

## Topic – Environment and Energy

### DM37 Green Infrastructure and Nature Conservation

#### Green Infrastructure

Development proposals will be required to demonstrate that they safeguard and/or contribute positively to the existing multifunctional network of Green Infrastructure that covers all forms of green and open spaces; the interrelationship between these spaces and; ensure that the natural capital of the area is retained, enhanced and complements UNESCO Biosphere objectives<sup>66</sup>.

Where practicable, green infrastructure should be integral to the design and layout of the scheme ensuring it is planned and managed to realise current and potential value to communities and to support the widest delivery of linked environmental, social and economic benefits.

#### Nature Conservation

All development should seek to conserve and enhance biodiversity and geodiversity features ensuring:

- a net gain in biodiversity is achieved;
- that recognised priority species and habitats are protected and supported;
- that appropriate and long-term management of new or existing habitats is secured to ensure a network of nature recovery<sup>67</sup>; and
- where relevant, the control and eradication of any invasive non-native species present on site.

Developers will be expected to work with existing partnerships to support and enhance the following green infrastructure and nature conservation features:

- the Nature Improvement Area<sup>68</sup>

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<sup>66</sup> The [Brighton and Lewes Downs UNESCO Biosphere](#) aims to pioneer and inspire a positive future by connecting people and nature, as an international demonstration area for sustainability. Its objectives are threefold: conserve and enhance nature; pursue sustainable development of society and economy; and, encourage environmental knowledge, learning and awareness and engagement.

<sup>67</sup> Nature recovery networks allows opportunities for enhancement of existing nature assets including protected sites and wildlife-rich habitats to be identified and prioritised within a local area.

<sup>68</sup> The South Downs Way Ahead Nature Improvement Area (NIA - the NPPF defines NIA as: "Inter-connected networks of wildlife habitats intended to re-establish thriving wildlife populations and help species respond to the challenges of climate change."

- protected and notable species and habitats<sup>69</sup>
- ancient woodland
- aged/veteran trees
- protected trees<sup>70</sup>
- the City's National Elm Collection
- marine and coastal biodiversity
- geodiversity

Proposals for development within a designated site of importance to nature conservation or which could impact upon a designated site must satisfy the following criteria:

#### A. Internationally protected sites

Development likely to have significant effects on an international site (either individually or in combination with other plans or projects) and which would affect the integrity of the site will be subject to Habitat Regulations Assessment and will not be permitted unless the council is satisfied that:

- i) There is no alternative solution (which can be adequately demonstrated by the developer);
- ii) There are imperative reasons of overriding public health or public safety for the development; and
- iii) Adequate compensatory provision is secured.

#### B. Nationally protected sites

Development proposals should avoid impacts on nationally protected sites. Development proposals likely to have an adverse effect on the sites' notified special interest features will not be permitted unless:

- i) the benefits of the development, at this site, clearly outweigh the likely impact to notified features on the site and any broader impacts on the network of nationally protected sites; and
- ii) the loss can be mitigated through on or off-site habitat creation to achieve a net gain in biodiversity/ geodiversity.

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<sup>69</sup> Protected species/habitats include species of animal or plant, or its habitat (including feeding, resting and breeding areas) protected under National and European legislation and/or included on a Red List (ie complies with criteria set by the International Union for Conservation of Nature [IUCN] or similar following a process review). Notable species/habitats include those identified as being of principal importance in England, Section 41 of the Natural Environment and Rural Communities Act 2006; priority UK Biodiversity Action Plan (BAP) and Local BAP habitats and species; and, those listed on the Sussex Rare Species Inventory (held by Sussex Biodiversity Record Centre). See also Annexe 1 of the adopted Nature Conservation SPD (SPD11)

<sup>70</sup> Protected trees includes those covered by a Tree Preservation Order and/or lie within a conservation area.

**Development likely to have a significant effect on nationally protected sites will be required to assess the impact by means of an Environmental Impact Assessment.**

### **C. Locally protected sites**

**Unless allocated for development in the City Plan, development proposals that will result in an adverse effect on the integrity of any local site which cannot be either avoided or adequately mitigated will not be permitted, unless:**

- i) exceptional circumstances outweighing the adverse effects are clearly demonstrated; and**
- ii) the loss can be mitigated through on or off-site habitat creation to achieve a net gain in biodiversity/geodiversity.**

**Development proposals considered to have a significant effect on local sites will be required to assess the impact by means of an Ecological Impact Assessment.**

**Proposals liable to affect green infrastructure and nature conservation features either directly or indirectly must be supported by an appropriate and detailed site investigation/ assessment and accord with provisions set out in the mitigation hierarchy<sup>71</sup>. Measures to avoid or prevent harmful effects will be required. Where proposals are liable to cause direct or indirect harm to a designated site, they must provide:**

- a) evidence to demonstrate that the objectives of the designation and integrity of the area will not be undermined;**
- b) funded management plans that secure the long term protection and enhancement of remaining features<sup>72</sup>; and**
- c) up-to-date information about the biodiversity/geodiversity which may be affected and how loss can be mitigated to achieve measurable net gains.**

### **Supporting Text**

2.275 The natural environment is critical to all living things. Its conservation and enhancement also brings about social and economic benefits and it can support climate resilience in built up urban areas. A development proposal's impact upon the natural environment must be considered early in the design process, including cumulative impacts and impacts upon the wider environment. Applicants must

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<sup>71</sup>The "mitigation hierarchy" is set out in the Biodiversity – code of practice for Planning and Development and the British standard for Biodiversity management (BS42020) 2013. In essence it seeks avoidance of harm; then mitigation; then compensation alongside new benefits for wildlife.

<sup>72</sup> Remaining features includes those retained in situ, translocated and/or provided to compensate for lost features.

properly assess the harmful effects of their proposals on the natural environment/natural capital<sup>73</sup>, seek to minimise the impact and give full consideration to achieving biodiversity net gains, in particular to species and habitats of particular importance (formerly known as BAP habitats) and the value of incorporating appropriate green infrastructure solutions into the design (see also Policies DM22 Landscape Design and Trees, DM1 Housing Quality, Choice and Mix, DM43 Sustainable Drainage and City Plan Part One policies, CP8 Sustainable Buildings, CP10 Biodiversity, CP16 Open Space and CP17 Sports Provision).

2.276 Green infrastructure is a multi-functional and connected network of predominantly green spaces, water and other environmental features in urban and rural areas that delivers a wide range of environmental, social, economic benefits and quality of life benefits. It can help strengthen climate change resilience, health and well-being of communities, economic vibrancy, and, provide habitats and wildlife corridors as well as urban cooling. Green infrastructure is a fundamental part of sustainable development and the city plan is committed to ensuring that new development protects and enhances a network that is vital to the future of Brighton and Hove. A Natural Capital Investment Strategy for Sussex<sup>74</sup> is being prepared which when adopted will guide the implementation of this policy.

2.277 In Brighton & Hove the key spatial backbone/framework for green infrastructure is formed by the South Downs Way Ahead Nature Improvement Area (NIA) which includes the City's Green Network<sup>75</sup> along with other identified open space (including allotments, orchards and community food production spaces), designated nature conservation sites and the seafront (promenade, beach and sea) including brownfield land in urban areas and former industrial land. However the City's green infrastructure encompasses more than this 'spatial backbone' and includes; street trees, residential gardens, green roofs/walls and landscaped/flood management areas including sustainable drainage systems (SuDS). Cycling/walking routes and manmade features designed to enhance biodiversity/recreation (eg bird/bat boxes and bee bricks) are also important to the overarching concept in the City.

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<sup>73</sup> Natural Capital is the world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this Natural Capital that humans derive a wide range of services, often called ecosystem services, which make human life possible

<sup>74</sup> Sussex Local Nature Partnership 'Natural Capital Investment Strategy for Sussex'

<sup>75</sup> The South Downs Way Ahead Nature Improvement Area (NIA) is one of 12 NIAs that were announced by Government in February 2012. It sets a landscape scale approach to biodiversity and focuses on safeguarding endangered chalk grassland, vital for rare and endangered wildlife and the provision of clean drinking water and green space. The South Downs Way Ahead Nature Improvement Area (NIA) is one of 12 NIAs that were announced by Government in February 2012. It sets a landscape scale approach to biodiversity and focuses on safeguarding endangered chalk grassland, vital for rare and endangered wildlife and the provision of clean drinking water and green space

2.278 A key element of green infrastructure is identifying, retaining and enhancing a rich ecological network. The presence of protected species is a material consideration in planning decisions. Many other species are nationally rare or vulnerable although not currently protected by law. In some cases these species have specialised habitat requirements and survive in a few, localised areas. Some habitats are irreplaceable such as ancient woodland and aged/veteran trees whilst the City's remaining population of elm trees (known as the 'National Elm collection') is nationally important. The council considers that species and habitats that are protected, rare or vulnerable should be conserved, with appropriate buffer strips, as part of the development management process. The opportunity for nature recovery networks should be considered in accordance with the emerging Nature Capital Investment Strategy for Sussex and future Local Nature Recovery Strategies. Any invasive non-native species should be removed in accordance with legislation (see also DM40 Protection of the Environment and Health – Pollution and Nuisance).

2.279 The council will continue to work with the Brighton and Lewes Downs UNESCO Biosphere partners, including the South Downs National Park Authority and other surrounding authorities, to secure a landscape scale approach to biodiversity and green infrastructure.

2.280 Proposals must assess potential impacts on, nature conservation features (which includes geodiversity). This may require an ecological/geodiversity survey and reference to previous surveys, where appropriate. Proposals which may affect protected or rare species, within or outside a designated site, must be fully informed by expert survey and advice<sup>76</sup>. Appropriate regard should be given to current and historical data, regeneration/repopulation potential, species' adaptability to climate change, irreplaceability of habitats, the significance of the site for the connectivity of habitats and species, and, where possible an assessment of 'natural capital'. Proposals will be expected to have taken into account the advice provided in SPD11 'Nature Conservation and Development', SPD06 'Trees and Development Sites' and any subsequent detailed guidance.

2.281 When applying this policy, regard will be given to the achievement of national and local Biodiversity Action Plan (BAP) Targets<sup>77</sup>. Enhancement opportunities should focus on habitats and species of principal importance - Brighton & Hove's local BAP habitats (e.g chalk grassland) and priority species (e.g. swifts, peregrines, house sparrows, starlings, white-letter hairstreaks, hornet robberfly etc.). Strong consideration should also be given to the protection of native species, and provision of roosting/nesting boxes for bat/birds (including swifts, house martins and swallows), gaps/holes at ground level in boundaries for hedgehogs, biodiverse roofs

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<sup>76</sup> The Sussex Biodiversity Record Centre (Woods Mill, Henfield) is the principal source of up-to-date desktop biodiversity information. The Booth Museum (Dyke Road, Brighton) also holds data that may be relevant for nature conservation surveys.

<sup>77</sup> Brighton & Hove Local Biodiversity Action Plan (2013) or any subsequent updates.

and walls, and, appropriate innovative and creative measures. All new build, refurbishment, and renovation schemes should incorporate swift boxes and bee bricks where possible ensuring their installation follows best practice guidance. SPD11 Nature Conservation and Development will be updated and will refer to a range of other low-cost nature conservation features that can be secured through new development.

2.282 Any proposal affecting nature conservation features and/or designated sites should include a nature conservation/ecological report which demonstrates evidence of working within the mitigation hierarchy (avoid, mitigate and as a last resort compensate) any losses and identifies opportunities to enhance the nature conservation value of the site. Ecological reports should be produced in line with the British Standard on biodiversity management BS42020:2013 and CIEEM Technical Guidance (and subsequent revisions). Reports should include evidence that they have followed the mitigation hierarchy set out in BS42020 which seeks as a preference to avoid impacts, then to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. Mitigation should be provided on site whenever possible. The LPA will only consider off-site compensation as a last resort where all on-site options have been fully explored. Avoidance, mitigation, compensatory and enhancement measures will be secured through planning conditions or planning obligations. This includes a need to undertake a full life cycle analyses of developments including the impact of construction and materials over the long term). Alongside this, opportunities should be explored to provide new benefits for wildlife. Opportunities to deliver higher carbon dioxide savings through greater passive design, fabric and energy efficiency measures and low and zero carbon technologies will also be required (see CP8 Sustainable Buildings and DM43 Energy Efficiency and Renewables).

#### Designated Sites:

2.283 **International/ European Sites:** These include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar Sites. There are currently no sites of International or European importance for nature conservation within the City Plan area. However Castle Hill is designated a Special Area of Conservation (SAC) and lies within the South Downs National Park and the administrative area of the city council. Large scale development within the City Plan area may still detrimentally affect the SAC by reason of additional pressure from visitors and traffic.

2.284 **National Sites:** These include National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs), both of which are designated by Natural England. There is one Site of Special Scientific Interest (SSSIs): Brighton to Newhaven Cliffs which lies partly within the City Plan area. There are currently no National Nature Reserves (NNRs) within the City Plan area. However there is both a designated

NNR and SSSI at Castle Hill. Therefore, similar to the SAC, care is needed to ensure they are not affected by detrimental impacts from development within the City Plan area.

**2.285 Local sites:** Locally important sites include locally designated wildlife or geological sites (LGeoS - formerly called Regionally Important Geological and Geomorphological Sites (RIGGS)) of regional significance, local wildlife sites (LWS) and local nature reserve (LNRs).

2.286 There are currently 6 Local Nature Reserves<sup>78</sup> that lie in part or wholly within the City Plan area. These are:

- Bevendean Downland
- Ladies Mile
- Withdean Woods and Westdene Woodlands
- Whitehawk Hill
- Wild Park/Hollingbury
- Beacon Hill (majority lies within the National Park)

2.287 There are 51 Local Wildlife Sites and 1 candidate Local Wildlife Site within the City Plan area<sup>79</sup> these are listed in Appendix 3 (as assessed in the 2017 LWS Review Report and updated in February 2020 following consultation with landowners).

2.288 There are three Local Geological Sites within the City Plan area<sup>80</sup>, these are listed below (nb the first two adjoin one another):

- Black Rock, Brighton - (Sussex RIGS number: TQ30/236) (forms part of Brighton to Newhaven Cliffs SSSI Geological Site)
- Coastal Section, Friar's Bay to Black Rock Marina - (Sussex RIGS number: TQ40/174) (forms part of Brighton to Newhaven Cliffs SSSI Geological Site)
- The Goldstone, Hove Park – (Sussex RIGS number: TQ20/121) (Large sarsen about 2x3m set up on end in concrete and surrounded by 10 smaller stones) Grid ref: TQ286060

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<sup>78</sup> Benfield Hill and Stanmer and Coldean LNR lie wholly within the National Park and are covered by policies in the adopted [South Downs Local Plan](#).

<sup>79</sup> There are 36 LWS that lie within the administrative area of Brighton & Hove City Council that lie within the National Park and are covered by policies in the adopted South Downs Local Plan

<sup>80</sup> A fourth Local Geological Site within the administrative area of Brighton & Hove City Council – Stanmer Village TQ30/135 lies within the South Downs National park and is covered by policies in the adopted South Downs Local Plan.

## DM38 Local Green Spaces

The following green areas, as defined on the policies map, are designated and protected as Local Green Spaces:

- Hollingbury Park
- Three Cornered Copse
- Ladies' Mile
- Benfield Valley

Development will not be permitted within a Local Green Space designated within the City Plan or an approved Neighbourhood Plan unless there are very special circumstances<sup>81</sup> where the public benefits of the development proposed would outweigh the harm that would be caused by development within the Local Green Space.

Enhancements consistent with Local Green Space designation will be supported and will be required where proposed development, judged to meet the very special circumstances test, may impact the Local Green Space<sup>82</sup>.

### Supporting Text

2.289 In 2012 national policy introduced the concept of Local Green Space designation as a way to provide special protection for green areas that are considered of particular importance to local communities.

2.290 The designation rules out development other than in very special circumstances. To qualify the spaces have to be demonstrably special to a local community, hold a particular local significance and capable of enduring beyond the end of the plan period. It is not appropriate to designate sites purely to resist development.

2.291 The purpose of this policy is therefore to designate Local Green Spaces which qualify and warrant special protection. Further Local Green Spaces may be designated in future Neighbourhood Development Plans.

2.292 In Brighton & Hove the open spaces identified on the policies map are already afforded significant protection by policies CP16 Open Space and CP17 Sports Provision in the City Plan Part One. In general, the designation signifies greater protection and enhanced accessibility where it does not conflict with biodiversity matters. Development on land designated as Local Green Space therefore should be compatible with the designation, should preserve the open character and the local

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<sup>81</sup> National Planning Policy Framework (NPPF) (2018) paragraphs 101 and 143-147.

<sup>82</sup> Enhancements that may be consistent with Local Green Space designation include access improvements, interpretation boards and management facilities ancillary to the open space use.

significance placed on such green areas which make them valued by their local community.

2.293 The four sites identified in this policy are designated due to their value to the local community and their local significance in their role as areas for enjoyment of recreation, tranquillity, wildlife, heritage and their linkages to the adjacent urban area. All four also act as important green wedges into the urban area which act as wildlife corridors and important routes for people accessing the South Downs and offer good gateway enhancement opportunities to the South Downs National Park. Their designation is supported by the recommendations of the 2014 and 2015 Urban Fringe Assessment Studies.

2.294 The NPPF is clear that designation of Local Green Space should be consistent with the wider planning policy for the area and should look to complement investment in the provision of new homes and employment services and other essential services. Adjacent to Ladies' Mile and Benfield Valley lie potential housing development sites. This is done on the basis that new housing development will be expected to secure the effective management, protection and enhancement of the retained open space so that it can endure as valuable public open space beyond the plan period. Where essential to the delivery of the Benfield Valley developable areas it may be necessary for highway access routes to encroach upon the Local Green Space. This must however be kept to the minimum.

2.295 Within Hollingbury Park regard will be given to the operational needs of the site such as those associated with the existing telecommunication facilities and Southern Water operational land. However robust justification will be required to support any additional development associated with operational needs. This would need to demonstrate that there are no alternative options, the development is essential to the provision of viable ongoing service delivery, the development is the minimum necessary and appropriately located, designed and, where relevant, screened. For Benfield Valley regard will be given to the provision of appropriate facilities for outdoor sport and recreation, as long as it does not conflict with the purpose of designating the Local Green Space. It is acknowledged that there may be scope for further sites to be designated through the preparation of neighbourhood plans where it can be demonstrated that all the criteria set out in the NPPF are met. This would enable local communities to gather, through local consultation, evidence of local community support for any Local Green Space designations, including setting out how any proposed sites are demonstrably special to the local community and their particular local significance.

## **DM39 Development on the Seafront**

**Proposals which generate a need for enhanced coastal defences will be required to meet all of the following criteria:**

- a) accord with the relevant Shoreline Management Plan and Coastal Strategy Study;**
- b) be of a design and appearance that is in keeping with their surroundings;**
- c) be maintained as part of the development and not be detrimental to coastal processes<sup>83</sup>, existing and/or proposed coastal defences/coastal protection works and their maintenance; and**
- d) where appropriate, include access and escape routes in the event of tidal flooding, where possible, on north side of buildings, providing windows and access ways that are capable of withstanding storm attack.**

**Proposals should be designed to take account of the particular conditions experienced in the coastal zone, for example in layout, design, landscaping and materials proposed, and should be resilient to the effects of climate change and designed to avoid adverse impacts from and on the coastal and marine environment in accordance with Policy DM37 Green Infrastructure and Nature Conservation.**

**Proposals should safeguard the importance of the seafront and beach as an open space and maintain and enhance public access to and along the coast and to sea-based activities (see City Plan Part One policies CP16 Open Space and CP17 Sports Provision).**

**There will be a presumption against development extending onto the shingle beach. As an exception the council will support the provision of new small scale public amenities of an appropriate design (such as toilets and facilities for coastal sport uses such as showers, changing rooms and lifeguard facilities) or improvements to existing areas of hardstanding or access to the beach, shoreline and sea-based activities.**

**All developments providing sea-based activities or with a potential impact upon the marine environment should have appropriate regard to the Beachy Head West Marine Conservation Zone and be in accordance with the South Marine Plans.**

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<sup>83</sup> A collective term covering the action of natural forces on the shoreline, and nearshore seabed, CIRIA Beach Management Manual 2<sup>nd</sup> Edition

## Supporting Text

2.296 The City Plan Part One sets out a coordinated overarching strategy for the seafront with identified priorities for defined areas. Through Strategic Allocations, major regeneration proposals are made for Brighton Marina, the Black Rock site, Brighton Centre and Churchill Square Redevelopment area and Shoreham Harbour. Policy CP11 set outs the approach to managing flood risk. This policy requires that planning applications must demonstrate that account has been taken of the particular conditions experienced within the coastal zone and where appropriate be accompanied by appropriate coastal defences. Proposals should protect and enhance the beach, shoreline and marine environment as open space and valuable natural habitats.

2.297 The city's beaches divide in character at Black Rock. To the west are large shingle beaches controlled by a 'field' of concrete and timber groynes which have developed over the decades. To the east of Black Rock and the Marina, a chalk cliff line runs all the way to the River Ouse at Newhaven<sup>84</sup>. The beaches here have formed as a result of the retreat of the cliffs, leaving a wave cut platform. The foot of the cliffs is now protected by a seawall and the Undercliff Walk. The timber groynes and shingle beaches play an important role in protecting the city and it is imperative that any improvements or changes to the seafront do not compromise the effectiveness of these defences. The council's policies for coastal management and coast defence works are set out in Coastal Strategy Studies and the Shoreline Management Plan.

2.298 Access arrangements to enable maintenance and repair are required to ensure the ongoing integrity and effectiveness of sea defences. Development which generates a need for enhancements to the defences will not be permitted unless developer funding is secured to cover the full costs of such enhancements and future maintenance directly related to the proposed development.

2.299 If development is permitted in the vicinity of coastal and flood defences, the council, following consultation with the Environment Agency, will require appropriate measures to be incorporated into the scheme in order to ensure that the stability and continuity of the defences is maintained. Developers will be expected to cover the costs of any such measures, including their long term monitoring and management.

2.300 The council will seek to ensure that any new or enhanced sea defences integrate sensitively with the local environment.

2.301 The coastal waters of Brighton & Hove contain important marine habitats, chalk cliffs, undersea chalk reefs and areas of internationally rare undisturbed

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<sup>84</sup> Forms the western half of the 'Beachy Head West' designated Marine Conservation Zone, and the terrestrial part is designated as the Brighton to Newhaven Cliffs SSSI.

vegetated shingle (including Local Wildlife Sites). These coastal habitats including the coastal SSSI and Beachy Head West Marine Conservation Zone are therefore a key environmental asset as well as valued open space, and opportunities to protect and enhance them will be sought where appropriate as part of any development proposals in the seafront area (see City Plan Part One Policy SA1 The Seafront and Policy DM37 Green Infrastructure and Nature Conservation).

2.302 Whilst there is a presumption against development on the shingle beach, building hard surfacing on shingle beaches can help improve access for disabled persons (including wheel chair users), young and elderly beach users and can be a positive way to enhance the public realm. Through the work of the Beach Accessibility Working Group and the Beach Access Team the council is working to find innovative solutions to improving access across Brighton & Hove seafront and beaches. Hard standing areas can also provide opportunities to improve shelter, shade, signage and lighting and provide small scale public amenities such as toilets, lifeguard facilities and small kiosks. However it is important to recognise that coastal processes and climate change are likely to see narrowing of the beach in the medium to long term<sup>85</sup>. For this reason, provision of public amenities should be small scale and of appropriate design, complementing other structures along the seafront and should not impede the maintenance of coastal defences including beach management. To help reduce clutter and physical barriers the council will seek the removal of redundant structures on the seafront.

2.303 The city's coastal location means the council must have regard to the UK Marine Policy Statement and the South Marine Plans<sup>86</sup>. The council is not responsible for planning beyond the coastal mean low water mark however it needs to ensure that policies across the land/sea boundary are integrated. All developments providing sea-based activities (such as jet skiing, surfing or boat facilities) or with a potential impact upon the marine environment (including the designated Beachy Head West Marine Conservation Zone) should be in accordance with the South Marine Plans. Where appropriate the Marine Management Organisation will be consulted.

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<sup>85</sup> Shoreline Management Plan 2006

<sup>86</sup> [The South Inshore and Offshore marine plans](#) were adopted on the 17<sup>th</sup> July 2018

## **DM40 Protection of the Environment and Health – Pollution and Nuisance<sup>87</sup>**

**Planning permission will be granted for development proposals that can demonstrate they will not give rise nor be subject to material nuisance and/or pollution that would cause unacceptable harm to health, safety, quality of life, amenity, biodiversity and/or the environment (including air, land, water and built form). Proposals should seek to alleviate existing problems through their design.**

**Proposals liable to cause or be affected by pollution and/or nuisance will be required to meet all the following criteria:**

- a) be supported by appropriate detailed evidence that demonstrates:
  - i. the site is suitable for the proposed use and will not compromise the current or future operation of existing uses;**
  - ii. pollution and/or nuisance will be minimised;**
  - iii. appropriate measures can and will be incorporated to attenuate/mitigate existing and/or potential problems in accordance with national and local guidance; and**
  - iv. appropriate regard has been given to the cumulative impact of all relevant committed developments as well as that of the proposal and/or effect of an existing pollution/nuisance source.****
- b) support the implementation of local Air Quality Action Plans and help support the local authority meet the Government’s air quality and other sustainability targets;**
- c) provide, when appropriate, an Air Quality Impact Assessment to consider both the exposure of future and existing occupants to air pollution, and, the effect of the development on air quality. Air quality improvements and/or mitigation must be included wherever possible;**
- d) have a positive impact, where practicable, on air quality when located within or close to an Air Quality Management Area and not worsen the problem;**
- e) particular regard must be given to the impacts of emissions from transport, flues, fixed plant, and, heat and power systems;**
- f) new biomass combustion and CHP plants associated with major developments will not be acceptable in or near an Air Quality Management Area and sensitive receptors such as the Royal Sussex**

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<sup>87</sup> Pollution and nuisance include: noise, vibration, smell/odour, light, heat, dust, dirt, PM10, NO2 fumes, gases, steam, radiation, smoke, invasive non-native species/diseases (including Japanese knotweed, Himalayan Balsam and Dutch Elm Disease), electromagnetism, other polluting and nuisance emissions, and other forms of disturbance.

**County Hospital due to the need to comply with nitrogen dioxide limits; and**

- g) ensure outdoor lighting is well designed; low impact; efficient; the minimum necessary with an appropriate balance between intensity, fittings, height and structures; and, not cause unacceptable detriment to public and highway safety, biodiversity, in particular priority habitat and species, the night sky and the South Downs National Park International Dark Sky Reserve.**

**When a proposal, including the remediation measures, invokes the need for an Environmental Impact Assessment the findings of the assessment must be appropriately taken into account.**

### **Supporting Text**

2.304 Pollution and nuisance can have a detrimental impact on amenity as well as serious health impacts on people, the environment and nature conservation. Government policy advises that policies and decisions must ensure that development is appropriate to its location and new use to prevent unacceptable risks from pollution. It highlights the need to take into account health, quality of life, amenity, the natural environment and the potential sensitivity of certain areas or a proposed development when assessing the adverse effects of pollution. The need to protect the water environment is addressed in Policies DM42 and DM43.

2.305 The issue of air pollution and improving the quality of the air that people breathe is one of the city's principal challenges and is a strategic objective in City Plan Part One. Two Air Quality Management Areas (AQMAs) are currently designated within the city; one covering the city centre and Portslade, and a second smaller area that includes Rottingdean High Street and its junction with the A259. The main cause of pollution in both areas is emissions from diesel vehicles. A key contributor to poor air quality in the city is emissions from all types of vehicles in confined spaces. The city council has published an Air Quality Action Plan (AQAP) which sets out a series of measures to address and mitigate the causes of pollution in these areas. The AQAP is updated annually in the Air Quality Annual Status Report.

2.306 The AQAP builds on a series of measures that have already been implemented in the city including one of the UK's first bus Low Emission Zones and the introduction of lower-emission buses. The main aim of the 2015 renewed AQAP is to achieve compliance with the 40 µg/m<sup>3</sup> level for nitrogen dioxide in residential areas parallel to transport corridors, which became a legally binding standard in 2010. A targeted approach is intended to tackle the most polluting ground level sources within narrow streets where wind flow and ventilation is restricted.

2.307 Proposals for new development should consider air quality issues<sup>88</sup> and, where necessary, undertake detailed assessments of air quality impacts. Assessments should consider potential impacts resulting from traffic generated by the proposed development, and also consider the impact of any existing air quality problems on the future occupants of the scheme and adjacent properties. The council may seek to control the volume and flow of traffic to and from a proposed development to comply with this policy (see also City Plan Part One Policy CP9 Sustainable Transport).

2.308 This policy complements the AQAP by ensuring that all new developments adhere to the NPPF guidance that developments should contribute towards national objectives for pollutants (paragraph 181 of the NPPF) including in or near AQMAs or near sensitive receptors like schools and the Royal Sussex County Hospital, assists in achieving its aim of improving air quality. New development proposals should take account of their impact on local air quality, be consistent with the latest AQAP and minimise increased exposure to existing poor air quality within an AQMA. Improvements and/or mitigation will be sought wherever possible. It is important that cumulative impacts are taken into account including impacts from development beyond the boundary of the City Plan area.

2.309 Where a development includes new residential premises in a known area of poor air quality, remedial measures will be required such as: the provision of passive or hybrid ventilation systems; appropriate amendments to uses and design; alternatives to the provision of, or a set-back in balconies and living quarters at roadside; provision of charging infrastructure for electric vehicles, or passive provision to allow conversion at a later date; and also travel plans to encourage reduced car use. Alterations to the massing and position of buildings close to confined slow moving roads can avoid enclosure that is liable to inhibit emission dispersion. Subject to other amenity considerations, development should be designed so as to increase the distance between bedrooms/living rooms and road traffic emissions. Where it is not practicable to achieve a positive impact on air quality on-site then off-site mitigation or financial contributions will be sought in accordance with CP7 Developer Contributions.

2.310 It is important to ensure that sustainable building measures intended to reduce fuel consumption and carbon dioxide are not detrimental to local air quality; namely oxides of nitrogen, dust, smoke and particulate matter. For example, biomass fuel combustion and combined heat and power systems will not be acceptable in certain areas of the city; in or near AQMA and the Royal Sussex County Hospital as a sensitive receptor due to a need to comply with nitrogen dioxide limits. Developments in or close to an AQMA should prioritise generation of heat and power through means that do not influence air quality and minimise emissions to air from

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<sup>88</sup> Whether or not air quality is relevant to a planning decision will depend on the proposed development and its location (National Planning Policy Guidance) Paragraph: 005 Reference ID: 32-005-20140306

combustion, such as electrification and energy storage. The impact on surrounding occupants from flues on top of buildings also needs to be taken into account especially within areas with existing tall buildings or with potential to deliver taller buildings.

2.311 Noise and vibration, even from a proposed means of ventilation, can potentially have a serious impact on residential amenity, quality of life and biodiversity. Detrimental noise impacts can occur continuously or intermittently and the effects can vary depending on the pitch, tone and frequency. It is not practicable, therefore, to clearly indicate when noise impact studies will be expected. Any noise impact study and noise assessment must be carried out in accordance with current authoritative guidance and British Standards<sup>89</sup>. Indoor environmental quality is dependent on air quality (passive/ mechanical ventilation), thermal comfort and acoustic comfort. These factors are interdependent. When considering the mitigation of noise impact on new development, particularly residential development, the interdependence between acoustics, ventilation and overheating should be carefully considered<sup>90</sup>.

2.312 A number of uses and environments can be particularly sensitive to pollution and/or nuisance. For example, schools, nurseries, hospitals, housing, the South Downs National Park and sites important for nature conservation as well as the Brighton Chalk Block Aquifer.

2.313 Sensitive developments/uses should not be located in proximity to significant pollution and / or nuisance generating uses except where appropriate mitigation can be provided by the developer prior to occupation. In accordance with the 'agent of change principle' set out in the NPPF<sup>91</sup>, where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant will be required to provide suitable mitigation prior to occupation. Where appropriate, covenants will be required to remove the right of occupants of new development to complain about disturbance in order to protect existing uses and businesses from the imposition of operating restrictions which could affect their ability to function. Sussex local authorities have developed guidance on noise to provide advice for developers and their consultants when making a planning application<sup>92</sup>.

2.314 Development proposals should avoid excessive and unnecessary lighting, whilst at the same time recognising the important role of lighting in optimising the effective use of land outside daylight hours and addressing crime and antisocial

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<sup>89</sup> For example, BS4142, BS8233:2014, Noise Action Plan Brighton Agglomeration, the Noise Policy Statement for England and any subsequent revisions.

<sup>90</sup> Further guidance can be found in ProPG: Planning & Noise, Professional Practice Guidance on Planning & Noise - New Residential Development, May 2017 and Acoustic Ventilation and Overheating Residential Design Guide January 2020

<sup>91</sup> National Planning Policy Framework, Paragraph 182.

<sup>92</sup> Planning Noise Advise Document: Sussex 2020

behaviour (such as floodlighting for the extension of operating hours/crime deterrent). In May 2016 the South Downs National Park was designated as an International Dark Sky Reserve (IDSR). Lighting within the setting of the National Park should therefore take particular care to avoid unnecessary direct or reflected illumination of the sky at night.

#### **DM41 Polluted sites, hazardous substances & land stability**

**Development proposals must ensure that they do not prejudice health, safety, natural capital<sup>93</sup> and the quality of the city's environment. Proposals must be supported by a desktop survey and where appropriate a site investigation<sup>94</sup> and must demonstrate that all of the following requirements are met:**

- a) the development is appropriate for the location taking account of ground conditions, land instability and vulnerability of future and surrounding occupants;**
- b) appropriate measures have been taken, or are provided for, to address hazardous substances, installations and notifiable pipelines;**
- c) the development provides for the suitable re-use of polluted land and buildings and delivers appropriate remediation to safeguard and protect the end users of the site and prevent leaching; and**
- d) provision is made for appropriate measures necessary to protect the environment, future users and surrounding occupants.**

#### **Supporting Text**

2.315 Industrial activity, waste disposal, accidental spillages and transportation can cause the potential contamination of land. The presence of even small-scale undertakings can leave land in a contaminated state. Often the causal processes or activities have ceased and are no longer evident.

2.316 The re-use of polluted land and buildings will be encouraged in order to promote the re-use of brownfield sites, reduce the need for the development of greenfield sites, and reduce the threats posed by contamination to health, safety and the environment. It offers a sustainable approach to redevelopment and a means of regenerating specific areas and has the potential for delivering significant environmental benefits. Very few sites are so badly polluted that they cannot be re-used at all, but the contamination and the cost of dealing with it may restrict the

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<sup>93</sup> Natural capital is defined as the elements of nature that directly or indirectly produce value to people, including ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and functions.

<sup>94</sup> A site investigation must be undertaken where: development is proposed on a site which has historically been built upon; where a desk survey determines additional investigation is needed; and, when a site is known to be polluted.

choice of new uses. After remediation land should be appropriate for the proposed use and as a minimum should not be capable of being determined as contaminated land under s78(R) Part IIA of the Environmental Protection Act 1990 or as revised by national legislation and policy.

2.317 When there is cause to suspect that a proposed development site is polluted an assessment must be undertaken. Regard should be given to the city council's Contaminated Land Strategy for Brighton & Hove. Where appropriate, a detailed site investigation will be required to establish the extent of pollution and to ascertain the potential of the proposal to cause harm to the environment (including groundwater), human health and non-human receptors. Where proposals involve the use of a polluted site, remediation prior to development and/or during construction, will be required appropriate to its future use and to prevent leaching of pollutants. The council will apply phased conditions to secure any necessary remediation, and ensure future verification, monitoring and/or maintenance. Any desktop study, site investigation, remediation and verification work should be undertaken by a competent person/company in accordance with the National Quality Mark Scheme for Land Contamination Management (NQMS), Government guidance and any applicable national standards.

2.318 Whilst it is the developer's / landowner's responsibility to ensure that land is physically suitable for development, land stability can also be a material planning consideration. It is important that land stability is taken into account at an early stage in the development process in order to prevent risks to occupiers of the development and surrounding area. In appropriate cases the council may require planning applications to be accompanied by supporting information describing and analysing the issues relevant to ground instability and indicating how any foreseeable problems would be overcome including any necessary stabilisation measures. Where a slope stability report is required, it should take account of ancient landslides, geological fault lines, water courses/ditches and natural ground water routes.

2.319 Where the suspected stability or contamination of a site is not considered to be significant or not of a high risk, permission may be granted subject to conditions requiring site investigation, discovery strategy and any remedial measures as deemed necessary once a competent person has carried out an options appraisal.

2.320 The Planning (Hazardous Substances) Act 1990 provides for the control of the presence or use of hazardous substances<sup>95</sup>. Whilst it is not the role of the planning system to enforce legislation covered by other bodies, it is appropriate to consider the land use issues. For example, the site implications of accommodating the necessary pollution control measures, consideration of the risks notwithstanding the delivery of legally required measures, 'Sensitivity Level', and, appropriate distances between hazardous establishments and population or environmentally sensitive

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<sup>95</sup> Storage and use of certain, toxic, highly reactive, inflammable or explosive substances in excess of the controlled quantities set out in the Planning (Hazardous Substances) Regulations 2015 or subsequent revisions.

areas. The Health and Safety Executive (HSE) specifies consultation zones around hazardous installations in order to control development in the vicinity for reasons of public safety. Where applicable, compliance with technical advice from the Health and Safety Executive will be expected. There are currently two HSE consultation zones affecting the City Plan area: the Gas Works near Brighton Marina and also the outer zone from a site in Adur District Council at Shoreham Harbour/Port.

2.321 This policy will be assisted and complemented by the powers and duties exercised under Environmental Health legislation (in accordance with the Environmental Protection Act 1990 and Environment Act 1995), Building Regulations legislation, and by other agencies, for example, the Environment Agency and the Health and Safety Executive.

## **DM42 Protecting the Water Environment**

**In consultation with the council and relevant statutory bodies, planning applicants should consider the potential impacts on water quality and quantity resulting from the design, construction and operation of proposed development. Where necessary, development proposals should include measures to reduce any risk to the water environment and its ecology; and aim to protect and improve water quality (of surface water, groundwater and the sea).**

**Development proposals will not be permitted if they have an unacceptable impact on the quality and potential yield of local water resources used for public water supplies.**

**Planning permission may be refused if relevant site investigations and risk assessments have not been undertaken and if necessary mitigation measures are not provided.**

**Applicants will be required to demonstrate that capacity exists on and off-site in the sewerage network to serve the development or that occupation of the development will be phased to align with the delivery of sewerage infrastructure, in liaison with the service provider, to avoid sewer flooding.**

### **Supporting Text**

2.322 All of the drinking water for Brighton & Hove is supplied from groundwater sources in the form of underground chalk aquifers and there are number of groundwater source protection zones (identified by the Environment Agency). There is a need to improve groundwater quality and quantity status in the Brighton Chalk Block Aquifer<sup>96</sup>. Sea water quality is of equal importance in terms of environmental quality and its value as a key recreational asset, especially regarding the Beachy Head Marine Conservation Zone (See also City Plan Part One Policy SA1 The Seafront and DM39 Development on the Seafront). The city is within a 'highly water stressed' region with above regional average per capita water consumption. The European Water Framework Directive provides clear objectives for protecting and enhancing water quality, both surface and ground water. A River Basin Management Plan for the South East has been prepared by the Environment Agency under the European Water Framework Directive. The plan focuses on the protection, improvement and sustainable use of the water environment. A Greater Brighton Water Plan is being prepared which will set out further measures to ensure a more resilient water future in the region.

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<sup>96</sup> Nitrates are a major contributor to the poor quality of the Brighton Chalk Block aquifer. A Chalk Management Partnership (ChaMP) has been established to help support the protection and improvement of the quality of groundwater in the Brighton Chalk.

2.323 The City Plan Part One requires that all new development reduces air, land and water pollution and safeguards water supplies if development is within groundwater Source Protection Zones (CP8.I). Policy CP8 Sustainable Buildings also aspires towards water neutrality in all new development by requiring the government's higher optional water efficiency standards and incorporating facilities to recycle, harvest and conserve water resources.

2.324 The council will require development proposals to consider and reduce risks to water quality, and where appropriate, aim to improve the water quality of both surface water and groundwater. In line with the requirements of the Water Framework Directive developments that adversely affect surface and ground water quality will be resisted. Development proposals should be designed to ensure that misconnections between foul and surface water networks are eliminated and not easily created through future building alterations.

2.325 Southern Water is the statutory water and sewerage undertaker for the City Plan area. New and improved water and wastewater infrastructure will be needed to serve the development proposed in the City Plan. New development must be co-ordinated with the provision of new and improved infrastructure. This will help to ensure that a high level of service can be maintained for both new and existing customers, and that unsatisfactory levels of service such as sewer flooding or poor water pressure are prevented. This also helps to ensure that, there is no deterioration to water quality and the environment, as required by the Water Framework Directive.

2.326 City Plan Part One Policy CP7 addresses infrastructure provision, and the phasing of development with necessary infrastructure. Water and wastewater infrastructure is included in the list of infrastructure or service provision where planning obligations/ CIL may potentially be sought. Relevant Development and Special Area policies make specific provision for the protection of water resources related to particular strategic site allocations.

2.327 Applicants should liaise with Southern Water in order to demonstrate that there is adequate water supply, surface water, foul drainage and sewerage treatment capacity to serve the development and that it would not lead to problems for existing users. In some circumstances, it may be necessary for applicants to carry out appropriate studies to ascertain whether the proposed development would lead to overloading of existing infrastructure. Where capacity assessments show there is a need, Southern Water will require occupation of development to be phased to align with the delivery of water of wastewater infrastructure.

## **DM43 Sustainable Drainage**

**The design and layout of all new buildings, and the development of car parking and hard standing, will be required to incorporate appropriate Sustainable Drainage Systems (SuDS) capable of ensuring that there is a reduction in the level of surface water leaving the site unless it can be demonstrated not to be reasonably practicable.**

**Subterranean development, for example, storage tanks, basements or subterranean car parks, will not be permitted in areas where there has been a history of groundwater emergence (or other sources of flooding).**

**SuDS should be sensitively located and designed, in line with recognised best practice<sup>97</sup> and in accordance with the Sustainable Drainage SPD to ensure that the quality of local water is not adversely affected; and should provide where possible improved biodiversity, an enhanced landscape/townscape and good quality spaces that improve public amenities in the area.**

**Details of the proposed SuDS should be submitted as part of any planning application including provision for arrangements for the whole life management and maintenance of the provided SuDS.**

### **Supporting Text**

2.328 The precise impacts of climate change on Brighton and Hove in the future are difficult to assess but it is anticipated that the UK is likely to see more extreme weather events including increased flooding. The urban land use, steep topography and lack of watercourses in Brighton and Hove make it particularly susceptible to surface water flooding. The purpose of the policy is to reduce the city's vulnerability to surface water flooding through appropriate management and ensure there is no net increase in surface water run-off from new development.

2.329 The NPPF indicates that risk of flooding should be avoided by directing development away from the highest risk areas. The Council has produced an updated Strategic Flood Risk Assessment (SFRA)<sup>98</sup> which includes allowances for flood risk from all sources such as surface water, groundwater, coastal flooding and the likely effects of climate change. The SFRA has informed the location of proposed development in the City Plan and will be a consideration in the assessment of planning applications.

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<sup>97</sup> Including CIRIA (2015) The SuDS Manual and BHCC and partner authorities: Water, People, Places – A guide for master planning sustainable drainage into developments.

<sup>98</sup> SFRA (2018).

2.330 The Sustainable Drainage Supplementary Planning Document (SPD) provides further detailed guidance<sup>99</sup>. The SPD will also be relevant in the assessment of planning applications.

2.331 The NPPF states that when determining a planning application, local planning authorities should ensure that flood risk is not increased elsewhere as a result of a proposed development and indicates that priority should be given to the use of Sustainable Drainage Systems (SuDS). The starting position is that surface water drainage should be dealt with within a development site.

2.332 SuDS are designed to mimic natural drainage processes and cover a range of measures, including:

- infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities;
- filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns;
- filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed; and
- basins and ponds to hold excess water after rain and allow controlled discharge that avoids flooding.

2.333 The choice of appropriate sustainable drainage measures for a site/development should be informed by specific catchment and ground characteristics, and will require the early consideration of a wide range of issues relating to the management, long term adoption and maintenance of SuDS. When determining the suitability of SuDS, vulnerability and the importance of local ecological resources, such as water quality, in particular within the Brighton & Hove aquifer and biodiversity should be considered. In some locations of the city only specific types of SuDS will be appropriate so as not to have an adverse impact on groundwater quality. SuDS should be designed to help cope with intense rainfall events and to overcome any deterioration in water quality status. SuDS if implemented and managed properly can also directly contribute to biodiversity gains and greater connectivity of the city's ecological network. See also policies DM42 Protecting the Water Environment, DM40 Protection of Environment and Health – Pollution and Nuisance and DM37 Green Infrastructure and Nature Conservation. The use of SuDS will be required as part of all development proposals other than in exceptional circumstances where it can be demonstrated that there is no appropriate SuDS solution which is reasonably practicable.

2.334 A particular issue in Brighton and Hove is the risk of groundwater flooding. For this reason, subterranean development, such as basements, storage tanks and underground car parks, will not be permitted in areas where there has been a history

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<sup>99</sup> The Sustainable Drainage SPD adopted 26 September 2019

of, or documented risk of, groundwater emergence (and other sources of flooding) to ensure that there is no increased risk of in groundwater flooding to a development or third parties. Adopted City Plan Part One Policy CP11 Flood Risk sets out the requirements for flood risk assessment and further guidance is set out in the most recent Strategic Flood Risk Assessment.

## **DM44 Energy Efficiency and Renewables**

**The council will encourage all development to improve energy efficiency and achieve greater reductions in CO2 emissions in order to contribute towards Brighton & Hove's ambition to become a carbon neutral city by 2030. The following standards of energy efficiency and energy performance will be required unless it can be demonstrated that doing so is not technically feasible and/or would make the scheme unviable:**

- 1. All development including conversions and change of use of existing buildings to achieve at least 19% improvement on the carbon emission targets set by Part L unless superseded by national policy or legislation;<sup>100</sup>**
- 2. All development to achieve a minimum Energy Performance Certificate (EPC) rating of:**
  - i) EPC 'C' for conversions and changes of use of existing buildings to residential and non-residential use<sup>101</sup>**
  - ii) EPC 'B' for new build residential and non-residential development.**
- 3. Opportunities for new development to achieve greater reductions in CO2 emissions through the use of passive design, fabric standards, energy efficiency measures and low and zero carbon technologies will be encouraged in the following areas:**
  - a) Development Areas 1- 7 (City Plan Part 1);**
  - b) Housing Allocations in the urban fringe (Policy H2);**
  - c) Within industrial areas identified and safeguarded in City Plan Part 1 Policy CP3.3.**

**Where it can be demonstrated that the minimum CO2 reduction targets cannot be met on-site, mitigation measures may be sought in accordance with City Plan Part 1 Policy CP7 Infrastructure and Developer Contributions.**

**All development will be expected to submit an energy statement to provide details of the low and zero carbon energy technologies used including the**

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<sup>100</sup> Including changes to Part L of the Building Regulations or the approved calculation methodology.

<sup>101</sup> Section 5 of The Energy Performance of Buildings (England and Wales) Regulations 2012 ("2012 Regulations") sets out circumstances that the duties relating to EPC do not apply to and includes: "*buildings officially protected as part of a designated environment or because of their special architectural or historical merit, in so far as compliance with certain minimum energy performance requirements would unacceptably alter their character or appearance;*"

**size/capacity of the systems and the estimated CO2 savings that will be achieved. Through preparation of the technical guidance the LPA will review and clarify what developers provide in the Energy Statement to ensure their robustness. For example, ensuring the statement will clearly set out how each element of the design will help to achieve carbon reductions.**

## **Supporting Text**

2.335 The purpose of this policy is to ensure that development delivers secure, affordable, low carbon growth, increases future energy resilience, and delivers the strategic objectives of City Plan Part One to become a zero- carbon city by 2050<sup>102</sup> . This policy sets out the further steps the council will take to reduce carbon emissions associated with all new development. The policy will support the council's ambition to become a carbon neutral<sup>103</sup> city by 2030.

2.336 The Climate Change Act (2008) sets a legally binding target to reduce UK carbon emissions by 80% by 2050, against a 1990 baseline. The Committee on Climate Change advises the Government on the setting of binding 5-year carbon budgets on a pathway to achieving the 2050 target. The first five carbon budgets covering the period up to 2032 have been set in law. The current budget requires a minimum 57% reduction in carbon emissions (compared with 1990 levels) by 2030. More recently the Committee on Climate Change recommended a new emissions target for the UK: net zero greenhouses gases by 2050, which was passed into law on 27 June 2019.

2.337 The UK is committed to supplying 15% of all energy from renewable sources by 2020 as part of an EU target to supply 20% of energy from renewables by 2020. The UK Renewable Energy Strategy (2009) anticipates that renewables will need to contribute around 30% of electricity supply, 12% of heating energy and 10% of transport energy to meet this target.

2.338 New development in Brighton and Hove will also need to support the government's Clean Growth Strategy objectives and be future-proofed against changes to the national energy system. Brighton & Hove is part of a national energy system and currently sources the majority of its energy from outside the city boundary. The city will need to shift from reliance on natural gas to a more diverse range of low and zero-carbon sources, including renewable energy. This can also have a positive impact on improving air quality in the city. Decentralised energy will become an increasingly important element of the energy supply and will help the city become more self-sufficient in relation to its energy needs. A Greater Brighton

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<sup>102</sup> Carbon' is used as a shorthand term for all greenhouse gases. Carbon accounting is measured nationally in carbon dioxide equivalent, which includes the conversion of other greenhouse gases into their equivalent carbon dioxide emissions.

<sup>103</sup> Carbon neutral recognises that it may not be possible to eliminate all emissions by this date, but that residual emissions can be off-set against carbon-positive measures such as tree planting.

Energy Plan is being prepared which will develop an ambitious carbon pathway to becoming carbon neutral and help increase the security and resilience of energy supply.

2.339 Developments should maximise opportunities for on-site electricity and heat production from solar technologies (photovoltaic and thermal) and use innovative building materials and smart technologies. This will reduce carbon emissions, reduce energy costs to occupants, improve the city's energy resilience and support the growth of green jobs.

2.340 Brighton & Hove's homes and workplaces are responsible for approximately 70% of the city's carbon emissions<sup>104</sup>. For Brighton and Hove to achieve the City Plan Part One objective of becoming a zero-carbon city by 2050<sup>105</sup> and council ambition to be carbon neutral by 2030, improvement needs to be achieved in existing and new development through meeting at least the minimum standards set out above, and those in City Plan Part One policy CP8 Sustainable Development<sup>106</sup>.

2.341 The following energy hierarchy should inform the design, construction and operation of new buildings:

- Be lean: use less energy
- Be clean: supply energy efficiently,
- Be green: use renewable energy

2.342 The priority is to minimise energy demand, and then address how energy will be supplied and renewable technologies incorporated. Fabric and energy efficiency measures are the most effective way to reduce energy demands, CO<sub>2</sub> emissions and costs for occupant of new buildings. These benefits are also more reliable as they are less reliant on the long-term operation and maintenance of equipment.

2.343 The energy sector is going through considerable changes with trends such as decarbonisation of the national electricity grid; increasing use of electric vehicles and increasing uptake of low and zero carbon (LZC) energy technologies. These changes will potentially put stress on existing energy infrastructure, increasing the need for energy efficient development with low energy use, managing and avoiding energy use at peak demand times.

## **CO2 Reduction**

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<sup>104</sup> 1007.6 KtCO<sub>2</sub> as identified in Brighton and Hove City Plan Part 2 Energy Study (AECOM 2018)

<sup>105</sup> 'Carbon' is used as a shorthand term for all greenhouse gases. Carbon accounting is measured nationally in carbon dioxide equivalent, which includes the conversion of other greenhouse gases into their equivalent carbon dioxide emissions.

<sup>106</sup> The Planning and Energy Act 2008 enables local planning authorities to set requirements for energy use and energy efficiency in local plans.

2.344 Currently, the minimum 19% CO2 reduction target required by City Plan Part 1 policy CP8 Sustainable Buildings applies to developments of new residential dwellings only.

2.345 To mitigate carbon emissions associated with all new development and meet local and national policy objectives for CO2 emissions reduction, this minimum requirement now applies to all types of development. In order to meet the national and local carbon reduction targets, greater CO2 emission reductions will need to be delivered in the future and these targets will be kept under review. To ensure the assessment of new development better reflects the actual carbon emissions associated with their expected operation, planning applicants are required to use the government's updated carbon emission factors (SAP 10 or subsequent versions). It is anticipated that on developments where carbon savings from certain technologies (e.g. gas-engine CHP and solar PV) do not achieve the carbon savings set out in City Plan Part One Policy CP8, alternative or additional technologies will need to be utilised to meet the 19% improvement against part L.

2.346 If a developer can demonstrate that there is a technical or financial reason why this target cannot be achieved they would be expected to deliver as close to this target as possible. Where it can be demonstrated that the minimum CO2 reduction targets cannot be met on-site, mitigation measures may be sought in accordance with City Plan Part One Policy CP7 Infrastructure and Developer Contributions. The council will consider setting up a carbon offset scheme in the future which could then be applied to the residual CO2 emissions to enable the development to achieve compliance, and to use any funds acquired through this mechanism for carbon saving projects and explore innovative retrofit options such as Energiesprong<sup>107</sup>.

### **Energy Cost efficiency**

2.347 Ensuring that new buildings have low energy consumption and CO2 emissions will have benefits for the future residents and business occupants, through reduced energy bills. This will benefit the wider community through reduced CO2 emissions and less pressure on local energy infrastructure.

2.348 The Minimum Energy Efficiency Standards (MEES) Regulations require all applicable properties for sale and rent in the UK to achieve an Energy Performance Certificate (EPC)<sup>108</sup> of E or better. The Clean Growth Strategy (2017)<sup>109</sup> has set a

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<sup>107</sup> Energiesprong is a model developed in the Netherlands to provide state-of-the-art whole-house retrofits, initially in the social housing sector. These combine industrialised retrofit techniques, designed to obtain net zero energy consumption, with novel contractual structures for delivery and cost recovery.

<sup>108</sup> An EPC gives an estimate of energy use, carbon dioxide (CO2) emissions and fuel costs, providing an energy efficiency rating from A (most efficient) to G (least efficient).

<sup>109</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/70049/clean-growth-strategy-correction-april-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/70049/clean-growth-strategy-correction-april-2018.pdf)

target for as many buildings as possible to achieve an EPC of C by 2030/35 and commits to keep energy efficiency standards under review.

2.349 The City Plan seeks to reduce inequalities and deliver energy efficient development<sup>110</sup>. Given the importance of addressing energy consumption from domestic and non-domestic buildings, the council considers opportunities to improve the performance of existing and new developments should be taken in advance of the government target. Higher minimum (EPC) standards are sought for all new development in the city informed by 2018 Energy Study<sup>111</sup> unless it can be demonstrated that this is not feasible due to technical, practical, or viability considerations.

2.350 In Brighton & Hove fuel poverty was estimated to affect 11.9% of households, higher than national and regional averages<sup>112</sup>. The City Plan Part 2 Energy Study shows there is lower performance in existing buildings than in new buildings. In existing buildings, 57% of non-domestic properties, and 74% of dwellings achieve a 'D' rating or above. Of these dwellings, the majority have a 'potential' to achieve a 'C' or 'B' rating with some relatively straightforward cost effective energy efficiency improvements<sup>113</sup>. Performance levels may be lower in existing buildings due to historic building fabric, and planning constraints associated with heritage designations. To protect tenants from fuel poverty, an EPC 'C' rating is expected of all development associated with existing development.

2.351 Developers are required to confirm the predicted EPC ratings for all buildings when submitting a planning application, to submit a copy of the final EPC to the planning authority on completion. It is assumed no additional work will be required from the developer as it is a legal requirement to produce a draft EPC before work starts on site and a final EPC at completion for submission.

### **Low Carbon Opportunity Zones**

2.352 Given the council's ambition to become a carbon neutral city by 2030, opportunities for new development to achieve greater reductions in CO2 emissions through the use of passive design, fabric standards, energy efficiency measures and low and zero carbon technologies will be encouraged across the city<sup>114</sup>. There are certain locations within the city that offer greater potential for the installation of low and zero carbon technologies (LZCs). In these locations developers are encouraged

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<sup>110</sup> Strategic Objectives: SO20, SO7 and SO8

<sup>111</sup> A higher minimum standard for new build reflects the City Plan Part 2 Energy Study<sup>111</sup> findings that in the city, the majority of new domestic properties (69%) and new non-domestic properties (78%) achieve an EPC of 'B' or above.

<sup>112</sup> Annual Fuel Poverty Statistics Report (2015) quoted in Brighton & Hove Fuel Poverty and Affordable Warmth Strategy 2016-2020.

<sup>113</sup> Brighton & Hove City Plan Part Two Energy Study (AECOM 2018) Section 3.3

<sup>114</sup> The Brighton & Hove Energy Study includes maps identifying opportunities for renewables and priority areas with enhanced potential for district heat networks. Nationally recognised certification for other building standards such as Passivhaus or AECB standards will be considered.

to achieve the best energy solution for the development to deliver higher CO2 savings through greater passive design, fabric and energy efficiency measures and LZO technologies. These areas are identified as 'Low Carbon Opportunity Zones':

a) Development Areas 1- 7 (City Plan Part 1)

2.353 Analysis from the Energy Study 2018 shows that there are significant opportunities to install low and zero carbon energy technologies and heat networks within the identified development areas. Consideration should also be given to whether there is an existing energy schemes outside the boundary of the site which the development could connect to in order to achieve the best energy solution for the development.

b) Housing Allocations in the urban fringe (Policy H2)

2.354 Urban fringe housing sites could also reasonably be expected to deliver more in regards to low carbon and sustainable design and, as greenfield sites, these locations are also likely to offer greater flexibility in master-planning and design of buildings to maximise the use of energy and sustainable design measures.

c) Within industrial areas identified and safeguarded in City Plan Part One Policy CP3.3.

2.355 Development taking place within existing designated industrial areas is also likely to offer the potential for additional energy and sustainability measures, for several reasons. These locations will have fewer issues associated with visual impact and are likely to contain buildings with features, such as greater roof areas, that will support increased installations of solar energy. Additionally, uses on these sites may be more energy-intensive, in which case the use of LZCs could help to relieve pressure on local power networks. Furthermore, they may produce waste heat or materials that could be used to supply energy onsite or nearby.

2.356 It will be the developer's responsibility to assess the viability of installing more LZCs in specific locations. Community ownership of LZCs, could provide a means to finance LZO schemes and offers additional benefits to the community.

### **Evidence of compliance**

2.357 The move towards zero-carbon development requires comprehensive monitoring of energy demand and carbon emissions to ensure that buildings are well designed, and to ensure planning commitments are being delivered.

2.358 The City Plan seeks to maximise the delivery of low and zero carbon (LZO) energy technologies associated with new development in the city. It is anticipated that developers will use LZCs to meet the CO2 reduction and BREEAM targets once Part L targets have been achieved. Understanding what has been proposed will be

important to support the Council in recording the types of technologies used and the scale of installations within Brighton and Hove.

2.359 The achievement of the CO2 emission reduction standard can be demonstrated through an Energy Statement prior to commencement of development. At post construction stage, achievement of the standard can be demonstrated through final 'as built' reports produced for Building Regulations compliance e.g. SAP (Standard Assessment Procedure) for dwellings, and or SBEM (Simplified Building Energy Model) or BRUKL (Building Regulations UK Part L) for non-domestic development. The council will expect 'as built' reports for non-domestic developments to demonstrate compliance to Policy CP8 BREEAM standards, ie shell only developments should meet BREEAM UK New Construction 'Shell only' assessment; and refurbishment and fit-out should meet BREEAM UK Refurbishment and Fit- out Parts 2, 3 or 4 assessments as appropriate.

2.260 Detailed information relating to the specific information required, format and presentation of this information in Energy Statements will be set out in a technical guidance document to ensure consistency of reporting and evidence requirements.

2.361 This Statement should provide details of the low and zero carbon energy technologies used including the size/capacity of the systems and the estimated CO2 savings that will be achieved. A technical guidance document will be produced to provide support on the specific information required to demonstrate compliance as well as guidance on passive design, good building fabric and avoiding over-heating.

## **DM45 Community Energy**

**Developers of medium scale and major development schemes<sup>115</sup> are encouraged to actively seek community energy partners to deliver low and zero carbon energy<sup>116</sup> solutions which are 'led by'; or 'meet the needs' of local communities**

### **Supporting Text**

2.362 The City Plan recognises the importance of enabling communities and residents to take a greater share in the benefits of the UK's transition to low carbon

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<sup>115</sup> Medium scale and major developments are defined as:

- non-residential retail developments over 151sqm;
- other non-residential development over 236sqm; and
- residential development over 3 units.

<sup>116</sup> Renewable and low carbon energy: Includes energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment – from the wind, the fall of water, the movement of the oceans, from the sun and also from biomass and deep geothermal heat. Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels). (Definition from NPPF).

energy. This policy follows on from City Plan Part One policy CP8 Sustainable Buildings, part 2 (a), (b), (c), and (d).

2.363 The Government's Community Energy Strategy (2014)<sup>117</sup> supports the role that communities can play in helping to meet the UK's energy and climate change challenges, and asks all authorities to show leadership to help deliver community energy projects.

2.364 The local energy economy in Brighton & Hove can deliver significant long term benefits to the community, including reduced energy bills, increased energy sustainability and security, and a shift of ownership to local people.

2.365 Developers of medium scale and major development schemes are encouraged to actively seek community energy partners to deliver low carbon energy solutions which are 'led by' or 'meet the needs' of communities through full community ownership and control of a low carbon energy solution or project and that can add social value in accordance to the council social value framework<sup>118</sup>. This policy is particularly relevant where viability issues restrict the applicants' ability to maximise the potential for low and zero carbon energy as part of their scheme.

2.366 'Full community ownership' is defined as where the community, through an appropriately constituted community energy enterprise, has ownership and control of the revenue, surplus income and energy generated by the development (which could include being used to provide cheaper energy within the community through locally discounted tariffs). This model provides the greatest scope for long term accessible and inclusive benefits for the local community and will therefore receive the greatest level of support. Other models exist such as split ownership, joint venture, equity shares, and post-construction community buy out.

2.367 Some areas of Brighton & Hove have been identified as 'low carbon opportunity zones' where there is greater potential for the installation of renewable or low carbon energy, or which justify greater efforts to reduce environmental impacts. In these locations developers are encouraged to assess the potential to deliver higher CO2 savings. A community energy approach where schemes are led by, and/or meet the needs of local communities and provide a positive local benefit, may assist in delivering higher levels of CO2 savings in a viable way in these zones.

2.368 Neighbourhood Forums are encouraged to consider the potential for community energy when preparing Neighbourhood Plans.

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<sup>117</sup> [UK Community Energy Strategy 2014 and update 2015](#)

<sup>118</sup> [https://present.brighton-hove.gov.uk/Published/C00000912/M00006397/AI00051935/\\$20160713113212\\_009343\\_0038669\\_BrightonandHoveSocialValueFramework.docx.pdf](https://present.brighton-hove.gov.uk/Published/C00000912/M00006397/AI00051935/$20160713113212_009343_0038669_BrightonandHoveSocialValueFramework.docx.pdf)

## **DM46 Heating and cooling network infrastructure**

**The Council will encourage development proposals to consider the inclusion of integrated heat networks and/or communal heating systems in accordance with Policy CP8 in City Plan Part One<sup>119</sup> .**

**Where proposals come forward with combined heat and power (CHP) they must meet CHP Quality Assurance standards (CHPQA)<sup>120</sup> and demonstrate that heating and cooling systems have been selected in accordance with the heating and cooling hierarchy and CIBSE Heat Network Code of Practice<sup>121</sup> and address the requirements in Policy DM40;**

**All proposals that include heat networks must demonstrate they offer heat service customer protection by adopting a customer protection scheme (such as Heat Trust<sup>122</sup> or equivalent); and**

**All development incorporating heat network infrastructure which is proposed within or adjacent to a heat priority area<sup>123</sup> will be expected to meet the minimum standards specified in the CIBSE Heat Network Code of Practice and demonstrate its suitability to a future connection to a wider heat network, including;**

- a) control systems and temperatures of operation;**
- b) routing of pipework and location of the energy centre;**
- c) safeguarded access for external pipework into the energy centre;**
- and**
- d) space within the energy centre for a future heat substation.**

### **Supporting Text**

2.369 This policy seeks to ensure that low-carbon heat network infrastructure and communal heating systems are incorporated into new development where appropriate to support wider low-carbon heat network development within Brighton & Hove. The policy will ensure that heat network infrastructure is constructed to a high quality to provide a reliable, affordable, quality and low carbon source of heat to end

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<sup>119</sup> City Plan Part 1 Development Areas 1-8 include priorities related to consideration/ incorporation of infrastructure to support low and zero carbon decentralised energy.

<sup>120</sup> CHP Quality Assurance programme (CHPQA) is a government initiative [www.gov.uk/guidance/combined-heat-power-quality-assurance-programme](http://www.gov.uk/guidance/combined-heat-power-quality-assurance-programme)

<sup>121</sup> CIBSE Heat Networks Code of Practice CP1 'Heat Networks: Code of Practice for the UK' [www.cibse.org/knowledge/knowledge-items/detail?id=a0q20000090MYHAA2](http://www.cibse.org/knowledge/knowledge-items/detail?id=a0q20000090MYHAA2)

<sup>122</sup> <http://heattrust.org/>

<sup>123</sup> Fourteen heat priority areas were identified in figure 23 in the [B&H Renewable & Sustainable Energy Study](#) and allocated in CPP1. These identify areas in the city with enhanced opportunity for the successful delivery of heat networks. Further heat priority areas may be identified when this study is updated.

users as well as consistency and connectivity of decentralised energy systems and protections for heat customers.

2.370 An increasing number of heat networks and communal heating systems<sup>124</sup> are being integrated into development schemes across Brighton & Hove and in neighbouring authority areas. Heat and cooling networks along with decentralised energy schemes are expected to extend across the city and region in future years and decades. This policy expands on the existing Policy CP8 in City Plan Part One by providing additional criteria that should be addressed when such schemes come forward.

### **Heating and cooling hierarchy**

2.371 City Plan Part One Policy CP8 at paragraph 4.85 sets out that an assessment of the energy demand and carbon dioxide emissions will be expected from all proposed residential and major developments (see also Policy DM44 Energy Efficiency and Renewable Energy). This should show how carbon emissions have been reduced, energy efficiency integrated, renewable energy installed, and connections facilitated or made to heat networks where they exist.

2.372 In addition to the criteria set out in the City Plan Part One, proposals should demonstrate that the heating and cooling systems have been selected in accordance with the heating and cooling hierarchy as set out in Table 4, with priority given to the first energy system and type of technology. This will ensure that development in the city contributes to meeting Strategic Objective 07 in the City Plan, to contribute to a reduction in the ecological footprint of Brighton & Hove.

2.373 Feasibility assessments should meet the minimum requirements in Section 2 of the CIBSE Heat Networks Code of Practice, providing a rationale for the preferred option and incorporating a high level assessment of the potential to extend the network beyond the development area in future. Centralised communal wet heating systems are encouraged rather than individual gas boilers or electric heating, particularly in locations within or near to the identified heat network priority areas.

2.374 Proposals for major developments should demonstrate and quantify how the development will comply with the heating and cooling hierarchy. In accordance with DM40 Protection of the Environment and Health – Pollution and Nuisance, biomass combustion and combined heat and power systems will not be acceptable in certain areas of the city due to a need to comply with nitrogen dioxide limits and improve air quality.

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<sup>124</sup> Communal heating means the distribution of thermal energy in the form of steam, hot water, or chilled liquids from a central source in a building which is occupied by more than one final customer, for the use of space heating, process heating, cooling or hot water.

Heat network means the distribution of thermal energy in the form of steam, hot water or chilled liquids from a central source of production through a network to multiple buildings or sites for the use of space heating or process heating, cooling or hot water.

**Table 4 The Heating and Cooling Hierarchy**

<b>Heating and Cooling Hierarchy</b>	
<b>System</b>	
1.	Connection to existing heat/cooling networks
2.	Site wide heat/cooling network
3.	Building heat/cooling network
4.	Individual heating/cooling systems
<b>Technology</b>	
1.	Systems using renewable/waste energy sources e.g. heat pumps and/or secondary sources
2.	Low carbon low emission technologies
3.	Conventional systems e.g. gas or direct electric

### **Combined heat and power quality assurance (CHPQA)**

2.375 Combined Heat and Power (CHP) refers to the simultaneous generation of heat and power in a single process. This provides one of the most cost-effective approaches for making carbon savings and plays a crucial role in the UK Climate Change programme. The CHP Quality Assurance programme (CHPQA) is a Government initiative providing a practical, determinate method for assessing all types and sizes of CHP schemes throughout the UK and aims to monitor assess and improve the quality of CHP. The Government is committed to increasing the UK's CHP capacity because of the considerable environmental, economic and social benefits it can bring together with its contribution to security of supply. Successful CHPQA certification grants eligibility to a range of benefits<sup>125</sup>. CHPQA, by assessing CHP schemes on the basis of their energy efficiency and environmental performance, ensures that the associated fiscal benefits are in line with environmental performance.

### **Customer protection for communal heat service users**

2.376 The heating sector, unlike gas and electricity, is an unregulated market. This means that customers can be vulnerable to variable pricing and service standards from their heat provider. To ensure customers receive fair and quality services, proposals for communal heat systems are expected to adopt a nationally recognised

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<sup>125</sup> CHPQA current benefits at April 2017 include Renewable Heat Incentive, Carbon Price Floor (heat) relief, Climate Change Levy exemption (in respect of electricity directly supplied), Enhanced Capital Allowances and preferential Business Rates.

customer protection scheme in the delivery and management of their service. An example of a national scheme is the Heat Trust Customer Protection Scheme<sup>126</sup>.

## Heat Network Good Practice standards

### a) Technical specifications for connection

2.377 Within City Plan Part One, Policy CP8, the Development Area policies and some of the Strategic Areas policies set out local priorities that proposed energy systems in heat priority areas should be 'connection ready' (to have capacity for future connection) or connect where a network is planned or exists.

2.378 Where there is requirement for heat network connection or to be 'connection ready', buildings connecting to an existing heat network should adhere to the relevant guidelines set in the CIBSE Heat Networks Code of Practice Chapter 3 'Design'.

### b) Indicative space requirements

2.379 Buildings should allow adequate plant room space to allow for connection at a later date (indicative requirements are shown in the table below).

**Table 5 - Indicative space requirements for heat exchange substation equipment within building plant rooms<sup>127</sup>**

Heating Capacity, kW (space heating + ventilation)	Approximate building size, m <sup>3</sup>	Space required by the heating equipment, m <sup>2</sup>
30	1,000-1,500	2
200	10,000-15,000	4
400	20,000-30,000	5
800	40,000-60,000	6

### a) Pipe routes

<sup>126</sup> Heat Trust Protection Scheme: [www.heattrust.org](http://www.heattrust.org). Heat customers that are served by heat networks registered with Heat Trust will benefit from the standards set out within the Scheme. These standards are designed to be comparable to the service standard required by gas and electricity companies and include: support for vulnerable consumers, responding to faults and emergencies, guaranteed service payments for interruptions in supply, metering and billing and complaints handling. Customers will also be able to access the Energy Ombudsman if they remain unhappy with how their heat supplier has managed their complaint.

<sup>127</sup> Greater London Authority. (2014). London Heat Network Manual. Pg.41.  
[https://www.london.gov.uk/sites/default/files/london\\_heat\\_map\\_manual\\_2014.pdf](https://www.london.gov.uk/sites/default/files/london_heat_map_manual_2014.pdf)

2.380 The developer should, with the support of the planning authority, identify and safeguard a pipe route to allow connection between the building and the highway or identified network route where available. The developer should not compromise or prevent the potential connection of the building to a planned network.

2.381 See also Policy DM40 Protection of Environment and Health – Pollution and Nuisance regarding air quality.