

14. Protecting and managing our environment

Introduction

14.1 There is a pressing need to plan and manage growth and resources in a sustainable manner in a way that conserves, maintains and enhances the borough's environment. Sustainable growth requires careful stewardship of our resources (land, water and energy) to reduce carbon emissions, improve air quality, conserve water resources, protect biodiversity and mitigate flood risk.

14.2 Despite its urban character, Tower Hamlets has areas of notable biodiversity value, including three Local Nature Reserves and 35 Sites of Importance for Nature Conservation. However, parts of the borough, including the City Fringe, Poplar and the western edge of the Isle of Dogs, are considered to be nature deficient⁵⁰.

14.3 Parts of the borough are at potential risk of flooding. Whilst the Thames Barrier and other flood defences currently provide effective protection, their continued maintenance, along with further investment in flood defences, is required. Climate change will also have an impact on flood risk and must be considered in order to mitigate the risk of flooding for the expected lifetime of a development. The borough also has a number of critical drainage areas which are at higher risk of surface water flooding. Despite this, London has lower rainfall than the national average, whilst having a very high population density. This combination has resulted in London being declared an area of serious water stress and this trend is likely to be exacerbated by climate change⁵¹.

14.4 Carbon emissions in the borough have been falling steadily over recent years, but Tower Hamlets still produces the third highest level of total carbon dioxide emissions of all the boroughs in London⁵².

14.5 The whole of the borough falls within an Air Quality Management Area (as shown on the Policies Map), parts of which exceed the World Health Organisation guideline limits and European Union safe legal limits / national air quality objectives on harmful pollutants.

14.6 This section contains the following policies:

- Policy S.ES1: Protecting and enhancing our environment
- Policy D.ES2: Air quality
- Policy D.ES3: Urban greening and biodiversity
- Policy D.ES4: Flood risk
- Policy D.ES5: Sustainable drainage
- Policy D.ES6: Sustainable water and wastewater management
- Policy D.ES7: A zero carbon borough
- Policy D.ES8: Contaminated land and storage of hazardous substances
- Policy D.ES9: Noise and vibration
- Policy D.ES10: Overheating.

50 Tower Hamlets Green Grid Strategy (2017)

51 Securing London's Water Future: The Mayor's Water Strategy (GLA, 2011)

52 UK Local Authority and Regional Carbon Dioxide Emissions: 2005 – 2014 (National Statistics, 2016)

Policy S.ES1**Protecting and enhancing our environment**

1. Proposals will be supported which minimise the use of natural resources and work proactively to protect and enhance the quality of the natural environment, through:
 - a. reducing the areas of sub-standard air quality in the borough and contributing towards delivering the objectives of the latest Tower Hamlets Air Quality Action Plan
 - b. protecting and enhancing biodiversity, with the aim of meeting the objectives of the latest Tower Hamlets Local Biodiversity Action Plan and Thames River Basin Management Plan and improving opportunities to experience nature, in particular in deficient areas
 - c. using the sequential and exceptions tests to direct development away from high flood risk areas and reduce flood risk in the borough
 - d. reducing water use
 - e. following the energy hierarchy: be lean, be clean and be green
 - f. maximising climate change adaptation measures, and
 - g. improving water and land quality and mitigating the adverse effects of contaminated land on human health.

Explanation

14.7 This policy seeks to protect and enhance the key aspects of the borough's environment in line with local, sub-regional, regional, national and international plans and programmes.

14.8 Development plays a key role in improving air quality and reducing exposure to poor air quality. Areas of sub-standard air quality are areas where nitrogen dioxide levels exceed 40 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$): the European Union legal limit / national air quality objectives. This includes areas in which the particulate (PM2.5) levels exceed 10 $\mu\text{g}/\text{m}^3$ annual mean limits (World Health Organisation guideline limits). The Tower Hamlets Air Quality Action Plan identifies the ways in which development can improve air quality in the borough.

14.9 The Tower Hamlets Local Biodiversity Action Plan identifies priority species and habitats to ensure the ongoing improvement of biodiversity across the borough. The Thames River Basin Management Plan sets out objectives to protect and enhance the water bodies in the basin/catchment. Part 1(b) of the policy ensures that development contributes to meeting the objectives of these plans. In addition, to address nature deficiency and deficiency of access to nature (areas shown on the Policies Map), we aim to maximise opportunities for biodiversity in and around developments in order to deliver a net gain in biodiversity and a range of wider environmental benefits.

14.10 In recognition of the borough's areas of flood risk, more vulnerable development should be located away from areas of flood risk, as shown on the Policies Map. As part of our commitment to reducing the risk of flooding, we will work closely with national and regional bodies and neighbouring authorities to:

- a. Maintain and improve the existing flood defences
- b. Ensure effective emergency-planning practices are in place
- c. Keeping up-to-date information about flood risk in the borough

- d. Supporting the development of the Thames Tideway Tunnel and associated storm relief connections.

14.11 Development must also address London's water stress by reducing water use.

14.12 Development should aim to reduce carbon emissions and adhere to the principles of the energy hierarchy set out below.

- a. Be lean: use less energy
- b. Be clean: supply energy efficiently
- c. Be green: use renewable energy.

14.13 New development (including buildings and the spaces between them) also needs to be planned, designed and constructed to respond to future anticipated changes in climate such as warmer, wetter winters and hotter, drier summers and the risks associated with such changes: the urban heat island effect, heat waves, flooding and droughts. Further guidance can be found in the Sustainable Design and Construction Supplementary Planning Guidance (GLA, 2014).

14.14 Development must also consider and mitigate existing contamination as well as prevent any further contamination of water or land.

Policy links

- Policy S.OWS2: Enhancing the network of water spaces
- Policy D.OWS4: Water spaces
- Policy S.MW1: Managing our waste

Evidence links

- Tower Hamlets Air Quality Action Plan
- Tower Hamlets Biodiversity Action Plan (2015)
- Tower Hamlets Strategic Flood Risk Assessment (2017)
- Thames River Basin Management Plan (Environment Agency, 2015)
- Sustainable Design and Construction Supplementary Planning Guidance (GLA, 2014)



Policy D.ES2

Air quality

1. Development is required to meet or exceed the 'air quality neutral' standard, including promoting the use of low or zero emission transport and reducing the reliance on private motor vehicles.
2. An air quality impact assessment, based on current best practice, is required as part of the planning application for:
 - a. Major developments
 - b. Developments which will require substantial earthworks or demolition
 - c. Developments which include education and health facilities or open space (including child play space), and
 - d. New build developments in areas of sub-standard air quality (as designated and shown on the Policies Map).
3. Where an air quality assessment indicates that a development will cause harm to air quality or where end users could be exposed to poor air quality, development will be resisted unless mitigation measures are adopted to reduce the impact to acceptable levels.
4. New build developments which propose to provide any private, communal, publicly accessible open space or child play space in areas of sub-standard air quality are required to demonstrate that they have considered the positioning and design of the open space to reduce exposure of future users to air pollution.

Explanation

14.15 Improving the borough's air quality is one of our key priorities. Levels of nitrogen dioxide and particulates (PM10 and PM2.5) are of particular concern, due to their impacts on human health⁵³. In parts of the borough, including the City Fringe and along all major roads, the levels of nitrogen dioxide and particulates (PM2.5 and PM 10) exceed World Health Organisation guideline limits and, in the case of nitrogen dioxide, European Union safe legal limits /national air quality objectives⁵⁴. Poor air quality has well-evidenced significant adverse effects on health. Further guidance on the 'air quality neutral standard' is outlined in the Sustainable Design and Construction Supplementary Planning Guidance (GLA, 2014)⁵⁵.

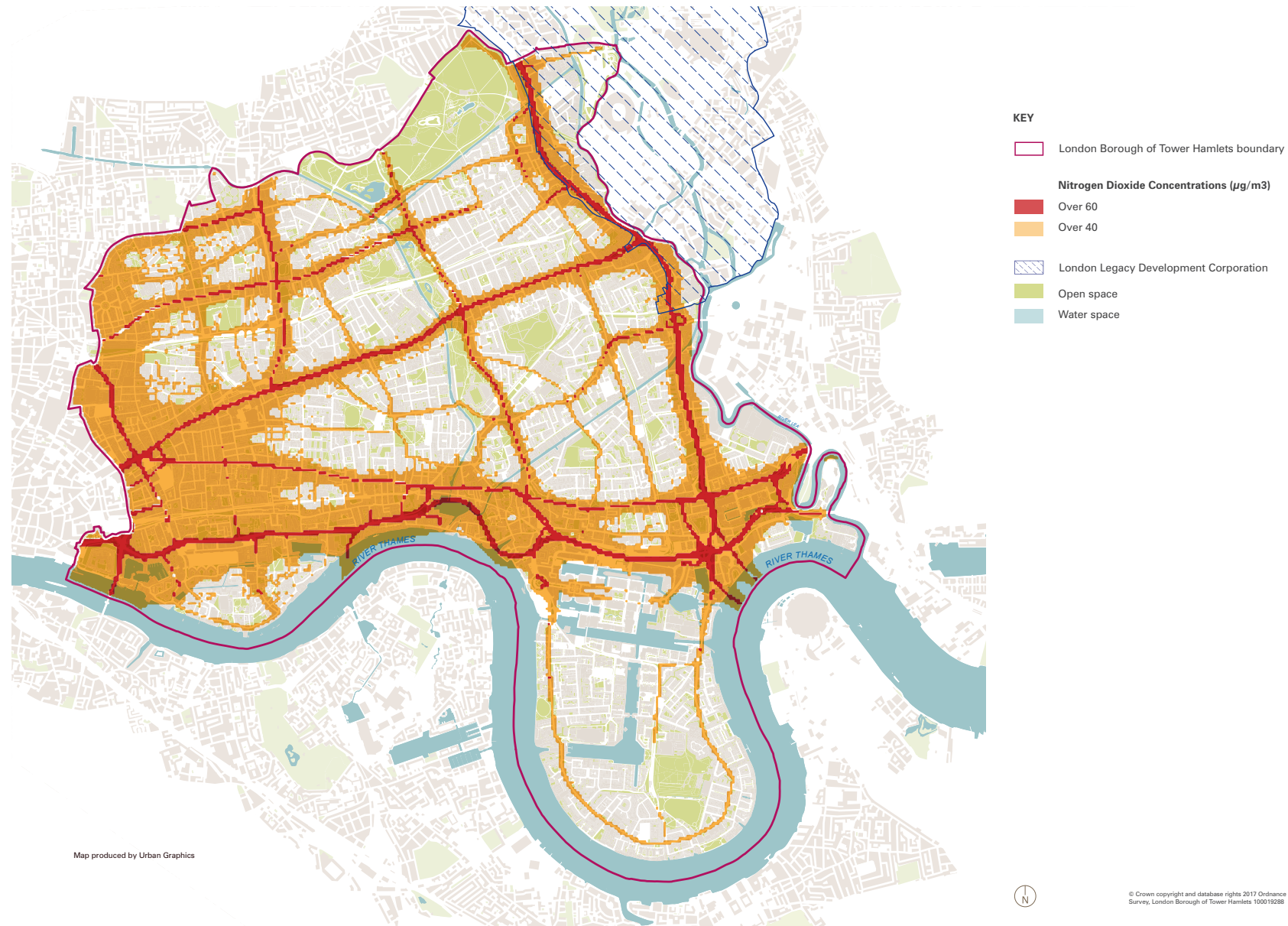
14.16 In those parts of the borough where air quality is below European Union safe limits for nitrogen dioxide levels, particular focus will be placed on improving air quality, protecting users from the effects of poor air quality and protecting vulnerable uses, such as schools. Education uses covered under this policy are primary and secondary schools and does not include further or higher education facilities. Areas of sub-standard air quality refer to areas where nitrogen dioxide levels exceeding 40 µg/m³ (the European Union legal limit / national air quality objectives). This includes areas in which the particulates (PM2.5) levels exceed 10 µg/m³ annual mean levels (World Health Organisation guideline limits) as identified on the Policies Map and Figure 14. Please note: air quality fluctuates and applications should be guided by the latest available monitoring data.

⁵³ Tower Hamlets Joint Strategic Needs Assessment: Strategic Planning and Health (2016)

⁵⁴ Tower Hamlets Air Quality Annual Status Summary Report (2016)

⁵⁵ Please note: Part 1 does not apply to infrastructure projects, such as road schemes.

Figure 14: Areas of substandard air quality in Tower Hamlets



14.17 The air quality assessment must consider the potential impacts of pollution from the development on occupants of the site and neighbouring areas during construction and operational phases. It should also consider the cumulative impact of surrounding developments. Cumulative impacts should be considered for developments occurring in a one kilometre radius. The air quality assessment and the construction management plan should contain details of compliance with European emissions standards. Proposals that would give rise to diffuse air pollution must consider the potential for effects on European sites of nature conservation importance, in particular Epping Forest.

14.18 The air quality assessment must also outline the measures to mitigate any adverse effects during construction or operation. This could include:

- a. Reducing vehicular traffic levels
- b. Encouraging sustainable movement patterns
- c. Methods of carrying out construction
- d. Actions to reduce emissions throughout the lifetime of the building
- e. Reducing emissions from associated plant equipment
- f. Improving or greening the public realm
- g. Ensuring decentralised energy facilities do not contribute to poor air quality.

14.19 Under Parts 3 and 4, mitigation measures to reduce people's exposure to poor air quality could include the following (in order of priority):

- a. Maximising distance from pollutant source (the recommended distance would be over 50 metres from the pollution source)
- b. Considering proven ventilation systems
- c. Parking considerations (in accordance with our transport policies set out in S.TR1 and D.TR3)
- d. The use of winter gardens, instead of balconies
- e. Internal layout and minimising internal pollutant emissions.

Policy links

- Policy D.SG3: Health impact assessments
- Policy D.SG4: Planning and construction of new development
- Policy S.DH2: Attractive streets, spaces and public realm
- Policy D.DH8: Amenity
- Policy D.H3: Housing standards and quality
- Policy S.CF1: Supporting community facilities
- Policy D.CF3: New community facilities
- Policy S.OWS1: Creating a network of open spaces
- Policy D.ES7: A zero carbon borough
- Policy S.TR1: Sustainable travel
- Policy D.TR3: Parking and permit-free
- Policy D.TR4: Sustainable transportation of freight

Evidence links

- Land-use Planning and Development Control: Planning for Air Quality (Institute of Air Quality Management, 2017)
- London Local Air Quality Management Technical Guidance (GLA, 2016)
- Guidance on the assessment of dust from demolition and construction (Institute of Air Quality Management, 2014)
- Design Manual for Roads and Bridges Volume 11 Environmental Assessment (Highways Agency, 2012)

Policy D.ES3**Urban greening and biodiversity**

1. Development is required to protect and enhance biodiversity, through:
 - a. maximising the provision of 'living building' elements
 - b. retaining existing habitats and features of biodiversity value or, if this is not possible, replacing them within the development, as well as incorporating additional measures to enhance biodiversity, proportionate to the development proposed, and
 - c. protecting and increasing the provision of trees, through:
 - i. protecting all trees, including street trees
 - ii. incorporating native trees, wherever possible
 - iii. providing replacement trees, including street trees, where the loss of or impact on trees in a development is considered acceptable.
2. Major development is required to submit an ecology assessment demonstrating biodiversity enhancements that contribute to the objectives of the latest Tower Hamlets Local Biodiversity Action Plan and the Thames River Basin Management Plan.
3. Planting and landscaping around developments must not include 'potentially invasive non-native species'. Invasive non-native species listed in Schedule 9 of the Wildlife and Countryside Act must be controlled, and eradicated where possible, as part of redevelopment.
4. Development must not negatively impact on any designated European site such as Special Protection Areas, Special Areas of Conservation or Ramsar sites. Developments which might have the potential to adversely impact a Special Protection Area or Special Area of Conservation outside the borough will be required to submit a Habitat Regulations Assessment.
5. Developments which affect a Site of Importance for Nature Conservation, or significantly harm the population or conservation status of a protected or priority species, are required to be managed in accordance with the following hierarchy:
 - a. Adverse impacts to the biodiversity interest should be avoided.
 - b. Where avoidance is not possible, proposals must minimise and mitigate the impact to the biodiversity interest.
 - c. As a last resort for exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, appropriate compensation will be sought.
 - d. Where appropriate compensation is not possible, planning permission will be refused.

Explanation

14.20 Tower Hamlets has a diverse range of sites of biodiversity value, including areas of open space, waterways and formally designated Sites of Importance for Nature Conservation (SINCs). Living building elements enhance biodiversity, both directly through planting and indirectly through providing habitats⁵⁶. They also have flood reduction, climatic and air quality benefits, helping to remove carbon dioxide from the air and reduce temperatures.

14.21 In implementing Part 1(a) 'living building' elements need to contribute to local biodiversity through providing priority habitats, and/or features for priority species, as identified in the latest Tower Hamlets Local Biodiversity Action Plan. The types of 'living building' techniques we consider appropriate include living roofs, walls, terraces and other building greening techniques. 'Living building' elements should also be considered alongside the sustainable urban drainage requirements outlined in Policy D.ES5, and green grid requirements outlined in Policies S.OWS1 and D.OWS3. Providing living building elements is considered particularly beneficial in areas of sub-standard air quality or in areas at particular risk of experiencing the urban heat island effect. The risk of experiencing the 'heat-island' effect should be considered over the lifetime of the development. Details of ongoing maintenance of the 'living building' elements will also be required.

14.22 According to the London Climate Change Partnership, areas at particular risk of experiencing the urban heat island effect include the following:

- a. Areas of green space deficiency (see Figure 13). This includes developments within identified areas of deficiency of access to nature

- b. Areas of high density development with clusters of tall buildings. This includes developments within identified Tall Building Zones (see Policy D.DH6)
- c. Areas experiencing high levels of pollution. This includes developments within identified areas of sub-standard air quality (as shown on the Policies Map and Figure 14).

14.23 In implementing Part 1(b), consideration will be given to the size, scale and nature of the development and whether an appropriate level of provision is proposed. Even minor development, such as rear extensions, have the ability to provide biodiversity measures through items such as living roofs, walls and habitat structures (e.g. bat and bird boxes).

14.24 The latest Tower Hamlets Local Biodiversity Action Plan should give details of priority habitats and/or features for priority species (see Parts 1 and 2). Features of biodiversity or ecological value include:

- a. Linear corridors, such as watercourses, hedgerows and buffer zones
- b. Veteran trees
- c. Old hedges
- d. Habitats or species identified as local⁵⁷, London⁵⁸ or national⁵⁹ priorities, and features which might support such species.

Where geographically relevant, the Thames River Basin Management Plan objectives should also be incorporated.

14.25 Due to the environmental importance of trees, at least a 'one-for-one' replacement rate is required for any trees affected by a development (see Part 1). Where we are convinced these cannot be incorporated on site, we will consider the provision of a replacement tree on a suitable site, as close to the development as possible. We will also expect developments to incorporate additional trees, wherever

⁵⁶ Tower Hamlet Local Biodiversity Action Plan (2015)

⁵⁷ Tower Hamlets Local Biodiversity Action Plan (2015)

⁵⁸ London Biodiversity Action Plan (GLA, 2007)

⁵⁹ Species of Principal Importance in England identified under section 41 of the Natural Environment and Rural Communities Act (2016)

possible. Their location must be carefully considered to ensure there is no adverse impact on overshadowing, wind effects, air quality, ecology or flood risk. Where trees are proposed along the river corridor, their positioning must be carefully considered to ensure there are no adverse impacts on ecology or flood risk. A buffer of at least five metres is suggested between the bank and tree. We will take a 'right tree for the right site' approach which takes account of historic context, availability of space, soil conditions, wildlife value, potential improvements to air and soil quality, provision of shade and reducing the effects of and adapting to climate change. This will need to be evidenced in the ecology assessment.

14.26 'Potentially invasive non-native species' include plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and plants identified as species of concern by the London Invasive Species Initiative. In addition, planting schemes should be selected according to their suitability for local growing conditions (soil, temperature ranges, rainfall, sunlight and shade), their ability to attract wildlife (e.g. nectar rich planting) and to conserve water. Planting along river corridors should only include native species. This will need to be evidenced in the ecology statement.

14.27 Part 4 seeks to protect the integrity of any European or nationally designated site of nature conservation importance. There are no such sites within Tower Hamlets, but development may have the potential to adversely impact sites beyond its boundary – such as the Epping Forest Special Area of Conservation and the Lea Valley Special Protection Area - through air pollution and/or increased visitor pressure. Where the application is of such a scale, location or nature as to potentially have such an effect on a European site, applicants should seek advice from Natural England as to whether a Habitat Regulations Assessment

would be required. The assessment will need to demonstrate that the development will not adversely impact on the integrity of the European site. Proposals will be resisted where they will have significant adverse impact on European sites.

14.28 Part 5 seeks to protect locally designated Site of Importance for Nature Conservation (SINCs) and important species. The presence of protected species is a material planning consideration where a development is likely to result in harm to a habitat or species. Priority species are those identified in the Tower Hamlets Local Biodiversity Action Plan, Species of Conservation Concern in London and Species of Principal Importance in England, as identified under section 41 of the Natural Environment and Rural Communities Act. If a SINC or a protected or priority species is likely to be affected, an ecology assessment will be required. The ecology assessment should include:

- a. Information assessing the characteristics and situation of the site
- b. Details on how the proposals will protect, replace and enhance existing biodiversity on the proposed site, including measures for wildlife habitats and features aimed at particular species.

14.29 Applications should also detail how recommendations are being included in the development proposals. Should the ecology assessment indicate an adverse impact on the biodiversity interest of the site, this will be managed using the hierarchical approach outlined in Part 4. Should compensation be sought, it would be at the level required to adequately offset the impact on the SINC or protected/priority species, through the provision of an alternative site or habitat.

Policy links

- Policy D.DH8: Amenity
- Policy D.H3: Housing standards and quality
- Policy S.OSW1: Creating a network of open spaces
- Policy S.OSW2: Enhancing the network of water spaces
- Policy D.OSW3: Open space and green grid network
- Policy D.OSW4: Water spaces

Evidence links

- Tower Hamlets Local Biodiversity Action Plan (2015)
- Tower Hamlets Strategic Flood Risk Assessment (2017)
- London Biodiversity Action Plan (GLA, 2007)



Policy D.ES4

Flood risk

1. Development is required to be located in areas suitable for the vulnerability level of the proposed uses with:
 - a. highly vulnerable uses not allowed within flood zone 3a
 - b. essential infrastructure and more vulnerable uses within flood zone 3a required to pass the exception test, and
 - c. highly vulnerable uses within flood zone 2 required to pass the exception test.
2. Development is required to provide a flood risk assessment if it meets any of the following criteria:
 - a. The development site is over 1 hectare in size within flood zone 1
 - b. The site is within flood zones 2 or 3a
 - c. The development may be subject to other sources of flooding, as defined in the Tower Hamlets Strategic Flood Risk Assessment.
3. The flood risk assessment should include:
 - a. A sequential test if the development is in flood zone 2 or 3
 - b. The risks of both on and off-site flooding to and from the development for all sources of flooding including fluvial, tidal, surface run-off, groundwater, ordinary watercourse, sewer and reservoir
 - c. An assessment of tidal risk in the event of a breach in the River Thames defences
 - d. The impact of climate change using the latest government guidance
 - e. Demonstration of safe access and egress, and
 - f. Mitigation measures, taking account of the advice and recommendations set out in the Tower Hamlets Strategic Flood Risk Assessment.
4. Site design of development which meets criteria outlined in Part 2 above is required to:
 - a. undertake a sequential approach to development layout to direct highest vulnerability uses to areas of the site with lowest flood risk, and
 - b. incorporate flood resilience and/or resistance measures.
5. Development is required to protect and where possible increase the capacity of existing water spaces and flood storage areas to retain water.
6. Development is required to enable effective flood risk management through:
 - a. requiring development along the River Thames and the River Lea and its tributaries to be set back by the following distances unless significant constraints are evidenced:
 - i. A minimum of a 16-metre buffer strip along a tidal river, and
 - ii. A minimum of a 8-metre buffer strip along a fluvial river.
 - b. optimising opportunities to realign or set back defences and improve the riverside frontage to provide amenity space and environmental enhancement.

Explanation

14.30 Large parts of Tower Hamlets, including the Isle of Dogs and Lower Lea Valley, are in medium to high risk flood areas (zones 2 and 3a). The flood risk zones are shown on the Policies Map and Figure 15. New development must not increase the risk of flooding and must provide mitigation measures to reduce their impact on flood risk, including enabling the repair and further delivery of flood defences.

14.31 For Parts 1 and 4 of the policy, the vulnerability of uses is defined within the National Planning Policy Framework and are contained in the latest Strategic Flood Risk Assessment. Highly vulnerable uses include a self-contained basement without internal access to the upper floors above breach level. More vulnerable uses include a basement with access to upper floors above the breach level. All basement developments are required to conduct a basement impact assessment to demonstrate that proposals safeguard structural stability, are safe from a flood risk perspective, and will not have any adverse impacts on local hydrogeology. It should take account of the guidance provided in the Strategic Flood Risk Assessment.

14.32 In order to address Parts 2 and 3, the flood risk assessment should also:

- a. be proportionate with the degree of flood risk that the proposed development is exposed to and may exacerbate
- b. consider the cumulative impact of existing and future development, and
- c. demonstrate where adjacent to flood defences that development will safeguard and maintain the existing flood defences over its lifetime.

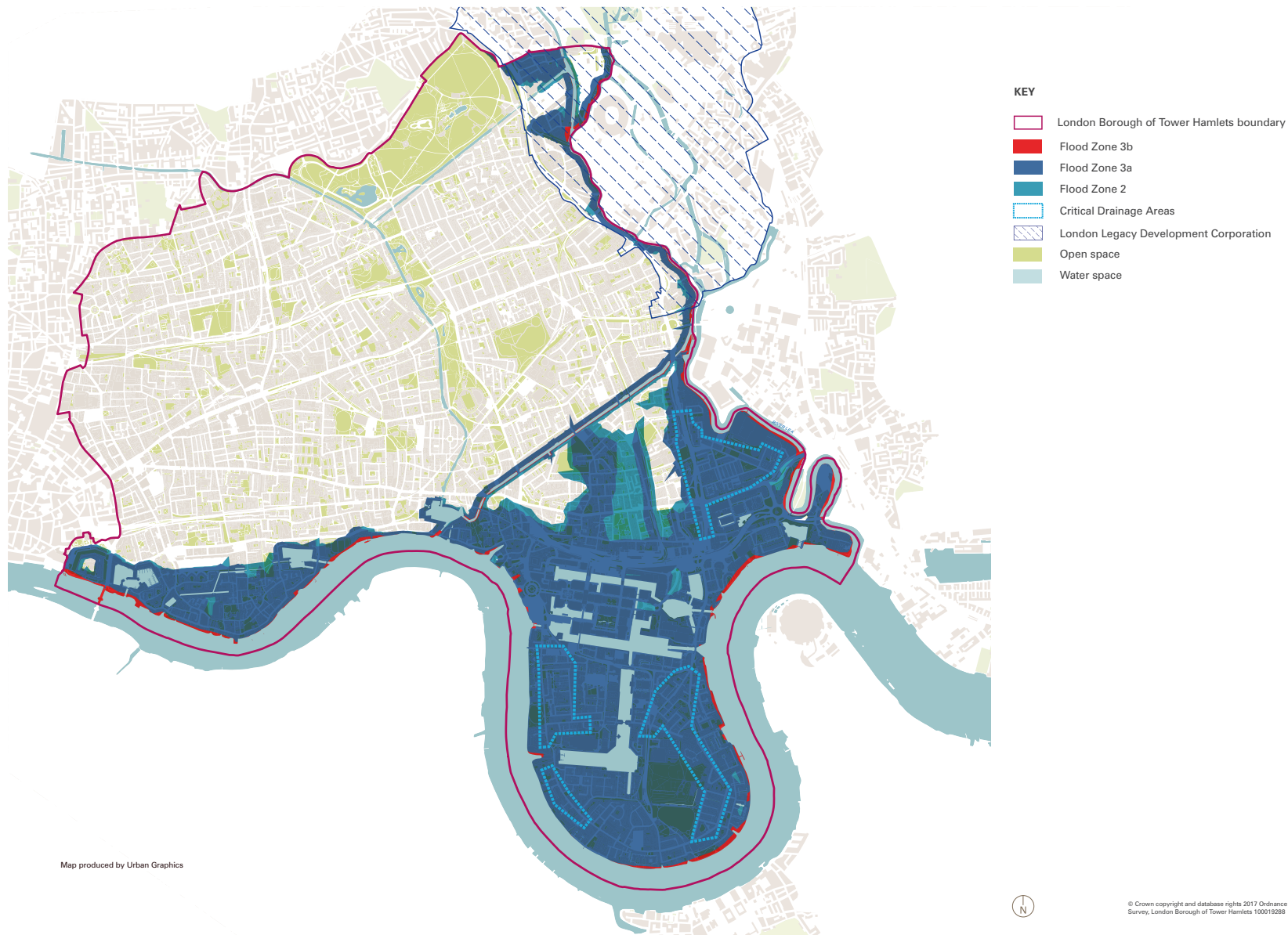
14.33 Developments within site allocations (see Section 4) which seek to deliver their allocated use do not have to undertake a sequential test, even if the site is in flood zone 2 or 3, as required under Part 3(a)⁶⁰.

14.34 Flood resistance refers to constructing a building in such a way as to prevent floodwater entering the building and damaging its fabric. Flood resilience refers to constructing a building in such a way that, although flood water may enter the building, its impact is minimised (i.e. no permanent damage is caused, structural integrity is maintained and drying and cleaning are facilitated).

14.35 Part 5 should also be considered alongside Policy D.OWS4. The requirement to include an adequate buffer zone (see Part 6) between waterways and developments applies to main rivers only (as identified in the Tower Hamlets Strategic Flood Risk Assessment). It is to enable sustainable and cost effective flood risk management, including upgrading of river walls and embankments.

⁶⁰ The sequential test has already been undertaken in the Tower Hamlets Site Allocation Sequential and Exceptions Tests (2017).

Figure 15: Flood zones in Tower Hamlets



14.36 Where the preferred level of setback is unachievable, current and future flood risk must be alleviated to the satisfaction of the Environment Agency and through consideration of the specific recommendations of the Thames Estuary 2100 Plan. This can include:

- a. Raising existing flood defences to the required levels in preparation for future climate change impacts or otherwise demonstrating how tidal flood defences can be raised in the future, through submission of plans and cross-sections of the proposed raising (in particular to demonstrate that the development does not preclude future raising of the defence in line with the Thames Estuary 2100 Plan)
- b. Demonstrating improved access to existing flood defences and safeguarding land for future flood defence raising and landscape, amenity and habitat improvements
- c. Maintaining, enhancing or replacing flood defences to provide adequate protection for the lifetime of the development
- d. Where opportunities exist, re-aligning or setting back flood defence walls and improving the river frontage to provide amenity space, habitat, access and environmental enhancements
- e. Requiring the delivery of flood risk management infrastructure and/or improvement measures that mitigate directly related impacts from the development, where these have been identified in the Tower Hamlets Infrastructure Delivery Plan.

14.37 These setback requirements can also contribute towards opportunities for public access and recreation, as outlined in Policy S.OWS1.

Policy links

- Policy S.DH1: Delivering high quality design
- Policy S.DH3: Heritage and the historic environment
- Policy D.H5: Gypsies and travellers accommodation
- Policy S.OWS2: Enhancing a network of water spaces
- Policy D.OWS4: Water spaces

Evidence links

- Tower Hamlets Strategic Flood Risk Assessment (2017)
- Tower Hamlets Local Biodiversity Action Plan (2015)
- Tower Hamlets Infrastructure Delivery Plan
- Thames Estuary 2100 (Environment Agency, 2011)



Policy D.ES5**Sustainable drainage**

1. Development is required to reduce the risk of surface water flooding, through demonstrating how it reduces the amount of water run-off and discharge from the site through the use of appropriate water reuse and sustainable drainage systems techniques.
2. Major development is required to submit a drainage strategy which should demonstrate that surface water will be controlled as near to its source as possible in line with the sustainable drainage systems hierarchy.
3. Development is required to achieve the following run-off rates:
 - a. New development in critical drainage areas is required to achieve a greenfield run-off rate and volume leaving the site
 - b. All other development should seek to achieve greenfield run-off rate and volume leaving the site. Where this is not possible, the minimum expectation is to achieve at least 50% attenuation of the site's surface water run-off at peak times prior to re-development.

Explanation

14.38 A further source of flood risk is from surface water flooding. This arises following periods of intense rainfall when the volume and intensity of a rainfall event exceeds the capacity of the drainage system, resulting in localised flooding. Current critical drainage areas in the borough are in the Isle of Dogs, with other smaller areas of high surface water flood risk found throughout the borough. These are shown on the Policies Map and Figure 15.

14.39 In order to reduce the amount of water being discharged from sites, this policy requires development to reduce the run-off from hard surfacing. When assessing the requirements of this policy consideration will be given to the size, scale and nature of the development and whether relative provision has been made. Even minor development (e.g. rear extensions) have the ability to provide sustainable drainage measures.

14.40 Applicants are strongly encouraged to consider the requirements for sustainable urban drainage systems at the earliest opportunity, as this will enable their more effective integration and provision. Sustainable urban drainage systems should also be considered alongside the 'living building' requirements outlined in Policy D.ES3, and green grid requirements outlined in Policy S.OSW1, as sustainable urban drainage systems can also have biodiversity and urban greening benefits.

14.41 Applicants should demonstrate that they have considered different types of sustainable urban drainage systems, their ability to remove pollutants, their capacity and future maintenance.

14.42 In order to satisfy the requirements within Parts 1 and 2, all major developments will be required to submit a drainage strategy alongside the original planning application. All other relevant developments will also be strongly encouraged to do so.

14.43 Surface water reduction and the required run-off rates should be achieved by following the sustainable urban drainage systems hierarchy, which is outlined in more detail in the London Plan.

14.44 Infiltration sustainable urban drainage systems techniques should only dispose of clean roof water into clean, uncontaminated ground. They should not be used for foul discharges or trade effluent, and may not be suitable within source protection zone 1⁶¹.

Policy links

- Policy S.DH1: Delivering high quality design
- Policy S.OWS2: Enhancing the network of water spaces
- Policy D.OWS4: Water spaces

Evidence links

- Sustainable Design and Construction Supplementary Planning Guidance (GLA, 2014)
- Tower Hamlets Strategic Flood Risk Assessment (2017)
- District Heating Manual for London (GLA, 2014)

Policy D.ES6

Sustainable water and wastewater management

1. Development is required to reduce water consumption: new residential developments must achieve a maximum water use of 105 litres per person per day and refurbishments and other non-domestic development should meet BREEAM water efficiency credits.
2. New development is required to minimise the pressure on the combined sewer network.
3. Major development is required to demonstrate that the local water supply and public sewerage networks have adequate capacity both on and off-site to serve the development, taking into consideration the cumulative impact of current and proposed development.

⁶¹ The Environment Agency has defined source protection zones: these are available to view from their website.

Explanation

14.45 London is an area of serious water stress⁶². Developments should therefore seek to reduce the pressure on the fresh and waste water systems through increasing water efficiency. In recognition of this, Part 1 requires all new residential developments to meet the national higher standard of 105 litres per person per day. BREEAM (Building Research Establishment Environmental Assessment Method) applies to non-residential developments, residential development arising from conversions and changes of use. This method provides a holistic assessment of the environmental sustainability of a development.

14.46 Measures to achieve Parts 1 and 2 could include the installation of water efficient fittings and appliances (which can help reduce energy consumption as well as water consumption) and by capturing and re-using rain water and grey water on site. Major developments and high or intense water use developments, such as hotels, hostels and student housing, should include a grey water and rainwater harvesting system. Where such a system is not feasible or practical, development must demonstrate to our satisfaction that this is the case. Developments are expected to submit a water efficiency calculator to demonstrate how they have met this requirement.

14.47 In relation to Part 3, major development (as defined in the glossary in Appendix 1) is required to demonstrate that there is adequate capacity both on and off site to serve the development. Developers should contact Thames Water as early as possible (preferably in advance of the submission of a planning application) to discuss their development proposals and intended delivery programme to assist with identifying any potential water and wastewater network reinforcement requirements in order for Thames Water to undertake the necessary upgrades. Where there is a capacity constraint phasing conditions may be applied to any approval to ensure that any necessary infrastructure upgrades are delivered ahead of the occupation of the relevant phase of development.

⁶² Water Stressed Area – Final Classification (Environment Agency, 2013)

Policy links

- Policy S.DH1: Delivering high quality design
- Policy S.OWS2: Enhancing the network of water spaces
- Policy D.OWS4: Water spaces

Evidence links

- Water Stressed Area – Final Classification (Environment Agency, 2013)

Policy D.ES7

A zero carbon borough

1. Development is required to meet the carbon dioxide emission reduction standards as set out below.

Residential development	
Year	Improvement on the 2013 building regulations
2016-2031	Zero carbon (to be achieved through a minimum 45% reduction in regulated carbon dioxide emissions on-site and the remaining regulated carbon dioxide emissions to 100% - to be off-set through a cash in lieu contribution)

Non-residential development	
Year	Improvement on the 2013 building regulations
2016-2019	45% regulated carbon dioxide emissions reduction
2019-2031	Zero carbon (to be achieved through a minimum 45% reduction in regulated carbon dioxide emissions and the remaining regulated carbon dioxide emissions to 100% - to be off-set through a cash in lieu contribution)

2. Development is required to maximise energy efficiency based on the following standards:
 - a. All new non-residential development over 500 square metres floorspace (gross) are expected to meet or exceed BREEAM 'excellent' rating

- b. All major non-residential refurbishment of existing buildings and conversions over 500 square metres floorspace (gross) must meet at least BREEAM non-domestic refurbishment 'excellent' rating
 - c. As a minimum, all self-contained residential proposals will be strongly encouraged to meet the Home Quality Mark.
3. Major residential and major non-residential development will be required to submit an energy assessment. Minor non-residential development will be strongly encouraged to prepare an assessment.
4. The energy assessment should demonstrate how the development has been designed in accordance with the energy hierarchy and how it will:
 - a. maximise energy efficiency as per the requirements set out in Part 2
 - b. outline the feasibility of low nitrogen dioxide decentralised energy, and
 - c. seek to provide up to 20% reduction of carbon dioxide emissions through on-site renewable energy generation.
5. The sustainable retrofitting of existing development with provisions for the reduction of carbon emissions will be supported.

Explanation

14.48 In order to contribute towards the London Plan target of a 60% reduction of carbon emissions (below the 1990 level) by 2025, Tower Hamlets needs to reduce carbon dioxide emissions per person significantly more than most other London boroughs. Currently, Tower Hamlets is the third worst performing borough within London⁶³. Since 2010, Tower Hamlets has only achieved a 22% reduction against this target⁶⁴. This policy maintains our long term trajectory which has required progressive reductions in carbon emissions from developments. This follows the London Plan's approach and is endorsed in the Housing Strategic Planning Guidance (GLA, 2016)⁶⁵.

14.49 Parts 1, 2, 3 and 4 of the policy seek to ensure that all new developments (including non-residential development) in Tower Hamlets contribute towards reducing carbon emissions. The policy also recognises that on-site carbon reductions have a greater impact on reducing carbon emissions than contributions in lieu. Funds raised through carbon offsetting (e.g. retrofitting) are spent on priorities outlined in the Tower Hamlets Carbon Offset Study (2016), as supported in part 4. Further information on carbon offsetting is available in the Planning Obligations Supplementary Planning Document.

14.50 In relation to Part 1, the improvements in carbon dioxide emission reductions within new build developments are based on building regulations requirements. Should the building regulations be updated during the lifetime of this plan, we will provide an update on the onsite reduction standards required. The requirement to reach zero carbon will remain. For refurbishment schemes, the baseline should be determined by modelling using building regulation compliance software to determine a building emission rate/dwelling emission rate of the regulated carbon dioxide emissions from the existing building before refurbishment⁶⁶.

14.51 Energy assessments should be informed by preliminary standard assessment procedures for residential developments or the national calculation method for non-residential development. Energy assessments should detail the measures included in the development and the carbon dioxide emission savings achieved at the time of implementing the relevant planning permission. To ensure we achieve our sustainability objectives, energy assessments for non-major development will also be sought.

14.52 In relation to Part 2, developments should consider how the design, layout, orientation, insulation materials and other sustainable construction techniques can contribute towards maximising energy efficiency.

14.53 In addition, developments should implement at least the minimum standards set out in BREEAM (Building Research Establishment Environmental Assessment Method) which applies to non-residential developments, non-self-contained housing and residential development arising from conversions and changes of use. This method provides a holistic assessment of the environmental sustainability of a development. The Home Quality Mark is one way of demonstrating the standard of a new residential dwelling, which includes measures for low carbon dioxide, sustainable materials, good air quality and natural daylight. We strongly encourage schemes to use the Home Quality Mark. Developments which are unable to meet these standards must provide evidence demonstrating the constraints and provide an alternative assessment against the requirements in the GLA's Sustainable Design and Construction Supplementary Planning Guidance. If BREEAM/Home Quality Mark/Sustainable Design and Construction Supplementary Planning Guidance is replaced or amended during the lifetime of the plan, the equivalent replacement requirements will be applied, subject to discussion with our sustainability service.

⁶³ UK Local Authority and Regional Carbon Dioxide Emissions 2005 – 2014 (National Statistics, 2016)

⁶⁴ Tower Hamlets Carbon Policy Evidence Base (2016)

⁶⁵ The importance and viability of this approach has been detailed in the Tower Hamlets Carbon Policy Evidence Base (2016).

⁶⁶ The implementation dates for the requirements in Part 1 are from 1 October 2016 for residential developments and from 1 October 2019 for non-residential developments.

14.54 In relation to Part 4, new developments should be designed in a manner fully compatible with any existing or planned future decentralised energy network⁶⁷ in accordance with any relevant energy masterplan and the District Heating Manual for London (GLA, 2014) or equivalent replacement document (including appropriate design of building systems to minimise return temperatures). Developments must connect to the decentralised energy network if it is expected to be operational within five years of the development being completed.

14.55 For the chosen solution for on-site renewable energy, applicants should provide details on:

- a. Energy generated and the carbon dioxide saved
- b. Capacity and quantity of the proposed technology/ies, and
- c. Location of the technology/ies marked on site plans.

14.56 We will seek contributions from developers towards the costs of the decentralised energy network in line with the avoided costs of their own plant installation. Applicants will be expected to demonstrate the low air quality impacts of any decentralised energy network.

14.57 In order to address Part 5, the expected carbon reductions should be demonstrated within an energy assessment.

Policy links

- Policy D.SG5: Developer contributions
- Policy S.DH1: Delivering high quality design
- Policy D.DH8: Amenity
- Policy D.H3: Housing standards and quality
- Policy D.ES2: Air quality

Evidence links

- District Heating Manual for London (GLA, 2014)
- Housing Strategic Planning Guidance (GLA, 2016)
- Sustainable Design and Construction Supplementary Planning Guidance (GLA, 2014)

⁶⁷ Please note: a district heating system is a type of decentralised heating network.

Policy D.ES8

Contaminated land and storage of hazardous substances

1. Where development is proposed on contaminated land or potentially contaminated land, a desk study and site investigation in line with current guidance is required and remediation proposals agreed to deal with the contamination before planning permission is granted.
2. Development will not be supported which involves the storage or use of hazardous substances or which is located in close proximity to hazardous installations where it would cause a significant threat to health and the environment.
3. Certain contaminating developments, processes or land uses proposed within or in close proximity to sensitive locations, including source protection zones, may not be acceptable.

Explanation

14.58 Part 1 of this policy provides additional guidance on protecting health of the borough's residents and workers and the environment from contaminants and hazardous substances. This should be read in conjunction with the guidance set out in the London Plan (GLA, 2016).

14.59 Contaminated land is land that has been polluted with harmful substances to the point where it now poses an unacceptable risk to health and the environment. Tower Hamlets has a history of industrial land uses and we want to ensure that the impacts of these past and current land uses do not affect the health of people and the environment. We keep and update a public register of contaminated land (which is available from our website) and any site included in the register or any site which is potentially contaminated will be required to carry out a site investigation and agree a scheme of mitigation with us to ensure that contaminated land issues are considered at the planning application stage.

14.60 A verification report will be required through condition in order to provide confirmation that the remediation work has been undertaken properly in line with best practice.

14.61 Part 2 of the policy relates to the management of hazardous substances which are outlined in the Planning (Hazardous Substances) Regulations (2015). There are a small number of listed hazardous installations in or near to the borough. Hazardous substances are also controlled by the need for a separate hazardous substances consent. As such, it will be necessary to demonstrate that any developments which involve hazardous substances would not cause a significant hazard to the health and well-being of local residents or to the local environment.

14.62 We will apply the Health and Safety Executive's land use planning methodology in the event of a proposal being located near to a hazardous installation. In combination with advice provided by the Health

and Safety Executive, consideration will also be given to site-specific circumstances and any proposed mitigation measures. If the Health and Safety Executive advise against development, planning permission will only be granted in circumstances where it can be demonstrated that the benefits arising from the proposed development would significantly outweigh the potential risks to health and the local environment.

14.63 Source protection zones are spatial areas around public drinking water abstraction points. Locations of source protection zones are available on the Environment Agency's website. Applicants are advised to speak to our environmental health service and the Environment Agency, where relevant.

Policy links

- Policy D.SG4: Planning and construction of new development

Evidence links

- Model Procedures for the Management of Land Contamination (CLR11) (Department for the Environment, Food and Rural Affairs and Environment Agency, 2004).
- Guidance for the Safe Development of Housing on Land Affected by Contamination (National House Building Council and Environment Agency, 2008).
- Sustainability of Soil and Groundwater Remediation (Homes and Community Agency, 2010).
- Development Industry Code of Practice V2 " The Definition of Waste" (CL:AIRE, 2011)

Policy D.ES9

Noise and vibration

1. Development is required to:
 - a. use the most appropriate, layout, orientation, design and use of buildings to minimise noise and vibration impacts
 - b. identify/outline mitigating measures to manage noise and vibration from new development, including during the construction phase
 - c. separate noise-sensitive development from existing operational noise, and
 - d. provide a noise assessment where noise-generating development or noise-sensitive development is proposed.
2. Where new noise-sensitive land uses are proposed in proximity to existing noise-generating uses, development is required to robustly demonstrate how conflict with existing uses will be avoided, through mitigation measures.
3. Development is required to demonstrate that the level of noise emitted from any new heating or ventilation plant will be below the background level by at least 10dBA.

Explanation

14.64 This policy seeks to manage noise and vibration from new development and manage existing sources of noise on sensitive development.

14.65 Noise and vibration can have a major effect on local amenity and well-being: the World Health Organisation, for example, states that excessive noise can seriously harm human health, disturb sleep and have cardiovascular and behavioral effects.

14.66 The increasingly high-density and mixed-use nature of development in Tower Hamlets means it is essential that building design and use minimises noise pollution and disturbance. Part 1 therefore sets out measures to minimise noise from new development and separate noise-sensitive uses such as housing, hospitals and schools from existing noise sources to protect the amenity and well-being of the area.

14.67 In particular, the noise assessment should include the following.

- a. Source and absolute level of the noise together with the time of day it occurs
- b. For non-continuous sources of noise, the number of noise events, and the frequency and pattern of occurrence of the noise
- c. Pitch and tone of the noise
- d. The cumulative impacts of more than one source should be taken into account along with the extent to which the source of noise is intermittent and of limited duration
- e. In cases where existing noise sensitive locations already experience high noise levels, a development that is expected to cause even a small increase in the overall noise level may result in a significant adverse effect.

14.68 Where the avoidance of noise conflicts is impractical, mitigation measures such as effective sound-proofing for noise attenuation (e.g. noise absorbing cladding) and restrictions on operating hours will be implemented through appropriate planning conditions.

14.69 There have been a number of examples across London of long-standing entertainment venues closing or becoming at risk of closure due to a combination of factors, including noise complaints from new residents and venues being purchased for redevelopment (particularly for housing). This has implications for the long-term future of London's creative and cultural sector which has an impact not just on residents but also its tourism potential⁶⁸. Part 2 uses the agent of change principle to seek to reduce this phenomenon. This principle may also apply to other noise-generating uses, such as industrial uses. Applicants must submit detailed noise assessments and demonstrate that noise levels within the proposed development emitted from nearby uses would be at an acceptable level. Where we are not satisfied that the operations of nearby uses would not be compromised, applications will be refused.

14.70 Part 3 sets out that heating and ventilation plants should be designed so that they do not adversely affect nearby amenities, including open spaces which are valued for their quiet environment.

14.71 Appendix 6 provides further guidance on how this policy will be implemented.

Policy links

- Policy D.SG4: Planning and construction of new development
- Policy S.DH1: Delivering high quality design
- Policy D.DH8: Amenity
- Policy D.H3: Housing standards and quality
- Policy D.CF4: Public houses

⁶⁸ London's Grassroots Music Venues Rescue Plan (GLA, 2015)

Policy D.ES10**Overheating**

1. New development is required to ensure that buildings (both internally and externally) and the spaces around them are designed to avoid overheating and excessive heat generation, while minimising the need for internal air conditioning systems.

Explanation

14.72 Climate change is causing increased occurrence of overheating, which can cause significant discomfort to residents and building users. Relying on air-conditioning systems to cool buildings can be very energy intensive, ineffective and can also cause discomfort to building users. Large developments in particular have the potential to alter the local climate. For example, a light coloured building that reflects heat will stay cool on the inside and the outside, whereas a dark building will absorb heat during the day to raise internal temperatures and slowly release this heat as the temperature cools keeping the local air temperature warmer. Internal air-conditioning systems also produce heat which increases the outside temperature and adds to the heat island effect.

14.73 Major development schemes are expected to evidence compliance with this policy within their design and access statements. Details should include the measures used to avoid overheating (including overheating analysis against a mid-range climate scenario for the 2030s) and excessive heat generation. This should look at not only the physical form of the building but also the operation of the building.

14.74 This policy should be read alongside the London Plan (GLA, 2016), which sets out a cooling hierarchy that indicates the cooling methods to be used in the design process, starting with minimising internal heat generation and the amount of heat entering a building in the summer through energy efficient design, including orientation,

shading, fenestration, insulation and green roofs and walls. Subsequent methods include thermal mass and high ceilings, passive and mechanical ventilation and low-carbon active cooling systems.

Policy links

- Policy D.SG2: Planning and construction of new development
- Policy S.DH1: Delivering high quality design
- Policy D.DH8: Amenity
- Policy D.H3: Housing standards and quality
- Policy D.ES3: Urban greening and biodiversity

Evidence links

- Climate Change and Adaptation Strategy (GLA, 2011)

15. Managing our waste

Introduction

15.1 The management of waste is one of the most pressing issues facing Tower Hamlets. The borough will have significant growth in the coming decades and with this comes a greater need to reduce, recycle and recover more waste and divert it away from landfill.

15.2 Tower Hamlets is a unitary waste planning authority, waste collection authority and waste disposal authority. In our capacity as a waste planning authority, we have a statutory duty to prepare a waste local plan in line with legislation⁶⁹. This is being fulfilled through the inclusion of waste policies in the Local Plan⁷⁰.

15.3 The Local Plan must identify sufficient opportunities to meet the identified needs of an area for the management of waste, aiming to drive waste management up the waste hierarchy (see Figure 16). We have to plan for seven waste streams⁷¹, including household, business and construction waste. In particular, the London Plan requires boroughs to identify existing facilities and suitable land to provide enough capacity to manage the tonnages of household and business waste apportioned in the London Plan (GLA, 2016). This policy is to enable London to be net self-sufficient in managing these waste streams by 2026. Tower Hamlets has been apportioned the following tonnes of waste:

Table 4: Housing, commercial and industrial waste requirements

	2021	2026	2031	2036
Household and commercial/ industrial waste arisings (Tonnes per annum)	248,000	252,000	256,000	261,000
London Plan apportionment (Tonnes per annum)	252,000	302,000	307,000	313,000

Source: London Plan (GLA, 2016)

15.4 The apportionment figures are higher than the total amount of waste predicted to arise in the borough. The London Plan is currently being reviewed and the borough's apportionment targets may change as a result. Achieving these targets presents a particular challenge because parts of the borough is densely built-up and there are competing pressures from higher value land uses such as housing and employment.

15.5 There is not enough capacity within existing waste facilities in the borough to meet our waste needs. To meet the apportionment targets for household and business waste, Tower Hamlets will safeguard existing waste sites (Policy S.MW1.1) and identify land suitable for new waste facilities under Policy S.MW1. It has been calculated that between 3.65 and 5.27 hectares of land is required to meet the capacity gap up to 2036, and it is estimated that 5.28 hectares of land will come forward within the areas of search for new waste sites (see Policy S.MW1) through business turnover and vacancies⁷². The borough is not allocating individual sites for waste but identifying areas within which individual sites could come forward; this approach is supported by both national policy and the waste industry. The total amount of suitable industrial land in the borough is just under 22 hectares. We will continue to monitor the amount of land capable of providing new waste capacity over the course of the Local Plan period.

⁶⁹ Article 28 of the Waste Framework Directive (2008)

⁷⁰ A waste data study has been produced to support these policies (Tower Hamlets Waste Management Evidence Base Review, 2017).

⁷¹ Municipal/household waste; commercial/industrial waste; construction/demolition waste; low level; radioactive waste; agricultural waste; hazardous waste; and waste water waste.

⁷² Tower Hamlets Waste Management Evidence Base Review (2017)

15.6 The figures below demonstrate that Tower Hamlets can meet its apportionment targets through existing sites and identifying enough land suitable for new waste facilities. The ranges shown denote the differences in throughput per hectare for each type of facility/technology.

Table 5: Waste capacity forecasts and land requirements

	2021	2026	2031	2036
Existing apportionment capacity (tonnes)	51,874	51,874	51,874	51,874
Potential capacity from vacant safeguarded waste sites* (tonnes)	23,850 - 34,450	23,850 - 34,450	23,850 - 34,450	23,850 - 34,450
Capacity gap (tonnes)	165,676 - 176,276	215,676 - 226,276	220,676 - 231,276	226,676 - 237,276
Additional land required (hectares)	2.55-3.92	3.32-5.03	3.40-5.14	3.49-5.27
Additional land identified (hectares)	5.28	5.28	5.28	5.28

**Please note: it is assumed that the throughput of each site could range between 45,000 and 65,000 tonnes per hectare per annum.*

15.7 Areas listed in Policy S.MW1 below have been identified as suitable for new waste facilities primarily due to the industrial nature and access to the strategic transport network so that waste and vehicle movements can avoid local roads and protect the safety and amenity of residents and heritage assets. Areas of search are not solely designated for waste management purposes and are also suitable, in principle, for other uses that are considered appropriate for their respective policy designations.

15.8 There is also a capacity gap for construction, demolition and excavation waste in the borough. Around 80% of this waste is currently managed on site and 70% of the remainder goes to landfill. Through Policy S.MW1, Tower Hamlets is seeking to increase the proportion of construction, demolition and excavation waste which is reused and recycled to 95% by 2020, in line with the London Plan. Nevertheless, some construction, demolition and excavation waste will continue to be exported to landfill in the wider south east region throughout the plan period and we will liaise with recipient waste planning authorities on an on-going basis to monitor these waste movements.

15.9 Tower Hamlets is also required to plan for hazardous waste, waste water, agricultural waste and low-level radioactive waste. The evidence concludes that no additional facilities are required within the borough for these waste streams because they are only produced in very small quantities and/or they are managed at specialist facilities outside the borough.

15.10 Any proposals for new or extended waste facilities in Tower Hamlets will be assessed against criteria in the National Planning Policy for Waste, the London Plan and Local Plan policies. The London Legacy Development Corporation is the planning authority for part of the borough of Tower Hamlets but it does not have a separate apportionment. We are therefore planning for waste across all of its administrative area. We will continue to work closely with the London Legacy Development Corporation on delivering our strategic plan for waste.

15.11 Our duties as a waste collection authority and waste disposal authority include helping households to prevent waste as well as reuse items and recycle as much waste as possible. The London Plan has set a target for London as a whole to exceed 50% in recycling/composting levels by 2020 and 60% by 2031. It also sets a target of recycling and composting at least 70% of London's commercial and industrial waste by 2020, maintaining these levels to 2031. Whilst London boroughs have

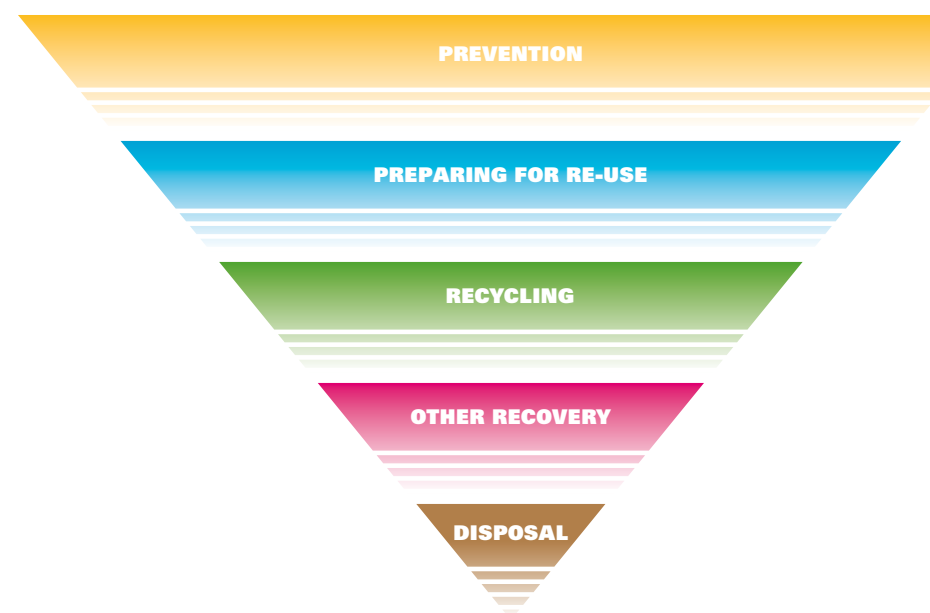
not been set individual targets for recycling these waste streams, Tower Hamlets is working towards meeting the London-wide target. The design of new developments are required to ensure integrated waste collection and bulking systems are included which contribute to the borough's ability to implement the waste hierarchy and increase recycling/composting rates (see Policy D.MW3).

15.12 The London Plan is seeking to move towards a future where goods are designed to be reused and recycled and very little waste will require disposal in the future (a 'circular economy'). Tower Hamlets will contribute to this approach in various ways (e.g. new developments will be required to recycle and reuse construction materials – see Policy S.MW1).

15.13 This section contains the following policies.

- Policy S.MW1: Managing our waste
- Policy D.MW2: New and enhanced waste facilities
- Policy D.MW3: Waste collection facilities in new development.

Figure 16: Waste hierarchy



Policy S.MW1

Managing our waste

1. The following existing waste sites within Tower Hamlets (as shown on the Policies Map) are safeguarded for waste use over the plan period.

Schedule 1: Existing waste sites in Tower Hamlets

Ref	Name/location	Other designations	Site area (ha)	Operational capacity/ contribution to apportionment (tonnes per year)
1.	Clifford House, Towcester Road	Strategic Industrial Location	0.46 (0.144 which is currently involved in waste management to be safeguarded)	418/0
2.	Northumberland Wharf Yabsley	Safeguarded Wharf	0.88	111,243/2,654
3.	Ailsa Street ⁷³	Ailsa Street: site allocation	0.53	0/23,850 - 34,450

2. The following are existing waste sites in the London Legacy Development Corporation area (LLDC) and will be subject to planning policies in the LLDC Local Plan.

Schedule 2: Existing waste sites in LLDC

Ref	Name/location	Other designations	Site area (ha)	Operational capacity/ contribution to apportionment (tonnes per year)
4.	McGrath House, Hepscott Road	Hepscott Road: site allocation	1.47	73,064/10,539
5.	455 Wick Lane	Strategic Industrial Location: Preferred Industrial Location	0.47 (0.027 currently used for waste purposes ancillary to civil engineering works)	0/36,958

3. Development which seek to maximise the efficiency and/or capacity of waste facilities in the borough will be supported.
4. Applications for non-waste uses on safeguarded sites will only be permitted where it is clearly demonstrated that compensatory capacity will be delivered on a suitable replacement site within the borough in the first instance or another part of London which provides equivalent to, or greater than the maximum annual throughput that the existing site can achieve.
5. Development that prevents or prejudices the safeguarding of these sites will only be supported where alternative waste capacity provision is made.
6. Areas in Schedules 3 and 4 (below) are considered suitable for new waste facilities (as shown on the Policies Map).

⁷³ Ailsa Street is a safeguarded waste site but is not currently operational. Its contribution towards apportionment targets is based on average throughputs per hectare, depending on the facility/technology.

Schedule 3: Areas of search for new waste sites in Tower Hamlets

Ref	Name/location	Other designations	Site area (ha)	Waste facility type	Operational capacity/contribution to apportionment (tonnes per year)
6.	The Highway	Local Industrial Location	2.71 (an estimated 0.65 to become available over the plan period)	Reuse/refurbishment/repair	29,250 – 42,250
7.	Empson Street	Strategic Industrial Location	10.07 (an estimated 2.42 to become available over the plan period)	Recycling, composting or recovery	108,900 - 157,300

Schedule 3: Areas of search for new waste sites in Tower Hamlets

Ref	Name/Location	Other designations	Site area (ha)	Waste facility type	Operational capacity5t/contribution to apportionment (tonnes per year)
8.	Fish Island	LLDC Local Plan: Strategic Industrial Location	9.21 (an estimated 2.21 to become available over the plan period)	Recycling, composting, recovery	99,450 - 143,650

7. Small-scale integrated waste facilities within new developments outside of areas of search in Schedules 3-4 may be acceptable where they contribute to managing apportioned waste and are of a scale and nature that does not compromise adjacent existing and proposed land uses.
8. New development will be expected to reuse and recycle construction, demolition and excavation waste on or close to the site where it arises.

Explanation

15.14 This policy seeks to develop a well-planned and integrated network of waste management facilities across the borough to address future capacity needs and contribute towards managing waste generated within the borough over the plan period.

15.15 Meeting this need will require both waste facilities on existing sites (operational and non-operational) and new facilities in areas of search and other suitable locations which comply with the criteria set out in Policy D.MW2. Waste facilities within the areas of search will be directed towards the most suitable locations within these areas to make sure that they are as far away as possible from sensitive receptors (such as residential uses, schools and health facilities) and/or mitigation measures are provided to ensure any significant detrimental environmental and amenity impacts can be adequately addressed. Where existing facilities can be enhanced to maximise their use, this will be encouraged.

15.16 The London Legacy Development Corporation (LLDC) is the planning authority for those sites and areas of search within its boundary (as shown in Schedules 2 and 4). The LLDC Local Plan (2015-2031) safeguards existing waste sites (listed in Schedule 2) and identifies areas of employment land suitable for waste uses (listed in Schedule 4). To secure the delivery of an effective waste plan for the borough, Tower Hamlets and the LLDC agree that the area of search listed in Schedule 4 is potentially suitable for waste management use. Acceptability of proposals for waste management uses in those locations will be determined with reference to policies within the LLDC Local Plan and any other relevant material considerations that apply to that proposal. Any applications for planning permission in these locations will need to be submitted to the LLDC as the local planning authority governing the area.

15.17 Some existing safeguarded waste sites (McGrath House and Ailsa Street) are within areas of regeneration and may be released for other uses, providing the requirements set out within Policy S.MW1 (see Part 4) are met⁷⁴.

15.18 Compensatory capacity will be sought which is equivalent or greater than the maximum annual throughput over the last five years, as per the Environment Agency's Waste Data Interrogator. Compensatory provision should be provided locally. The area of search for a replacement site or increased capacity within an existing facility should be within Tower Hamlets in the first instance, or failing that, elsewhere in London. Compensatory provision will usually be secured through conditions and/or a legal agreement at the planning permission stage.

15.19 Competition for land means the borough has to look beyond traditional industrial locations when seeking space for waste facilities. There is an opportunity for innovative technologies to be incorporated into new development to manage some of the waste generated over its lifetime. Part 7 of the policy therefore allows modern waste facilities to be integrated within suitable new development outside the areas of search. Small scale facilities which come forward will be assessed on a case-by-case basis against criteria in Policy D.MW2 and regional and national policies.

15.20 On-site materials processing systems for food are an important aspect to consider in this borough due to the particular challenges to collection services within blocks of flats. The principle of these systems is two-fold:

- a. To carry out preliminary processing of raw materials at source, thereby reducing the tonnage and volume of solid waste to be managed and the subsequent burden on collection services
- b. To make use of valuable end products such as unlocking the energy held within the waste material itself.

⁷⁴ The McGrath site at Hepscott Road in Fish Island is also a site allocation within the LLDC Local Plan for mixed-use development. There are plans to move the operations at the facility to another site within London and the Greater

15.21 There are a number of pieces of equipment, which may provide appropriate on-site waste processing including, but not limited to, micro anaerobic digesters.

15.22 The flexibility of these systems is such that it reduces the need to separate collections of food waste to be carried out within the development and thereby reducing vehicle movements. Where systems such as anaerobic digesters are proposed, it will be the responsibility of the managing agent to maintain the system/facility. An agreement will also need to be made with us with regards to how the waste is accounted for in terms of contributing to our apportionment targets prior to permission being granted.

15.23 Integrated waste collection systems are also required for new developments under Policy D.MW3. We will also consider the allocation of community infrastructure levy contributions towards provision of strategic waste management facilities.

15.24 For Part 8 of the policy, developers should submit a plan for on-site waste to demonstrate how much construction, demolition and excavation waste will be reused and recycled, taking account of the London Plan target of 95%. The sustainable transportation of waste (by water and rail) will be assessed as part of Policy D.MW2, see Part 1(f).

15.25 All sites and areas mentioned under Policy S.MW1 are shown on the relevant policies maps for Tower Hamlets and the London Legacy Development Corporation.

Policy links

- Policy S.DH1: Delivering high quality design
- Policy D.DH8: Amenity
- Policy S.ES1: Protecting and enhancing our environment
- Policy D.ES2: Air quality
- Policy D.ES4: Flood risk
- Policy D.ES5: Sustainable drainage
- Policy S.TR1: Sustainable travel
- Policy D.TR2: Impacts on the transport network

Evidence links

- Environment Agency Waste Interrogator



Policy D.MW2

New and enhanced waste facilities

1. Proposals to construct a new waste facility or replace or extend an existing waste facility will be supported where:
 - a. it contributes towards the aims of sustainable waste management in line with the waste hierarchy
 - b. it is located within a safeguarded waste site or area of search or integrated into a suitable new development
 - c. it incorporates a high quality design, is of a scale and nature which integrates into its surroundings and ensures compatibility with adjacent existing and proposed land uses (including within neighbouring boroughs)
 - d. it co-locates with other compatible uses (including existing waste facilities)
 - e. it proposes technology which is suitable for the location and nature of the site
 - f. it has good access to the strategic transport network, including, where possible, rail and canal/river links that offer the potential to transport waste
 - g. there is adequate road capacity to accommodate any vehicle movements generated and that vehicles can enter, wait, unload and leave the site without prejudicing the safety of pedestrians and other vehicles
 - h. it provides effective on-site measures to ensure safety and security
 - i. it is enclosed, unless it can be demonstrated that environmental and amenity impacts, including the emission of air pollutants, noise, vibration, dust, glare, vermin, odours can be mitigated, both during and after operations, and
 - j. it incorporates measures to minimise carbon emissions and maximise the use of lower-carbon energy sources.

Explanation

15.26 This policy relates to new waste management facilities (including those replacing or expanding existing sites as well as capacity on sites) and seeks to direct them towards the most appropriate and sustainable locations which maximise the efficient use of the land and do not have any unacceptable visual, environmental and transport impacts.

15.27 New waste management facilities will be directed towards existing safeguarded sites and areas of search (as set out in Policy S.MW1). In other locations, such facilities will still be expected to meet the criteria set out in Policy D.MW2 as well as any other relevant policies within the plan.

15.28 Developments providing additional waste management capacity will be encouraged to co-locate alongside other waste facilities and other compatible uses without having any significant detrimental impacts on the amenity and function of the immediate and surrounding area to optimise the potential of sites and address the intensification of land uses, as per Part 1(d).

15.29 The types of waste technology that will be suitable will depend on the nature and scale of the proposed scheme and the characteristics of the site and its surroundings, as required under Part 1(e). Broad types of facility suitable for each area of search are set out in the schedule of areas in Policy S.MW1. These are likely to be small-scale facilities due to the constrained nature of the borough.

15.30 Part 1(f) seeks to ensure applicants demonstrate that opportunities to transport both construction and operational waste from the site via rail and water are explored (including shared facilities at existing railheads, wharves and depots) as a means to reduce congestion and vehicular movements on the road network. Information on sustainable transportation of waste should be submitted as part of the planning application, alongside details of re-use and recycling of waste arising during the construction phase in line with Policy S.MW1 (see Part 8).

15.31 Part 1(i) seeks to mitigate adverse air quality impacts associated with waste facilities. Waste management facilities should be enclosed and covered on all vertical sides with small access and egress points, fitted with fast-acting doors, and incorporate an air filtering system to reduce airborne particulate concentrations in and outside of the building in line with Environment Agency advice. This provides an effective way of controlling dust and particulate pollution within waste developments. In cases where enclosure is not possible, proposals must provide details of proposed measures demonstrating how the control measures can adequately mitigate these impacts. Operators will be expected to obtain the appropriate Environment Agency permits and meet the conditions of those permits.

15.32 In order to minimise the impact on climate change, waste management facilities should incorporate opportunities to be attached to the district heating network and/or incorporate opportunities for energy recovery and combined heat and power, see Part 1(j). In instances where this is not feasible, an energy statement must be submitted with the planning application demonstrating that it is not technically feasible or economically viable.

Policy links

- Policy D.SG5: Developer contributions
- Policy S.DH1: Delivering high quality design
- Policy D.DH8: Amenity
- Policy S.ES1: Protecting and enhancing our environment
- Policy D.ES2: Air quality
- Policy D.ES4: Flood risk
- Policy D.ES5: Sustainable drainage
- Policy S.TR1: Sustainable travel
- Policy D.TR2: Impacts on the transport network

Evidence links

- Environment Agency Waste Interrogator

Policy D.MW3**Waste collection facilities in new development**

1. All new development must include sufficient accessible space to separate and store dry recyclables, organics and residual waste for collection, both within individual units and for the building as a whole.
2. New major residential developments must incorporate high quality on-site waste collection systems that do not include traditional methods of storage and collection and are compatible with our waste collection methods outlined in Appendix 4. In instances where this is not practicable, supporting evidence must be submitted with the application to demonstrate this.

Explanation

15.33 This policy will help to ensure that waste is collected and managed in a sustainable manner in line with the principles of the waste management hierarchy as set out in Figure 16. It is also intended to increase the amount of waste which can be recycled and composted from all developments, and to improve waste collection systems in developments with communal waste facilities. Tower Hamlets is working towards meeting the London Plan target of recycling/composting 50% of household waste by 2020 and 60% by 2031. In 2015, only 27% of household waste was reused, recycled or composted in Tower Hamlets and this needs to increase.

15.34 This policy seeks to ensure that dry recyclables, organics and residual waste can be segregated, and for residential developments bulked, at source within new developments to:

- a. minimise transport movements from waste collection operations
- b. minimise the financial and operational burden on existing waste collection system
- c. maximise efficient use of collection resources
- d. encourage recycling behaviour by residents and reduce

- e. contamination of recyclables collected, and
- e. make a positive impact on the quality of the street scene.

15.35 Incorporating sufficient waste storage capacity within new developments should be done from the outset to avoid capacity shortfalls or inadequate services. Applicants will need to forecast how much organic, recyclable and residual waste will be generated when the development is occupied and demonstrate that sufficient space has been allocated to the storage and/or bulking of this waste in both individual units and for the development as a whole.

15.36 Tower Hamlets is seeking to move away from the traditional waste storage methods, such as standard wheeled bins, bagged collections and Euro bin containers, towards central bulking systems particularly for residential developments that require communal waste collection facilities. Using larger containers than standard bins and communal Euro bins, means more waste can be stored before needing collection and more waste can be collected in a single round. As a general rule, all of the systems using bulk containers allow waste to be stored in a smaller footprint than standard communal Euro bins. The location of storage containers should be chosen to maximise operational convenience and minimise environmental, amenity and transport impacts.

15.37 Under Part 2 of the policy, new major residential developments will be expected to incorporate on-site waste collection systems that do not incorporate the traditional storage and collection and are compatible with our waste collection services. Such systems could include compactors, underground storage containers, vacuum systems and automated waste collection systems. These systems require land to be set aside to store bulked waste materials, with the size and footprint of the space varying from system to system. Preference should be given to systems that can provide for a weekly collection service as a minimum and can collect organic wastes separately or facilitate onsite composting. Applicants should discuss options with our team that manages waste collection prior to the submission of an application.

15.38 In instances where it is not practicable or we consider it inappropriate for non-traditional waste collection systems to be incorporated within the development, the developer or managing agent will have to provide adequate space as well as collection containers that are in accordance with our waste management requirements set out in Appendix 4.

15.39 Planning applications should clearly set out the access route of the occupiers and the servicing vehicles, including a clear swept path in accordance with our waste collection specifications, and access arrangements to container stores. The waste storage area must be designed to ensure that refuse vehicles are able to enter and exit the highway in a forward gear and perform all collection activities within the curtilage of the site. Applicants are advised to contact our team that manages the collection of waste prior to submitting a planning application and adopt a collaborative approach to ensure these arrangements are in line with our waste collection services. Further advice is available in Appendix 4.

15.40 In the case of large-scale development (i.e. 100 or more residential units or 20 or more Euro container bins), applications should be accompanied by a recycling and waste management strategy which considers the above matters and demonstrates the ability to meet local authority waste management targets, and demonstrate compliance with the standards set out in Appendix 4.

Policy links

- Policy S.DH1: Delivering high quality design
- Policy D.DH8: Amenity
- Policy S.ES1: Protecting and enhancing our environment
- Policy D.ES2: Air quality
- Policy D.ES4: Flood risk
- Policy D.ES5: Sustainable drainage
- Policy S.TR1: Sustainable travel
- Policy R.TR2: Impacts on the transport network

Evidence links

- Waste Management Planning Advice for New Flatted Properties (London Waste and Recycling Board, 2014)



16. Improving connectivity and travel choice

Introduction

16.1 Tower Hamlets is a well-connected part of London; it enjoys an extensive public transport network and will benefit from a step change in transport capacity, including improvements to the Docklands Light Railway and London Underground as well as the opening of the Elizabeth line stations at Whitechapel and Canary Wharf (as set out in Figure 17). However, planned growth in new homes and jobs, coupled with London's overall growth, will significantly increase resident, commuter and freight movement within and through the borough. This will create further pressure on the transport network which is already at or close to saturation in some parts of the borough at peak times, as well as adversely affect air quality and the natural environment.

16.2 As a result, congestion and overcrowding of the transport network are amongst the most significant challenges facing Tower Hamlets, which have the potential to significantly affect development density and economic activity in the borough. Growth is dependent on the successful implementation of a first-class sustainable transport network to move people, goods and services. Planned improvements will go some way to alleviate pressure on the existing network, but recent studies have identified that further investment in infrastructure will be required to support the level of growth which is expected to come forward during the plan period⁷⁵. In addition, the health implications of physical inactivity is also an important local issue, which the promotion of active travel can help to address in accordance with the Mayor of London's 'healthy streets' initiative.

16.3 These factors underscore the importance of delivering a more connected and efficient transport network across Tower Hamlets that supports the population, reduces the need to travel and incentivises a modal shift to cycling, walking and public transport. Development must manage its impact on the entire network to ensure it contributes positively to the health and well-being of residents, employees and visitors across the borough.

16.4 This section contains the following policies:

- Policy S.TR1: Sustainable travel
- Policy D.TR2: Impacts on the transport network
- Policy D.TR3: Parking and permit-free
- Policy D.TR4: Sustainable delivery and servicing.



⁷⁵ Tower Hamlets Strategic Transport Assessment (2016)

Policy S.TRI**Sustainable travel**

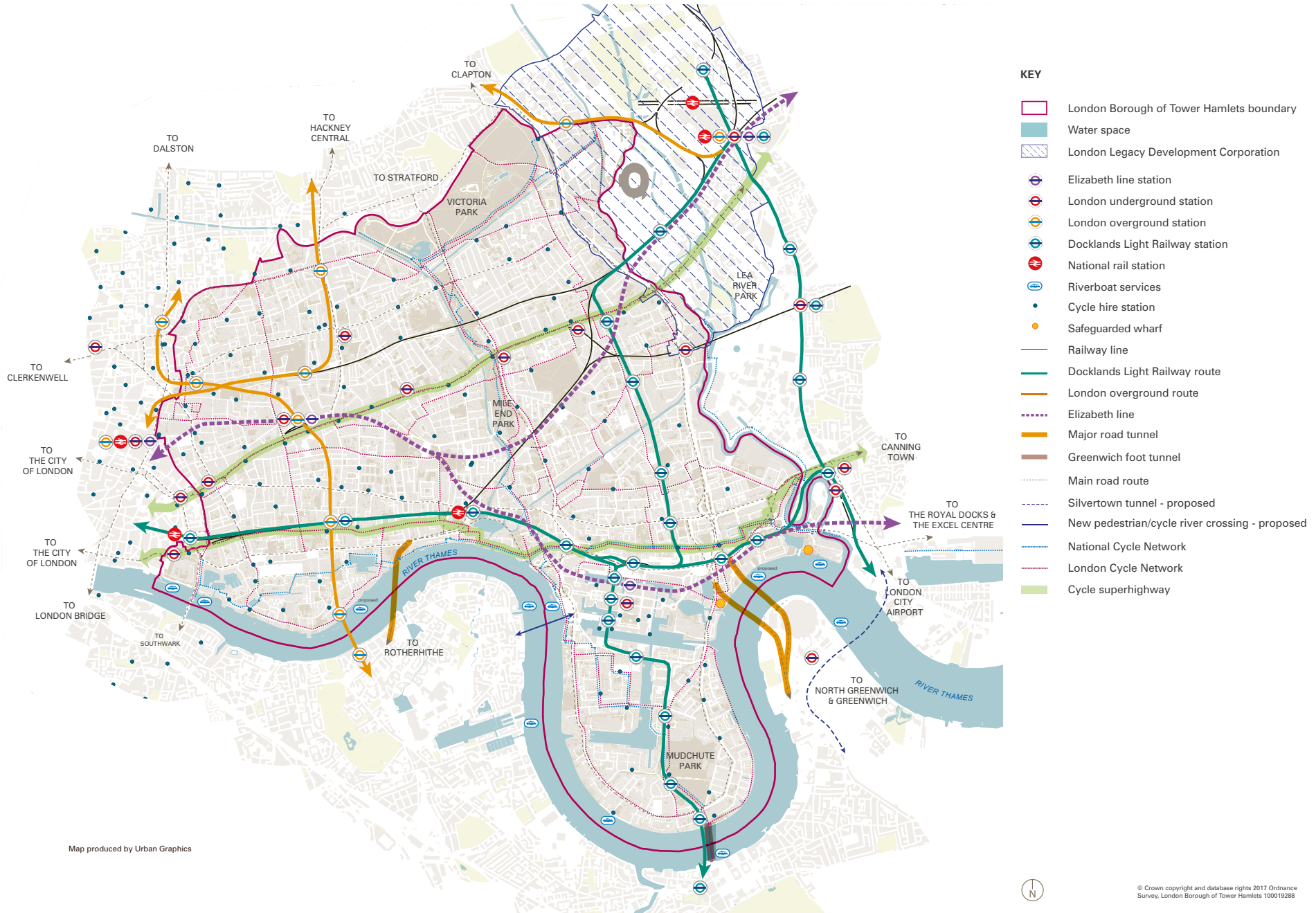
1. Travel choice (including connectivity and affordability) and sustainable travel will be improved within the borough and to other parts of London, and beyond. Development will therefore be expected to:
 - a. prioritise the needs of pedestrians and cyclists as well as access to public transport, including river transport, before vehicular modes of transport
 - b. be integrated effectively alongside public transport, walking and cycling routes to maximise sustainable travel across the borough
 - c. be focused within areas with high levels of public transport accessibility and the town centre hierarchy, in respect of developments generating significant levels of trips, and
 - d. not adversely impact the capacity, quality, accessibility and safety of the transport network in the borough.
2. Where appropriate, development must support and safeguard land for transport and freight infrastructure enhancements to meet the demands arising from future growth, including improvement to capacity, connectivity, quality and interchanges across the network.

Explanation

16.5 In order to address the significant issues surrounding highway congestion, poor air quality and capacity constraints across the public transport network, a number of strategic and local transport improvements are underway or planned. However, further infrastructure investment will be required to accommodate the predicted population and employment growth, and in some locations, development could be significantly hindered without appropriate enhancements to the transport network.



Figure 17: Strategic transport connectivity



16.6 Tower Hamlets has low car ownership ratio with only 37% of households owning one or more cars, compared to 43% across London⁷⁶. This correlates with travel-to-work data which indicates that residents favour sustainable modes, such as public transport (60%), walking or cycling (26%). The level of journeys to work by car, at 12%, is lower than the London average, at 30%⁷⁷. This reinforces the need for developers to prioritise sustainable travel in the design and delivery of their schemes, particularly walking, cycling and public transport, helping to relieve congestion, reduce air pollution and improve journey times.

16.7 This policy seeks to manage growth to ensure it does not increase traffic congestion and crowding on public transport due to trip generation from developments as well as through-trips. The location of development close to services and amenities; integration with the transport network; prioritising the most sustainable forms of travel; and facilitating and enabling behaviour change away from car use are crucial factors in accommodating the predicted population and economic changes over the plan period.

16.8 Part 1(a) promotes walking, cycling and public transport as a primary means of travelling. In order to ensure compliance with green grid policies (S.OWS1 and D.OWS3), development should incorporate an improved pedestrian and cycling environment that is safe, accessible and permeable both within the borough and into neighbouring boroughs. It also identifies the necessity to link development to the borough's strategic walk network and cycling network in accordance with the borough's adopted cycle strategy, particularly strategic cycle routes, as well as the need to improve access to river transport (see Figure 17), where possible.

⁷⁶ Travel in London, Report 9 (Transport for London, 2016) - 2015/16 figure

⁷⁷ Travel in London, Report 9 (Transport for London, 2016) - 2015/16 figure

16.9 Part 1(b) ensures that development supports the use of and connects to public transport, cycling and walking facilities that surround the site. The design, management and operation of a development should encourage its users to travel in a sustainable manner; it should also be permeable and provide links to existing or planned infrastructure as well as relevant on-site infrastructure, such as bicycle storage, workplace showers and changing facilities.

16.10 Part 1(c) identifies the need for development to be located in an area appropriate to the trips it generates. The scale of any development must reflect the level of public transport available. Transport for London (TfL) has mapped the Public Transport Accessibility Levels (PTAL) across the whole of London; this is a measure of accessibility to the public transport network. In Tower Hamlets, ratings range from highly accessible areas – such as Canary Wharf, Whitechapel, Bethnal Green, Bow and Mile End - to areas with lower levels of public transport accessibility, including parts of the Lower Lea Valley. The scale of development should also have regard to the town centre hierarchy set out in Policy S.TC1, whereby development densities should consider the availability of nearby shops, services and amenities, thereby reducing the need to travel.

16.11 Part 1(d) seeks to ensure that development does not cause an unduly detrimental impact to the safety and efficient operations of existing transport networks, once appropriate mitigation measures have been taken into account. In particular, it is important that development does not:

- a. compromise the safety of the highway user and/or the ability of public transport providers to safely operate services which includes consideration of adequate driver welfare facilities and bus stands
- b. increase demand on the borough's transport networks beyond operational limits and/or capacity

- c. bring about a reduction in the quality of stations, stops or services, or
- d. restrict access to the same services.

16.12 Development is expected to be well-integrated with the public transport network and contribute to its efficient running and service improvements. Developers should ensure they engage early with relevant bodies (e.g. Transport for London) in order to establish the likely impacts and/or appropriate mitigation measures to be funded through developer contributions in accordance with Policy D.SG5.

16.13 Part 2 identifies the role of development in supporting improvements and enhancements to the borough's transport and freight infrastructure (including safeguarded wharves and consolidation centres). Applicants should work with us to support planned and future transport initiatives that underpin new growth; and any development that adversely affects or planned infrastructure improvements will not be supported.

16.14 We will work in partnership with neighbouring boroughs, Transport for London and other agencies (e.g. Highways England) to understand and address the future transport needs of the borough. The list below sets out a number of planned interventions that are required to support the borough's transport network ⁷⁸.

- Delivery of the Elizabeth line
- Enhancements to bus services and the Dockland Light Railway
- Improved river services and potential new piers at Wapping, Canary Wharf East and Trinity Buoy Wharf
- New cycle infrastructure, including the Mayor of London's cycle hire network
- New pedestrian and cycle connections, including a new pedestrian bridge and cycle crossing between Canary Wharf and Rotherhithe and other river crossings.

⁷⁸ These are identified in the Tower Hamlets Strategic Transport Assessment (2016).

16.15 The list is not exhaustive and new interventions will arise from other transport strategies and assessments alongside regional policies, such as the Mayor of London's Vision for Cycling in London, the Mayor of London's Transport Strategy and Transport for London's own infrastructure delivery plans. Development may also be required to contribute financially towards new transport infrastructure and improvements in accordance with Policy D.SG1.

Policy links

- Policy S.SG1: Areas of growth and opportunity within Tower Hamlets
- Policy S.SG2: Delivering sustainable growth in Tower Hamlets
- Policy D.SG4: Planning and construction of new development
- Policy D.SG5: Developer contributions
- Policy D.DH2: Attractive streets, spaces and public realm
- Policy S.TC1: Supporting the network and hierarchy of centres
- Policy D.OWS3: Open space and green grid network
- Policy D.ES2: Air quality
- Policy D.ES7: A zero carbon borough

Evidence links

- Tower Hamlets Cycling Strategy (2016)
- Mayor of London Transport Strategy (GLA, 2017)
- Tower Hamlets Water Space Study (2017)

Policy D.TR2

Impacts on the transport network

1. Major development and any development that is likely to have a significant impact on the transport network will be required to submit a transport assessment or transport statement as part of the planning application.
2. Development that will have an adverse impact to traffic congestion on the highway network and/or the operation of public transport (including crowding levels) will be required to contribute and deliver appropriate transport infrastructure and/or effective mitigation measures.

Explanation

16.16 This policy seeks to address the impact that development has (both individually and cumulatively) on the transport network, particularly issues of congestion, air quality, severance, safety and/or accessibility for cyclists and pedestrians. In doing so, it sets out how development should accurately and robustly assess the severity of impact it has on existing transport infrastructure and services, including the approach taken to mitigate any adverse impact on capacity, connectivity and congestion.

16.17 Current congestion levels in many parts of the borough are severe and the interconnectedness of the highway network - whether local or strategic – plays a significant role in contributing to this congestion. A development's impact on congestion is not just a matter of building size but depends on its location, use, design, density and operational factors (for instance, a relatively small development could be judged to have a severe impact if it generates a high number of vehicle trips and/or is in a sensitive location). Given the significant capacity constraints on the public transport and highway network, any development that generates a net increase in vehicle trips has the potential to have a severe impact on the safety and operation of this network within Tower Hamlets.

16.18 Part 1 seeks to ensure applications provide an independent, objective and accurate transport assessment or transport statement appropriate to the scale of development. A transport assessment or statement must be prepared in accordance with the most up-to-date guidance from Transport for London. The level of detail required will be dependent on the type and scale of the development. Applicants/ developers should seek pre-application advice to determine whether a transport assessment or statement will be required. A transport assessment should be submitted with a draft construction management and logistics plan and a delivery and servicing plan.

16.19 A transport statement is a simpler document that identifies the impact and assesses its significance in conjunction with more modest mitigation measures; therefore, it is appropriate for smaller developments. A transport statement may require a construction management and logistics plan or a delivery and servicing plan depending on the type of land use and its location; this should also be established in conjunction with our transport and development management teams at the pre-application stage.

16.20 Transport assessments and statements will be required to provide detailed information on the range of transport users and modes, including the movement of people and goods, both before and after a proposed development has been constructed. A transport assessment or statement should identify and address transport impacts on all modes of transport and set out the measures to avoid, remedy or mitigate identified impacts of the development.

16.21 Applicants/developers should also submit a travel plan alongside the planning application, where appropriate. The scale of development and the level of impact determined by the transport assessment or statement will dictate the type and scope of the travel plan. Transport for London provides guidance that sets out the requirements for each type of travel plan. Such plans must be action-orientated and provide a long term strategy to meet sustainable transport objectives. They should contain a package of measures that will minimise the number of

car-borne trips (e.g. restricting car parking provision), encourage use of sustainable transport and reduce the need to travel to and from the development. Travel plans must set targets, objectives and provide detail on implementation, funding and monitoring.

16.22 Part 2 seeks to ensure that development does not exacerbate or overload transport networks through trips associated with its uses. Where appropriate, conditions and/or planning contributions will be sought through Section 106 monies to secure mitigation measures required to make a development acceptable in transport terms. This is in addition to community infrastructure levy contributions which fund transport infrastructure improvements on a borough-wide scale. All contributions towards new transport infrastructure improvements must be in accordance with Policy D.SG5 and the Planning Obligations Supplementary Planning Document (SPD).

16.23 Areas in the borough anticipated to accommodate higher levels of the population and economic growth such as the Isle of Dogs and City Fringe are where existing highway and/or public transport demand is already close to or exceeding supply during peak travel times. Other areas of the borough also experience local highway or public transport stress during these times. Development that increases demand without appropriate mitigation (including infrastructure contributions to service improvements and/or delivering effective modal shift) will not be supported.

Policy links

- Policy S.SG2: Delivering sustainable growth in Tower Hamlets
- Policy D.SG4: Planning and construction of new development
- Policy D.SG5: Developer contributions
- Policy D.ES2: Air quality
- Policy D.ES7: A zero carbon borough
- Policy D.MW2: New and enhanced waste facilities

Evidence links

- Travel Plan Guidance (Transport for London, 2013)



Policy D.TR3

Parking and permit-free

1. Development is required to comply with the parking standards for vehicles and bicycles set out in Appendix 3.
2. Residential development is required to be permit-free in terms of on-street car parking. All parking associated with a development will be required to be located off-street.
3. Development is required to prioritise sustainable approaches to any parking through ensuring:
 - a. Priority is given to space for cycle parking
 - b. The allocation of car-club spaces
 - c. There are sufficient electric-charging points
 - d. Any parking spaces are distributed across all tenure types with priority given to family homes and accessible properties, and
 - e. Where suitable, publicly-accessible shared cycle hire scheme docking station(s) are provided as part of the development (or through a financial contribution).



Explanation

16.24 This policy seeks to ensure that parking is controlled and managed both on-street and off-street to facilitate sustainable travel patterns and address congestion. Minimising car parking provision releases space to accommodate other more efficient uses, such as housing, employment, community facilities, play areas, amenity spaces and cycle parking.

16.25 Demand for on-street parking exceeds capacity, creating a significant amount of stress across the borough's street network. This demand has also increased significantly in recent years as a result of population growth. In addition, the issue of on-street parking outside of controlled hours (usually overnight and at weekends) often overcrowds streets; results in unacceptable safety and accessibility issues for vulnerable road users; and, in some cases, restricts traffic flows and increases journey times.

16.26 Due to excessive on-street parking and land use intensification, the borough does not have the capacity for development to come forward that does not manage its own parking within the curtilage of the site.

16.27 However, we recognise that some people, businesses and organisations rely on private vehicle use as their only transport option. If car parking is essential, it must be fully justified in the transport assessment (in line with the parking standards in Appendix 3) and provided entirely on-site.

16.28 Any development seeking to make alterations to on-street parking and/or loading must be fully justified and will only be permitted where there is proven on-street capacity. Any permitted changes must be fully funded by the developer.

16.29 Part 1 directs applicants and developers to the detailed parking standards for vehicles and bicycles in Appendix 3. A sufficient amount of cycle parking should be provided to accommodate current demand

and to encourage further use over time. Design of cycle parking has been extensively covered in the Transport for London's Cycle Design Standards and developers are required to take account of this when designing cycle facilities.

16.30 Parking may be required for those with accessibility or wheelchair needs; and accessible parking bay provision should form a proportion of the overall parking provision (as calculated using the Mayor of London's Housing Supplementary Planning Guidance). In applying the residential parking standards (see Appendix 3), applicants/developers should consider any future changes to public transport accessibility levels (PTAL) as a result of new infrastructure provision, particularly in areas of low public transport accessibility (PTAL 1 and 2). Furthermore, where development exceeds the PTAL density range set out in the London Plan, we will apply the parking standards in Appendix 3 based on the proposed density rather than the PTAL rating.

16.31 Part 2 ensures that all residential development will be permit-free and any parking required must be provided off-street.

16.32 Part 3 requires sustainable approaches to parking within new developments such as car clubs and pool car schemes; this space must be accommodated and designed before any other parking is considered. This will enable exemplary design and ensure the cycle parking provided is fit for purpose. Car clubs are cheaper alternatives to car ownership and will allow for occasional car use but discourage unnecessary car journeys.

16.33 Development should also provide parking bays and charging points for electric vehicles, based on the standards and design principles set out in the London Plan.

16.34 However, we recognise that residents, particularly those in affordable housing, do not always have the choice over where they live. As such, where development provides car parking, first priority should

be given to families (units of three or more bedrooms) and the disabled across all tenures in the development.

16.35 A parking management plan that directs the occupiers as to how the parking will be managed, allocated and enforced may be a requirement where development includes vehicle parking.

16.36 Around 80% of our residents live in flats, and much of this accommodation has extremely limited cycle parking, cycle storage or docking space. To increase access to cycling in the borough, we are working closely with the Mayor of London and Transport for London to extend the existing cycle hire scheme with new docking stations in appropriate locations. Where appropriate, development will be expected to safeguard land within the site where Transport for London has identified a need to accommodate publicly-accessible shared cycle-hire station(s).

16.37 This policy must be read in conjunction with Policy D.TR4 and Appendix 3 to ensure that along with on-site parking provision, development provides adequate delivery and servicing facilities within the site as well as encouraging shared servicing arrangements and timing of deliveries.

Policy links

- Policy S.SG2: Delivering sustainable growth in Tower Hamlets
- Policy D.SG5: Developer contributions
- Policy D.H3: Housing standards and quality
- Policy D.ES2: Air quality
- Policy D.ES7: A zero carbon borough

Evidence links

- Housing Supplementary Planning Guidance (GLA, 2016)
- London Cycling Design Standards (Transport for London, 2015)

Policy D.TR4**Sustainable delivery and servicing**

1. Development that generates a significant number of vehicle trips for goods or materials during its construction and/or operational phases is required to demonstrate how:
 - a. impact to the transport network and amenity will be avoided, remedied or mitigated through transport assessments, construction management and logistic plans and delivery and servicing plans
 - b. delivery of goods and servicing will be provided within the site to encourage shared arrangements and timing of deliveries, unless demonstrated it can take place on-street without affecting highway safety or traffic flow
 - c. movement by water and/or rail; and the use of low emission vehicles, electric vehicles, bicycles and freight consolidation facilities have been prioritised, and
 - d. deliveries to sites will be reduced through suitable accommodation and management.
2. Development adjacent to safeguarded wharves and rail depots is required to ensure it does not compromise their operation.
3. Development of new wharves or other facilities for freight transfer between road, rail or water will be supported where these minimise impacts on the environment and neighbouring amenities.

Explanation

16.38 Deliveries and servicing are essential to the economic growth of the borough. By 2025, the continued growth of London is expected to result in a 15% increase in demand for freight and servicing⁷⁹. These trips will add to traffic congestion and, if they are not managed and contained off the highway, will lead to blocking of both local and strategic roads whilst loading/unloading of goods takes place. This will significantly increase journey times, particularly for buses.

16.39 Freight vehicles are typically some of the most polluting vehicles on our roads. Furthermore, the projected growth in the borough will lead to increased construction traffic and associated vehicles which tend to bring more pollution, noise and dust.

16.40 This policy seeks to address the challenges the borough faces in ensuring the efficient, safe, timely and sustainable movement of goods and materials across the borough, whilst seeking to improve air quality and reduce impacts arising from the freight network such as accidents, spillages or wastes.

16.41 As the proportion of cyclists and pedestrians has increased, pedestrian and cycle safety has become an area of increasing concern in Tower Hamlets, particularly given the rise in fatalities on busy arterial roads. Across London, nearly two-thirds of cyclist deaths and around a quarter of pedestrian deaths involve a heavy goods vehicle⁸⁰. This policy seeks to reduce the impact of delivery, servicing and construction traffic on the environment and the health and well-being of residents in terms of noise disturbance and its contribution to road congestion and air pollution.

16.42 Part 1 ensures that development generating a significant number of vehicle trips for goods or materials will be assessed in relation to its likely impact on the transport network and with reference to the most up-

⁷⁹ Transport 2025: Transport vision for a growing world city (Transport for London, 2013)

⁸⁰ New measures to rid London of dangerous lorries (Transport for London, September 2016)

to-date Transport for London guidance relating to deliveries, servicing and construction logistics. An assessment may also be required where a development has the potential to have a significant impact on the transport network. The level of assessment required will be decided through the development management process. Development will need to plan and manage its freight movements through the construction and operational phases of the development. Construction management plans and/or delivery and servicing plans are required to show how the Construction Logistics and Community Safety (CLOCS) standard has been incorporated and that fleets serving the site have Fleet Operator Recognition Scheme (FORS) silver accreditation.

16.43 In addition, development will need to provide sufficient space for deliveries and servicing within the site curtilage and off the public highway (including refuse collection). If this is not practical then on-street provision may be considered so long as it:

- a. can be clearly demonstrated and adequately justified
- b. does not restrict traffic flows, or
- c. does not compromise the safety of other roads users.

16.44 Development must seek to prioritise sustainable methods in the movement of goods and services, particularly sites with significantly greater delivery and servicing frequencies and sizes. Construction can make significant environmental and cost savings through more sustainable methods of recycling existing materials; this can significantly reduce freight movements by vehicles such as tipper trucks which tend to be more polluting and more hazardous to cyclists compared to other vehicles.

16.45 Part 1(d) requires development to minimise the amount of deliveries it receives; this may be achieved through a number of measures in the Mayor of London's Transport Strategy and Transport for London's supporting documents. Residential development will require bespoke management and delivery accommodation when compared to commercial development. The rapid acceleration of internet shopping

has resulted in a significant growth of smaller light goods vehicles, which increase congestion and pollution at peak times as well as traditionally quieter times. Delivery vehicles to residential addresses often park on the highway causing traffic flow and safety concerns. This disruption increases with missed deliveries whereby the same address receives a second or third delivery attempt. Development should provide space for these deliveries and help ensure all such deliveries are completed on the first attempt.

16.46 The borough's river and rail network represents an underused resource and priority should be given to utilising the railways, rivers and canals to facilitate the movement of waste and goods, particularly the safeguarded wharves such as Northumberland Wharf and Orchard Wharf (see Parts 2 and 3). The policy also requires adjacent development to recognise the role of wharves and depots and must not negatively impact their functions.

Policy links

- Policy S.SG2: Delivering sustainable growth in Tower Hamlets
- Policy D.SG4: Planning and construction of new development
- Policy D.DH2: Attractive streets, spaces and public realm
- Policy S.EMP1: Creating investment and jobs
- Policy D.ES2: Air quality
- Policy D.ES7: A zero carbon borough
- Policy S.MW1: Managing our waste
- Policy D.MW2: New and enhanced waste facilities

Evidence links

- Mayor of London's Transport Strategy (GLA, 2017)
- London Cycling Design Standards (Transport for London, 2015)
- Delivery and Servicing Plan Guidance (Transport for London)
- Construction Logistics Plans Guidance (Transport for London, 2017)