



Heathrow Hub Ltd. response to CAA consultations on

- **Economic regulation of capacity expansion at Heathrow airport: consultation on early costs and regulatory timetable (CAP1819); and**
- **Economic regulation of Heathrow Airport Limited from January 2020: notice of proposed licence modifications (CAP 1825)**

20th August 2019

1.0 Introduction

1.1 This response to both consultations is submitted by Heathrow Hub Ltd, the promoters of the alternative, lower cost Extended Northern Runway (ENR) scheme for Heathrow expansion.

1.2 Although the consultations relate to different aspects of Heathrow's economic regulation, we make this combined response since the critical issues of cost and affordability are relevant to both.

1.3 In his statements prior to Parliament's vote to approve the Airports National Policy Statement (ANPS), the then Secretary of State, Chris Grayling, noted the importance of cost and affordability;

- *"Expansion must also remain affordable to consumers. We took a bold step when I asked the industry regulator, the Civil Aviation Authority (CAA), to ensure the scheme remains affordable while meeting the needs of current and future passengers. This process has borne fruit with the identification of potential savings of up to £2.5 billion."*¹
- *"I can also confirm that expansion can and will be privately financed, at no cost to the taxpayer. It has to be delivered in the interest of the consumer, which is why in 2016 I set out my ambition to keep airport charges as close as possible to current levels, and why I have commissioned the Civil Aviation Authority to work with the airport to keep landing charges close to current levels. So far, that process has identified cost savings of £2.5 billion."*²

1.4 Parliament presumably relied on the Secretary of State's assurances in deciding to vote to designate the ANPS.

¹ Oral statement 5th June 2018 <https://www.gov.uk/government/speeches/proposed-heathrow-expansion>

² Column 658, Hansard 25th June 2018 <https://hansard.parliament.uk/commons/2018-06-25/debates/C9B5DFC3-043B-4528-BEF1-34D9512E637D/NationalPolicyStatementAirports>

- 1.5 However, despite its importance, there is still no information on the estimated cost of Heathrow Airport Ltd's ("HAL") North West Runway ("NWR") scheme. HAL's current statutory consultation is entirely silent on this. It is however clear that the claim of "cost savings of £2.5 billion" cannot be substantiated and that instead the already high cost of NWR is increasing far above that assumed by either the Airports Commission ("AC") or Government.
- 1.6 In its June 2019 working paper the CAA noted they "expect that the next assessment of affordability and financeability to be set out by HAL and included in its initial business plan. We anticipate that HAL will submit this to the CAA in December 2019 and commence its engagement with airlines on the plan at the same time."³
- 1.7 The current CAP1819 consultation confirms "HAL should provide its price control business plan by the end of December 2019."⁴
- 1.8 However, by December 2019 it will be over seven years since the start of the AC's process and three months after the close of HAL's statutory consultation. We believe this is unacceptable.
- 1.9 The ANPS does not repeat the Secretary of State's clear definition of affordability but instead states "the applicant should demonstrate in its application for development consent that its scheme is cost-efficient and sustainable, and seeks to minimise costs to airlines, passengers and freight owners over its lifetime."⁵
- 1.10 HAL's current consultation is statutorily required as a pre-condition to any application for a Development Consent Order (DCO). In view of the weight which the Secretary of State placed on cost and affordability, and the ANPS condition, both HAL's and the CAA's current consultations should clearly set out the estimated cost of NWR and the assumptions made on affordability.
- 1.11 As they do not, it is impossible to meaningfully respond to either HAL's or the CAA's current consultations.
- 1.12 In the absence of any other published information, the attached worksheet uses the AC's evidence to assess, as far as possible, an estimate of the likely cost of the NWR scheme.
- 1.13 Leaving aside the impact on consumers and airlines of substantially higher costs, via higher passenger charges, there are also environmental safeguards to consider. The more expensive the scheme, the greater the pressure to bring on new capacity rapidly, whatever the impact on environmental, air quality or noise limits.

³ Para. 1.8, Working paper summarising affordability and financeability modelling for capacity expansion at Heathrow airport, CAA CAP1812, June 2019

⁴ Para. 3.13, Economic regulation of capacity expansion at Heathrow airport: consultation on early costs and regulatory timetable CAA CAP1819, July 2019

⁵ Para. 4.39, Airports NPS, June 2018

2.0 How did the AC assess the cost of NWR?

2.1 The AC estimated the cost of the NWR scheme at £17.6bn at 2014 prices,⁶ using the detailed estimates prepared by Jacobs, their consultants.⁷ In addition, the AC concluded an additional £5bn of surface access enhancements were essential, including works not physically required to allow the NWR scheme to proceed.⁸

NWR £bn	AC capex estimate
Base scheme cost	12,786
Risk	2,557
Optimism Bias	2,301
Sub- Total	17,644
Surface access	4,962
Total	22,606

2.2 As shown above, this resulted in a total NWR scheme cost of £22.6bn.

2.3 Subsequently the Relationship Framework Document, agreed between the Secretary of State and HAL, and the ANPS both confirm *“the Government expects the applicant to secure the upgrading or enhancing of road, rail or other transport networks or services which are physically needed (our emphasis) to be completed to enable the Northwest Runway to operate. This includes works to the M25, local road diversions and improvements including the diversion of the A4 and A3044, and on-airport station works and safeguarding.”*^{9 10}

⁶ Table 4.3, Business Case and Sustainability Assessment, Heathrow Airport Northwest Runway, Airports Commission, July 2015

⁷ Appendix C, Cost and Commercial Viability: Cost and Revenue Identification Update Heathrow Airport North West Runway, Jacobs for Airports Commission, June 2015

⁸ *“The AC has also considered the cost of incremental surface access works to accommodate the heightened traffic at Heathrow Airport following the implementation of the LHR NWR scheme. The AC’s view of the total surface access costs is £4,962m in real terms”* – Para. 2.2.2 Surface Access Costs,

Cost and Commercial Viability: Financial Modelling Input Costs Update, PWC for Airports Commission, July 2015

⁹ Costs of works, p.32 Secretary of State/Heathrow Airport Ltd, Relationship Framework Document June 2018

¹⁰ Para. 5.19, Airports NPS, June 2018

Table 25: Surface access capex breakdown

Route/ Rail project	Type	Works	Road/Highway length (km)	Capex, real (£m)	%
M4 J3 to J4	Highway	Hard shoulder running in both directions + additional road widening	3.8	274	6.8%
M4 Airport Spur	Highway	Road widening in both directions	2.8	202	5.0%
M4 J2 to J3	Highway	Road widening in both directions	17.6	1,267	31.5%
M4 J4 and J4B	Highway	Additional road widening in both directions	4.7	338	8.4%
M4	Highway	Large M4 junction, J4b replacement	n/a	216	5.4%
M4	Highway	Implementation of higher capacity at the M4 junction, J4a	n/a	58	1.4%
M4	Highway	Capacity improvements to existing main airport tunnel	n/a	58	1.4%
M25	Highway	M25 tunnelling costs (south of junction 15)	4.0	576	14.3%
A4	Local Road	Diversion of the A4 road alignment, dual carriageway	3.5	126	3.1%
A3044	Local Road	Diversion of A3044 Road alignment, dual carriageway	1.0	36	0.9%
Airport Way/Southern Perimeter Road Interchange	Local Road	Grade separated junction and flyover/bridge structures	1.0	50	1.3%
Southern Road Tunnel/Southern Perimeter Road Interchange	Local Road	Works for an interchange	1.0	14	0.4%
One way system for western campus	Local Road	Implementation of a one way system	1.0	3	0.1%
Southern Rail Access (SRA) to Staines (Rail)	Rail	New southern access	n/a	809	20.1%
Total			n/a	4,027	100%

2.4 A breakdown of the AC's estimate of surface access cost is shown above.¹¹ This totals £4.027bn, less than the £4.962 assumed elsewhere by the AC,¹² but both include works in addition to those "physically needed."

Project	Works	Capex £m
M25	Tunnelling costs	576

¹¹ Table 25, Cost and Commercial Viability: Financial Modelling Input Costs Update, PWC for Airports Commission, July 2015

¹² Table H2, Cost and Commercial Viability: Cost and Revenue Identification Update, Heathrow Airport North West Runway, Jacobs for Airports Commission, June 2015

	Add for costs omitted by AC – ¹³ ¹⁴	576
A4	Diversion	126
A3044	Diversion	36
Airport Way/Southern Perimeter Road interchange	Junction	14
Western campus	One way system	3
Rail safeguarding	Assume tunnel box	100
Total		1,431

- 2.5 As shown above, assuming the lower of the AC’s costs, we estimate c.£1.4bn for those works “*physically needed*” to deliver the NWR scheme. However, as discussed below, this assumes an M25 diversion scheme which HAL subsequently found to be undeliverable.
- 2.6 DfT’s subsequent evidence to the House of Commons Transport Committee’s Inquiry confirmed a higher cost of c.£5bn, simply to include “*changes to the infrastructure around the airport that Heathrow will have to make in order to deliver the new runway, such as putting the M25 in a tunnel, changes to local roads and re-routeing the A4 and the A3044. Those are costs that Heathrow is committed to bearing as part of the scheme design, effectively, because they are integral to the scheme.*” ¹⁵
- 2.7 TfL’s evidence confirms a similar cost estimate, “*circa £4bn for the changes to the M25, M4 and A4.*” ¹⁶
- 2.8 HAL’s consultation does refer to other surface access schemes in addition to those included in the breakdown above but assumes these are either not physically needed or not required to meet the public transport mode share conditions in the ANPS.
- 2.9 These other schemes include Western and Southern Rail Access schemes, potentially delivered by 2030 and 2040 respectively. ¹⁷ The first (February 2017) draft ANPS suggested a combined cost for both western and southern rail access of between £1.4 billion and £2.5 billion, ¹⁸ although this was omitted from the second (October 2017) draft. The designated ANPS states “*the Western and Southern Rail schemes are at different levels of development and the cost estimates will change as these schemes are developed. The Government would*

¹³ “For the purposes of this analysis, the full costs of the M25 tunnelling works have been categorised as surface access improvements, rather than “scheme capital expenditure” works which ordinarily include engineering projects within the airport boundary. We note that the airport operator has suggested funding 50% of these works, with the remaining 50% borne by the public sector. The Airports Commission has not taken a view as to the split of funding between private and public sources and believes that this would be a matter for negotiation should the scheme be taken forward” – Footnote 6, Jacobs Leigh Fisher Cost and commercial viability: Cost and revenue identification November 2014

¹⁴ “Only half of the (M25) costs were in the original scheme that we submitted to the Airports Commission” – Q354, HAL oral evidence, 5th February 2018

¹⁵ Q45-49, Oral evidence HC548, 4th December 2017

¹⁶ Q247, HC548, 15th January 2018

¹⁷ Table 2.12: Achievement of passenger mode share targets for the Expected Case (50% by 2030 and 55% by 2040), Surface Access Proposals, HAL June 2019

¹⁸ Para. 3.39, Draft Airports NPS February 2017

*expect the costs of the schemes to be partly offset by airport contributions, which would be negotiated when the schemes reach an appropriate level of development.”*¹⁹

- 2.10 In terms of these schemes, the Relationship Framework Document states *“the amount of any contribution for surface access schemes that can be included in Heathrow’s regulated asset base is subject to the approval of the CAA given in accordance with its policies.”*²⁰
- 2.11 Although we are sceptical that the ANPS public transport mode share conditions can be met without Western and Southern rail access, alongside other surface access enhancements, we have not included the cost of these further schemes in assuming a total of £1.4bn as being the additional cost to be added to the AC’s £17.6bn scheme cost.
- 2.12 In addition, the AC concluded a further £13.4bn of capex was required through to 2036,²¹ termed *“core”* capex and included in its financial analysis.²² This provides the additional terminal facilities, stands and ancillary facilities over and above those included in the NWR scheme to enable a total capacity of between 133 and 149mppa.²³ - that is, the difference between the additional 35mppa capacity assumed to be provided by facilities included in the NWR scheme capex estimate of £17.6bn²⁴ and the AC’s highest capacity forecast of 149mppa.²⁵
- 2.13 The AC assumed a further £16.5bn for asset replacement over the appraisal period,²⁶ unrelated to expansion and therefore not considered here.
- 2.14 We therefore conclude that Government, in deciding to designate the ANPS, assumed a cost of £32.4bn (£17.6bn + £1.4bn + £13.4bn) in 2014 prices for the NWR scheme, excluding any airport contributions to wider surface access enhancements.
- 2.15 This aligns with the CAA’s current consultation which states *“HAL’s current estimates for total expansion capital costs are around £32.5 billion (in 2014 prices) in the period to 2050 (to provide the capacity to accommodate 142 million passengers per annum).”*²⁷

¹⁹ Para. 3.40, Airports NPS June 2018

²⁰ Costs of works, p.32 Secretary of State/Heathrow Airport Ltd, Relationship Framework Document June 2018

²¹ Tables E1-E4, Appendix E, Core and Asset Replacement Capital Expenditure Summary, Cost and Commercial Viability: Cost and Revenue Identification Update, Heathrow Airport North West Runway, Jacobs Leigh Fisher for Airports Commission 30th June 2015

²² *“When the Airports Commission made its assessment of the finances, it concluded that it would need a combined £30.5 billion in debt and equity, and that the only way that could be financed was by lifting airport charges to around £31 per passenger”* – Q617, Oral evidence, 20th February 2018

²³ Table 6.3, Strategic Fit: Forecasts, Airports Commission July 2015

²⁴ *“As for the Northwest Runway option, the runway extension is supported by a new terminal building to the west of the existing central terminal area, with capacity to accommodate 35mppa”* – Para. 5.17, Airports Commission Final Report July 2015

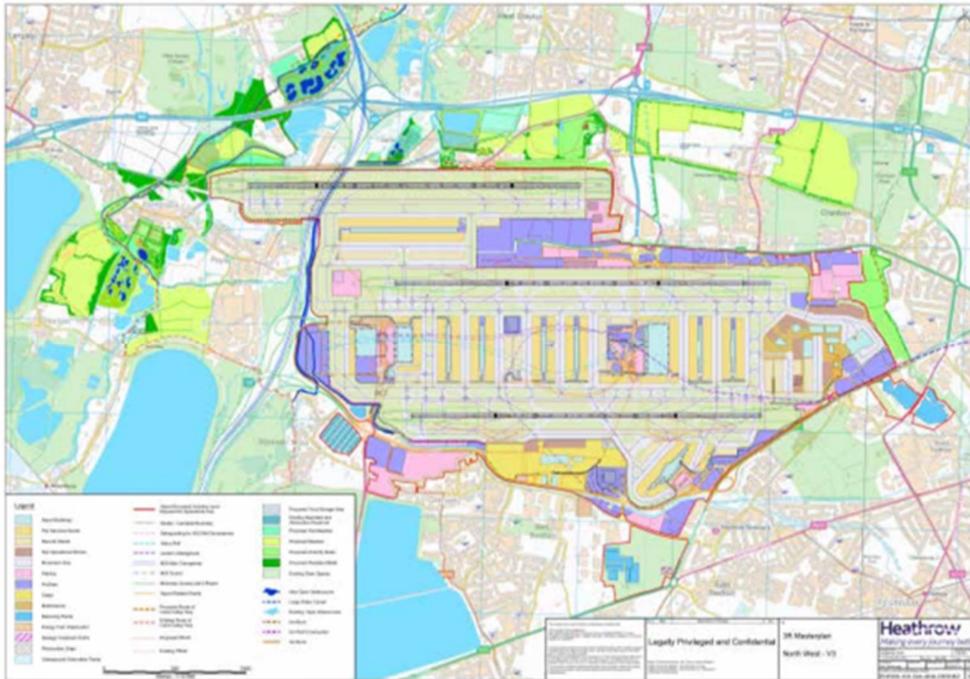
²⁵ Heathrow handled 75m passengers in 2015, the date of the AC’s Final Report, and the NWR scheme provides capacity for an additional 35mppa, so the core capex works presumably provide facilities for a further 39mppa, to take capacity to a maximum of 149mppa.

²⁶ Para. 2.2.3, Cost and Commercial Viability: Financial Modelling Input Costs Update, PWC for Airports Commission July 2015

²⁷ Para. 7, Economic regulation of capacity expansion at Heathrow airport: consultation on early costs and regulatory timetable, CAP1819 CAA July 2019

2.16 Within this £32.5bn total, the CAA notes “HAL’s current estimates suggest that its total capital costs to facilitate the opening of a new runway in 2026 will be in the region of £14 billion (in 2014 prices).”²⁸

3.0 Are HAL’s current proposals the same as those assessed by the AC and assumed by Government?



3.1 The AC assumed the NWR scheme shown above,²⁹ and this is also the scheme included in the designated ANPS.³⁰

3.2 Subsequent to the AC’s final report, HAL claimed the cost of NWR could be substantially reduced.

3.3 The CAA’s latest working paper assumes a capital cost of “about £14bn.”³¹ Although no breakdown is given, this - at first sight - appears consistent with HAL’s statements which claimed the cost of £17.6bn could be reduced by c.£2.5-3bn.

3.4 For example, shortly before Government’s decision to select NWR as the preferred scheme for airport expansion:

²⁸ Para. 7, *ibid*

²⁹ Figure 5.2, Airports Commission Final Report July 2015

³⁰ Annex B, Airports NPS June 2018

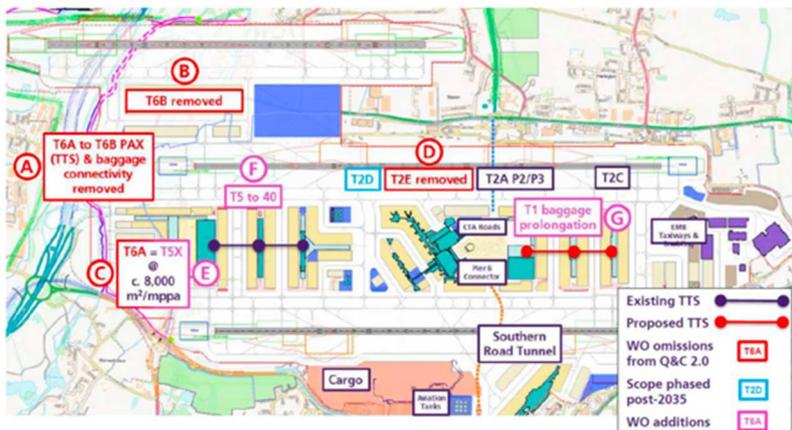
³¹ Para. 1.2, Working paper summarising affordability and financeability modelling for capacity expansion at Heathrow airport, CAA CAP1812 June 2019

- “Lord Deighton said the airport was looking to reduce the budget by between “two and three billion” including “scrapping plans to place a 14-lane section of the M25 into a 600-metre tunnel under the new runway” and “a £1 billion rail transit system could also be scrapped”³²
- “Heathrow is planning to cut up to £3 billion from its plans for a third runway as part of a last-minute attempt to win Theresa May’s backing for airport expansion. Lord Deighton, HAL’s Chairman, stated ‘It’s the natural next stage when you move from concept to design and delivery,’ he said. “You think, is there a smarter way to do this?”³³

3.5 Subsequently, Government’s Response to the consultations on the draft NPS confirmed “in 2016 the Secretary of State set out a clear ambition for industry to work together to deliver a plan for expansion that keeps airport charges close to current levels. Following this, the Secretary of State commissioned the CAA to oversee airport- airline engagement on the design, scope and costs of expansion. This process has borne fruit, with HAL announcing a potential reduction in scheme costs by up to £2.5 billion.”³⁴

3.6 HAL’s evidence to the House of Commons Transport Committee’s Inquiry on the draft Airports NPS suggested this saving would be achieved by “not having a new terminal 6 between our current northern runway and the new northwest runway, but instead to expand our existing terminals 5 and 2.”³⁵

3.7 We assume HAL’s claimed cost savings were a significant factor in Government’s decision making.



3.8 These savings assumed what was termed the “Westerly Option” shown above.³⁶ This omitted a new terminal west of T5 (“T6A”), a northern satellite (“T6B”) and a connecting passenger transit and baggage system.

³² Heathrow offers £3bn cost cut in bid to secure third runway Times, May 26th 2016

<https://www.thetimes.co.uk/article/heathrow-offers-3bn-cost-cut-in-bid-to-secure-third-runway-hps0lsqxp>

³³ The Times, 16th September 2016 <https://www.thetimes.co.uk/article/heathrow-offers-3bn-cost-cut-in-bid-to-secure-third-runway-hps0lsqxp>

³⁴ Para. 4.38, Government response to the consultations on the Airports National Policy Statement, DfT June 2018

³⁵ Q353, Oral evidence, 5th February 2018

³⁶ Figure 4, Westerly Option Masterplan, Westerly Option Review, Arcadis for CAA May 2018

3.12 We therefore assume the AC's estimate of £17.6bn is the correct baseline for our analysis of the cost of the NWR scheme.

4.0 What is the likely cost of the NWR scheme?

4.1 Our analysis shows that, using the AC's own figures, the likely cost of NWR is seriously under-estimated.

4.2 The attached worksheet shows our analysis which concludes that the true cost of NWR, assuming the scheme which the AC assessed, and delivering capacity capable of accommodating the AC's requirement of 149 million passengers per annum as referenced earlier,³⁸ is c.£60bn.

4.3 Furthermore, as detailed below, the estimated £14bn cost of HAL's first phase of NWR, which includes only a runway, cannot be compared to the much greater scope of work included in the AC's £17.6bn estimate.

5.0 What is HAL's estimate of NWR cost?

5.1 HAL's consultation is silent on cost. However, it assumes a phased delivery of the scheme, which it states *"is indicative and represents key snapshots in time; the speed of delivery of infrastructure could be affected by changing passenger demand, affordability or other factors."*³⁹

6.0 How do HAL propose phasing the NWR scheme?

6.1 HAL's Preferred Masterplan describes four phases:

- *"Phase 1 – ca. 2026*
- *Phase 2 – 2030 (115mppa)*
- *Phase 3 – 2035 (130mppa)*
- *Phase 4 – ca.2050 (142mppa)"*⁴⁰

³⁸ Para. 7, Economic regulation of capacity expansion at Heathrow airport: consultation on early costs and regulatory timetable, CAP1819 CAA July 2019

³⁹ Para. 3.11, Airport Expansion Consultation Document, HAL June 2019

⁴⁰ Paras. 8.2 – 8.5, Preferred Masterplan, HAL June 2019



6.2 As shown above ⁴¹ “Phase 1 - ca.2026 - represents the infrastructure that is required on runway opening day.” ⁴²

6.3 HAL assume that in phase 1 “the new runway and taxiway connections will have been completed and the M25, A4, A3044 and river corridors impacted by the runway will have been diverted. The road access to T5 from the M25 will be relocated to the south.” However, “terminal and apron capacity will be met by providing enhancements to the existing facilities.” ⁴³

6.4 As noted earlier the CAA states “HAL’s total forecast costs to deliver the new runway and associated capacity by 2026 remain broadly in line with 2017 expectations (although there are certain changes in the scope of the infrastructure it intends to deliver for 2026). HAL’s current estimates suggest that its total capital costs to facilitate the opening of a new runway in 2026 will be in the region of £14 billion (in 2014 prices). Further, HAL’s current estimates for total expansion capital costs are around £32.5 billion (in 2014 prices) in the period to 2050 (to provide the capacity to accommodate 142 million passengers per annum).” ⁴⁴

6.5 This raises a number of issues.

6.6 First, whether it is right that the CAA simply accepts HAL’s cost estimates and makes no attempt to question or analyse these. We do not believe this is acceptable for HAL’s economic regulator at any stage, but particularly when critical consultations are taking place

⁴¹ Figure 8.2.1, Indicative phasing circa 2026, Preferred Masterplan, HAL June 2019

⁴² Para. 8.2, Preferred Masterplan, HAL June 2019

⁴³ Paras. 8.2.1-2, *ibid*

⁴⁴ Para. 7, Economic regulation of capacity expansion at Heathrow airport: consultation on early costs and regulatory timetable, CAP1819 CAA July 2019

now on whether the scheme is or can be affordable, and when the CAA is minded to allow very significant additions to the RAB even before an application for a DCO is submitted.

- 6.7 Second, the CAA suggests that HAL’s 2026 (phase 1) plans “*remain broadly in line with 2017 expectations.*” We assume this refers to PWC’s 2017 report to the CAA.⁴⁵ However, that analysis assumed the whole of the NWR scheme for which the AC assumed an estimated capital cost of £17.6bn (at 2014 prices) – not what is now only a runway and the necessary site clearances and highway/river diversions at a cost of c£14bn (at 2014 prices).
- 6.8 Third, it is therefore disingenuous, at the very least, to suggest this fundamental change in scope represents only “*certain changes in the infrastructure it (HAL) intends to deliver for 2026*”
- 6.9 Fourth, a capital cost of £14bn for this very limited phase 1 infrastructure bears no relation to the AC’s cost estimate when assessed using the same rates and on the same basis.

Costs rounded	Airports Commission Final Report July 2015		Heathrow Airport Ltd consultation June 2019	
	Scope – Complete NWR scheme	Cost estimate £bn (2014 prices) ⁴⁶	Scope – Phase 1 NWR scheme	Cost estimate £bn (Assume as AC rates/estimate)
Enabling works	Included	0.394	Included	0.394
Runway & taxiways	Included	0.412	Included	0.412
Stands	Included	0.194	Excluded	0
Navaisds & ancillary facilities	Included	0.373	Included	0.373
Terminal (T6) and satellite	Included	3.329	Excluded	0
Airside infrastructure (Civils)	Included	0.799	Assume 30% (tunnels only) provided in Phase 1	0.240
Airside infrastructure (Fit-out)	Included	0.737	Excluded (assume deferred to future phases)	0
Landside infrastructure	Included	0.467	Included	0.467
Car parks	Included	0.500	Assume 30% (T4 only) provided in Phase 1	0.150
Equipment	Included	0.730	Excluded	0
Commissioning & handover	Included	0.124	Included	0.124
Land & infrastructure	Included	2.226	Included	2.226
Compensation and mitigation	Included	0.476	Assume 30% in Phase 1	0.143
Community impacts	Included	0.347	Assume 30% in Phase 1	0.104
Sub-total		11.108		4.633

⁴⁵ Para. 6.1, Estimating the Cost of Capital for H7, PWC for CAA, November 2017
https://publicapps.caa.co.uk/docs/33/PwC_H7InitialWACCrange.pdf

⁴⁶ Appendix C, Cost and Commercial Viability: Cost and Revenue Identification Update
 Heathrow Airport North West Runway, Jacobs June 2015

Design/project fees	Included @ 15%	1.668	Included @ 15%	0.695
Risk	Included @ 20%	2.557	Included @ 20%	1.066
Optimism Bias	Included @ 15%	2.301	Included @ 15%	0.960
Sub-total		17.634		7.354

- 6.10 As shown above, the AC's estimate and rates suggests that HAL's phase 1 should cost c.£7bn - less than half the AC's total capital cost estimate (excluding surface access), which appears realistic.
- 6.11 However, if instead HAL's capex estimate is accurate, then the £14bn cost of just a first phase of NWR - simply a runway and taxiways - represents c.80% of the AC's estimate of the £17.6bn total cost of the complete NWR scheme.
- 6.12 Fifth, if this limited first phase of NWR does indeed cost c.£14bn at 2014 prices, this effectively supports our analysis that the AC's estimate was significantly understated.
- 6.13 Sixth, and finally, HAL's principal consultation documents fail to mention the assumed capacity of Phase 1, the opening of a new runway in 2026. However, their Future Runway Operations paper confirms an "Assessment Case Forecast" of 505,000 ATM's (87.4mppa) in 2026 ⁴⁷ - only 25,000 ATM's more than the current cap.
- 6.14 The same paper shows a forecast of 665,000 ATM's (115mppa) in Phase 2 in 2030. However, neither HAL's consultation or the CAA's material provides any estimate of the capital cost of this, or any further, phase beyond phase 1.
- 6.15 The result is two fundamental risks with the NWR scheme, which, reflecting the current regulatory structure and the CAA's approach, would be borne by consumers and the UK economy rather than HAL.
- 6.16 First, HAL's phasing means the cost of phase 1 has to be recovered from a small number of additional passengers. It is difficult to see how the limited additional capacity which phase 1 provides, at a cost not much less than the whole of Heathrow's current RAB, ⁴⁸ could be financed without a significant increase in user charges. For comparison, Heathrow's charges trebled ⁴⁹ following the addition of c.£11bn capital expenditure to the RAB between 2005 and 2014 ⁵⁰ Heathrow already has the highest user charges of any comparable major airport

⁴⁷ Table B1, Future Runway Operations, HAL June 2019

⁴⁸ Closing RAB at 31st December 2018 £16.2 billion, Heathrow (SP) Limited Regulatory Accounts, Year ended 31 December 2018

⁴⁹ Figure C.10, Appendix C, Market power determination in relation to Heathrow Airport – statement of reasons CAP1133, CAA 2013

⁵⁰ £11bn at 2014 prices, Para.3.4, Strategic themes for the review of Heathrow Airport Limited's charges ("H7") Technical Appendices, CAP1383a, CAA March 2016

anywhere in the world.^{51 52} Any further increase would not only deter new traffic but could deter existing users in an increasingly competitive economic environment.

- 6.17 Second, HAL may rely on, and the CAA may assume, further expansion beyond phase 1 in order to deliver increased capacity to assist affordability. However, there is a significant risk that this will be found to be undeliverable, whether because of cost, noise, airspace constraints or environmental limits. The latter is significant in view of Government's recent commitment to net zero UK carbon emissions by 2050 – coincidentally HAL's likely date for completing phase 4 of expansion.
- 6.18 HAL's current consultation provides no information on the likely costs of the three further phases beyond phase one, and the CAA's consultation remains totally incurious as to the total cost of NWR.
- 6.19 The inevitable suspicion is that HAL, continuing past behaviours, are simply gaming the perverse incentives in the regulatory system – maximising costs wherever possible to increase their financial returns while also accelerating spend to a point where the NWR scheme, whatever its cost, is seen as too big and too politically embarrassing to be allowed to fail.
- 6.20 It is therefore of particular concern that, as IAG stated in its response to the CAA's March 2019 consultation, *"HAL is absolved of responsibility for financeability, as the CAA is prepared to transfer risk and cost onto passengers, in order to protect dividends, whilst financing capacity expansion, irrespective of inefficiency, inappropriate capital structure or unwise dividend policies."*⁵³
- 6.21 IAG also note *"the £3.5bn in dividends HAL's shareholders have enjoyed since 2012"*⁵⁴ and which exceeds capital investment in that period.
- 6.22 It is relevant that other sectoral regulators recognise the increasing need to balance shareholder returns with securing sustainable funding and investment – for example OFWAT's cash lock-up conditions.⁵⁵

⁵¹ "Heathrow is already 35% more expensive than Frankfurt; 60% more expensive than Charles de Gaulle; 115% more expensive than Amsterdam; and 175% more expensive than Dubai" - Q154, Transport Committee oral evidence HC548 18th December 2017

⁵² Figures 22, 23 and 28, Comparing and Capping Airport Charges at Regulated Airports, Leigh Fisher for CAA December 2012 <https://www.caa.co.uk/WorkArea/DownloadAsset.aspx?id=4294972552>

⁵³ Para. 5, Response to CAA consultation on Economic regulation of capacity expansion at Heathrow: policy update, (CAP1782), IAG undated [https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/H7/International%20Consolidated%20Airlines%20Group%20\(IAG\).pdf](https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/H7/International%20Consolidated%20Airlines%20Group%20(IAG).pdf)

⁵⁴ Para. 20, *ibid*

⁵⁵ "Ofwat has today confirmed a package of measures to strengthen water companies' financial resilience, by calling on them to adopt a common set of standards. This includes strengthening requirements to maintain an investment grade credit rating and accepting restrictions on pay-outs to shareholders in certain circumstances. The so-called cash lock-up conditions mean that if a water company is at risk of losing its investment grade rating, it is barred from making pay-outs to shareholders or removing money or assets from the business" – Ofwat 9th July 2019 <https://www.ofwat.gov.uk/pn-14-19-ofwat-confirms-package-of-measures-aimed-at-strengthening-financial-resilience-in-water-companies/>

- 6.23 The CAA’s primary duty is to “carry out its functions ... in a manner which it considers will further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services.”⁵⁶
- 6.24 The CAA has interpreted this duty by consistently assuming that the consumer benefits of expansion outweigh NWR programme and cost risk.⁵⁷
- 6.25 However, in the absence of evidence to the contrary, we submit it is time the CAA reassess whether, in view of the fundamental changes to the NWR scheme and cost since the AC’s assessment, this can be justified, even if this results in delay.
- 6.26 In their responses to the CAA’s 2018 consultations, IATA and Heathrow’s AOC state;
- “Firstly, we believe that the costs to the passenger that the CAA lists are exactly those that stem from an unaffordable Heathrow Airport, not ones that could come from a short delay. Second, we are puzzled as to why the CAA sees any delay as having significant costs. It is surely better that if the expansion of Heathrow Airport is to go ahead, that it is affordable, and is the most efficient design delivered by the most efficient company.”⁵⁸
 - “It is not enough to argue that any delay is not to be tolerated. In order to come to this conclusion objectively, the CAA would need to have calculated the costs of any delay.”⁵⁹
 - “It is not clear to us what the costs of delay are, or indeed whether where HAL’s programme is currently at is consistent with such a date. Consequently, any decision on early Category C should be taken at the last responsible moment, and only if there is clear evidence that such a decision needs to be made and it is in our passengers’ interests. This should include the costs of any delay.”⁶⁰
- 6.27 IAG, Heathrow’s biggest airline and customer, similarly states;
- “It is surely better that if the expansion of Heathrow is to go ahead, that it is affordable, and is the most efficient design delivered by the most efficient company. It is our view that any potential delay for additional legislation would be small (as HAL would continue to work to its timetable), and that the benefits of third party engagement are potentially large. Consumers should not have to pay additional costs because of the lack of

⁵⁶ Para. 1, Civil Aviation Act 2012.

⁵⁷ “The CAA has consistently stated that additional runway capacity in the south east of England will benefit air passengers and cargo owners. The timely delivery of more aviation capacity is required to prevent future consumers experiencing higher airfares, reduced choice and lower service quality” – Para. 1, Economic regulation of capacity expansion at Heathrow: policy update and consultation, CAP 1782

⁵⁸ IATA/AOC Response to the CAA’s Consultation on Economic Regulation of Capacity Expansion at Heathrow, (CAA CAP 1610) March 2018
https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/aoc_lacc%201610%20response.pdf

⁵⁹ *ibid*

⁶⁰ IATA/AOC Response to the CAA’s Consultation on the Economic regulation of capacity expansion at Heathrow: policy update and conclusion, (CAP 1658) July 2018
https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/Files/AOC%20Response%20CAP1658%20Final.pdf

*competition in the design, build and operation of airport facilities. The CAA should share its detailed view on the costs of potential delays to inform decision-making in this regard.”*⁶¹

- *“The CAA repeatedly states that ‘there would be substantial costs for consumers associated with significant delays to capacity expansion.’ If the CAA insists on taking this position then it must substantiate the assertion – what is the “substantial cost”, what would constitute “significant delay”, in short what is the CAA’s assumption on the relative thresholds between cost increases and delay? How much is too much? How does this align with the Government’s position that additional capacity is needed by 2030?”*⁶²
- *“The CAA must say why its policy prioritises timely delivery of new capacity over all considerations – the relationship with expansion costs must be quantified to allow an understanding of the relative costs and benefits.”*⁶³

7.0 How do HAL’s phasing proposals relate to the AC’s assumptions and Government’s decision to designate the ANPS?

- 7.1 The supporting documents to the ANPS confirm Government’s decision to support NWR relied on the assumption that *“under the LHR Northwest Runway scheme, Heathrow airport is expected to be full by 2028, compared to 2035 in the AC’s assessment of need, carbon traded forecasts. This assumes no phasing of additional capacity, and no barriers to airlines making use of this capacity as soon as it becomes available.”*⁶⁴

⁶¹ Para. 10, IAG Response to Response to the CAA’s Consultation on Economic Regulation of Capacity Expansion at Heathrow, (CAA CAP 1610) March 2018

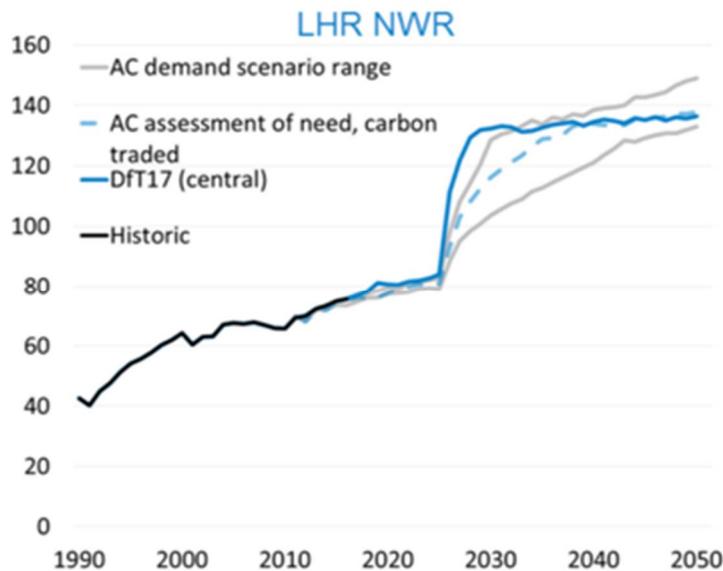
https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/IAG%20CAP%201610%20response.pdf

⁶² Para. 5, IAG Response to the CAA’s consultation on the Economic regulation of capacity expansion at Heathrow: policy update and consultation (CAP 1658) July 2018

https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/Files/IAG%20CAP%201658%20response%20FINAL.pdf

⁶³ Para. 3 *ibid*

⁶⁴ Para. 2.19, Updated Appraisal Report, Airport Capacity in the South East, DfT October 2017



7.2 The Government’s updated assumption compared with the AC’s forecasts is shown above.⁶⁵

7.3 The House of Commons Transport Committee’s scrutiny of the draft ANPS noted “*the economic case of the NWR scheme is grounded on it being delivered by 2026 and at capacity by 2028. These are essential considerations. If the NWR cannot be delivered to the capacity and timeline assumed, because of, say, airfield design pinch points or planning issues, there will be considerable knock on effects to the economic business case of the scheme. A two-year delay to the scheme’s delivery would result in £16.3 billion of benefits being removed from the economic case.*”⁶⁶

7.4 In fact, HAL’s consultation shows that, even if their phase 1 can be delivered by 2026, at a claimed cost of c.£14bn, this would deliver little more capacity.

7.5 It states “*the traffic forecast profile for the Preferred Masterplan contains the following demand;*

- 115mpps, 665,000 ATM’s pa in 2030 (assumes a third runway opening end 2026)
- 130mpps, 740,000 ATM’s pa in 2035
- 135mpps, 750,000 ATM’s pa in 2040; and
- 142mpps, 756,000 ATM’s pa in 2050”⁶⁷

7.6 The full capacity which the AC and DfT assumed NWR could provide by 2028, and which was fundamental to the choice of NWR instead of ENR, would therefore not be delivered until 2050.

⁶⁵ Figure 2.4 Terminal passengers at the expanded airport (mpps), *ibid*

⁶⁶ Para. 27, House of Commons Transport Committee, Airports National Policy Statement, Third report of session 2017-19 March 2018

⁶⁷ Para. 4.2.3, Preferred Masterplan HAL June 2019

8.0 How do HAL and the CAA consider affordability?

8.1 HAL propose to introduce an additional 25,000 ATM's pa before any new runway is completed and operational.

8.2 The consultation makes clear that this proposal is an attempt to address affordability, stating *"the period from the grant of DCO in 2021 through to the opening of the runway in c.2026 involves the heaviest capital investment in expansion with no incremental air traffic movements above the current 480,000, unless early ATM growth can commence in 2022 to help mitigate the associated increase in the aeronautical charge. In the absence of early ATM growth, consumers would be likely to bear the cost of higher aeronautical charges passed on by airlines. Conversely, the phased implementation of early ATM growth from 2022 would generate additional passengers, and this benefit would translate directly into helping to deliver Heathrow's challenge to deliver expansion at close to current charges. Early ATM growth is an important component in delivering our obligation to ensure that expansion is cost efficient and sustainable, minimising costs to airlines, passengers and freight owners, (as required by paragraph 4.39 of the Airports NPS)."*⁶⁸

8.3 However the consultation admits that even this limited increase in capacity would be dependent on new infrastructure, over and above that included in the cost and scope of phase 1. It states *"detailed work to assess and define these physical improvements will form part of the next phases of our study but they may include:*

- *building improved hold points for aircraft accessing and leaving the runways;*
- *dual Code C taxiways for Terminal 5;*
- *additional stand infrastructure for Terminal 3; and*
- *improved linkages between Terminals 2 and 3.*

*We will also test the need and benefits of investing in enhancements to baggage and passenger processing infrastructure within terminals and enhanced services."*⁶⁹

8.4 The affordability of the entire NWR scheme therefore appears dependent on this proposal. However, there is no cost estimate or detailed assessment of the scope of work that would be required in the very limited time between now and 2022 when it is assumed *"early ATM growth can commence."*⁷⁰

8.5 There is similarly no suggestion of how such a limited increase in ATM's, less than 5% of Heathrow's capacity, could *"help mitigate the associated increase in the aeronautical charge."*

⁶⁸ Para. 2.2.3, Early Growth - Increasing flights on our existing runways, HAL June 2019

⁶⁹ Para. 5.2.7, *ibid*

⁷⁰ Para. 2.2.3, *ibid*

9.0 How do the CAA now propose to ensure affordability and efficiency?

- 9.1 CAP1825 proposes to *“modify HAL’s licence to include a condition to promote economy and efficiency from 1 January 2020 onwards.”*
- 9.2 While welcome, this is a damning indictment of HAL’s behaviours.
- 9.3 It is also far too late in the process which led to Government selecting NWR as its preferred option for airport expansion. The CAA’s former Chief Executive acknowledged that NWR is *“probably the largest privately financed infrastructure project anywhere ever in the world.”*⁷¹ This is because HAL, in choosing to design the most complex, high risk and expensive scheme possible, took full advantage of the utterly perverse incentives that are uniquely inherent in the CAA’s economic regulation.
- 9.4 As noted earlier, this positively encourages inefficiency. Indeed, we can find no other example of a regulated monopoly that has been able to consistently deliver dividends on the scale of recent payments, far exceeding capex, while simultaneously delivering the worst operational performance, measured on a wide range of metrics, of any international comparator.⁷²
- 9.5 The consultation suggests *“an efficiency condition should be included in HAL’s licence to be part of a suite of regulatory tools that, taken together, should promote and incentivise efficient behaviour by HAL in the interests of consumers.”*⁷³
- 9.6 We doubt that any *“condition”* along the lines now proposed, or any *“regulatory tools”* could overcome, even with an aggressive regulator, the incentives that positively encourage inefficiency and waste.
- 9.7 It is impossible to see, and the consultation fails to consider, how any condition could conceivably influence or change the fundamental inefficiencies in the basic concept of the NWR scheme – its cost and risk an inevitable consequence of the need for what is likely to be the biggest loss and dislocation of property since the second world war, as well as unprecedented impacts on existing infrastructure.
- 9.8 In fact, the consultation appears to deliberately exclude capacity expansion from any efficiency obligation, and that *“incentives for capacity expansion”* will only be considered *“during HAL’s next main price control review”*⁷⁴ - presumably after the extended Q6 period ends in December 2021.

⁷¹ Andrew Haines, Chief Executive, CAA, Oral evidence to House of Commons Transport Committee, Q634 20th February 2018

⁷² See for example, Review of Efficiency of Operating Expenditure of Heathrow Airport, CEPA for CAA March 2017, and Benchmarking of high level economic and financial metrics of Heathrow Airport, PA Consulting for CAA, June 2017

⁷³ Para. 2.18, CAP 1825

⁷⁴ Para. 2.31, *ibid*

- 9.9 HAL intend to submit their application for DCO consent in 2020, with a decision in 2021.⁷⁵ The DCO process requires a high level of detail and precisely defines the consented scheme. By 2022, it will therefore be far too late to materially influence the efficiency of HAL's proposals.
- 9.10 The CAA appear to have recognised *"the risk that incentives may be gamed or may have unforeseen consequences"* and *"the regulatory regime applicable to HAL does not contain a general obligation to promote economy and efficiency across the full range of HAL's activities."*⁷⁶
- 9.11 Our analysis in fact shows that the cost of NWR will inevitably be far greater than that assumed by the AC, DfT and now the CAA. We fail to understand why the CAA appears to show no curiosity in carrying out its own analysis and concerns itself with licence conditions that will have no practical effect.
- 9.12 This failure cannot be dealt with by competition law. As the CAA acknowledges *"competition law is not well suited to deal with questions of efficiency and would involve a lengthy process, making timely intervention to protect the interests of users difficult."*
- 9.13 HAL's strategy appears clear, to continue progressing NWR while continually deferring the day when its true cost (and impacts) are known. Meanwhile it increases the RAB as fast as possible – hence its new demand for at least £2.9bn – while transferring risk to customers. It is impossible to see how this reflects a fair balance between HAL's commercial and the national interest.
- 9.14 These are not abstract concerns. BAR-UK, representing the world's airlines, told the Transport Committee *"the problem essentially is that, if you have the most expensive airport in the world with the highest aviation taxes in the world, it is not an aspiration for this country going forward to be globally competitive. We should not be aspiring to be the most expensive in everything."*⁷⁷
- 9.15 Indeed, the CAA itself notes, *"airlines do not bring commercial pressure to bear on HAL as the capacity constraints at Heathrow means they have no countervailing buyer power."*⁷⁸
- 9.16 We fully support the condition which the consultation proposes, but the fact it is needed means that the CAA should halt any further additions to the RAB until at least the following work has been completed;
- Firstly, a full independent assessment of the NWR scheme, including our estimate of capital cost;

⁷⁵ Page 12, Consultation Document, HAL June 2019

⁷⁶ Para. 2.18, CAP1825

⁷⁷ Dale Keller, Chief Executive, BAR UK, Oral evidence to the House of Commons Transport Committee, Q587 20th February 2018

⁷⁸ Para. 2.12, CAP1825

- Secondly, analysis to determine whether the cost of NWR means the scheme can still be justified.

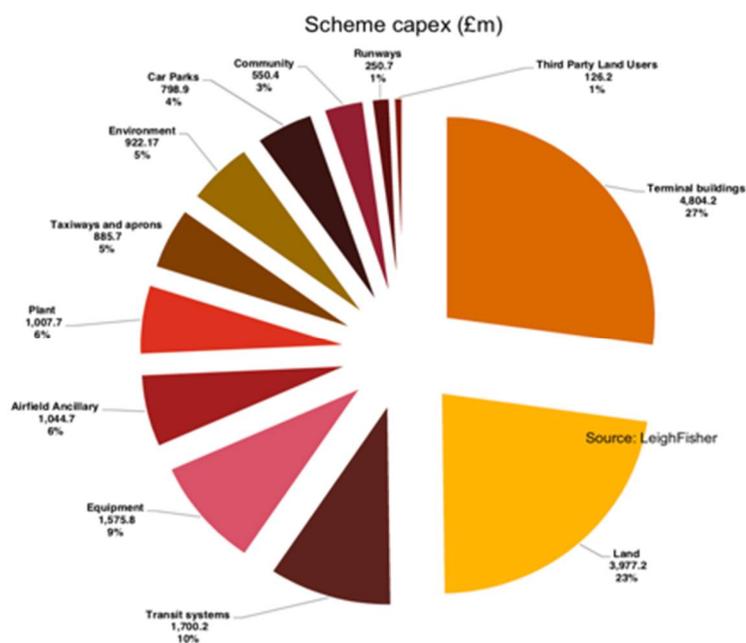
10.0 Conclusion

10.1 HAL’s assumptions, which the CAA appear to unquestioningly accept, are entirely at odds with the AC’s and DfT’s conclusion that the entire economic case for the NWR scheme relied on it being at capacity within two years of opening.

10.2 Furthermore, the cost of NWR is clearly far higher than the 2014 estimate accepted by the CAA.

10.3 The consultation therefore presents a limited, misleading and wholly inaccurate view of this critical national infrastructure project. It is therefore essential that, rather than continuing the approach of piecemeal consultations, there is a complete reassessment of the economic case for NWR.

10.4 Our further analysis confirms our long-held view of NWR, that *“even if phasing were possible, the costs of site clearance and enabling works alone, before any construction even takes place, would exceed the entire cost of Phase 1 of ENR.”*⁷⁹



10.5 As shown above,⁸⁰ the AC’s analysis confirms that what are termed NWR’s “land” costs alone exceed the total cost of phase 1 of ENR.

⁷⁹ For example, HHL evidence to House of Commons Transport Committee, Heathrow Hub (NPS0095)

⁸⁰ Figure 23, NWR scheme capex breakdown, Cost and Commercial Viability: Financial Modelling Input Costs Update, PWC for Airports Commission July 2015

- 10.6 The CAA appears to accept HAL's claim that adding some of these costs now to the RAB is essential in order not to delay the programme.⁸¹
- 10.7 However, even if this could be justified in the absence of any proper analysis of the cost, deliverability and risk of the NWR scheme, any programme constraints are solely the result of HAL's belated discovery, after years of work, that the NWR scheme assessed by the AC and accepted by Government is undeliverable. For example, it was only in 2018 that HAL admitted their original proposal to bridge the M25 was impossible,⁸² and their assumption that the whole airfield level could be raised by 9 metres was undeliverable.^{83 84}
- 10.8 Even now, HAL's current statutory consultation fails to describe how the proposed M25 diversion can be constructed so close to the existing alignment and immediately adjacent to the M4 junction.
- 10.9 It must surely be unacceptable that HAL, having failed to develop a viable and costed scheme in the seven years since the start of the AC's process, (and indeed with the corporate memory of developing a similar scheme for a third runway over twenty years ago), should now be effectively rewarded for their total failure to arrive at a deliverable and viable scheme.
- 10.10 The CAA's September 2018 report to the Secretary of State concluded *"at this point we are compelled to highlight two important areas where we have concerns that HAL must address decisively and urgently. Our concerns relate to HAL's need to provide high quality information about the costs of the scheme and the need for HAL to provide assurance that its revised timetable is realistic and will credibly ensure timely delivery and genuine engagement with the airline community."*⁸⁵
- 10.11 Almost one year later, these critical concerns remain unchanged.
- 10.12 We therefore conclude that the CAA must now grapple with the reality that HAL's scheme may be fundamentally flawed, unaffordable and undeliverable.

⁸¹ "We consider that it is highly likely that HAL will need to incur some early Category C costs to allow for the expansion to proceed in a timely and efficient way. In particular, it may be appropriate to commence work on the re-provision of certain large facilities where it is uneconomic or impractical to extinguish the facility or where re-provisioning is required by the NPS" – Para. 2.9, CAP1819, CAA

⁸² "Bridging the runway over the M25 as well as tunnelling the M25 under the runway has been discontinued due to delivery complexity and the impacts to road users during the construction period" - Para. 7.3.7, Our Emerging Plans, HAL January 2018

⁸³ "Bridging over the existing level of the M25 has been discontinued by us as an option because it would be necessary to raise the airfield level by +9 metres" - Para. 5.5.3, Our Emerging Plans, HAL January 2018

⁸⁴ "However, on further investigation, it was found that the volume of earthworks required to support the runway at a 9m elevation above the M25 was unviable" – Para. 3.4.8, Scheme Development Report, HAL January 2018

⁸⁵ Para. 40, CAA assessment of HAL-airline engagement on capacity expansion during May- September 2018

https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/CAA%20Assessm ent%20of%20airport%20-airline%20engagement%20under%20Enhanced%20Engagement%20ToR%20-%202028092018.pdf

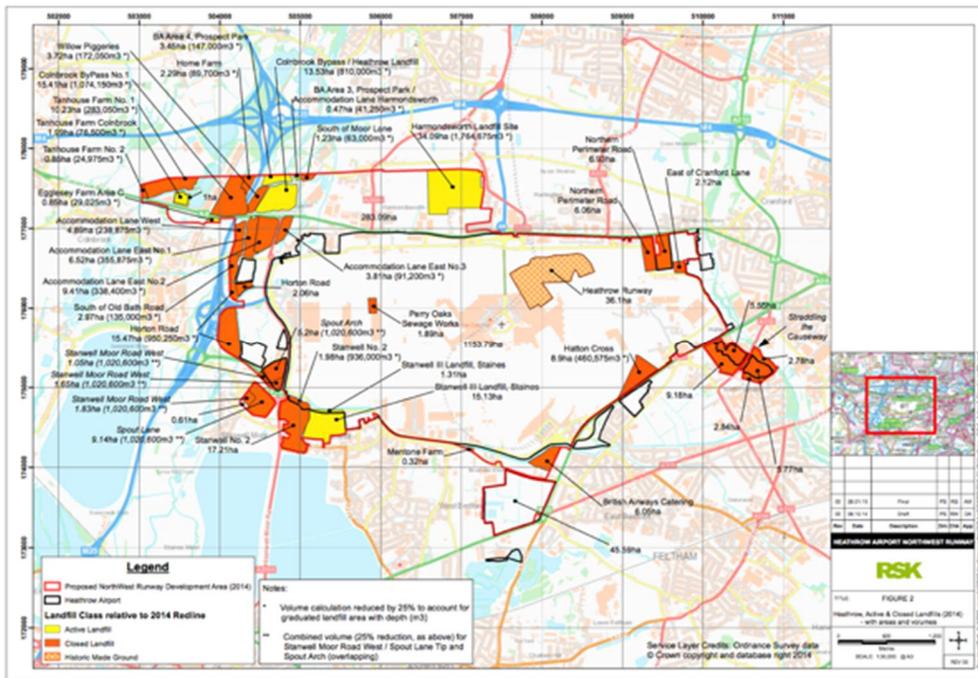
10.13 We welcome the new Secretary of State's recognition that a proper analysis of NWR cost and affordability is required.⁸⁶ Until this has been carried out, no further additions should be allowed to the RAB which, by further reducing the UK's competitiveness, would act against the national interest and be contrary to the CAA's primary duties.

11.0 Appendices

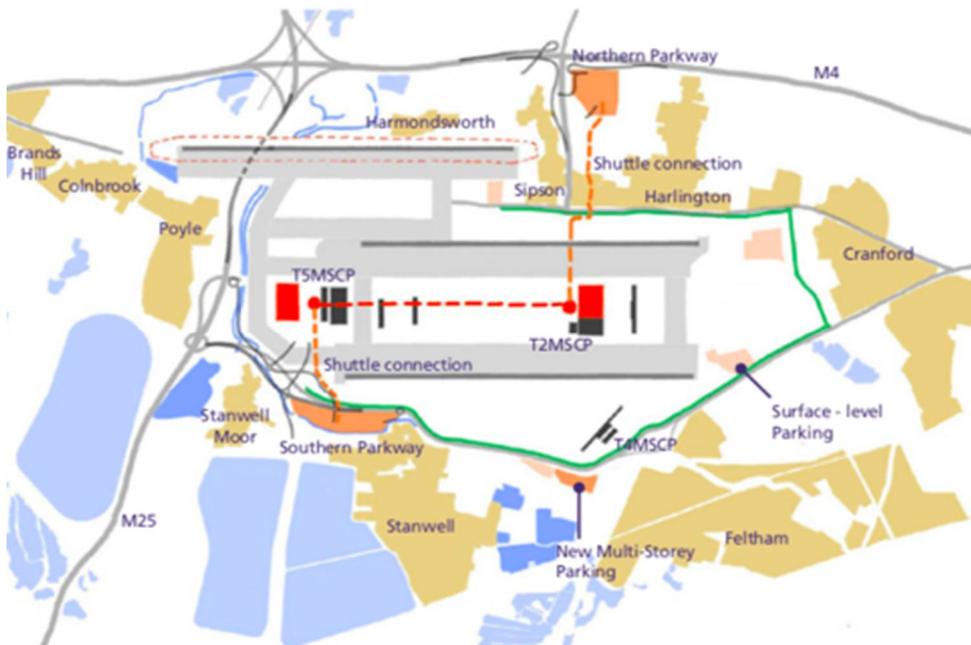
11.1 The following appendices are referenced in our cost analysis on the attached worksheet.

⁸⁶ <https://www.politicshome.com/news/uk/transport/air-transport/news/105918/transport-secretary-grant-shapps-suggests-boris-johnson>

Appendix A – Landfill



Appendix B – Car parks and transit systems



“The two new shuttle connections between the parkways and the airport ...will also offer excellent access for local communities to the airport facilities and public transport stations.”⁸⁷

⁸⁷ Figure 5.2.6, Preferred Masterplan, HAL June 2019

Appendix C - Landtake



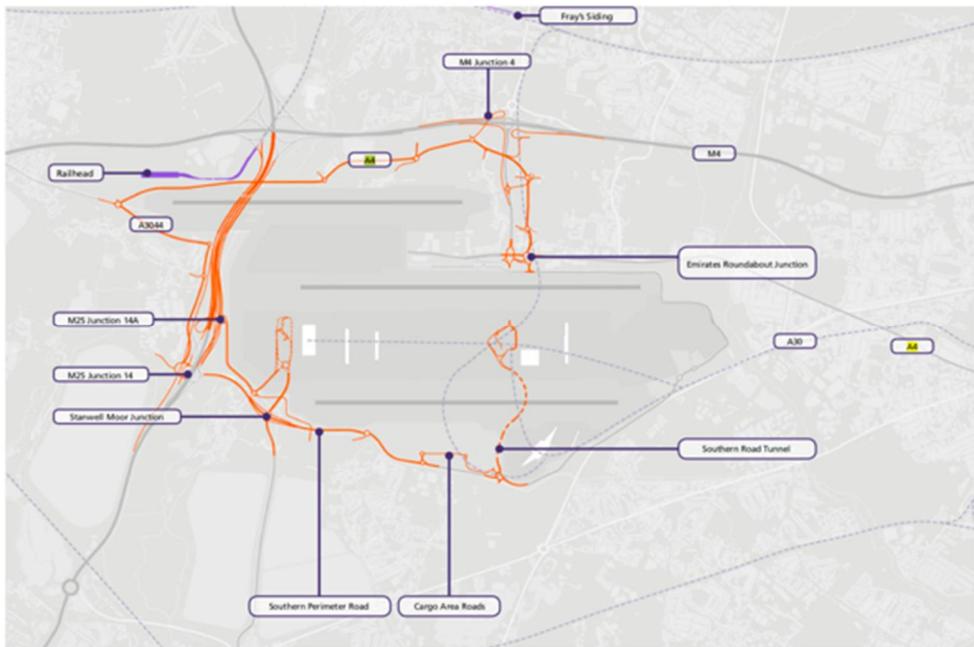
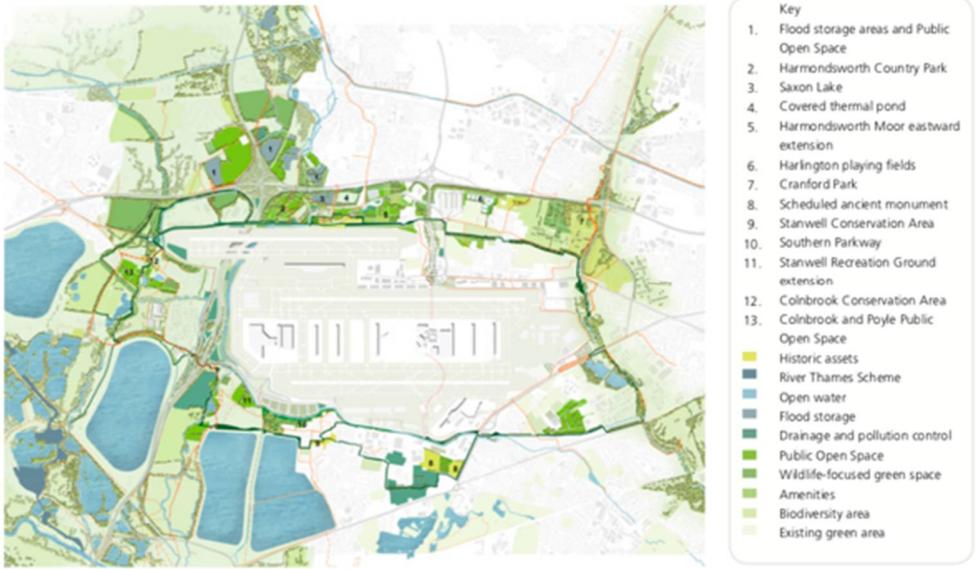
The landtake assumed by the AC and included in the ANPS is shown above.⁸⁸



The additional land required for NWR, to accommodate displaced property and infrastructure, is shown above.⁸⁹

⁸⁸ Annex A: Heathrow Northwest Runway scheme boundary map, Airports NPS June 2018

⁸⁹ Figure 5.5.4, Preferred Masterplan, HAL June 2019



Additional land is also required as shown above to provide, for example, compensatory public open space, flood storage, drainage and pollution control and the necessary space to allow diversion of the M25, local road network, Colnbrook freight branch and watercourses.⁹⁰

⁹⁰ Figures 4.7.3 & 7.3.2, Preferred Masterplan, HAL June 2019