

**CITY
PLAN
2019 – 2040**

**ENVIRONMENT
TOPIC PAPER**

NOVEMBER 2019

1. Introduction

1.1. Westminster City Council is preparing a new City Plan 2019-2040 which sets out the council's vision to make Westminster a city of excellence in all areas. The purpose of this topic paper is to demonstrate how the policies within the Environmental Policies chapter of the City Plan have been developed and evidenced. This topic paper relates to the following City Plan policies:

- Policy 33: Air Quality
- Policy 34: Local Environmental Impacts
- Policy 35: Green Infrastructure
- Policy 36: Flood Risk / SUDs
- Policy 37: Energy
- Policy 39: Design Principles (Sustainable Design issues only)

1.2. This paper will set out the following for each of the above policies, in turn:

- Set out the purpose of the policy
- Set out the evidence in support of the policy
- Summarise the rationale and key issues of relevance for the policy areas
- Outline matters arising from the consultation responses received
- Set out how the policies were developed and refined

Evidence base overview

1.3. The City Council has utilised a variety of evidence, including national, regional and local strategies, commissioned studies and data, to support the development of the policies covered in the Environmental Policies chapter of the City Plan. The evidence base for each of the environmental policies covered in this topic paper will be discussed in each section in turn.

Policy drivers

1.4. Energy policy in London must be in general conformity with national and regional policies and standards. Across all topic areas, the main planning policy drivers are:

- *The National Planning Policy Framework (NPPF) 2019* sets out the Government's planning policies for England and how these should be applied by local authorities. The delivery of sustainable development is a central tenet of the NPPF – and environmental protection and enhancement is one of three core objectives of the planning system.
- The current *London Plan (2016)*¹: the statutory Spatial Development Strategy for Greater London developed by the Greater London Authority (GLA), sets out general policies in respect to the development and use of land in Greater London. The City Plan is required to be in general conformity with London Plan policies.
- The *draft New London Plan (2019)*²: expected to be adopted in early 2020. The New London Plan has progressed through Examination in Public and the policies are a material consideration in planning decisions. The Environment and Sustainable Infrastructure policies of the draft New London Plan are broadly consistent with those produced in the earlier London Plan 2016.

Consultation

1.5. The City Plan has been subject to two rounds of public consultation, with the last round of formal consultation (Regulation 19 stage) taking place from June to July 2019. Consultation responses have been reviewed and used to inform minor modifications to the draft City Plan

¹ The Greater London Authority, "The current London Plan" (2016) <https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan>

² The Greater London Authority, "The New London Plan" (2019) <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan>

Policies. Detailed consultation comments are outlined for each policy area within this topic paper.

2. **Policy 33: Air Quality**

- 2.1. Improving poor air quality is a key priority in London. Development has the impact to impact on air quality during construction and occupation of the development. The impact of poor air quality on users of developments is also a key consideration. Policy 33 Air Quality therefore sets out the council's approach to managing air quality in developments, to improve the health and wellbeing of residents and those that work in and visit the city.

Policy in context

International Policy

- 2.2. EU Directives provide a basis for much of the UK national and local agenda on air quality. The first major instrument was the Air Quality Framework Directive 96/62/EC, which established standards for a range of pollutants including ozone, particulate matter (PM10) and nitrogen dioxide (NO₂), in the period up to 2004. This Framework Directive was consolidated and adopted as 2008/50/EC as the Ambient Air Quality Directive: this provides the current framework for the control of ambient concentrations of air pollution in the EU³. The control of industrial emissions at source, while less relevant to the context of Westminster, is covered through a separate Directive, 2010/75/EU⁴.
- 2.3. The World Health Organisation has also produced its own guideline levels for a number of pollutants, including Particulate Matter of various sizes and NO₂⁵. While these guidelines do not have any legal standing, there is a move to voluntarily commit to meeting WHO guidelines at the regional and local authority level within the UK, particularly due to the WHO guideline levels for Particulate Matter, which are more stringent than those required through EU Directive.

National Policy

- 2.4. The 2008 EU Directive outlined above was made law in England through the Air Quality Standards Regulations 2010⁶, which also incorporates the 4th air quality daughter directive (2004/107/EC) that sets targets for levels in outdoor air of certain toxic heavy metals and polycyclic aromatic hydrocarbons.
- 2.5. Part IV of the Environment Act 1995 and Part II of the Environment (Northern Ireland) Order 2002 requires local authorities in the UK to review air quality in their area and designate air quality management areas if improvements are necessary. Where local authorities understand they are not in compliance with the relevant Objectives, set out about, Section 83 of the

³ European Union, "Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe" <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32008L0050>

⁴ European Union, "Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)" <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1413990306604&uri=CELEX:32010L0075>

⁵ World Health Organisation, "Air quality guidelines. Global update 2005. Particulate matter, ozone, nitrogen dioxide and sulfur dioxide" (2005), accessed at <https://www.who.int/airpollution/publications/agg2005/en/>

⁶ Legislation.gov.uk, "The Air Quality Standards Regulations 2010", <http://www.legislation.gov.uk/uksi/2010/1001/contents/made>

Environment Act 1995⁷ requires the establishment of Air Quality Management Areas, which in turn require local authorities to monitor pollutants of concern and establish local air quality action plans that seek to reduce pollution levels.

- 2.6. Paragraph 181 of the updated National Planning Policy Framework (NPPF) (2019) sets out how planning policy should interplay with local authority requirements, namely Air Quality Management Areas and Clean Air Zones. In particular, “Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.”
- 2.7. The NPPF focuses on opportunities to mitigate adverse air quality impacts of development, and recommends considering these opportunities at plan-making stages of the planning process. The specific additions relating to mitigation through traffic / travel management, and green infrastructure provision and enhancement, are new to the 2019 NPPF update.
- 2.8. The 2019 update to the NPPF also changes slightly the targets that planning authorities should work towards; namely this is now “relevant limit values or national targets” as opposed to the previous iteration of the NPPF which focused on EU limit values. This is of particular interest in relation to any potential divergence of UK targets compared to EU targets, and could allow local authorities utilising WHO guideline levels to adopt these as targets.
- 2.9. Specific guidance for local authorities in England pursuant to Section IV of the Environment Act 1995 is set out in Local Air Quality Management Policy Guidance (PG16) (2016) published by Defra. However, London specific guidance is produced by the GLA which has managed the devolved London Local Air Quality Management (LLAQM) system since May 2016. The policy context of LLAQM guidance for London boroughs is set out in the Regional Policy Section below.
- 2.10. Wider national policy context is provided by Defra’s Clean Air Strategy (2019) and Air Quality plan for Nitrogen Dioxide (NO₂) in UK (2017). The Clean Air Strategy covers government aspirations on a variety of elements of air quality, including emissions from transport, farming and industry, While the latter document focuses primarily on reducing roadside emissions of NO₂.
- 2.11. Additional relevant national legislation related to air quality and air quality management by local authorities include: related to smoke control areas, the Clean Air Act 1993; related to industrial processes, the Pollution Prevention and Control Act 1999; statutory nuisance related to dust, smoke, fumes or gases, the Environmental Protection Act 1990.
- 2.12. Finally, the management of construction sites and new development are managed through a variety of local policies which adopt best practice guidance developed at a national level. Of particular relevance are several documents produced by the Institute of Air Quality Management: Guidance on Monitoring in the Vicinity of Demolition and Construction Sites (2018); Land-Use Planning & Development Control: Planning For Air Quality (2017); Guidance on the assessment of dust from demolition and construction (2014); and A guide to the assessment of air quality impacts on designated nature conservation sites (2019). Regional policy is also used to manage emissions from new development, and is set out in the section below.

Regional policy

⁷ Legislation.gov.uk, “Environment Act 1995”, Part IV s.83 <http://www.legislation.gov.uk/ukpga/1995/25/section/83>

- 2.13. The relevant regional policy, as set out in the current London Plan (2016), is Policy 7.14 Improving air quality, which sets out that development proposals should minimise increased exposure to existing poor air quality and make provision to address local problems of air quality, reduce emissions from the demolition and construction of buildings, be at least ‘air quality neutral’ and not lead to further deterioration of existing poor air quality, ensure that where provision needs to be made to reduce emissions from a development, this is usually made on-site, and where the development requires a detailed air quality assessment and biomass boilers are included, the assessment should forecast pollutant concentrations.
- 2.14. New London Plan (2019) Policy SI1 Improving Air Quality introduces an air quality positive approach to large-scale proposals (those subject to Environmental Impact Assessments). The new policies also include requirements related to the GLA’s Non-Road Mobile Machinery Low Emission Zone.
- 2.15. As noted above, the GLA manages the devolved London Local Air Quality Management (LLAQM) system. The LLAQM Policy Guidance 2019 (LLAQM.PG (19) sets out guidance for London boroughs pursuant to Part IV of the Environment Act 1995. This includes guidance related to the setting and revoking of air quality management areas, air quality action plans, and the interplay of London Plan policy and guidance in relation to the Environment Act and national planning policy and guidance.
- 2.16. In addition to the national policy guidance documents set out in 3.12, there are a number of London specific guidance documents published by the GLA as Supplementary Planning Guidance documents. Of particular relevance are: Sustainable Design and Construction (2014); The Control of Dust and Emissions During Construction and Demolition (2014).

Local policy

- 2.17. Westminster City Plan (2016) sets out the current local policies covering air quality, including Policy S31: *Air Quality*, which requires a reduction of air pollution, with the aim of meeting the objectives for pollutants set out in the national strategy. This is to be achieved through developments minimising emissions of air pollution from both static and traffic generated sources; and that developments that include uses that are more vulnerable to air pollution (Air Quality Sensitive Receptors) will minimise the impact of poor air quality on occupants through the design of the building and appropriate technology.
- 2.18. *Greener City Action Plan (2015-2020): Chapter 4 Improving our Air Quality* sets out a number of high levels aspirations and targets which are more fully expounded in the council’s statutory Air Quality Action Plan 2013-18. *Chapter 11 Communicating and encouraging people into environmental action* also contains actions related to air quality.
- 2.19. *Air Quality Action Plan 2013-18* is the council’s statutory action plan pursuant to its statutory obligations as an Air Quality Management Area. It includes actions across a variety of broad topic areas: Tackling Emissions from Transport; Tackling Emissions from Buildings and Development; and Increasing Awareness of Air Pollution. It contains 44 actions across these areas. Updates and progress reports related to the Air Quality Action Plan are produced annually as Annual Status Reports which are submitted to Defra and the GLA. The council’s *Air Quality Action Plan 2019-24*, will complement the policies of the new City Plan and has been progressed alongside the development of new City Plan policies related to air quality.

Evidence to support the new policy

- 2.20. The City Council has a variety of evidence which has been utilised to produce new policy related to air quality. Internally produced evidence related to the council’s status as an Air Quality Management Area and progress towards national air quality Objectives are externally verified and accepted by Defra and the GLA. Externally produced evidence considered includes established mechanisms for the modelling of air quality levels such as the London Atmospheric Emissions Inventory produced by the GLA. Air quality will form a substantial part of the council’s planned Supplementary Planning Document on the environment and sustainability which will include a variety of additional guidance.
- 2.21. *Annual Status Reports* are provided to national Government and provide updates on the council’s work towards its statutory duties as an Air Quality Management Area. This includes the council’s *Updated Screening and Assessment*.
- 2.22. The council’s *Code of Construction Practice 2017* provides guidance for developers beyond the planning stage for new development.
- 2.23. *Air quality monitoring data* captured by the council’s statutory monitoring network is used to inform policy across air quality topics including those related to planning policy. Westminster’s monitoring network is part of the London Air Quality Network managed by King’s College London and the Automatic Urban Rural Network (AURN) managed by Defra.
- 2.24. *The London Atmospheric Emissions Inventory (various iterations)* provides high quality air quality modelling data and source apportionment and is used to inform policy across air quality topics including those related to planning policy.
- 2.25. *Air Quality Task Force 2018* was a report produced by Westminster City Council’s Scrutiny Committees and has informed a variety of air quality policy. This included commissioned research on air quality work in the rest of the UK and worldwide undertaken by King’s College London.

Consultation Responses

- 2.26. There were 30 responses received during the Regulation 19 stage consultation on air quality from 17 different parties. In summary, responses were generally supportive of all parts of the proposed policy.
- 2.27. Specific comments that identified major and distinct issues are outlined below.

Consultation responses on draft Policy 33: Air Quality

Issue identified	Policy response
Request confirmation that it includes full Air Quality assessments on all those major developments/ initiatives that have an impact on the Westminster population of Westminster, including air (aviation related) initiatives/ developments, as well as land-based ones	<p>These developments are not considered in scope by the current guidance for local authorities related to Air Quality Assessments, and are unlikely to be of relevance to Westminster.</p> <p>Aviation emissions are not planning related and the council therefore has no power to address them.</p>

Would like to see Policy 33D make explicit that all major developments within Air Quality Focus Areas will be required to achieve Air Quality Positive status	The London Plan outlines the Air Quality Positive is only being proposed for developments requiring Environmental Impact Assessments. We have also not yet received confirmation from the GLA on what Air Quality Positive assessments will entail, and as such are not in a position to propose their use on smaller (major) development.
Require air quality assessment for all development in areas of poor quality	It would not be appropriate to require AQAs for all developments in areas of poor air quality. It is also hard to define what this means. The policy requirements for AQAs already go beyond the London Plan.
It is not clear where the Air Quality Focus Areas (AQFA) fall in the plan	The AQFAs are designated by the Mayor. A link to the online map is provided in the supporting text. They are also shown on the map included with the policy.
Draft policy 33 requires all major developments to be Air Quality Neutral. There is no explanation as to what "air quality neutral" means in this context.	The City Plan follows the London Plan approach on Air Quality Neutral. The Mayor will prepare further guidance on this topic.
It would be helpful if the Plan could make clear the standards to be used in assessing before and after air quality changes for local emissions	We will provide more detail on the application in a supplementary planning document.

The policy

- 2.28. The council is committed to improving air quality in the city and expects development to reduce exposure to poor air quality and maximise opportunities to improve it locally without detriment of air quality in other areas. Policy 33 requires that major developments in Opportunity Areas and Housing Renewal Areas and those subject to an Environmental Impact Assessment should achieve Air Quality Positive status, while all other major developments and developments incorporating solid biomass boilers or Combined Heat and Power (CHP) should be at least Air Quality Neutral. This approach is in line with the New London Plan approach, although slightly modified to reflect local priorities.
- 2.29. Policy 33 also sets out that Air Quality Assessments will be required for major developments; proposals that include potentially air pollution generating uses or combustion-based technologies; proposals incorporating sensitive uses; and all residential developments within Air Quality Focus Areas. This approach goes beyond the London Plan to reflect that air quality is a priority issue in Westminster. However, it follows the general approach in the London Plan.
- 2.30. The Panel Report for the New London Plan is recommending changes to the air quality approach. At this point in time it is not clear how the Mayor is intending to respond to these recommendations. No further modifications to the policy are therefore proposed to this regard at the moment.

- 2.31. The policy approach adopted is considered to meet national and regional policy and guidance and reflects the local importance of improving air quality.

Conclusion: Air Quality

- 2.32. The air quality consequences of development in Westminster are broad and varied. Air quality in Westminster is covered by a variety of national legislation and regional and local policy, with complex interplays between them.
- 2.33. Air quality will form a substantial part of the council's planned Supplementary Planning Document on the environment and sustainability which will include a variety of additional guidance.
- 2.34. Considering the evidence outlined in this report, the proposed policy presented in the draft City Plan is deemed to be an appropriate response to the City Council's responsibilities and ambitions in respect of air quality.

3. Policy 34: Local environmental impacts

- 3.1. Development delivers a variety of activities that need to be managed effectively to avoid adverse impact on the environment and inhabitants of Westminster. Policy 34 seeks to support a balance by enabling development that minimises disruption and maintains the health and wellbeing of nearby users. This section of the topic paper sets out how the policy, covering the issues of light pollution, noise and vibration, odour, land contamination, and construction impacts, has been produced and evidenced.

Policy in Context

- 3.2. Westminster's dense urban environment is the centre for a diverse range of functions that can result in a range of environmental impacts. Westminster is particularly prone to the impacts of noise pollution, with over 17,000 complaints received each year. Noise from road traffic and building and construction are cited as some of the top environmental issues by Westminster residents – both of which can be caused or exacerbated by development.
- 3.3. Exposure to negative environmental conditions can adversely affect human health. Interruption to human sleep cycles from noise and/or light pollution can result a range of poor health outcomes, including obesity, cardiovascular disease and increased risk of mental health disorders⁸. Similarly, the detrimental impact of noise can include poor performance and learning, mental health problems, stress and the reduced quality of life. While issues such as odour are less likely to represent a public health concern, cumulative exposure is likely to create a persistent nuisance to nearby uses, impacting on quality of life.

International Policy

- 3.4. International agreements and EU Directives provide a basis for much of the UK national and local agenda on environmental protection and management. Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002⁹ relating to the assessment and management of environmental noise is aimed at controlling noise perceived by people in built-up areas, public parks and noise-sensitive buildings and areas.

⁸ Houses of Parliament: Parliamentary Office of Science and Technology, "Sleep and Long-Term Health" (2018)

<https://researchbriefings.files.parliament.uk/documents/POST-PB-0029/POST-PB-0029.pdf>

⁹ Publications Office of the <https://publications.europa.eu/en/publication-detail/-/publication/27d1a64e-08f0-4665-a258-96f16c7af072>

- 3.5. *World Health Organisation (WHO) Noise guidelines for the European Region (2018)*¹⁰ have now supplemented elements of the *WHO Guidelines for Community Noise (1999)*¹¹ which sets recommendations and thresholds for protecting human health from exposure to environmental noise originating from a variety of sources.

National Policy

- 3.6. Legislation requires councils to address the causes and manage the effects of environmental pollution.
- 3.7. Section 15¹² paragraph 170 (parts e and f) of the updated National Planning Policy Framework (NPPF) (2019) sets out that planning policies and decisions should contribute to and enhance the natural and local environment by, “*preventing new and existing development from contributing to... unacceptable levels of soil, air, water or noise pollution... [and] ...remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*”
- 3.8. The NPPF also states that planning policies and decisions should ensure that new development is appropriate for its location considering the likely effects of pollution on health, living conditions and the natural environment and the potential sensitivity of the site to impacts that could arise from the development. In doing so, development proposals should, “*mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life... [and] ...limit the impact of light pollution from artificial light on local amenity...*” (Section 15, para 180: part a).
- 3.9. In addition, the NPPF states that, “*Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established.*” (Section 15, para 182). Where existing activity could have significant adverse effect on the development, the onus is on the applicant, as the “*agent of change*”, to provide appropriate mitigation.
- 3.10. Section 79 of the *Environmental Protection Act (1990)*¹³ sets out the duty for local authorities to investigate complaints involving “statutory nuisances”. These are defined under the act as matters that are deemed prejudicial to health or a nuisance, including:
- smoke, fumes or gas emitted from premises
 - dust, steam, smell or other effluvia arising on industrial, trade or business premises
 - artificial light emitted from premises
 - noise emitted from premises or caused by a vehicle, machinery or equipment on the street
- 3.11. Further government regulation includes *The Environmental Noise (England) Regulations (2006)* as amended in 2018¹⁴ and *The Contaminated Land (England) Regulations (2006)*¹⁵. The Government has also produced Planning Practice Guidance on a range of environmental issues,

¹⁰ World Health Organisation, “*Noise guidelines for the European Region*” (2018)

http://www.euro.who.int/_data/assets/pdf_file/0008/383921/noise-guidelines-eng.pdf

¹¹ World Health Organisation, “*Guidelines for Community Noise*” (1999) <https://apps.who.int/iris/handle/10665/66217>

¹² Ministry of Housing Communities & Local Government, “*National Planning Policy Framework*” (2019)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

¹³ Legislation.gov.uk, “*Environmental Protection Act (1990)*”, Section 79: Statutory nuisances and inspections therefor

<http://www.legislation.gov.uk/ukpga/1990/43/part/III/crossheading/statutory-nuisances-england-and-wales>

¹⁴ Legislation.gov.uk, “*The Environmental (Noise) Regulations*” (2006) <http://www.legislation.gov.uk/uksi/2006/2238/introduction/made>

¹⁵ Legislation.gov.uk, “*The Contaminated Land (England) Regulations*” (2006)

<http://www.legislation.gov.uk/uksi/2006/1380/contents/made>

including light pollution¹⁶, noise¹⁷, contaminated land¹⁸. Industry guidance on environmental impacts include: *The Chartered Institution of Building Services Engineers (CIBSE) Lighting Guide 06: The Exterior Environment*¹⁹, *The Institute of Lighting Engineers (ILE) Guidance notes for the reduction of obtrusive light*²⁰ and The British Standards Institute’s (BSI) *Code of practice for noise and vibration control on construction and open sites (BS 5228-1:2009)*²¹ and the *Institute of Air Quality Management Guidance on the assessment of odour for planning (2018)*²².

Regional policy:

- 3.12. The relevant regional policies, as set out in the current London Plan (2016), are:
- 5.21: *Contaminated Land*: encourages the remediation of existing contaminated land and a requirement that development on contaminated land does not activate or spread contamination.
 - 7.15: *Reducing and managing noise, improving and enhancing the acoustic environment and promoting appropriate soundscapes*: sets out that development proposals should seek to manage the impacts of noise on, from, within or as a result of new development.
- 3.13. The policy direction under the New London Plan (2019) have been expanded to include the Agent of Change principle. The relevant policies are:
- D12: *Agent of Change*: places the responsibility for mitigating impacts from existing noise-generating activities or uses on the proposed new noise-sensitive development.
 - D13: *Noise*: require that residential and non-aviation development proposals should manage and mitigate noise so as to improve health and quality of life.
 - E7: *Industrial intensification, co-location and substitution*: Policy E7 part E4 (d and e) requires appropriate design mitigation to be included in any residential development to address issues including the agent of change principle, noise and vibration, air quality - including dust, odour and emissions, and potential contamination.
- 3.14. The Mayor of London’s *Sustainable Design and Construction SPG (2014)*²³, *The Control of Dust and Emissions During Construction and Demolition SPG (2014)*²⁴ and *The London Good Practice Guide: Noise and Vibration Control from Demolition and Construction*²⁵ sets out design standards and good practice measures to be applied on site for addressing issues of land contamination, noise and light pollution.

Local policy:

¹⁶ Ministry of Housing Communities & Local Government, “*Planning Practice Guidance: Light Pollution*” (2014) <https://www.gov.uk/guidance/light-pollution>

¹⁷ Ministry of Housing Communities & Local Government, “*Planning Practice Guidance: Noise*” (2014) <https://www.gov.uk/guidance/noise--2>

¹⁸ Ministry of Housing Communities & Local Government, “*Planning Practice Guidance: Land affected by contamination*” (2014) <https://www.gov.uk/guidance/land-affected-by-contamination>

¹⁹ CIBSE, “*LG06/16 Lighting Guide 06: The Exterior Environment*” <https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q20000008K5E5AAK>

²⁰ ILE “*Guidance notes for the reduction of obtrusive light*” <http://www.britastro.org/dark-skies/pdfs/ile.pdf>

²¹ BSI “*Code of practice for noise and vibration control on construction and open sites*” (BS 5228-1:2009) <https://www.thenbs.com/PublicationIndex/documents/details?Pub=BSI&DocID=305965>

²² IAQM, “*Guidance on the assessment of odour for planning*” (2018) <http://iaqm.co.uk/text/guidance/odour-guidance-2014.pdf>

²³ The Greater London Authority, “*Sustainable Design and Construction Supplementary Planning Guidance*” (2014) https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Sustainable%20Design%20%26%20Construction%20SPG.pdf

²⁴ The Greater London Authority, “*The control of dust and emissions from construction and demolition*” Supplementary Planning Guidance (2014) https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Dust%20and%20Emissions%20SPG%20%20July%202014_0.pdf

²⁵ Arup, “*London Good Practice Guide: Noise and Vibration Control from Demolition and Construction*” (2016) <https://www.cieh.org/media/1251/london-good-practice-guide-noise-vibration-control-for-demolition-and-construction.pdf>

- 3.15. *Westminster City Plan (2016)*²⁶ sets out the current local policies covering environmental protection, including:
- *S32: Noise*: which requires new development to minimise and contain noise and vibration and provide an acceptable noise and vibration climate for occupants.
 - *S29: Health, Safety and Wellbeing*: which requires development projects with significant local impact to mitigate, avoid or remedy environmental and local impacts in construction and operation.
- 3.16. *Westminster Unitary Development Plan (UDP) (2017)*²⁷ details the local planning policies relating to Environmental Impacts. These are:
- *ENV6: Noise pollution*: required design features and measures to minimise noise from developments and provide adequate protection to residential development from existing background noise.
 - *ENV7: Controlling noise from plant, machinery and internal activity*: required development to be designed and operated so as to limit noise to within prescribed noise limits.
 - *ENV8: Contaminated land*: stated that planning permissions on land which is or may be contaminated be subject to conditions requiring further investigation and remediation.
 - *ENV10: Light pollution*: required developments where lighting apparatus was to be installed to avoid glare, conflict with street or traffic lighting and upward light spill.

Evidence to support the policy

- 3.17. The City Council has a variety of evidence, including local strategies, commissioned studies, consultation and technical guidance notes, to support environmental impacts policy implementation in Westminster. Further guidance will follow in a new Supplementary Planning Document on environmental issues and in a series of technical guidance documents for developers produced by Westminster City on issues of noise, odour and contaminated land.

Part B: Light pollution

- 3.18. Westminster's Supplementary Planning Guidance: Lighting up the City (1993)²⁸ sets out the approach for developments in designing, installing and implementing exterior lighting in the City. Some of the principles outlined in the guidance include:
- Only illuminate buildings of architectural interest and this should accord with the special architectural features of the building and not damage listed buildings
 - Lighting should be discreet and not compromise the architectural integrity of the building
 - Lighting should not be used where it may intrude upon residential properties
 - Lighting schemes should be an integral part of new developments, take account of nearby schemes and have regard to the total lighting effect in the area
 - Schemes should minimise light pollution and maximise energy efficiency
 - Planning and listed building consents should be sought where necessary

Part C: Noise and vibration

- 3.19. Policy 34 of the draft City Plan sets higher noise standards than those required under national policy because of the unique noise environment faced in Westminster. The city experiences much higher noise levels than those experienced in suburban areas and therefore places greater emphasis on development addressing the impacts of noise intrusion to and arising from new development.

²⁶ Westminster City Council, "*Westminster City Plan*" (2016)

http://transact.westminster.gov.uk/docstores/publications_store/cityplan/Westminster_City_Plan_consolidated_version_Nov_2016.pdf

²⁷ Westminster City Council, "*Westminster Unitary Development Plan*" (2007) <https://www.westminster.gov.uk/unitary-development-plan-udp>

²⁸ Westminster City Council, "*Lighting up the City Supplementary Planning Guidance*" (1993) <http://transact.westminster.gov.uk/spgs/publications/Lighting%20up%20the%20City.pdf>

- 3.20. The council commissioned a series of studies during the development of *Westminster's Noise Strategy*²⁹ that provided primary data to support the local evidence base on Noise policy. Evidence from the Scott Wilson reports *Westminster Noise Measurement Survey (2008)*³⁰ and *Westminster Open Spaces Noise Study (2008)*³¹, along with findings from the Growth from Knowledge (GfK) Social Research study *Westminster Noise Attitudes Survey (2008)*³² and Westminster City Council's own *Soho Noise Survey Reports (2008)*³³ indicate that:
- the majority of people living in Westminster were generally happy with the area they were living in and greater numbers said their area was quiet rather than noisy
 - Noise does appear to be a growing concern for a substantial number of residents
 - The most frequently mentioned sources of noise at home were: road traffic noise (37%), noise from building and construction work (36%), road works (30%) and neighbour's activities either inside or outside their home (25%) and aircraft noise (20%)
 - A comparison with the World Health Organisation Guidelines for Community Noise shows that average levels at the front of the properties are considerably above these guidelines.
 - Higher amounts of night time noise occur in the central activities zone (CAZ) than average noise levels across Westminster.
 - There's no strong correlation between local tranquillity scores and noise levels
- 3.21. A report undertaken by Bureau Veritas, the *Aircraft Noise Study (2009)*³⁴, assessed the impact of aviation on Westminster. The study indicated that the impact of noise in the City of Westminster from aircraft, including helicopters, is currently limited but that the Council should be mindful of whether future developments (notably expansion proposals at Heathrow Airport) could adversely affect the area. The City Plan seeks to respond to this need by ensuring new development proposals take full account of the local environment and adhere to local noise standards.
- 3.22. Westminster City Council's *Technical Guidance for Noise (2019)* sets out the council's noise compliance thresholds and approach to prevent adverse effects of noise and vibration and identifies Tranquil Open Spaces.

Part D: Odour

- 3.23. Westminster City Council's *Kitchen extract guidance: guidelines for the prevention of odour nuisance from commercial kitchen exhaust systems (2019)* sets out the requirements for developments to address odour issues arising from development.

Part E: Contaminated Land

- 3.24. Westminster City Council's *Contaminated Land Guidance for Developers (2018)*³⁵ sets out the requirements for developers to receive approval on the following phases prior to any demolition or excavation work starts, and once development has been completed (phase 4). This includes:

²⁹ Westminster City Council, "*Westminster Noise Strategy*" (2010) <https://www.westminster.gov.uk/noise-strategy>

³⁰ Scott Wilson, "*Westminster Noise Measurement Survey*" (2008) http://transact.westminster.gov.uk/docstores/publications_store/Westminster%20Noise%20Measurement%20Survey%202008%20Final%20Report.pdf

³¹ Scott Wilson, "*Westminster Open Spaces Noise Study*" (2008) http://transact.westminster.gov.uk/docstores/publications_store/Westminster%20Open%20Spaces%20Noise%20Study%202008.pdf

³² GfK, "*Westminster Noise Attitudes Survey*" (2008) http://transact.westminster.gov.uk/docstores/publications_store/noise/The_Westminster_Noise_Attitudes_Survey_2008.pdf

³³ Westminster City Council, "*Soho Noise Survey Reports*" (2008) http://transact.westminster.gov.uk/docstores/publications_store/noise/Soho_Noise_Survey_Reports_2008.pdf

³⁴ Bureau Veritas, "*Aircraft Noise Study*" (2009) http://transact.westminster.gov.uk/docstores/publications_store/Westminster%20Aircraft%20Noise%20Study%202009.pdf

³⁵ Westminster City Council, "*Contaminated Land Guidance for Developers submitting planning applications in Westminster*" (2018) https://www.westminster.gov.uk/sites/default/files/contaminated_land_guidance_for_developers.pdf

- Desktop study: full site history and environmental information from public records
- Site investigation: to assess the contamination and the possible effect it could have on human health, pollution and damage to property
- Remediation strategy: including details on maintenance and monitoring to protect human health and prevent pollution
- Validation report: summarises the action taken during the development and in the future, where appropriate

Parts F&G: Construction Impacts

- 3.25. Westminster’s annual resident survey indicates that on average 18% of respondents consider noise from building sites to be a problem, compared to 14% who consider noise from neighbours to be a problem over the period 2013-2018³⁶.
- 3.26. The *Westminster Code of Construction Practice* (2016)³⁷ provides an approach to monitor, control and manage construction impacts on sites throughout Westminster. The code sets out the standards and procedures to which developers and contractors must adhere to when undertaking construction of major projects. The Code ensures that development sites:
- will be inspected and monitored by the council’s Code of Construction Practice Team
 - undertake community liaison, informing neighbours about key stages of the development
 - pay the charges arising from site inspections and monitoring
 - ensure that contractors and sub-contractors also comply with the code requirements

Consultation Responses

- 3.27. There were 16 responses received during the Regulation 19 stage consultation to this policy. In summary, responses were generally supportive of all parts of the proposed policy:
- Supportive for the Environmental Impacts policy, particularly on addressing issues of noise, lighting and construction impacts
 - Supportive on the adoption of the Agent of Change principle
 - Concern that the policy on contaminated land should go further to address issues of development on contaminated land or above sensitive groundwater
- 3.28. Specific comments that identified specific issues are outlined below.

Consultation responses on draft Policy 34: Local environmental impacts

Issue identified	Policy response
The policy does not address the old/aging building stock that require noise cancellation barriers or double glazing	Modifications to existing buildings fall outside of the scope of the City Plan.
The policy is not sufficient to address the risks /implications associated within areas of land contamination, or above areas of sensitive groundwater	Further detail on the procedure for developers addressing potential land contamination is included in Westminster’s <i>Contaminated Land Guidance for Developers</i> (2018). This includes a process diagram outlining where site modelling and risk assessments should be undertaken. The approach to site drainage is addressed via the Drainage Hierarchy covered under Policy 36: Flood risk.

³⁶ Westminster City Council, City Survey results (2018)

³⁷ City of Westminster, “Code of Construction Practice” (2016)
https://www.westminster.gov.uk/sites/default/files/code_of_construction_practice_2016_v1.1_4.pdf

	Minor modification proposed to the supporting text to reference EA guidance on land contamination (minor modification M/E/04)
The policy should ensure sufficient and effective noise measures and assessments are in place to protect the population of Westminster – including ensuring any new aviation or ground-based development will not increase noise pollution impacts.	The City Plan policy will be supported by a Supplementary Planning Documents on environmental issues. This will include further guidance on addressing noise. Aviation impacts are outside of the remit of the City Plan.
The policy should also ensure that occupiers of any new development will not be adversely affected by existing sources of noise, vibration or odour.	The justification text for Policy 34 states that the 'Agent of Change' principle will be applied to new development. Furthermore, the policy works with City Plan Policy 7 (Managing development for Westminster's people) to protect local amenity.
We support limiting light pollution and would encourage Westminster to study lighting advancements internationally to see if there are ways to reduce light pollution, especially in residential areas.	The City Plan policy will be supported by a Supplementary Planning Documents on environmental issues. This may include further guidance on addressing light pollution.

The policy

3.29. Policy 34 requires that quality of life, health and well-being and the natural environment are not adversely impacted by development. Developments should be designed to minimise light pollution, prevent adverse impacts of noise and vibration, address the adverse impact of odour, take appropriate assessments and remediation of contaminated land and minimise construction impacts. The policy has been developed to respond to the specific needs identified in the local evidence base and consultation with stakeholders and input from technical specialists and policy has been streamlined from the previous policy iteration in City Plan 2016 so as to provide a more concise, strategic overview on addressing environmental impacts.

3.30. The policy approach adopted is considered to meet national and regional policy and guidance. On advice obtained from the Environment Agency during the Regulation 19 consultation, amendments have been made to the policy wording on contaminated land to ensure that the policy is sound and consistent with national policy requirements. These changes are reflected in the minor modifications.

Conclusion: Local environmental impacts

3.31. The environmental consequences of development in Westminster are broad and varied, given the specific characteristics of the city. The draft City Plan policy environmental impacts policy needs to set out how Westminster will achieve a balance between sustainable growth and environmental protection in accordance with national policy.

3.32. The National Planning Policy Framework requires local planning authorities to prevent new and existing development from contributing to, or being adversely affected by, unacceptable levels of pollution. The Environmental Impact policy of the draft City Plan sets out how Westminster will respond to this need in an approach consistent with regional policies and drivers.

- 3.33. Considering the evidence outlined in this report, the proposed policy presented in the draft City Plan is deemed to be an appropriate response to the City Council’s responsibilities and ambitions in respect of environmental protection.

4. Policy 35: Green Infrastructure

- 4.1. Westminster’s green assets are something of which the council and the community are justly proud. Almost one quarter of the city is made up of open and green space, and the number of green infrastructure items like living walls and roofs is on the increase.^[1] The council is determined to protect these existing assets and encourage further greening of the city where possible. It draft City Plan therefore includes a dedicated policy for supporting green infrastructure – Policy 35.
- 4.2. The overarching aim of this policy is to ensure that development in Westminster does not threaten or compromise green assets and that opportunities are identified and taken to enhance or add to the city’s existing green infrastructure. The policy is supported by a local policy and strategy framework, some of which is already in place (such as the council’s strategy document ‘A Partnership Approach to Open Spaces and Biodiversity’) and further elements of which will be developed during the duration of this City Plan (e.g. the council’s Green Infrastructure Strategy and supporting SPG). The council bases this integrated approach on a broad evidence base, which includes reference to national and regional policy, research findings from a range of sources and identified best practice from elsewhere.

Policy in Context

National Policy

- 4.3. The National Planning Policy Framework (NPPF) incorporates a number of policies which aim to protect green assets. Local planning policies and decisions are required to contribute to and enhance the natural environment by “*protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils*”, as well as “*minimising impacts on and providing net gains for biodiversity*” and “*wherever possible, help to improve local environmental conditions such as air and water quality*”.^[2] The draft City Plan recognises the role of green infrastructure in this, committing to an approach which “*will protect and enhance the city’s green infrastructure to maximise its environmental, social and economic value.*”^[3]
- 4.4. Protecting biodiversity gets specific handling in the NPPF, with requirements that local authorities “*identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks*” and “*promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*”^[4] The draft City Plan outlines the work which the council has done, and will continue to do, to ensure it has a robust policy framework to effectively protect and enhance the city’s wildlife. While, as a matter of course, protecting Sites of Importance for Natural Conservation (SINCs) and seeking new opportunities to enhance and maximise habitats for priority species^[5], the council will also develop and publish a dedicated Green Infrastructure Strategy, and a supplementary planning document to guide the application of the policy. By developing a full, targeted policy approach the council will reinforce its City Plan policies regarding green infrastructure to ensure its protection and enhancement remains a priority as part of a sustainable pattern of development in the city, in line with the requirements of the NPPF.

Regional Policy

- 4.5. The new London Plan (currently draft) aligns with the NPPF in its overall drive to protect and enhance green assets. The issue of green infrastructure is handled in detail in chapter 8 (specifically Policy G1). Green infrastructure is recognised as delivering a wide range of benefits and local authorities are urged to “*identify key green infrastructure assets, their function and their potential function*” and “*identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.*”^[6] The draft City Plan directly reflects this, acknowledging in paragraph 35.1 that Westminster’s green infrastructure has various functions and delivers many different benefits to the local environment and community, including “*climate change adaptation, health and well-being, improving air quality, sport, leisure, recreation and play, landscape and heritage conservation, education, biodiversity and ecological resilience.*”
- 4.6. At its core, the approach taken to open and green spaces in the current London Plan is similar. It states that “*the Mayor supports the creation of new open space in London to ensure satisfactory levels of local provision to address areas of deficiency*” while “*the loss of protected open spaces must be resisted unless equivalent or better quality provision is made within the local catchment area.*”^[7] To support this the Plan requires that local authorities identify areas of deficiency. Westminster has done this as part of developing its strategic approach to open spaces and biodiversity^[8] and in its draft City Plan it commits using this data to encourage and facilitate new greening proposals which will help to address those identified deficiencies. This exercise of surveying existing green assets and identifying deficiencies is something the council will undertake on an ongoing basis, in line with the current London Plan position that “*Boroughs should undertake audits of all forms of open space and assessments of need.*”^[9]
- 4.7. The new London Plan as currently drafted brings some changes, though, in the area of promoting and protecting biodiversity. Previously there has been a requirement to produce local Biodiversity Action Plans (BAPs). These outline actions intended to protect identified species which are valuable to the local ecosystem and which may be under threat. The current London Plan references these plans - Policy 7.19 requires that boroughs should assist in delivering local BAPs through their local planning decisions. While the new London Plan maintains a focus on protecting Sites of Importance for Nature Conservation (SINCs) and recognises and seeks to protect the “*wide variety of important wildlife habitats*”^[10] in London with requirements like “*biodiversity enhancement should be considered from the start of the development process*”^[11], it does not make direct reference to Biodiversity Action Plans. Westminster’s draft City Plan has been developed to be consistent with this approach. It highlights the city’s 33 SINCs, which “*provide important habitats for a range of species and make it possible for residents and visitors to access nature*”^[12] and gives consideration to supporting specific species in Policy 35 G, which stipulates that “*opportunities to enhance existing habitats for priority species should be maximised.*” Westminster’s policies therefore align with the latest London-wide approach.
- 4.8. The new London Plan also introduces the concept of the Urban Greening Factor (UGF) – a structured assessment mechanism “*to assist boroughs and developers in determining the appropriate provision of urban greening for new developments*”^[13]. The council notes that this currently only applies to major applications but in time may come to be applied to all development, and that boroughs are expected to develop their own models to guide local decision making. This is something that will be looked at as part of the council’s forthcoming Green Infrastructure Strategy, which will be produced during the life of the City Plan.

- 4.9. The London Plan’s requirements in respect of green infrastructure work in context with the Mayor’s [London Environment Strategy](#), published in May 2018. This strategy recognises that *“the growth of London over the centuries has resulted in a reduction in natural habitats and green open spaces as homes, schools, hospitals, workplaces and transport infrastructure are built to sustain a successful city.”*^[14] However it notes the many benefits of green infrastructure in the capital, from promoting healthier living to impacting on climate change and improving ecological resistance. So the strategy aims to *“ensure that London’s future growth does not compromise, but helps to improve, the quality and function of London’s green infrastructure”*. Alongside the intention to make London the world’s first National Park City, the Mayor says that this will be achieved by protecting and making best use of the green spaces we already have. Westminster’s City Plan reflects this, committing to delivering an integrated approach to maximise the benefits of the city’s green assets^[15].
- 4.10. The Mayor’s London Environment Strategy emphasises the value of the Royal Parks, of which Westminster has five, as a crucial part of the National Park City vision. Reflecting this directly, special mention is made in the draft City Plan. It is noted that all the Royal Parks are designated as Metropolitan Open Land (MOL) which is *“afforded the same protection as green belt land”* under the existing London Plan. Collectively constituting almost 90% of Westminster’s open space, the council considers our Royal Parks to be *“a vital part of the character of the city”*. We know that the majority of people who visit parks and open spaces in Westminster go to Royal Parks as part of that, and that when people visit those spaces they tend to spend longer there than they do in other open spaces within the city^[16]. Recognising the importance of Royal Parks for the local area and the community (residents, workers and visitors alike) the council has developed a City Plan policy dedicated specifically to their protection (Policy 35 E) and commits unequivocally to *“work with partners and applicants to preserve the open character of the Royal Parks and enhance the value they bring for London.”*^[17]

Local Policy

- 4.11. A key local evidence source in developing this City Plan policy has been the council’s strategy [‘A Partnership Approach to Open Spaces and Biodiversity’](#). This document confirms that the council is *“determined to protect, enhance and promote our many parks, open spaces and other green infrastructure, as well as acting to conserve the city’s rich and diverse wildlife, so that we can all continue to benefit from them”*. This is borne out by the draft City Plan, which highlights that *“all developments have opportunities to contribute to further greening of the city”* (paragraph 35.3) and that proposals to do just that will be actively encouraged.
- 4.12. The ‘Partnership Approach’ document is supported by its own evidence base, which included mapping of areas of deficiency for both access to open space in general, and ‘access to nature’ in terms of local wildlife. This mapping revealed that, despite the city’s considerable green assets there is still an overall deficiency of open space. This has fed into the draft City Plan’s scale of ambition in supporting, enhancing and adding to the green assets we have, and adding new ones wherever possible. Paragraph 35.6 highlights how the council will look to take *“every opportunity to increase open spaces”*, looking at *“small open spaces and ‘pocket parks’”*.^[18] These will need to be *“developed and managed appropriately”* but the council recognises the positive impact that even very small scale interventions can have on the local community. This aligns with the position put forward by the Ministry of Housing, Communities and Local Government (MHCLG) that even the smallest pockets parks *“can help people overcome social isolation, break down barriers and give a sense of belonging”*.^[19]

Consultation Responses

4.13. There was considerable support expressed for Policy 35 as part of the Regulation 19 consultation. Some consultation responses highlighted issues which will be picked up as part of Westminster’s planned further work on developing a comprehensive and integrated policy approach to green infrastructure. The Green Infrastructure Strategy and Supplementary Planning Document. There were also queries raised about the application of the policy to specific green assets in the city, such as Royal Parks. The City Plan provides an overarching policy, which protects all open spaces equally (included but not limited to those designated on the policies map). The City Plan does not seek to repeat the provisions of other planning documentation such as the London Plan.

4.14. A summary of specific Regulation 19 consultation responses is provided below:

Issue identified	Policy response
Additional references to the Draft London Plan’s Urban Greening Factor policy and to sustainable water use needed	Urban greening factor may be set out in a forthcoming Supplementary Planning Document.
Provision of space for children’s active play should be considered on a site-specific basis	It is a priority for the council to deliver a City for All. With large parts of the city being deficient in open and/or play space, it is justified for such policy requirements.
Small loss of space should be acceptable for ancillary uses (such as toilet or café)	Policy 35 supports the enhancement of open space. Any loss of open space for facilities to improve their access and quality will be considered in light of their benefits.
Promote balanced approach to accounting for development’s potential benefits	A balanced approach will be taken at application stage.
No policy specific to the Royal Parks	The Royal Parks are presented in Policy 35. This policy also protects the different qualities of open spaces. A separate policy along the lines of the current City Plan (2016) will therefore not be required.
Trees should not impede access to loading bays/ entrances	We may prepare further guidance on the application of this policy in a supplementary planning document.
City Plan not linked to protected open spaces in Open Space Strategy	The City Plan protects all open spaces, including those designated on the policies map. This has been informed by an updated open space study. These spaces do not need to be separately listed in the plan.
Approach should be more open and consider on a tree-by-tree basis	The policy approach allows for the exceptional circumstances mentioned when justified. Further

	guidance on the application of the policy may be prepared.
Open space development should not overlook delivery/servicing access	Noted. We may prepare further guidance on the application of this policy in a supplementary planning document.
Suggested policy for closing streets for play streets and community events	The City Plan supports the creation of Healthy Streets.
Suggested provision for tree replacement and renewal	We will prepare further guidance on our approach to trees.

Evidence to support the policy

Audit of open spaces

- 4.15. An Audit of Open Spaces was performed in 2015 by Groundwork. It identifies areas that are deficient of open space and play space. A notable priority for Westminster is increasing the accessibility of our open space. Paragraph 35.4 of the draft City Plan focuses on the concern that *“not all our open spaces are publicly accessible or inclusive for wheelchair users and people with physical disabilities.”* There has been recent media interest in this issue at a London-wide level, with an investigation by the Guardian raising the profile of a phenomenon they call *“pseudo-public space in London”*. The Mayor responds to this noting in the draft new London Plan that improved access, alongside new provision of green or open space should be encouraged in areas of deficiency^[20]. In Westminster, addressing the issue of access will be tackled by working well with partners to improve accessibility and secure public access to currently private spaces by way of legal agreements^[21].
- 4.16. The council notes that Westminster has a *“deficiency of play space in the city which will increase if we do not ensure that future developments provide sufficient opportunities for children and young people.”*^[23] To this end the City Plan will require major residential developments to provide the quantum of play space in accordance with the Mayor of London’s Shaping Neighbourhoods Plan and Play and Informal Recreation SPG (2012). The council will also make use of local data used to support our strategy A Partnership Approach to Open Spaces and Biodiversity, which highlighted areas where play space is lacking yet there are higher concentrations of resident children. Church Street, Pimlico, Little Venice, East Marylebone and Soho were highlighted. The council will be especially keen to take opportunities to create different types of play space, to cater to the needs of children of different ages, in places like these.
- 4.17. As part of the emerging council’s Green Infrastructure Strategy, the council will provide an updated audit of its green infrastructure assets which will inform guidance in a forthcoming supplementary planning document.

Partnership approach to Open Spaces and Biodiversity

- 4.18. The council’s ‘Partnership Approach to Open Spaces and Biodiversity’ clearly states that the council is *“committed to encouraging and facilitating new greenery wherever possible across the city – whether in the form of new green spaces, living walls and roofs, or other innovations”*. This drive towards innovation and creative solutions is reflected in the draft City Plan which,

recognises challenges such as limited land availability, points out that new greening may take any of a number of forms, including “*green roofs and walls, rain gardens, planting, grassland, vegetated sustainable drainage systems and trees*”^[22]. The policy has been developed in such a way that this flexibility can be retained. The council intends that developers should be able to come forward with new and innovative ideas to implement additional greening as technology and techniques advance during the life of the City Plan.

Trees

- 4.19. The value of trees as green assets in London, whether on street or within open spaces, should not be underestimated. There are an estimated eight million trees in London^[24] and they are considered to “provide at least £133m of benefits every year in terms of air pollution removal, carbon sequestration and reducing the amount of water going into drains.”^[25] They also provide important habitats for insect, bird and bat species. Accordingly, the capital’s trees are afforded specific protection by the new London Plan (Policy G7 A-C), which stipulates that existing “*trees of quality*” should be retained and that “*opportunities for tree planting in strategic locations*” should be identified. Westminster’s draft City Plan reflect this, with policies 35 H and 35 I dedicated to the protection and planting of trees. In applying these policies the council will also make reference to its forthcoming Playing Pitch Strategy and Built Facilities Strategy, both currently under development. We will also be guided by our Trees and the Public Realm SPD (2011).

The policy

- 4.20. The City Plan follows an integrated approach to greening, adopting the term green infrastructure to define a network of green spaces and features that provide multiple functions. Given the diverse functions green infrastructure plays, such as biodiversity, climate adaptation, safety, recreation and wellbeing, the policy protects all existing green infrastructure, and seeks to enhance the network. The policy takes a positive approach to greening, requiring developments to provide green features wherever possible. A forthcoming supplementary planning document will provide additional guidance on the application of the policy and will showcase best practices in Westminster. This will align with the emerging Green Infrastructure Strategy.
- 4.21. In line with the findings of the Audit of Open Spaces, the policy protects all open spaces and their functions. The policy seeks to provide additional open spaces to meet deficiencies identified in the audit and in the plan. A separate clause is included to seek to enhance the status of the Royal Parks. Royal Parks are designated as Metropolitan Open Land and thereby receive significant protection through the London Plan, which does not need to be repeated in the City Plan.
- 4.22. The approach to biodiversity builds on an established approach by protecting Sites of Importance for Nature Conservation and priority habitats and other ecological features, and is seeking to provide a net gain in biodiversity in line with the new NPPF. Trees are important greening features in a city which justifies the approach in the policy.

Conclusion: Green infrastructure

- 4.23. The policy sets out the city’s approach to green infrastructure, contributing to making the city healthier and greener. The approach is aligned with London Plan and national policy and justified in light of the evidence. The emerging Green Infrastructure Strategy and a forthcoming

supplementary planning document will provide further guidance on the application for this policy, strengthening the approach.

5. **Policy 36: Flood Risk**

5.1. The built environment can both contribute to and be susceptible to local flood risk. New development represents one of the key opportunities to reduce overall flood risk, notably through improved management of surface water, setting development back from the waterways and providing space for future maintenance and upgrading of flood defences. City Plan Policy 36 sets out a strategic approach to ensure that new developments avoid exacerbating the risk of local flooding and are designed to mitigate against and be resilient to long term flood impacts. This section of the topic paper will set out how the policy on flood risk has been produced and evidenced.

Policy in context

- 5.2. According to Environment Agency mapping, around six percent of London is at high risk (one in 30-year event) of tidal, river or surface water flooding and 11% is at medium risk (one in 100-year event). Westminster has 4.7km of tidal Thames frontage, all of which has good protection against flooding by the Embankment wall. A substantial part of Westminster (14%) is in Flood Zone 3 but this has an Annual Expected Probability of flooding lower than 0.1% due to the good level of protection provided. The majority of land in Westminster (85%) is in Flood Zone 1, only 1% is in Flood Zone 2. Due to the highly built-up nature of Westminster and its limited drainage capacity, surface water flooding is the most likely cause of flooding within the City. The continued growth of London will result in more people, property and infrastructure being at increased risk of flooding in the future.
- 5.3. The UK Climate Projections (UKCP18) indicate that future climate change is likely to bring about a change in seasonal extremes, including precipitation, alongside continued sea level rise³⁸. Analysis of projections of future flood risk by Sayers and Partners in 2017 indicated that UK flood risk will increase under all future greenhouse gas emission scenarios³⁹. Changing frequency, patterns and severity of flood events will have a direct impact on how agencies plan for and manage flood risk in the future. Climate change is predicted to have a major impact on future flood risk. For Westminster the potential impacts of climate change are more significant in relation to tidal and surface water flooding.

National policy:

- 5.4. Legislation requires councils to take full account of flood risk and coastal change in a changing climate.
- 5.5. Section 14 of the updated *National Planning Policy Framework* (NPPF) (2019)⁴⁰ sets out the Government's approach regarding planning and flood risk. The NPPF requires that, *"Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk... [and] made safe for its lifetime without increasing flood risk elsewhere"* (para 155).

³⁸ UK Climate Projections (UKCP18) "*UK Climate projections: headline findings*" (2018) <https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp-headline-findings-v2.pdf>

³⁹ Sayers and Partners LLP, "*UK Climate Change Risk Assessment: Projections of future flood risk*" (2017) <https://www.theccc.org.uk/publication/sayers-for-the-asc-projections-of-future-flood-risk-in-the-uk/>

⁴⁰ Ministry of Housing Communities & Local Government, "*National Planning Policy Framework*" (2019) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

- 5.6. Furthermore, the NPPF states that, “*Strategic policies should be informed by a strategic flood risk assessment and should manage flood risk from all sources...*” (para 156) and that plans should, “*apply a sequential, risk-based approach to the location of development – taking into account the current and future impacts of climate change so as to avoid, where possible, flood risk to people and property*” (para 157).
- 5.7. The Government’s *Planning Practice Guidance on Flood Risk and Coastal Change*⁴¹ outlines the relevant planning requirements at national level and The *Flood and Water Management Act (2010)*⁴² sets out a comprehensive way of managing flood risk for people, homes and businesses. The Act specifies a number of ‘risk management authorities’, including the Lead Local Flood Authority (local council), the Environment Agency, the local water company and the highway authorities. Under the Act all authorities have a duty to cooperate with and provide information to other risk management authorities.

Regional

- 5.8. The regional policies for managing flood risk energy, as set out in the current London Plan (2016) under the following policies:
- *5.12: Flood Risk Management*: development proposals, address current and future flood risk and comply with the flood risk assessment and management requirements set out in the NPPF
 - *5.13: Sustainable drainage*: which requires development proposals to manage surface water run-off and rainwater in accordance with the prescribed drainage hierarchy (store water; use infiltration; attenuate in ponds; attenuate in storage tanks; discharge direct to a watercourse; discharge to a sewer/drain; discharge to a combined sewer)
 - *5.14: Water quality and waste water infrastructure*: ensure the provision of adequate and appropriate wastewater infrastructure to meet the needs of population growth and climate change
- 5.9. New London Plan (2019) policies are broadly consistent with the previous policy approach. Flood risk is addressed under the following policies:
- *Policy SI12: Flood Risk Management*: expanded approach to the previous flood risk management outlined in London Plan policy 5.12.
 - *Policy SI13: Sustainable Drainage*: places more emphasis on the use of sustainable drainage methods to manage rainwater via the revised drainage hierarchy (rainwater use as a resource; infiltration to the ground; attenuation in green infrastructure; discharge direct to a watercourse; controlled discharge to a surface sewer/drain; controlled discharge to a combined sewer).
- 5.10. The GLA’s *Regional Flood Risk Appraisal (RFRA) (2018)*⁴³ provides a strategic overview of flood risk across London and provides a framework of potential mitigation measures and monitoring recommendations on which the relevant partners can build locally and facilitates the duty to cooperate. The RFRA also provides the evidence base to support London Plan policy.

⁴¹ Ministry of Community, Housing and Local Government, Flood Risk and Coastal Change (2014) <https://www.gov.uk/guidance/flood-risk-and-coastal-change>

⁴² Legislation.gov.uk, Flood and Water Management Act <http://www.legislation.gov.uk/ukpga/2010/29/contents>

⁴³ Greater London Authority, “*Regional Flood Risk Appraisal*” (2018) https://www.london.gov.uk/sites/default/files/regional_flood_risk_appraisal_sept_2018.pdf

- 5.11. The Environment Agency has produced several pieces of guidance, including the *Thames River Basin District Flood Risk Management Plan (2016)*⁴⁴ that outlines an integrated approach to catchment planning for water and flood risk, and the *Thames Estuary 2100 (TE2100) Plan (2012)*⁴⁵, which sets out short medium and long term recommendations for tidal flood risk management for London through to the turn of the century:
- First 25 years (2010 - 2035): continue to maintain the current flood defence system including planned improvements;
 - Middle 15 years (2035 – 2050): raise, refurbish or replace many of the existing walls, embankments and smaller barriers;
 - Final 50 years (2050 – 2100): decide on the ‘end of the century’ option at the start of this period. Plan and prepare for implementation; implement agreed ‘end of century’ option which may include the construction of a new Thames Barrier at Long Reach

Local

- 5.12. *Westminster City Plan (2016): Policy S30: Flood Risk*: requires all development proposals to take flood risk into account and for new development to reduce the risk of flooding. Developments for highly vulnerable uses are not permitted in flood zone 3 and will required to pass the Exception Test for flood zone 2. This built on the policy under the *Westminster Unitary Development Plan): Policy RIV12: Flood defences*, which addresses the preservation and improvement of flood defences on the river.
- 5.13. *Greener City Action Plan (2015-2020): Chapter 10: Managing Flood Risk* sets out the key challenges around flood risk management, including:
- The introduction, management and maintenance of sustainable drainage systems
 - The need to use the public realm and development opportunities to manage flood risk exacerbated by climate change
 - The need to consider strategic flood risk management measures at local, regional and national levels and to work across boundaries to ensure that responsibilities to manage flood risk are shared and understood.
- 5.14. *Westminster Local Flood Risk Management Strategy (LFRMS) (2017-2022)*: sets out the council’s objectives for the management of local flood risk. The LFRMS objectives are:
- To better understand and explain the level of local flood risk affecting Westminster
 - To take a sustainable, holistic approach to flood risk management in Westminster, proportionately managing the likelihood of flooding versus the risk of harm to people, the economy and the environment
 - Promote preparedness and resilience to local flood risk
 - To ensure that the planning process takes full account of local flood risk
 - To adopt a collaborative approach to manage flood risk in Westminster with partners, businesses and residents.

Evidence to support the policy

- 5.15. Guidance, data and strategies produced on behalf of Westminster (in its role as Lead Local Flood Authority), the Greater London Authority and the Environment Agency have contributed to the evidence base for this topic.

⁴⁴ Environment Agency, “*Thames River Basin District Flood Risk Management Plan*” (2016)
<https://www.gov.uk/government/publications/thames-river-basin-district-flood-risk-management-plan>

⁴⁵ Environment Agency, “*Thames Estuary 2100 Plan*” (2012)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/322061/LIT7540_43858f.pdf

- 5.16. Westminster City Council's *Draft Strategic Flood Risk Assessment (2019)*⁴⁶, produced by WSP, builds on the previous *Strategic Flood Risk Assessment*⁴⁷ and associated *Westminster Breach Analysis and Surface Water Flooding Assessment- Hydraulic Study*⁴⁸, and indicates that:
- Fluvial and Tidal flooding risk in Westminster is low as it is effectively managed by the Thames Barrier and associated Thames Tidal Flood Defences.
 - There is a widespread risk of surface water flooding due to the heavily urbanised nature of Westminster, and the predominantly Victorian drainage infrastructure
 - Flooding from sewers usually occurs due to blockages or material failure of the sewer network, resulting in a consistent risk profile.
 - There is a risk of groundwater flooding within Westminster, and this risk is likely to be exacerbated by increased below ground development (basement extensions etc.)
 - There is a residual risk of flooding due to the failure of either water mains or canals
- 5.17. Furthermore, the Draft SFRA highlights that:
- It is not practicable to apply the Sequential Test to differentiate potential development sites in Westminster (despite the number of flood risk sources) due to the highly built form, general shortage of land and complexity of development pressures and land use in Westminster
 - The scarcity of land means that development in Flood Zones 2 and 3 in Westminster will be considered, although preference will be given to Flood Zone 1, where feasible.
 - Proposals for development within Flood Zone 2 and 3 will be generally deemed sequentially acceptable, subject to vulnerability classifications and development designations and meeting the requirements of the Exception Test (where applicable)
 - Both elements of the Exception Test should be satisfied, where applicable, for development to be allocated or permitted.
- 5.18. Westminster's draft *Surface Water Management Plan*, produced by Halcrow in 2011, indicates that:
- The dominant surface water flood mechanism in the City of Westminster is pluvial flooding, where water from an extreme rainfall event is not able to drain into the ground due to the heavy urban development in the city or where drainage capacity is exceeded
 - Nine Local Flood Risk Zones (LFRZs) in the city where flooding affects houses, businesses and infrastructure were identified through modelling
 - Two Critical Drainage Areas (CDAs) were identified where interlinked sources of flood risk (surface water, groundwater, sewer, main river) may cause flooding during severe weather
 - The City of Westminster experiences basement flooding as a result of sewer surcharge following heavy rainfall.
- 5.19. Westminster's supplementary planning document (SPD) on *Basement Development in Westminster (2014)*⁴⁹ includes a section on flood risk that explains the various types of risk faced by basements and cellars. The SPD emphasises the importance of establishing whether there is a significant flood risk before it is decided to go ahead with an application for basement

⁴⁶ WSP, "Draft Strategic Flood Risk Assessment" (2019)

https://www.westminster.gov.uk/sites/default/files/uploads/westminster_sfra_draft_june_2019.pdf

⁴⁷ Westminster City Council, "Strategic Flood Risk Management Assessment" (2010)

http://transact.westminster.gov.uk/docstores/publications_store/SFRA_Final_Main_Report_May10.pdf

⁴⁸ Halcrow, "Westminster Breach Analysis and Surface Water Flooding Assessment- Hydraulic Study" (2008)

http://transact.westminster.gov.uk/docstores/publications_store/SFRA_Appendix1_Halcrow_Reports.pdf

⁴⁹ Westminster City Council, "Basement Development in Westminster" Supplementary Planning Document (2014)

http://transact.westminster.gov.uk/docstores/publications_store/adopted%20SPD%20publication%20version.pdf

excavation or conversion. In particular it advises potential applicants to first determine whether the application property is located in a flood risk zone or within a surface water hotspot (the SPD identifies and maps the Flood Risk Zones and Surface Water Flood Risk Hotspots).

Consultation Responses

- 5.20. There were 13 responses received on Policy 34: Flood risk during the last round of formal consultation (Regulation 19 stage). The responses were generally supportive of the proposed policy but with some specific issues/commented highlighted, as below

Consultation responses on draft Policy 36: Flood risk

Issue identified	Policy response
The policy needs to require the highest feasible standards of SuDs to be adopted by all development.	SuDS cover a range of measures to help drain surface water. The current wording is considered to provide sufficient flexibility for innovative solutions that meet the policy objectives.
The criteria in 36 clause B for requiring a site-specific flood risk assessment is too narrow.	The site-specific FRA requirements align with national planning practice guidance.
Parts C and E appear to exclude basements as vulnerable users	The definition of vulnerable users is correct and consistent with Environment Agency advice.
The targeting of greenfield run-off rates will be impractical to achieve on a number of sites without excessive cost and land impact.	The requirement for greenfield run off rates is in line with the London Plan policies and supported by Westminster’s Strategic Flood Risk Assessment.
All plans should apply a sequential, risk-based approach to the location of development,	It is not practicable to apply the Sequential Test to differentiate potential development Sites in Westminster due to the lack of alternative development land.
A quantified requirement should be included for a development-free buffer zone (min 10m, ideally 20m) around tidal flood defences to allow room for any emergency repair work or to raise defences in keeping with rising sea levels.	The Council agrees with the objective of protecting defences and preserving access – and this is highlighted in part G of the policy wording and a minor modification to reference a 16m buffer where possible (minor modification M/E/07)
The policy should be amended to ensure that development does not limit the raising of tidal flood defences – in accordance of TE2100 plan.	The council supports this view and has proposed a modification to part H of the wording to reflect this need (minor modification M/E/08).
All sleeping accommodation should be located on or above the modelled tidal breach flood level.	The Council agrees with the objective of reducing vulnerability to the impacts of flooding and has modified the wording supporting text to Policy 36 to reflect this need (minor modification M/E/06).

The Policy

- 5.21. Policy 36 states that all development proposals should be safe for their lifetime from the risk of flooding, should produce site-specific flood risk assessments, have due consideration of vulnerable users, protect and enhance flood risk infrastructure and employ sustainable drainage systems. The policy has been developed to respond to the specific needs identified in the local evidence base and consultation with stakeholders and input from technical specialists.

- 5.22. The policy approach adopted is considered to meet national policy and guidance regarding the Exception tests. It is reasonable to argue that the current policy should not rigidly apply the sequential test given that the Draft SFRA indicates that the sequential test is not practicable in Westminster due to the shortage of available land for development and the inherent low level of risk of fluvial and tidal flooding due to existing flood protection measures.
- 5.23. Following Regulation 19 consultation, a duty to cooperate meeting was held with the Environment Agency and Thames Water where a statement of common ground on matters relating to flood risk was agreed. Amendments have been made to the policy wording to ensure that development does not impinge on the maintenance and improvement of tidal flood defences, ensuring that the policy is sound and consistent with the requirements of the Thames Estuary 2100 plan. These changes are reflected in the minor modifications.

Conclusion: Flood risk

- 5.24. The City Plan flood risk policy sets out how Westminster will respond to the risks and challenges associated with future climate change and the need to deliver climate resilient development in accordance with national and regional policies and consistent with the national policy direction on the Government's response to climate change.
- 5.25. Considering the evidence outlined in this report, the wider context of climate change projections and associated impacts, Policy 36 provides a strong strategic policy that will help enable the council to support local development needs without increasing flood risk.

6. **Policy 37: Energy & Policy 39: Design Principles (part D only)**

6.1. Development has a direct and cumulative impact on energy consumption and associated greenhouse gas emissions in Westminster. City Plan Policies 37 and 39 (part D) set out a strategic approach to ensure that new developments support Westminster's transition to a low carbon future and contribute to large scale reductions in greenhouse gases – ensuring a pathway consistent with local and Government ambitions to deliver zero-carbon by 2050. This section of the topic paper will set out how the energy and sustainable design policies have been produced and evidenced.

Policy in Context

- 6.2. There has been a radical shift in public opinion and political support for the implementation of energy and climate change policy in the last 12 months following the publication of the Intergovernmental Panel on Climate Change (IPCC) special report *Global Warming of 1.5°C* in November 2018⁵⁰. The report outlined the need to rapidly accelerate action to cut energy use and associated carbon emissions and local authorities have been at the forefront of the response. Over 200 UK local authorities have declared a Climate Emergency and set local carbon reduction targets to date⁵¹, and authorities are being encouraged to integrate robust carbon reduction targets in their Local Plans.
- 6.3. Westminster City Council declared a Climate Emergency in September 2019 and has committed to becoming a zero-carbon city by 2050. The City Plan will help to support Westminster's Climate Emergency response by ensuring development target minimises associated energy use and emissions by targeting zero-carbon standard. Looking ahead, emerging data and analysis on energy use and carbon emissions trajectories being developed in response to Westminster's Climate Emergency Declaration will help inform future City Plan reviews and add to the local evidence base for sustainable design policy.
- 6.4. Westminster has some of the highest energy use⁵² and carbon emissions of all UK local authority areas and the built environment is responsible for over 80% of Westminster's total emissions.⁵³ Delivering a zero-carbon city by 2050 will require decarbonisation across all sectors of the economy and a transformative approach to energy use within the city – particularly in the way that energy is generated and used within buildings. Policies are therefore required that will ensure that new development proposals:
- Improve energy efficiency performance and reduce energy demand
 - Utilise sustainable construction methods, and
 - Enable the generation and supply of energy from low carbon and renewable sources
- 6.5. New buildings being delivered today need to attain high energy performance standards to support Westminster's pathway to meeting zero-carbon target and avoid leaving a legacy of emissions to be addressed in the future. The City Plan provides the policy framework to enable development in Westminster to deliver on these ambitions.

National policy:

⁵⁰ Intergovernmental Panel on Climate Change, *Special Report: Global Warming of 1.5°C* (2018) <https://www.ipcc.ch/sr15/>

⁵¹ Author unknown, 'List of Councils that have declared a Climate Emergency', 'Climate Emergency' [website] <https://www.climateemergency.uk/blog/list-of-councils/>

⁵² Gov.uk, 'Total final energy consumption at regional and local authority level' (2017) <https://www.gov.uk/government/statistical-data-sets/total-final-energy-consumption-at-regional-and-local-authority-level>

⁵³ Gov.uk, 'UK local authority and regional carbon dioxide emissions national statistics 2005-2017' (2019) <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017>

- 6.6. Legislation requires Councils to address the causes and effects of climate change issues, including energy use and associated emissions.
- 6.7. Section 14 of the updated National Planning Policy Framework (NPPF) (2019)⁵⁴ sets out the approach to meeting the challenges of climate change and specifically states that, “*The planning system should support the transition to a low carbon future in a changing climate... It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions... ...and support renewable and low carbon energy and associated infrastructure.*” (para 148). In addition, the NPPF states that development plans should take a proactive approach to mitigating and adapting to climate change in line with the objectives of the Climate Change Act 2008 (para 150).
- 6.8. Section 19(1A) of the Planning and Compulsory Purchase Act (2004)⁵⁵ requires local planning authorities to include “*policies designed to secure that the development and use of land in the local planning authority’s area contribute to the mitigation of, and adaptation to, climate change*”.
- 6.9. The Planning and Energy Act (2008)⁵⁶ sets out powers for local authorities to require a proportion of the energy need related to new development to be sourced in the locality of the development, through renewable or low-carbon generation.
- 6.10. The Climate Change Act (2008)⁵⁷ establishes a legal requirement to reduce UK wide greenhouse gas emissions by 80% by 2050 (from a 1990 baseline). The Draft Climate Change Act 2008 (2050 Target Amendment) Order 2019 is currently being progressed through Parliament with a view to increasing the target to 100% (i.e. net zero emissions) by 2050.
- 6.11. Approved Document L: Conservation of fuel and power (“Part L”) of the Building Regulations (2013) with 2016 amendments⁵⁸ sets the required baseline carbon emissions for a set of notional new building types in the UK. All new developments in England and Wales must show compliance against this baseline. Within Greater London, the London Plan has set performance standards in advance of Part L requirements to support a trajectory to zero-carbon. The London specific standard sets a requirement for onsite energy performance target of 35% improvement on Part L standards, with an overall target of zero-carbon for all regulated energy uses.
- 6.12. Ministry of Communities and Local Government’s *Housing: optional technical standards*⁵⁹ identified that, where there is a clear local need, boroughs local planning authorities can set out Local Plan policies requiring new dwellings to meet the tighter optional requirement of 110 litres/person/day under Approved Document G of the Building Regulations (2015) with 2016

⁵⁴ Ministry of Housing Communities & Local Government, “*National Planning Policy Framework*” (2019)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

⁵⁵ Legislation.gov.uk, “*Planning and Compulsory Purchase Act*” (2004) <http://www.legislation.gov.uk/ukpga/2004/5/contents>

⁵⁶ Legislation.gov.uk, “*Planning and Energy Act*” (2008) http://www.legislation.gov.uk/ukpga/2008/21/pdfs/ukpga_20080021_en.pdf

⁵⁷ Legislation.gov.uk, “*The Climate Change Act 2008 (2050 Target Amendment) Order 2019*” (2019)

<http://www.legislation.gov.uk/ukdsi/2019/9780111187654>

⁵⁸ Gov.uk, “*Approved Document L: Conservation of Fuel and Power*” (2013) <https://www.gov.uk/government/publications/conservation-of-fuel-and-power-approved-document-l>

⁵⁹ Ministry of Housing, Communities and Local Government, “*Housing: optional technical standards*” (2015)

<https://www.gov.uk/guidance/housing-optional-technical-standards>

amendments⁶⁰. Evidence from an Environment Agency and Natural Resources Wales report in 2013⁶¹, highlighted that London is classified as seriously water stressed area.

Regional policy:

- 6.13. Current London Plan and draft New London Plan policies set zero-carbon targets for regulated energy usage from new development and defines a clear hierarchy for the reduction of energy use and sustainable supply of energy. The current London Plan (2016) sets out the strategic approach to managing energy and resource use in London through the following policies:
- *5.2: Minimising carbon dioxide emissions:* requires major development to make the fullest contribution minimising carbon dioxide emissions in accordance with the prescribed energy hierarchy (use less energy; supply energy efficiently; use renewable energy). The policy sets out a zero-carbon target for major residential and allows carbon offset via cash in lieu contribution for developments unable to fully achieve targets onsite
 - *5.3: Sustainable design and construction:* development proposals should demonstrate that sustainable design standards are integral to the proposal and meet the minimum standards outlined in the Mayor’s supplementary planning guidance
 - *5.4: Decentralised energy networks:* ensures that London has adequate and appropriate wastewater infrastructure to meet the needs of population growth and climate change
 - *5.15: Water use and supplies:* ensures that development minimises the use of mains water, limiting residential development use to 105 litres per person per day.
- 6.14. The draft New London Plan strengthens the approach to zero carbon development and onsite emissions savings by expanding zero carbon requirement to major non-residential development, setting minimum onsite energy efficiency performance standards and increasing the London cost of carbon. The draft energy and sustainable design policies set out in the draft New London Plan (2019) are:
- *S12: Minimising Greenhouse Gas Emissions:* requires major developments to minimise greenhouse gas emissions and peak energy demand in accordance with the prescribed energy hierarchy (use less energy and manage demand during construction and operation; exploit local energy resources and supply energy efficiently and cleanly; maximise opportunities for renewable energy and monitor, verify and report on energy performance) and encourages the inclusion of BREEAM targets in local plan policies
 - *S13: Energy Infrastructure:* requires large-scale developments to determine future energy infrastructure requirements and establish the most effective energy supply options, in accordance with the heating hierarchy (connect to local existing or planned networks; use local secondary heat sources; use zero-emissions sources; use fuel cells; use low emission combined heat and power; use ultra-low emission boilers)
 - *S14: Managing Heat Risk:* requires major developments to address internal overheating and minimise adverse heat impacts on the wider environment in accordance with the prescribed cooling hierarchy (reduce the amount of heat entering a building; minimise internal heat generation; manage the heat within the building; provide passive ventilation; provide mechanical ventilation; provide active cooling systems)
 - *S15: Water Infrastructure:* requires the conservation and sustainable use of water resources through the use of minimum BREEAM standards and promote and protect the water environment to maintain water quality.

⁶⁰ Gov.uk, “Approved Document G: sanitation, hot water safety and water efficiency” (2015)
<https://www.gov.uk/government/publications/sanitation-hot-water-safety-and-water-efficiency-approved-document-g>

⁶¹ Environment Agency & Natural Resources Wales, “Water stressed areas – final classification”
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/244333/water-stressed-classification-2013.pdf

- 6.15. Other regional policies that relate to the above include the Mayor of London’s *Energy Assessment Guidance* (2018)⁶² and the *Sustainable Design and Construction SPG* (2014)⁶³.

Local policy:

- 6.16. *Westminster City Plan (2016)*: the current local policies for energy and sustainable design, as set out in the current City Plan, are:
- *S28: Design*: requires development to incorporate exemplary standards of sustainable design, reducing energy use and emissions and the reduction of resources, such as water
 - *S39: Decentralised Energy Networks*: requires new development to connect to and extend existing heat and energy networks or provide a site-wide energy solution
 - *S40: Renewable Energy*: requires major development to achieve at least 20% reduction in carbon emissions via on-site renewable energy generation.
- 6.17. *Westminster Unitary Development Plan*: the policy relating to energy and sustainable design is:
- *ENV1: Sustainable and Resource Efficient Buildings*: required developments to consider sustainable design principles and encouraged effective energy conservation and the incorporation of renewable energy generating plant.
- 6.18. *Greener City Action Plan (2015-2020)*: the key environmental challenges facing Westminster are set out in the Greener City Action Plan. The GCAP highlights challenges around the delivery of affordable and low carbon energy, including:
- Westminster has among the highest annual energy consumption of all local authority areas in the UK
 - That the majority of energy demands come from the built environment – with 75% from commercial buildings
 - The ambition to expand decentralised heat networks and increase energy self-sufficiency
- 6.19. *Draft Carbon Reduction Strategy (2020-2030)*: the draft Carbon Reduction Strategy builds on the actions of the Greener City Action Plan and Westminster’s Climate Emergency Declaration by setting out a series of actions to increase the energy resilience of the city and help deliver a zero-carbon Westminster by 2050.
- 6.20. Other local policies that relate to the above include Westminster’s draft *Carbon Offset Guidance* (2019), *Retrofitting Historic Buildings for Sustainability* (2013)⁶⁴ and *Improving Historic Soho’s Environmental Performance* (2013)⁶⁵.

Evidence to support the new policy

- 6.21. The Greater London Authority (GLA) has produced a large volume of evidence⁶⁶ to support energy and sustainable design policy implementation across Greater London, including analysis

⁶² The Greater London Authority, “*Energy Assessment Guidance*” (2018)

https://www.london.gov.uk/sites/default/files/energy_assessment_guidance_2018_-_update.pdf

⁶³ The Greater London Authority, “*Sustainable Design and Construction Supplementary Planning Guidance*” (2014)

https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Sustainable%20Design%20%26%20Construction%20SPG.pdf

⁶⁴ Westminster City Council, “*Retrofitting Historic Buildings for Sustainability*” (2013)

http://transact.westminster.gov.uk/docstores/publications_store/Retrofitting_Historic_Buildings_for_Sustainability_January_2013.pdf

⁶⁵ Westminster City Council, “*Improving Soho’s Environmental Performance*” (2013)

http://transact.westminster.gov.uk/docstores/publications_store/Improving_Historic_Sohos_Environmental_Performance_February_2013.pdf

⁶⁶ London Plan Examination in Public Library (2019) <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/examination-public-draft-new-london-plan/eip-library>

on energy efficiency targets^{67 68}, area-wide district heat development and expansion⁶⁹ and the London carbon offset methodology and price⁷⁰. This has been used to inform Westminster’s policy evidence base. In addition, data sources on local energy use and carbon emissions are extensive, with national data on energy use and carbon dioxide emissions in local authority areas provided annually by the Department of Business Environment and Industrial Strategy (BEIS)⁷¹ helping to inform local approaches to cutting energy use and emissions. Locally, the City Plan has built on regional energy policy to establish an evidence base focused on the distinct characteristics of Westminster.

Policy 37, parts A-C: Carbon reduction

- 6.22. Policy 37 is consistent with the energy hierarchy approach and standards set out in the London Plan to deliver energy and carbon reduction. Annual monitoring of the London Plan energy policies indicates that major developments in London are consistently meeting onsite energy performance requirements, with developers committing to an average of 35.7% improvement in carbon reduction on Part L standards.
- 6.23. Evidence from BuroHappold research *Driving Energy Efficiency Standards through the London Plan* and AECOM analysis *GLA Energy Efficiency Study*, commissioned by the GLA, found that:
- A domestic energy efficiency target of 10% is technically achievable and would help lock in long-term carbon reductions through improved building fabric
 - A non-domestic lean energy efficiency target of 15% is technically achievable in many cases, but there is significant variance across non-domestic building types.
 - Strong aspirational targets can help drive significant innovations in the wider energy efficiency sector by requirement the industry to raise performance to meet higher energy efficiency standards
- 6.24. A further AECOM study into the *London Carbon Offset Price*⁷² on behalf of the GLA assessed a revised carbon offset price as a mechanism to support delivery of the zero-carbon target. The study recommended a range of carbon offset prices based on HM Treasury’s Green Book⁷³ non-traded carbon prices, with the GLA opting for the higher price of £95 per tonne of carbon dioxide.
- 6.25. Given that the radical changes to the policy landscape on climate change in the last 12 months and increased emphasis on the need to cut carbon emissions more rapidly following the IPCC report of November 2018. City Plan Policy 37 (parts A-C) provides a framework for onsite carbon reduction and the use of the carbon offset mechanism to aid delivery of zero-carbon developments, consistent with London Plan energy hierarchy. The policy responds to both existing London Plan (2016) and draft New London Plan (2019) requirements, specifically

⁶⁷ BuroHappold, “*Driving energy efficiency savings through the London Plan*” (2017)

https://www.london.gov.uk/sites/default/files/driving_energy_efficiency_savings_through_the_london_plan_-_data_analysis_report_-_buro_happold_.pdf

⁶⁸ AECOM, “*GLA Energy Efficiency Target – Development Case Studies*” (2017)

https://www.london.gov.uk/sites/default/files/gla_energy_efficiency_target_-_development_case_studies_-_aecom.pdf

⁶⁹ BuroHappold, *The future role of the London Plan in the delivery of area-wide district heating* (2017)

https://www.london.gov.uk/sites/default/files/the_future_role_of_the_london_plan_in_the_delivery_of_area-wide_district_heating_-_final_report_-_buro_happold_.pdf

⁷⁰ AECOM, *London Carbon Offset Price* (2017) https://www.london.gov.uk/sites/default/files/london_carbon_offset_price_-_aecom_.pdf

⁷¹ GOV.UK, *UK local authority and regional carbon dioxide emissions national statistics* (2019)

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017>

⁷² AECOM, “*London Carbon Offset Price*” (2017) https://www.london.gov.uk/sites/default/files/london_carbon_offset_price_-_aecom_.pdf

⁷³ HM Treasury, “*The Green Book: Central Government Guidance on Appraisal and Evaluation*” (2019)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf

through the promotion of zero-carbon development and adherence to the energy hierarchy approach to sustainable energy design and use.

- 6.26. The draft City Plan also provides scope to set a higher local carbon reduction target over the lifetime of the plan. The council has jointly commissioned a study by Etude, Elementa, Levitt Bernstein and Currie & Brown entitled, *Achieving greater carbon reductions on site: The role of carbon pricing*⁷⁴, along with five other London boroughs to explore mechanisms for enabling higher on-site energy performance. The study will:
- Assess what is common practice and reasonable for developments in Westminster to achieve for onsite carbon reduction
 - Critically evaluate the use of a local carbon price as a mechanism for securing the highest onsite carbon savings in new development
 - Review and determine a price that better reflects the costs of delivery carbon saving projects in Westminster (i.e. beyond the GLA price outlined in London Plan policy)
 - Establish a bespoke price of carbon for Westminster that can be used to support higher on-site energy efficiency performance through revising the carbon cost in the carbon offset mechanism
- 6.27. The study by Etude et al. will build on the findings of the previous Arup study commissioned by the City Council in 2013⁷⁵ explored the case for more challenging environmental standards for new development. The study proposed a local carbon price of £7,800 per tonne of carbon (lifetime), but this was never adopted into policy due to the financial demands that would be placed on local development. The updated study will help to inform the City Council's forthcoming Supplementary Planning Document on environmental issues. Future City Plan reviews will also be able to draw on the findings of the study to help drive the local transition to zero-carbon.

Policy 37, part D: Decentralised Energy

- 6.28. The high demand and density of Westminster provides ample opportunity for deployment of district-wide decentralised energy systems, enabling the transition to low carbon energy supply for buildings. The City Council commissioned a city-wide *Decentralised Energy Masterplan* in 2014 to inform and encourage the expansion of decentralised energy networks in Westminster. The study, prepared by Parsons Brinckerhoff, sets out the case for a Westminster-wide District Energy Network that would deliver affordable low carbon heat to homes and businesses across the city. The key findings of the study were:
- That a Westminster-wide decentralised energy network is technically and commercially feasible
 - There would be a long-term commercial return on investment for the network
 - Significant heat savings can be delivered when compared to a business as usual approach
 - a rationalised decentralised energy supply approach offers the potential to provide residents and businesses with cost-competitive, low-carbon heat
- 6.29. The study is supplemented by a GLA commissioned report, *the future role of the London Plan into the delivery of area-wide district heating* that explored the implications of the proposed changes to the Standard Assessment Procedure on the current London Plan energy hierarchy and deployment of communal heating systems. The key findings of the study indicated:

⁷⁴ Etude, Elementa, Levitt Bernstein and Currie & Brown, "Achieving greater carbon reductions on site: The role of carbon pricing" Draft Report (2019)

⁷⁵ Arup, "Westminster City Council Carbon Policy Feasibility Assessment" (2013)

[http://transact.westminster.gov.uk/docstores/publications_store/WCC_CarbonPolicyFeasibility_FINAL_2013-07-25%20\(2\).pdf](http://transact.westminster.gov.uk/docstores/publications_store/WCC_CarbonPolicyFeasibility_FINAL_2013-07-25%20(2).pdf)

- As the national electricity grid decarbonises, the carbon benefit of gas CHP diminishes as gas becomes more carbon intensive relative to grid electricity
 - Using 2019 carbon emission factors, gas engine CHP heat networks are still expected to provide lower carbon savings over its lifetime than gas boilers
 - Heat pump technologies show increasingly greater carbon savings with future grid emissions factors
 - Updating Building Regulations to reflect 2019 emission factors would allow heat pump systems to meet the 35% onsite target for new development
- 6.30. The provision and expansion of heat networks in Westminster is still considered a viable option for supporting the transition to a low carbon future. Policy 37 reflects this by retaining the requirement for developments to connect to existing or planned local heat networks, or establish a new network, wherever feasible (Policy 37, part D). Further guidance to inform developments on appropriate energy sources and uses of decentralised energy will be included in a forthcoming Supplementary Planning Document on environmental issues.

Policy 37, part E: Overheating

- 6.31. The impacts of climate change mean that London’s average summer temperatures are expected to rise – and hot summers are expected to become more common. Modelling from the UK Climate Projections indicate that the projected increase in average monthly temperatures in London until 2050 under a medium greenhouse gas emissions scenario will result in:
- average summer days will be 2.7°C warmer
 - very hot days will be 6.5°C warmer than the baseline average
 - average winter days will be 2.2°C warmer
 - a very warm winter day will be 3.5°C above the baseline
 - extremely cold winters will still occur, but less frequently
- 6.32. Heat mapping simulations undertaken by the GLA in 2011⁷⁶ indicated that, on average, night time temperatures are four degrees higher in city centre locations, including Westminster, due to the urban heat island effect. Increasing temperatures will exacerbate this effect – and summer heatwaves may make homes and workplaces in Westminster uncomfortable and have implications for public health and the wellbeing of the population. As temperatures rise, demand for cooling will also increase – impacting on energy demand and efforts to reduce carbon emissions.
- 6.33. The Chartered Institution of Building Services Engineers (CIBSE) guidance TM52: *The Limits of Thermal Comfort: Avoiding Overheating in European Buildings*⁷⁷ and TM59: *Design Methodology for the Assessment of Overheating Risk in Homes*⁷⁸ contains guidance on the limits of thermal comfort for non-domestic and residential buildings, respectively. The guidance is intended to inform designers, developers and others responsible for defining the indoor environment
- 6.34. The draft City Plan policy reflects the need to address thermal comfort and its associated health and wellbeing and energy implications in Westminster. The requirements in Policy 37 (Part E) are consistent with the requirements and cooling hierarchy outlined in Policy 5.9 (Overheating

⁷⁶ Greater London Authority, “London’s Urban Heat Island - Average Summer”, London Datastore (2016) <https://data.london.gov.uk/dataset/london-s-urban-heat-island---average-summer>

⁷⁷ CIBSE, “The Limits of Thermal Comfort: Avoiding Overheating in European Buildings” TM52 Guidance <https://www.cibse.org/Knowledge/knowledge-items/detail?id=a0q2000000817f5AAC>

⁷⁸ CIBSE, “Design Methodology for the Assessment of Overheating Risk in Homes” TM59 Guidance <https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q000000DvTdQAL>

and Cooling) of the current London Plan (2016), Policy SI4 (Managing heat risk) of the draft New London Plan (2019) and industry guidance.

Policy 39, part D: Sustainable Design

- 6.35. Policy 39 is consistent with the approach set out in the London Plan and the Mayor’s Sustainable Design and Construction SPG (2014) to deliver energy, carbon and water use reduction. Evidence from the BuroHappold Engineering report, *Driving energy efficiency through the London Plan* indicated that most London authorities require either a BREEAM "Excellent" (57%; 19/33) or "Very Good" (33%; 11/33) minimum sustainable design performance standard and that ninety 90% of boroughs intend to set minimum performance standards equating to BREEAM Outstanding (5/33) or Excellent (25/33) in the future.
- 6.36. Westminster was identified as one of two boroughs with no BREEAM minimum performance standard specified in current or future local planning policy. City Plan policy 39 addresses this policy gap by providing a requirement for development to achieve minimum BREEAM performance standards in keeping with the policy direction across London. Furthermore, research undertaken by consultants Currie and Brown⁷⁹ indicates that the cost uplift of achieving a BREEAM Excellent rating is less than one percent of total construction costs.

Consultation Responses

- 6.37. The Local Plan has been subject to two rounds of public consultation. The last round of formal consultation (Regulation 19 stage) took place from June to July 2019. There were 23 responses to Policy 37: Energy. In summary, responses were generally supportive of the proposed policy but with some specific issues/commented highlighted, as in the table below.
- Supportive of the City Plan’s aspirations to deliver zero carbon development and minimise the effects of climate change
 - Supportive of the approach towards sustainable design
 - Desire for the City Plan to be more ambitious and aspirational in tackling climate change
 - Concern over need for further drivers to deliver energy retrofit
 - Consideration of the need to balance sustainability and heritage issues

Consultation responses on Policy 37: Energy and Policy 39: Design principles (part D)

Issue identified	Policy response
Reference to decarbonisation of the electricity grid to be include in the policy justification and energy assessments	Applicants are already encouraged to use the updated SAP10 calculations in planning applications – as per the Mayor of London’s Energy Assessment Guidance (2018). Government will update Part L of the Buildings Regulations to reflect the new grid carbon factors in due course.
Permitting an ‘estate-wide’ approach to carbon offset to accelerate decarbonisation of the existing building stock	Westminster’s draft Carbon Offset Guidance details the council’s approach to collecting and utilising carbon offset funds, which allows flexibility in the use of carbon offset funds. The principle of additionality, as set out under the Mayor of London’s guidance “ <i>Carbon Offset Funds</i> ⁸⁰ ” (2018) indicates that carbon offset funding should be spent on projects that would not have occurred without the offset funding or under business-as-usual scenario.

⁷⁹ Currie and Brown, “*Delivering Sustainable Buildings: Savings and Paybacks...*” (2017) https://www.designingbuildings.co.uk/wiki/Delivering_Sustainable_Buildings:_Savings_and_Payback_-_Office_Case_Study_for_BREEAM_UK_New_Construction_2014

⁸⁰ Greater London Authority, “*Carbon Offset Funds Guidance*” (2018) https://www.london.gov.uk/sites/default/files/carbon_offset_funds_guidance_2018.pdf

Use of the carbon offset payment for failure to meet emissions reduction targets should not be permitted.	The use of carbon offset funds as outlined in the draft City Plan policy is in accordance with Policy S12 of the draft New London Plan (2019) and Policy 5.2 of the current London Plan (2016).
Clarification on approach to collecting carbon offset funds	Guidance on the approach to collecting carbon offset funds is included in Westminster’s draft Carbon Offset Guidance and will be included in Westminster’s Supplementary Planning Document on environmental issues.
Concern that the plan is promoting an approach that will hinder rather than help achieve the objective of reducing carbon emissions and conserving the historic environment.	Paragraph 37.2 supports retrofitting whilst recognising that interventions to upgrade historic buildings should be undertaken sensitively in recognition of their heritage value. Westminster’s <i>Retrofitting Historic Buildings for Sustainability</i> (2013) and <i>Improving Historic Soho’s Environmental Performance</i> (2013) provide further guidance on energy improvements in historic buildings.
No reference has been made to the fact that Westminster falls within an area of ‘serious’ water stress and no reference has been made to water efficiency targets	Policy to be amended to include requirement for developers to optimise resource and water efficiency, including target to achieve higher standard under Approved Document G (Part G2) of the Building Regulations.

The Policies

- 6.38. Policy 37 states that the council will promote zero carbon development and that all development should adhere to the principles of the Mayor of London’s energy, heating and cooling hierarchy in delivering this outcome. Policy 39 states that development will respond to the likely risks and consequences of climate change by incorporating principles of sustainable design. The policies have been developed to respond to the specific needs identified in the local evidence base and consultation with stakeholders.
- 6.39. The policy approach adopted is considered to meet national policy and guidance regarding tackling climate change. On advice obtained from the Environment Agency during the Regulation 19 consultation, amendments have been made to the policy wording to ensure that the policy addresses water efficiency, ensuring that the policy is sound and consistent with regional policy requirements and national optional standards. These changes are reflected in the minor modifications.

Conclusion: Energy

- 6.40. The concept of sustainable development is far reaching and covers a range of issues. City Plan energy policy needs to set out how Westminster will respond to the key environmental drivers of energy and climate change and achieve more sustainable development in the light of national and regional policies.
- 6.41. The National Planning Policy Framework requires local planning authorities to address the causes and effects of climate change. The Energy policy of the draft City Plan sets out how Westminster will respond to this need. The policy has been developed and refined throughout the plan-making process, following the analysis of local and regional evidence, consultation with stakeholders, and input from technical specialists.

- 6.42. Considering the evidence outlined in this report, and the wider context of fast evolving energy and climate change policy, the proposed policies presented in the draft City Plan are deemed to be an appropriate response to the City Council’s responsibilities and ambitions in respect of energy and climate change. The policy is consistent with regional policies and drivers in Greater London and in accordance with national policy direction on the Government’s response to climate change.
- 6.43. It is considered that the energy and sustainable design policy requirements strike a reasonable and appropriate balance between delivering improved energy performance standards for development in Westminster without placing undue demands upon new development; a view supported by the findings of BNP Paribas’ *Westminster City Council: Local Plan policies: Viability Review*.

7. Conclusion: All Topics

- 7.1. The City Plan identifies the key environmental issues facing the City of Westminster over the period 2019-2040 and through policies 33, 34, 35, 36 and 37, the City Plan will seek to ensure that environmental protection and enhancement is upheld, and that Westminster delivers sustainable development in accordance with the requirements of the NPPF.
- 7.2. This paper demonstrates that the environmental policies within the City Plan 2019-2040 have been developed in the context of national and regional policy and are supported by a robust evidence base. The proposed policies presented in the City Plan are considered to be an appropriate approach to addressing the environmental challenges that Westminster face without placing undue demands upon new development.
- 7.3. This is supported by the findings of BNP Paribas’ *Westminster City Council: Local Plan policies: Viability Review*, commissioned by the City Council, which determined that the sustainability requirements in the draft plan have a modest impact on overall viability and should be readily accommodated in almost all circumstances.

[1] Draft City Plan, Paragraph 35.1

[2] National Planning Policy Framework

(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf) paragraph 170

[3] Draft City Plan, Policy 35 A

[4] National Planning Policy Framework

(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf) paragraph 174

[5] Draft City Plan, policies 35 F and 35 G

[6] New London Plan (draft) Policy G1 <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/draft-new-london-plan/chapter-8-green-infrastructure-and-natural-environment/policy-g1>

[7] London Plan (2016) Policy 7.18 A and 7.18 B

[8] A Partnership Approach to Open Spaces and Biodiversity (Westminster City Council) 2018

[9] London Plan (2016) Policy 7.18 D

[10] New London Plan, paragraph 8.6.1

[11] New London Plan, Policy G6 D

[12] Draft City Plan, paragraph 35.9

[13] New London Plan, paragraph 8.5.3

[14] London Environment Strategy (GLA) 2018

[15] Draft City Plan, paragraph 35.2

[16] A Partnership Approach to Open Spaces and Biodiversity (Westminster City Council) 2018

[17] Draft City Plan, paragraph 35.8

[18] Draft City Plan, paragraph 35.6

[\[19\] Pocket Parks Plus: supporting parks and public spaces where people can relax, exercise, socialise and play \(MHCLG\) 2018](#)

[\[20\] New London Plan, paragraph 8.4.3](#)

[\[21\] Draft City Plan, paragraph 35.4](#)

[\[22\] Draft City Plan, paragraph 35.3](#)

[\[23\] Draft City Plan, paragraph 35.7](#)

[\[24\] London Environment Strategy \(GLA\) 2018](#)

[\[25\] London Environment Strategy \(GLA\) 2018](#)

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