

## **9. Environmental Challenges**

## **Environmental Challenges**

### **Introduction**

This chapter covers Bromley's planning policy response to the current and future challenges of a range of environmental issues including:

- waste management;
- flood risk management;
- sustainable design and construction; and
- carbon reduction

### **Waste Management**

#### **Draft Policy x: Planning for Sustainable Waste Management**

The Council will support sustainable waste management by:

- i. Implementing the waste hierarchy in its approach to future waste management.
- ii. Allocating the strategic waste management sites of Waldo Road, Churchfields and Cookham Road and safeguarding them for waste uses only.
- iii. Working in collaboration with the London Boroughs of Bexley, Greenwich, Southwark, Lewisham and City of London to make optimum use of waste management capacity in the south east London sub region.
- iv. Meeting the London Plan waste apportionment targets.

### **Supporting Text**

Both central government and the GLA set out a clear strategy for waste management which involves a key role for local planning authorities. Through their allocation of sites and the application of their policies they are expected to positively influence not only the type and amount of waste that is produced but also its treatment and movement.

The waste hierarchy shows the preferred options for managing waste – the most important solution being to reduce that waste in the first place, the least desirable being disposal of that waste, for example, to landfill.



The Government sets out its expectations for waste management, in line with the EU Waste Framework Directive, in the Waste Management Plan for England (2013) and National Planning Policy for Waste. Local Planning authorities are expected to take responsibility for driving waste management up the hierarchy, providing a framework for communities to be able to reduce waste and enable more effective recycling and disposal and making sure any facilities are appropriately sited to protect health and the environment.

In turn, the London Plan 2015 states that the Mayor will work collaboratively with the boroughs, waste authorities, the private sector and others to manage as much of London's waste within London as practicable, managing the equivalent of 100% of London's waste within London by 2026. This includes working towards zero biodegradable waste to landfill by 2026.

In order to meet the challenging targets, the Mayor expects each borough to allocate enough land and identify facilities to be able to manage a certain amount of waste – the waste apportionment targets – which are set out in the London Plan. Boroughs are required to safeguard existing waste management sites and maximise their potential, consider Strategic Industrial Locations (SILS) and Locally Significant Industrial Sites (LSISs) as potentially appropriate for new facilities and then other suitable brownfield sites. In accordance with national policy, the focus on London is to locate new waste management facilities on previously developed sites. National Planning Policy for Waste states that local planning authorities should first look for suitable sites and areas outside the Green Belt whilst recognising that some types of waste management facility have particular locational needs.

Within this policy context, Bromley's planning strategy for sustainable waste management is threefold:

- to allocate and safeguard strategic waste management sites - Waldo Road and Churchfields Road reuse and recycling centres and Cookham Road composting facility for waste management use only.
- to collaborate with the other south east boroughs through the South East London Waste Group to make best use of excess waste management capacity, and

- To guide any new waste facilities to the Cray Business Corridor, where they do not negatively impact upon the existing uses and aims of the SIL, and then LSISs.

This approach is considered the most appropriate way for Bromley to meet the apportionment targets in the London Plan and manage existing and new non-strategic waste management facilities in the borough.

#### Strategic Waste Site Allocations

Waldo Road (see map) is a Council run reuse and recycling facility, incorporating a Household Waste recycling centre, a Waste Transfer Station, vehicle repair facilities and a depot area providing a base for the operation of municipal waste collection and disposal activities.

Churchfields Road (see map) is a Council run reuse and recycling facility, incorporating a Household Waste recycling centre, a Waste Transfer Station and a depot area providing a base for the operation of municipal waste collection and disposal activities.

Swanley recycling centre, Cookham Rd (see map) is an open composing facility, currently run by Tamar Organics. Located in the Green Belt, it received permission in 2012 for an anaerobic digester plant which was supported by the Council with a view to it being used for managing household food waste.

#### Utilising Capacity in the South East of London

Planning practice guidance to the National Planning Policy for Waste states that there is no expectation that each local planning authority should deal solely with its own waste to meet the requirements of the self-sufficiency and proximity principles of the EU Directive, and it acknowledges that there may be significant economies of scale for local authorities working together. The London Plan allows boroughs to collaborate in meeting their apportionment requirements, stating that they should demonstrate this through the preparation of joint waste DPDs, evidence papers or bilateral agreements.

Bromley is part of the South East London Waste Group comprising - Bexley, Lewisham, Greenwich and Southwark (and the City of London). The group sets out their requirements and capacity in a Technical Paper which is currently being updated. This will accompany Bromley's Draft Local Plan consultation in the autumn.

#### **Draft Policy x: Waste Management in New Development**

Major development proposals will be required to implement Site Waste Management Plans to reduce waste on site and manage remaining waste sustainably.

New development will be required to include adequate space to support recycling and efficient waste collection.

Integrated waste management in new development will be supported where appropriate.

Although re-use and recycling rates construction, excavation and demolition waste in London are high, the London Plan sets a target of 95% to be recycled by 2020. London Plan policy 5.18 states that boroughs should require developers to produce site waste management plans to arrange for the efficient handling of construction, excavation and demolition waste.

In order to encourage better recycling habits and enable efficient waste collection, allowing adequate space for the sorting and storage of waste in new developments is essential. Guidance is available to architects and developers and applicants will be expected to liaise with the Council's waste services team where there are any difficulties with layouts of schemes.

#### **Draft Policy x: New Waste Management Facilities and Extensions and Alterations to Existing Sites**

New waste management facilities and extensions and/or alterations to existing waste management facilities must demonstrate that they will not undermine the local waste planning strategy and help the Borough move up the waste hierarchy.

The likely impact of the proposal on the local environment and on amenity will be considered against the development plan as a whole and the specific criteria for waste management facilities set out in the London Plan and national policy. New facilities, extensions and alterations should be well designed and contribute positively to local character as far as possible.

Prospective developers of new waste management facilities will be expected to look to the Strategic Industrial Location in the Cray Business Corridor and then other industrial areas before other previously developed land. New waste facilities in industrial areas will only be acceptable where the proposed use does not impede effective operation of other nearby businesses nor undermine the primary function of the designation.

#### **Supporting Text**

In Bromley, there is currently a range of small facilities which are licenced to store and process various waste streams. Whilst these facilities are not considered strategic to ensuring the apportionment targets are met, they provide important additional capacity for the management of hazardous waste, commercial and industrial and construction and demolition waste. Where these facilities wish to expand and alter, they should ensure that they are helping to move waste management in a more sustainable direction, that is, up the waste hierarchy.

The potential impact of any extension and alterations will be carefully considered against the criteria set out in London Plan and national policy, in addition to other relevant policies in the Development Plan.

There are many locations in Bromley where new waste management facilities would be considered inappropriate, due to amenity considerations, traffic impacts or the existence of protective designations, for example. It is considered that, in line with the London Plan, the most appropriate locations are likely to be industrial areas which include the Strategic Industrial Location of the Cray Valley Business Corridor and potentially some of the smaller Locally Significant Industrial Sites. Where waste management operators are considering new development, they should ensure that all opportunities for locating in industrial areas have been fully investigated before pursuing applications elsewhere.

Criteria for considering the potential impact of the development of waste facilities (existing and new) are currently set out in National Planning Policy for Waste and the London Plan.

The criteria include:

- Protection of water resources
- Land instability
- Visual intrusion
- Nature conservation
- Conserving the historic environment
- Traffic and access
- Air emissions including dust
- Odours
- Vermin and birds
- Noise and vibration
- Litter
- Potential land use conflict

The London Plan sets out additional evaluation criteria in Policy 5.17 including the need to achieve a positive carbon outcome resulting in greenhouse gas savings. Facilities that generate energy from waste need to demonstrate that they will be no more polluting in carbon terms than the energy source being replaced.

## Flood Risk

### **Draft Policy x: Reducing Flood Risk**

In order to address existing flood risk, and to reduce the impact of new development, the Council will:

- i. Work with the Environment Agency, landowners and developers, based on the findings of the most recent SFRA and other Plans, to manage and reduce flood risk from all sources of flooding.
- ii. Apply the sequential and exception tests to avoid inappropriate development in relation to flood risk.
- iii. Implement Sustainable Drainage System (SUDS) across the borough and work towards effective management of surface water flooding.
- iv. Fully engage in flood risk emergency planning including the pre, peri and post phases of flooding event.
- v. Propose to ensure the implementation of measures to mitigate flood risk across the borough that are effective, viable, attractive and enhance the public realm and ensure that any residual risk can be safely managed.

To minimise river flooding risk, development in Flood Risk Areas (Environment Agency Flood Zones 2 and 3 and surface water flood risk hotspots) will be required to seek opportunities to deliver a reduction in flood risk compared with the existing situation.

In Flood Risk Areas the sequential test and exception test as set out in the NPPF and associated technical guidance should be applied. Flood Risk Assessments should be submitted in support of all planning applications in these areas and for major development proposals across the Borough.

All development proposals should reduce surface water run-off entering the sewerage network reduce rainwater run-off through the use of suitable Sustainable Drainage Systems (SUDS) as far as possible.

### **Supporting Text**

The Government sets out requirements for planning and development in relation to flood risk in the National Planning Policy Framework and Technical Guidance. Local Planning Authorities have a responsibility to ensure that inappropriate development in areas of flood risk is avoided, that new development does not increase vulnerability to flooding and that risks are managed through suitable long-term measures. Opportunities to improve existing vulnerable areas should be taken, for example, by incorporating sustainable drainage systems in new developments or incorporating green infrastructure.

The London Plan reiterates the national importance given to flood risk assessment, advising Boroughs that they should use Strategic Flood Risk Assessments when developing their Local Plans, identify areas with surface water management problems and encourage development to use Sustainable Urban Drainage Systems (SUDS).

Bromley is covered by two river catchments, the Ravensbourne and the Cray and both of these rivers and many of their tributaries have their source in Bromley. The risk of fluvial flooding within the urban parts of Bromley has been greatly reduced by the construction of defences and channel culverting, however there are still some problems with surface water flooding in the urban area.

In accordance with national guidance, Bromley Council has produced a strategic flood risk assessment (SFRA) which identifies areas of the Borough that are at risk of flooding from a range of sources. This study is being updated to accompany the development of the Local Plan, both to help develop future policy and to inform the process of site allocation.

Flood Risk Areas have been identified which include Environment Agency Flood Zones 2 and 3 and surface water flood risk hotspots. In these areas particular attention needs to be paid to reducing both the existing and potential risk from flooding and therefore any new development will be required to assess its potential impact and mitigate accordingly. Outside these areas, major developments, as a result of their nature in being larger or more significant, will also be required to make a full assessment of their impacts.

To address the contribution that even small developments can make to flooding problems, all developments should aim to reduce surface water run-off to sewers and minimise rainwater run-off by following the drainage hierarchy set out in the London Plan (see SUDS policy below).

The Council will update Bromley's Strategic Flood Risk Assessment every 5 years or more frequently if circumstances require, ensuring that changes in flood risk area are identified and suitable responses implemented.

#### **Draft Policy x: Sustainable Urban Drainage Systems (SUDS)**

All developments should seek to incorporate Sustainable Urban Drainage Systems (SUDS) or demonstrate alternative sustainable approaches to the management of surface water as far as possible.

Applications for developments located within Flood Zones 2, 3a and 3b and in Flood Zone 1 for areas identified as hot spots in Bromley's Surface Water Management Plan (SWAMP), Preliminary Flood Risk Assessment (PFRA) and in the Strategic Flood Risk Assessment must be accompanied by a site-specific Flood Risk Assessment (FRA).



## Supporting Text

Flood Risk Assessments should be prepared in accordance with technical guidance from DEFRA and the Environment Agency and will be required to demonstrate that the following measures have been taken:

Application of a site wide sequential approach to development by locating buildings within the areas of lowest flood risk on a site in accordance with the areas set out within the Surface Water Management Plan as areas with increased risk of surface water flooding.

Determination of potential overland flow paths and proposals for appropriate solutions to minimise the impact of development on surface water flooding. Road and building configuration should be considered to preserve existing flow paths and improve flood routing, whilst ensuring that flows are not diverted towards other properties elsewhere,

In line with the preferred standard in the Mayor's Sustainable Design and Construction SPG, SUDS measures should aim to achieve 100% attenuation of the undeveloped (existing) sites surface water run-off at peak times. If 100% attenuation is not achievable, justification should be provided. In the areas outlined in the Surface Water Management Plan and in the Local Strategy as areas with increased risk of surface water flooding, a FRA should mitigate off site surface water flooding by aiming to achieve greenfield run-off rates or better. SUDS techniques should be applied with regard to the London Plan Sustainable Drainage Hierarchy outlined in Policy 5.13 or such guidance as supersedes it. Demonstrable justification should be provided on the extent to which each measure is being proposed.

Soft landscaping and permeable surfaces should be incorporated into all new residential and non-residential developments. Retention of soft landscaping and permeable surfaces in front gardens and other means of reducing, or at least not increasing the amount of hard standing associated with existing homes is encouraged. New driveways or parking areas associated with non-residential developments and those located in front gardens should be made of permeable material. Consideration of vulnerability and importance of local ecological resources (such as water quality and biodiversity) when determining the suitability of drainage strategies/SUDS.

Demonstration of the maintenance and long term management of SUDS through a SUDS Management Plan. The developer and the Council will agree who will adopt the SUDS scheme and be responsible for the on-going maintenance.

### **Draft Policy x: Water and Wastewater Infrastructure Capacity**

Planning permission will only be granted for developments which significantly increase the demand for off-site water and wastewater infrastructure where:

- i. Sufficient capacity already exists; or

- ii. Extra capacity can be provided at an appropriate time to serve the development and ensure that the environment and the amenities of other users are not adversely affected.

### **Supporting Text**

The local planning authority will seek to ensure that there is adequate water and wastewater infrastructure to serve all new developments, although this policy will normally apply to major developments (eg. 10 or more dwellings). Developers may be required to demonstrate that there is adequate infrastructure capacity both on and off the site to serve the development and that it would not lead to adverse amenity impacts for existing or future users. In some circumstances this may make it necessary for developers to carry out appropriate appraisals and reports to ascertain whether the proposed development will lead to overloading of existing water and wastewater infrastructure. Where there is a capacity constraint and no improvements are programmed by Thames Water (or any successor), the Local Planning Authority may require the developer to provide for appropriate improvements, to be completed prior to occupation of the development.

Where there is a capacity constraint and upgrades to water and wastewater infrastructure are necessary such improvements may be secured by a Grampian style condition or a planning agreement.

Developers should consult with the infrastructure provider as early as possible regarding the capacity of water and wastewater infrastructure to serve development proposals.

### **Draft Policy x: Contaminated land**

Where the development of contaminated land, or land suspected of being contaminated, is proposed, details of site investigations and remedial action should be submitted.

Applicants are required to submit, for approval:

- A desk study before starting investigations on site;
- A full site investigation including relevant sampling and analysis to identify pollutants, risks and a remediation strategy;
- A remediation strategy; and
- A closure report on completion of works.

Land should be remediated to a standard such that there is no appreciable risk to end users or other receptors once the development is complete

## Supporting Text

The NPPF states that new development should be appropriate for its location in order to prevent potential risks to health, the environment and general amenity. The London Plan states that, wherever practicable, sites that have been affected by contamination should be brought back into use and in doing so the risks to health and the environment can be dealt with. When the development of contaminated land is proposed it is vital to assess the nature of that contamination and fully address measures to remediate that land wherever possible. If planning permission is given based on an initial desktop study, that permission will include conditions ensure that the further stages of investigation and management are secured. Remediation must be appropriate for the end user of the site and may involve works to remove or treat the source of contamination or break the pathway between source and receptor.

### **Draft Policy x: Noise Pollution**

In order to minimise adverse impacts on noise sensitive receptors, proposed developments likely to generate noise and or vibration will require a full noise/vibration assessment to identify issues and appropriate mitigation measures.

In most cases where there is a risk of cumulative impact on background level over time or where an area is already subject to an unsatisfactory noise environment, applicants will be required to ensure that the absolute measured or predicted level of any new noise source is 10dB below the existing typical background LA90 noise level when measured at any sensitive receptor.

New noise sensitive development should be located away from existing noise emitting uses unless it can be demonstrated that satisfactory living and working standards can be achieved and that there will be no adverse impacts on the continued operation of the existing use.

The design and layout of new development should ensure that noise sensitive areas and rooms are located away from parts of the site most exposed to noise wherever practicable. External amenity areas should incorporate acoustic mitigation measures such as barriers and sound absorption where this is necessary and will assist in achieving a reasonable external noise environment.

In mixed use buildings, conversions and changes of use which increase internal noise should incorporate measures to minimise the transfer of noise between different parts of the building. An airborne sound insulation of at least 55dB  $D'_{nT,w} + C_{tr}$  will usually be expected in separating partitions between residential dwellings and non-residential noise generating uses. A higher standard may sometimes be necessary depending on the nature of the development.

## Supporting Text

The broad approach to reducing potential negative impacts of noise upon people's health and wellbeing has been set out in the Noise Policy Statement for England (DEFRA 2010). The NPSE sets out the Government's vision for a co-ordinated approach to noise policy. It promotes the "effective management" of noise within the context of sustainable development with the following aims:

- Avoid significant adverse impacts on health and quality of life
- Mitigate and minimise adverse impacts on health and quality of life; and
- Where possible, contribute to the improvement of health and quality of life.

The NPSE refers to the World Health Organisation noise impacts levels – from No Observed Effect to Significant Observed Effect – but does not set out actual values for these, acknowledging that this allows for policy flexibility until further evidence and guidance become available.

In turn, the NPPF requires planning policies and decisions to avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development and to mitigate and reduce noise to a minimum. It is recognised that development will often create some noise and that a balance is needed to ensure that existing business should not have unreasonable restrictions put on them because of changes in land use since they were established.

The London Plan states that boroughs should have policies to reduce the adverse impact of noise through the appropriate location of noise producing and noise sensitive uses – that is, uses such as homes, hospitals and day centres - and that any particularly tranquil areas may be afforded extra protection. Development proposals should seek to reduce noise by minimising the existing and potential adverse impacts of noise on, from and within the vicinity of development. New noise sensitive development should be separated from major noise sources wherever practicable through distance, screening or internal layout in preference to sound insulation.

The Mayor's Housing SPG sets out baseline standards for how noise should be managed in new residential development, highlighting the need to consider elements of design that enable the home to become a comfortable place of retreat. The SPG advises, for example, that developments should avoid single aspect dwellings that are exposed to noise levels which affect quality of life and that the layout of dwellings should seek to limit the transmission of noise to sound sensitive rooms.

The Sustainable Design and Construction SPG also outlines practical measures that can be taken to minimise noise being produced and through both engineering solutions, design and layout and management activities. Where noise sensitive uses are proposed, applicants should consider a range of design measures to help mitigate any impacts.

Industry guidance including guidance issued by the Institute of Acoustics in addition to British Standards such as BS8233:2014 and BS4142:2014 provide further details on expected standards in assessment of noise and expected building design and remedial measures.

A risk of cumulative impact on background noise will normally be considered to exist in areas where multiple applications for noise generating sources would be expected over time. This is most likely in High Street locations where ventilation and air condition plant is common and in mixed industrial\commercial and residential areas.

Airborne and impact sound insulation should be appropriate considering the nature of adjoining uses. For restaurants and hot food takeaways adjoining residential dwellings, an airborne insulation of 55dB D'nT,w + Ctr is usually sufficient. Where licensed premises, industrial uses, places of worship and community halls adjoin residential dwellings, a higher level of sound insulation may be required depending on the likely source noise levels. Where there is doubt over whether the required standard can be met it may be necessary to submit an assessment of existing sound insulation and a scheme of remedial works as part of the application.

In Bromley, the main problems with noise arise from transportation (road and rail), commercial operations (plant such as air conditioning, kitchen ventilation and extraction), industrial activity and from licensed premises. Planning has a role alongside environmental protection legislation to help locate activities appropriately and ensure adequate standards are proposed in new development to minimise future noise problems and reduce existing ones.

#### **Draft Policy x: Air Quality**

Developments which are likely to have an impact on air quality or which are located in an area which will expose future occupiers to pollutant concentrations above air quality objective levels will be required to submit an Air Quality Assessment. Developments should aim to meet “air quality neutral” benchmarks in the GLA’s Air Quality Neutral report.

In the designated Air Quality Management Area:

- Developments should incorporate Ultra Low NOx boilers
- Biomass boilers should be avoided unless emission standards can be met.

#### **Supporting Text**

The NPPF states that planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account Air Quality Management Areas and the cumulative impact of air quality from individual sites. Planning policies should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.

The London Plan requires that boroughs should have policies that seek reductions in pollutants and take account of the findings of air quality reviews and assessments, particularly where Air Quality Management Areas have been designated. The Mayor’s Air Quality Strategy and the Sustainable Design and Construction SPG set out that developments are to be at least “air quality neutral”, aiming to meet the benchmark standards in the Air Quality Neutral report.

The Borough periodically reviews and assessed air quality within its area. National air quality objectives (AQOs) have been designated for:

- Nitrogen dioxide (NO<sub>2</sub>)
- Particulates
- Carbon monoxide
- Benzene
- 1,3-Butadiene
- Sulphur dioxide
- Lead
- Ozone

Following extensive air quality modelling Bromley, like many other local authorities, declared an air quality management area (AQMA) in 2007. The AQMA covers the North and North West of the borough and is in response of predicted exceedance in nitrogen dioxide levels. In 2010 Bromley subsequently published an Air Quality Action Plan detailing actions to tackle the air quality exceedances. The Action Plan has been reviewed and an Updated Screening Assessment published.

The main cause of air pollution problems in Bromley arise from traffic, domestic heating and cooking (boilers, gas cookers, stoves), restaurants and commercial cooking and heating, industrial emissions and construction.

#### **Draft Policy x: Ventilation and Odour Control**

Proposals for restaurants and cafes (Class A3), drinking establishments (Class A4) and hot food takeaways (Class A5) should include details of an adequate ventilation system to prevent the escape of fumes to the outside whilst minimising noise, vibration and visual impact.

Fumes and smells from food and drink premises can create a nuisance to neighbours and should be controlled through effective ventilation

systems. Conditions will be applied to any permission involving potential emissions to ensure that adequate standards may be achieved.

DEFRA '*Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems*' (January 2005) provides further information on appropriate design and odour abatement plant in kitchen ventilation systems.

### **Draft Policy x: Light Pollution**

Lighting in new development, including flood lighting, should be at an appropriate level so as to minimise impact on amenity whilst ensuring safe and secure places. Lighting should:

- i. be the minimum required for the proposed purpose;
- ii. have no adverse effect on residential amenity through glare or hours of operation,
- iii. not be visible from the wider area, and
- iv. have no adverse impact on road safety, landscape or nature conservation.

Light pollution – artificial light which intrudes on areas not intended to be lit – can be a nuisance and a public health issue. From street lighting to floodlighting, a range of measures can reduce problems of glare and light spillage without compromising safety. The NPPF states that, through good design, planning policies and decisions should limit the impact of light pollution on local amenity, intrinsically dark landscapes and nature conservation.

### **Draft Policy x: Sustainable Design and Construction**

All applications for development should demonstrate how the principles of sustainable design and construction have been taken into account alongside the principles set out in the general design policy.

### **Supporting Text**

The London Plan sets out the general principles of sustainable design and construction which should be integrated from the start of a development project:

- Minimise carbon dioxide emissions
- Avoid internal overheating and contributing to the heat island effect
- Use of natural resources, including water, efficiently
- Minimise pollution (including air, noise and run-off)
- Minimise the generation of waste and maximising reuse and recycling
- Avoid impacts from natural hazards including flooding
- Ensure developments are comfortable and secure for users
- Secure sustainable procurement of materials
- Promote and protect biodiversity and green infrastructure

GLA Supplementary Planning Guidance provides detail on how to implement these principles and sets out best practice examples.

In cases of the refurbishment or redevelopment of particularly sensitive buildings such as those which are statutorily listed, advice from Historic England should be sought to ensure the principles are followed as far as possible without causing unnecessary harm.

Applications for major development should include information about how each of the principles have been addressed in a stand-alone sustainability statement or within other appropriate documentation. Evidence supplied with non-major developments should be proportionate to the scale of development

## **Draft Policy x: Carbon Dioxide Reduction, Decentralised Energy Networks and Renewable Energy**

Major developments should aim to reduce their carbon dioxide emissions in accordance with the levels set out in the London Plan. Planning applications for major development should include evidence of how the energy requirements and carbon dioxide emissions of proposed developments have been assessed and propose a clear reduction strategy in line with the energy hierarchy. Information submitted should be sufficient to demonstrate how the relevant London Plan policies have been addressed and how the strategy can be fully implemented without additional permissions.

Major development proposals should investigate the potential for connecting to an existing decentralised heat or energy network or developing a new site-wide network and the potential for renewable energy should be assessed as part of the design of the development to ensure successful integration.

The carbon dioxide reduction target should be met on site unless it can be demonstrated that it is not feasible. Any shortfall may be met through an identified project off-site or through a payment in lieu to a local carbon off-setting scheme.

### **Supporting Text**

Bromley will apply the carbon reduction, decentralised energy and renewable energy policies in the London Plan directly to major development proposals.

From October 2016, London Plan Policy 5.2B sets a “zero carbon” target residential development – that is, the residential element of a major development scheme should achieve at least a 35% reduction in regulated carbon dioxide emissions (beyond Part L 2013) on site. The remaining regulated carbon dioxide emissions are to be off-set through a cash-in-lieu contribution to a ring-fenced fund.

From 2016 to 2019, London Plan policy 5.2B sets the carbon dioxide emissions target for non-residential major developments at a 35% reduction against Part L 2013 of the Building Regulations.

Applications for major developments should be accompanied by information which demonstrates how the relevant London Plan policies (5.2 to 5.9) will be met. An energy assessment is required with both outline and full applications and should be based on the GLA’s ‘Energy Planning’ guidance.

Strategies for carbon dioxide reduction should follow the energy hierarchy:

1. Be lean: use less energy, reduce demand
2. Be clean: supply energy efficiently, and finally
3. Be green: use renewable energy

The priority is to design development in such a way that less energy is required in its construction and in its use. From the design and layout of the site to the specification of walls and windows, addressing the first level of the energy hierarchy is the most cost effective way to minimise carbon emissions. Passive measures – insulation, air tightness, thermal mass etc – combined with active measures – heating, lighting and ventilation systems – should be appropriate to the proposed use and not result in inefficient or unnecessary use.



In order to secure more efficient supply of energy, major developments proposals should aim to connect to, or incorporate, a heating or cooling network. In Bromley, the lower density patterns of development and lack of suitable heat users limit the feasibility of energy networks in many areas, however, where higher density development with mixed uses are proposed, including in Bromley Town Centre, new energy networks will be encouraged.

The London Plan sets out the expectation that all major developments will seek to reduce carbon dioxide emissions by at least 20% through on-site renewables. On site renewable energy infrastructure should form part of an integrated solution and not be considered an “add-on”. Renewable energy equipment should be carefully sited to minimise harmful impacts on sensitive receptors including heritage assets, respect local character wherever possible and protect the amenity of local residents.

The London Plan states that boroughs should establish a carbon dioxide off-set fund and identify suitable local projects to be funded. Where developments are not able to achieve the carbon dioxide targets, the developer could install a carbon saving project off-site or make a contribution to the local off-setting fund. The off-setting measures should have either carbon dioxide or financial equivalence to the saving that would otherwise be required on the site.

The Council will set a price at which the carbon dioxide short fall will be calculated and publish this in a Supplementary Planning Document. Contributions to the carbon off-set fund will be secured through the use of S106 planning obligations in accordance with the CIL regulations.