

The London Plan aviation policy report: Heathrow expansion and Advanced Air Mobility (AAM)

July 2026

Heathrow Expansion – surface access challenge

A proposed draft revision to the Airports National Policy Statement (ANPS) - to be known as Heathrow Expansion National Policy Statement (HENPS) - was published for consultation on 18 June 2026. Transport for London (TfL) will review HAL's modelling and undertake supplementary analysis as necessary to assess the potential impacts on public transport, traffic congestion, noise, air quality, and carbon arising from expansion proposals.

The draft London Plan 20 year key diagram (indicative) illustrates a number of potential surface transport requirements in the event of Heathrow expansion. This reflects previous work undertaken in 2018¹ which set out the scale and type of mitigations required for Heathrow expansion to proceed.

Based on the latest information currently available (Appendix A), this brief report provides some initial updated analysis on the increase in highway trips due to a potential Heathrow expansion. As the modelling and analysis is further developed and updated, requirements will be reviewed. However, the principle of the surface access challenge remains unchanged and it is expected that required transport interventions will be similar as listed in the draft London Plan aviation policy, spatial strategy, and specified in Section 2.3 of this report.

While this report is concerned specifically with the surface access challenge, there would be significant wider impacts of Heathrow expansion, including limiting suitable land availability for housing due to expanded public safety zones and increased areas affected by noise and air pollution. Moreover, crowding on public transport and increased highway congestion, if not addressed, would limit the ability of transport networks to support London's future housing and employment needs.

I. Background

- I.1 According to Heathrow Airport Limited (HAL)², expansion would enable the airport to handle around 756,000 air traffic movements (ATMs) and 150 million passengers per annum (mppa) – compared to around 480,000 ATMs and 84 mppa in 2024. This constitutes a 79 per cent increase in passengers compared to today, with an expectation of a comparable increase in staff, of which there were over 80,000 in 2024.
- I.2 In 2024, Heathrow handled 1.6 million tonnes of cargo, representing 60 per cent of all freight handled at UK airports in terms of tonnage³. Under the expansion proposals, HAL envisages cargo capacity would increase by 50 per cent.

¹ TfL Surface access analysis note - 170115

² <https://www.heathrow.com/content/dam/heathrow/web/common/documents/expansion/expanding-heathrow-proposal-summary.pdf>

³ <https://assets.publishing.service.gov.uk/media/6a3393630bea238415c9a1d7/a-strategic-vision-for-transport-to-an-expanded-heathrow-airport.pdf>

- 1.3 Taken together, this risks a very significant increase in highway trips on already congested roads. This congestion, if not addressed, would substantially erode the economic benefit from expansion through longer and less reliable journey times and reduced economic productivity.
- 1.4 Alongside potential economic disbenefits, increased highway trips and the associated traffic also raises serious concerns about environmental emissions, notably carbon, as well as air pollution and its associated health impacts. Air pollution includes particulate matter (PM_{2.5} and PM₁₀) as well as ultrafine particles associated with aircraft⁴ which pose increasing risk to human health.

2. A significant shift to public transport is required

- 2.1 The draft Heathrow Expansion National Policy Statement (HENPS) envisages passenger public transport mode share targets of at least 50 per cent when annual terminal capacity reaches 116 million passengers per annum (mppa) and 55 per cent at 130 mppa, compared with around 42 per cent in 2024⁵.
- 2.2 Transport for London's indicative analysis suggests that, even assuming a 55 per cent passenger public transport mode share, an expanded Heathrow could generate over 20 million additional highway trips per year, equivalent to over 55,000 additional highway trips per day (the underpinning assumptions for this calculation can be found in appendix A). This includes additional highway movements generated by passengers, staff and freight. This increase in highway demand would place significant additional pressure on an already constrained transport network and is likely to have considerable impacts on network operations, as well as economic, and environmental consequences.
- 2.3 If this is to be addressed, a substantial shift to sustainable modes is critical. This requires significant improvements to both connectivity and capacity necessary to attract and accommodate passengers and staff away from less sustainable modes. The interventions required to secure this uplift in connectivity and capacity are likely to include:
- Increased frequencies on the Elizabeth line, from 6 trains per hour (tph) to at least 8 tph;
 - The next, currently unfunded, phase of the Piccadilly line upgrade (PLU), entailing new signalling and the extra trains to take advantage of that;
 - New southern and western rail links to Heathrow for those corridors not served by direct rail services, notably south London, Surrey, Hampshire and the Thames Valley – corridors currently skewed towards car and taxi/PHV trips and so offering considerable mode shift potential;

⁴ [Aircraft emissions of ultrafine particles characterized by real-world near runway measurements - PMC](#). Ultrafine particles can bypass lungs and go straight into blood stream and vital organs.

⁵ [STZ-2024-annual-report.pdf](#). Heathrow Aviation Report from 2024.

- Bus and cycle priority infrastructure on key corridors to, from and around the airport, and measures to reduce severance.

3. Conclusion

- 3.1 Without significant investment in public transport connectivity and capacity to meet growth in airport demand, expansion would risk reducing the public transport capacity available to support London's housing and employment needs.
- 3.2 This is in addition to the wider economic, environmental and public health impacts that would arise if the sustainable surface access offer is inadequate to ensure no increase in highway traffic from Heathrow expansion.

Advanced Air Mobility (AAM)

- 5.1 AAM is an emerging technology which includes drones and electric vertical take-off and landing (eVTOL) vehicles. The understanding of its potential operations and implications will increase over time.
- 5.2 AAM has the potential to offer some important economic, social and environmental benefits – including reduced emissions, improved productivity and faster, more efficient delivery, especially of critical services.
- 5.3 For example, public interest uses have an important role to play and existing trials in London include transportation of medical samples for testing and monitoring of trespassing on railway infrastructure.
- 5.4 However, the use of AAM also raises potential concerns including visual intrusion and invasion of privacy, noise disturbance and equity of access to the new technology.
- 5.5 Research to date⁶ suggests that the public recognises both the benefits and drawbacks of AAM and expects authorities to ensure they operate within clear parameters and with robust safeguards. As such, the role of any emerging regulatory framework needs to be to maximise the benefits and minimise the disbenefits and to be clear about how the use of AAM fits within Good Growth and strategic objectives for London.
- 5.6 The right regulatory framework has the potential to offer certainty to the emerging AAM sector while giving local communities the reassurance they need. This will be kept under review as more information becomes available.

⁶ [What do publics think the future of flight should look like in the UK? - University of Birmingham](#). A survey was undertaken by the University of Birmingham under the UK Future of Flight Programme to understand public perceptions of AAM, with the results published in 2025; further work to gain insights into public understanding is ongoing.

Appendix A - Assumptions used to calculate indicative additional highway trips

2024 baseline

Metric	Number	Source
Passenger throughput	84mppa	CAA Passenger Survey Report 2024
Transfer passengers	21.4%	Heathrow 2024 Travel Report
Passenger public transport mode share	41.8%	CAA Passenger Survey Report 2024
Airport employees	80,000 employees	Heathrow 2024 Travel Report ("over 80,000 colleagues")
Staff car mode share	59%	Derived from Heathrow 2024 colleague travel survey
Freight activity	10,000 trips per day	Evidence presented by Heathrow Airports Limited in July 2026

Expansion scenario

Metric	Number	Source
Passenger throughput	150mppa	Heathrow expansion proposals / HENPS
Transfer passengers	24%	Evidence presented by Heathrow Airports Limited in July 2026
Passenger public transport mode share	55%	Draft HENPS target
Airport employees	109,595 employees	Derived using workforce growth relationship
Staff car mode share	59%	Replicates 2024 baseline in absence of a target in HENPS
Freight activity	+50% vs 2024	Heathrow cargo growth assumption applied to 2024 baseline

Other assumptions

Metric	Number	Source
Vehicle occupancy	1.7 passenger vehicles / 1.1 staff vehicles	CAA survey data / Heathrow employee travel survey data
Annualisation factor	360 days	Derived from annual to average day conversion factor used within TfL Heathrow surface access methodology

Results

Metric	Number	Source
Total additional highway trips (daily)	Greater than 55,000 trips	TfL indicative assessment
Total additional highway trips (annual)	Greater than 20 million trips	TfL indicative assessment (daily × 360)