

APPENDIX 1

SUMMARY NOTE: DRAFT LONDON INFRASTRUCTURE PLAN 2050

OVERVIEW

1. The demand for infrastructure within Greater London is expected to significantly increase over the coming decades. London's population is projected to reach 11.27 million by 2050, a 37% increase from 2011¹. In 2014, the population will surpass its previous peak of 8.6 million (set in 1939).
2. The Draft LIP is based on the above mid-level population scenario and creates the following infrastructure headline impacts, which drive its proposals,
 - a. 50% increase in public transport;
 - b. New hub capacity for aviation as Heathrow routinely operates at near full capacity;
 - c. Expectation of fast digital connectivity;
 - d. 20% increase in energy demand but the need to reduce to meet climate change targets;
 - e. Water demand to exceed supply by 2016²; and
 - f. Green infrastructure to be regarded as infrastructure in its own right to assist flood protection, water storage, recycling, pedestrian and cycling routes, recreation and biodiversity.
3. The following developments are also anticipated,
 - a. A move towards the circular economy – reuse or recycle rather than throw away;
 - b. Provision for an increasing school age population – 600 new schools and colleges; and
 - c. The need to build 49,000 new homes a year to meet demand and backlog.

APPROACH

4. The GLA assessed where future growth is likely to occur by considering scenarios that involve the interaction between land-use planning and transport investment. It is assumed these decisions will largely determine the location of growth, and in practice much infrastructure is quite locally oriented or is necessary regardless of the shape of the London's growth (such as upgrading the Tube).
5. London's current Green Belt boundaries are retained for the foreseeable future, given the large reservoir of brownfield land that will accommodate growth at least until 2025.
6. Major alternative scenarios for London's growth up to 2050 are outlined such as the consequences for London's infrastructure needs should a new four runway hub airport be located on the eastern side of London (Isle of Grain in the Inner Thames Estuary) as well the impact of HS2.

SCOPE

¹ 13.39 million is the high estimate and 9.51 million the low.

² 10% deficit by 2025 rising to 21% by 2040.

7. The Draft LIP is focused on the following infrastructure topics,
 - a. Transport. Railways and stations (Underground, Overground, light rail, and national rail including high speed), roads (bus, car, cycling, pedestrian, street lighting) and global connections with a new four-runway hub airport.
 - b. Green. Network of parks, green spaces, trees and other features such as green roofs.
 - c. Energy. Electricity, gas and renewable, nationally and locally produced.
 - d. Water. Supply, drainage (rain/waste water), wastewater and flood risk management.
 - e. Resource management. Recycling, re-use and disposal facilities.
 - f. Digital. Given the rate of change the GLA only examined related infrastructure requirements up to 2020, taking a pragmatic view of making the most of existing technologies and being ready to act as new technologies become available.
12. The GLA has included an assessment of the overall need and cost for housing and schools, but not its delivery as such; the driver is the potential for infrastructure, especially transport, to unlock the housing potential across the capital.
13. NHS infrastructure is excluded as it is funded and organised nationally, and the uncertainty about the mix of healthcare infrastructure needed in the near future, let alone to 2050.

HEADLINES

Transport

14. The Draft LIP proposes a comprehensive package of transport investment for new and improved connections both within and beyond London, and upgrades to the existing network as follows,
 - a. New four-runway hub airport to the east of London, Isle of Grain, Inner Thames Estuary
 - b. Four tracking the West Anglia Main Line to Stansted Airport
 - c. New East London river crossings between the proposed Silvertown tunnel and the new Lower Thames Crossing
 - d. Railway speed and capacity improvements for areas beyond London but within the commuter belt, with an emphasis on HS1, HS2 and Crossrail routes
 - e. Improvements to the national rail network within London
 - f. Crossrail 2 by 2030 (north to south through London and into Surrey and Herts)
 - g. Road corridor and junction improvements along the A13, North Circular, A40, A23
 - h. A new inner orbital tolled road tunnel
 - i. 36 trains per hour on certain tube lines
 - j. Extending the Bakerloo line to south London
 - k. 200kms of cycle highways.

Green

15. The Draft LIP proposes a network of infrastructure for flood protection, shade, biodiversity, cleaner air, a visually greener environment, pedestrian and cycling

routes and space for recreation. It discusses how the GLA will deliver specific projects, develop the evidence base of the benefits of green infrastructure and service a dedicated 'taskforce' to investigate the future design and management of this infrastructure, including the options for its governance and funding.

Energy

16. Rather than just increasing supply, the emphasis is on reducing demand through efficiency. The GLA will also seek to encourage new suppliers to the market and develop its £300m existing pipeline of local energy projects, including heat recovery. Regulatory reform is a critical component to ensure investment keeps pace with growth.

Water

17. To meet a projected gap between water supply and demand, the GLA will support new technologies to repair leaks, roll out water meters combined with more sophisticated tariffs, implement water efficiency measures and, in the longer term, encourage waste water reuse. The GLA will also work with the Environment Agency, London Boroughs and others to see 25 year plans for drainage, flood risk management and water supply.

Waste

18. By 2050, the aim is that very little waste will require disposal, the economic benefits of which will include savings of up to £5bn, a growing economic sector with new employment opportunities, reduced exposure to volatile global commodity prices and less toxic waste. Enabling the 'circular-economy' approach will require investment in around 40 new facilities for the reuse, repair and remanufacture of materials.

Digital connectivity

19. The aim is for fast, ubiquitous access to the internet from mobile and fixed devices. Proposals include a London connectivity map to identify where networks need to be improved, support for fibre and mobile broadband and future methods of wireless internet delivery, ensuring sufficient radio spectrum is identified to address the capacity crunch in the short term, and deploying 5G in the 2020s.

Growth locations

20. This is one of the most important parts of the Draft LIP in terms of potential impacts for Essex. The Draft LIP discusses where London's growth *may* be accommodated both within and beyond its boundaries and what impact spatial decisions, such as how investment in a four-runway hub airport in the east will help shape London and the Thames Estuary, will have on infrastructure in the city. It confirms the Mayor's determination to retain London's current Green Belt boundaries for the foreseeable future, given the amount of brownfield land that will accommodate growth at least until 2025. Scenarios show where further growth could occur, as a precursor to the next full revision of the London Plan after 2016.

Costs

21. A summary is provided of the full costs of delivering and maintaining the infrastructure that London needs, based on a bottom-up assessment of all stated requirements. These include the costs of enhancements, renewals, operating and maintenance. The estimate is that the costs of delivering the aspirations would be nearly twice current expenditure levels by 2025, with a significant public sector funding gap. The gap could be eliminated through better integration, asset management, procurement and more certain forward planning.
22. The call for fiscal devolution as set out by the London Finance Commission is reinforced. It sets out other potential funding sources to close the gap between demand and current funding that may exist even after the above approaches to managing costs are exhausted.

Delivery

23. The Draft LIP sets out how London could deliver its infrastructure in a more integrated and efficient way to lead to provision ahead of demand. It proposes an Infrastructure Delivery Board as a first step in overcoming current disjointed arrangements. It lobbies for statutory recognition of the growth projections in the London Plan by all infrastructure providers and their regulators, and calls for reforms to regulatory frameworks, in energy and water in particular.