

Note for [Figure 9.4](#): Thames Water has developed a model of its drains and sewers in London to assess waste water flows. The model compares the theoretical capacity of the drain or sewer pipe against how much waste water flow the pipe is currently receiving during a one in two-year rainfall event. The model's outputs can be visualised as a 'heat map', which highlights at a strategic scale where there is a higher (green) or lower (red) ability to receive additional flows. 'Green' areas do not mean that no additional drainage infrastructure is required. The modelling does not consider how waste water is routed through the network, so it should be noted that some 'green' areas will flow into 'red' areas, hence increasing flows upstream will exacerbate performance in the downstream catchments. The hatched area on the map shows the portions of the sewer system that are generally combined sewers, which means they capture both waste water and surface water flows.

Policy SI 6 Digital connectivity infrastructure

- A To ensure London's global competitiveness now and in the future, development proposals should:
 - 1) ensure that sufficient ducting space for full fibre connectivity infrastructure is provided to all end users within new developments, unless an affordable alternative 1GB/s-capable connection is made available to all end users
 - 2) meet expected demand for mobile connectivity generated by the development
 - 3) take appropriate measures to avoid reducing mobile connectivity in surrounding areas; where that is not possible, any potential reduction would require mitigation
 - 4) support the effective use of rooftops and the public realm (such as street furniture and bins) to accommodate well-designed and suitably located mobile digital infrastructure.
- B Development Plans should support the delivery of full-fibre or equivalent digital infrastructure, with particular focus on areas with gaps in connectivity and barriers to digital access.

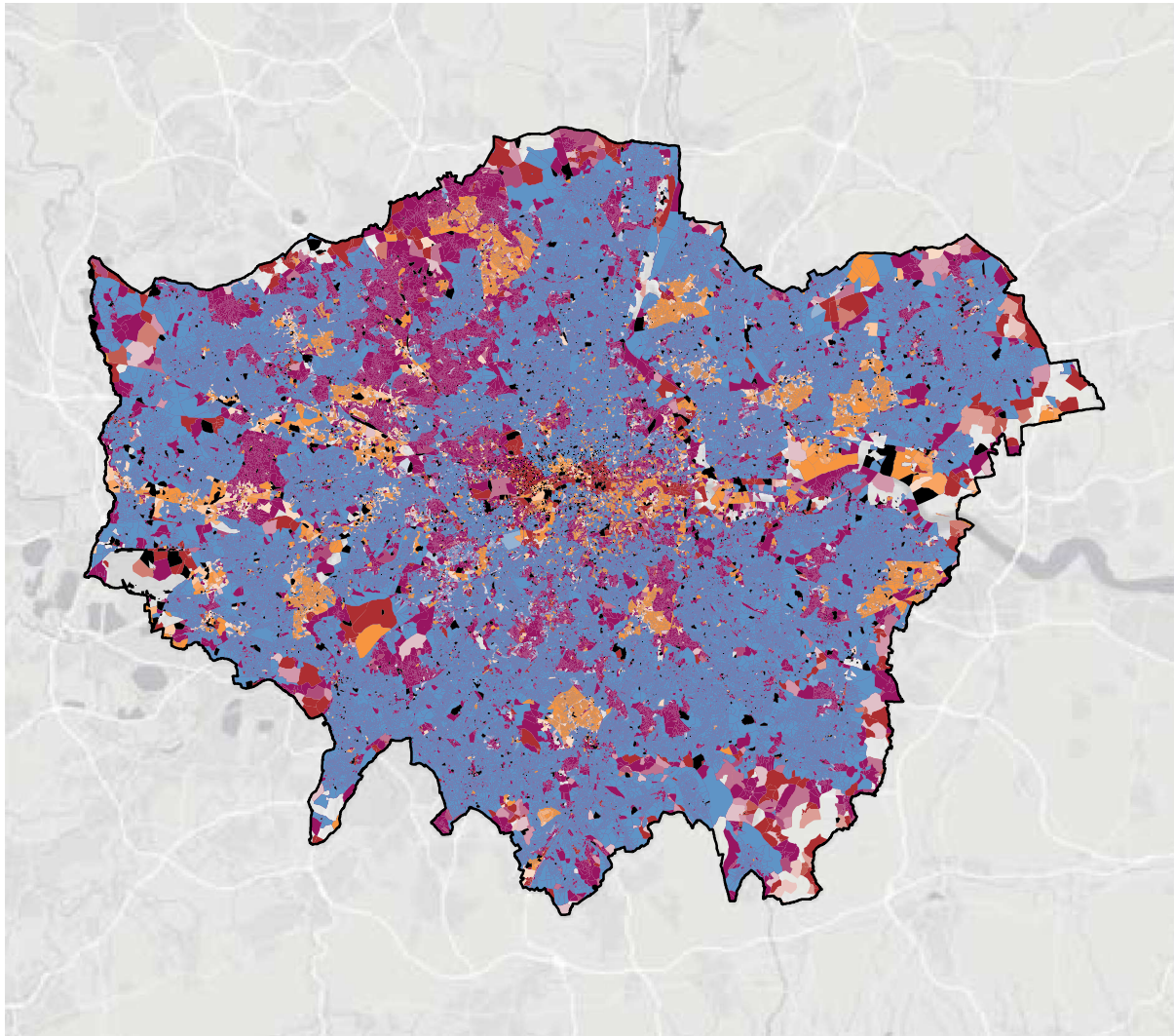
9.6.1 The **provision of digital infrastructure** is as important for the proper functioning of development as energy, water and waste management services and should be treated with the same importance. London should

be a world-leading tech hub with world-class digital connectivity that can anticipate growing capacity needs and serve hard to reach areas. Fast, reliable digital connectivity is essential in today's economy and especially for digital technology and creative companies. It supports every aspect of how people work and take part in modern society, helps smart innovation and facilitates regeneration.

- 9.6.2 **London's capability** in this area is currently limited by a range of issues, including the availability of fibre and the speeds delivered. The industry regulator Ofcom publishes the data on digital connectivity coverage on which Figure 9.5 is based, but there are some limitations to the practicality of the data that is collected. Further work will be done to accurately identify locations in the capital where current connectivity provisions are not suitable for the needs of the area.
- 9.6.3 **Better digital connectivity** with a focus on capability, affordability, security, resilience and the provision of appropriate electrical power supply should be promoted across the capital. The specific requirements of business clusters, such as a symmetrical-capable service with the same upload and download speeds, should also be met.
- 9.6.4 Given the fast pace at which digital technology is changing, a flexible approach to development is needed that supports **innovation and choice**. Part R1 of the Building Regulations 2010 requires buildings to be equipped with at least 30 MB/s ready in-building physical infrastructure, however new developments using full fibre to the property or other higher-grade infrastructure can achieve connectivity speeds of 1 GB/s. Developers should engage early with a range of network operators, to ensure that development proposals are designed to be capable of providing this level of connectivity to all end users. Mechanisms should also be put in place to enable further future infrastructure upgrades. Innovation is driving reductions in the size of infrastructure, with marginal additional unit costs, but greater digital connectivity is needed in more locations.
- 9.6.5 Development proposals should also demonstrate that **mobile connectivity** will be available throughout the development and should not have detrimental impacts on the digital connectivity of neighbouring buildings. Early consultation with network operators will help to identify any adverse impact on mobile or wireless connectivity and appropriate measures to avoid/mitigate them.
- 9.6.6 Access for network operators to rooftops of new developments should be supported where an improvement to the mobile connectivity of the area can be identified. Where possible, other opportunities to secure **mobile connectivity improvements** should also be sought through new developments, including for example the creative use of the public realm.

- 9.6.7 For some types of development (such as commercial) specific requirements regarding **communications access and security** may apply. Data centres, in particular, depend on reliable connectivity and electricity infrastructure. Warehouse-based data centres have emerged as a driver of industrial demand in London over recent years and this will need to be taken into account when assessing demand for industrial land (see [Policy E4 Land for industry, logistics and services to support London's economic function](#), [Policy E5 Strategic Industrial Locations \(SIL\)](#), [Policy E6 Locally Significant Industrial Sites](#) and [Policy E7 Industrial intensification, co-location and substitution](#)).
- 9.6.8 The Mayor will work with network operators, developers, councils and Government to develop guidance and share good practice to **increase awareness and capability** amongst boroughs and developers of the effective provision of digital connectivity and to support the delivery of policy requirements. The Mayor will also help to identify spatial gaps in connectivity and overcome barriers to delivery to address this form of digital exclusion, in particular through his Connected London work. Boroughs should encourage the delivery of high-quality / world-class digital infrastructure as part of their Development Plans.
- 9.6.9 Digital connectivity supports **smart technologies** in terms of the collection, analysis and sharing of data on the performance of the built and natural environment, including for example, water and energy consumption, waste, air quality, noise and congestion. Development should be fitted with smart infrastructure, such as sensors, to enable better collection and monitoring of such data. As digital connectivity and the capability of these sensors improves, and their cost falls, more and better data will become available to improve monitoring of planning agreements and impact assessments, for example related to urban design. Further guidance will be developed to make London a smarter city.

Figure 9.5 - Broadband coverage May 2019



Broadband coverage as of May 2019

Availability (% Premises)

Full Fibre	Ultra-fast Broadband	Super-fast Broadband	30Mbit/s Unavailability
1 - 20	1 - 20	1 - 20	1 - 20
21 - 40	21 - 40	21 - 40	21 - 40
41 - 60	41 - 60	41 - 60	41 - 60
61 - 80	61 - 80	61 - 80	61 - 80
81 - 100	81 - 100	81 - 100	81 - 100

● No Data Available
(Postcode areas)

Source: Ofcom

Contains OS data ©
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database right (2019)

Note for Figure 9.5: For the most up to date broadband coverage and information on broadband connection types please see <https://www.london.gov.uk/what-we-do/business-and-economy/supporting-londons-sectors/connectivity>

Policy SI 7 Reducing waste and supporting the circular economy

- A Resource conservation, waste reduction, increases in material re-use and recycling, and reductions in waste going for disposal will be achieved by the Mayor, waste planning authorities and industry working in collaboration to:
- 1) promote a more circular economy that improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible
 - 2) encourage waste minimisation and waste prevention through the reuse of materials and using fewer resources in the production and distribution of products
 - 3) ensure that there is zero biodegradable or recyclable waste to landfill by 2026
 - 4) meet or exceed the municipal waste recycling target of 65 per cent by 2030¹⁶³
 - 5) meet or exceed the targets for each of the following waste and material streams:
 - a) construction and demolition – 95 per cent reuse/recycling/recovery
 - b) excavation – 95 per cent beneficial use¹⁶⁴
 - 6) design developments with adequate, flexible, and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.

¹⁶³ Based on the EU definition of municipal waste being household waste and other waste similar in composition to household waste. This includes business waste collected by local authorities and by the private sector.

¹⁶⁴ All inert excavation waste should be used for beneficial uses.