised and traffic can flow.
- There is no damage to the highway or associated assets.
- The CEMP should show how the impact of the demolition and/or construction process will be managed and mitigated.

This should cover:

- Cumulative impacts in the area. These include noise, vibration, dust and air pollution,congestion and contamination.
- Issues arising because of construction, earthworks and drainage/ sewerage on site

.

- The location may require construction impacts to be mitigated, such as in a busy pedestrian area or close to a major junction.
- Network Management. This includes onsite activity, transport arrangements, monitoring, and community liaison.
- Opportunities for delivery consolidation or careful timing to reduce disruption. The CEMP should set out how this will be monitored.
- The environmental aspects of the scheme such as noise, dust, vibrations and air quality (see required standards below). Monitoring is carried out by the council's Environmental Protection team.

The Technical Guidance for Demolition and Construction sets out acceptable standards in detail.

Best practice for CEMP
The best plans are made with the entire life span of the development in mind. The future building or structure and its environment as well as the building process must be visualised.

Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Application approved and CEMP required via S106 legal agreement	Appoint principal contractor	Undertake community liaison	Submit draft CEMP for council review and pay relevant fees .	CEMP approved and works can commence.	Ongoing monitoring and discussions carried out by council

CHAPTER 5

GREEN INFRASTRUCTURE, BIODIVERSITY & TREES

5. GREEN INFRASTRUCTURE, BIODIVERSITY & TREES

This section provides guidance on Southwark Plan 2022 policies 'P13 Design of Places', 'P58 Open Water Space', 'P59 Green infrastructure', 'P60 Biodiversity' and 'P61 Trees'.

Other policy considerations include:

- The Southwark Nature Action Plan 2020. This contains Habitat Action Plans and measures which developers should take to promote biodiversity.
- The emerging London-wide Local Nature Recovery Strategy (LNRS).
- Mandatory Biodiversity Net Gain, which applies to minor and major developments (with exceptions).
- Designations such as SINCs, open space, Tree Preservation Orders (TPOs) and Priority Habitat.

5.1 Green infrastructure

Green infrastructure is a term used to describe a network of green spaces within an area. When designed well, green infrastructure is multi-functional. It should be an additional enhancement, not just compensation for habitat loss or biodiversity impacts. It should be appropriately maintained to promote longevity. Green infrastructure can provide benefits for nature, the built environment, and physical and mental wellbeing. Its provision should consider the context and character of a place and the priorities and needs of the local community and wildlife, including;

- Cooling and shading, which reduce the urban heat island effect.
- Carbon storage and improved air quality.
- Increasing soil absorption, which helps reduce the risk of flash flooding.
- Enhancing the public realm and the character of a place.
- Recreation, leisure and increased access to nature.
- Opportunities for active travel.
- Pollination of plants by insects.
- Food growing opportunities.
- Habitats for insects, birds and small mammals

5.1.1 Designated open spaces

Southwark's designated open spaces, including Metropolitan Open Land and Borough Open Land, help to deliver these benefits.

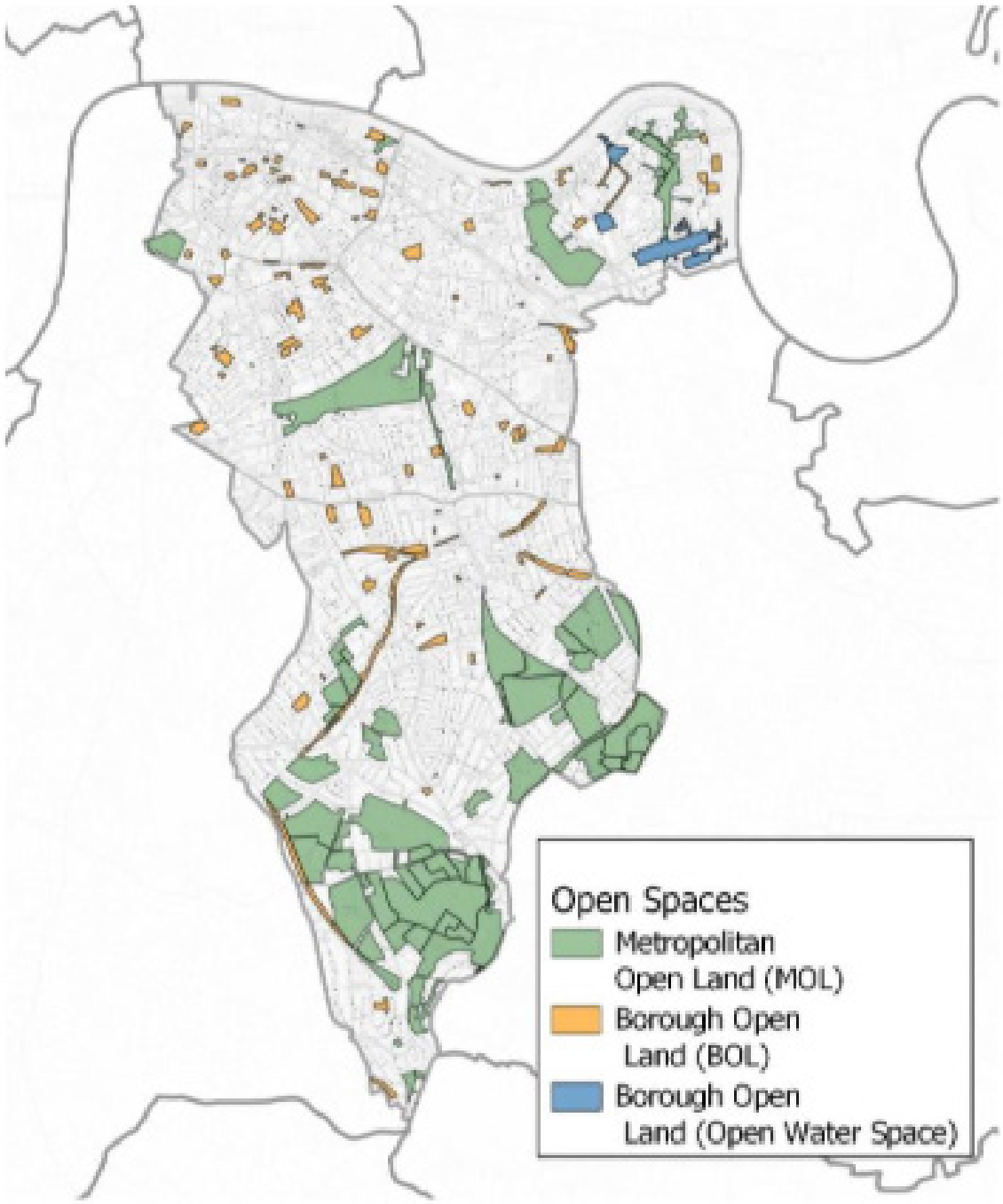

Figure 16: Designated open spaces, including Metropolitan Open Land and Borough Open Land

Best practice for green infrastructure (all development types)

- Developments should include measures which contribute to the green infrastructure of a site and surrounding area. This could include tree planting, rain gardens, pocket parks and biodiverse green roofs and walls.

- Applicants should consider how its provision of green infrastructure responds to the issues and needs of a site and the surrounding area.

- Areas which could benefit from green infrastructure include:
  - » Air Quality Focus Areas (on Southwark Maps Spectrum Spatial (southwark.gov.uk))
  - » Areas susceptible to surface water flooding
  - » Areas deficient in access to open space and nature
  - » Areas in need of improved green links and connectivity to other areas of open space and nature.
  - » Urban heat island hotspots. Refer to the GLA London Climate Risk map for more information.
  - » The position of buffer planting and provision of amenity space.

- Developers should seek opportunities to turn underused areas of hard surfaces into green spaces. For example, planting trees and vegetation using pocket parks or mini woodlands.

- Applicants should consider how tree planting can shade amenity space, play areas and pedestrian routes. This can help mitigate urban heat island effect.

- Applicants should refer to the national green infrastructure standards (Green Infrastructure Standards for England, naturalengland.org.uk).

5.1.2 Sites of Importance for Nature Conservation (SINCs)

Southwark has a network of Sites of Importance for Nature Conservation (SINCs). They contribute to the green connections which link open space and nature to Southwark's communities.

SINCs are designated based on the habitats and species they support and their value for nature conservation. SINCs may also be designated as statutory local nature reserves, or as open land.

They often include;

- Areas of protected Priority Habitat. In Southwark, this includes woodland, open mosaic habitat and ponds.

- Areas of irreplaceable habitats, such as ancient woodland and veteran trees.

Developers should avoid damage and/ or disruption to a SINC. Developers should refer to Southwark Maps to check how close their site is to a SINC and follow the ecological mitigation hierarchy (refer to section 5.2.1).

Proposals should consider the effect of shading and artificial lighting on nearby SINCs and other habitats. Bat Friendly lighting should be used where appropriate, in line with guidance in ILP (GN08/23).

Where negative impact on a SINC is unavoidable, mitigation should be carefully considered from the site design stage. It will only be permitted in exceptional circumstances. It should be discussed with the council at pre-application stage.

Best practice for SINCs (all development types)
• Development should enhance habitat connectivity to a SINC and, where possible, between SINCS and open spaces. • Development next to open spaces should include green buffers of biodiverse planting. The width should be proportionate to the site and aim to create an ecological transition between the land uses on site. • Development should aim to prevent the creation of wildlife barriers which block green corridors and fragment habitat.

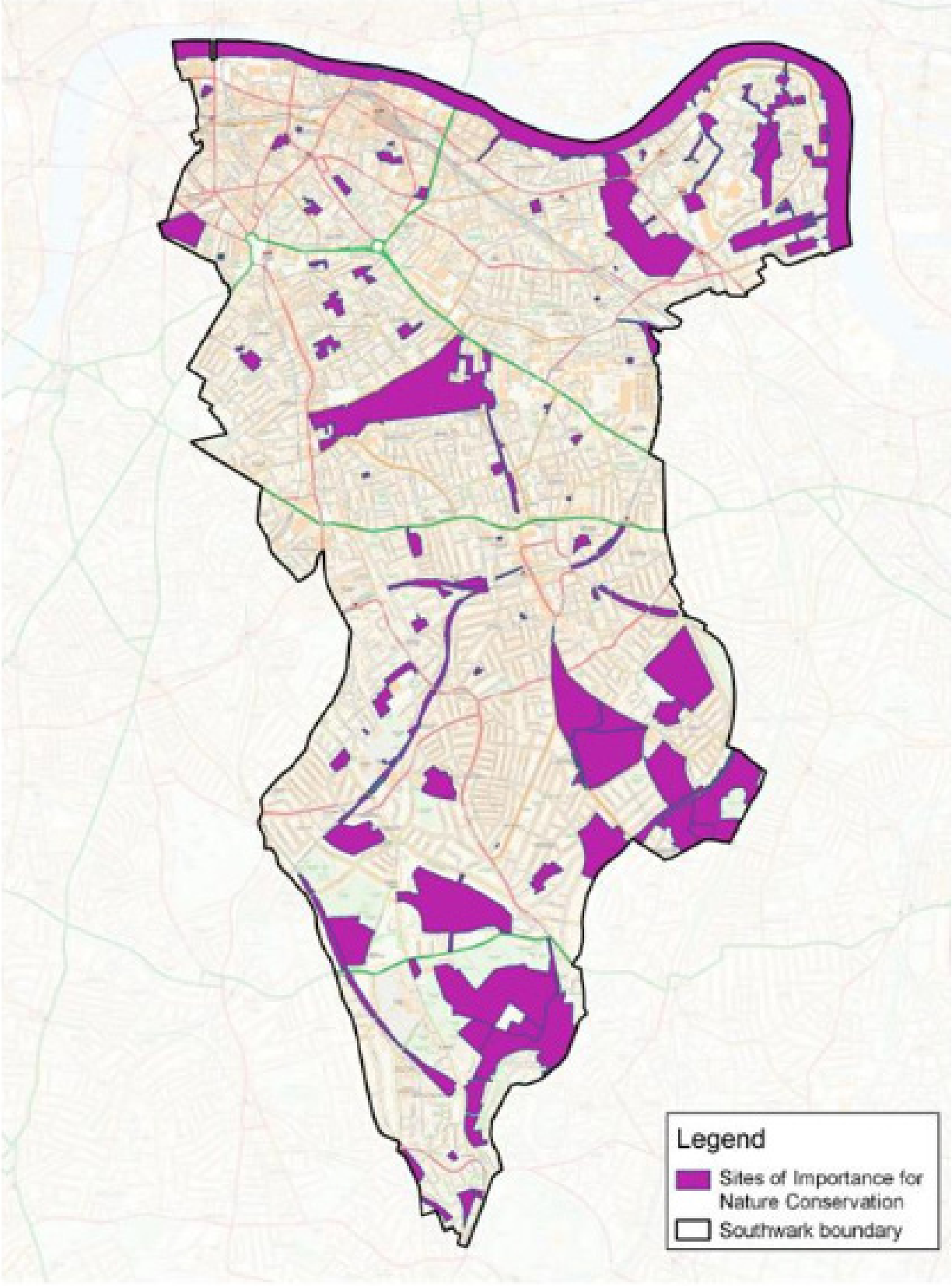

Figure 17: Map of SINCs in Southwark

5.1.3 Urban Greening Factor (UGF) - Major developments

The London Plan's Urban Greening Factor (UGF) policy G5 relates to the benefits provided by different surface and ground coverings. These range from sealed surfaces to landscaping and biodiverse green roofs. Benefits include surface water absorption and increased biodiversity.

All major developments must meet the London Plan's UGF targets. This is particularly important in areas of high density and/or open space deficiency.

- Mainly residential development should score a minimum UGF of 0.4.
- Mainly commercial development (excluding B2 and B8 uses) should score a minimum UGF of 0.3.

Applicants should refer to the council's validation checklist for the UGF planning application requirements. These are separate to the validation requirements for Biodiversity Net Gain.

Best practice for UGF (all development types where relevant)
• Urban Greening Factor (UGF) should be considered alongside Biodiversity Net Gain. UGF surface and ground coverings with a higher rating tend to be more beneficial for biodiversity.
• Trees on roofs should be counted in the UGF calculation as intensive green roof only. They should not be counted again in the tree planting surface category.
• Ground-level trees in planters should not be included in UGF calculations.
• Avoid over-extensive use of mown lawns, where possible.
• Retain or maximise the coverage of shrubs and hedges on site.
• Refer to the Mayor's Urban Greening for Biodiversity Net Gain design guide.
• Refer to national UGF guidance UGF 3.3 User Guide (naturalengland.org.uk).
• Refer to section 5.3 for best practice on wildlife planting

5.1.3 Green roofs and green walls

Green roofs provide a growing medium and drainage system for a range of plants. They can provide thermal efficiency, biodiversity and amenity.

Green roofs can be categorised as follows:

	Extensive Green Roof	Semi-intensive Green Roof	Intensive Gren Roof or vegetation over structure
Planting type	Mosses, herbs, grasses	Grasses, ferns, woody plants and shrubs	Lawns, perennials, shrubs, trees
Maintenance and Use	Low maintenance Visual and Biodiversity.	Maintenance depends on planting	High maintenance Amenity space – roof gardens
Minimum depth of settled substrate	80mm (or 60mm beneath vegetation blanket)		150mm

Developers should provide details of the design, construction and management of green roofs and consider structural loading requirements early on. This includes:

- The depth and specification of the substrate. This should be suitable for shallow and deep-rooted plants. Variable depths can create habitats for a greater range of invertebrates. Pebbles, gravels, sands, branches and logs can offer suitable habitats.
- A roof plan showing the number, size, species and density of the proposed planting. Green roofs will be expected to be laid out in accordance with this plan.
- Drought tolerance of the planting.
- How the roof will be used. Not all green roof types are suitable for amenity sitting out space and will be restricted to maintenance or emergency access only. Incorporating solar PV onto a green roof will also reduce the area available for greening and will require a specific design.
- Maintenance. This includes the frequency of irrigation and who is responsible.
- Confirmation that the green roof will be planted and/ or seeded within the first planting season following practical completion.

Extensive green roofs should not be used as amenity sitting out space and should only be used in the case of essential maintenance, repair or escape in the event of an emergency. Semi-intensive and intensive green roofs can be used for amenity space, but any proposed seating should be situated on hard surfaces and not on the greenery.

Green walls may be either green facades or living walls. Green facades use plants rooted from the ground or planter boxes that climb up trellises. Living walls use modules across the wall. Irrigation and maintenance needs must be considered from the outset.

Fire regulations should be considered when designing a green wall. Dry grasses and oily foliage should be avoided. Built heritage and townscape impacts should also be considered.

Best practice for green roofs and green walls (all development types where relevant)

Biodiverse green roofs should:

- Aim to meet the definition of Open-Mosaic Habitat: a patchwork of varied, habitats with a range of ground conditions (substate, topography, water and nutrient availability, aspect) and vegetation heights.
- Capture rainwater and minimise runoff;
- Use sustainable irrigation, not mains water
- Use minimum 75% wildflower planting and maximum 25% sedum coverage;
- Have varied substrate composition and depth;
- Include invertebrate enhancements such as log and sand piles;
- Be compatible with solar panels (bio-solar roofs) where practical;
- Be considered on structures such as cycle storage and bin stores, where practical.

Green walls should

- Maximise solar gain in winter and provide shading for buildings in summer;
- Include native plants and those listed in the RHS plants for pollinators guide18.
- Be considered on perimeter walls and small structures such as bin and cycle stores

Figure 18: Modular living wall in Elephant and Castle

5.1.4 SuDS and rain gardens

The management of surface water SuDS and rain gardens provide opportunities for enhanced biodiversity, landscaping and amenity features.

Rain gardens provide an opportunity to channel surface water towards root areas and provide low maintenance irrigation. They should have absorbent and free draining soils, although below ground utilities and known archaeology should also be considered. Rain gardens should use plants which are resilient to inundation and trees, shrubs and herbaceous perennials which have a known benefit wildlife.

Best Practice for SuDS and rain gardens (all development types where relevant)
Sustainable drainage systems (SuDS) should: • Be integral to project design; • Provide additional benefits where possible. These may be for ecology, urban cooling, visual quality or amenity; • Consider opportunities to incorporate nature-based SuDS. For example bioswales, rain gardens and rainwater re-use and harvesting. For further guidance please refer to: SuDS in London – a guide (tfl.gov.uk)

5.2 Biodiversity and ecology

5.2.1 Ecological mitigation hierarchy

The ecological mitigation hierarchy (Figure 19) is an established approach to mitigating the ecological impacts of a development.

The steps should always be followed when designing a site, before mandatory Biodiversity Net Gain is applied. This will help limit any negative impacts on biodiversity.

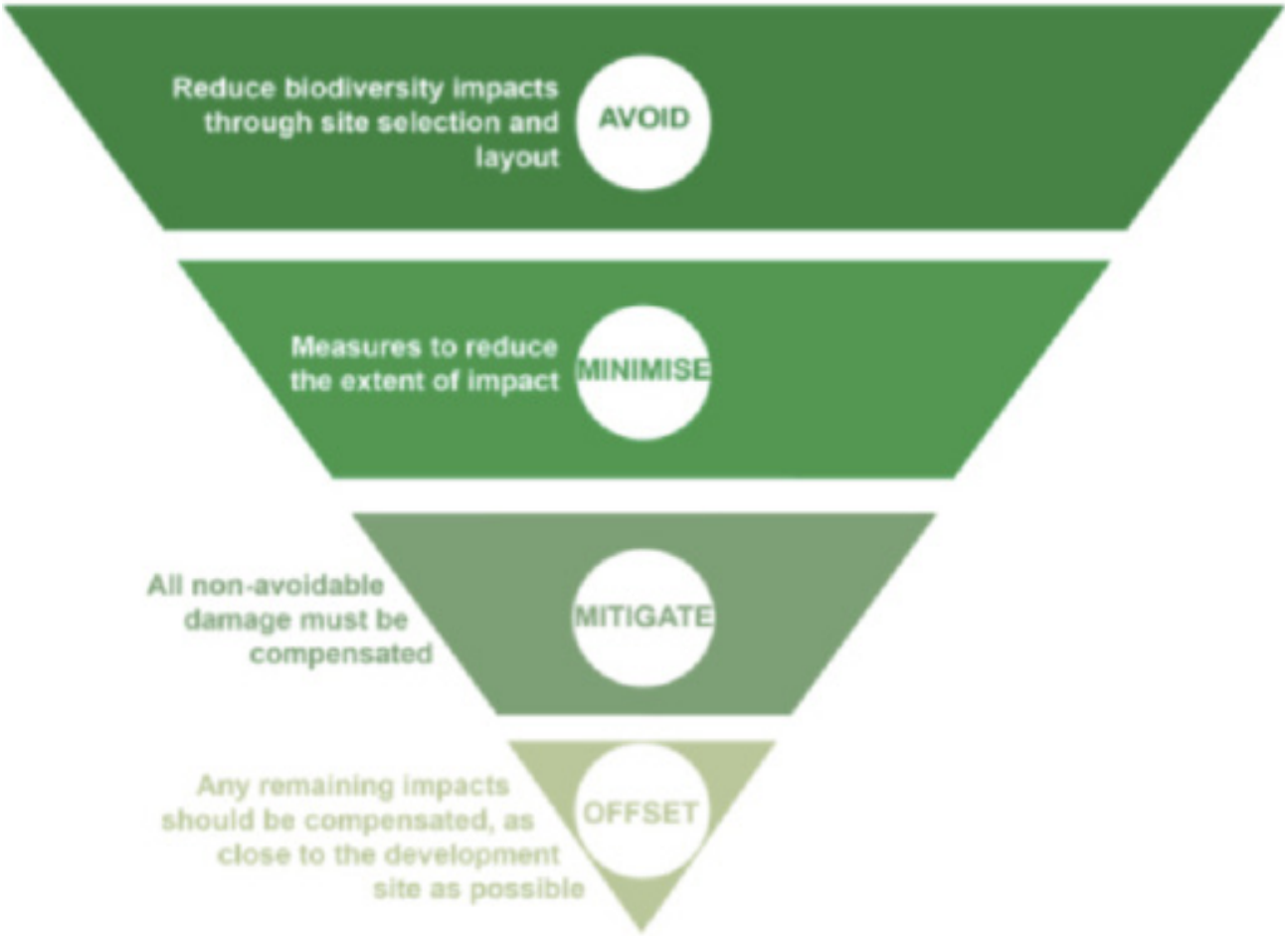

Figure 19: The ecological mitigation hierarchy

5.2.2 Biodiversity Net Gain (BNG)

Biodiversity Net Gain (BNG) is a statutory requirement arising from the Environment Act (2021). It ensures that habitats are left in a measurably better state than they were before the development.

Major and minor developments (with some exceptions) must provide a minimum of 10% Biodiversity Net Gain over the pre-development biodiversity value of the site. This is a legal requirement. BNG does not remove the need for the ecological mitigation hierarchy or other environmental and protected species legislation, guidance and professional codes. Further details are on the Government's biodiversity web pages and the Government's Biodiversity Net Gain Planning Practice Guidance.

Applicants should aim to deliver the greatest biodiversity gain possible, designed and delivered in a way which is appropriate to the site context. Applicants should check whether their site is in or close to a designated open space or a Site of Importance for Nature Conservation (SINC). Consideration should be given to how onsite biodiversity relates to existing habitats or green corridors within the site or beyond the red line boundary.

Any irreplaceable habitats present on a site should be recorded in the Biodiversity Statutory Metric. In Southwark, irreplaceable habitats include ancient woodland and veteran trees. Impacts on the habitats should be avoided. Any impacts flagged will be considered unacceptable and will require discussion with the council. If there are no impacts, the enhancement of irreplaceable habitats can contribute towards a development's BNG.

Impacts on the borough's Priority Habitats, defined by UK Hab data, should be avoided. These habitats include woodland and ponds. Applicants should check Southwark Maps and www.magic.gov.uk for the location of these areas and the habitat type.

BNG should be provided on-site. Where this is not possible, offsite BNG should be provided. This should be as close to the site boundary as possible. A registered offsite BNG provider should be used. Evidence will be required at planning application stage of any offsite BNG units being reserved or purchased. Statutory credits will only be accepted as a last resort. This must be discussed with the planning case officer before an application is submitted.

Habitat interventions need to be realistic and deliverable within the defined project timeframe.

Completing the Statutory Biodiversity Metric

The metric should be used as early as possible in the site design process. It should guide decisions on how to avoid biodiversity loss and maximise gains. A competent individual, such as an Ecologist, should complete it. Competency is aligned with the British Standard 'Process for designing and implementing biodiversity net gain (BS 8683:202)'.

A qualified river condition assessor should be used if a river condition assessment is needed to complete the watercourse part of the metric.

This applies if the site has a watercourse, or any part of the site's red line boundary is within the riparian zone.

Riparian zone widths differ and are considered to be 5 meters from ditches and 10 meters from:

- Priority rivers;
- Other rivers and streams; and
- Canals

If the site boundary crosses into the riparian zone of a watercourse the adjacent lengths of the watercourse should be included within the watercourse module.

Applicants must meet the validation requirements on the Southwark Council website.

Applicants should follow the guidance in the Government's Statutory Metric User Guide. The correct statutory BNG metric should be used depending on the size of the development and whether there are protected species or Priority Habitat onsite, and whether offsite BNG is proposed.

The biodiversity metric Trading rules and Principles must be followed. There are three types of biodiversity units: Habitat units, hedgerow units and watercourse units. Each of these, where present, should be recorded under three separate modules within the metric.

If a small site is proposing offsite BNG or if Irreplaceable Habitat or Priority Habitat is present onsite, the Statutory Metric should be used.

The Biodiversity Gain Plan and completed statutory metric submitted after planning approval must be reflective of site design.

Biodiversity Hierarchy

Government guidance sets out a series of actions which must be followed when meeting BNG. These apply if irreplaceable habitats such as ancient woodland and veteran trees are not present on site.

- Onsite BNG should be prioritised. Adverse effects on onsite habitats which have a medium, high and very high distinctiveness should be avoided. If they cannot be avoided, the effects should be mitigated.
- All onsite habitats adversely affected by the development should have the effects compensated for through the enhancement of existing onsite habitats where possible, followed by the creation of new onsite habitats.
- If BNG cannot be met onsite registered offsite gains can be used.
- Statutory credits should be used as a last resort if onsite and offsite measures are not possible.

Strategic significance

Strategic significance in the BNG metric describes the local significance of a habitat, based on location and habitat type. Strategic significance is set to either high or low and should be recorded in the pre and post-development parts of the metric.

The statutory metric requires applicants to apply a strategic significance score of 1.15 if it is close to areas where sensitive ecology which are mapped. When available, applicants should also refer to London's Local Nature Recovery Strategy (LNRS). Sites close to the LNRS will have a strategic significance score of 1.15.

In the meantime, if a development site and/ or habitat to be created or enhanced is in or adjacent to the following locally ecologically important sites, the strategic significance in the metric should be set to 1.15.

- Local Nature Reserve
- SINC
- Designated open spaces (MOL, BOL)
- Open water
- Sites with a Habitat Action plan listed in the Southwark Nature Action Plan (SNAP)
- Priority Habitat, as defined by Natural England.

The low distinctiveness score should be used where the site area or compensation area is not defined in the local strategies above.

BNG 30-year management and monitoring

Government policy requires that BNG which is considered to be 'significant' is managed and maintained by the developer or landowner for at least 30 years after the completion of the development.

In Southwark, the definition of 'significant' BNG will depend on;

- the size and complexity of the proposed biodiversity habitat
- the pre-development and post-development biodiversity distinctiveness and condition, as defined by the Biodiversity Metric.

Government guidance will be referred to when making this assessment. This includes whether the proposed habitat contains;

- Habitats of medium or higher distinctiveness in the biodiversity metric.
- Habitats of low distinctiveness which create a large number of biodiversity units.
- Habitat creation or enhancement where distinctiveness is increased.
- Areas of habitat creation or enhancement which are significant in area compared to the size of the development.
- Enhancements to habitat condition

Significant BNG will be secured in a S106 agreement. A monitoring fee will be required. The fee will depend on the size and complexity of the proposed BNG.

Development sites with significant BNG will be required to;

- Submit a Habitat Management and Monitoring Plan for approval. This should set out the agreed intervals for habitat condition monitoring reports. This is usually at years 2, 5, 10, 15, 20, 25, 30. This must be submitted after planning approval, and before the commencement of development. This is in addition to the Biodiversity Gain Plan and a final, completed Statutory Metric with pre and post-development plans.

- Submit a GIS shape file polygon of the BNG to be secured. This should include an attribute table of the habitat type defined in the metric.

Best practice for BNG (all development types)

- Consider how biodiversity measures can be multi-functional. They can form part of the site's landscaping and amenity space strategy. They can also form part of nature-based sustainable drainage systems.

- Deliver BNG in a way which is most beneficial to the site. For example, native species should be prioritised in habitat corridors and priority habitat/ ancient woodland.

- Use the council's pre-application service if you need advice.

- Refer to Southwark's Nature Action Plan 2020 for information on biodiversity and protected species in Southwark.

5.3 Trees

Trees are an important feature of the borough's public realm and amenity space. They provide a range of benefits:

- Character and a sense of place
- Screening, cooling and shading benefits
- Filtering traffic noise
- Absorb dust and other pollutants.
- Provide ground, trunk and canopy habitat for a range of birds and invertebrates

Large, mature trees are a landscape, environmental and amenity asset. Development should avoid and mitigate the risk of damage to trees and their root systems during design and construction. Developers should refer to the British Standard BS 5837:2012 for trees.This relates to design, demolition and construction.

An Arboricultural Impact Assessment will be required at planning stage for any proposal affecting trees on or adjacent to the site. Refer to Section 9.2 of the Heritage SPD (2021) for more information

Applicants should refer to best practice set out in the European Tree Planting Standard, Southwark Tree Management Policy and the Southwark Streetscape Design Manual (DS.501). This provides guidance on tree planting and nature-based solutions across a variety of sites and on highways and public footways. Tree planting should allow easy access for future maintenance to underground services. For example, gas and water pipes, and electricity cables. Refer to Street Works UK guidance for further details.

Trees planted as part of a development must be maintained throughout the lifespan of the development, with special attention given to ensure successful establishment. Where possible, trees should be provided at grade, on a level surface and in natural soil. Planters should be avoided.

Tree canopy cover onsite should be increased where possible. This will support the Southwark Climate Change Strategy (2021) goal of reaching 24% canopy cover by 2030.

CAVAT (Capital Asset Value for Amenity Trees (CAVAT)

CAVAT is one of the principal methods of tree valuation in the UK. It recognises the value of large, mature trees are a landscape, environmental and amenity. Presumption is in favour of retention. Only in exceptional circumstances will the council allow appropriate replacement with new trees. Applicants must justify this with evidence. Replacement must not cause a net loss of amenity. This is based on the existing value of the benefits of the tree removed, calculated using CAVAT. Applicants should appropriately mitigate for any loss (NB: We need to omit tree categorisation to avoid down grading by applicants).

Tree specifications

Developers should plant trees that are resilient to the impacts of climate change and appropriate to the site context. Developers should refer to Southwark's latest Species Palette for a list of appropriate trees. Large canopy trees should be planted where possible.

Newly planted trees should have a stem circumference of 12-16cm (measured at 1m above root collar level). This is because trees of this size are more adaptable to planting and establish growth faster than larger tree stock.

Trees must be planted with sufficient soil volume:

	Canopy area	Target Soil Volume
Large (8m plus diameter)	50m² +	30m³
Medium (5m - 8m diameter)	19.6m² +	12m³
Small (3m – 5m diameter)	7.1m² +	5m³

This formula does not apply to columnar habit trees. The soil volume requirements can be calculated for narrow trees by basing the canopy diameter on the natural growth form, which is the widest spread of that species.

Where possible the minimum soil volume should be equivalent to at least two thirds of the projected canopy area of the mature tree and specified to meet the future rooting, nutrient, oxygenation and irrigation requirements. When this is not possible the tree should be planted in the expectation it can exploit the adjacent free-soil environment where this will not impact utilities or built structures (Source: Urban Greening Factor England User Guide Natural England).

Best practice for trees (all development types)

Trees

Where possible, trees should be provided at grade, on a level surface and in natural soil. Planters should be avoided

Soil

Trees need nutrient rich, moist, well aerated and uncompact soil to mature in an urban environment. Degraded soil should be improved or replaced. Soil should be improved by:

- Increasing rootable volume.
- Decompaction.
- Mixing heterogenous, obstructive soil layers.
- Soil amendments (e.g. compost (tea), sand, clay, lava, biochar, limestone – depending on the problem).
- Soil replacement by suitable high -quality planting substrate. This should only take place if it is impossible to sufficiently improve the current soil).
- Tree pits should include a gravel aeration layer and be constructed in a manner which avoids soil compaction.

Trees in Conservation Areas

Development that affects trees in a Conservation Area should consider the landscape setting, as well as the role of the trees in the historic context. This may be particularly important in the Dulwich Wood area. Developers should refer to the Hertiage SPD and relevant Conservation Area appraisal. (Conservation Areas - Southwark Council).

Woodland

Development which is set back from woodland should be planted so that a woodland buffer can develop. This helps provide a gradual transition; as follows:

1. Forest trees such as oak, ash and beech, to
2. Woodland edge trees such as birch, hawthorn, rowan and sallow
3. Woodland edge shrubs such as blackthorn, dogwood, elder, hazel
4. Wayfaring trees, herbaceous vegetation and gardens.

The width for a woodland buffer area is around 15m

5.4 Wildlife habitats

Developers should consider ways to improve the habitats they provide for wildlife. Features such as swift bricks, bird and bat boxes are strongly encouraged and are usually required by planning conditions. Insect hotels, log piles and hedgehog friendly fencing should be considered.

These features cannot be counted in the Biodiversity Net Gain Statutory Metric, but should form part of the site's overall biodiversity strategy.

Developers are encouraged to survey for fauna before undertaking maintenance or development. A Preliminary Ecological Assessment (PEA) will usually be required. Refer to the council's validation checklist for details.

5.4.1 Diverse planting

Planting strategies should go beyond traditional soft landscaping and tree planting. Wildflower meadows, mini woodlands, mixed native hedging, orchards and wildlife ponds should also be considered. It should provide a variety of microclimates for users, such as access to sun, shade and wind shelter.

- Planting strategies should be developed which cater for local wildlife and declining species. Professional advice should be sought where possible.
- Planting should include a high proportion of nectar rich, pollinator-friendly flora and native species, ideally at least 50%.
- Vegetation and planting should be used to stabilise slopes and soils vulnerable to erosion
- Barriers which block the movement of wildlife, such as hedgehogs, should be removed where possible.
- Area created to promote biodiversity should be maintained to a high standard to promote longevity.
- Management plans for the long-term maintenance of habitats for biodiversity should be in place for grounds maintenance.

Best practice for wildlife habitats (all development types)

Swift bricks

- Swift bricks should be installed where possible;
  - » 1 to 4 should be installed on a medium to large house
  - » 4 to 10 on a small block of flats and 10 to 20 on a large site e.g. a school, hospital, warehouse or major residential development.
- Swift bricks should be at least 5 metres above ground, out of direct sunlight or shaded beneath broad eaves.
- Allow a minimum 5m clear drop beneath and in front of the box
- To avoid disturbance, there should be a minimum of 5m without windows or doors under and in front of swift boxes.
- They should not be obstructed by trees, cables, creepers or aerials.

Bird boxes

- Use untreated wood
- Clean out each year in winter, use boiling water.
- Use different size holes to cater for different species.

Bat Boxes

- Use untreated wood and scour the inside back panel so the bats can grip it
- Never clean out or disturb the bat boxes – a licensed bat specialist is required to do this
- Affix boxes facing south or southwest
- Install several around 1 tree as bats like to move about during the seasons
- Avoid installation in illuminated areas.

Best practice for diverse planting (all development types)

Wildflower Meadows

- Seed mixes should include UK native wildflowers and meadow grasses
- Aim to include 50% native species and a minimum of 60% of plants on the RHS 'Perfect for Pollinators' list.
- Position to optimise exposure to the sun
- Meadows can be established with meadow turf (plastic-free) or by sowing seeds. Ground preparation will be required.
- Timed maintenance, including once or twice a year 'cut and collect' regimes will allow plants to seed after flowering and maintain low nutrient levels.
- Signage can be installed to communicate the benefits of 'relaxed' mowing regimes.

Invertebrate habitats or 'insect hotels'

- Build wooden structures with a variety of fillings, including canes, bark, wood, rolled up corrugated cardboard, reeds and stones and secure with mesh.
- Use untreated wood if possible.
- Log piles and dead hedges can be left as habitat for invertebrates.

Loggeries and habitat piles

- Invertebrate habitats provide shelter to insects and foraging habitat for birds and mammals. This includes dead wood and loggeries, valuable habitats for the endangered stag beetle
- Install logs vertically, half buried in soil and secure well
- Use broadleaf hardwood (e.g. oak, beech, sycamore, ash), not conifer wood.
- Site the loggery in a partially shaded site.
- Install log or stone piles close to the pond to provide shelter for amphibians

Hedgehog friendly fencing

- Hedges or open fences allow hedgehogs through without modification.
- A 13 x 13cm hole will allow a hedgehog to pass through, while limiting other animals such as cats or foxes.
- Use gravel boards with precut holes which allow hedgehogs through without affecting strength or security.

5.5 Open water

Development by open water should maximise benefits for water ecologies. Developers should balance this with access and amenity improvements.

New development should be set back from watercourses or open water. This creates a buffer area for environmentally sensitive design and management. Buffer planting should include trees or shrubbery with understorey vegetation. It should complement and enhance the area that it is protecting. Lighting design should minimise light spill onto open water.

Wildlife ponds provide a water source and attract wildlife such as frogs, newts and dragonflies. Ponds with wetland and marginal planting should be included where feasible. Ponds should be dug to provide a range of depths and shallow profiles. Refer to the Wildfowl and Wetland Trust website for a step-by-step guide.

Best practice for open water (all development types)

Wildlife ponds

- Locate the pond away from trees to avoid it filling with leaf fall.
- Try and fill the pond with rainwater. Mains water can result in algal blooms.
- In small ponds, avoid introducing aggressive marginal plants such as flag iris and fish, which eat amphibians.
- Consider fencing the pond or installing a surface grid for safety

CHAPTER 6

MOVEMENT & TRANSPORT

6. MOVEMENT & TRANSPORT

This section provides more detail on applying the Southwark Plan 2022 policies 'P49 Public transport', 'P50 Highways Impacts', 'P51 Walking', 'P52 Low line routes', 'P53 Cycling', 'P54 Car parking' and 'P55 Parking standards for disabled people and the physically impaired'.

It also relates to London Plan 2021 Policy 'T1 Strategic approach to transport', Policy 'T2 Healthy Streets', Policy 'T3 Transport capacity, connectivity and safeguarding', Policy 'T4 Assessing and mitigating transport impacts' and Policy 'T5 Cycling'.

A whole site approach will need to be taken to achieve more sustainable transport outcomes following the hierarchy set out above.

6.1 Walking and wheeling

6.1.1 Designing streets

Streets and footpaths should be designed to be walkable, accessible, safe and inclusive for all. The Southwark Streetscape Design Manual (SSDM) demonstrates how to create streets that can be enjoyed by everyone. This manual should be referred to for any development which interacts with public streets or footpaths.

Streets can be improved for all users by:

- Including clear, logical and inclusive wayfinding signage, maps and local information.
- Using safety measures. This can include the use of lighting, passive surveillance of the street or encouraging street activity.
- Placing safe crossings for pedestrians along key walking routes. The crossings should be straight across the road and located for the benefit of pedestrians. Crossings should also link up with walking routes.
- Submit details of the gradient, length and landing of any ramps and provide spot levels (points which indicate height above sea level) on plans for any area of the site that will have direct access onto the public highway.
- Creating walkways that protect pedestrians from collisions with cyclists. Design pedestrian and cycling paths to be separated by a kerb, different paving or painted line which delineates the mode of travel.

Footpaths can be improved all users by:

- Maintaining a minimum width of 4m from kerb to property on the local road network. This minimum width should be 7m for Old Kent Road.
- An unobstructed path of 2.4m will need to be maintained where there is street furniture in place (such as plantings, cycle parking, or outdoor tables and chairs)
- Using tactile paving so that visually impaired people can detect dropped kerbs with their feet and cane. The inclusive mobility guidance sets out more information on the types of tactile paving that can be used.
- Considering wheelchair user access to the front door of the building from the back edge of the public highway, routes to/from Blue Badge Bays and routes to/from accessible cycling spaces.

Best practice for designing streets

To make streets as accessible and easy to use for all users, it is best practice to use tonal and colour contrast, which can help visually impaired people identify street furniture.

6.2 Cycling

Reducing emissions from private vehicles is an important step towards making the borough carbon neutral by 2030. Many people use cars, or other polluting vehicles, because there are barriers to travelling in a more sustainable way. Storing a bicycle, for example, can often be difficult without a dedicated cycle store.

To encourage more sustainable travel, developments must provide adequate provision of high-quality cycle parking and storage. This needs to be considered at the start of the design process.

6.2.1 Cycle parking requirements

The Southwark Plan 2022 policy 'P53 Cycling' and London Plan policy 2021 'T5 Cycling' set out cycle parking requirements. These requirements will ensure that current and future demand is catered for. The amount of required cycle parking spaces varies depending on the development type. There are also different requirements for visitor and long-stay cycle parking.

Sprawling areas often need higher levels of cycle parking as there can be poor accessibility to public transport. This is to ensure there are good opportunities for sustainable travel in these areas.

To address this, residential development should:

In areas of low Public Transport Accessibility Levels (PTAL) (≤4),

- Meet at least the minimum cycle parking requirements of the London Plan policy T5. This is a higher requirement than the Southwark Plan policy P53.

In areas of higher Public Transport Accessibility Levels (PTAL) (≥5),

- Meet at least the minimum cycle parking requirements of the Southwark Plan policy P53. This is a higher requirement than the London Plan policy T5.

6.2.2 Cycle parking design

Applicants must refer to the latest design standards when designing a cycle store. This may be updated by Transport for London or another relevant transport body.

The council will only accept cycle parking spaces in Sheffield stand or two-tier rack form. This is due to their ease of use. The required amounts of each stand will depend on the type of development and the expected users. Vertical or semi-vertical racks are not considered acceptable. These require lifting of cycles and may therefore be difficult for some to use. They can also cause damage to cycles.

Cycle parking must also be accessible for people with different needs and physical abilities. Many young families for example use cargo bikes as their main mode of transport. Disabled people can also operate various adapted cycles that fit their abilities. Both of these cycles will need larger parking spaces than standard bicycles. This approach is in line with Southwark Plan Strategic Policy ‘SP6 Climate Emergency’, which states that Southwark should be a place where ‘walking, cycling and public transport are the first choice of travel as they are convenient, safe and attractive’.

Further design principals for cycle storage include, but are not limited to:

- Entrance to the cycle storage facility should be easy and separate to any vehicle traffic and located away from delivery bays.
- The entrance should be well overlooked and well lit, particularly at night-time or where the parking is under cover.
- Access should be considered carefully, particularly for those using non-standard cycles, with clear signage from the main entrance of the building.
- Access routes to the storage should be 1.5 wide minimum in any new development.
- Doors on routes to cycle stores must be power assisted.

- Aisles within the storage must be 2m wide with Sheffield stands, and 2.5m wide with two-tier racks.
- It is recommended that external doors are a minimum of 2 metres wide.

Small schemes and conversions may not be able to provide cycle parking in a building. In these cases, a secure, weatherproof place to store all types of cycles should be provided. These can be in the form of purpose-built cycle stores that are enclosed on all sides. Horizontal bike lockers for individual properties can be accepted where space does not allow for a traditional purpose-built cycle store.

6.2.3 Showers and changing facilities

These are required for all commercial development. These are places or rooms within a commercial or office building that are designed to support people who cycle or walk to work.

These should include:

- Accessible changing facilities
- Showers - Generally a shower is required for every 10 cycle spaces
- Lockers - there should be a locker per cycle space.

6.2.4 Short stay cycle parking – for visitors and customers

Required short stay cycle should be provided on site wherever possible. This is to encourage shoppers, customers, deliveries and visitors to travel sustainably.

The parking may only be provided on the street in exceptional circumstances. This is typically when the constraints prevent the parking being provided on site. A S106 contribution of £370 per Sheffield stand (as of 2024) will be required to facilitate on-street cycle parking. This figure may vary from year to year.

6.2.5 Encouraging cycling

The following methods can be included in proposals to help to encourage cycling.

Cycle clubs

- Cycle clubs can be created in residential and non-residential developments by providing free bookable standard cycles and e-bicycles during the tenancy.

Cargo bike clubs:

- Southwark has sponsored the introduction of cargo bikes in Walworth and Dulwich through a partnership with Peddle My Wheels, as part of the OurBike scheme. These can be utilised by residents to allow them to sustainably make their own deliveries and collections (such as weekly shopping).

Pool bikes

- The following steps can be taken to help with setting up a pool bike scheme:

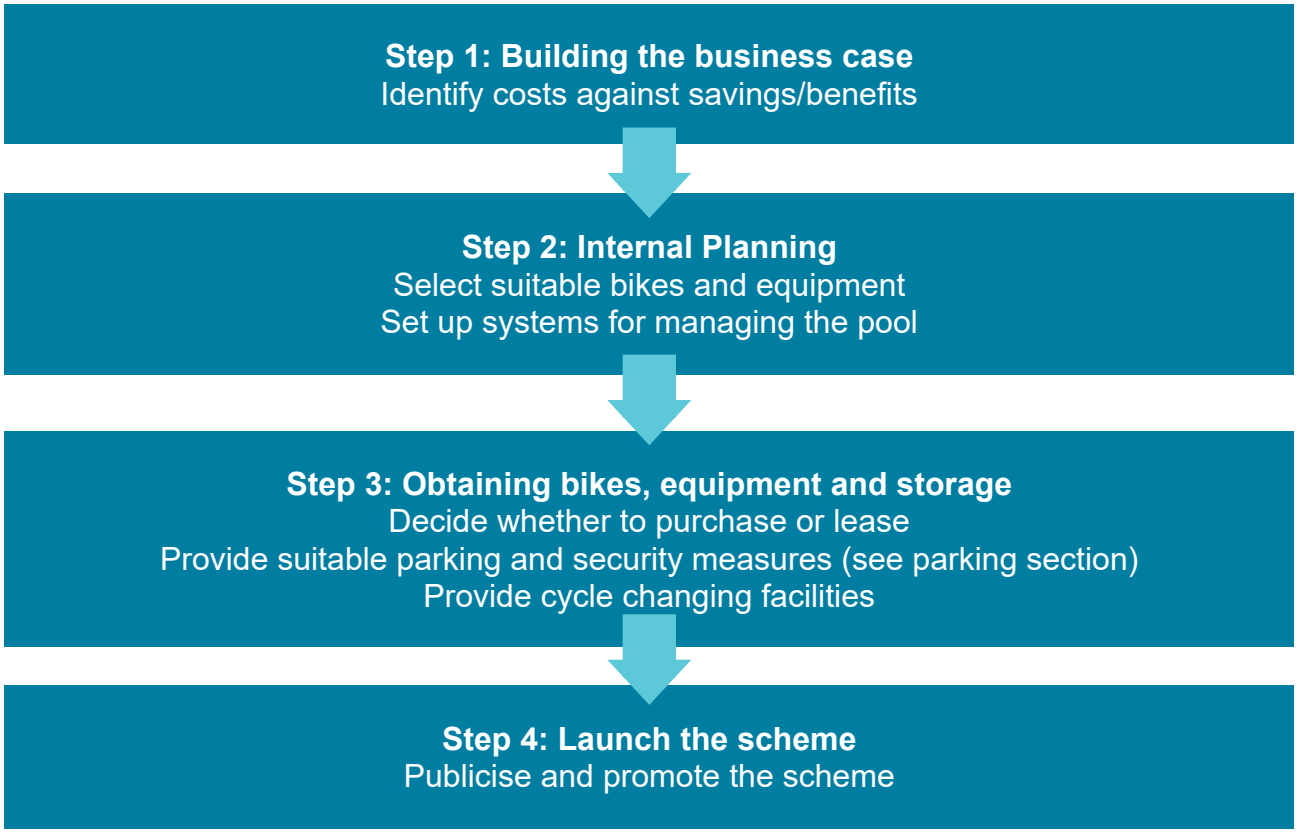

Figure 20: Flowchart showing steps that can be taken to help with setting up a bike pooling scheme.

6.3 Accessible public transport and capacity

6.3.1 Providing good walking and cycling links to public transport

Safe and accessible walking and cycling routes can encourage the use of public transport.

The following steps should be taken when providing these links:

- Consider how the users of the development are likely to move around. Likely movements will include travelling to and from work, local amenities (such as parks) and infrastructure (such as schools). These movements will vary between different types of development
- Identify existing walking and cycling routes which surround the site.
- Map how the site can connect to public transport such as buses, London Underground and National Rail routes
- Consider how the development can establish links between existing walking and cycling routes and surrounding public transport
- Where possible, collaborate with neighbouring sites to create new walking and cycling route

6.3.2 Assessing the impact of development on the transport network

To assess the impact of development on public transport it will be necessary to:

a. Establish the accessibility level of a site using the Public Transport Accessibility Levels (PTAL) rating. A development on a site with a high PTAL rating is unlikely to have a noticeable impact on existing transport services. Whereas a major development on a site with a low PTAL rating (normally 3 or below) may have difficulties relying on the existing public transport service.

b. Conduct a trip generation exercise on TRICS. This is the best way to understand the impact of development on the public transport network. This will show if the network has capacity to support an increase in journeys and allow the council to recommend the mitigation of any adverse impacts via S278 works, S106 contributions and other information.

Major developments will need to provide Transport Assessments and supporting documents to assess the impact of development on transport.

These supporting documents include:

- Travel Plans
- Transport Statements
- Movement Plans
- Delivery and Servicing Plans
- Car Parking Management Plans
- Construction Environment Management Plans
- Active Travel Zone Assessments
- Construction Logistics Plan
- Trip Generation Report
- Levels and Gradients Plan

A Movement Plan is a diagram that shows how different users, including pedestrians, cyclists and motorists, will arrive and depart from a site and move around within the site. The Plan should also show the location of infrastructure. This includes cycle routes and lanes, cycle hire docking stations, pedestrian routes and crossings. This may be as simple as a drawing which shows how different types of users/trips move around, to and from the site.

6.4 Shared transport and car clubs and reducing reliance on cars

6.4.1 Reducing reliance on cars

Southwark Plan 2022 policies support car-free development in all areas across the borough.

Car free development means that no parking spaces are provided as part of the development on site. New developments will also not have access to parking permits in any existing or future Controlled Parking Zones (CPZs). This is separate from any requirement to provide Blue Badge parking bays.

Car-free developments in accessible areas will help Southwark grow sustainably by reducing reliance on the private car. In some cases where public transport accessibility levels are lower, a limited amount of car parking may be needed. Car Clubs can be a good way of limiting the amount of space used on parking. Some developments will need to contribute towards a Car Club.

The provision of Car Club spaces and vehicles on-site will be secured via an S106 agreement. See S106 SPD for more information.

In some cases, it will be necessary to provide on-site car parking spaces and/or vehicular access for blue badge holders where required. A strategy should be provided which ensures that blue badge holder parking spaces are allocated based on need.

6.4.2 Electric Vehicle Charging Points (EVCPs)

Electric Vehicle Charging Points (ECVPs) must be provided for every permitted parking space in a new development. This is in accordance with Southwark Plan 2022 Policy 'P54 Car parking' and London Plan Policy 'T6.1 Residential parking'.

Supporting electric vehicle use can be achieved by:

- Ensuring 20% of spaces and Disabled spaces are fitted with active EVCPs, and 80% are fitted with passive (not connected) EVCPs.
- Ensuring EVCPs are well designed and do not obstruct pavements or cause them to become inaccessible.
- Ensuring EVCPs are regularly maintained. This may be secured by a condition of planning permission.
- Specifying locations within the site layout plans and whether they are passive or active.

Best practice for EVCPs
Where a small number of parking spaces are provided, 100% active provision of EVCPs is encouraged. Blue Badge parking bays should be prioritised for EVCPs.

CHAPTER 7

WASTE MANAGEMENT & RECYCLING

7. WASTE MANAGEMENT & RECYCLING

7.1 Management of domestic and commercial waste and recycling in new developments

This section provides detail on applying Southwark Plan 2022 policy 'P62 Reducing waste'. It also relates to the London Plan Policy 2021 'SI 7 Reducing waste and supporting the circular economy' which set out the policy requirements.

A Waste Management Statement (WMS) will need to be submitted for all full planning applications that would generate residential or commercial waste. This should contain a commitment to reducing waste generated on site. It should also commit to reusing and recycling construction, demolition and excavation waste.

7.2 Communal refuse facilities – Residential

The waste management guidance notes for residential developments set out the suitable types of waste storage and collection arrangements for residential developments

Best practice for residential communal refuse facilities

Space provision

To help residents recycle where possible, there should be space for them to separate out waste into two different containers. One for recyclable and one for non-recyclable waste.

Purpose built flats should consider:

- Storage space including maturing areas
- Storage areas for communal food waste containers
- Storage space inside kitchens for seven litre containers
- Sufficient space to accommodate wormeries on balconies.

Storage specification

Purpose built flats should consider:

- On site in-vessel food waste digesters
- Food waste disposal units (underneath sinks)

Developments with gardens should consider providing composting facilities.

7.3 Communal refuse facilities – Commercial

Location

- Storage of bins on public streets will not be supported.
- Storage areas for bins should be separate for non-residential and residential

Space provision

- British Standard BS 5906:2005 should be used to calculate the capacity of waste storage needed. Where the end user of a building is not known, calculations should assume the highest levels of waste generation likely for that use class.

Accessibility

- Recycling facilities should be as easy to access as waste facilities.
- In large developments, more than one waste container will need to be accommodated. The lift doors and adjacent lobby or corridor must be sized so that waste containers can be easily manoeuvred. In new buildings, storage containers should, wherever possible, allow movement of containers to the collection point without going through a building. (Unless it is a porch, garage or carport or other open covered space).
- Paths (between bin storage and collection point) should be level, unless the gradient falls away from the housing or chamber, in which case it should not exceed 1:12 (BS5906).
- Where collection vehicles must enter a development, there should be sufficient on-site turning circles or hammerheads. This is to allow safe manoeuvring and exit from the development.

Storage specification

- Applicants will need to provide information on the expected waste to be generated by the proposed use and the frequency of collection. Applicants must also explain how the storage capacity provided is adequate, including for organic waste.
- Generally, enough space to store waste for a week should be provided.
- An operational waste management plan should be submitted with the application.

Best practice for storage specification
In addition to the traditional container options, developers may wish to look at further options for storage of their waste pending collection. Any non-standard collection methods of collection or storage of waste, e.g., use of compactors, vacuum-based technology, or roll-on, roll-off skips, should be discussed with our operations team prior to submitting a planning application.

7.4 Clinical or hazardous waste

Clinical waste includes anything containing bodily fluids or tissue (such as bandages, plasters, and incontinence pads), discarded drugs or needles. Clinical waste must be stored separately from all other waste. Normally clinical waste is sealed inside yellow, coded bags. Sharps (such as needles) are stored in special boxes.

Any development containing any sort of medical centre, dental surgery, veterinary surgery, assisted living, nursing home, or home or day centre for disabled people must have separate storage and collection arrangements for clinical and non-clinical waste.

7.5 Managing litter associated with hot food takeaway businesses

Measures may need to be put in place to reduce the litter associated with hot food takeaway business to ensure there is no unacceptable impact from litter on the amenity of the area.

Best practice for hot food takeaways
Reduce litter from hot food takeaway by: • Installing litter bins in the local area • Commit to litter picking • Put up advertising signage to encourage disposal of litter.

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DRAFT

HOUSEHOLDER DEVELOPMENT

SUPPLEMENTARY PLANNING DOCUMENT (SPD)

JULY 2024

FOREWORD

Over recent years, we have focused in on how to make the planning system more accessible for our residents. The creation of the planning register has made it much easier to search for applications and find associated documents, whilst our digital tools now mean it is much easier to find the policies that apply in each particular circumstance.

With this Householder SPD, we have brought together all of the policies and guidance that might apply to those seeking amendment or extension of their home, into a format which we hope makes things easier to search and understand. This includes information about our climate & environment policies insofar as they apply to existing dwellings and it is our hope through this guidance to encourage homes of the highest design and environmental standards across Southwark.

Councillor Helen Dennis
Cabinet Member for New Homes and Sustainable Development
Southwark Council

CONTENTS

CHAPTER 1

INTRODUCTION

1 INTRODUCTION

This section provides an overview of the Householder Supplementary Planning Document (SPD). It sets out how this guidance should be used and who should be using it. It provides a policy overview and sets out the key things to consider when planning works to existing homes in Southwark.

1.1 Overview

The purpose of this supplementary planning document (SPD) is to set out the standard of design expected from the development of existing homes in Southwark.

The SPD has the following objectives:

- To guide the improvement and adaptation of existing homes
- To ensure a high standard of housing for all, ensuring homes are enjoyable, liveable and accessible.
- To encourage the refurbishment of homes looking to reduce energy demand, carbon emissions and adapt to the effects of climate change.
- To ensure works to existing homes mitigate impact on the amenity, privacy and appearance of the surrounding area and neighbours.
- To encourage sustainable technologies, healthy communities and to preserve Southwark's rich heritage.

1.2 What development does it apply to?

The guidance in this SPD is relevant to all existing homes, whether a house or a flat. The SPD also covers homes which are Listed Buildings or within Conservation Areas. It does not apply to the creation of new homes.

The guidance covers a broad range of works you can consider when looking to improve or extend your home. This includes:

- Improving the appearance of your home
- Improving the thermal performance or energy efficiency of your home
- How to find the most appropriate type of extension for your home
- Whether planning permission or Listed Building Consent is required
- If any specialist information is required to support your planning application

Summary tables have been included at the start of each section to help you quickly see if you need planning permission or Listed Building Consent. Detailed guidance is then provided where relevant.

Is permission required for insulation?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
A planning application is not required unless the external appearance of a building is changed.	A planning application is not required unless the external appearance of a building is changed.	A planning application is required for external but not internal insulation.	Listed Building Consent and a planning application are required.

Table 1: Example of a summary table

You must seek your own independent advice before proceeding with any development proposals to ensure it complies with all relevant legal requirements.

1.3 Policy context

This SPD provides guidance for applying the policies in the Southwark Plan 2022. It does not contain new policy. The SPD will be a material consideration in the determination of a planning application.

The Southwark Plan 2022 is the development plan for Southwark. It is in conformity with the broader guidelines and policies set out in the London Plan 2021 and the National Planning Policy Framework (NPPF) 2023.

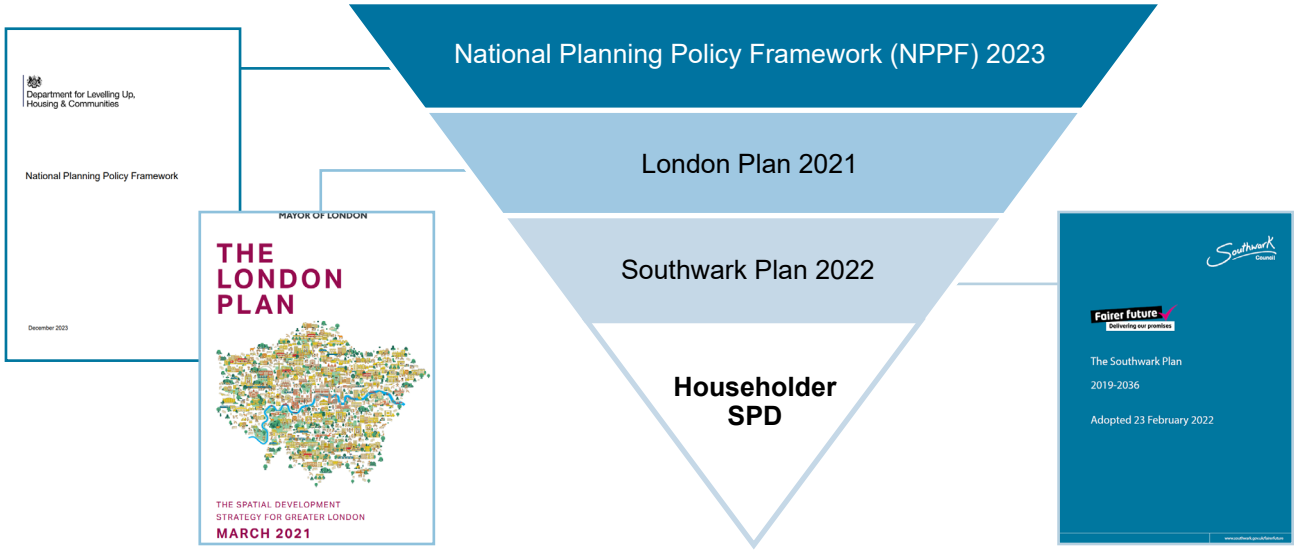


Figure 1: Policy context

1.3.1 National policy

Permitted development

You can carry out certain improvements and extensions without submitting a planning application. This is where planning permission for certain works is already granted by national legislation. This is known as permitted development. These regulations are set out in the General Permitted Development Order 2015 (GDPO).

For example, you may be able to add a large single storey extension to your home under permitted development. This is subject to limitations by the GDPO and only applicable to homes outside of Conservation Areas. You will also need to apply for 'Prior Approval' for these large rear extensions. The council will consult adjacent neighbours to ensure that their amenity would not be harmed by the proposals.

Permitted development does not apply to flats or maisonettes. If you live in a flat (including a house converted into flats) or a maisonette, then you will need to apply for planning permission for external changes.

Permitted development is restricted in Conservation Areas and other areas where the council has issued an Article 4 Direction. These are used to control small-scale changes which may erode the character of an area over time. This could be through the loss or alteration of windows, doors, roofs or front gardens. More information about Article 4 Directions can be found here. You can also check if there are any Article 4 Directions on your property using Southwark Maps.

1.3.2 Local policy

Southwark Plan 2022

The Southwark Plan 2022 contains multiple relevant policies, for which this SPD provides further guidance:

- Policy P13 (design of places) sets out numerous design principles including that development must "ensure height, scale, massing and arrangement respond positively to the existing townscape, character and context; and better reveal local distinctiveness and architectural character; and conserve and enhance the significance of the local historic environment".

- Policy P14 (Design Quality) establishes further principles relating to daylight and sunlight, outlook, response to context, sustainable design, inclusive design, and basements.

- Policy P15 (Residential Design) states that "development must achieve an exemplary standard of residential design".

- Policy P56 (Protection of Amenity) states that "development should not be permitted when it causes an unacceptable loss of amenity to present or future occupiers or users".

- Policy P69 (Sustainability Standards) states that "development must: reduce the risk of overheating, taking into account climate change predictions over the lifetime of the in accordance with prioritised measures set out in the following cooling hierarchy."

- Policy P70 (Energy) states that 'Development must minimise carbon emissions on site in accordance with the following energy hierarchy: 1. Be lean (energy efficient design and construction); then 2. Be clean (low carbon energy supply); then 3. Be green (on site renewable energy generation and storage).'

In addition, other policies relating to conservation and heritage, environmental protection, designing out crime, and archaeology may be of relevance.

1.4 Key considerations

There are many factors which you need to consider before planning works to your home. These are detailed in the relevant sections of the SPD as well as summarised below.

1.4.1 Improving energy and thermal performance

Improving the energy and thermal performance of a home is a key objective for many residents. It aligns with the Southwark Climate Change Strategy which sets out the steps the borough needs to take to be carbon neutral by 2030.

Improving energy and thermal performance can also help to reduce carbon emissions and make your home more resilient to the effects of a changing climate.

Free pre-application advice service

The council offers a free planning advice service for the following works:

- Solar panels
- Heat pump
- External insulation

This is so we can support our residents' transition to low and zero carbon solutions for heating, powering and insulating their homes. This can contribute to reducing energy demand and energy bills.

This service is available to all homeowners, including owners of flats. You can use this service to discuss the proposed works with a planning officer. This can help to resolve any design issues before submitting a planning application.

Reducing carbon emissions

It is important to consider how you can reduce your carbon emissions when planning works for your home. The energy hierarchy on the next page sets out an order of priority for considering carbon reductions. This is underpinned by Southwark Plan (2022) Policy P70 (Energy).

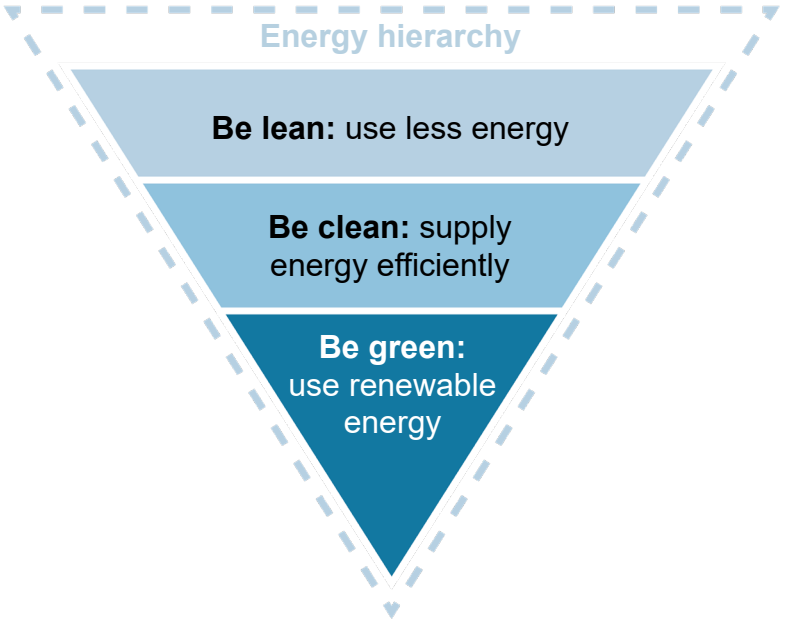


Figure 2: Energy hierarchy

'Be lean' savings should be prioritised and made by using energy efficient design and construction. This encourages a consideration of carbon reduction at the start of a design process. The lifespan of materials used in the works should be considered as well as the potential for natural cooling or heating. This may also include the use of draught proofing or insulation to improve the thermal performance of your home.

The 'be clean' stage encourages the use of a low carbon energy supply such as a heat pump. The 'be green' stage encourages the use of on-site energy production, such as solar panels.

As best practice, the use of low carbon, recycled and re-used materials, as well as recycling any materials removed from the site is encouraged.

Whole Building Approach

We encourage a 'Whole Building Approach' when planning works to your home. This involves considering your whole home when trying to improve energy and thermal performance.

A home performs best when many (or all) parts are functioning, rather than one element. You should consider how different factors such as ventilation, heating and insulation interrelate. This can help to regulate the temperature in your home and make it more resilient to the effects of a changing climate.

The phasing of works needs to be planned to avoid creating other issues such as damp or poor ventilation. This involves the timing of which building element to refurbish – when, how and in which order. You should also check your home for draughts. For example, the use of insulation will not be as effective if your home is draughty.

A Whole Building Approach should further consider the lifespan of each building element. This should include whether the feature can be repaired, reused or recycled in future. You should also consider the frequency that this must be undertaken. This will help to reduce whole life cycle emissions.

1.4.2 Heritage assets

Additional consideration will need to be given if your home is listed or within a Conservation Area. You can check if your property is listed or within a Conservation Area by using Southwark Maps. Further information can also be found on heritage assets in the Heritage SPD (2021).

Listed Buildings

If your home is listed, Listed Building Consent will be required for most works covered in this SPD. This is often in addition to planning permission but there are works where only Listed Building Consent is required. This has been set out in the relevant sections of this SPD.

You will have to consider the impact your planned works will have on the special interest of your listed home. This is underpinned by the Planning (Listed Buildings and Conservation Areas) Act 1990. Special care needs to be taken to ensure any original or historic fabric is retained in any works. This refers to any original or historic features such as windows or doors as well as walls within your home. Special care also needs to be taken to ensure any planned works do not detract from the external appearance of your home. This is generally of great importance to the character, significance and historic interest of the Listed Building.

You will also need to check whether your home is listed as part of a group of buildings. If so, you will need to consider the impact any works would have on the significance of the wider listed group. Group listing commonly applies to terraced properties. The whole terrace is usually included in the listing as opposed to one individual home. If you home is group listed, you will need to ensure any works maintain consistency across the group and do not introduce features which will detract from the Listed Buildings. You can find out whether your home is group listed in the Listed Building description. The description will refer to your property's address on its own or part of a wider group.

Guidance is provided within each relevant section on how to ensure planned works are appropriate for Listed Buildings. Some works may not be acceptable at all within a Listed Building. Alternative solutions are proposed in these cases.

Conservation Areas

If you live in a Conservation Area, you will need to consider the impact any planned works would have on the wider area.

Works need to be sympathetic to the individual character of the Conservation Area. There may be a dominant style of window or defining feature which is important to the area's character. This character is required to be preserved or enhanced by any proposed works. This is underpinned by the Planning (Listed Buildings and Conservation Areas) Act 1990.

Each Conservation Area has its own Conservation Area Appraisal. The appraisals outline the special importance of the area and its defining character. The appraisals also set out guidance on the type of development allowed in the area. This includes the most common materials and which materials are considered inappropriate.

It is recommended you read the appraisal for your area before planning works. Guidance can change between Conservation Areas as it reflects each area's own character.

1.4.3 Trees

Trees are very important to the borough and the council has a duty to protect them under the Town and Country Planning Act 1990. This can be done by placing a Tree Preservation Order (TPO) on the trees.

Trees improve the amenity of an area and have other environmental benefits. The benefits of trees include to:

- Provide landscaping
- Provide shading
- Provide habitats for biodiversity
- Improve air quality
- Reduce the urban heat island effect
- Reduce surface water flood risk

Trees are also important for carbon storage (especially mature trees) and enhance the borough's climate resilience.

You will need to apply to work on protected trees if your proposal could affect trees protected by a TPO or trees in Conservation Areas. You can check if a tree on your property is protected by a TPO or in a Conservation Area by using Southwark Maps.

CHAPTER 2

ENHANCEMENTS AND ALTERATIONS

2 ENHANCEMENT AND ALTERATIONS

2.1 Introduction

This chapter sets out the enhancements and alterations a resident can consider when looking to improve their home. This refers to works which seek to improve the appearance, energy efficiency or thermal performance of your home. There is further guidance on other additions that can be made to your home such as cycle or bin storage.

This chapter also provides guidance on any relevant planning considerations. These could include design quality, impact on neighbours, and impact on heritage assets (such as Listed Buildings and Conservation Areas).

Some enhancements and alterations are permitted development subject to conditions and limitations. This guidance should be read alongside the Permitted Development (Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended).

2.2 Key considerations

There may be many factors which need to be considered before planning works to your home. This will depend on the type of property you live in and where it is located.

2.2.1 Whole Building Approach

We encourage a 'Whole Building Approach' when planning works to your home. This involves considering your whole home when trying to improve energy and thermal performance.

A home performs best when many (or all) parts are functioning, rather than one element. Piecemeal improvements can result in suboptimal performance and unforeseen issues. This could include increased condensation or mould growth. Certain additions will not be as effective if an existing feature is not working. For examples, heat pumps will not function as well as expected if your windows are draughty.

Figure 3 on the next page demonstrates a Whole Building Approach to improving your home. The approach shows which parts of your home to consider first. This ranges from small fixes such as draught and damp proofing to larger interventions. Often the small fixes can be a simple and cost-effective way to improve the thermal performance and energy efficiency of your home. This can also help make your home more resilient to the effects of a changing climate.

The guidance in this chapter is structured to follow this Whole Building Approach.

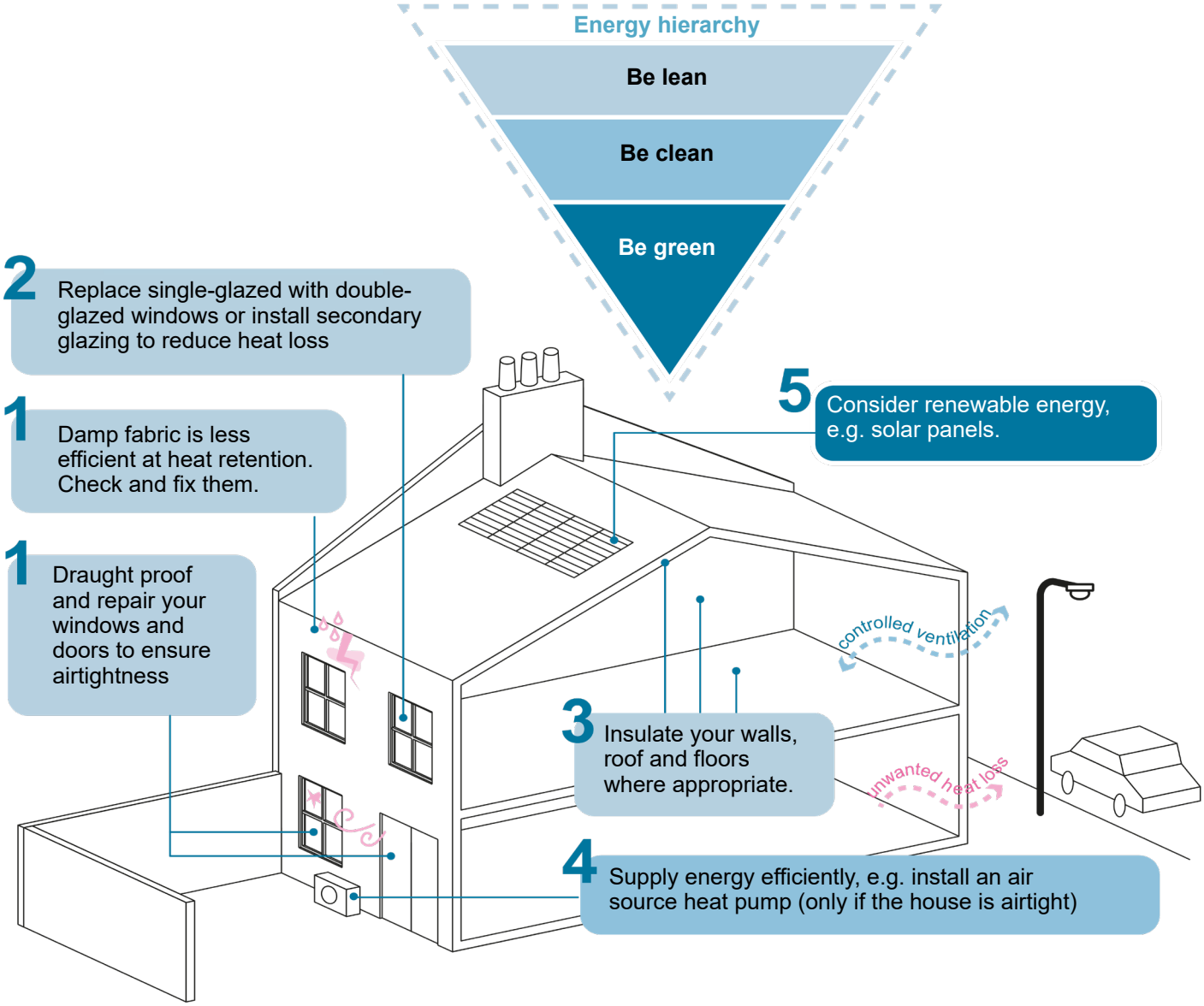


Figure 3: Illustrative diagram of the Whole Building Approach

2.2.2 Heritage assets

Special care needs to be taken when planning improvement works if your home is listed or within a Conservation Area.

The work should not harm the character of your home, or the area and care should be taken to avoid adverse impact on historic features. The works could also risk the long-term deterioration of the building or features.

The aim should be to improve the performance of your home as far as practical. Often, the least disruptive intervention should be sought. For example, insulation could be better placed internally rather than externally. This is because the external appearance of a listed home or Conservation Area is very important. Placing insulation externally may disrupt its character or impact a historic feature such as a brick wall.

Further guidance on energy performance standards in historic buildings is available from Historic England.

2.3 Windows and external doors

Windows and external doors help to keep your home light and secure and are important for ventilation. They also contribute positively to the composition and appearance of your home and help to give a consistent appearance to the surrounding area.

Windows and external doors can generally be the least insulated features of homes, especially as glass within windows transmits the heat and cold easily. Repairing or draught proofing may improve the thermal performance of your windows and external doors without the need for replacements. Repairs can also fix cosmetic issues.

Windows and doors do however have a lifespan and sometimes they will need to be replaced. You may also wish to install new windows or external doors where they have not existed previously.

2.3.1 Draught proofing

Is permission required for draught proofing?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not required.	Planning permission is not required.	Planning permission is not required.	Neither planning permission or Listed Building Consent is required.

Table 2: 'Is permission required for draught proofing?'

Draughts in windows and doors are unwanted gaps which let cold air in and warm air out. Draught-proofing your windows and external doors is a cost-effective intervention to reduce heat loss and keep your home warm. It is also the least intrusive method of improving thermal performance.

Draught proofing can help to regulate the internal temperature during extreme weather events such as heatwaves or cold snaps. This can help make your home more resilient to the effects of a changing climate.

Once implemented, it is likely that less energy will be required for heating your home. Draught proofing can also reduce the amount of dirt and dust entering your home.

It is important to have the right amount of ventilation when considering draught proofing to prevent damp and condensation building up.

You do not need planning permission or Listed Building Consent to draught proof your windows or external doors.

Figure 4 on the next page demonstrates how to find and fix gaps within your home.

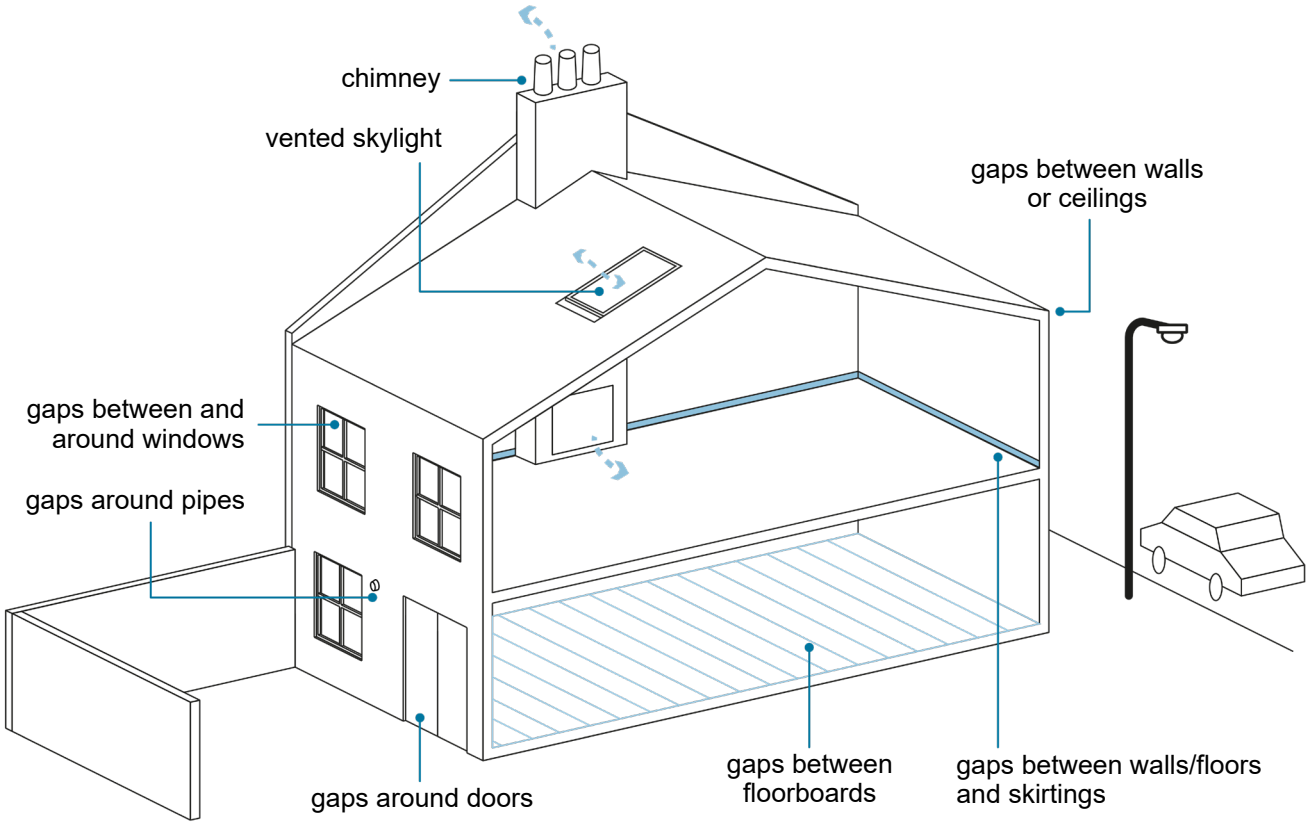


Figure 4: Find and fix gaps

2.3.2 Repair of windows and external doors

Is permission required for repairing existing windows or external doors?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not required.	Planning permission is not required.	Planning permission is not required.	Neither planning permission or Listed Building Consent is required.

Table 3: 'Is permission required for repairing existing windows or external doors?'

Before deciding to replace windows and doors, the option to repair should be considered.

The full replacement of windows and doors may not always be necessary. For example, if there is damage or rot to only one section of a window or door, it may be more cost-effective to repair instead of replacing.

Repair is preferable to replacement for the following reasons:

- Repair is often cheaper.
- Seasoned timber used in older windows or doors is often of higher quality and durability than modern timber.
- Original windows and doors in older buildings can give your home character and improve the appearance overall.
- Repair is more sustainable and reduces carbon emissions associated with manufacturing new replacements.

Examples of repairs to existing windows and doors include:

- Work to maintain and repair the foot of doors and the base of frames where they have suffered rot or other damage.
- Replacing plain panes of glass, where broken, to match the existing.
- Repainting the frames.
- Repairing the seal on double-glazing

You do not need planning permission or Listed Building Consent to repair existing windows or external doors. Further guidance on repairs within Listed Buildings can be found on Historic England's website.

If your windows and doors are beyond repair and require full replacements, please refer to section 2.3.5 for guidance.

2.3.3 Double glazing

You may wish to replace your windows with double-glazed units to improve the thermal performance of your home. Double glazing is a window which has two panes of glass, separated by a sealed gap which reduces heat transfer. Double glazing can provide better insulation for your home as it can prevent cold air entering a room whilst also retaining heat. This can help regulate internal temperatures during extreme weather events (such as heatwaves or cold snaps) and make your home more resilient to the effects of a changing climate.

Other benefits of double glazing include:

- Reduced condensation and mould (from airtight seals)
- Noise reduction (from thicker panes and the air gap in between)
- Heightened security (from thicker panes being harder to break)

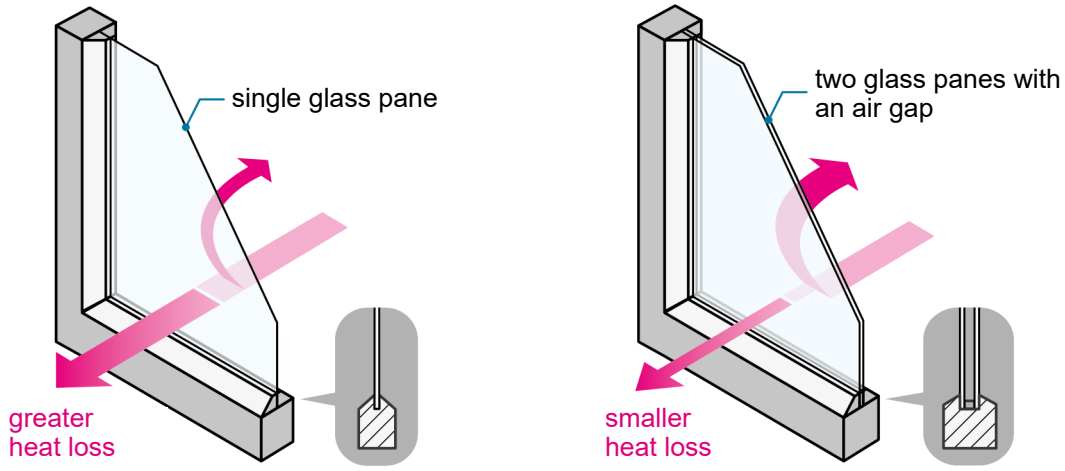


Figure 5: Single glazing compared with double glazing

We **encourage the use of double glazing within most homes in the borough**, given the many benefits. Double glazing is permitted within Conservation Areas; however, the windows need to reflect the character of the area and be of a traditional or sympathetic design and material.

Guidance on how best to replace your windows and whether planning permission is required is detailed in section 2.3.5.

Listed Buildings

Double glazing is not permitted in Listed Buildings, including slim versions. It may be replaced if double glazing has been permitted in the past or part of the original build.

This is in line with Historic England's guidance which encourages the retention and repair of historic features such as windows.

The use of double glazing is considered harmful to Listed Buildings. It often involves the removal of historic and original windows and introduces modern features which are not authentic or compatible. Most Listed Buildings in the borough are historic, dating from the Victorian or Georgian period. By contrast, double glazing is an inherently modern feature which is not usually seen as sympathetic or in keeping with the age and character of our Listed Buildings.

It can often be three times the thickness of the existing single glazed windows. This would disrupt the historic detailing of a Listed Building and alter its appearance and overall character. Many of the listed homes within the borough are also in groups or terraces where single glazing is retained across all the buildings. The introduction of double glazing here can disrupt the uniformity of these listed terraces or groups

We are aware of the need to improve the thermal performance of listed homes, and to address climate emergency and the Southwark Climate Change Strategy. However, Listed Buildings only account for around 2% of all buildings in Southwark. Once lost, historic or original windows are irreplaceable.

There are also other ways to improve the thermal efficiency of Listed Buildings. This could involve secondary glazing (sections 2.3.4) or internal insulation (section 2.4.1-2.4.2). Existing windows within Listed Buildings can also be draught proofed (section 2.3.1) or repaired (section 2.3.2).

2.3.4 Secondary glazing

Is permission required for installing secondary glazing?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not required.	Planning permission is not required.	Planning permission is not required.	Listed Building Consent is required, but not planning permission.

Table 4: 'Is permission required for installing secondary glazing?'

Secondary glazing is different to double glazing in that the existing window remains unaltered. It involves the installation of a separate internal window on the inside of the existing window. This replicates the airtight seal and insulation gap offered by double glazing. Secondary glazing can offer the same benefits of double glazing. This includes increased insulation and noise reduction.

Secondary glazing can be installed to replicate the existing arrangement of the window. It can also be fixed shut or installed with a horizontal or vertical opening. Keeping the secondary glazing openable allows access to the existing window so it can still be opened, cleaned and maintained. Secondary glazing can also be designed to be removable in warmer months when extra insulation is not needed.

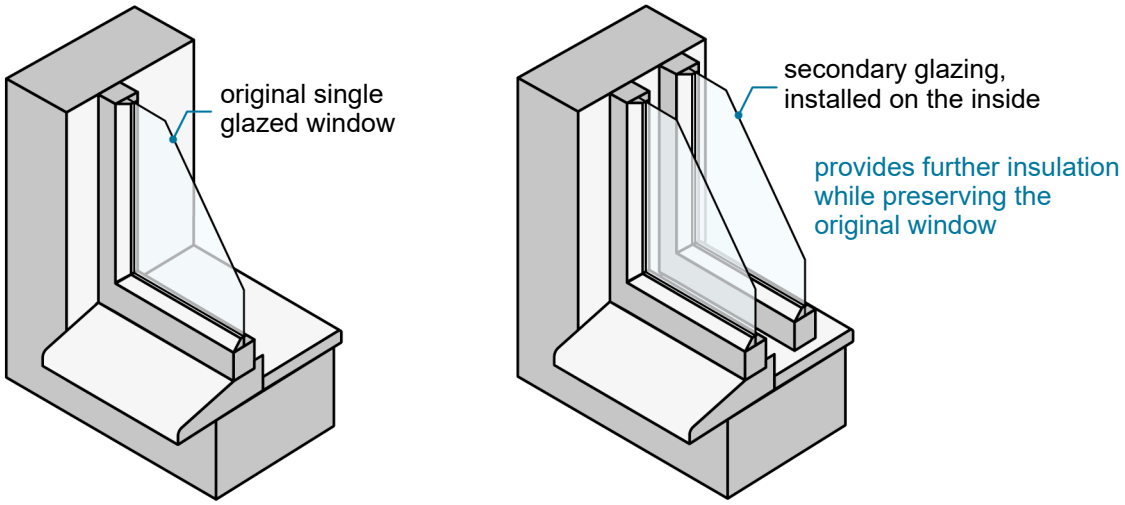


Figure 6: Secondary glazing

The use of secondary glazing is a useful approach within Listed Buildings, where double glazing is not permitted. Secondary glazing provides similar benefits of double glazing without having to replace historic or original windows. This better preserves the character of your home.

You do not need planning permission for the installation of secondary glazing. Listed Building Consent will however be required if your home is listed.

2.3.5 New or replacement windows or external doors

Is permission required for new or replacement windows or external doors?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is generally not required unless the proposal falls within the list of exceptions of permitted development.	Planning permission is generally not required if the windows or external doors are like-for-like replacements. External doors refer to the door which accesses the street or outside area. New windows or external doors will require planning permission.	Planning permission is generally not required if the windows or doors are like-for-like replacements. Planning permission is not generally required for new windows or external doors, unless an Article 4 Direction is in force.	Listed Building Consent will be required as well as planning permission in some circumstances.

Table 5: 'Is permission required for new or replacement windows or external doors?'

Refer to section 3.6 in Chapter 3 for guidance on new or replacement dormer windows.

Houses

You do not generally need planning permission for new or replacement windows or external doors within houses as the works are permitted development. Different requirements and restrictions apply if your home is listed or within a Conservation Area. You will also need to apply for Listed Building for works to a listed home. This guidance is provided in the next sections.

Planning permission is not required if the new or replacement windows or external doors are similar in appearance to the existing at your home. Planning permission will be required if the appearance of your home will be noticeably changed.

A similar in appearance window or external door should keep the dimensions and overall arrangement of the existing. The material, colour and glazing type may change. Fact box 1 provides further examples of similar in appearance windows and doors.

Planning permission will also be required if any of the following applies:

- The new window(s) is for an upper floor on the side of your house (including the roof slope) and would be clear- glazed. Windows which are obscured glazed in this position do not need planning permission.

- The new window(s) is for an upper floor on the side of your house (including the roof slope) and is openable at a level less than 1.7m above the floor of the room in which it is installed.

- Permitted development rights have been removed by an Article 4 Direction or a condition attached to an earlier planning permission restricting the use of windows or doors.

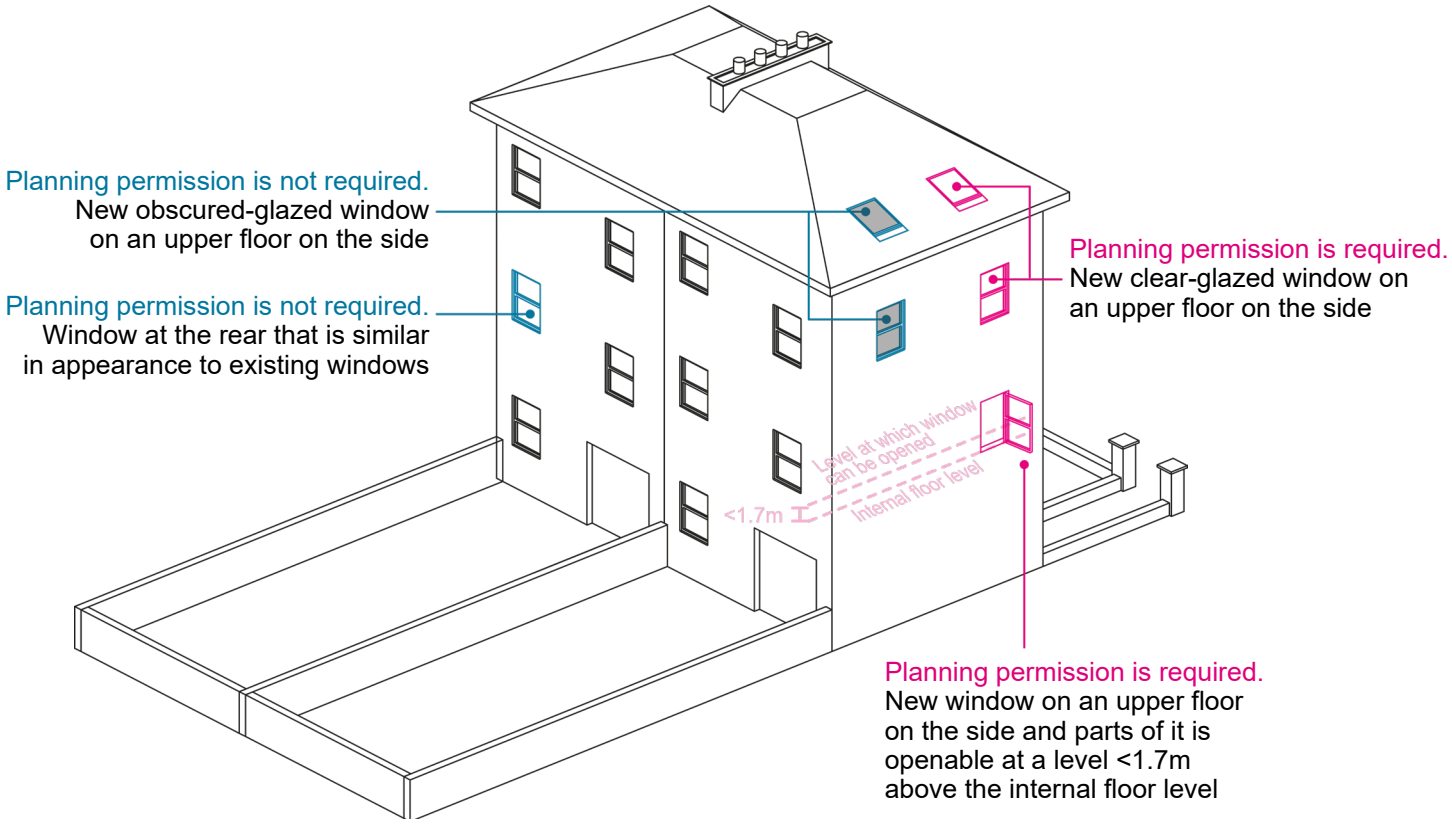


Figure 7: Permitted development right for new or replacement windows

Flats and maisonettes

> *i* External doors refer to the door which accesses the street or the outside area of your building.

Planning permission is not required for like-for-like replacement windows or external door(s). The replacements would have to be the same material, size and design to be like-for-like. The glazing type can be changed. This means you can change from single to double glazing and still be considered like-for-like. Fact box 1 provides further examples of what is a like-for-like replacement.

Planning permission will be required for new windows or external doors or for replacements which are not like-for-like.

Different requirements and restrictions apply if your home is listed or within a Conservation Area. You will also need to apply for Listed Building for works to a listed home. This guidance is provided in the next sections.

Care should be taken to ensure any new or replacement windows or doors are sympathetic to the existing windows at the property. This is to ensure consistency across all the flats or maisonettes within a block.

If you are a leaseholder, you may also need to gain permission from the freeholder of the site before being able to carry out the works. The freeholder may also have their own requirements and restrictions on works.

Conservation Areas

Planning permission is not required if the replacement windows or external doors are like-for-like. The replacements would have to be the same material, size and design to be like-for-like. The glazing type can be changed. This means you can change from single to double glazing and still be considered like-for-like. Fact box 1 provides further examples of what is a like-for-like replacement.

Planning permission will be required for new windows or external doors or for replacements which are not like-for-like.

Original or historic windows or doors should be repaired where possible. This can often be cheaper than replacement, given the high quality and durability of older timber. More guidance on repairing windows and doors is provided in section 2.3.2.

Where replacements are required or new windows or doors are to be added, the historic importance and character of the Conservation Area should be considered. The windows or doors would need to be in a style and material which is sympathetic to the area and maintain or improves its overall appearance. Detailed assessments of the importance and character of each Conservation Area can be found within the area appraisals.

Generally, we require the use of traditional materials such as timber within Conservation Areas. Traditional materials tend to last longer than modern substitutes, giving better value and being more sustainable over time. Metal windows or doors will be permitted in certain areas. However, this is generally only to the rear or non-public facing elevations. Windows and doors should also be painted in traditional colours. Windows are generally expected to be off-white. However, doors can be painted in a broader range of heritage colours such as navy, maroon, dark green or black. Garish colours will not be permitted.

i Guidance can change between Conservation Areas, and it is recommended you read the appraisal for your area before planning works as this will state which materials and colours are acceptable.

UPVC (Unplasticized Polyvinyl Chloride) will not be permitted in any of our Conservation Areas, even to the rear of a property. UPVC generally appears out of place in Conservation Areas, owing to the plastic appearance. UPVC also may weather or behave differently from natural and more traditional materials. The replacement of UPVC windows or doors with more sympathetic, traditional materials is encouraged.

New or replacement windows or doors must maintain the quality of design at your home. Features such as the depth of reveal should be retained (see Figure 8). Doors should be of traditional design, generally panelled or boarded. These should be a painted timber rather than stained hardwood. Modern designs such as metal framed, or sliding may be acceptable in places.

There should also be a continuation of the established hierarchy of windows at your home. Generally, windows are larger or more ornate at the lower levels of a house, reducing in size and decoration on the upper levels (see Figure 9). This should be respected with any new or replacement window. Overly large windows will not be permitted at the upper levels of properties, even to the rear.

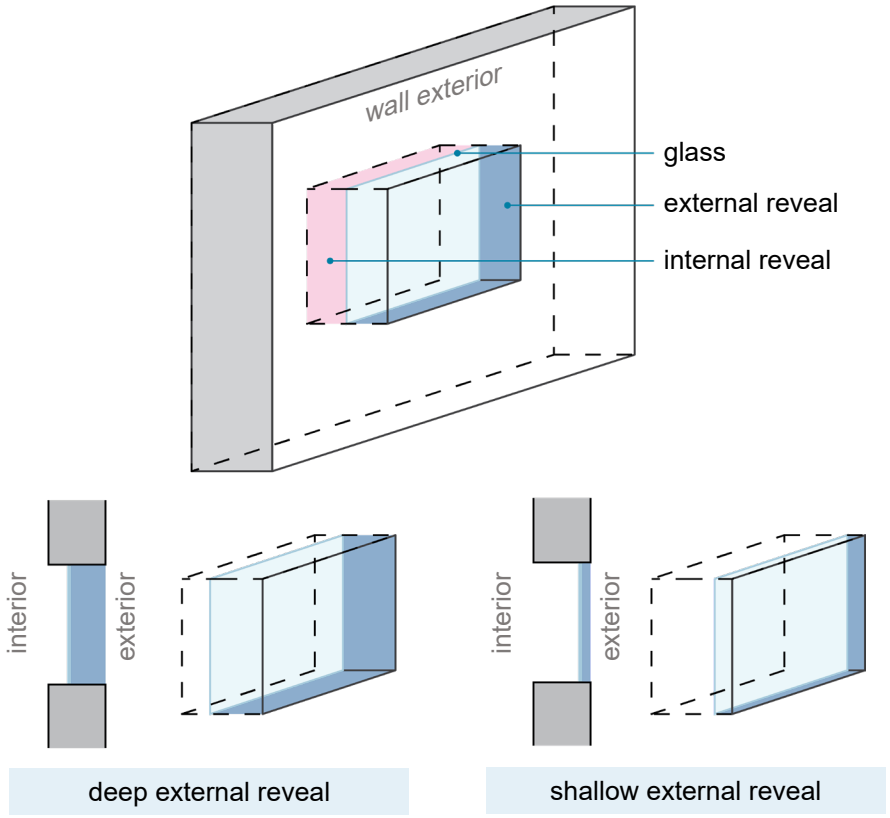


Figure 8: Depth of reveal

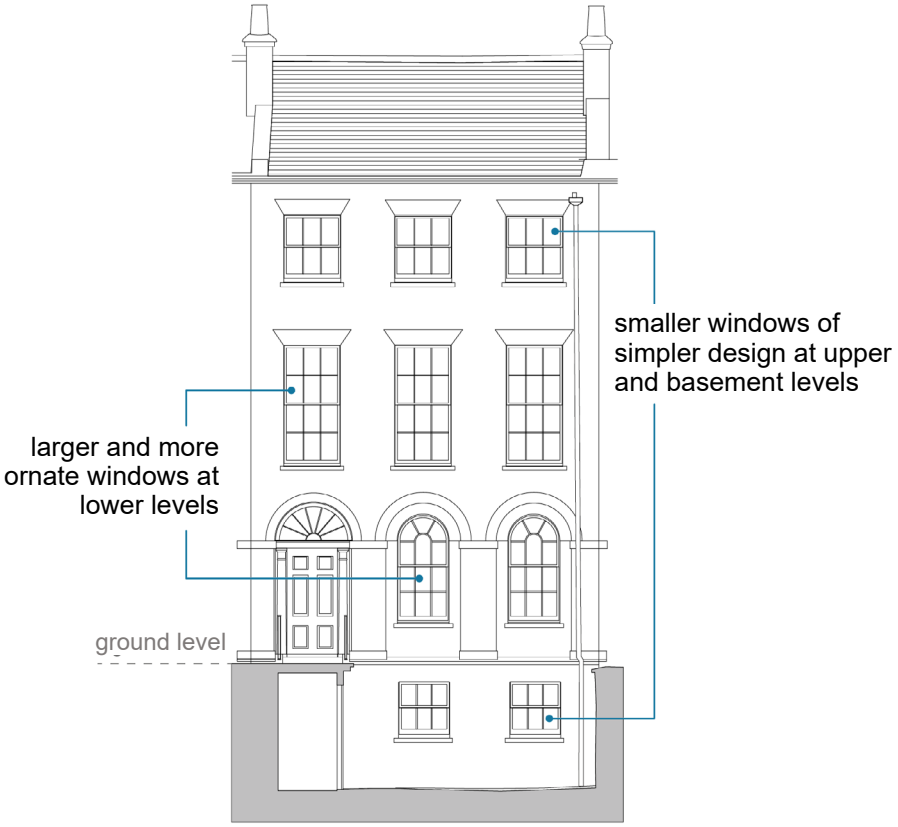


Figure 9: Typical window fenestration

Listed Buildings

Listed Building Consent is required for any new or replacement windows or doors within Listed Buildings. This applies to both internal and external doors at your home.

Replacement windows or doors

Replacement windows or doors would need to be like-for-like with the existing at your home. The replacements would have to near replicas of the existing windows and doors. The glazing type would also have to remain the same. Double glazing is not permitted in Listed Buildings. It may be replaced if double glazing has been permitted in the past or part of the original build. Fact box 1 provides further examples of what is a like-for-like replacement.

The replacement of windows or doors within Listed Buildings will not be permitted unless it can be demonstrated that the existing versions are beyond their lifespan, and it is not economically viable to pursue repairs. Modern windows or doors of unsympathetic design and materials can be replaced with an appropriate alternative.

Original or historic windows or doors should be repaired where possible. This is often a cheaper cost than replacement, given the high quality and durability of older timber. Repairing windows or doors in Listed Buildings can also better insulate your home. For example, a full repair of a sash window could include the restoration of its frame, a rehanging of the internal counterweights and the installation of draught seals. Such repairs can reduce draughts and improve the thermal performance of your home. It also ensures original or historic features are preserved. More guidance on repairing windows and doors is provided in section 2.3.2.

You will need to include a condition survey as part of a Listed Building Consent application to replace your windows or doors. It is required to justify replacement instead of repair. It should include a breakdown of the status and photographs of each individual window or door proposed to be replaced.

Creation of new windows or doors

You may be able to create new window or door openings in your home, provided it does not cause harm to the significance of the Listed Building.

The installation of a new window or door will generally involve the removal of a section of wall to create a new opening. Consideration must be given to the location of any new window or door and the impact this will have on the significance of the Listed Building.

Any new window should continue the established hierarchy of windows at your home and be in keeping with the style and design of existing windows. Overly large windows or doors or those in an unsympathetic material or design will not be permitted, even to the rear. Exceptions may be made when new doors or windows are proposed as part of new extensions.

General considerations

UPVC (Unplasticized Polyvinyl Chloride) will not be permitted in Listed Buildings, even to the rear of a property. UPVC cannot match the sections and proportions of historic joinery and cannot replicate the appearance of traditional materials. If UPVC windows or doors have been installed in the past, their replacement with more traditional materials is encouraged.

New or replacement windows or doors must maintain the same design quality as the existing versions. Features such as the depth of reveal, sympathetic materials and glazing pattern should therefore be retained (see Figure 8).

You will also need to check whether your home is listed as part of a group of buildings. If so, you will need to consider the impact any works would have on the significance of the wider listed group. You can find out whether your home is group listed in the Listed Building description. The description will refer to your property's address on its own or part of a wider group.

i

Fact box 1: What is considered 'similar in appearance' and 'like-for-like'?

A new or replacement window or door is considered 'similar in appearance' if it follows the arrangement and dimensions of the existing. The glazing bar pattern, material, colour and glazing type may be changed.

A 'like-for-like' replacement is a window or door which matches the arrangement, glazing bar pattern, dimensions, material, and in some cases, colour of the existing. The glazing type does not need to be retained unless it is for a Listed Building. A like-for-like replacement is important to ensure any new window or door retains the character and appearance of a home.

Figure 10: Window components

Arrangement
Arrangement refers to the glazing bar pattern or style of glass panes in a window or door.

Figure 11: Defining ‘arrangement’ and ‘glazing bar pattern’

Similar in appearance	Like-for-like
To be considered ‘similar in appearance’ the overall arrangement and style must be retained. For example, a large single pane casement window can be split into two and still be considered ‘similar in appearance’. However, if you wanted to replace a rectangular casement window with a circular window then it would not be considered similar in appearance. The arrangement should also broadly match the other existing windows or doors at the property. For example, if you are replacing one window at the front of your property then the replacement would be expected to be consistent with the other windows at this elevation.	To be considered ‘like-for-like’ the overall arrangement would have to replicate the existing window or doors at your home.

Material

Similar in appearance	Like-for-like
The material of a replacement window or door does not need to match the existing to be considered 'similar in appearance'. For example, an aluminium door can be used to replace a UVPC door if the overall arrangement and dimensions are retained.	A like-for-like replacement would be expected to be the exact same material as the existing. For example, a timber window or door cannot be replaced with an aluminium or UVPC replacement as this constitutes a change in the material. Even if all other elements of the window or door such as the arrangement or colour are replicated, the material must also be the same as the existing. This also includes windows or doors finished to look like other materials (i.e., a UVPC replacement finished to look like timber). A change in material will be permitted if the new material is an enhancement over the original. For example, a UVPC window or door will be permitted to change to a timber version (especially in a Conservation Area or Listed Building) as this material is of a higher design quality.

Dimensions

Figure 12: Window dimensions

Similar in appearance	Like-for-like
A replacement window or door is not considered to be similar in appearance if it increases or decreases the existing opening. Replacement windows and doors should be the same size as the existing. Planning permission will be required if the existing window or door opening is being extended or reduced.	A replacement window or door is not considered to be a like-for-like replacement if it increases or decreases the existing opening. Replacement windows or doors should be the same size as the existing.

Colour

Similar in appearance	Like-for-like
The colour of a replacement window or door does not need to match the existing to be considered 'similar in appearance', however it does need to be in line with the other windows or doors at your property.	If the colour of an existing window or door contributes to the significance of a Listed Building or surrounding Conservation Area, then it should be replicated on any replacement. For example, if most windows within a Listed Building or Conservation Area are off cream then any replacement window should be off cream also. If there is no common colour of windows or doors within a Conservation Area, then any other heritage colours would be considered appropriate.

Glazing type

Similar in appearance	Like-for-like
The glazing type refers to whether a window or door is single or double glazed. The glazing type does not need to be retained to be considered similar in appearance. For example, a single glazed window can be replaced with a double-glazed window if it is considered similar in appearance in all other respects.	The glazing type refers to whether a window or door is single or double glazed. Unless the building is listed, the glazing type does not need to be retained to be considered 'like-for-like'. For example, a house within a Conservation Area could replace a single glazed window with a double-glazed version if it is considered like-for-like in all other respects.

2.4 Insulation

Is permission required for insulation?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not required unless the external appearance of a building is changed.	Planning permission is not required unless the external appearance of a building is changed.	Planning permission is required for external but not internal insulation.	Listed Building Consent and planning permission are required.

Table 6: 'Is permission required for insulation?

Insulation is one of the best ways to improve the thermal performance of your home. It can protect your home from excessively hot or cold temperatures. This can help to make your home more resilient to the effects of a changing climate. Insulation can also reduce noise pollution.

Insulation is a general term to describe products which reduce heat loss or gain by providing a barrier between areas that are very different in temperature. Common insulation materials used in homes include fiberglass, spray foam, injection foam, cellulose and mineral wool – each with its own pros and cons. More sustainable materials such as hemp are also available. Consideration should be given to the U-value of a product. The lower the value, the better the material as a thermal insulator.

Before any insulation, pre-existing issues with damp or condensation should be addressed. Otherwise, these issues may worsen.

For homes in Conservation Areas or that are listed, care should be taken to provide enough (controlled) ventilation and allow moisture to escape. Insulation materials which are compatible with traditional permeable construction (such as wool) are preferred.

A qualified insulation expert can advise on the best solution for your home. Building Control certification may also be needed for certain types of insulation.

We encourage a 'Whole Building Approach' to insulation. This means that all rooms in your home are considered, not just the ones which are the coldest or warmest. Proposals for insulation will be assessed on a case-by-case basis when a property is listed or located within a Conservation Area. You should consider the least disruptive method possible and provide robust justification for any harm expected to be caused.

2.4.1 Roof and loft insulation

Roof insulation can be carried out internally or externally depending on the roof type or whether the building is listed or within a Conservation Area. Flat roofs should be insulated externally where possible. Such reduces the risk of moisture building up which can lead to structural damage. Internal insulation is best suited to other roof forms such as hip or gabled. It minimises disruption to the roof which could be covered in tiles or shingles.

The two common methods of roof or loft insulation are 'warm roof' or 'cold roof'. Warm roofs fit the insulation to follow the slope of the roof and is best suited to habitable spaces. Cold roofs fit the insulation on top of the ceiling of the room below. It is usually carried out by laying materials between or over the joists. A cold roof insulation is best suited when the loft space is not actively used.

Any roof or loft insulation needs to be carried out by a qualified expert, who can advise on the best solution for your home.

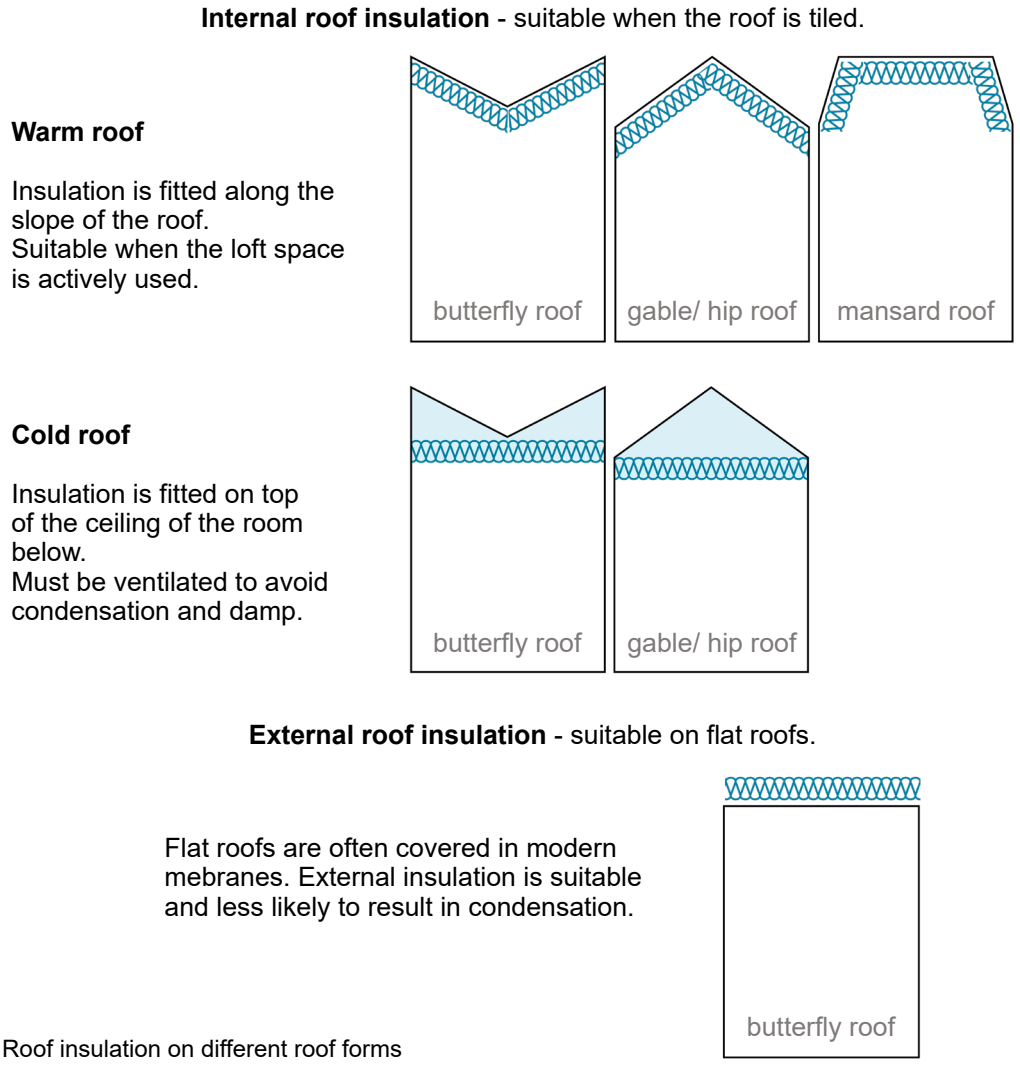


Figure 13: Roof insulation on different roof forms

Houses, flats and maisonettes

Planning permission is not required for internal roof or loft insulation. External roof insulation will not require planning permission unless the appearance of your home is changed. For example, a different finishing material will be applied to the roof, or the roof will increase in size.

Different requirements apply to Listed Buildings and Conservation Areas. They are detailed in the subsequent sections.

If you are a leaseholder, you may also need to gain permission from the freeholder of the site before being able to carry out the works. The freeholder may also have their own requirements and restrictions on works.

Conservation Areas

Planning permission is not required for internal roof or loft insulation within Conservation Areas.

External roof insulation will need planning permission. It is encouraged to use a finish which matches the existing roof materials. The use of inappropriate material such as UPVC will not be permitted.

Listed Buildings

Planning permission and Listed Building Consent will be required for external roof or loft insulation.

Internal roof or loft insulation may be permitted in Listed Buildings if there is no harm to significant roof features such as original rafters or beams. Spray foam insulation, in particularly, is considered harmful and will unlikely be permitted. It could increase the risk of condensation and decay. The foam sticks to the timbers and underside of the roof or tiles. This makes repairs in the future difficult. It is also a permanent installation, and its removal could potentially damage the historic structure.

It is unlikely that external roof insulation will be permitted. The nature of the process would undoubtedly cause harm to the significance and character of the Listed Building. External works to roofs will only be considered when it can be demonstrated that the existing roof is beyond its lifespan and no longer functional.

2.4.2 Internal insulation

Internal insulation is generally carried out by insulating the internal or cavity walls at your home. Most homes constructed after 1920s are likely to have cavity walls, which is a wall with a hollow centre. Older homes are likely to have been built with solid walls. The appropriate method of internal insulation will depend on your wall type. Your home may also already have wall insulation, especially if it is a modern property.

Cavity wall insulation is carried out by injecting insulating materials into the gap in the middle of the wall. However, this may not be possible if the gap is too narrow. Internal wall insulation is carried out by fitting insulating boards to the inside face of your walls, or by building a stud wall and filling it with insulating materials. Internal insulation can vary in thickness. It may be disruptive to the internal appearance of your home as features such as door frames or skirting boards may need to be removed and reattached.

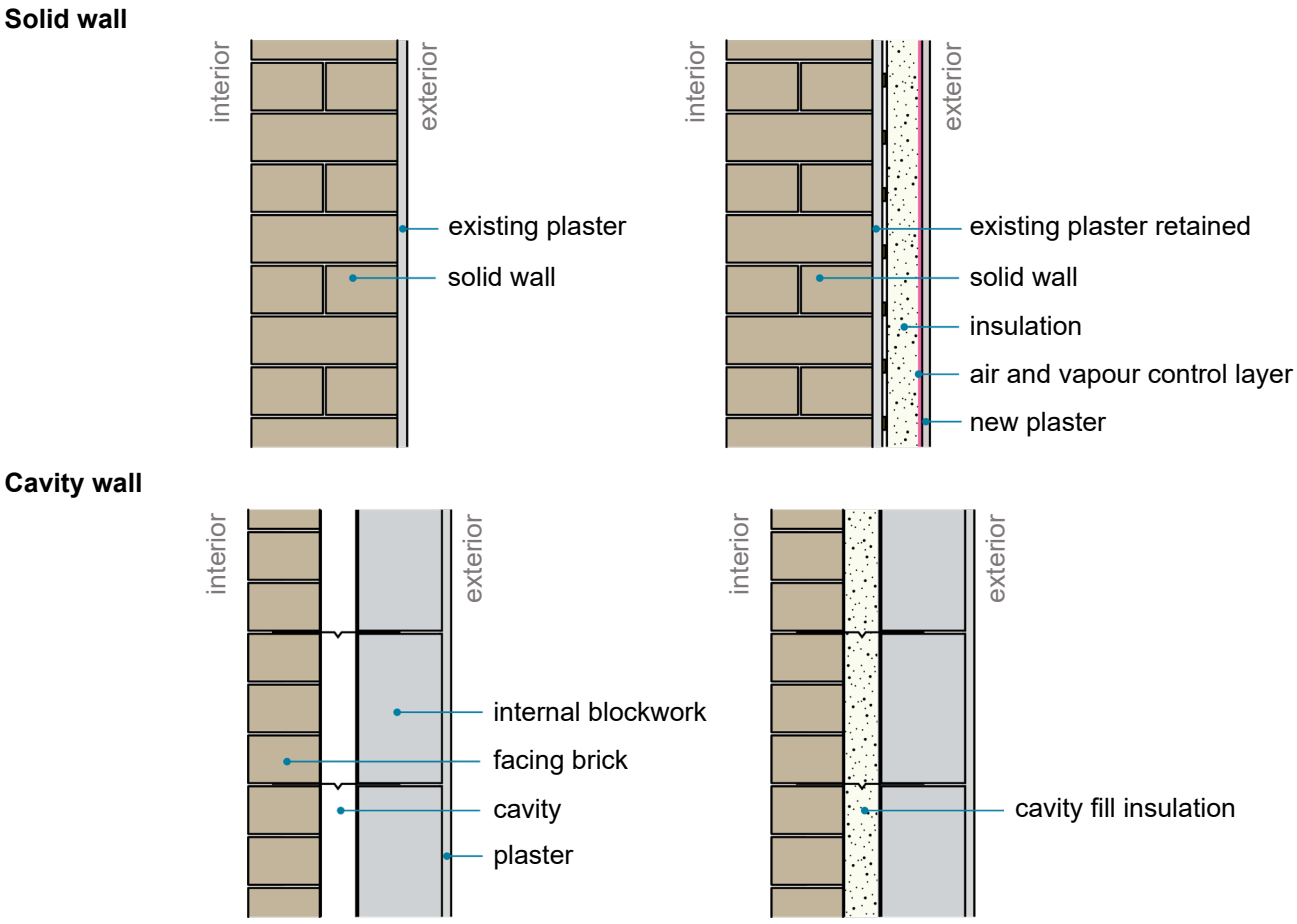


Figure 14: Solid wall and cavity wall insulation

Any internal insulation needs to be carried out by a qualified expert, who can advise on the best solution for your home.

Houses, flats and maisonettes

Planning permission will not be required for any internal insulation in a house, flat or maisonette. Different requirements apply to Listed Buildings, set out in the section below.

If you are a leaseholder, then you may also need to gain permission from the freeholder of the site before being able to carry out the works. The freeholder may also have their own requirements and restrictions on works.

Conservation Areas

Planning permission is not required for any internal insulation in a house, flat or maisonette. Different requirements apply to Listed Buildings, set out in the next section.

Internal insulation is encouraged within Conservation Areas as it does not impact the external façade of your home and preserves the character and appearance of the area.

Listed Buildings

Listed Building Consent is required for any type of internal insulation in Listed Buildings.

The interiors of Listed Buildings are often of great significance. They contain features of architectural or historic interests. Examples include fireplaces, staircases, doors, windows, skirtings and cornices.

We will not permit internal insulation within a Listed Building if it causes harm to original walls or covers any features of significance.

2.4.3. External insulation

i We offer a free pre-application advice service for installing external insulation at your home. You can use this service to discuss the works with a planning officer. This could help resolve any planning policy or design issues before you make your application.

External insulation is generally carried out by cladding your home in a layer of insulation and covering it with a thin render or plaster finish. Brick slips can also be used as a finishing material in certain circumstances.

External insulation is suitable for homes which have an existing render or plaster finish as this appearance can be easily replicated. It also suits homes with solid walls or limited internal floorspace which makes internal insulation challenging. External insulation will likely require pipework and plumbing to be removed and reattached. Window sills will also need to be extended to ensure water runoff is maintained.

Any external insulation needs to be carried out by a qualified expert, who can advise on the best solution for your home.

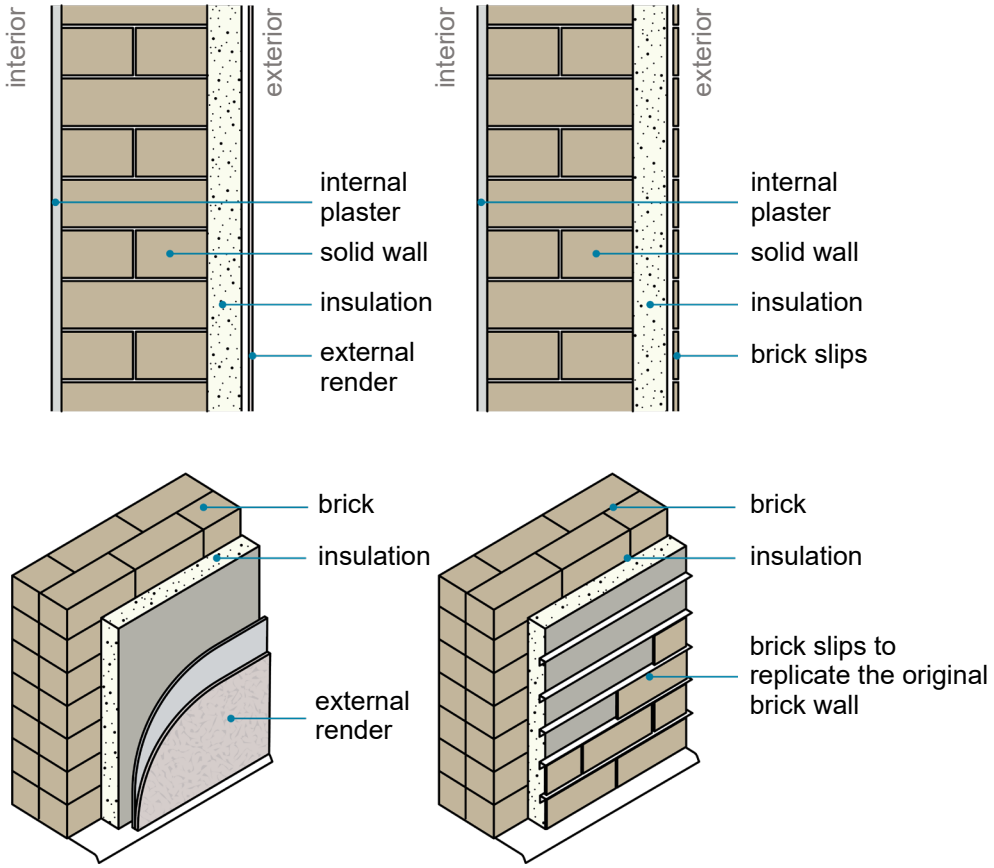


Figure 15: External insulation in render and brick slips

Houses, flats and maisonettes

Planning permission will not be required for any external insulation in a house, flat or maisonette unless the external appearance of your home is changed. For example, planning permission will be required if your home is currently finished in brick but the external insulation will result in a render finish. However, if your home is currently finished in render, no planning permission will be required as the external appearance has remained the same.

Different requirements apply to Listed Buildings and Conservation Areas, set out in the next sections.

If you are a leaseholder, then you may also need to gain permission from the freeholder of the site before being able to carry out the works. The freeholder may also have their own requirements and restrictions on works.

Conservation Areas

You will need planning permission for external insulation within Conservation Areas.

The external appearance of these homes contributes to the historic importance and character of the Conservation Area.

External insulation will not be permitted where the appearance of the building changes. This includes a change in external material or loss of key features. For example, a render finish would not be suitable at a home which is currently finished in brick. This changes the appearance of the building and lessens the design quality of the area.

External insulation is best placed on facades which are already rendered. It may also be acceptable on less visible or rear facades.

Listed Buildings

You will need Listed Building Consent for external insulation. It is unlikely however that external insulation will be permitted.

The external appearance of a listed home is often of great significance and historic interest. Example features include original windows, doors or brickwork. External insulation will cover up such features and harm the significance and character of the building as a result.

As such, other forms of insulation should be considered.

2.5 Air source heat pumps

Is permission required for installing air source heat pumps?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not generally required unless the proposal falls within the list of exceptions of permitted development.	Planning permission is not generally required unless the proposal falls within the list of exceptions of permitted development.	Planning permission is not generally required unless the proposal falls within the list of exceptions of permitted development.	Planning permission and Listed Building Consent are required.

Table 7: 'Is permission required for installing air source heat pumps?'

> We offer a free pre-application advice service for installing air source heat pumps at your home. You can use this service to discuss the works with a planning officer. This could help resolve any planning policy or design issues before you make your application.

Heat pumps run on electricity to provide heating and hot water. The use of heat pumps as opposed to gas boilers can reduce the cost of your heating bills and reduce your carbon footprint.

Heat pumps are only suitable if your home uses radiators or underfloor heating as its main source of heating. Your home will also need to be airtight and well insulated otherwise the heat pump will not be able to operate efficiently and may become very costly to use. You will also need enough space to fit the heat pump units.

There are two common types of heat pumps:

- Ground source heat pump: Pipes are placed under ground. It is only suitable if you have a garden or large outdoor space suitable for digging.
- Air source heat pump (ASHP): The heat pump units are placed above ground. It is suitable if you have sufficient external space to fit the unit(s) and for it to have the necessary amount of open air to function efficiently.

This guidance covers ASHPs only.

ASHPs can be very noisy. They need to be placed at least 1m from the site boundary to limit disruption to adjoining neighbours. The minimum distance may have to increase depending on the layout of your home and proximity to neighbours. Acoustic screens could be installed to reduce noise impact. The cold air discharged from air source heat pumps should not be fed into communal or actively used space.

The ASHP should also be sited sufficiently distanced from any tree root protection areas.

An ASHP should be located to the rear of your home or in areas which already have a service character, away from the principal elevations of the property. It may also be located on the roof of your home. In on the roof, it will need to be set back from the roof edge or preferably behind a parapet to minimise visual impact. ASHPs should be screened with greenery, fencing or an alternative appropriate enclosure where practical.

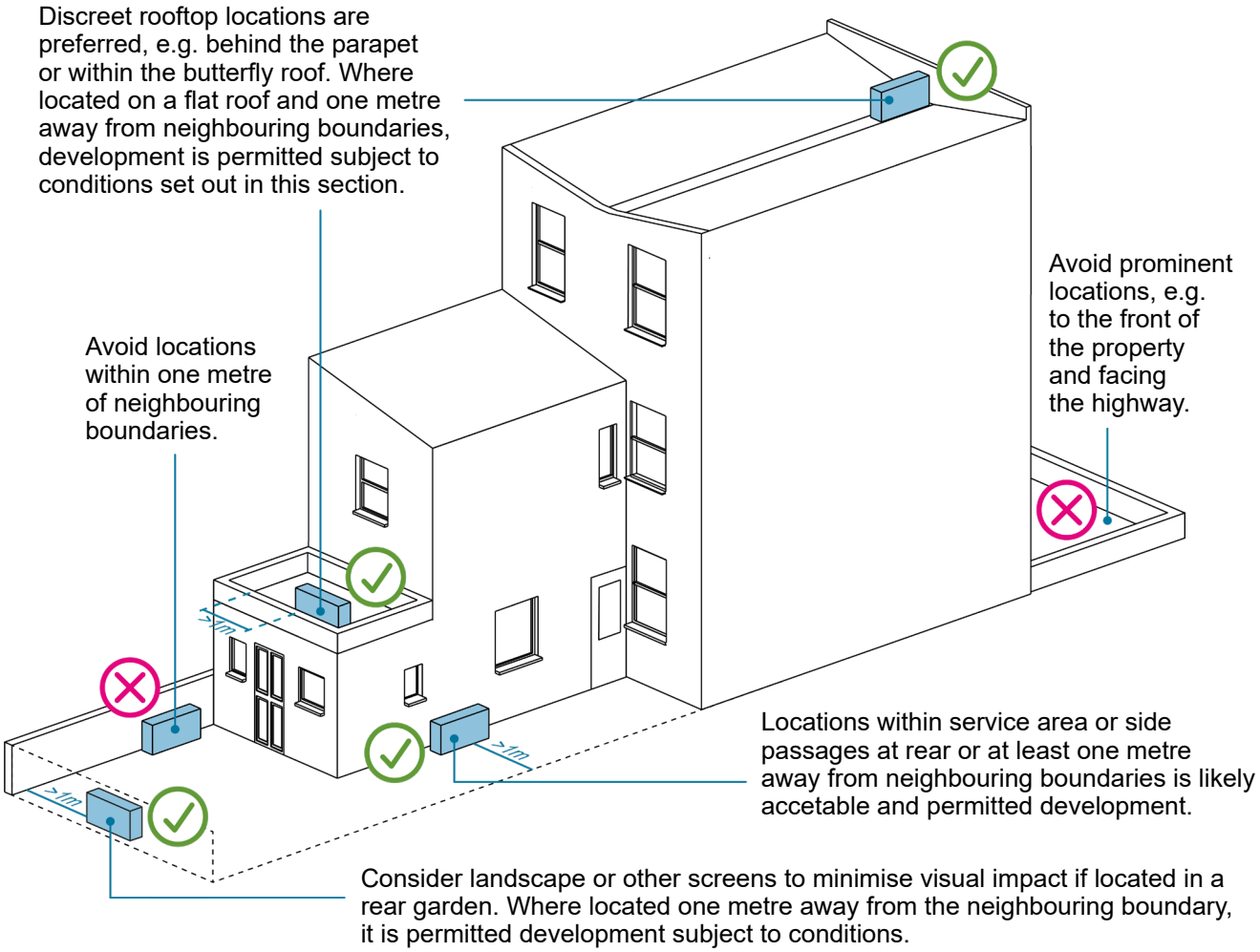


Figure 16: Siting an ASHP

You should consult the relevant experts for the best solution for your home.

Houses, flats and maisonettes or homes within Conservation Areas

The installation of ASHPs is permitted development within houses, flats, maisonettes and homes within Conservation Areas, subject to the following limits:

- Development is permitted only if the ASHP installation complies with the Microgeneration Certification Scheme Planning Standards (MCS 020) or equivalent standards.
- The volume of the ASHP's outdoor compressor unit (including housing) must not exceed 0.6 cubic metres.
- Only the first installation of an ASHP would be permitted development. Additional ASHPs at the same property requires an application for planning permission.
- All parts of the ASHP must be at least one metre from the property boundary.

- Installations on pitched roofs are not permitted development. If installed on a flat roof all parts of the ASHP must be at least one metre from the external edge of that roof.
- Permitted development rights do not apply for installations within the curtilage of a Listed Building or within a site designated as a Scheduled Monument.
- On land within a Conservation Area or World Heritage Site the ASHP must not be installed on a wall or roof which fronts a highway or be nearer to any highway which bounds the property than any part of the building.
- On land that is not within a Conservation Area or World Heritage Site, the ASHP must not be installed on any part of a wall above the level of the ground floor storey if that wall fronts a highway.

The installation of ASHPs is also subject to the following conditions:

- The ASHP should only be used for heating purposes.
- The ASHP should removed as soon as reasonably practicable when it is no longer required.
- The ASHP should be located, as far as practicable, to minimise its effect on the external appearance of your home and surrounding area.

Different requirements apply to Listed Buildings, set out in the next section.

The need to minimise the visual impact of the ASHP is of particular importance to homes within Conservation Areas. The external appearance of these homes contributes to the historic importance and character of the area. ASHPs can be intrusive as modern features.

ASHPs will not be acceptable if placed within the front garden or street facing roof of a home in a Conservation Area. ASHPs should also not be placed in any other publicly visible area of your home in a Conservation Area.

You will need planning permission if the above limits and conditions cannot be met. You may wish to apply for a Certificate of Lawfulness before installing an ASHP. This will provide a formal confirmation that planning permission is not required.

Listed Buildings

You will need planning permission and Listed Building Consent for the installation of ASHPs if your home is listed.

The benefit of an ASHP will be limited in Listed Buildings that are not insulated or airtight. The necessary pipework and units could also compromise the integrity of the Listed Building.

We do not generally encourage the installation of ASHPs within Listed Buildings. ASHPs may be acceptable if part of a whole-building approach and demonstrating that no harm will be caused to the Listed Building.

2.6 Solar panels

Is permission required for solar panels?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not generally required unless the proposal falls within the list of exceptions of permitted development.	Planning permission is not generally required unless the proposal falls within the list of exceptions of permitted development.	Planning permission is not generally required unless the proposal falls within the list of exceptions of permitted development.	Planning permission and Listed Building Consent are required.

Table 8: 'Is permission required for solar panels?'

i We offer a free pre-application advice service for installing solar panels at your home. You can use this service to discuss the works with a planning officer. This could help resolve any planning policy or design issues before you make your application.

Solar photovoltaic panels (PVs) convert energy from sunlight into electricity to power your home. Solar thermal systems are also available which use the similar technology to provide heating and hot water. Solar panels are most commonly fitted onto roofs and a typical system for a house will produce 5000 kWh per year.

Installing solar panels or solar thermal systems can reduce the cost of your energy bills and reduce the carbon footprint of your house's energy use.

You will need to talk to your energy provider about the most suitable solution for your home and how the generated electricity can be used.

Houses, flats and maisonettes and homes within Conservation Areas

The installation of solar panels is permitted development within houses, flats and maisonettes or homes within Conservation Areas. However, there are several exceptions and conditions which need to be met, which can be found on the Planning Portal. Different requirements apply to Listed Buildings, detailed in the subsequent section.

If planning permission is required, the following should be included within your application:

- A description of the solar PV and/or solar thermal system you intend to install
- The capacity (electrical output) of the proposed system (KWph)
- The number of solar panels and the area covered by the panels (m^2)
- Details on any potential overshadowing from trees, other buildings and roof features.

A Visual Impact Assessment (VIA) should be included if your home is within a Conservation Area and the solar panels will be visible from a public viewpoint. It should be proportionate to the scale of the proposed works and address:

- How many panels are proposed and how they will be arranged
- How visible the panels will be from public areas
- How the proposed panels have considered the design guidelines set out in Figure 17

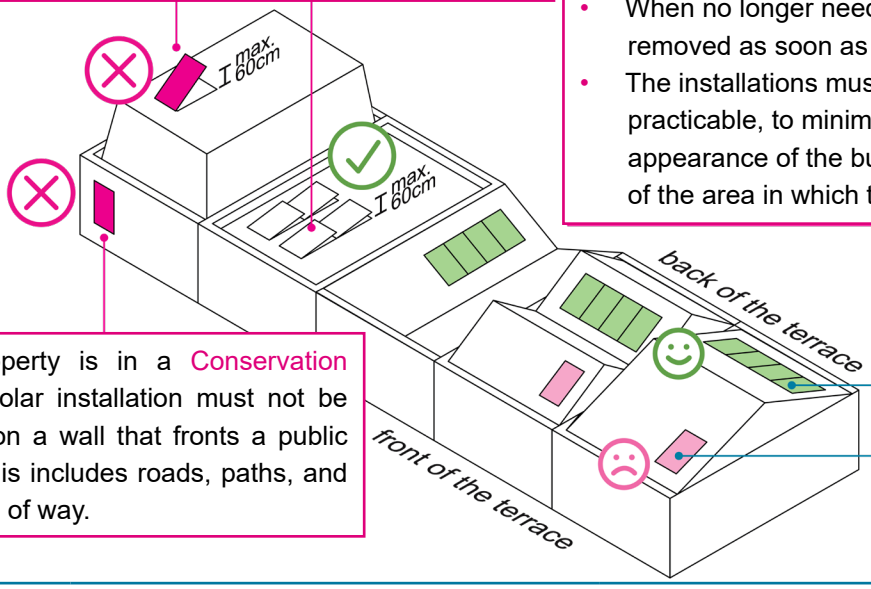
Solar panels can clutter if installed poorly. They may also appear disorderly and harm the character of your home. This is of particular concern if your home is within a Conservation Area. The external and public facing appearance of homes within Conservation Areas often contribute positively to the historic character and significance of the area and should be preserved.

Guidance on where to fit solar panels and ways to minimise their visual impact is provided in Figure 17 on the next page. However, this needs to be balanced with the direction your home is facing to ensure the panels perform efficiently.

Permitted development conditions - Planning permission is required if you fail to meet any of the conditions.

- The solar installation must not protrude more than 0.6 metres beyond the plane of the wall or the roof slope when measured perpendicularly from the external surface of the wall or roof slope.
- The highest part of the installation must not exceed the highest part of the roof (excluding the chimney).

- The solar PV or solar thermal system must not be installed on a site designated as a scheduled monument.
- The solar PV or solar thermal system must not be installed on a Listed Building, a building within the gardens or grounds of a Listed Building.
- When no longer needed, the installations should be removed as soon as reasonably practicable.
- The installations must be sited, so far as is practicable, to minimise the effect on the external appearance of the building and the visual amenity of the area in which the building is located.



If your property is in a Conservation Area, the solar installation must not be positioned on a wall that fronts a public highway. This includes roads, paths, and public rights of way.

Design principles
To minimise visual impact

Position
Install on less visible roofs where possible. Avoid installation on public-facing roofs.

	Do's	Don'ts
Colour & contrast	Colour of the panels should match that of the roof. Frameless panels or panels with painted frames are encouraged. Use low-reflecivity panels to reduce glare.	Avoid untreated cables and frames that contrast with the colour of the roof.
Arrangement	Panels should be well aligned, arranged in the same direction and symmetry. Organise them carefully around roof features if any.	Avoid arranging panels in a mix of horizontal and vertical directions with zero symmetry.
Spacing	Panels should be evenly spaced and set in at least 1m from every edge of the roof and/or wall margins.	Avoid placing panels too close to the roof edges.
Mounting system	In-roof mounting system is encouraged. Panels are integrated as part of the roof instead of sitting on top of the tiles.	Avoid too much gap between the panels and roof surface. It may lead to bird nesting or leaves getting stuck under the panels. Mounting rails should not go beyond the panels.
Neighbouring solar panels	Try to resemble the style of neighbouring solar panels if possible.	Try not to diverge too much from the style of neighbouring solar panels.

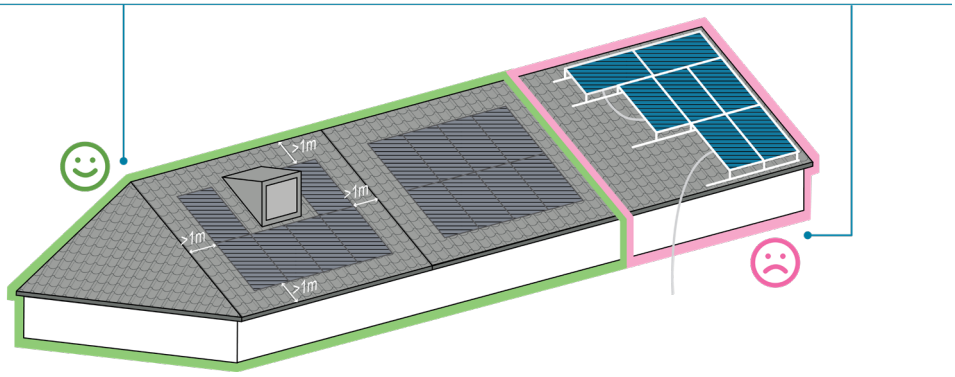


Figure 17: Siting solar panels and design principles to minimise visual impact

Listed Buildings

Planning permission and Listed Building Consent will be required for the installation of solar panels if your home is listed.

As a modern feature, solar panels are not considered to be sympathetic with many of the Listed Buildings found within the borough. This means solar panels will need to be installed sensitively and in the least disruptive form possible. Solar panels will not be permitted if adverse harm is caused to the visual appearance or historic fabric of the Listed Building.

The external appearance of a Listed Building is often of great importance to its character and significance and should be preserved. Overly visible solar panels would cause harm to a Listed Building's external appearance by introducing an inherently modern feature. Solar panels should be shallow pitched and hidden behind parapets where possible. They may also be placed on sections of the roof which are not visible to the front or rear of your property.

Solar panels may result in the loss of historic fabric as roof tiles may need to be removed for the installation. Although a few tiles may seem minor, these roofs tend to be original and historic feature. They contribute to the character and significance of the Listed Building. Great effort should be made to preserve as much historic fabric as possible. Where new tiles are required, these should be like-for-like replacements.

Ground-mounted solar panels may be a more appropriate solution for a Listed Building. Such will reduce any visual impact and avoid interaction with historic fabric.

You will also need to consider whether your home is listed as part of a group of buildings and the impact solar panels would have on the significance of the wider listed group. Group listing commonly applies to terraced properties, where the whole terrace is included in the listing as opposed to one individual home. If you home is group listed, then you will need to ensure any works maintain consistency across the group and do not introduce features which will detract from the Listed Buildings. You can find out whether your home is group listed in the Listed Building description. It will refer to your property's address or a wider group.

We welcome positive improvements to front garden which promote active design, reduce clutter and improve access to your home, especially for vulnerable residents. This can include providing space for cycle storage or enclosures for recycling and refuse bins.

2.7 Cycle and bin storage

Any cycle or bin enclosure is encouraged to be placed against a side boundary within the front garden, and not impede access to the front door. Storage should be kept away from the front boundary wall with the street where possible. Cycle or bin storage should not open onto the street pavement and should be accessed from within your front garden. This avoids any incursion or interruption into the public highway.

Cycle storage

Cycle storage is encouraged to be fully enclosed, secure and weatherproof and be easily accessible. Cycle storage is also encouraged to be to Sheffield stand specification, which provides the most convenient and accessible form of cycle parking.

Refuse storage

Refuse storage is encouraged be provided in accordance with the council's "Waste management guidance notes for residential developments" document.

2.8 Off street parking

Is permission required for off-street parking?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not generally required unless the proposal falls within the list of exceptions of permitted development.	Planning permission is required.	Planning permission is required.	Planning permission and Listed Building Consent are required.

Table 9: 'Is permission required for off-street parking?'

An application for residential off-street parking usually consists of three elements:

- Hardstanding area of your home (generally a front garden), large enough to hold a standard vehicle (at least 2.4m x 4.8m)
- A vehicle crossover to enable legal and safe access to your property from the carriageway
- The specified number of parking spaces

2.8.1 Hardstanding

Hardstanding refers to an area which has been paved over with a hard, non-porous material (such as concrete) for car parking. For residential off-street parking, this generally involves paving all or part of the front garden at your home.

Areas of hardstanding are not encouraged in most homes due to the negative impact on front gardens. Greenery and planting are often replaced with hardstanding materials which are less permeable. This increases rainwater run-off as it cannot be absorbed. The removal of greenery and planting also negatively impacts the character of your home (especially in Conservation Areas or listed homes). It can further detract from the appearance of the existing streetscape and impact the visual amenity of the area.

Permitted development allows for 5m² of hardstanding in a front garden. This is often not enough to fit a standard modern vehicle which generally requires 11.5m2 of paving on average. You would therefore need planning permission if using hardstanding for the purpose of parking a vehicle. Permitted development does allow for paving of any size if made of a porous material (such as impermeable paving) or if provision is made to direct run-off water to a permeable or porous area.

You will need to apply for planning permission for any hardstanding or non-permeable paving if your home is a flat, maisonette, in a Conservation Area or a Listed Building as permitted development does not apply.

Planning permission may also be required for the necessary vehicle crossover to facilitate the off-street parking on the hardstanding.

i Separate permission also needs to be sought from the council's Highways team for all vehicle crossovers.

2.8.2 Vehicle crossovers

Vehicle crossovers generally involve lowering a kerb and allowing for a car to drive across a public road and pavement to access off-street parking.

Vehicle crossovers can cause conflict with pedestrians, bicycles and vehicles by interrupting movement along a street. Vehicle crossovers also remove usable kerbside space, including on-street parking spaces available to all.

Planning permission is required for vehicle crossovers when:

- On classified roads and trunk roads
- Providing access to a property that is a maisonette or divided into flats
- In a Conservation Area
- Providing access to a listed home (permission required alongside Listed Building Consent)

Receiving planning permission does not always mean you can install a vehicle crossover. Permission for all vehicle crossovers need to be sought from the council's Highways team in addition.

There are certain highway features which cannot be moved for a vehicle crossover, such as speed humps or traffic islands. Your application for a vehicle crossover will be refused if any non-moveable features are located outside of your home. Full details of all non-moveable features can be found in fact box 2.

Other features may be moveable, such as on-street electric vehicle charging points or cycle stands. The costs of the relocation would be paid by the applicant seeking the crossover. These costs can be significant and will vary depending on the feature. Your application for a vehicle crossover may still be refused if the relocation of the feature would have an adverse impact on the public highway. Full details of all potentially moveable features can be found in fact box 3.

Further requirements which a vehicle crossover needs to meet are listed in fact box 4.

If a crossover is to be installed, you are encouraged to follow the best practice example set out in Figure 18. This is best practice guidance for all vehicle crossovers, regardless of whether planning permission is required or not.

i

Fact box 2: Non-moveable features

The following list contains items that cannot be relocated or removed to install a vehicle crossover. If any of the below items are located outside of your home, your application for a vehicle crossover will be refused.

Traffic calming features, such as speed humps, raised tables, speed cushions and traffic islands. These are strategically placed for highway safety reasons and would be less effective, or ineffective, if relocated.

Street trees provide canopy cover that cleans our air, soil and water. Street trees also mitigate the urban heat island effect and reduce flood risks. Mature trees cannot be replaced as the amount of canopy cover provided by a new tree would not be a like-for-like replacement.

Street lighting columns cannot be located within 1.2m of the edge of a vehicle crossing due to the risk of impact from vehicles and the resulting safety issues. Relocating a street lighting column is not possible. The council need to ensure even light cover for safety at night. The council also need to prevent light pollution and reduce impacts of lighting on wildlife.

Signage is placed in a specific location to help with wayfinding and to ensure compliance with highways regulations, such as speed limits or Controlled Parking Zones.

Uncontrolled formal crossings for pedestrians, such as zebra crossings. These are situated at points of potential conflict to guide pedestrians to the safest crossing location. These crossings cannot be relocated as this would increase risks to pedestrians.

Controlled formal crossings, such as toucan or puffin crossings. These are located to ensure the transport network can function safely and efficiently. Relocation of a controlled formal crossing for a residential crossover would have a negative impact on the transport network.

Bus stop cages cannot be closer than 10m on the same side of the street from a new vehicle crossover. As the Highway Authority, the council has the right to extend this distance if the frequency of bus services or the number of queuing passengers warrants it. Relocating a bus stop cage could have a negative impact on the local transport network.

Blue Badge bays are located to be accessible to residents from specific properties. Relocating a Blue Badge Bay would not be acceptable due to the difficulties it may cause to Blue Badge Holders.

Fact box 3: Potentially moveable features

The following list contains items that could potentially be relocated to facilitate a vehicle crossover. The costs of the relocation would be paid by the applicant seeking the crossover. These costs can be significant and may include but is not limited to the Traffic Management Order (TMO). Your application for a vehicle crossover may still be refused if the relocation of the feature would have an adverse impact on the public highway.

On-street electric vehicle charging points (EVCPs)

- May be moved within the immediate vicinity of their existing location.
- This is only in instances where the move would not have a negative impact on residents.
- Relocation would be subjection to consultation during which other residents may raise objections.
- The applicant would bear all costs associated with relocating the EVCP. This would include the TMO and movement of the parking bay associate with the charger.

Standard parking bays

- Can be moved or removed where parking stress in the vicinity of the site is demonstrated to be lower than 85%.
- Relocation would be subjection to consultation during which other residents may raise objections.
- The applicant would bear all costs associated with moving or removing the parking bay. This would include the TMO and the signing / lining of the relocated bay.
- The applicant may also be liable for financial compensation that covers the loss of council parking revenue.
- The council may refuse an application where the parking bay would provide valuable kerbside space for uses that benefit the wider public.

On-carriageway cycle hangers

- Can be moved only where there is an appropriate location for the replacement(s) in the vicinity of the site. Users of the hanger must also not be inconvenienced by the relocation.
- Relocation would be subjection to consultation during which other residents may raise objections.
- The applicant would bear all costs associated with moving the cycle hangar. This would include the TMO.
- An agreement with the users of the existing hanger must be in place to ensure there is no loss of access or displaced cycles.

Cycle stands on footways

- Can be moved only where there is an appropriate location for the replacement(s) in the vicinity of the site.
- If there is no suitable location for the replacement, the council will likely refuse your application to ensure adequate cover of visitor cycle parking throughout the borough.
- The applicant would bear all costs associated with relocating the cycle stand.

Segregated cycle lanes or tracks

- Can be adjusted where the council deem appropriate, considering the adopted Streets for People strategy which prioritises active travel over private vehicles.
- The applicant would bear all costs associated with relocating the cycle stand. This would include a level 1 departure, a road safety audit (RSA) and TMO. This would likely be a significant expense.

Fact box 4: Highway requirements for vehicle crossovers

Proximity to side roads – New vehicle crossovers cannot not be located within 15m of a side road junction to the same side of the street. On classified roads (A, B and C roads) the minimum distance is 24m.

Consecutive crossovers – Less than 1.2m length of standard footway between crossovers, including between the proposed crossover and existing crossover(s), would be considered unacceptable. This is because frequent changes in crossfall and gradient cause difficulties for those with visual or mobility impairments.

Cross and Long-falls - Measured across the footway, the crossfall gradient should be between 1:30 - 1:60 (1:40 preferred). Gradients should not exceed 1/12 to ensure the safety of pedestrians and a gradient steeper than ¼ will not be permitted.

Visibility splays – Pedestrian sightlines of 1.5m x 1.5m are required either side of the opening in the boundary for a vehicle access from the back edge of the public highway (not within the opening). No features higher than 0.6m are permitted within this area. Vehicle sightlines of 2.4m x 25m (20mph roads) or 2.4, x 43m (30mph roads) are also required.

Entry and exit – On Classified roads, vehicles must be able to enter and exit in forward gear. To reduce conflict between road users, only 1 crossover per residential property will be permitted.

Space for 2.4 x 4.8 car – There must be at least 2.4 x 4.8m of hardstanding or permeable material per car parking space. Gates must open inwards or slide to the side within the bounds of your property. Where gates are proposed to open inwards, additional length of hardstanding is required ensure gates can open while the vehicle is parked.

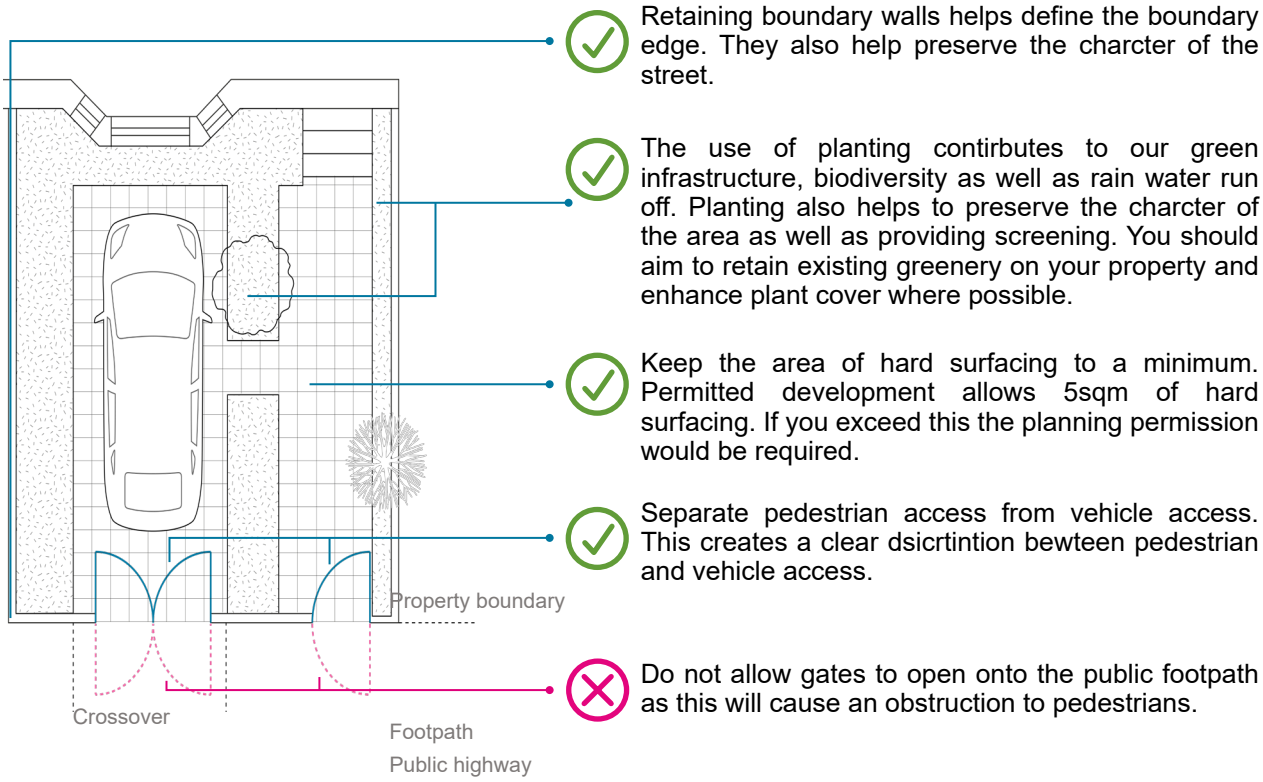


Figure 18: Best practice design guidance on vehicle crossovers

Electric vehicle charging points

You should check whether you can have off-street parking before installing any electric vehicle charging points. For more information on electric vehicle charging points please refer to the council's website.

2.9 External painting

Is permission required for external painting?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning permission is not required.	Planning permission is not required.	Planning permission is not required unless the external appearance will change significantly.	Listed Building Consent is not required unless your home is not currently painted, or the external appearance will change significantly.

Table 10: 'Is permission required for external painting?'

Regular external redecoration can help prevent decay at your home. You may also wish to repaint your home a different colour. In most cases, planning permission is not required unless the permitted development right is removed by an Article 4 Direction.

Conservation Areas

We encourage the use of traditional colours when you are painting your home in a Conservation Area. There may be conventions of using brighter colours in certain areas of the borough or the use of the same colour in a terrace. You are advised to consider local approaches before planning any works, detailed in our Conservation Area appraisals.

Listed Buildings

Listed Building Consent is not required if you are carrying out like-for-like repainting. This means your home is already painted, and you are reapplying the same colour for regular maintenance.

Listed Building Consent will be required if you wish to paint non-painted external areas – for example brick, stone or concrete. Consent will also be required if the external appearance is changing colour – for example from cream to dark grey.

Decisions will be made on a case-by-case basis, but we generally do not support change to the exterior of a Listed Building. Painting brick, stone or concrete walls should be avoided as it could create damp issues and is considered harmful to the historic fabric. On buildings with external coatings, e.g. stucco and lime render, 'breathable' paint such as limewash should be used to ensure moisture in walls can evaporate.

2.10 Other development

2.10.1 Boundary walls and fences

Planning permission would not be required if you want to erect a wall or fence, alter or take down an existing wall or fence if you ensure that you meet the following conditions:

- At the front of the property does not exceed 1m in height from ground level
- To the rear of the property does not exceed 2m in height from ground level

Beyond this, planning permission would be required. Listed Building Consent may be required if your home is listed depending on the type of boundary wall or fence proposed to be replaced.

2.10.2 Decking and hardstanding

Decking and hardstanding should be no more than 300mm/30cm above the ground and cannot cover more than 50% of the rear garden at your home.

CHAPTER 3

EXTENSIONS

3 EXTENSIONS

3.1 Introduction

This chapter sets out the works a resident can consider when looking to extend their home. Guidance is provided on the most common types of extensions for residential properties as well as other works such as roof terraces and outbuildings.

This chapter also provides guidance on any relevant planning considerations. These could include design quality, impact on neighbouring properties, and impact on heritage assets (such as Listed Buildings and Conservation Areas).

Some extensions are permitted development subject to conditions and limitations. This guidance should be read alongside the Permitted Development (Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended). It is your responsibility to ensure you comply with all the legal requirements. The SPD sets out the position accurately in May 2024.

You will need professional advice before you plan an extension to your home. An architect, architectural designer, or surveyor will be able to prepare plans and advise you on the costs involved.

3.2 Key considerations

There may be many factors which need to be considered before planning how to extend your home. This will depend on the type of property you live in and where it is located.

3.2.1 Whole Building Approach

We encourage a ‘Whole Building Approach’ when looking to extend your home. Planning an extension is a useful opportunity to consider where improvements could be made to your existing home. This could help improve your home’s overall energy and thermal performance.

You should consider how your extension plans work with any future ideas for other improvement works. This could be insulating your home, installing heat pumps or solar panels. It would be useful to have an idea of these works so you can future proof your extension plans. Guidance on these works is set out in Chapter 2.

We also encourage energy efficient design and construction. Ways to reduce the carbon

emissions of your extension are best considered at the start of the design process. This could include the use of sustainable materials, green roofs or potential for natural cooling or heating in the extension. You should think about the lifespan of the materials you are using and whether they can be repaired, replaced or recycled in future.

Figure 19 below demonstrates a Whole Building Approach to extending your home. The approach shows which parts of your home to consider first and how to think about the design and construction of your extension. This can also help make your home more resilient to the effects of a changing climate.

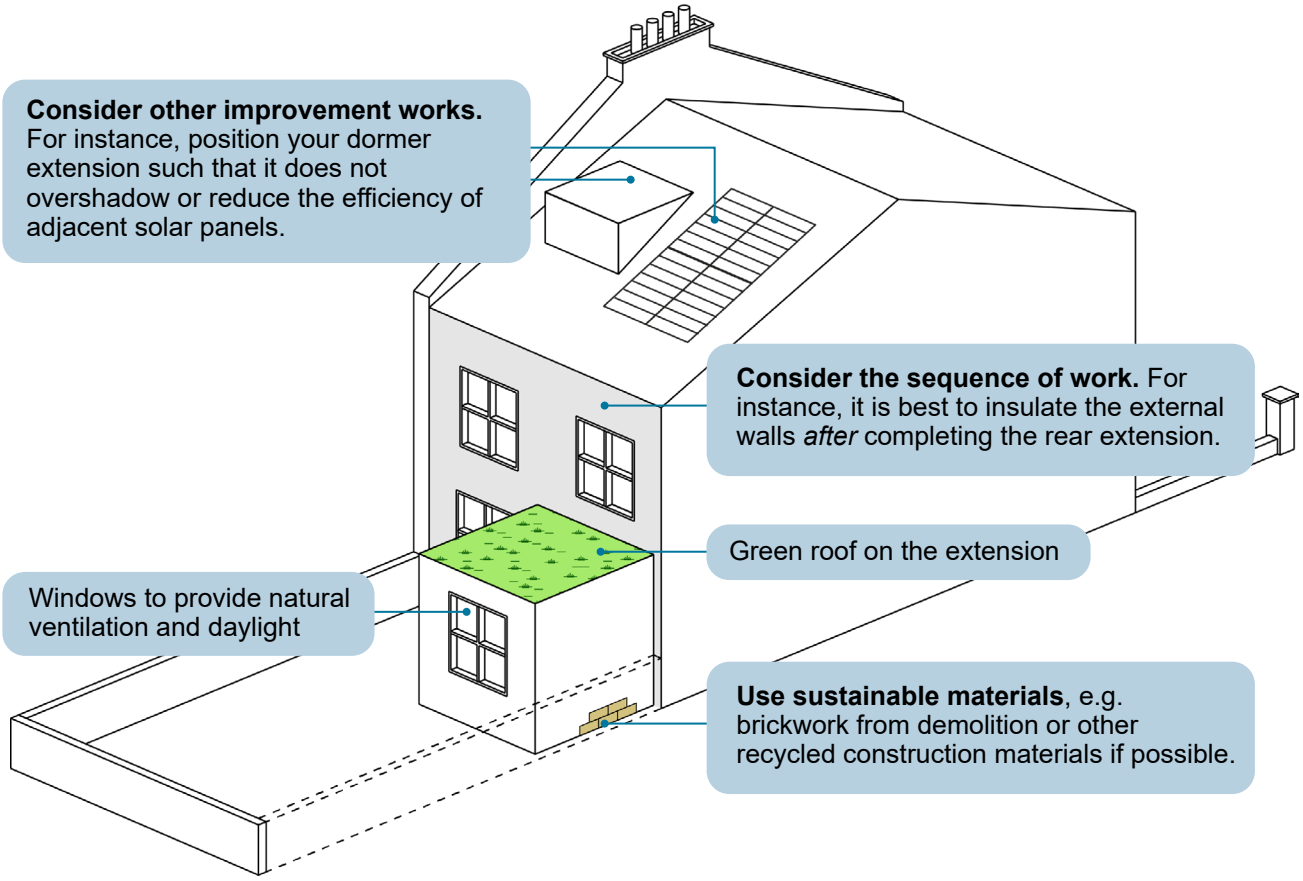


Figure 19: Whole building approach for extensions

3.2.2 Design and appearance

There are many different types of homes in Southwark which show the rich and varied architecture in the borough. Each type of home has its own distinctive features which define its character and style. Whether it a house, a flat, a historic or modern building, features such as windows, doors, the roof or other materials will contribute to a home's appearance.

An efficient and cost-effective extension can work in harmony with your existing home and provide more space where you need it. An extension can also be designed to bring more light and air into your home, providing a better connection to the outdoors.

You should not only consider the type of extension you want but how the extension will relate to your property, as well as the surrounding area.

An extension should:

- Be in keeping with the architectural style of your home
- Be of a size and scale that would not visually dominate your home
- Use materials that are similar to your home
- Be in keeping with the character of the surrounding area, including any historic pattern
- Avoid impact to the amenity of neighbouring properties
- Prioritise energy efficient design and climate resilient construction where practical

3.2.3 Internal space standards

There are no minimum area standards for internal spaces within a residential extension. These only apply to the creation of new dwellings.

Nonetheless, we encourage you to follow the room areas outlined in table 11. This will ensure your home remains enjoyable and liveable, with a high quality of accommodation.

Dwelling size	Studio	1 bed	2 bed	3 bed	4 bed
Double bedroom	N/A	12	12	12	12
Single room	N/A		7	7	7
Living room (where eating area is in the lounge)	N/A	16	17	18	19
Kitchen (where eating area is in the lounge)	N/A	6	7	8	8
Kitchen diner (where eating area is in the kitchen)	N/A	9	11	11	12
Living room (where eating area is in the kitchen diner)	N/A	13	13	15	15
Open plan development (where kitchen/diner is combined with the living room)	N/A	24	27	30	N/A
Bathroom/WC (combined)	3.5	3.5	3.5	3.5	3.5

Table 11: Minimum room areas recommended in square metres

3.2.4 Heritage assets

Additional consideration will need to be given if your home is listed or within a Conservation Area. An extension should be of a high-quality design and be sympathetic to your home.

Your extension can be of a modern design, but the use of traditional materials is still encouraged. This includes materials such as brick, slate or timber. These materials will help reference the historic character of your home or the surrounding area. Traditional materials also tend to last longer than modern substitutes, giving better value and being more sustainable over time.

UPVC (Unplasticized Polyvinyl Chloride) will not be permitted in any of our Listed Buildings or Conservation Areas, even to the rear of a property. UPVC generally appears out of place in historic buildings or areas, owing to the plastic appearance. UPVC may also weather or behave differently from natural and more traditional materials.

Conservation Areas

You should read the Conservation Area appraisal for your area before planning any works. This set outs the type of materials you should use and the common types of developments if your area.

Listed Buildings

The external appearance of a Listed Building is often of great importance its significance. Any extension should be sympathetic and subservient to your home, and not detract from its external appearance or its historic features.

You will need to consider any historic features of your home, such as whether you have an outrigger or butterfly roof. This may dictate the type of extensions which are possible. We will resist the loss of butterfly roofs and other prominent historic features.

The internal walls and plan form are also very important and reflect the domestic history of a home. These are often not referenced in Listed Building descriptions but are protected by the listed status of the property. You will need to consider the amount of building fabric which needs to be removed to build an extension. This includes any windows, doors, internal walls or chimney breasts. The removal of these features will be considered under the Listed Building Consent.

We will not permit the removal of internal walls where it results in the loss of the original plan form of your home. This means we will not generally allow the whole removal of internal walls to create an open plan living room / kitchen / dining room. We may allow partial removal of walls where there is a retention of wall nibs and down stands. This allows the original plan form to still be legible whilst opening the room up. The loss of other original features such as chimney breasts will also be resisted.

You will also need to check whether your home is listed as part of a group of buildings. If so, you will need to consider the impact any works would have on the significance of the wider listed group. You can find out whether your home is group listed in the Listed Building description. The description will refer to your property's address on its own or part of a wider group. Even if your home is not group listed, it is worth having consideration to any other Listed Buildings in the vicinity of your property.

3.2.5 Trees

You must consider how the any planned extension may impact any nearby trees. This not only includes trees on your property but also those nearby in neighbouring properties. Extensions which involve works to the ground may cause harm to the root protection area of a tree or a tree may have to be removed to clear space for the work. The root protection area of a tree (RPA) is calculated at 12 x the diameter of the tree, measured at 1.5m from the ground. For example, a 300mm diameter tree will have an RPA radius of 3.6m from the bole of the tree, expressed as a circle. This is demonstrated in Figure 20.

If you are pruning, removing or carrying out works that may affect trees (including excavation) you will need to submit a Tree survey or Arboricultural Impacts Assessment as part of your planning application. More information on the assessment can be found here.

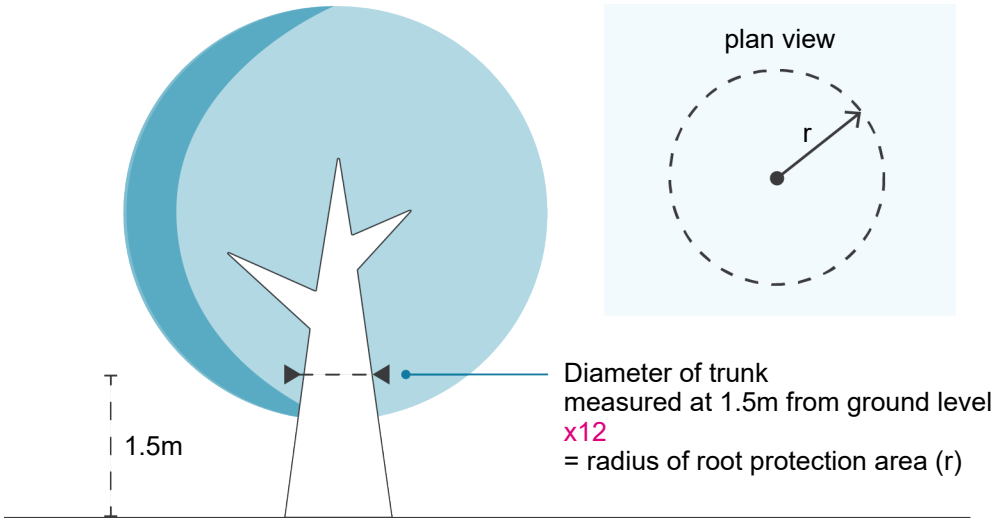


Figure 20: Root protection area of a tree

3.2.6 Impact to neighbouring properties

You must ensure any proposed extension does not negatively impact on your neighbour's ability to enjoy their home.

There are three main factors which are used to assess whether a neighbour is adversely affected:

- Daylight and Sunlight: Proposed works should not cause unacceptable harm the amount of daylight or sunlight your neighbour has access to.
- Privacy: Proposed works should protect the privacy for your neighbour
- Loss of Outlook: Proposed works should not unacceptably harm outlook for neighbours.

Daylight and sunlight tests

We carry out two daylight and sunlight tests when assessing a planning application for an extension. This is to ensure the extension does not cause unacceptable harm to the daylight or sunlight your neighbour has access to.

These tests are the 45-degree rule and 25-degree rule. It is recommended that you carry out these tests before submitting your plans to ensure the extension is compliant.

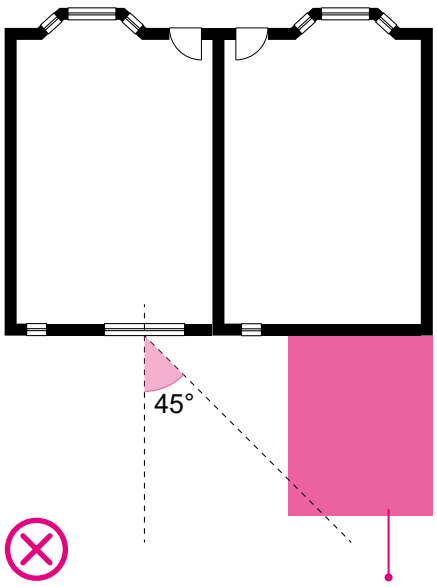
45-degree rule

We use this test should where the proposed development is at right angles to the affected window of the neighbouring property:

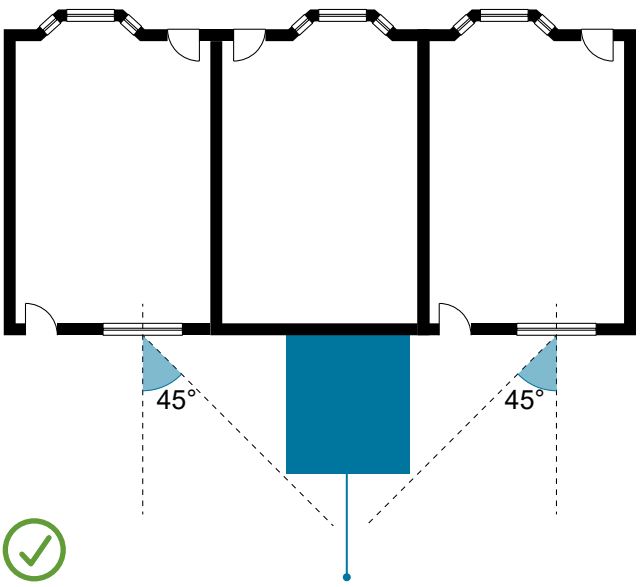
- Draw a line at 45 degrees upwards from the centre of the affected window
- Draw a line at 45 degrees sideways from the centre of the affected window

This test is demonstrated in Figure 21 below.

If the proposed development is both higher and wider than these 45-degree lines, there may be an unacceptable loss of daylight to the affected window.



The proposed rear extension crosses the 45° line marked from the centre of the window of the neighbouring property. The proposed rear extension could cause an unacceptable loss of daylight.



The proposed rear extension does not touch the 45° line and therefore would not negatively impact the daylight of the neighbouring properties.

Figure 21: 45-degree rule

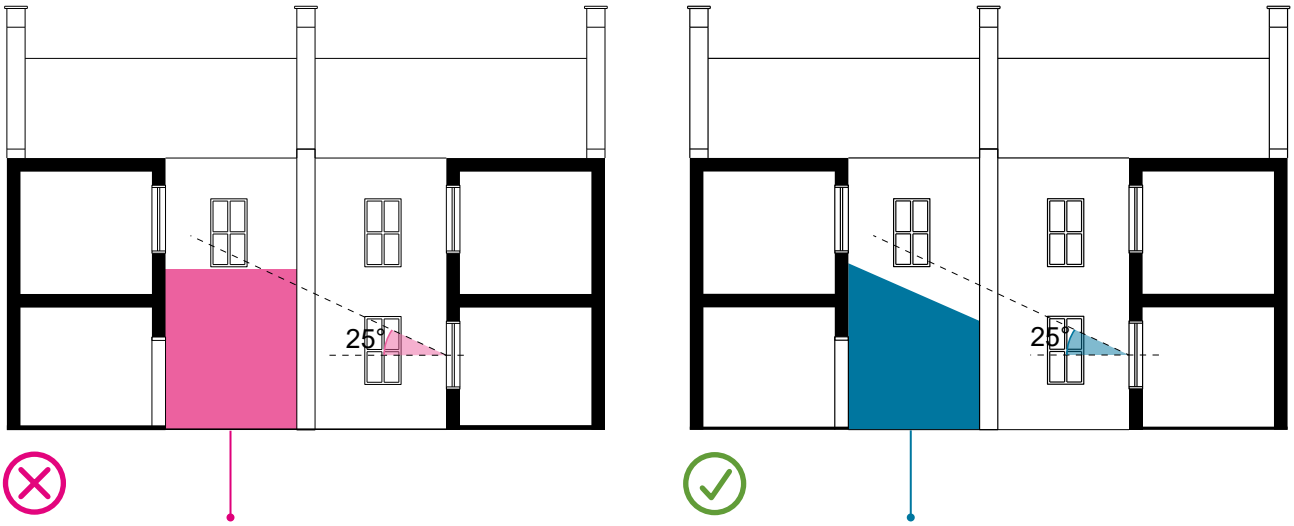
25-degree rule

We use this test where the proposed extension faces the affected window of the neighbouring property:

- Draw a line at 25 degrees upwards from the centre of the affected window

If the proposed extension is higher than this 25-degree line, there may be an unacceptable loss of daylight to the affected window.

This test is demonstrated in Figure 22 below.



The proposed extension crosses the 25° line marked from the centre of the window of the neighbouring property. The proposed extension could cause an unacceptable loss of daylight.

The proposed rear extension does not touch the 25° line and therefore would not negatively impact the daylight of the neighbouring properties.

Figure 22: 25-degree rule

3.2.7 Party walls

A party wall is a wall shared by two adjoining properties. Depending on the type of home you live in, you may share may have party walls with more than one neighbour. The Party Wall Act 1996 is in place to control development on each side of a party wall and maintain its integrity and function.

Certain works may need a Party Wall Agreement with your neighbour(s). This is separate from any planning permission you may receive.

3.3 Front extensions

Is permission required for a front extension?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Permitted development applies within certain dimensions. Above this, Planning Permission will be required.	Planning Permission will be required.	Planning Permission will be required.	Listed Building Consent and Planning Permission will be required.

Table 12: 'Is permission required for a front extension?'

Front extensions are generally limited to porches for most properties within the borough. Permitted development allows for the construction of a front porch to a maximum of 3sqm in area and 3m in height. This is shown in Figure 23 below.

Beyond these dimensions, you will need planning permission. Planning permission is also required for front extensions if your home is a flat / maisonette or within a Conservation Area. It is also needed alongside Listed Building Consent for listed homes.

We do not encourage front extensions which exceed these permitted development dimensions as the extension would likely be too visible in the existing street scene. Overly large front extensions can impact the character and appearance of your home.

It is also important to maintain the established building line in your street. This ensures a consistency to the area. Front extensions will not be permitted where this building line is significantly disrupted. This would result in a discordant feature within the streetscape.

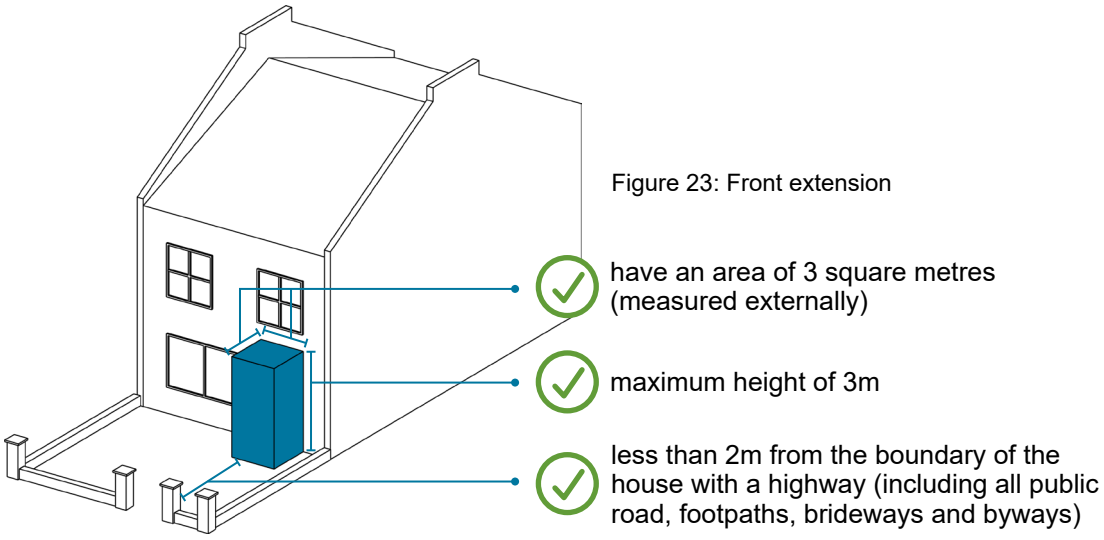


Figure 23: Front extension

3.4 Side extensions

Is permission required for a side extension?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Permitted development applies within certain dimensions. Above this, Planning Permission will be required.	Planning Permission will be required.	Planning Permission will be required.	Listed Building Consent and Planning Permission will be required.

Table 13: 'Is permission required for a side extension?'

Side extensions are commonly found at detached and semi-detached properties as well as the end of terraces. Consideration needs to be given when planning a side extension to maintain the sense of openness between buildings. This is important for maintaining the character of the existing street scene. It also reduces the sense of enclosure in the area.

Side extensions should be subservient to the existing building and not be a dominating feature. This is especially important if your home is listed or within a Conservation Area.

3.4.1 Single storey side extension(s)

Permitted development allows a single storey side extensions with a maximum height of 4m. The width should be no more than half the width of your home.

Beyond these dimensions, you will need planning permission. Planning permission is also required for front extensions if your home is a flat / maisonette or within a Conservation Area. It is also needed alongside Listed Building Consent for listed homes.

Where planning permission is required, side extensions should still be kept to a single storey. The extension should also be set back from the street-facing façade of the property by 1.5m. This will ensure the important gaps and sense of openness between properties are maintained.

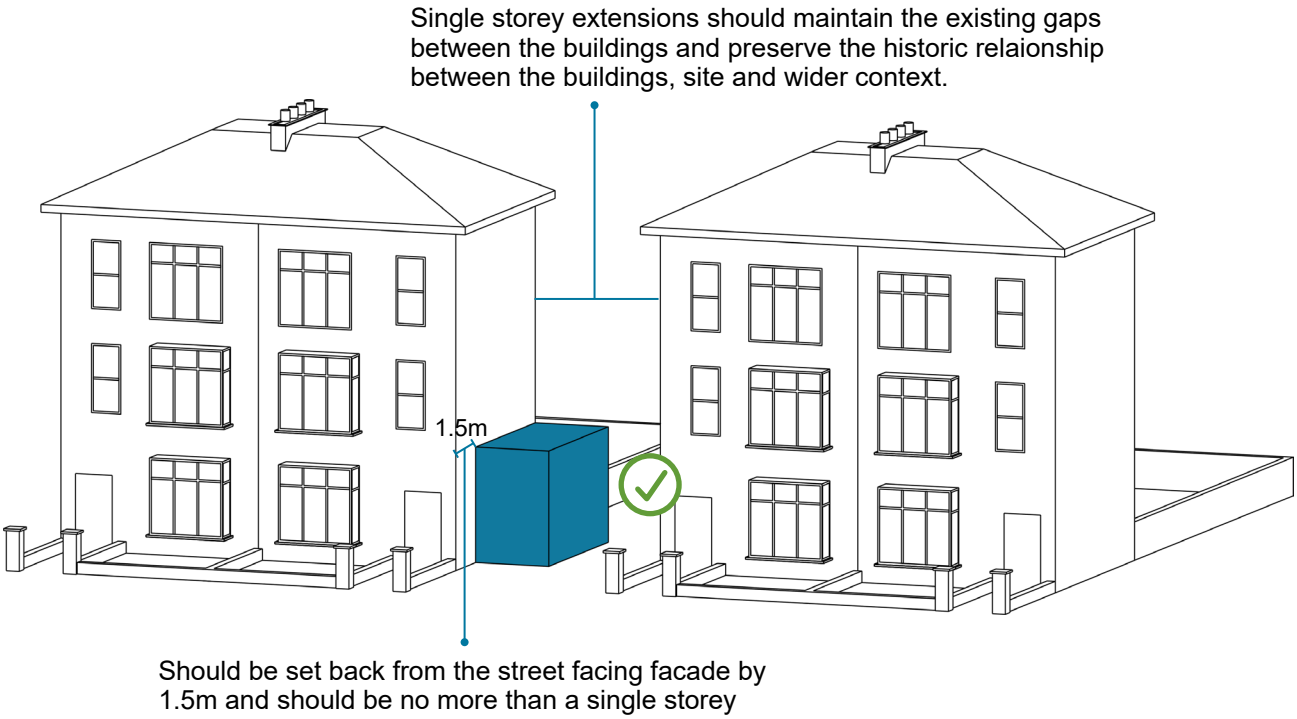


Figure 24: Single storey side extension

3.4.2 Two Storey Side Extension(s)

Two storey side extensions are not encouraged. The two-storey height is likely to have an impact on the character and setting of the street. Two storey side extensions must be designed to avoid a terracing effect, or the loss of the open character between properties. The extension should also be proposed with a roof style to match the existing property, as set out in Figure 25.

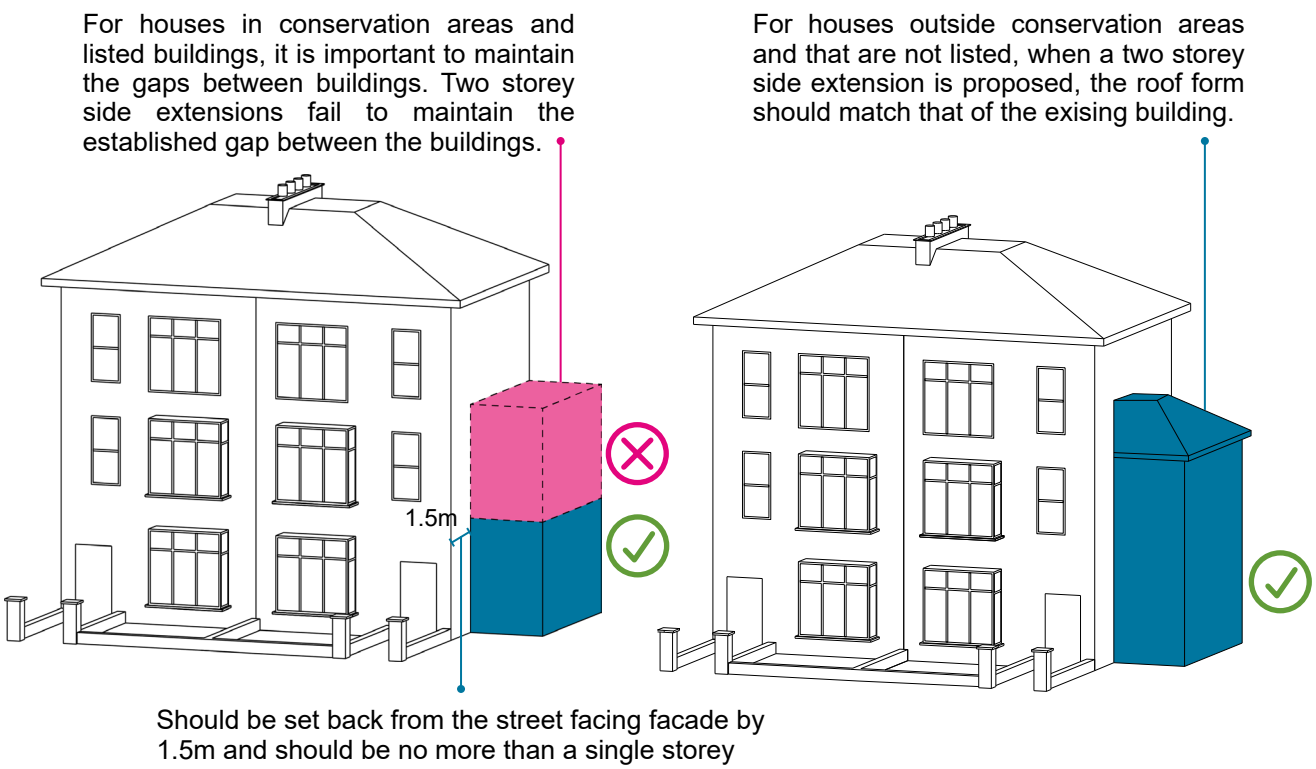


Figure 25: Two storey side extension

3.5 Rear extensions

Is permission required for a rear extension?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Permitted development applies within certain dimensions. Above this, Planning Permission will be required.	Planning Permission will be required.	Planning Permission will be required.	Listed Building Consent and Planning Permission will be required.

Table 14: 'Is permission required for a rear extension?'

Rear extensions are suitable for most housing types whether terraced, semi-detached or detached. Rear extensions should be designed to respect the character and scale of your existing home and are encouraged to be kept to a single storey.

You need to consider any change in ground levels between your home and any adjoining neighbours. This may result in the height of your extension appearing taller at these boundaries.

You will also need to ensure any extension does not cause unacceptable harm to the amenity of your neighbours. This guidance is set out in more detail in section 3.2.6.

3.5.1 Permitted development rear extensions

Permitted development allows for some homes to build a single storey rear extension without planning permission.

This is not applicable to homes which are flats, maisonettes, in a Conservation Area or listed.

Terraced and semi-detached house

A terraced or semi-detached home can be extended to the rear by up to 3m in depth and a maximum height of 4m (maximum height at the eaves of 3m), as set out in Figures 26 and 27.

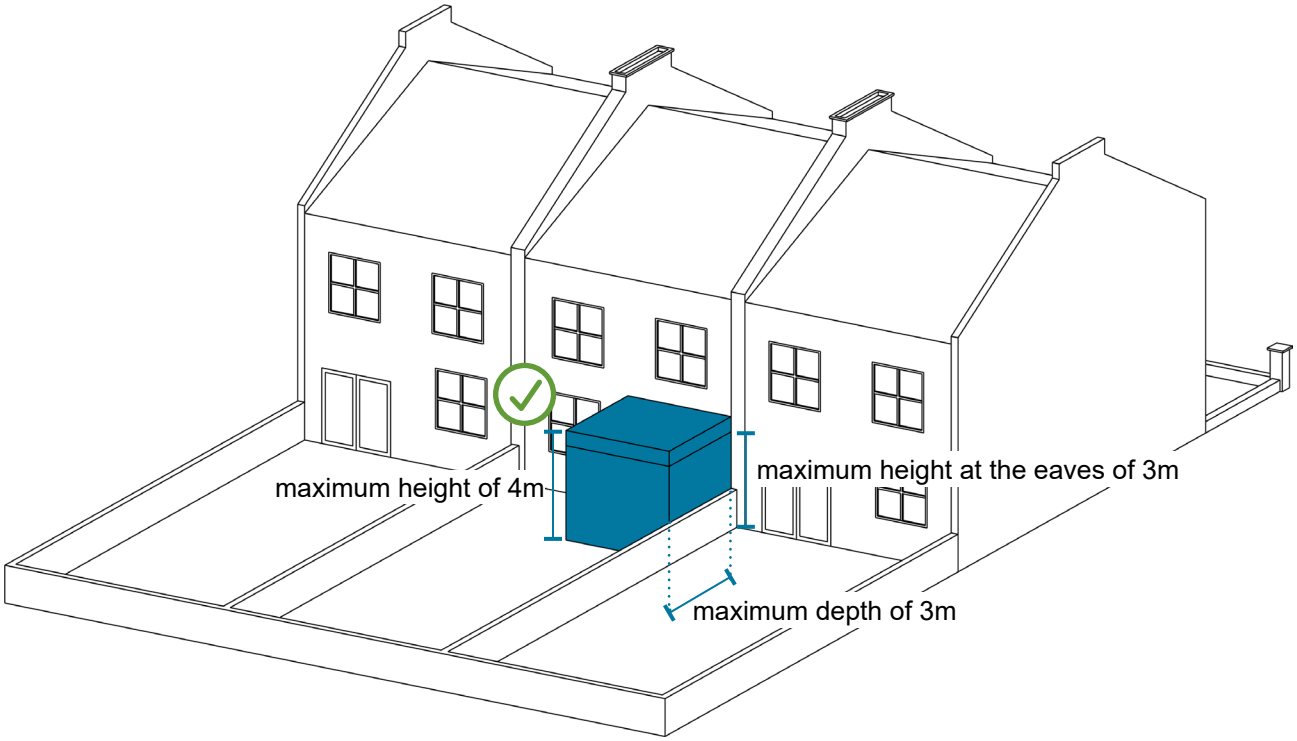


Figure 26: Rear extension at a terraced house

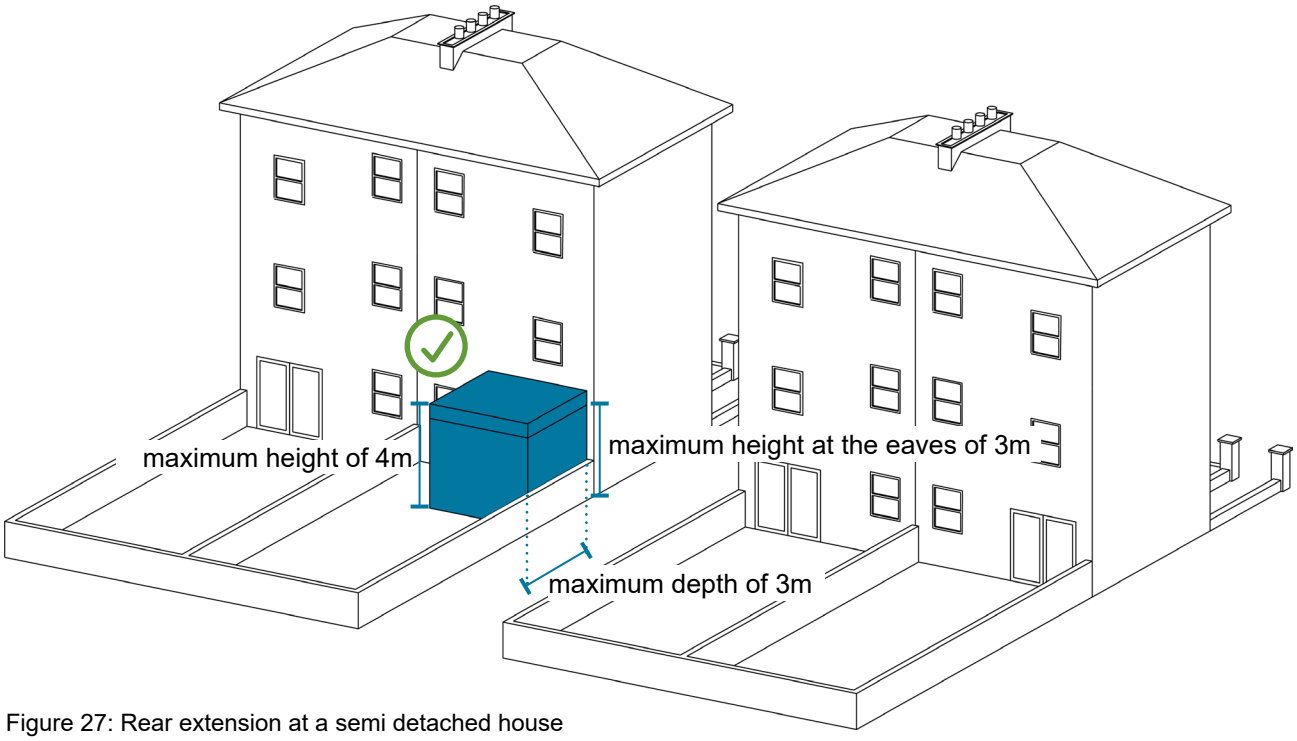


Figure 27: Rear extension at a semi detached house

Detached house

A detached house can be extended to the rear by up to 4m in depth with a maximum height of 4m (maximum height at the eaves of 3m) as set out in Figure 28.

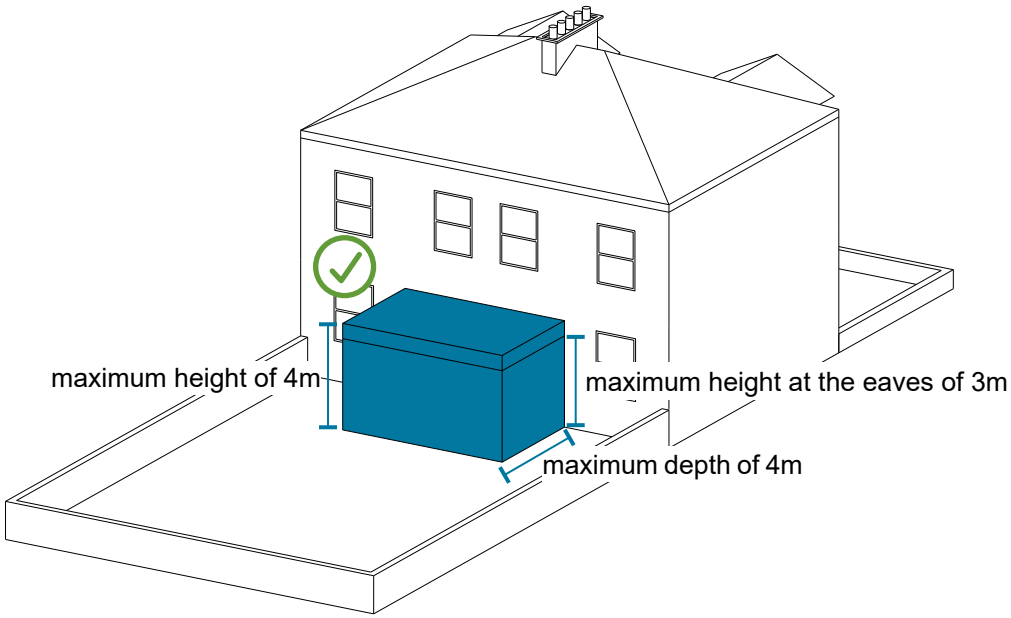


Figure 28: Rear extension at a detached house

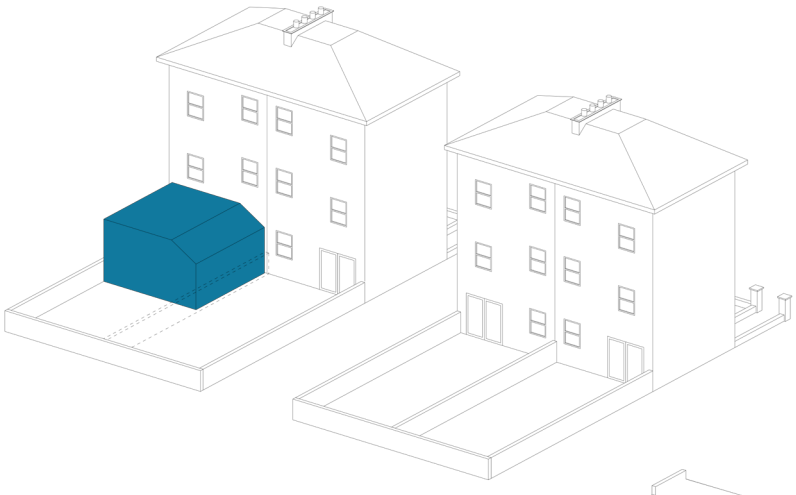
3.5.2 Rear extensions requiring planning permission

Beyond permitted development, you will need planning permission. Planning permission is also required for rear extensions if your home is a flat/ maisonette or within a Conservation Area. It is also needed alongside Listed Building Consent for listed homes.

Extensions between 3m-6m in depth need to consider the impact that may be caused to any neighbours, especially if the extension is on the boundary wall. We also encourage the roof to be designed to slope down towards the neighbouring property and to remain below 2.4m at this boundary for the entire length of the extension.

Extensions which exceed 6m in depth on the boundary are likely to be refused. These generally lead to an increased sense of enclosure at neighbouring properties, also reducing their access to daylight and sunlight.

Rear extensions must also not take up more than 50% of the total rear garden space at your home.



Recommeded dimensions of rear extensions needing planning permission:

- maximum height of 4m
- depth below 6m
- maximum height of sloped down part 2.4m

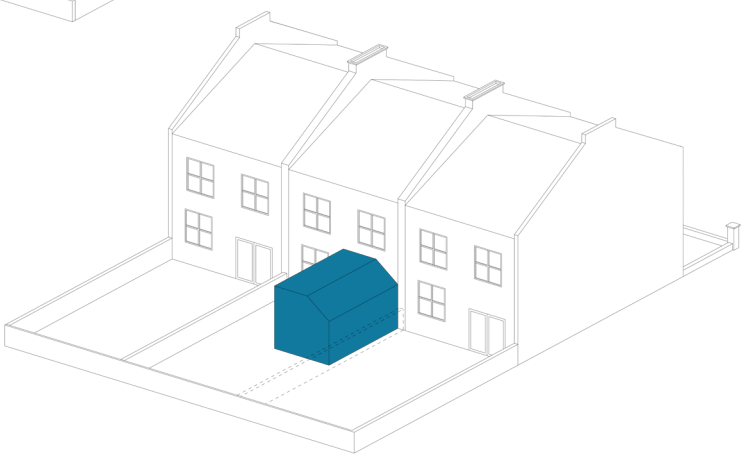


Figure 29: Rear extensions requiring planning permission

3.5.3 L-shaped or wrap around extensions

If your home includes an outrigger to the rear, as many traditional buildings in Southwark do, you may find the most appropriate solution is a L-shaped or wrap-around extension, as set out in Figure 31.

Outriggers generally have a window at the rear and care should be taken to ensure any proposed extension does not close off this source of light. A courtyard may need to be created within the extension to avoid blocking light to a room and to allow ventilation, as set out in Figure 31.

Wrap around extensions should remain no deeper than 6m on the boundary and stay below 2.4m at the eaves. The extension must also not take up more than 50% of the total rear garden space at your home.

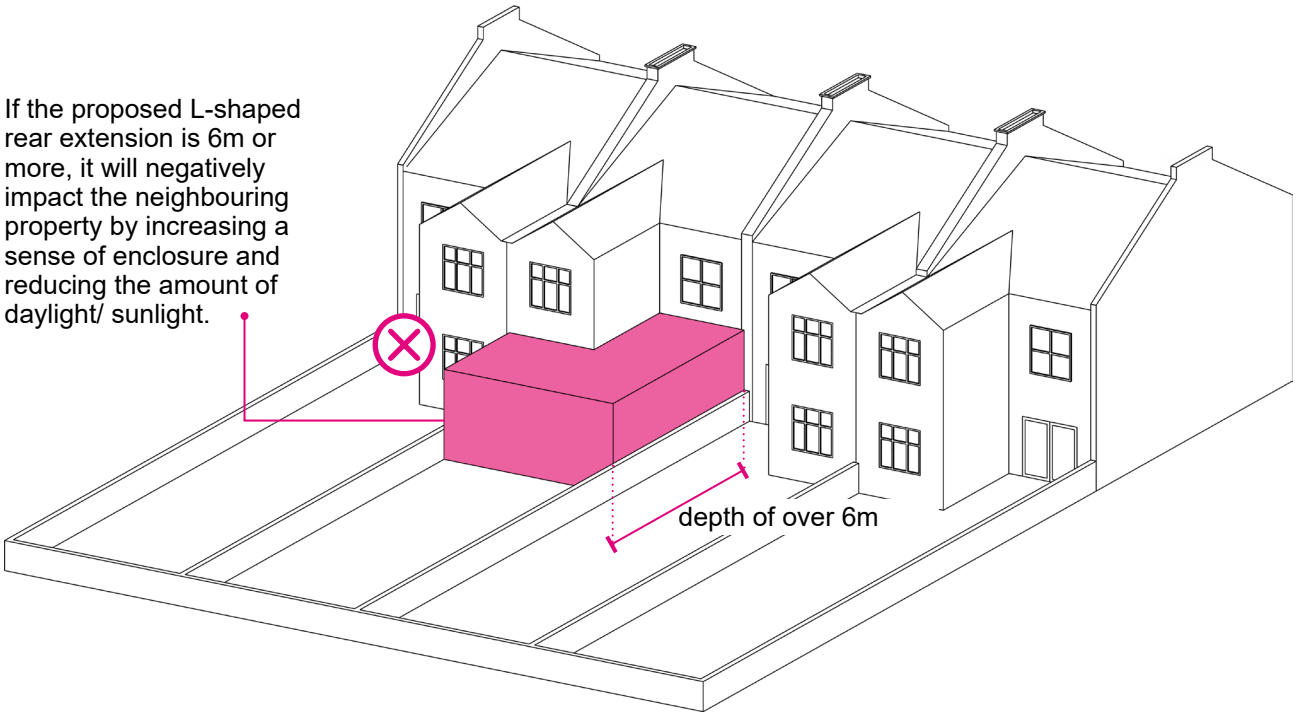


Figure 30: L-shaped or wrap around extension - poor example

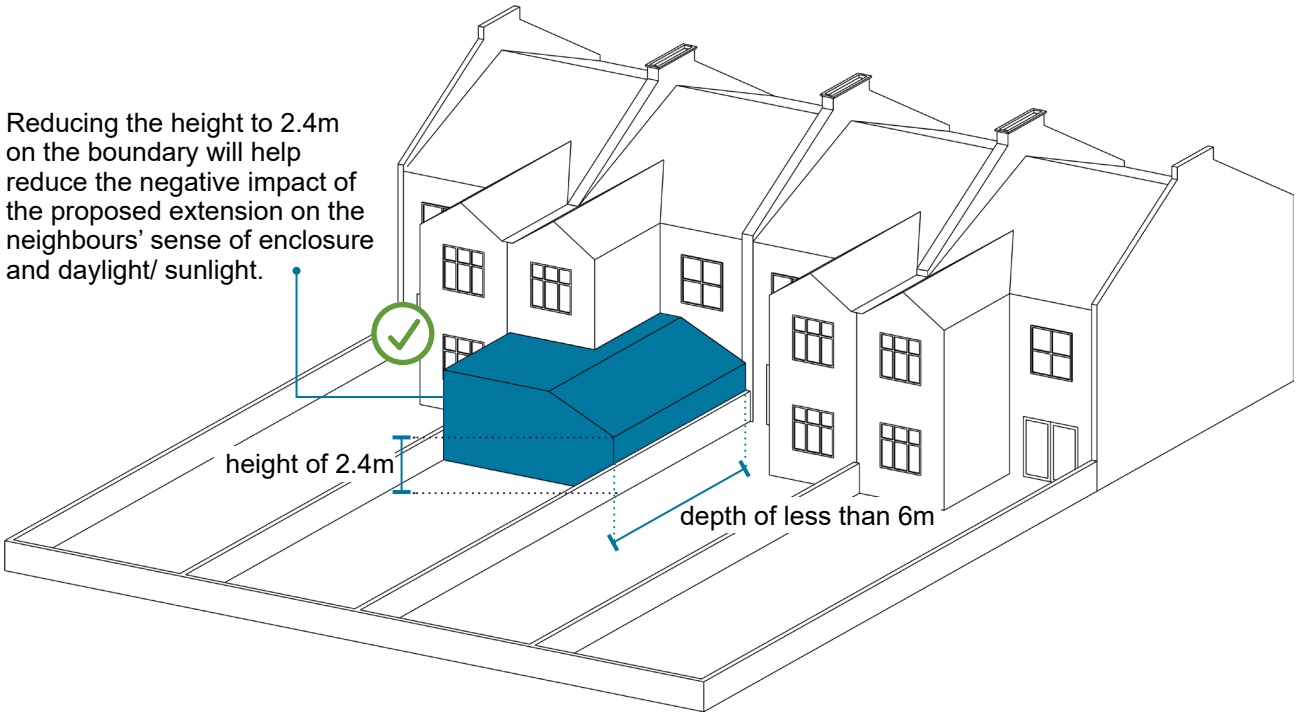


Figure 31: L-shaped or wrap around extension - good example

3.6 Roof extensions

Is permission required for a roof extension?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Permitted development applies within certain dimensions and roof works. Beyond this, Planning Permission will be required.	Planning Permission will be required.	Planning Permission will be required.	Listed Building Consent and Planning Permission will be required.

Table 15: 'Is permission required for a roof extension?'

Additional space can also be created at your home by extending your existing roof. There are two main types of roof extensions; mansard and dormer. You can also extend your roof by raising the ridge. Any extension which exceeds the highest part of the roof at your home will require planning permission. Roof extensions should remain subservient in scale to your existing home and not appear as a dominating feature.

3.6.1 Permitted development rear dormers

Permitted development allows you to extend your roof with a dormer up to 40 cubic m if a terraced property and 50 cubic m if it's a semi-detached or detached property. This is not applicable to homes which are flats, maisonettes, in a Conservation Area or listed.

The dormer extension should not be on the street facing roof slope and should not be taller than the highest part of the roof which is generally the ridge. It should be set back, as far as is practicable, at least 20cm from the original eaves. The 20cm distance is measured along the roof plane. The roof enlargement also cannot overhang the outer face of the wall of the original house.

3.6.2 Rear dormers requiring planning permission

Beyond permitted development, you will need planning permission. Planning permission is also required for rear extensions if your home is a flat / maisonette or within a Conservation Area. It is also needed alongside Listed Building Consent for listed homes.

Dormer extensions should sit within the existing roof and should not dominate the existing roof form.

Rear dormers should also be:

- symmetrically located
- at least 0.5m below the ridge of the roof
- 1m above the eaves
- set in 1m from shared boundary and from the edge of the roof.

Overly large or box dormers will not be permitted in Conservation Areas or for Listed Buildings. These are not seen as sympathetic to the historic character of these homes.

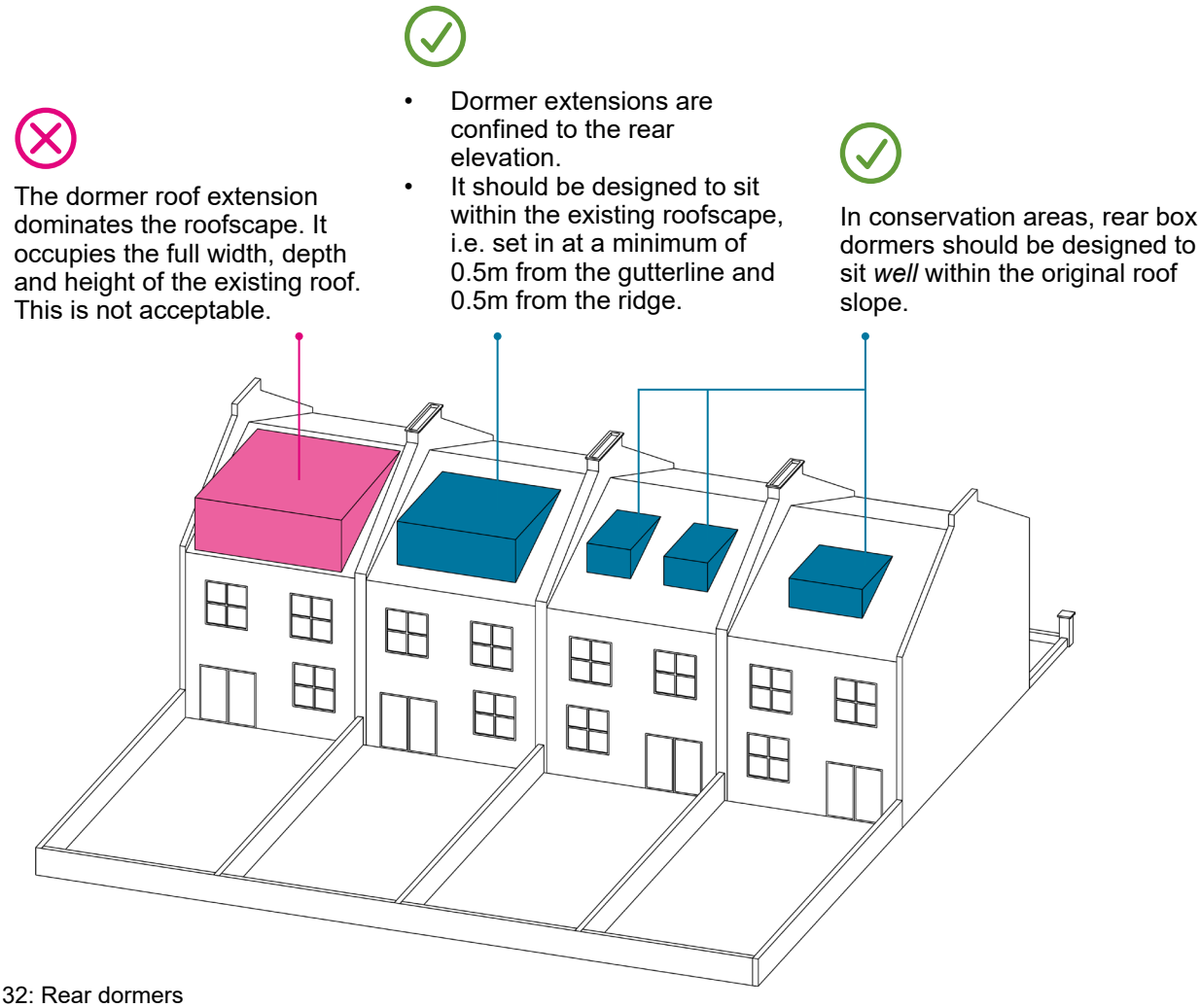


Figure 32: Rear dormers

3.6.3 Side dormers

Side dormers are not encouraged, unless they are an original or common feature of properties in that street. Side dormers should sit within the slope of the roof, well clear of any hips and verges.

3.6.4 Mansard extensions

All mansard extensions will require planning permission.

Mansard extensions should be designed to sit behind the front and rear parapet and should be at a maximum angle of 70 degrees. If your home is located on a street corner, the mansard should return to match the parapet. Mansard extensions will not be permitted if extending onto an outrigger.

A mansard extension will also not be permitted if disrupting the consistency of surrounding roof forms. For example, a mansard extension would not be permitted where there is an unbroken run of butterfly roofs, as set out in Figure 34.

Windows should follow the alignment and design of the existing windows on the upper floors of the house at the front and rear and should be designed as discrete dormer windows set within the roof-slope.

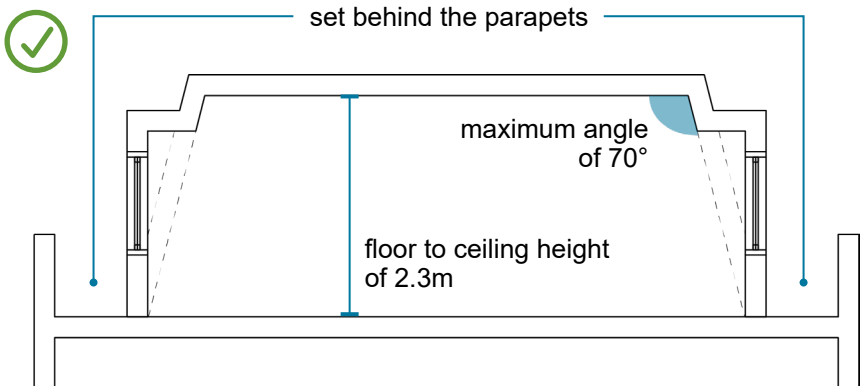


Figure 33: Mansard extension - good example

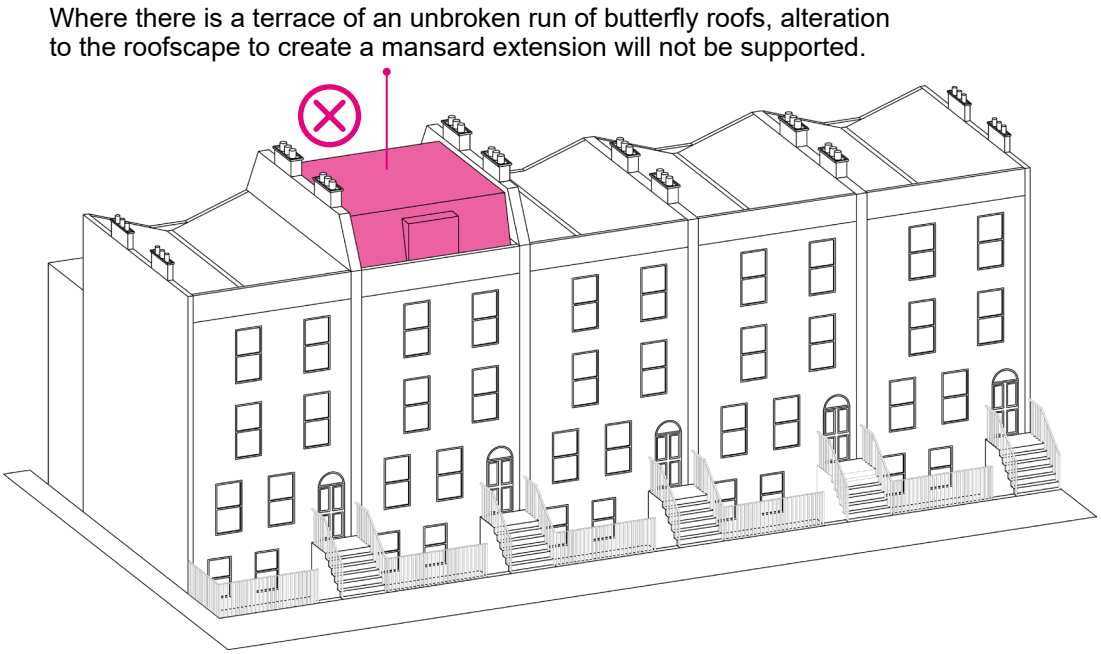


Figure 34: Mansard extension in an unbroken run of butterfly roofs - bad example

3.6.5 Ridge raises

Raising the roof ridge at your home will require planning permission. Listed Building Consent would also be required if your home is listed.

The ridge is the highest part of the roof and the line running the length of the roof, where the two roof slopes meet.

Ridge raises should be designed so that the slope of the front/street facing roof remains the same, as illustrated in Figure 35. To raise the ridge the front roof slope should be extended upwards, by no more than 300-400mm, with the gradient unaltered. The ridge raise should be accommodated within any roof chimneys and not visible beyond this. The ridge raise should also use like-for-like materials with the existing roof.

This is to ensure the ridge raise does not change the appearance of the roof from the street, and consistent rooflines are maintained in the area. This is especially important where there is a strong uniformity in roof forms or for homes which are listed or within Conservation Areas.

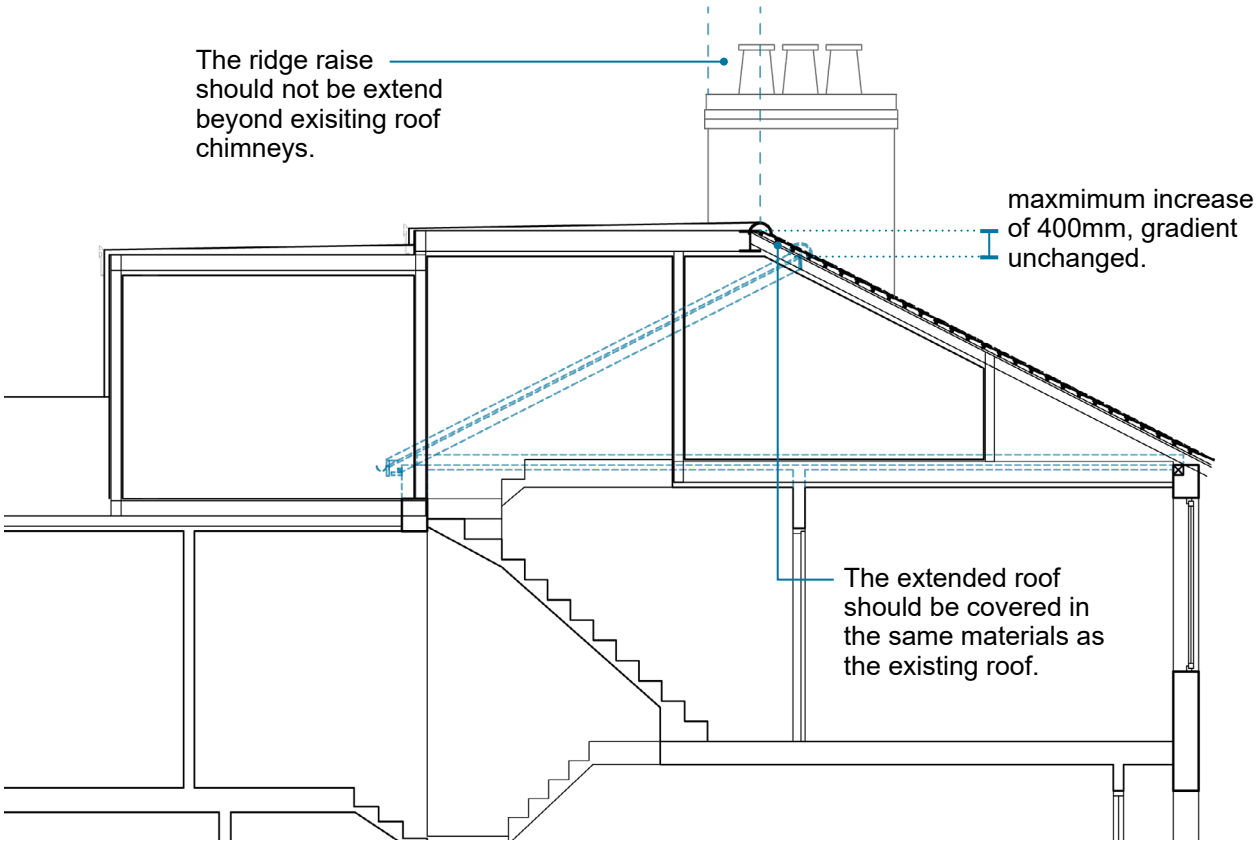


Figure 35: Ridge raise

3.6.6 Rooflights

Rooflights are a useful way to bring light and ventilation into your home and can have make a loft space more habitable.

Permitted development allows householders to install rooflights on street-facing roof slopes provided they are not more than 0.15m above the roof plane.

The size and number of rooflights should not dominate the existing roof. Rooflights are encouraged to be installed with a neat arrangement.

Within Conservation Areas, rooflights should sit flush with the roof slope and should not extend beyond the roof slope. Conservation style rooflights are also required to be used.

3.6.7 Terraces

Terraces can provide valuable amenity space, especially for flats that would otherwise have little or no private outside space. You need to consider the impact of a roof terrace on the amenity of your neighbours. Terraces can generate harmful noise disturbance and issues of overlooking to your neighbours when in use. The terrace should be setback to reduce the impact on your neighbours.

Where terraces allow for direct views into neighbouring properties, privacy screening should be used. Privacy screening should be no less than 1.8m in height. Perforated screening is preferred, but obscured glazing can also be used.

If proposing a balcony to sit within the existing roof, the existing parapet should be maintained, and any required screening should sit behind.

- Roof terraces should be designed to ensure they do not negatively affect daylight/ sunlight or privacy by way of overseeing neighbouring properties.
- They should be set back by at least 1.5m from the rear elevation and 1m from the side edges.
- A screening would be required to help restrict views out to preserve the amenity of the neighbouring properties. The proposed screening would need to be 1.8m in height

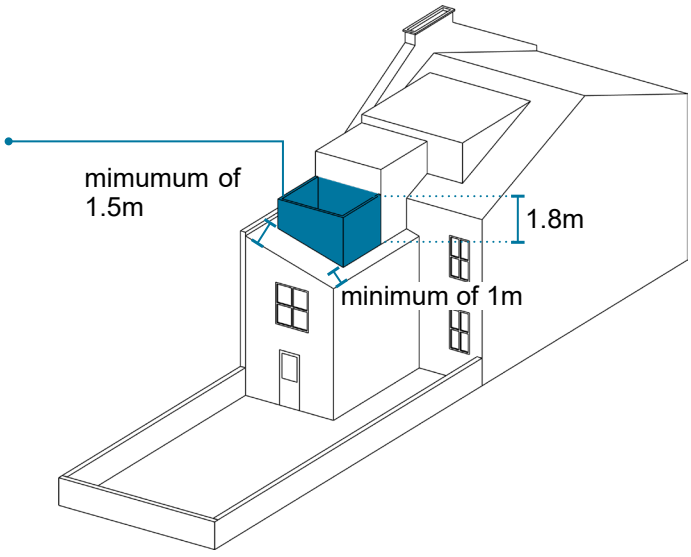


Figure 36: Roof terrace

3.7 Garden rooms and outbuildings

Is permission required for a garden room or outbuilding?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Permitted development applies within certain dimensions and roof works. Beyond this, Planning Permission will be required.	Planning Permission will be required.	Planning Permission will be required.	Listed Building Consent and Planning Permission will be required.

Table 16: 'Is permission required for a garden room or outbuilding?'

Garden rooms and outbuildings can provide useful additional space for your home. Within certain limitations permitted development will allow the installation of a garden room without requiring planning permission.

Where planning permission is required, we encourage garden rooms to have a depth of 3m, width of 5m, height of 4m with a height of 2.5m at the eaves at the maximum. This is to ensure that garden rooms remain subservient to the main building. The outbuilding also needs to be set in from the boundaries of neighbouring properties by 2m.

Garden rooms must also not take up more than 50% of the total rear garden space at your home.

Garden rooms should be designed as ancillary spaces to enhance the enjoyment of your home, and not create a new dwelling. This means the garden room should be accessed from within your existing garden, and not from a separate entrance. There should also be minimal plumbing or other services to the garden room. We may impose a planning condition or require a legal agreement to limit the use of any garden room in line with this.

Consideration also needs to be given to the impact a garden room may have on existing trees or root areas.

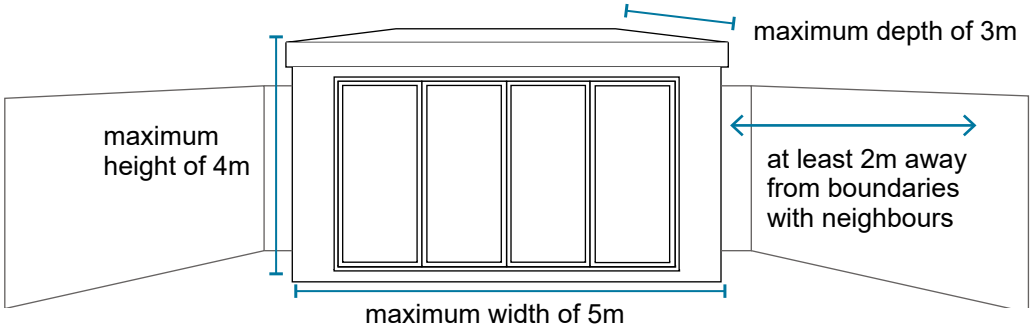


Figure 37: Garden room or outbuilding

3.8 Basement extensions

Is permission required for a basement extension?

Houses	Flats/Maisonettes	Conservation Area	Listed Buildings
Planning Permission will be required.	Planning Permission will be required.	Planning Permission will be required.	Listed Building Consent and Planning Permission will be required.

Table 17: 'Is permission required for a basement extension?'

Basement extensions create an opportunity to increase the footprint of your home. Planning permission is required for all homes to create a new or extend an existing basement. Listed Building Consent would also be required if your home is listed.

A Basement Impact Assessment (BIA) will need to be submitted alongside your application. The purpose of a BIA is to assess the impact of the development on your home, your neighbours and the environment.

You will need to submit a Flood Risk Assessment alongside your application if your home is located within a flood risk area. An Archaeological Assessment will also be required for homes within Archaeological Priority Areas and Sites of Archaeological Importance. You can check if your home is within any of these areas on Southwark Maps.

Basement extensions should not extend into or underneath the rear garden, from the principal rear wall to a depth of more than 50% of the garden. The extension should not extend to the front of the property to a depth of more than 30%. Basement extensions are also limited to no more than a single storey below ground.

Basement extensions should not dominate or result in an unacceptable loss of garden area at your home. You will also need to consider the existing trees at your home and your neighbours.

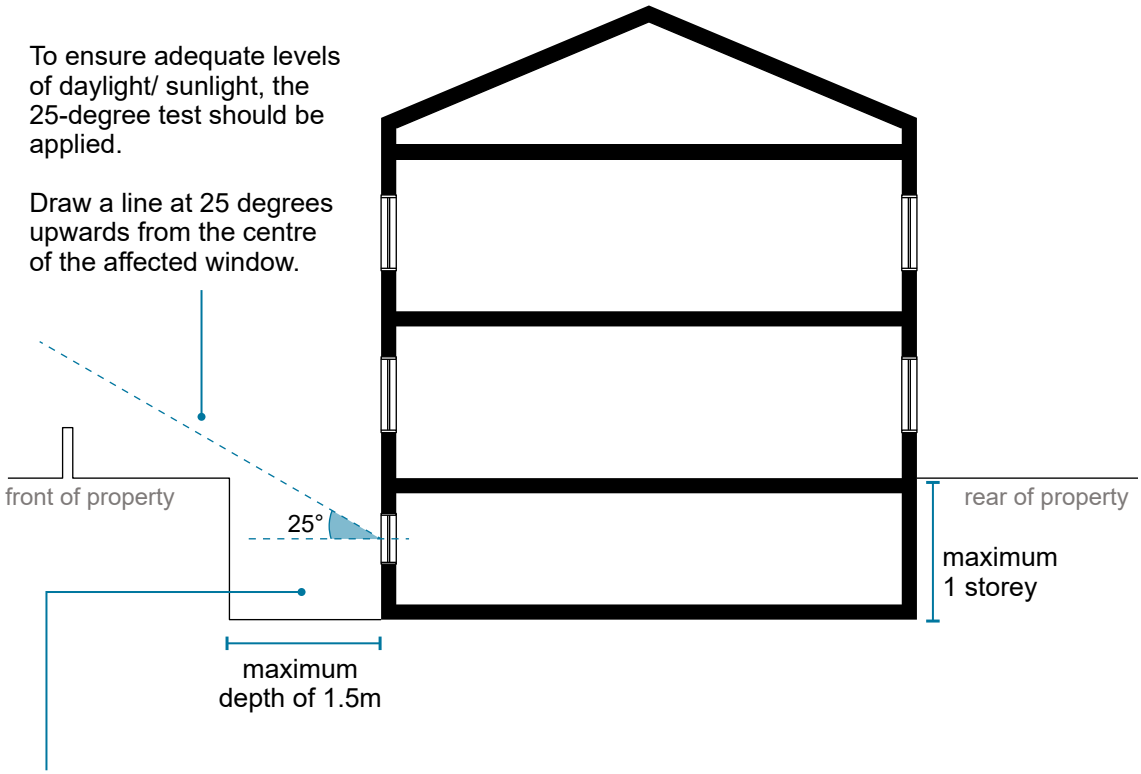
Basement rooms are encouraged for storage or utility rooms. Habitable rooms (such as living rooms or bedrooms) will only be permitted where it can be demonstrated there is sufficient access to light and ventilation and no flood risk.

3.8.1 Lightwells

Lightwells are common elements that form part of basements. Lightwells can allow better light and outlook into basements which would otherwise be of poor quality.

A Lightwell will only be permitted where already a common feature in a street or area. Lightwells may be discreetly located to the rear of the property as this would not be visible from the public domain.

- To ensure adequate levels of daylight/ sunlight, the 25-degree test should be applied.
- Draw a line at 25 degrees upwards from the centre of the affected window.



- Lightwells can be used to provide basement extensions with adequate levels of daylight/ sunglight and ventilation.
- They should have a maximum depth of 1.5m.

Figure 38: Lightwells

GLOSSARY

GLOSSARY

Active design: A concept that concerns how the design of buildings and streets can help people to lead more physically active and healthy lives.

Air source heat pump (ASHP): A device that transfers heat from the outside air to water. This in turn heats your rooms via radiators or underfloor heating. It can also heat water stored in a hot water cylinder for your hot taps, showers and baths.

Amenity: A positive element or elements that contribute to the overall character or enjoyment of an area. For example, open land, trees, historic buildings and the inter-relationship between them, or less tangible factors such as tranquillity.

Archaeology: Archaeology refers to buried archaeological finds, layers and features which are buried below the ground and not visible.

Architectural integrity: Architectural elements, materials, colour, and quality of the original building construction.

Architectural interest: In listed buildings this refers to buildings that are important to the nation because of their architectural design, decoration and craftsmanship. Important examples of significance include plan forms, particular building types and techniques such as using cast iron, the early use of concrete and early prefabricated buildings.

Arrangement: Arrangement refers to how the key frames are arranged in a window or door.

Article 4 Direction: A direction made under Article 4 of the Town and Country Planning (General Permitted Development) (England) Order 2015 which withdraws permitted development rights granted by that Order.

Balustrade: A railing or wall on a balcony or staircase, supported by balusters (short decorative pillars).

Basement Impact Assessment (BIA): A technical report that assesses the impact of a proposed basement on the rest of the building, neighbouring properties and the environment.

Biodiversity: The variety of animal and plant life that exists in a certain place.

Brick slips: Specially manufactured tiles which when installed have the appearance, colour and texture of a real clay brick wall.

Built heritage: Built Heritage means all the heritage places and features that survive as buildings or structures above ground and are visible and visitable.

Butterfly roof: A roof with two roof surfaces sloping down from opposing edges to a valley near the middle of the roof.

Casement window: A window that is attached to its frame by one or more hinges at the side.

Cavity wall: A type of wall that has a hollow centre.

Certificate of Lawfulness: A formal confirmation from a local planning authority that on the date of issuing the Certificate the use of the land or the development of it is lawful.

Classified roads: Refers to A roads, B roads, as well as some classified un-numbered roads (known unofficially as C roads). By contrast, unclassified roads are local roads intended for local traffic.

Condition survey: A survey carried out by a professional to identify what work is needed to maintain a property and how much this might cost. This may include building structure, roofs, sewage and drainage, electrics, fire safety, asbestos etc.

Conservation: The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.

Conservation Areas: These are areas of special architectural or historic interest whose character or appearance is protected. They have to be formally designated under the provisions of the Planning (Listed Buildings and Conservation Areas) Act 1990.

Context: Context refers to the setting of a site or area, including factors such as townscape, built form, land use, activities, heritage and vehicular and pedestrian movement.

Cornice: A decorative feature in the corner of a room where the walls and ceiling meet.

Crittall: A well-known manufacturer of steel doors, windows and internal screens.

Depth of reveal: The distance between the outer edge of the window or door frame and the interior wall surface.

Dormer: A window that projects vertically from a sloping roof.

Double Glazing: Windows that have two panes of glass, separated by a sealed gap, which reduces heat transfer.

Eaves: The part of a roof that meets or overhangs the walls of a building.

Elevation: A side of a building.

Fenestration: The arrangement of windows in a building.

Flush: Completely level or even with another surface.

Gable: The triangular upper part of a wall at the end of a ridged roof.

Gable roof: A roof with at least one flat end.

Glazing bars: Rigid bars that connect two separate panes of glass.

Glazing type: Glazing type refers to whether a window or door is single, double or triple glazed.

Green infrastructure: A network of habitats which is often multifunctional and can provide a range of benefits to improve mental health, active lifestyles, recreation, food growing, enhanced biodiversity and ecological resilience, flood risk management, temperature regulation and improved air and water quality.

Ground source heat pump (GSHP): A device that transfers heat from the ground outside your home to heat your radiators or underfloor heating. It can also heat water stored in a hot water cylinder for your hot taps and showers.

Habitable room: A room that provides living accommodation, such as a bedroom, living room, dining room, study or conservatory. Bathrooms, kitchens that do not include dining space, storerooms and utility rooms are not habitable rooms.

Harm: Harm in planning terms means something that may damage a heritage asset or result in a loss of significance.

Heritage: Heritage includes all inherited resources which people value for reasons beyond mere utility. These are cultural inherited assets which people identify and value as a reflection and expression of their evolving knowledge, beliefs and traditions, and of their understanding of the beliefs and traditions of others.

Heritage asset: A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest.

Hip: The sharp edge of a roof from the ridge to the eaves where the two sides meet.

Hip roof: A type of roof where all sides slope downwards to the walls, usually with a fairly gentle slope.

Historic environment: A very general term used to refer to everywhere around us that has something significant about it. It is defined by the NPPF as: ‘all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged and landscaped and planted of managed flora.

Historic integrity: The ability of a building to convey its historic significance, including materials, design, feeling, location, association, workmanship, and setting.

Historical interest (buildings): This refers to buildings that have important aspects of the nation's social, economic, cultural or military history, such as industrial buildings, railway stations, schools, hospitals, theatres, and town halls.

In situ: In the original place.

Joinery: Wooden components (e.g. of a window frame).

Lawful Development Certificate: See Certificate of Lawfulness.

Lightwell: A shaft or open space that lets light into a building, often the basement.

Listed Building: A building or structure which is considered to be of 'special architectural or historic interest'. This includes a wide variety of structures and buildings. There are three grades of listing depending on the importance of the building.

Listed Building Consent: Permission that must be obtained from the Council for any works to a listed building that would affect its special architectural or historic interest.

Locally Listed Building: A building, structure or feature which is not statutorily listed but is important in the local context owing to its special architectural or historic interest or its townscape or group value. The protection of local heritage is important because it enhances the value of Southwark's built environment, but also maintains a sense of local distinctiveness which can assist with regeneration and place-making.

London Plan: The London Plan 2021 is the Spatial Development Strategy for Greater London. It sets out a framework for how London will develop over the next 20-25 years.

Maisonette: A two-storey flat with its own front door.

Mansard extension: A way of adding extra space to a house by building a mansard roof, effectively adding an extra floor to the property.

Mansard roof: A mansard roof is a type of roof which combines elements of a gambrel roof and a hip roof. Like a gambrel roof, a mansard roof has two slopes on each side, with the upper being less steep and shorter than the lower slope. Unlike a gambrel roof, however, a mansard roof has slopes on all four sides.

Massing: Massing refers to the combined effect of the height, bulk and silhouette of a building or group of buildings.

National Planning Policy Framework (NPPF): The NPPF sets out government's planning policies for England and how these are expected to be applied.

Net zero (carbon): Activity that causes no net release of carbon dioxide and other greenhouse gas emissions into the atmosphere.

Obscure glazing / obscure glass: Glass that is patterned or frosted to reduce transparency, meaning you cannot see through it clearly.

Outbuilding: A smaller separate building such as a shed that belongs to a main building, such as a house

Outlook: A view (out of a window).

Outrigger: The part of a terraced house, usually incorporating the kitchen area, that projects out of the back of the house. These are common in Victorian and Edwardian homes built in London, including in Southwark.

Parapet: A low protective wall along the edge of a roof, bridge, or balcony.

Party wall: A wall shared by two adjacent properties.

Permitted development: Development that does not require planning permission to be carried out.

Photovoltaic panels (PVs): Solar panels that generate electricity (as opposed to solar thermal panels, which are used to provide hot water).

Rafter: A rafter is a structural component used in the construction of a roof. It is a sloping beam that supports the weight of the roof and transfers it to the walls or other supporting structures of a building.

Render: A first coat of plaster applied to a brick or stone surface.

Ridge: The line or edge formed where the two sloping sides of a roof meet at the top.

Sash window: A window that slides open vertically or horizontally, rather than using a hinge.

Reveal: The portion of a wall opening that is exposed when a window or door is installed. It is the area between the outer edge of the window or door frame and the adjacent wall surface.

Rooflight: A window built into a roof.

Scheduled monument: A nationally important historic building (or archaeological site) that is protected against unauthorised change.

Secondary glazing: The installation of a separate internal window on the inside of the existing window. This replicates the airtight seal and insulation gap offered by double glazing.

Shingles: A roof covering consisting of individual overlapping tiles.

Streetscape: The appearance or design of a street.

Stucco: A cement-type mixture made of Portland cement, lime, sand and water. It is a thin finish coat that goes on the outermost layer of buildings.

Stud wall: A partitioning wall made from a stud (timber) frame with plasterboard nailed over the top.

Supplementary Planning Documents (SPDs): SPDs explain how current planning policies in the Local Plan will be applied. They also contain background information applicants may find useful when preparing their planning applications.

Sympathetic: Designed in a sensitive and appropriate way (in relation to the wider building or streetscape).

Thermal performance: Thermal performance means how well a building retains heat.

Tree Protection Order (TPO): An order made by a local planning authority in England to protect specific trees, groups of trees or woodlands in the interests of amenity.

Townscape: The visual appearance of an urban area.

U-value: A useful metric to compare different insulating products. It indicates how much heat is lost through a given thickness of material, accounting for conduction, convection and radiation. The lower the U-value, the better the material is as a thermal insulator. Part L of the Building Regulations includes target U-values for domestic properties.

Vehicle crossover: A Vehicle crossover, also known as a Dropped or Lowered Kerb, provides the legal means for motor vehicles to access a property. To create a vehicle crossover, a section of kerb is lowered (known as a ‘dropped kerb’) and a driveway is created linking the road to property, and/or a site.

Ventilation: The provision of fresh air to a room or building.

Verge: The edge of tiles projecting over a gable.

Visual impact assessment (VIA): A visual impact assessment illustrates how the proposed works would appear on your home and in views from the surrounding area. The assessment should be proportionate to the scale of the works, sensitivity of the property and its location (whether it is listed or in a conservation area, or panels are public facing).

Southwark Council
southwark.gov.uk

Agenda Item 9

Meeting Name:	Cabinet
Date:	3 December
Report tile:	Response to the Environment Scrutiny Commission: Sustainable Freight
Cabinet Member:	Councillor James McAsh, Clean Air, Streets and Waste
Ward(s) or groups affected:	All
Classification:	Open
Reason for lateness (if applicable):	N/a

FOREWORD - COUNCILLOR JAMES MCASH, CABINET MEMBER FOR CLEAN AIR, STREETS AND WASTE

In July 2023, Southwark adopted Streets for People, setting out how we plan to transform transport in the borough. The central goal of Streets for People is to ensure that we use our streets in a way that reflects the needs of people in Southwark. It is divided into four chapters, focussing on delivering Streets for Communities, Streets for Journeys, Streets for Nature and Streets for the Economy.

One of the main responses we have heard from residents and visitors when discussing Streets for People is that they want to see less traffic on our streets. This is key to making our streets feel safer and more welcome and encouraging them to spend more time outside in their community. Creating welcoming and more enjoyable streets is also key to supporting our town centres and local economy. High streets and other retail areas designed around pedestrian comfort see increased footfall and higher spending. Additionally, by reducing the dominance of motor vehicles on our streets, we can create new opportunities for retail activities such as markets or outdoor dining.

Freight traffic is a major contributor to air pollution. It is responsible for 34% of NO_x and 27% $PM_{2.5}$ particulate matter emissions, despite accounting for only 15% of vehicle miles.

As part of the Streets for People Strategy the Council is committed to publishing a Freight Plan and this is currently being drafted by officers to be consulted on in the new year and then published. I welcome the work done by the Scrutiny Commission and thank them for their recommendations which we have considered, and this report details our response to each of the recommendations and confirmation of inclusion in the proposed document.

RECOMMENDATIONS

That Cabinet: -

1. notes the report.

2. Provides response to the seven recommendations of the Scrutiny Commission in the table in paragraph 9. Where relevant, these have been acknowledged and incorporated into the Freight Plan and other Highways work. It has also been noted where responsibility for addressing the recommendations sits with other parts of the council.

REASONS FOR RECOMMENDATIONS

3. To agree to accept or partially accept the recommendations of the Scrutiny Panel and to note their inclusion in the draft Freight Plan.

BACKGROUND INFORMATION

4. The objective of the workstream is that the Council has a coherent and realistic plan to deliver Sustainable Freight that connects with existing strategies and plans, including the Streets for People, Climate Emergency Action Plan, Economic Strategy, Air Quality Action Plan and the Walking, Cycling and Electric Vehicle Plans.

5. The programme was considered by the Scrutiny Commission, and this led to a Sustainable Freight Scrutiny Review Report that included seven recommendations that was reported to Cabinet on the 22 July 2024.

6. Cabinet noted the report and recommendations from the commission and recommended that they be considered and for the relevant cabinet member to report back to cabinet with a response on each of them.

7. The Council's Freight Plan, a commitment through the Streets for People Strategy, is currently being drafted and consulted on internally prior to going out to public consultation early in the new year.

8. This report provides the response to each of the Scrutiny Commission recommendations in the following table: -

KEY ISSUES FOR CONSIDERATION

COMMISSION'S RECOMMENDATION 1 TO CABINET	
1.	The Council should join with other local authorities, the GLA, academic institutions and others as appropriate to push for more research and, where appropriate, participate in scientific trials, on non-tailpipe vehicular emissions, whether ICE vehicles or EVs, particularly with regard to the links with vehicle size and weight.
RESPONSE TO RECOMMENDATION 1	
1.	The EV Plan emphasised the need to reduce car journeys, even while supporting electrification.

	This approach is repeated in the Freight Plan, which prioritises moving away from motor vehicles, including EVs, towards consolidation, cycle freight and rail and river transport. This will generally tend to reduce non-tailpipe vehicular emissions. Specific research into the pollution and its effect on human health will be led by the Environmental Protection Team
RECOMMENDATION 1: ACCEPTED	

COMMISSION'S RECOMMENDATION 2 TO CABINET	
2.	The Commission recommends that the final Freight Plan adopts the same starting principle as the EV Plan, namely that: 'The most impactful [car] journey is the one that isn't taken'. Where a vehicle is deemed necessary, the Council should actively minimise the production of particulate matter by: • favouring the use of the smallest possible EV for the job • ensuring that drivers are trained to minimise generation of particulates. • using higher quality tyres and maintaining a good quality road surface.
RESPONSE TO RECOMMENDATION 2	
2.	The Freight Plan focuses on reducing freight movements in general, the distance of freight journeys, and encouraging cycle, rail and river freight, in line with this recommendation. Management of the council's own fleet, however, is outside the scope of the Freight Plan. Through the Gateway procurement process and with Cabinet approval, Fleet Services are committed. • That services will be encouraged to consider alternative forms of travel before opting for a vehicle replacement. • That the need to procure/replace vehicles is supported by a service director approved business case. • That vehicles will be 'fit for purpose' to ensure that the council continues to deliver reliable services and ultra-low emission vehicles where possible. Training is completed by all Council drivers to minimise vehicle impacts and raise cyclist safety/awareness. The council can also require the use of sustainable freight and servicing during the construction and operation of private development through the planning process.
RECOMMENDATION 2: PARTIALLY ACCEPTED	

COMMISSION'S RECOMMENDATION 3 TO CABINET	
3.	The Commission recommends: • that the Council takes full account of any learning opportunities arising from the CRP report expected in relation to the Bankside trial. • That the Council collaborates with the PLA, TfL, the CRP and neighbouring boroughs to understand the infrastructure required to substantially shift freight from a road-based distribution system to one which relies more heavily on rail and river interfacing directly with last-mile logistics. • That the Council carry out an immediate review of plans to deliver logistics hubs that rely exclusively on the road network. This will include those described above in the Old Kent Road area and any others in the pipeline, to ensure that limited resources are not spent on over delivering road-based freight infrastructure at the expense of prioritising more sustainable options. • Any plans to deliver road-based logistics hubs should be predicated on an evidence-based analysis of projected need in a future where, working with partners such as the PLA, TfL, CRP and neighbouring boroughs, Southwark maximises its potential to deliver river and rail freight options. The Commission recommends that the findings of this work should underpin the proposed Freight Plan (2024), which should focus on reducing the overall number of vehicular freight journeys by road, prioritising instead the interface between rail, river and the use of cargo bikes to facilitate last mile delivery solutions, whilst lower down the hierarchy and on the basis of need, supporting road logistics hubs that incorporate EVs.
RESPONSE TO RECOMMENDATION 3	
3.	The Freight Plan has built on existing research into consolidation infrastructure, including the work led by CRP. The Freight Plan proposes a network of consolidation centres across the borough, both to manage the transfer incoming goods from road, rail and river for final delivery, and to manage incoming deliveries to areas such as town centres, helping separate pedestrians from motor vehicles. Rail- and river- connected locations will be prioritised, including those where such access can be future-proofed as part of initial, road-based operations. Delivery of the Plan will include identifying appropriate locations for these consolidation centres. This will be done in collaboration with neighbouring boroughs, TfL, the PLA and Network Rail. However, it is acknowledged that suitable sites and land in the borough is at a premium and is in competition with identifying sites for housing need.
RECOMMENDATION 3: ACCEPTED	

COMMISSION'S RECOMMENDATION 4 TO CABINET	
4.	The Council should assist in the promotion of Cargo Bikes to small business, the community and voluntary sector, and families, such as through the annual Car Free day and at venues such as Maltby Street Market and newly pedestrianised public spaces. The Council should set itself the task of organising promotions and trials of cargo bikes – perhaps together with other less conventional cycles – at least 3 times a year at different locations in the borough, for example at park fares, markets and through pop up events.
RESPONSE TO RECOMMENDATION 4	
4.	A working group of officers drawn from across the council are developing an action plan to promote cargo bike use with small businesses, aligned to the council's Economic Strategy and Climate Emergency Action Plan.
RECOMMENDATION 4: ACCEPTED	

COMMISSION'S RECOMMENDATION 5 TO CABINET	
5.	The Council should enable and promote parcel lockers and other click and collect solutions in the Freight Plan. The Council should work with other stakeholders such as TfL, the GLA and London Councils to actively engage with online retailers and push at a borough-wide and London-wide level for click and collect options to be offered and promoted to consumers as the norm. The Council should engage with the borough's largest retailers (including those with physical premises used for online sales) to ensure that where parking space is available there is adequate priority given to offering safe access by bike as well as convenient and secure cycle parking in order to facilitate collection/ transportation of purchased goods by bike.
RESPONSE TO RECOMMENDATION 5	
5.	The Freight Plan supports the adoption of parcel lockers and methods of click and collect delivery. Delivering the plan will involve identifying potential locations for parcel lockers, and seeking interest from operators, with a focus on open access.
RECOMMENDATION 5: ACCEPTED	

COMMISSION'S RECOMMENDATION 6 TO CABINET	
6.	Develop a procurement policy that will deliver zero carbon emissions by 2030, as envisaged in the Climate Emergency Strategy and Action Plan, drawing on best practice, including the work of Ashden and TfL.
RESPONSE TO RECOMMENDATION 6	
6.	Procurement is the responsibility of individual council departments. Carbon accounting has been incorporated within the planning and delivery of Highways projects. Work is underway within Climate Change to develop a sustainable procurement policy and guidance materials, applicable to all departments in the council, to support climate neutrality by 2030.
RECOMMENDATION 6: ACCEPTED	

COMMISSION'S RECOMMENDATION 7 TO CABINET	
7.	Undertake research to establish the principal source and destination of freight moving around the borough in order to develop an action plan to reduce the impact of freight on poor air quality. The Freight Plan must have a research strand in order to understand, reduce and consolidate freight journeys and map their impact on air quality. This ought to include promotion of the self-service toolkits

	available through TfL to local business so they can conduct studies to reduce and consolidate freight.
RESPONSE TO RECOMMENDATION 7	
7.	The Freight Plan commits to delivering research on the freight sector within Southwark, including identifying the origin and destination of vehicle movements. This will be delivered with Lambeth and financed by Impact on Urban Health. Work on this is already underway.
RECOMMENDATION 7: ACCEPTED	

BACKGROUND DOCUMENTS

Background Papers	Held At	Contact
Cabinet Paper 22 July 2024 - Report of the Environment Scrutiny Commission: Sustainable Freight scrutiny review	Cabinet report template 2012 (southwark.gov.uk)	Steven Grayer 02075251045
Sustainable Freight scrutiny review report	Sustainable freight scrutiny review report.pdf (southwark.gov.uk)	

APPENDICES

No.	Title
None	

AUDIT TRAIL

Cabinet Member	Councillor James McAsh, Clean Air, Streets and Waste
Lead Officer	Toni Ange, Acting Strategic Director, Environment, Sustainability and Leisure
Report Author	Steven Grayer, Head of Highways
Version	Final
Dated	25 November 2024
Key Decision?	Final

CONSULTATION WITH OTHER OFFICERS / DIRECTORATES / CABINET MEMBER		
Officer Title	**Comments Sought**	**Comments Included**
Assistant Chief Executive, Governance and Assurance	No	No
Strategic Director, Resources	No	No
Cabinet Member	Yes	Yes
Date final report sent to Constitutional Team		21 November 2024

Agenda Item 10

Biodiversity scrutiny review report

November 2024

Environment Scrutiny Commission

Contents:

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

The new additional mandatory targets for housing in the draft National Planning Policy Framework will increase these pressures on land further. It is therefore particularly important that land for nature and resident recreation is preserved, as far as possible.

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.

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

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 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. Southwark Nature Action Volunteers have developed a map of nature corridors , in consultation with local groups, and there is research, commissioned in 2015 as part of a review of SINCs, that can also be used as a foundation for this essential task of mapping Ecological Networks for the borough.

There will potentially also be an early opportunity to bring forward an Ecological Network through the Climate Change and Environment SPD, currently being consulted upon.

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, 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

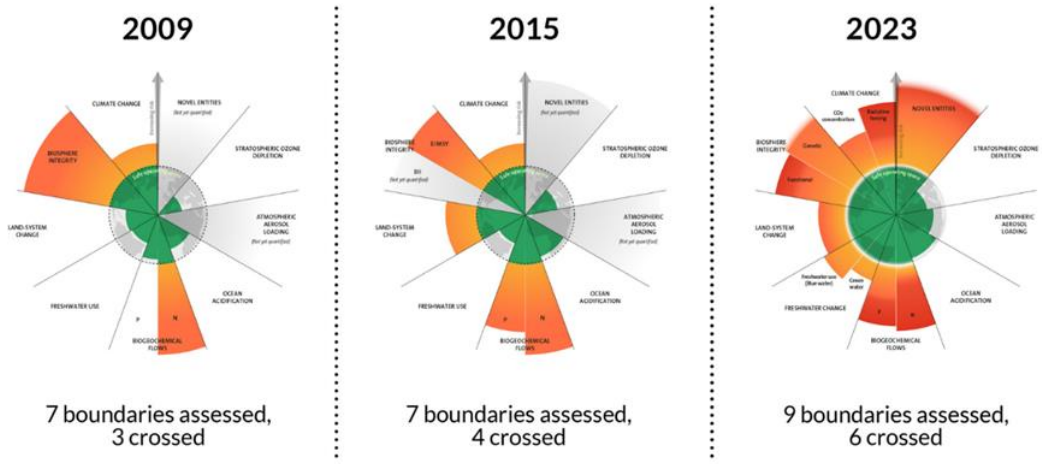
United Nations assessment

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 adoption of the Kunming-Montreal Global Biodiversity Framework (GBF). This

[4] Page 21 of the Space 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

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 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

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

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

In addition there are new, higher draft housing target for Southwark of 2,710 homes per annum (arising from the Government's reform of the planning system and higher housing allocation for London). If this housing target is to be met, associated infrastructure and employment opportunities will be required, as well as open space and greening. Undesignated sites will face several competing demands, particularly from housing.

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 increasing pressures on land for housing, in particular, make it more important than ever that the council manages competing priorities and as far as possible finds creative solutions, including repurposing grey land, wherever possible.

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.

<u>Key highlights of strengths :</u>

- 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

<u>Mapping out Ecological Networks</u>

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.

<u>Community oversight of the SNAP</u>

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:

[8] Page iv Space for Nature, Lawton 2010

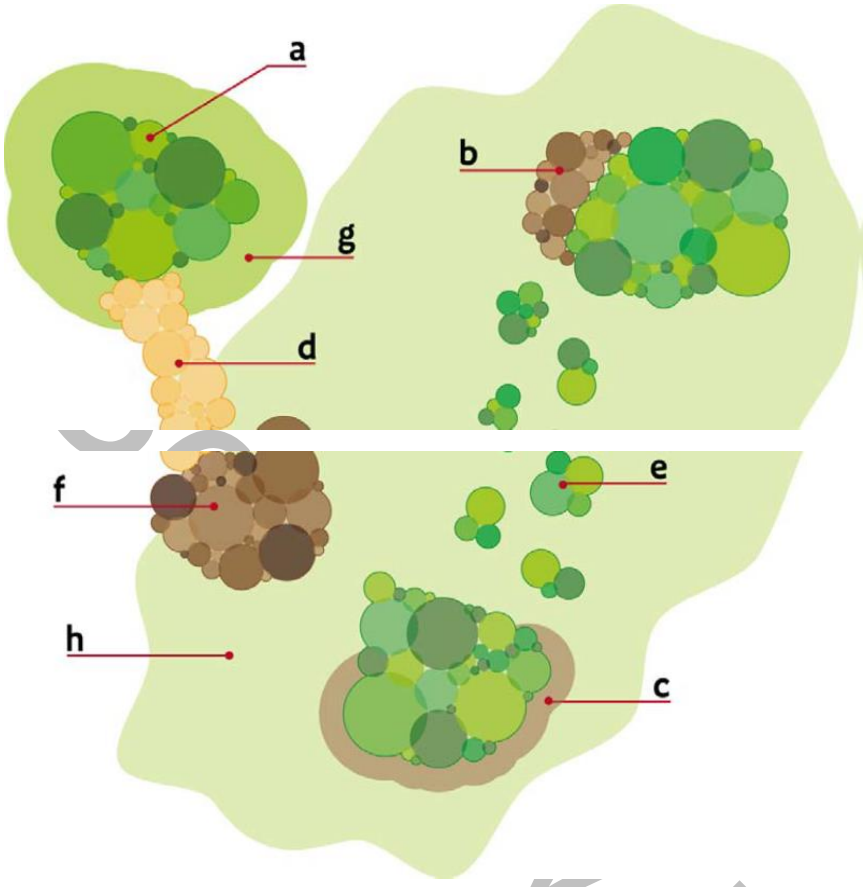


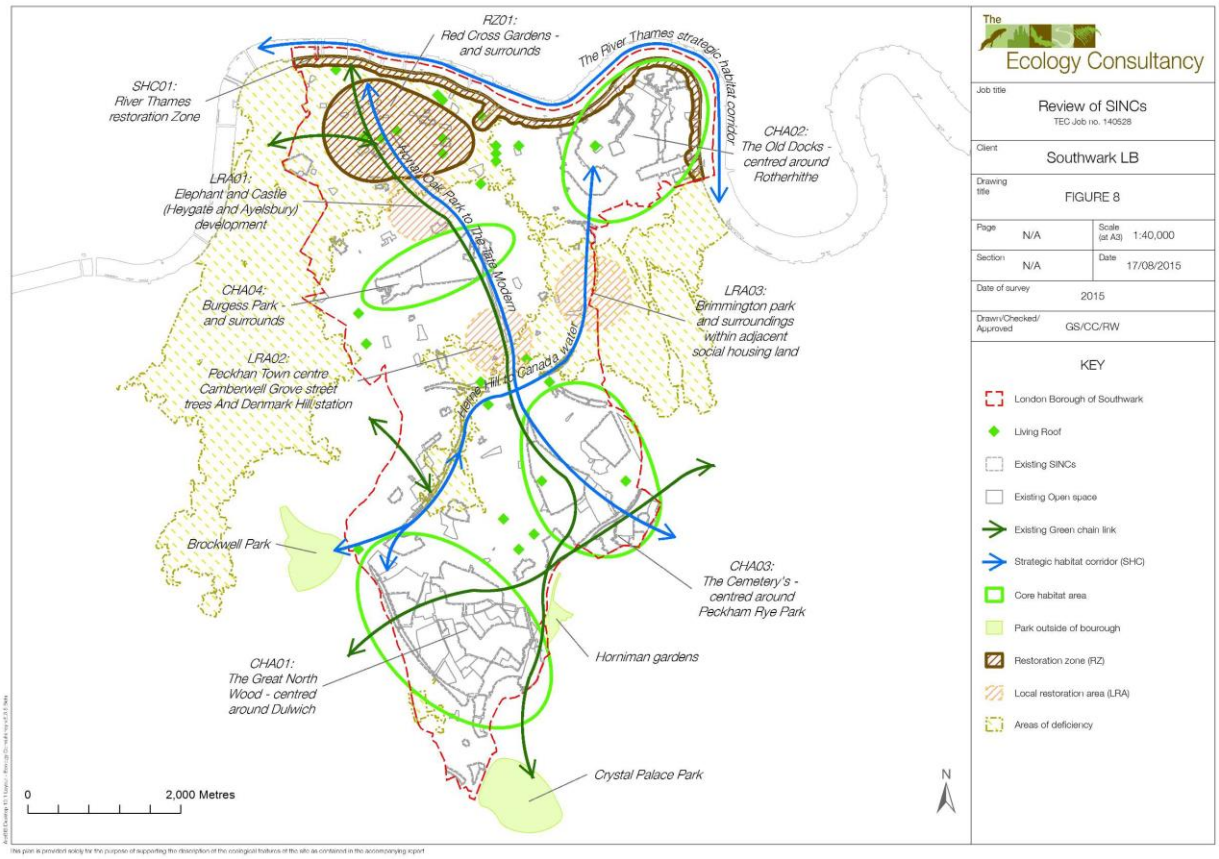
Figure X. Enhancing ecological networks

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).

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]:

- 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.

[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.

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]

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

[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 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.

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.

<u>Planting for biodiversity</u>

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.

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.

<u>Soil</u>

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 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

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

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
- 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

[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

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).

[14] See page 72

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

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.

<u>Light pollution and Southwark becoming a dark borough</u>

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.

[15] https://thesoundofnorway.com/

[16] Page 60, Lawton 2010.

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].

"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.

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

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

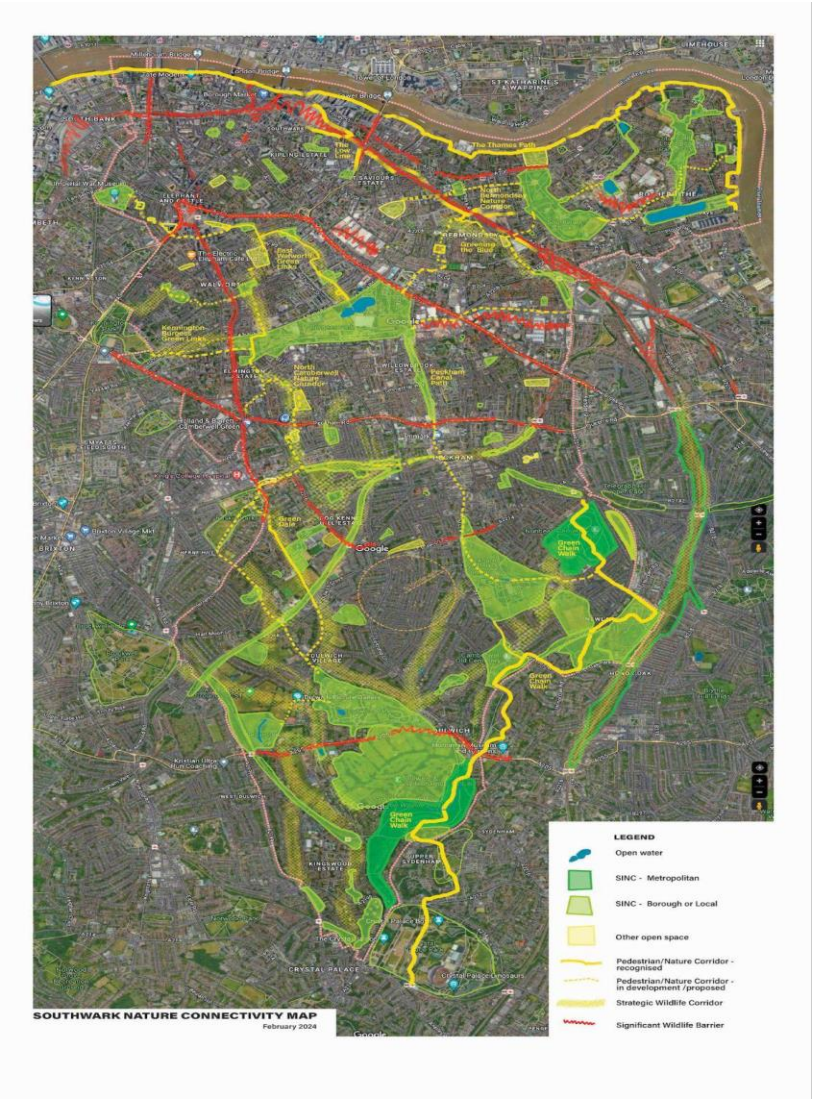
SNAV have proposed two types of nature corridors, set out in a map – see below.

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].

[18] See Recommendation 21 Space for Nature



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;

• Old Kent Road 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].

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

[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).

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'.*

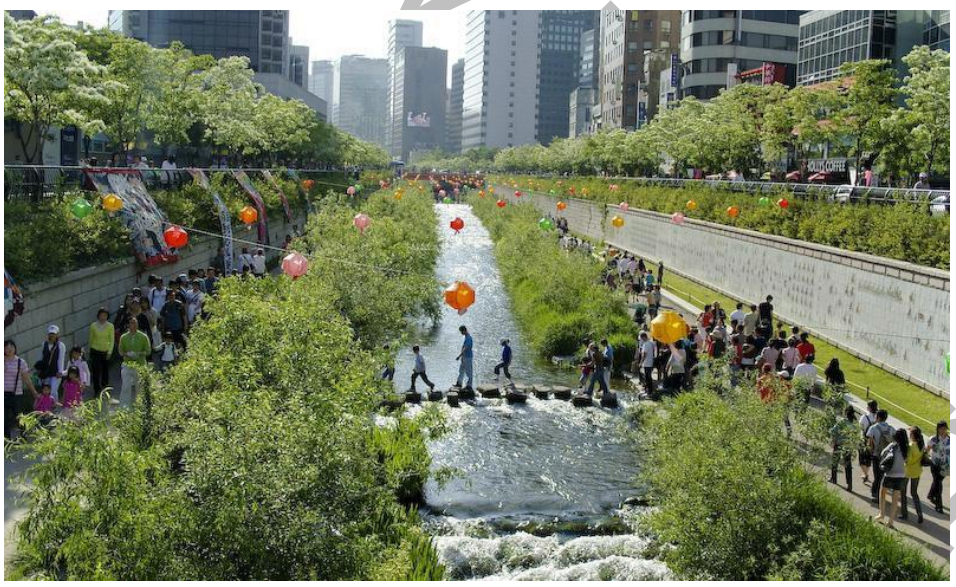
Rivers also offer an exciting opportunityproviding some of the most important natural connections. The Space for Nature report says that[20]: '*Rivers provide ecological connections across England. They supply a number of critical ecosystem services, not least water for drinking, crop irrigation and 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.

Daylighting the Cheong Gye Cheon River in Seoul, South Korea

[20] Page 49 Space for Nature

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 .

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 .

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

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

[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

- 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:

 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

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

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

- 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

[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

- 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 .

Acknowledgements

The Environment Scrutiny Commission members 2023/24:

Elected members

Councillor Margy Newens (Chair)

Councillor Graham Neale (Vice-Chair)

Councillor Youcef Hassaine

Councillor Cassandra Brown

Councillor Reginald Popoola

Councillor David Watson

Councillor Leo Pollak

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Penny Frith, Insectinside

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Julie Timbrell, Project Manager, and co –report author with the Chair, Cllr Margy Newens, with significant contribution from the co-optees.

Special thanks

The Commission would like to thank all the contributors to the report, listed above, but particularly both the co-optees , Anna Colligan and Simon Saville, nominated by Southwark Nature Action Volunteers, who provided considerable expertise and time.

Appendix one

Biodiversity scrutiny review 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-**	Develop the updated Southwark Nature Action Plan (SNAP) with the Global Biodiversity Framework (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 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

	environmental behaviour changes[1].	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	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-

[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
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	wildlife by improving the wider environment, including through buffer-zones around wildlife SINCs (amended from Lawton, 2010)	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 initiative that 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 GLA as 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 putting forward a Terms of Reference document, for the Southwark Biodiversity Partnership to consider and adopt, as it sees fit. Ensure , as far as possible, that the Southwark Biodiversity Partnership has a clear remit to report on delivery of the SNAP through the agreed Terms of Reference, including providing the SNAP annual report to Cabinet as part of a wider report on Biodiversity performance.**	
	Planning and Construction	
4	**Explore methods of delivering biodiversity improvements through the Planning process, beyond the minimum 10% BNG specified in the Environment Act 2021 when undertaking the 2027 review of the Southwark Plan and through Special Planning Documents (SPD). This should be combined with more**	Having adopted the London Plan guidance on UGF of 0.3 for predominantly commercial and 0.4 for predominantly residential developments, the council must ensure that, in accordance with the guidance, these targets are treated as the minimum benchmark rather than the maximum required. Ensure the UGF is adopted into the current SPD on Climate and Environment , currently being consulted upon. 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.

	ambitious Urban Greening Factor (UGF) targets. Improvements to both, taken together, are most likely to deliver better outcomes for biodiversity.	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,**	The council should develop and make available on its website a mini-guide for homeowners and developers applying for planning permission for minor

	at least, applicants could be encouraged to include wildlife friendly features such as green roofs, flow-through planters, rain gardens, swift bricks, insect houses (for example in cases of loft conversions) and water butts, and to minimise impermeable hard surfacing	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.) Update the New Homes Design Guide to take account of the recommendation on the right Update the draft Householder SPD to take account of the recommendations outlined on the left
7	**Update the draft Climate and Environment Supplementary Planning Document (SPD) and Householder SPD to incorporate the review recommendations .** **Where this is not possible bring forward a Biodiversity (SPD) and update versions of the Southwark Plan**	Consider this report in part as a response to the consultation on the Climate and Environment SPD and Householder SPD
8	**Adopt the full dark sky recommendations from APPG Dark**	Encourage adoption in the new London Plan.

	Skies Policy Plan (appgdarkskies.co.uk) including standards on the setting, brightness, colour temperature and density of lighting.	
	More and Bigger	
9	**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.**	
10	**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.	
11	**When allocating funding for Council projects – i.e. CGS, DHB and others,, ensure that the budget covers the costs of the appropriate number of council officers, including experienced project managers and others who are trained in biodiversity improvements (see recommendation 22).**	
12	**Depaving has the potential to be a powerful tool against the biodiversity and climate crises and in support of the Climate Change Mitigation and Adaptation Strategy, particularly with regard to flood risk management. 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**	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

	new planting.	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. The Council must mandate (or strongly advise where powers are limited) the use of permeable materials for ground cover wherever possible. Non-permeable materials should be accepted only if there is a technical justification given for permeable materials not being suitable
13	**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**	Highways and Planning work together to bring forward a new policy on VFCs, including greater enforcement, and that this incorporates the below points: 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

	its reasons for doing so and ensure that legal obligations relating to hard standings are enforced.	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. j. Do everything possible in current and future legislation to prevent further loss of planting and permeability in front gardens and encourage depaving
	Better	
14	**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 from our streets and estates, following on from the elimination of pesticide use from our parks several years ago.**	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; 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.
15	**Proactively encourage and enable the installation (including retrofitting) of well-designed, wildlife-friendly**	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.

	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.	Promote the use of green roofs for agroecological urban farming.
16	**New trees should be considered as part of a larger habitat design 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 conjunction with SuDs, wherever possible.**	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 b) placement within the wider Ecological Network, including wildlife corridors and proximity to SINCs (to be set out in the forthcoming Ecological Network/ 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.
17	**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**	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

	explicitly enhance and maintain biodiversity.	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
18	**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).
19	**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 develop more targeted biodiversity protection and support practices and policies.**	

20	**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. Create River Basin Management Plans for the catchments of the Rivers Peck and Neckinger, including Earl's Sluice.
21	**Southwark should pursue the Water Framework Directive "Good Ecological Status" for all remaining above ground waterways, such as the Peck.**	
	Joined Up	
22	**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.**	
23	**Southwark should work with the GLA**	Consultation must first take place with Planning and Ecology Officers and the

	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.	Southwark Biodiversity Partnership.
	More animated	
24	**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
25	**Develop a training programme on biodiversity and wildlife friendly management of green and blue space, targeted at officers and contractors 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**	Ensure that all teams, including Planning, Climate Change, Sustainable Growth, Parks, Housing, Flood Management, Highways, Air Quality and other departments are aware of our ambitions to address the Biodiversity Emergency. Ecology officers to support / collaborate in developing cross council positive biodiversity training The training ought to be developed for: 1. Managers and leaders Staff managing delivery of projects under the Cleaner Greener Safer and Devolved Highways Budget funding streams, 2. Operational staff including

	Emergency.	Grounds maintenance team Cleaning team Supervisory staff The training must ensure proper management and 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.
26	**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.
27	**Actively promote wildlife gardening**	Promote water butts to households including as recommended above.

	to residents.	Deliver this in partnership with the Centre for Wild Life Gardening and other members of Southwark Biodiversity Partnership
	Bolder	
28	**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	
29	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 licence to community organisations at no cost.* • *Consider community food growing on sites awaiting development for other uses 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 .*
30	**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 10). If there is insufficient capacity within the council to carry out this task, mapping

		will need to be commissioned 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, preferably for a minimum period of 5 years (although consideration could be given to shorter terms in some circumstances).
31	**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.**	
32	**Develop a Community Gardening / urban food growing policy, and include links to creating local markets and the planning system.**	Create a cross service working group to bring this forward consisting of Community Gardening Coordinators, Planning Policy, Regeneration, Public Health , Climate Change and Ecology teams. As part of this : 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. Include a Food Growing Policy in the next update of the Southwark Plan (and /or Environment & Climate SPD) that requires developers to include spaces for urban agriculture, allotments and community gardening.

		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. Undertake to support Agroecology through all urban agriculture initiatives
33	**Undertake to support Agroecology through food procurement.**	
34	**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.**	

Agenda Item 11

Scrutiny review scoping proposal

1 What is the review?

Environmental Health: The health and wellbeing impacts of active travel and improved access to nature and how these can be extended through our borough.

2 What outcomes could realistically be achieved? Which agency does the review seek to influence?

Improved opportunities to access active travel and nature for all Southwark residents, regardless of ethnicity, sex, age, disability or socioeconomic circumstances.

The review will investigate the obesogenic environment and associated health inequalities and how active travel and access to nature could help to address these. In particular, explore how improved access to active travel could help Southwark residents build activity into their daily lives in order to reduce the incidence of conditions such as obesity, high blood pressure, diabetes, high cholesterol, heart disease, poor mental health and wellbeing, and other conditions that are frequently linked to a sedentary lifestyle.

The focus will be on people with a Protected Characteristic and experiencing socio- economic disadvantage, particularly people experiencing the below intersections:

- Ethnicity
- Sex
- Age
- Disability
- Socio economic disadvantage

The aim will be to plot a path towards achieving an increase in active travel by gaining an understanding of barriers that exist and how to break them down. The Commission's work will influence the cabinet and updates to the following strategies:

- Streets for People and associated Walking and Cycling Plans

- Air Quality Action Plan
- Healthy Weight Strategy
- Southwark Nature Action Plan (SNAP)
- Green infrastructure Plan (recommended by previous Biodiversity review)

3 When should the review be carried out/completed?i.e. does the review need to take place before/after a certain time?

Completed by March 2025

4 What format would suit this review? (eg full investigation, q&a with executive member/partners, public meeting, one-off session)

Full investigation.

5 What are some of the key issues that you would like the review to look at?

<u>How active travel can be increased and the obesogenic environment reduced by:</u>

Considering the needs of different demographics and how active travel can be made more appealing and accessible to those experiencing the highest levels of health inequalities, with particular reference to Southwark's Streets for People strategy and the associated walking and cycling plans.

<u>Reduce exposure to pollution and increase access to nature by considering the following:</u>

- How green measures can be further used to reduce exposure to air pollution and improve the attractiveness and health impacts of our streets and wider environment for walking, cycling and other healthy activities, including how these will interact with Nature Corridors.

6 Who would you like to receive evidence and advice from during the review?

Officer report on Southwark's Healthy Weight strategy.

Officer report on Streets for People and associated Walking and Cycling Plans.

TFL – with reference to infrastructure updates to increase active travel, working relationships, and improvements to cycling safety (with particular reference to safety hotspots)

Parks, Leisure and Biodiversity leads on development and delivery of wildlife corridors and intersection with active travel.

Streets for People and associated Cycling and Walking Plans –

Cabinet Members with other relevant portfolios:

- Councillor Evelyn Akoto: Cabinet Member for Health & Wellbeing
  Cllr Akoto's responsibilities include:Public health - including reducing health inequalities
- Councillor Portia Mwangangye: Cabinet Member for Leisure, Parks & Young People. Cllr Mwangangye's responsibilities include:
  Biodiversity and trees - tree planting and maintenance; increasing biodiversity and nature
- Councillor James McAsh: Cabinet Member for, Clean Air and Streets
- Councillor John Batteson: Cabinet Member for Climate Emergency, Jobs and Business

Walking, cycling and nature groups such as:
Steppers UK
Wild in the City
Black Trail Runners
Flock Together
Black Girl Hike
Black Cyclists' Network
Cycle Sisters
Women of Colour Cycling Collective
Loud Mobility

Sustrans
Londra Bisiklet Kulubu
Lime Bikes
The Bike Project
London Bike Kitchen
Wheels for well-being
Temi Lateef, My Choice/ Black Riders Association

Update from Dr Ian Mudway , from Imperial , on research into particulates from tyres and brakes.

7 Any suggestions for background information? Are you aware of any best practice on this topic?

8 What approaches could be useful for gathering evidence? What can be done outside committee meetings?

e.g. verbal or written submissions, site visits, mystery-shopping, service observation, meeting with stakeholders, survey, consultation event

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Environment Scrutiny Commission

MUNICIPAL YEAR 2024-25

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