

Evaluation of Farnborough Airport's proposed expansion. Ref: 23/00794/REVPP.
Update 4. 10th November 2023

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Summary:

1. Rushmoor Borough Council refused previous applications to increase the number of flights because it was not satisfactorily demonstrated that the economic benefits of the proposal outweighed the adverse environmental consequences¹(impact upon the amenities of surrounding residential properties due to increased frequency and maximum levels of noise disturbance, air quality and odour problems). Since that time environmental concerns and legislation has increased so one has to assume that the reasons for rejecting the current proposal by Farnborough Airport are the same, if not greater. According to the council's website, with the full support of all councillors, "*Councillors pledged to make the council carbon neutral and Aldershot and Farnborough greener and more sustainable*". It includes encouraging residents and local businesses to reduce their own carbon footprints. RBC has also now declared a Climate Emergency. From the public's perspective, when they see a small number of very wealthy people using private jets, it undermines their efforts to do what they can regarding climate change and divides society even further at a time of a cost of living crisis.
2. Airborne pollution (e.g. NO₂ and Particulates) is the highest cause of deaths in the UK and there has been research into the number of deaths caused by it^{2,3,4}. While there is a high variability in the mortality rate, there is no doubt that aviation's emissions are contributing to the situation and there is particular concern regarding ultrafine particles as these can cross tissue boundaries. The fact that the airport and Rushmoor Borough Council is not conducting adequate monitoring of the airport's pollution has been raised many times and it is a condition within the S106 planning consent. It is also something that has been identified as a shortcoming in comparisons between councils with RBC being marked down for pollution monitoring⁵. Given that there are more than 110 schools and 47,000 children under flightpaths at any one time and pollutants have a greater impact on children's development than adults, this should be a concern to everyone.
3. Noise is also a significant issue both in terms of disturbance, impact on human health, on the environment and on property prices under flightpaths. Many of the issues raised in this document are issues recognised by the CAA itself. For example, the CAA states "*Passenger load is a good indicator of efficiency. Efficiency, in environmental terms, is a measure of emissions per passenger. The aviation industry looks to increase efficiency as well as reducing overall emissions*"². Since there are on average only 2.5 passengers per plane and 40% of aircraft fly empty at Farnborough Airport, emissions per passenger mile are 30 – 40 times that of equivalent commercial flights and 95% of destinations served by Farnborough Airport have regular commercial flights. Farnborough Airport has repeatedly refused to provide emissions per passenger data stating "*it is not relevant*". These issues breach many national and local planning policies, for example RBC Local Plan policy IN2 (Transport) states "*Development should seek to minimise the need to travel, promote opportunities for sustainable transport modes*" or policy DE10 (Pollution) that states "*Development will be permitted provided that: 1. It does not give rise to, or would be subject to, unacceptable levels of pollution*".

4. There is a need to balance the recognised harm with the economic benefits and that is what a business case should do. However, a need case has been provided that does not include the costs associated with the achievement of benefits. As such, what has been submitted does not provide sufficient information to make an informed decision of the value, costs and risks of the proposal. Furthermore, the Need Case was produced by York Aviation. The source of almost all the data quoted in the report is York Aviation. This is not independent and not verifiable data.
5. RBC Local Plan policy SS1 (Presumption in Favour of Sustainable Development) states applications would be approved unless *“Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework”*. The Need Case presented is inconsistent, only provides projected benefits (that are inflated) and almost entirely ignores the costs. Environmental issues of noise, pollution and emissions are discounted as *“not significant”* and issues such as the impact on property prices is not even considered despite the estimated harm being in the region of £2.5 bn⁶. This is orders of magnitude more than the projected benefits, even if they were correct. House prices need to be considered in the Need Case because the Aviation 2050 Green Paper 2018 sets out new measures for people moving near to airports and requiring prospective buyers to be made aware of aircraft noise. Regarding the Need Case, the wider economic benefits forecast conflicts with it. In particular, the productivity and time efficiency benefits that underpin the projected benefits of business aviation are based on single-day trips that would take multiple days to achieve with scheduled commercial airlines. This contradicts the application’s justification for a disproportionate increase in weekend capacity, which is based on the assertion that a significant proportion of flights are multi-day in nature.
6. Nor does the business case properly consider the impact of flights putting over 1m tonnes of CO2 into the atmosphere by 2040. To address the climate change impact if these emissions, it would cost in the region of £215m a year using carbon capture⁷. The Need Case states a total cost of emissions over a 60-year period to be £125m (NPV) and the cost of noise disturbance to be £8m (NPV) but provides no explanation to justify these vastly under projected figures.
7. The reality however is that growth in business flights at Farnborough Airport has been slow for the past 15 years while leisure flights at weekends have driven growth. The airport only has a licence for *“Flying activities and operations that are dedicated to the needs of companies, individuals and organisations which require a premium-priced service for a high-degree of mobility, a high standard of service and flexibility, and privacy in aviation service as an aid to the conduct of their **business**”*. However, many of the flights (possibly 40%) are for leisure purposes⁸ or pets⁹. The proposal’s Need Case is predicated on the value generated by business flights that are generally during weekdays but the proposal to double weekend flights (leisure flights and flights for pets) doesn’t stack up as these are not permitted and don’t generate the alleged revenue to the UK as claimed for business flights. There is ample capacity in weekday flights (about 24,000 movements a year before the current 50,000 movement cap is reached). Business usage of private jets has been in steep decline since Spring 2023¹³ and it is likely that this is what is driving Farnborough Airport to push for weekend and leisure flights to fill the decline in business flights.
8. Finally, while not a planning issue, Farnborough Airport’s owner is Macquarie. A business that owned Thames Water and is now the controlling shareholder of Southern Water. It is a business that has in the past maximised dividends for shareholders at the cost of communities and the environment. In the last two years, despite not making any profit at all, the airport has paid 13% and 16% of turnover to its shareholder in dividends. Its corporate sustainability statements are at odds with the airport’s operations and the public quite justifiably have little trust in the business (for example, it’s travel policy is not to use private jets!). Macquarie owns Southampton airport and as soon as the runway lengthening was approved, it is reportedly looking to exit the business. Is the capacity increase at Farnborough just to increase its value for an imminent exit?

Need Case

9. The 2006, 2009 and 2022 economic impact assessments as well as the 2009 TAG Master Plan have forecast growth in employment and GVA well beyond what has been experienced. The Master Plan outlined the economic benefits they expected to deliver if capacity was increased to 50,000 including 8,900 weekend movements (section 4.7.7 in the Need Case). Below you can see those projected benefits side-by-side with the benefits proposed in the airport's planning application. It is clear that the direct employment opportunities, which are under Farnborough Airport's control, have fallen significantly short of what was expected, delivering only 35% of the employment growth forecast. In contrast, the direct FTEs projected for 2031 when Farnborough Airport suggests it will achieve 50,000 movements are higher than the previous estimate for the same number of movements by 46% without any explanation for this significant drop in productivity.
10. The difference, by an order of magnitude, in the benefits through indirect and induced employment between claims in 2009 and now, illustrates a high degree of unreliability in the models that have been used. This is also borne out in the forecast local GVA figures. Without any verifiable evidence of historical GVA provided by Farnborough Airport, or a plan to track and be held to account for future GVA, the benefits lack any real credibility.

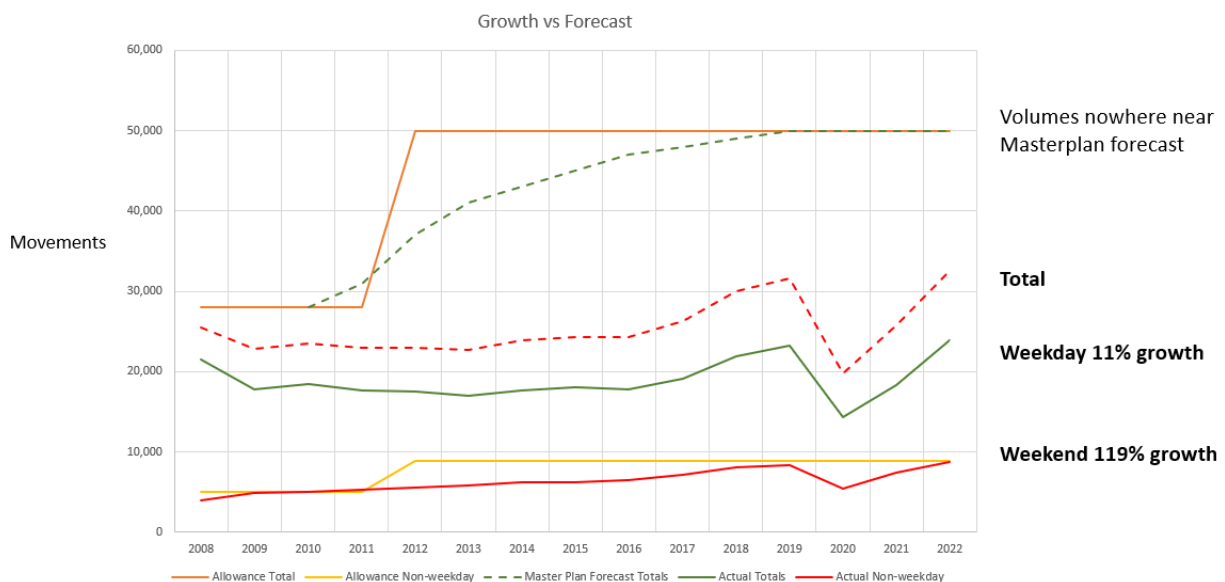
	From 2009 Master Plan		From current Planning Application		
	2008	2019	2019	2031	2040
Movements (<i>Forecast*</i>)	25,504	<i>*50,000</i>	31,600	<i>*50,000</i>	<i>*70,000</i>
Direct FTE	1,139	1,538	1,300	2,250	2,650
Indirect & Induced FTE	3,189	4,305	300	550	650
Total FTE	4,328	5,843	1,600	2,800	3,300
Total GVA (£m)	222	300	110	280	430

11. The wider, indirect benefits to the UK economy claimed in the Need Case are based on time efficiencies to executives traveling on business. These benefits are justified in 4.4 – 4.12 (The Value of Business Aviation to Users) and Table 4.1. This shows the time efficiency benefits assumed by being able to conduct a trip in a day that would take several days via commercial carriers. But the capacity being requested, particularly the excessive growth in weekend movements is justified by the assertion that business travel has changed and is now regularly conducted over multiple days, very often with one of the ends terminating on a weekend. 5.13 states that *“our analysis of the pattern of aircraft movements at Farnborough identified that approximately 20% of weekday movements are linked to a weekend movement, i.e. the aircraft arrives on a weekday and departs at weekends or vice versa”*. These two claims contradict each other. Either the additional weekend capacity is not required for business aviation users or the benefits are illusory. Regardless, one would expect multi-day trips to have significantly reduced benefits when compared to commercial itineraries as the benefit margins in the flights will be diluted by the rest of the trip, which will be longer by proportion.
12. There are also misleading statements such as providing a reason why “business” aviation bounced back fastest after Covid *“3.6 What this demonstrates is the important role of business aviation and the clear desire of businesses to travel when able. Businesses were willing to pay the premium to use business aviation even whilst the rest of the aviation industry was slower to recover”*. In fact the reason was that many commercial routes weren't operating post Covid as there weren't enough staff to operate flights or airports and wealthy people chose to avoid crowded airports and minimise the risk of infection. This is borne out by the fact that weekday volumes at Farnborough have now fallen back 6% below Covid levels. So, many business passengers have switched to commercial flights when they have the choice as 95% of destinations served by Farnborough Airport are served by commercial flights. Most of the claims regarding growth and the importance of business aviation are undermined by the findings in the New Economics Foundation report *“Losing Altitude”*⁸.

13. The quote used in 6.28 probably sums up Farnborough Airport’s Need Case. It states “An example of how the existence and operation of the Airport can support other businesses through the connectivity that it offers is BAE Systems, who have a national presence but currently have their head office in Farnborough. Their location in the area is facilitated by their ability to use the Airport to operate regular flights between its head office in Farnborough and other sites in the country to transport staff. “One of the greatest advantages of the Farnborough Aerospace Centre was its close proximity to Farnborough Airfield (still the Royal Aircraft Establishment at the time) which offered direct access to the bi-annual Farnborough International Air Show. The famous runway was also a major bonus which afforded the provision for their company owned-and-operated air travel service between Farnborough, Manchester, Barrow and other British Aerospace manufacturing facilities such as Warton.” The quote is from 1992 and most of BAE System’s operations are no longer in the South East. Its space division is based in Farnborough because of the proximity to Surrey Satellite Park and naval operations due to the proximity of Portsmouth Naval Base, not because of its proximity to Farnborough Airport.

14. Bold statements like “The future of this cluster could be put at risk if growth at the Airport stalls due to the near-term constraint on ‘non-weekday’ operations biting and if the Airport is unable to expand over the long term to meet potential annual demand” but evidence to support such claims is not provided.

15. The whole planning application is founded on the claim that by 2040 there will be demand for 70,000 movements of which 18,900 will be weekend movements. Historical data does not support this statement. Projecting trends over the last 15 years to 2040 it is likely that weekend movements could achieve 18,900 but weekday movements are unlikely to achieve 30,000 in that period. The graph below demonstrates that the additional weekday capacity being requested in this planning application is irrelevant for a planning horizon of 2040.



16. It should be noted that the Need Case has baselined the trends to 2009 rather than 2008. This is statistically unsound as the airport’s performance in 2009 was significantly impaired as a direct result of the financial crisis with weekday movements in that year 15% lower than the year before and 12% lower than the year after.

17. There are also illogical statements such as 2.15 “The proposed growth at Farnborough can make an important contribution to meeting the objectives of the Make Best Use policy both in ensuring that the Airport can make best use of its own runway and in relieving pressure on capacity as the main London airports for commercial passenger services by providing an attractive alternative location for business aviation activity serving London”. The statement seems to suggest Farnborough Airport has a role in relieving the pressure on Heathrow and Gatwick which is not

supported and there is a private jet airport nearer to London (Biggin Hill) that would be used by customers if proximity to London was a key criteria. Furthermore, Heathrow, Gatwick and Luton are all in the process of trying to double their capacity so there is no “capacity” issue to address.

18. Much of Section 3 in the Need Case discusses the relative income and economic growth of the area such as *“Rushmoor has witnessed a significant jump in economic activity, with a GDP of around £6 billion in 2019 (over 60% growth in the three years to 2019), which appears to correlate with a rapid growth in activity at the Airport.”* But statistics can be used to present many perspectives. For example, the same ONS report shows that the M3/M4 corridor has the highest growth rate and Rushmoor’s is lower, and therefore the “airport effect” cannot be implied¹⁴.
19. Most aviation related businesses such as BAE Systems and QinetiQ are based at the airport for historic reasons (ex government/military business) and are not impacted by a proposal to increase private jet operations. A much stronger and more likely reason for Rushmoor’s jump in economic activity is the road/rail infrastructure in the M3/M4 corridor, proximity to London, businesses moving out of London due to rent rises and clustering of high technology businesses like Surrey Research Park, satellite technology development and growth in the gaming industry (e.g. EA Games in Guildford) that are irrespective of Farnborough Airport’s presence.
20. The Need Case also references the Lichfield Economic Impact Assessment report but that report concluded that most airside jobs were low-skilled (cleaning, catering, security) and therefore not contributing to the claimed high income per capita related to the airport’s operations and that only 1/5 of people working at the airport live in the borough, so not contributing to the borough’s GVA (6.9 & 6.11 of Lichfields report).
21. Given that there are on average only 2.5 passenger per plane operating from Farnborough Airport it is surprising that so many are the larger size (Table 3.3). The suggestion that more larger aircraft are needed in the fleet mix is at odds with passenger profiles and at odds with national and local planning policies to reduce the emissions per head of transport.
22. The conclusion is that the benefits do not show a strong justification to expand the airport’s operations but this needs to be considered against the potential harm.
23. There is also an elephant in the room that is getting larger. Climate Change is real and the costs of it are being felt now. The world is heating far faster than predicted and in ten years’ time if fossil fuel usage continues to grow unabated, it is certain that dramatic action will be needed that will have a significant impact on people lives and the economy. It is inconceivable that the most polluting form of travel used by a tiny minority of people will continue to grow as it has in the past. The other immovable object is that growth at the airport requires more skilled and unskilled workers. There is a shortage of both and a growing population that requires houses. House prices in the south east are above what most people can afford and the number of job vacancies is low. The laws of supply and demand apply and the expectations of growth forecast by Farnborough Airport need to be tempered with the reality that every worker drawn into supporting private jet flights is a worker that is no longer available to support the needs of the broader population, be that the NHS, social care, children and education or local services.

Environment

24. With any proposal that impacts multiple councils and hundreds of thousands of people, consultation is critical. This was a major failing in the airport's consultation on airspace changes in 2014. While several aviation groups/businesses have been consulted, only Rushmoor Borough Council, Guildford Borough Council and Surrey Heath were consulted in this application despite there being a significant impact to the public in other neighbouring boroughs. There was also no consultation with local groups such as Friends of the Earth, even though they are the environmental representative on the airport's Consultative Committee and Farnborough Noise Group who represent the interests of the public in East Hampshire and West Surrey regarding Farnborough Airport. This is a contravention of the Civil Aviation Act 1982 Section 26.
25. There are significant shortcomings in the environmental assessment (pollution, emissions and noise).

Emissions

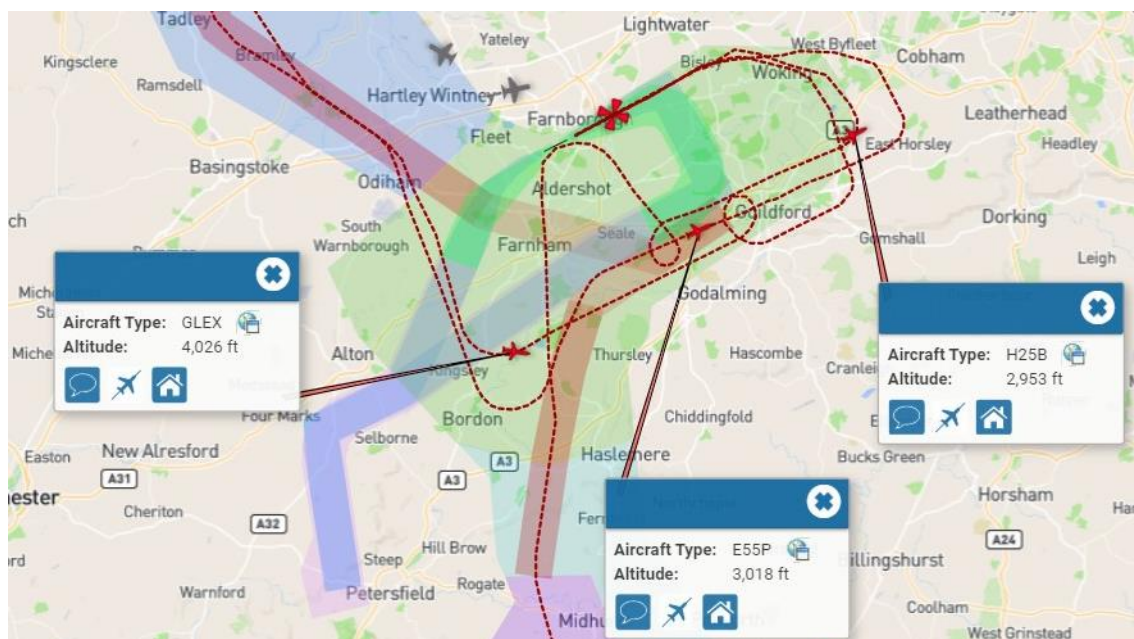
26. The UK is legally committed to reduce emissions in the Climate Change Act 2008. A number of carbon budgets have been set to ensure the trajectory to net zero is achieved. Aviation's emissions are now included in this and there needs to be a 45% reduction in aviation's emissions by 2030. The government's Climate Change Committee has said that there can be no expansion in aviation until aviation's emissions are reducing. This proposal forecasts an increase in aviation emissions from 400,000 t CO₂e in 2022 to 2,000,000 t CO₂e by 2040⁷. The cost of capturing this CO₂, as will be required by 2040, and forecast by the aviation sector in its Jet Zero strategy, is £100m - £200m a year. This alone is considerably more than the benefits proposed in the business case.
27. The UK government is falling behind in delivering the required emissions reductions to achieve net zero and to "keep 1.5 alive". This proposal would result in significant emissions reductions having to be made in other areas, such as public transport, heating, etc. The aviation sector has pinned most of its hopes on so called Sustainable Aviation Fuel to reduce emissions but this is a fallacy as SAF does not reduce emissions. A litre of SAF produces the same CO₂ as a litre of Jet A-1 fuel. While it is true that SAF is dependent on plants capturing CO₂ from the atmosphere, plants can't capture it at the rate it is being consumed¹¹.
28. The Environment Act was introduced in 2021. This new legislation enshrines a number of principles such as "The Polluter Pays" and all emissions must be included in proposals such as in construction. The submitted application states that infrastructure such as taxiways and aprons will be needed but other parts of the proposal say that no infrastructure is included in the environmental assessment. All emissions from construction to disposal of aircraft should be included.

Pollution

29. Farnborough Noise Group has been requesting for years that pollution is properly measured (Only NO₂ is measured despite the CAA advising NO_x and PM 2.5 and PM 10 are measured). Internationally recognised pollutants from aircraft, such as ultrafine particles are entirely discounted in the proposal. Data is presented in a misleading way, such as using annual averages to mask short term issues and setting baselines at 50,000 movements a year rather than the current 33,000 movements (thereby minimising the reported impact of the proposed increases in movements). Where environmental issues have been identified (e.g. nitrate deposition on protected environmental sites which is 3 to 7 times the limit - Table 7.18, Chapter 7 Air Quality), they have been discounted.
30. Pollution monitoring and environmental impact assessment has only been conducted within 5.5km of the airport. The impact of the airport's operations on people and places further afield has not been considered.

Noise

31. Actual noise measurements should have been taken in 2014 so that the impact of the new flightpaths introduced in 2020 could have been determined. No measurements were taken. Richard Moriarty, CEO of the CAA in a letter to Jeremy Hunt MP in 2022, confirmed that noise measurements for all aircraft would be taken up to 7,000ft and 20 miles from the airport for the PIR. No measurements were taken. One can surmise that the reason for not collecting this information and Farnborough Airport refusing to provide noise monitoring equipment (that it is required to do in the S106 agreement), may be because the noise measurements would show that it is already unacceptably high. The background noise at the eastern end of the runway is already constantly over 55 dB, without any aircraft overflying. The noise data provided by Farnborough Airport in its proposal is almost entirely modelled and there is no validation of that modelling. The modelling is incomplete because it needs to consider all noise, as that is what the public experience and that is what causes harm.
- A. Assessment only includes the noise from Farnborough aircraft. All other aircraft such as General Aviation and commercial flights flying over the same people impacted by Farnborough aircraft are excluded¹².
 - B. Other noise such as traffic is excluded.
 - C. Populations more than 5km from the airport are excluded, even areas such as AONB/National Parks that are protected by The Air Navigation Guidance 2017.
 - D. No consideration or assessment of noise impact has taken place in areas such as SSSI or RSPB reserves just 7 km from the airport.
 - E. Modelling is carried out on a 16 hour day (LAeq,16) which is not representative of the airport's hours of operation. Noise experienced by the public is therefore understated.
 - F. No split between weekend and weekday noise levels has been provided. The Rushmoor Local Plan states in 7.116 *"With regard to differential movement limits on weekends and bank holidays compared with weekdays, the 2013 noise study recommends that the current differential protection of weekends and bank holidays is maintained by using the same ratio of movement numbers to weekday movements as contained in the current consent"*.
- 32) The noise and flight data also presumes Farnborough Airport aircraft are flying the flightpaths that they should be. This assumption was used to assess the impact of the change in airspace and the reduction in the number of people overflown that was a key part of the ACP proposal being accepted. In reality, 10 – 30% of aircraft are not flying the prescribed flightpaths (circling, "tactical vectoring", pilot choice). This results in people being overflown multiple times by the same aircraft so the baseline on which assumptions have been made in this planning application is flawed.



- 33) The assumptions used in the model are also flawed. For example, the model is supposed to be based on a “summer day” but the atmospheric data used is 76% humidity and 11.3 degrees. Atmospherics have a significant impact on noise transmission. Incorrect modelling leads to incorrect conclusions.
- 34) It defies credibility that the proposal suggests that there will be no impact to emissions or pollution and that only a small number of people will be significantly impacted by noise.
- 35) The conclusion is that the harm significantly outweighs the benefits, it contradicts national and local planning policies and it should be rejected.

Other

36) Farnborough Airport proposed a number of changes and mitigations:

- A. Dropping the change in weekend hours: The claim was that there was congestion at the start/end of the day at weekends. This claim is not supported by evidence from WebTrak that shows no such congestion. It was most likely a “give-away” point or a way to increase the number of flights at weekends.
 - B. Reducing the use of the noisy Piaggio Avanti aircraft: The proposal says it will be “phased out” without any dates. There are only a few flights a week of this type of aircraft. The Bombardier Challenger 350 is an equally disruptive aircraft and makes up about 10% of all flights but it is being retained. There has been no effort to investigate aircraft noise and the airport has rejected requests for a “Noise Group” for the past three years.
 - C. Extending noise insulation grants: These would only benefit a few hundred people very close to the airport and would do nothing to address the outdoor noise disturbance.
 - D. Sustainability Fund: While not something to criticise, the fund is small and does not in any way redress the balance of harm caused by the airport’s current and proposed operations. Many environmental groups have said that they won’t accept funding from such a significant polluter.
- 37) A proposal that would have been of value (and is within the remit of RBC to establish) is a condition on the maximum number of flights an hour, both for weekdays and weekends.

References

1 – Previous reasons for refusal

A) Reasons for refusal - Increase weekend movements from 2,500 per annum to 5,000 per annum.

- *The reason for refusal is: "The proposed variation of Condition 11 of planning permission 99/00658/OUT to increase weekend and Bank Holiday movements from 2,500 to 5,000 per annum is likely to result in an adverse impact upon the amenities of surrounding residential properties, principally due to increased noise and disturbance at times when residents are more likely to be at home. It has not been satisfactorily demonstrated that there are overriding economic benefits arising from the proposal to outweigh the adverse impact on residential amenity. The proposal is contrary to Policy FA2.2 (A) of the Rushmoor Local Plan (1996-2011) Review."*

B) Reasons for refusal - Increase in movements from 28,000 to 50,000 per annum, including increase in movements at weekends and bank holidays from 5,000 to 8,900 per annum.

2.3 Planning permission was refused for the following reason: *"The proposed increase in business aviation movements at Farnborough Airport would result in an adverse impact upon the amenities of surrounding residential property, particularly with regard to increased frequency and maximum levels of noise disturbance, air quality and odour problems, and the greater risk from more movements. It has not been satisfactorily demonstrated that the economic benefits of the proposal outweigh the adverse environmental consequences to the extent that a departure from Policy FA2.2 (A) of the Rushmoor Local Plan is justified."*

2 – CAA information on pollution

<https://www.caa.co.uk/consumers/environment/information-on-the-environmental-impact-of-aviation/>

3 – Nature report on mortality from emissions

<https://www.nature.com/articles/s41467-021-24487-w>

4 – Report on harm from aviation

https://apps.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=Community%20Health%20and%20Airport%20Operations%20Related%20Pollution%20Report_c7389ae6-f956-40ef-98a7-f85a4fab1c59.pdf

5 – Council scorecard showing RBC's relative performance

<https://councilclimatescorecards.uk/councils/rushmoor-borough-council/>

6 – House price spreadsheet. Impact on property values.xls

7 – Emissions spreadsheet. FAL fuel & emissions calc.xls

8 – Losing Altitude report questioning the value add of aviation

https://neweconomics.org/uploads/files/NEF_Losing-altitude.pdf

9 – Possible report showing leisure usage of Farnborough Airport

https://docs.google.com/document/d/1WdGEPGb7W5QvomzJCmtSDwG_NdvtcU3zxzpqNIZ-mHo/edit#heading=h.u6xdl3y0oc6d

10 – Farnborough airport offering flights for pets

<https://www.theguardian.com/environment/2023/sep/30/private-jet-service-for-rich-dog-owners-condemned-by-climate-campaigners>

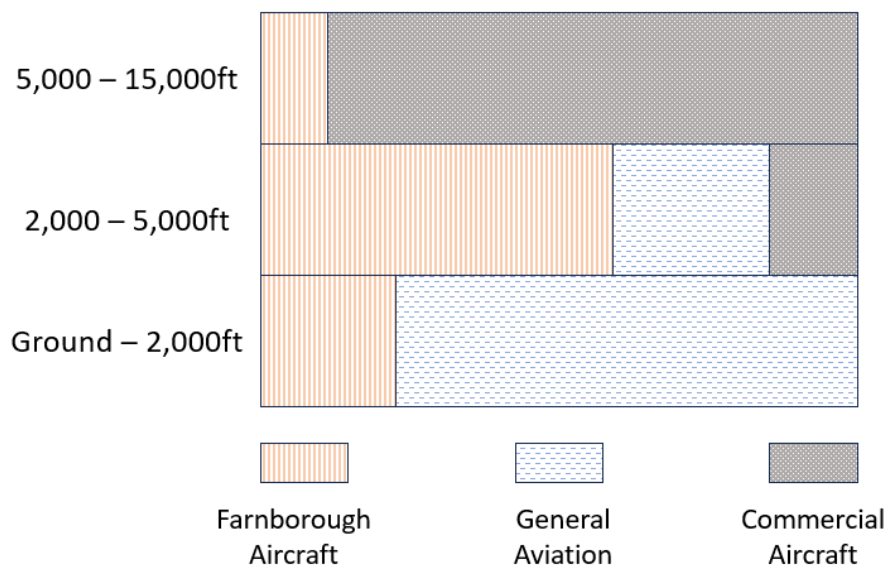
11 – SAF does not reduce emissions

<https://inews.co.uk/news/boris-johnson-jet-zero-flight-dismissed-showpiece-takeoff-2772783>

<https://eandt.theiet.org/content/articles/2023/02/uk-would-have-to-give-up-half-its-agricultural-land-to-sustain-net-zero-flying-study-finds/>

12 – Only Farnborough aircraft noise is being presented and modelled

Aircraft noise by source



13 – Decline in business jet volumes in 2023

<https://www.flyingmag.com/business-jet-activity-on-the-decline-report-shows/>

<https://www.flightglobal.com/business-aviation/honeywell-reports-slowing-business-jet-orders-but-leaves-10-year-delivery-forecast-unchanged/155381.article>

14 -

<https://www.ons.gov.uk/economy/economicoutputandproductivity/publicservicesproductivity/articles/productivityintownsandtraveltoworkareasuk/2019#:~:text=High%20productivity%20towns%20and%20TTWAs,located%20elsewhere%20in%20the%20country.>

Review of Environmental Statement Volume I: Main Report Chapter 4: Legislation, policy context and planning history + Appendices (key points in red)

Policy	Comments
<p>National Planning Policy Framework 2023</p> <p>The presumption in favour of sustainable development 11. Plans and decisions should apply a presumption in favour of sustainable development. For plan-making this means that:</p> <p>a) all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;</p> <p>6. Building a strong, competitive economy 82. Planning policies should: a) set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration;</p> <p>9. Promoting Sustainable Transport 105. The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.</p> <p>14. Meeting the challenge of climate change, flooding and coastal change 152. The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.</p>	<p>Expansion of private jet flights is not sustainable development.</p> <p>Expansion of private jet flights is not sustainable economically as dramatic reductions will be required to achieve net zero.</p> <p>Plan promotes the increase of unsustainable travel, increases emissions and pollution, and harms human health.</p> <p>Private jets at Farnborough are 30 – 40 times more polluting than equivalent commercial flights and the opposite of a low carbon transition.</p>

<p>176. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads.</p>	<p>Impact on AONB/ National Parks has not been measured or evaluated.</p>
<p>RBC Local Plan. Policy SS1 - Presumption in Favour of Sustainable Development When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (or its successor), whilst having regard to the need to assess, and where appropriate mitigate against, the likelihood of significant effect on the Thames Basin Heaths Special Protection Area. It will work pro-actively with applicants to secure development that improves the economic, social and environmental conditions in the area. Planning applications that accord with the policies in the Rushmoor Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise. Where there are no policies relevant to the application, or relevant policies are out of date at the time of making the decision, the Council will grant permission unless material considerations indicate otherwise, taking into account whether:</p> <p>a. There are available and deliverable avoidance and mitigation measures in respect of the Thames Basin Heaths Special Protection Area; and</p> <p>b. Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or</p> <p>c. Specific policies in that Framework indicate that development should be restricted.</p>	<p>There are a significant number of material considerations.</p> <p>Application has not demonstrably shown that the benefits outweigh the harm.</p>
<p>RBC Local Plan. Policy SP4 - Farnborough Airport Within the defined Farnborough Airport Planning Policy Boundary (APPB), as identified on the Policies Map, development will be restricted to that supporting business aviation and associated Airport-related uses. In respect of business aviation movements, the planning permission of 2010 allows up to a maximum of 50,000 annual Air Traffic Movements, of which no more than 8,900 are at weekends and bank holidays. Proposals to change the pattern, nature and/or number of business aviation movements will only be permitted provided that the following criteria are met:</p> <p>1. That the need for a change in business aviation movements at Farnborough Airport is demonstrated;</p> <p>2. That the aircraft noise impact is less than the agreed baseline noise level, established through Policy SP4.2;</p>	<p>Need not shown. Noise will be greater than baseline.</p>

<p>3. That the extent of any annual third-party risk contour resulting from any change does not result in a net increase in the area covered by the third-party risk contour;</p> <p>4. That any material increase in air pollution or odour is mitigated adequately;</p> <p>5. That economic benefits to the local and wider economy can be demonstrated;</p> <p>6. That flying at the most sensitive times of the day and week is limited to respect the amenities of residents in and adjoining Rushmoor Borough;</p> <p>7. That there is no adverse impact on international, national and local nature conservation designations; and</p> <p>8. That impacts of any changes on surface water run-off are managed adequately.</p>	<p>No mitigation of pollution. Economic benefits significantly overstated and don't outweigh the harm. Adverse impact (e.g. Nitrogen deposition).</p>
<p>RBC Local Plan. Policy IN2 - Transport</p> <p>Development should seek to minimise the need to travel, promote opportunities for sustainable transport modes, and improve accessibility to local facilities and linkages with the surrounding pedestrian and cycle network.</p> <p>Development will be permitted that:</p> <ul style="list-style-type: none"> a. Integrates into existing movement networks; b. Provides safe, suitable and convenient access for all potential users; c. Provides an appropriate on-site movement layout suitable for all potential users; d. Provides appropriate parking provision, in terms of amount, design and layout, in accordance with the adopted 'Car and Cycle Parking Standards' supplementary planning document; e. Provides appropriate waste and recycling storage areas and accessible collection points for refuse vehicles; f. Does not have a severe impact on the operation of, safety of, or accessibility to the local or strategic road networks; g. Mitigates impacts on the local or strategic road networks, arising from the development itself and/or the cumulative effects of development, through the provision of, or contributions towards, necessary and relevant transport improvements, including those secured by legal agreements or through the Community Infrastructure Levy; h. Provides a transport assessment and travel plan in accordance with the thresholds set out in the adopted 'Car and Cycle Parking Standards' supplementary planning document; i. Ensures that all development proposals provide a co-ordinated and comprehensive scheme that does not prejudice the future development or design of suitable adjoining sites; and j. Takes appropriate measures to avoid adverse impact on air quality, including on European nature conservation sites. 	<p>Fundamentally undermines this policy. Promoting extremely unsustainable travel.</p> <p>Pollution has not been measured and model is incomplete. Adverse impact on sites.</p>
<p>RBC Local Plan. Policy NE2 - Green Infrastructure</p>	

<p>A diverse network of accessible, multi-functional green infrastructure across the Borough will be protected and enhanced for its biodiversity, economic, recreational, accessibility, health and landscape value by ensuring that development:</p> <ol style="list-style-type: none"> 1. Does not result in a loss, fragmentation or significant impact on the function of the green infrastructure network; 2. Provides green infrastructure features within the development site or, where this is not feasible, makes appropriate contributions towards other strategic enhancement, restoration and creation projects where the proposal will result in additional pressure on the green infrastructure network; 3. Maximises opportunities for improvement to the green infrastructure network, including restoration of fragmented parts of the network. Development proposals will only be permitted where they do not have a significant adverse impact on the essentially open character of Important Open Areas, as shown on the Policies Map. Development proposals within or adjoining green corridors, as shown on the Policies Map, will be expected to enhance their landscape and amenity value. 	<p>Through combined factors (emissions, pollution, noise), the proposal will harm wildlife and biodiversity. It is contrary to development of green infrastructure.</p>
<p>RBC Local Plan. Policy NE4 – Biodiversity</p> <p>Development proposals will be permitted if significant harm to biodiversity and/ or geodiversity resulting from a development can be avoided or, if that is not possible, adequately mitigated such that it can be clearly demonstrated that:</p> <ol style="list-style-type: none"> 1. There will be no adverse effect on the conservation status of priority species; 2. There will be no adverse effect on the integrity of designated and proposed European designated sites; 3. There will be no adverse effect to nationally designated sites; 4. There will be no adverse effect to locally designated sites; There will be no loss or deterioration of a priority habitat type, including irreplaceable habitats; and 6. There will be no adverse effect to the integrity of linkages between designated sites and priority habitats. The weight given to the protection of nature conservation interests will depend on the international, national or local significance and any designation or protection applying to the site, habitat or species concerned. Where development proposals do not comply with the above, they will only be permitted if it has been demonstrated clearly that there is an overriding public need for the proposal which outweighs the need to safeguard biodiversity and/or geodiversity, and there is no satisfactory alternative with fewer or no harmful impacts. In such cases, as a last resort, compensatory measures will be secured to ensure no net loss of biodiversity and, where possible, provide a net gain. Development proposals should seek to secure opportunities to enhance biodiversity and include proportionate measures to contribute, where possible, to a net gain in biodiversity, through creation, restoration, enhancement and management of habitats and features, including measures that help to link key habitats. The Council will seek to 	<p>Proposal will result in significant biodiversity harm locally, nationally and globally, but it hasn't been measured properly.</p> <p>Much of the potential harm has been discounted or considered "insignificant" and where there is significant harm to protected areas (e.g. Nitrogen deposition, it is ignored as it cannot be mitigated.</p> <p>There is no public overriding need and there are alternatives (commercial flights) to negate an increase in private jets.</p>

<p>protect, maintain and enhance the Borough’s biodiversity and geological resources, in association with partners, through:</p> <ol style="list-style-type: none"> 1. Supporting a programme of survey of habitats and species, and designation of 'Sites of Importance for Nature Conservation'; 2. Seeking the inclusion of measures which protect and strengthen populations of protected and target species and contribute to the habitat restoration targets identified in the Rushmoor Biodiversity Action Plan; 3. Seeking the inclusion of measures to protect and enhance local watercourses, including the River Blackwater, Cove Brook and Basingstoke Canal, and their tributaries; 4. Maintaining a Borough-wide network of local wildlife sites and wildlife corridors between areas of natural greenspace to prevent the fragmentation of existing habitats; 5. Supporting measures to increase local understanding of the importance of biodiversity in the Borough; and 6. working in partnership to protect, maintain and enhance biodiversity at the landscape scale. 	<p>The plans proposals (e.g. a Sustainability Fund) do not in any way compensate for the significant environmental harm such as 1.5m tonnes CO2e by 2040 and the human health impact of pollution and noise.</p>
<p>RBC Local Plan. Policy DE10 – Pollution</p> <p>Development will be permitted provided that:</p> <ol style="list-style-type: none"> 1. It does not give rise to, or would be subject to, unacceptable levels of pollution⁽¹¹⁷⁾; and 2. It is satisfactorily demonstrated that any adverse impacts of pollution, either arising from the proposed development⁽¹¹⁸⁾ or impacting on proposed sensitive development or the natural environment⁽¹¹⁹⁾ will be adequately mitigated or otherwise minimised to an acceptable level. ⁽¹²⁰⁾ Where development is proposed on or near a site that may be impacted by, or may give rise to, pollution, such a proposal shall be supported by a report that investigates the risks associated with the site and the possible impacts on the development, its future users and the natural and built environment. The report shall propose adequate mitigation or remediation when required to achieve a safe and acceptable development. This report shall be written in line with best practice guidance. <p>117 Pollution means anything that affects the quality of land, air, water or soils which might lead to an adverse impact on human health, quality of life, the natural environment or general amenity. It includes noise, vibration, light, air quality, radiation, dust, fumes or gases, odours or other effluvia, harmful substances, or degradation of soil and water resources.</p> <p>118 Including the demolition and construction phases of development.</p> <p>119 To include nature conservation, landscape character and controlled waters.</p> <p>120 In accordance with recognised national and international standards, guidance and methodologies, or any local authority adopted supplementary guidance. Early dialogue is advised to clarify the Council’s criteria.</p>	<p>Pollution has not been measured (e.g. NOX & PM). Key pollutants have been ignored (e.g. ultrafines) so it is not known if levels are acceptable.</p>

<p>Overarching Aviation Noise Policy Statement 2023</p> <p>“The Government’s overall policy on aviation noise is to balance the economic and consumer benefits of aviation against their social and health implications in line with the International Civil Aviation Organisation’s Balanced Approach to Aircraft Noise Management. This should take into account the local and national context of both passenger and freight operations, and recognise the additional health impacts of night flights. The impact of aviation noise must be mitigated as much as is practicable and realistic to do so, limiting, and where possible reducing, the total adverse impacts on health and quality of life from aviation noise.”</p>	<p>Economic benefits overstated and no costs have been included (e.g. £2.5 bn loss in property values). Social and health implications ignored. Sound insulation is an ineffective mitigation - does not reduce outdoor noise.</p>
<p>The draft Local Industrial Strategy (‘LIS’) sets out Enterprise M3 Local Enterprise Partnership’s (‘LEP’) Science, Innovation and Enterprise: stimulating more innovation and greater commercialisation of knowledge in leading sectors to increase output from the most productive businesses;</p> <ul style="list-style-type: none"> • People and Skills: transforming the workforce to respond to new business models, particularly increased digitisation and enhancing participation and inclusive growth through a better skilled, support and healthier workforce; • Towns: supporting the productive capacity of the networks of relatively small but successful places which make up the EM3 area and generate much of its economic growth; • A Gateway Region: growing our region through maximised access to global markets through our port and airports and the potential of the sub-regional economics associated with those gateways; • Clean Growth: articulating the full potential for the EM3 area to make better use of energy to improve productivity and the role of the natural capital in shaping future economic growth; • Smart Mobility: better and more efficient connections between businesses and their staff, supply chains and markets to enhance productivity and new approaches to mobility that suit the needs of residents and the nature of our area; and • Exporting: increasing the number of companies and the volumes of goods and services being exported to increase demand and stimulate investment. • 	<p>This is not clean growth and it is an extremely inefficient use of energy.</p>
<p>Noise Policy Statement for England 2010</p> <p>Guiding principles of sustainable development Ensuring a Strong Healthy and Just Society</p> <p>Ensuring a Strong Healthy and Just Society – Meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity for all.</p>	<p>Creating noise, pollution and emissions for a very small number of people at the expense of the public and the</p>

Living Within Environmental Limits – Respecting the limits of the planet’s environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations.

“Health and quality of life”

2.12 The World Health Organisation defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, and recognises the enjoyment of the highest attainable standard of health as one of the fundamental rights of every human being.

2.13 It can be argued that quality of life contributes to our standard of health. However, in the NPSE it has been decided to make a distinction between “quality of life” which is a subjective measure that refers to people’s emotional, social and physical well-being and “health” which refers to physical and mental well-being.

2.14 It is recognised that noise exposure can cause annoyance and sleep disturbance both of which impact on quality of life. It is also agreed by many experts that annoyance and sleep disturbance can give rise to adverse health effects.

The distinction that has been made between “quality of life” effects and “health” effects recognises that there is emerging evidence that long term exposure to some types of transport noise can additionally cause an increased risk of direct health effects.

“Effective management of noise”

2.16 This concept confirms that the policy applies to all types of “noise” (environmental, neighbour and neighbourhood) and that the solution could be more than simply minimising the noise.

Significant Observed Adverse Effect Level (SOAEL). This is the level above which significant adverse effects on health and quality of life occur.

2.22 It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. The first aim of the Noise Policy Statement for England is to avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise

2.23 The first aim of the NPSE states that significant adverse effects on health and quality of life should be avoided while also taking into account the guiding principles of sustainable development (paragraph 1.8). The second aim of the Noise Policy Statement for England Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

global population in general is entirely contradictory to this policy. There will be significant harm to the planet’s environment, resources and biodiversity. The proposal wastes limited resources of fossil fuels and will harm future generations.

Plans significantly understate the level of noise (volume, frequency, numbers impacted) and does not value the harm caused.

Proposal only considers aircraft noise from Farnborough aircraft and ignores all other noise sources.

Proposal does not measure (only models) Laeq which is not appropriate as a SOAEL (e.g. low background noise in rural areas).

<p>Environment Act 2021</p> <p>Polluter Pays</p> <p>Air quality</p> <p>Biodiversity</p>	<p>Cost of removing CO2 from forecast 2040 flights is £215m/year (Direct Air Carbon Capture).</p> <p>Air quality will deteriorate.</p> <p>Aviation a significant contributor to global temperature rises of 2.4 – 2.7 degrees by 2100. Biodiversity will be devastated.</p>
<p>Air Navigation Guidance 2017 The Guidance states the “environmental impact of aviation must be mitigated as much as is practicable and realistic to do so”.</p> <p>Government Objectives 1.2. a. limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise; b. ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions; and c. minimise local air quality emissions and in particular ensure that the UK complies with its international obligations on air quality.</p> <p>Local Authorities These set local planning policies and ensure that noise impacts are properly considered during the planning process and that unacceptable adverse impacts are avoided. They can also require conditions through planning agreements to set noise controls and operating restrictions.</p> <p>National Parks & AONB 3.31 National Parks and AONB are designated areas with specific statutory purposes to ensure their continued protection in relation to landscape and scenic beauty. The statutory purpose of National Parks is to conserve and enhance their natural beauty, wildlife, and cultural heritage and to promote opportunities for the understanding and enjoyment of their special qualities by the public. The statutory purpose of AONB is to conserve and enhance the</p>	<p>Local authority objectives should be consistent with government objectives.</p> <p>Local Authorities can require conditions such as limiting the number of movements in an hour and stopping leisure flights.</p> <p>While these guidelines relate to airspace changes, a significant change in the number of flights changes the considerations</p>

natural beauty of their area. In exercising or performing any air navigation functions in relation to, or so as to affect, land in National Parks and AONB, the CAA is required to have regard to these statutory purposes when considering proposals for airspace changes (under section 11A of the National Parks and Access to Countryside Act 1949, as read with section and schedule 2 of the Civil Aviation Act 1982, and section 85(1) of the Countryside and Rights of Way Act 2000).

Helicopters

3.36 The CAA should take into account the unique noise characteristics of helicopters, which can hover for a period of time at low level over the same area, and their consequent environmental impact. This should occur when a change to airspace is proposed under the CAA's Airspace Change Process, and where significant helicopter activity is involved. In such cases, where either the proposal concerns the amendment to formally established helicopter routes within controlled airspace, or where helicopters movements are a predominant factor, the CAA should encourage sponsors, where operationally practicable, to consider options that minimise the environmental impact of helicopter activity and take account of that impact when assessing options to meet their objectives.

regarding the airspace. The current number of movements a day over National Parks/AONB was not envisaged in the 2014 ACP. Farnborough Airport's proposals will make this worse with more aircraft and heavier aircraft operating.

Helicopters are not flying the prescribed routes and not following the British Helicopter Association or The Air Navigation guidelines. This is not being pursued by the airport, NATS or the CAA.

Appendix – Need Case. Tom Burton. 20th November 2023

Review of York Aviation Need Case (1079628) + Appendices

General comments

It is both local and national planning policy that Farnborough Airport Limited (FAL) are required to demonstrate a clear business need when applying for change, and to also demonstrate that the benefits significantly outweigh the environmental and other impacts on the community. The planning application 23/00794/REVPP does not get close to achieving this threshold.

- The forecast demand is not only unproven but is disproven by the airports own historical performance. Therefore, the planning application is not supported by credible business need.
- The benefits model relies largely on theoretical parametric models that have not been supported by verifiable evidence. The benefits model is then further undermined by the lack of credibility in the forecast demand upon which the benefits rely. Many core aspects of the benefits model are in direct conflict with the benefits that were projected but not realised in the planning application 09/00313/REVPP.
- Many of the policy statements have been quoted out of context and present a distorted view.
- The wider economic benefits forecast is in conflict with other assertions in the Need Case. In particular, the productivity and time efficiency benefits that underpin the projected benefits of business aviation are based on trips in a single day that would take multiple days to achieve with scheduled commercial airlines. This is in contradiction to the planning application's justification for disproportionate increases in weekend and bank-holiday capacity, which is based on the assertion that a significant proportion of flights are multi-day in nature.

It is noted that Farnborough Airport has provided a Need Case which is different to a Business Case. A Business Case would include the costs associated with the achievement of benefits and it would aim to quantify qualitative outcomes as well as weighing up alternative options. As such, what has been submitted does not provide sufficient information to make an informed decision of the value, costs and risks of the proposal. For example, the submission does not quantify the health and environmental harm, the cost of capturing the additional emissions from increased flights or the reduction in property values as a result of increased noise and pollution in impacted areas.

Forecast Demand is not supported by verifiable evidence

The planning application is requesting a disproportionate increase in non-weekday capacity, and claiming that this is due to "*external market conditions*". The assertion made is that 27% of market demand is on non-weekdays. Sections quoting this include (but are not limited to) Intro paragraph 16 and paragraphs 3.3, 5.10-5.12, 5.45, and 7.15. This is not validated with any evidence, beyond quoting what Farnborough has successfully sold. In particular, Para 5.2 (including figure 5.1) illustrates historic air movements across London airports since 2003. To support the Need Case (NC) this independent data should be broken down between weekday and non-weekday movements to validate the application's claim that wider market changes have led to non-weekday share of demand growing from 18% to 27% over that period across all London airports. The absence of this

validation implies the changes are largely isolated to Farnborough Airport's as a result of its 'go-to-market' strategy.

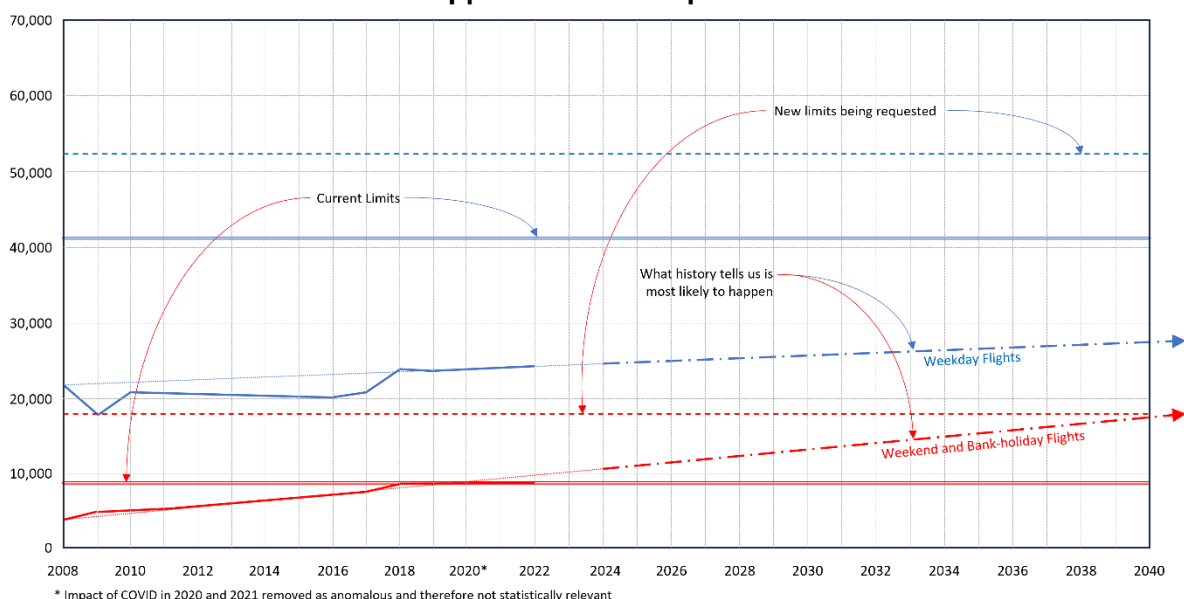
Paragraphs 5.7 and 5.19 assert that Farnborough's demand will increase because Biggin Hill will be unable to grow. The stated reason is that "It is also required, through an agreement with Bromley Borough Council, to maintain a noise action plan involving ongoing noise monitoring and other noise abatement commitments [which is likely to] constrain growth in business jet activity at Biggin Hill going forwards." No explanation has been given why noise pollution should be of greater concern and therefore deserves greater regulation in Biggin Hill than it is in Farnborough. This requires greater justification particularly given that Biggin Hill approaches appear to overfly less densely populated areas than Farnborough. Rushmoor Borough Council also owes its electorate and the surrounding boroughs an explanation as to why there is greater regulation of noise as a result of Biggin Hill's local council's actions.

Forecast Demand is unproven and does not align with historical trends

The whole planning application, including the NC, is founded on the claim that by 2040 there will be demand for 70,000 movements of which 18,900 will be non-weekday movements. Even if the doubling of non-weekday movements were approved, historical data does not support this statement. Using consistent trends over the last 15 years and projected forward to 2040 it is likely that non-weekday movements could achieve close to 18,900 but that weekday movements are unlikely to achieve 30,000 in that period (as shown in the graph below). This evidence demonstrates that the additional weekday capacity being requested in this planning application is irrelevant for a planning horizon of 2040.

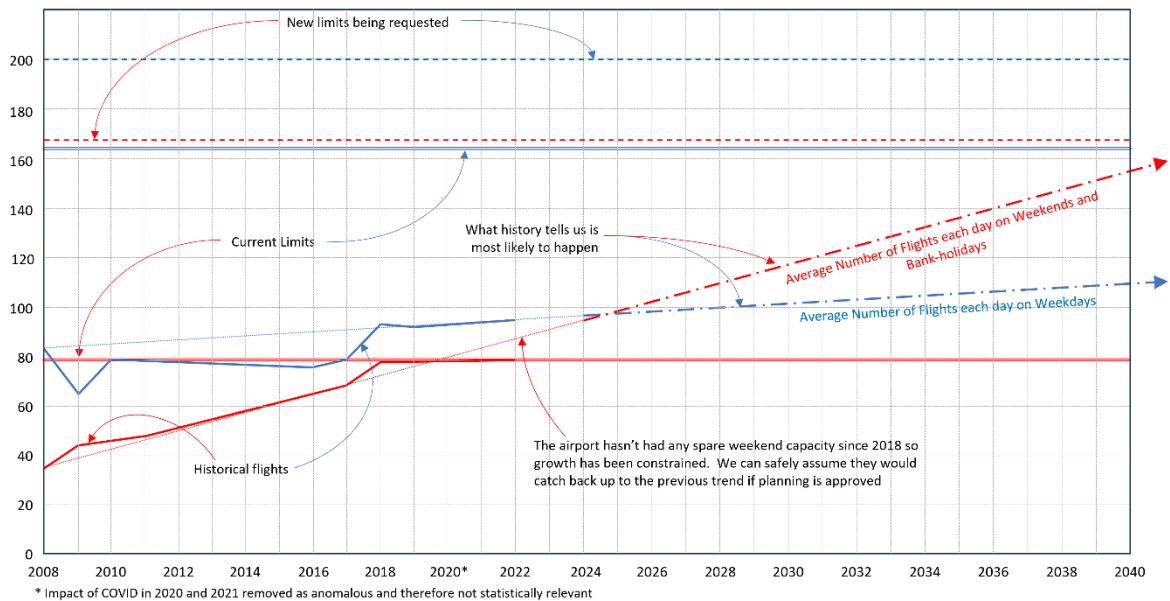
FAL may claim that growth in weekday movements would be stimulated by availability of non-weekday slots. The statistics show that this is not supported by the data, given that from 2010 to 2016 while non-weekday activity was flat or declining, non-weekday activity was growing and unconstrained by limited capacity.

What is most likely to happen if Farnborough Airport's Planning Application is Accepted



The absence of any plan by FAL to change their go-to-market approach means there is no reason to believe the future will outperform the past. This means that within a few years it can be expected that non-weekdays will be on average busier than weekdays (as shown in the graph below). Not only does this have a disproportionate impact on the noise and other pollution that the local community is exposed to, it calls into question the business benefits being claimed by Farnborough Airport Limited (FAL). It also places extreme doubt over whether FAL is providing aviation that is genuinely supporting non-aviation business and the wider UK economy, as opposed to supporting non-business flights for leisure purposes.

Farnborough Airports fallacy of business aviation growth



It is noted that FAL has baselined the historical data to generate forecasts to 2009 rather than 2008. This is statistically unsound as the airport’s performance in 2009 was significantly impaired as a direct result of the financial crisis with weekday movements in that year 15% lower than the year before and 12% lower than the year after. This anomaly was explicitly recognised by the airport in its own Master Plan from 2008, predicting a temporary 10% drop in 2009 (table supporting section 4.6.2)

The NC appears to deliberately gloss over the lack of material growth in weekday movements over the 15 years, upon which the demand forecasting and projected benefits rest. Historical CAGR for weekday and non-weekday movements baselined against 2008, 2010 and the statistically unreliable 2009 are as follows:

	2008 Baseline	Anomalous 2009 Baseline	2010 Baseline
Overall CAGR	1.9%	2.9%	2.1%
Weekday CAGR	0.9%	2.5%	1.3%
Non-Weekday CAGR	5.8%	4.4%	4.7%

FAL’s forecast demand is based on a historical trend that overstates total and weekday growth by more than 1%. Even that distorted historical trend is insufficient to provide evidence for their claim that weekday movements will achieve the 52,000 weekday limit being requested by 2040.

Neither the increases being requested, nor the “*Without Development Case*”, provide a plan for FAL to stimulate growth in the less environmentally impactful weekday movements that have been lacking in growth. In particular, no statement has been made about how FAL might change their strategy and ‘go-to-market’ approach, particularly with regards to weekday pricing, to stimulate this growth. Without a plan to do things differently it should be expected that the future will conform to the historical trends of the past.

Benefits Model is unproven and unsupported by verifiable evidence

The benefits claim to make use of a “*commonly used and widely accepted economic impact framework that is considered best practice in considering the economic impact of airports*”. The provenance of this model is not referenced and no independent third parties have been cited as validating its “best practice” status.

In the previous planning application that was passed on appeal in 2011, the Airport’s Master Plan outlined the economic benefits they expected to deliver if capacity was increased to 50,000 including 8,900 non-weekday movements (section 4.7.7). Below you can see those projected benefits side by side with the benefits defined in this planning application. It is clear that the direct employment opportunities, which are under FAL’s control, have fallen significantly short of what was promised, delivering only 35% of the employment growth forecast. In contrast, the direct FTEs projected for 2031 when FAL suggests it will achieve 50,000 movements are 46% higher than the previous estimate for the same number of movements without any explanation for this significant drop in productivity. It has to be assumed that this discrepancy is simply an attempt to inflate potential benefits without any risk of accountability. Without a plan to demonstrate what the new jobs would be, or an expectation by FAL that they will be held to account for delivering on the forecast, these benefits lack real credibility.

The difference, by an order of magnitude, in the benefits through indirect and induced employment between claims in 2009 and now, illustrates a high degree of unreliability in the models that have been used. This is also borne out in the forecast local GVA figures. Without any verifiable evidence of historical GVA provided by FAL, or a plan to track and be held to account for future GVA, the benefits lack any real credibility.

	From 2009 Master Plan		From current Planning Application		
	2008	2019	2019	2031	2040
Movements (<i>Forecast*</i>)	25,504	50,000*	31,600	50,000*	70,000*
Direct FTE	1139	1538	1300	2250	2650
Indirect & Induced FTE	3189	4305	300	550	650
Total FTE	4328	5843	1600	2800	3300
Total GVA (£m)	222	300	110	280	430

The wider, indirect benefits to the UK economy claimed in the NC are based on time efficiencies and productivity enhancements to executives traveling on business. These benefits are justified in the section titled The Value of Business Aviation to Users (paragraphs 4.4-4.12) by the Indicative Schedule for a Business Trip in Table 4.1. This shows the time efficiencies and the productivity benefits assumed to be realised by being able to conduct a trip in a day that would take several days via commercial carriers. But the capacity being requested, particularly the excessive growth in non-weekday movements is justified by the assertion that business travel has changed and is now regularly conducted over multiple days, very often with one of the ends terminating on a non-weekday. Paragraph 5.13 states that “*our analysis of the pattern of aircraft movements at*

Farnborough identified that approximately 20% of weekday movements are linked to a weekend movement, i.e. the aircraft arrives on a weekday and departs at weekends or vice versa". These two claims contradict each other. Either the additional non-weekday capacity is not required for business aviation users or the benefits are illusory. Regardless, one would expect multi-day trips to have significantly reduced benefits when compared to commercial itineraries as the benefit margins in the flights will be diluted by the rest of the trip, which will be longer by proportion.

Paragraph 3.73 claims that the proportion of business passengers using the airport is between 70-80% of total airport passengers. No evidence is provided to support this claim, nor is a definition provided for what they mean by "*business passengers*", which is characteristically vague. Analysis of the destinations and origins of flights, particularly on Friday, Saturday and Sunday would suggest little economic activity is being conducted by the users, beyond their own consumption.

The benefits case leans heavily on the aerospace clustering effect of the airport, particularly with regards to companies such as BAE Systems, QinetiQ and Gulfstream (paragraphs 2.59-2.62, 3.19-3.20, and 6.36). The first two of those are located in Farnborough because of the historical position of the MOD establishment and have limited dependency on the growth of the Airport for their continued existence and growth. No evidence has been provided to justify why these aerospace cluster tenants would in any way be negatively affected by the constraints on non-weekday capacity which is the dominant component of the planning application. No evidence has been provided of the support that the airport is providing to these cluster tenants. Such evidence would be statistics on the percentage of movements supporting, broken down by tenant and further by weekday and non-weekday movements.

Overall, the benefits models are theoretical in nature and based entirely on parametric models that are unsupported by any evidence that would validate their accuracy. They therefore cannot be relied upon. The application does not reflect back on the benefits claimed in the previous planning application approved at appeal in 2011. Such analysis, presenting realised and unrealised forecasted benefits, would enable the past to provide some validation for the future.

Bold claims of disbenefits if the application is rejected are also lacking in any evidence and actual projected impacts. Introduction para 13 and paragraphs 4.20 and 7.12 claim that if the application is not approved there will be "*there will be harm to the sector, with consequential damage to the role that it can play in supporting the wider economy of the South East and London, and even the UK as a whole*". This is a sweeping statement but the harm is not articulated. Given that the benefits in this application lack verifiable evidence and therefore credibility, they alone do not provide adequate evidence of disbenefit. The statements sound more like threats than the result of objective analysis and planning.

External Policy has been quoted out of context

Paragraph 2.6 quotes Aviation Policy Framework (APF) for support using the statement that "*Given the importance of this GA network, while recognising that in congested airports this may not be appropriate, we encourage airport operators to ensure that GA aircraft are able to continue to enjoy equitable access to their airports and in doing so take account of the needs of all users, alongside other relevant considerations*". This is not the role that Farnborough has or appears to be seeking to address. If Farnborough believes it contributes to the GA role of connecting passengers to national commercial aviation hubs then evidence should be provided of the proportion of flights (particularly the proportion of non-weekday flights) that either link passengers to commercial aviation hubs for onward commercial transfers. Given the proximity of Farnborough to LHR it is assumed that little to no capacity is used to link passengers to other UK commercial aviation hubs.

Paragraph 2.6 quotes APF for support using the statement that *“Business and general aviation connects many UK and international destinations that do not have, and are unlikely to develop, scheduled air services or other direct transport links”*. No evidence has been provided in the form of the key destinations and proportion of Farnborough’s movements, split by weekday and non-weekday movements, that are serving this particular policy need.

Similarly the application quotes the Government’s Green Paper *“Aviation 2050”* in paragraph 2.22 to claim Farnborough is part of the GA network without any evidence to support it. It uses the statement that *“[policy] requires planners to “recognise the importance of maintaining a national network of GA airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the government’s General Aviation Strategy”*. If Farnborough Airport genuinely is part of the network of GA airfields this should be evidenced with destinations and proportions of movements split by weekday and non-weekday.

The Enterprise M3 LEP Strategic Economic Plan is quoted (intro para 5, and paragraphs 2.56-2.58, 2.70 and 7.4) as providing significant support for Farnborough’s growth. This is not borne out in the document itself, which focuses in an aviation context on the strategic proximity of Heathrow and makes only passing reference to the connectivity benefits of Farnborough Airport. It does mention businesses around the Airport (e.g. BAE Systems and QinetiQ) but their dependency on the airport’s growth itself is marginal and certainly not linked to non-weekday movements.

Appendix – Environment. Colin Shearn. 6th December 2023

Review of ES Volume 1: Main Report Chapter 1: Introduction

General comments

1.2.2.4 “Phasing out” of Piaggio Avanti is proposed but no dates given and use is very infrequent now (only a few a week). The Bombardier Challenger 350 is also complained about but no cap on this aircraft has been proposed – maybe because it is one of the most common aircraft operating.

Review of ES Volume I: Main Report Chapter 2: The current state of the environment

General comments

The report does not recognise the serious depletion in wildlife and biodiversity in the UK, and the south east in particular. Significant investment and effort is needed to reverse this trend, not to increase activities that make the situation worse. Regarding noise, National Parks and AONB are protected by the Air Navigation Guidance 2017 and the activities of Farnborough Airport already breach these guidelines.

2.2.3 does not recognise that the area to the west, south and south east is National Park and AONB and that these areas are impacted by the current number of movements regarding emissions, noise and pollution and will be further harmed by any future growth in flights. Ambient noise is 35 dB so Laeq metrics are irrelevant. Significant Observed Adverse Effect Level (SOAEL) should be used.

2.3.7 Does not specify that operations are for “business use” only and that leisure flights are not permitted.

Review of ES Volume I: Main Report Chapter 3: Description of the Proposal

General comments

Additional components have been added to the planning application.

3.2.6. Current – “no more than 270 of the 1,500 aircraft movements per annum between 50,000 and 80,000 Kg, shall take off or land at weekends and Bank Holidays.”

3.2.7. Proposed – “no more than 570 of the 2,100 aircraft movements per annum between 55,000 and 80,000 Kg, shall take off or land at weekends and Bank Holidays”.

3.2.11. *“The proposed change reflects several existing aircraft types that were under 50,000 Kg, becoming very slightly heavier, and just above 50,000 Kg in newer versions, and also other newer models anticipated to be more noise and emissions efficient, which are anticipated to be just over the 50,000 Kg threshold. The proposed change will allow for these more beneficial newer aircraft types, which may have lower noise and emissions than the older versions”*. However, appendices show significant increases of the much larger aircraft. This is hard to understand when there are on average only 2.5 passengers per plane (and less than this in many other private jet airports). Emissions (fuel burn rate) of new heavier aircraft carrying 19 passengers are 2/3 emissions of heavy commercial jets carrying 130 passengers. While they may have lower emissions than older versions, they are still extremely high in emissions per passenger mile.

3.3.5. Reasonable alternatives considered should have included removal of non-business flights (leisure, pets, cars, racehorses, etc) to free up capacity for business use.

Additional information/data needed

- An Airbus A319 carrying 130 passengers has a burn rate of 750 gallons/hour. The Bombardier Global 7500 that FAL wants to expand the use of has 19 seats and a burn rate of 530 gallons/hour (even though it is likely to be carrying just a few passengers).

Review of ES Volume I: Main Report Chapter 4: Legislation, policy context and planning history

General comments

4.3.1 states “11. Plans and decisions should apply a presumption in favour of sustainable development”. Increases in private jet operations are not sustainable.

4.3.3. states “Decarbonising Transport: A Better, Greener Britain (DTABGB) was published by the Department for Transport (DfT) in 2021. The DTABGB details the Government’s overall commitments and intended actions that are required to decarbonise the UK’s entire transport system”. Investing in private jet growth is the opposite of decarbonising transport.

4.3.10 “Airports National Policy Statement (2018)” is not relevant to non-commercial airports.

Review of ES Volume I: Main Report Chapter 5: Approach to the EI

Comment	Ref	Breach
Development is not sustainable	All	SS1, SP4, IN2, NE4, DE10, NPPF
Development results in increased pollution	5.8.8, 5.8.13	DE10
Development does not consider impact on AONB/National Parks	P6	Air Navigation Guidance 2017
Noise impacts beyond 5km from the airport are excluded	5.11.3	SS1, SP4, OANP 2023, LIS EM3, NPS2010, NPPF

General comments

P5. Cumulative Effects. Only considers impact on other boroughs up to 5km from airport. See Volume I, Chapter 5, Section 5.10.

P6. Landscape and Visual. Visual impact has been scoped out but has only considered the impact in urban areas near the airport, not the impact of low flying aircraft over National Park/AONB. Other councils should be consulted on this.

P9. 5.8 Baseline development. Environmental impacts can be non-linear. E.g. there may be a noise point at which birds move away. There are also points at which populations of fauna & flora decline gradually to a point they become unviable and collapse.

5.8.4. Baseline is set at 50,000 ATM against 70,000 ATM but current environmental impact is at 33,000 ATM. There would be an environmental impact moving from 33,000 to 50,000 and this has been discounted.

5.8.8 There is impact of construction that is not included in the proposal but there is and will be construction work (new terminal, Domus III. Aprons/taxiways). These will have an environmental impact and the application needs to consider the combined effects, including physical development, even if it isn’t included in the proposed flight increases. The emissions relating to the construction of aircraft should also be included (Environment Act).

5.8.13. “...average aircraft sizes and Maximum Take-off Weights will steadily increase over time. This is driven by both the demand, as well as private aircraft owners tending to order larger aircraft at the point that they need to replace their existing aircraft”. This is not acceptable in a just society that is trying to reduce emissions.

5.11.3. “A 5km radius from the centre of the Airport encompassed areas under flight paths, as evidenced by the provision of noise contours, and the most sensitive receptors which surround the Airport. Any receptors outside of a 5km radius of the Airport were considered to incur effects which would be insignificant”. i.e. the impact of flightpaths on the AONB/NP is “insignificant”. RBC agreed this but RBC was not in a position or have the authority to determine impact on other boroughs.

Additional information/data needed

- Major accidents & disasters scoped out. Uncontrolled airspace has got more dangerous.
- Check Population & Human Health. Scoped out. Cumulative impacts in Chapter 12.
- Report includes the matrix used to assess levels of impact.

Review of ES Volume I: Main Report Chapter 7: Air Quality

Comment	Ref	Breach
Harm caused by pollution (pollution, noise, emissions) to people & environment does not outweigh benefits	Overall	NPPF, SP4,
Pollution has not been properly measured (NO2 only near airport, no particulate measurements) and conclusions are drawn from models that have not been validated		
NO2 levels and PM levels increase more “with development”	7.9.4 & Table 7-15	AQS 2000, NPPF Para. 174e,
Pollution above 3,000ft not included in the model. Significant pollution created above this height	7.1.2	
Methane is not included in the model. Produced while engines idling. 28 times more potent than CO2 GHG		
Annual averages of NO2 have been considered but daily and monthly values have not been presented and this is where limits are being breached		
Ultrafine particle pollution is excluded, which is a significant health risk associated with aviation		
“With Development” pollution will increase but it has been averaged with non-aviation reductions	AQS 2000	
There has been no consultation with councils near to Rushmoor but whose populations are impacted by the airport’s pollution	Section 7.	WBC AQMA within 5.5k of airport
Construction pollution is excluded but the plan requires additional construction to achieve the forecast volumes (taxiways & aprons)		
Nitrogen decomposition rates are 3-7 times higher than limits in protected areas	Table 7-11	

General comments

7.1.2 excludes pollution from aircraft flying above 3,000ft.

Air Quality Strategy and Regulations 2000 states *“The overall aim of the Strategy is to achieve steady improvement in air quality into the long term”*. This cannot be achieved if transport volumes that produce pollution increase. See 7.9.4 below.

Condition in S106 regarding pollution monitoring is not included. This requires the airport to measure pollution.

Air Quality Monitoring Scheme TAG Farnborough Airport	
1. Introduction	
1.1	As a part of the TAG Farnborough Airport Master Plan 2009 TAG is committed to continued study of the impacts of business aviation at the Airport on local air quality, with due regard to the TAG Farnborough Airport Section 106 Agreement. This document outlines the scope of this scheme on the impacts of air quality from airport sources on local residents.
2. Aims	
2.1	The aim of the scheme is to report air quality and understand issues that may occur as a result of airport operations through monitoring and recording around the Airport.

No inclusion of ultrafine particles or methane.

NPPF Para. 174e breached. *“Planning policies and decisions should contribute to and enhance the natural and local environment by... preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information”*

Para. 185 *“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.”*

Para. 186. *“Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas.”*

RBC Local Plan SP4. *“Proposals to change the pattern, nature and/or number of business aviation movements will only be permitted provided that the following criteria are met:... 4. That any material increase in air pollution or odour is mitigated adequately; ... 7. That there is no adverse impact on international, national and local nature conservation designations”*.

RBC Local Plan IN2 *“Development should seek to minimise the need to travel, promote opportunities for sustainable transport modes, and improve accessibility to local facilities and linkages with the surrounding pedestrian and cycle network:...”*

Section 7 – Consultation. No consultation with WBC or consideration of impact on public and environment south of the airport, even though Farnham has an Air Quality Management Area 5.5km to the south.

Table 7.5 – excludes construction pollution as not included in the plan but there is still construction (Domus III, New terminal, aprons & taxiways) and the airport impacts pollution.

7.4.4 – Ultrafines not in scope. Reasons given in 7.4.5 – 7.4.7 but they are incorrect. Ultrafines widely recognised as a serious and significant pollutant which is why US is taking legal action against airports. <https://www.theguardian.com/environment/2022/feb/11/pollutionwatch-ultrafine-particles-from-aircraft-engines-endanger-lives>.

Table 7-7. Suggests that current levels are safe so only considers increases above this. Current levels may not be safe. World Health Organisation has reduced “safe” levels of many pollutants below that of the UK. In many cases, reductions should be expected to comply with pollution reduction guidance.

Table 7-8 suggests linear dispersal but this is incorrect. Prevailing winds mean dispersal is greater to the north east with prevailing winds (e.g. plume analysis from Alton Veolia incinerator proposal).

Table 7-11. Nitrogen deposition rates are significantly above minimum critical levels.

7.9.21 states *“Biodiversity expert for the Proposal”* but suggests no environmental impact. Clearly not an expert.

7.9.4. *“Without Development”*, NO_x emissions from airport sources are expected to grow by 53% from 58.6 tonnes in 2019 to 89.6 tonnes in 2045. *“With Development”* (up to ~70,000 aircraft movements), the growth in emissions increases to 113.5 tonnes. Also 39% increase in PM *“With Development”* (Table 7-15).

Table 7-16 suggesting no increase in NO₂ *“With development”*. Hard to believe. Where is the source?

Data presented shows a modelled reduction in pollution but it uses Defra data for background pollution that includes a reduction in pollution due to the switch to electric vehicles (3.1.3 Appendix 7.2). However, FAL pollution is increasing so while total pollution might be reducing, it is still higher than if FAL had not been operating.

Additional information/data needed

- Circling aircraft or inefficient routes not included in models.
- Need to check numbers in 7-9 against FAL reports. Only measuring NO₂ and only annual averages. Also Table 7-10.
- Appendix 7.2 Air Quality Technical Assessment. 2.1.5. *“There are no local PM₁₀ or PM_{2.5} monitoring data against which the model could be verified. Consequently, the verification factor has not been applied to the predicted road PM₁₀ and road PM_{2.5} contributions, as is the case with the NO_x verification described above, consistent with guidance set out in LAQM.TG(22).”*

- PM10 and PM2.5 should have been measures as a background to provide a baseline. This cannot be “modelled”.

Review of ES Volume I: Main Report Chapter 8: Noise

General comments

The noise section is incorrect and incomplete for the following reasons:

- Noise data has only been recorded near the airport
- Only Farnborough aircraft have been included (excludes General Aviation, large commercial aircraft and non-Farnborough aircraft using the same flightpath to go to Fair Oaks/Blackbushe airports) so the disturbance and health impacts are not what people experience in the real world
- Ground/road noise has been excluded
- Assumptions based on assumptions have been applied to develop forecast models that have not been properly validated
- Atmospheric conditions have a significant impact on noise transmission. While a “summer’s day” has been assessed in the tables, the model has used unrepresentative inputs such as a humidity of 76% and 11.4 degrees which is not representative of a summer’s day
- There has been no consideration, measurement or modelling of noise impacts over areas more than a couple of miles from the airport, including areas such as National Parks and AONB that are supposed to be protected from noise through various policies and legislation (e.g. Air Navigation Guidance 2017)

Noise modelling is useful in order to forecast what the impact might be in the future but it needs to be established on real data as a starting point (the as-is situation). No actual noise measurements have been taken other than for a short period and at either end of the runway. This is not the noise that the 800,000 people impacted by Farnborough Airport’s flights experience. FNG has been saying for years, before the 2014 airspace consultation and during the PIR that actual noise must be measured. The CEO of the CAA (Richard Moriarty) committed to MPs in 2022 that this would happen but it hasn’t. The entire noise section relies far too heavily on assumptions, generalisations and forecasts rather than actual data.

None of the modelling, measurement or analysis considers the noise impact further from the airport, which is where most of the noise complaints originate from.

8.1.2. Road noise has been scoped out but it must be included as people hear all noise and don’t differentiate its source. It is combined noise that causes harm. Road noise is scoped out in 8.4.5 because “few passengers travel to the airport” but that isn’t the point. It needs to include road noise from all sources.

Table 8-2. Compares Bristol Airport assessment but Bristol Airport is in a rural area and considerably less people are impacted by noise near the airport. In this application, only three councils were consulted. Councils where there are the most complaints from the public were not consulted. Nor were bodies such as Friends of the Earth (environmental representative on FACC) and FNG (representative for East Hampshire & West Surrey). This is required in the Civil Aviation Act 1982 Section 26.

8.5. Study Area. While the focus of noise should be Rushmoor, as the LPA, it is wrong to suggest that noise is not a significant issue much further from the airport, as demonstrated by the number of noise complaints from those areas.

8.5.3. LOEAL is specifically not defined in NPSE 2010 because a noise level that is “observable” depends on many factors like background noise. The application is therefore wrong to set a “minimum level” as that is not what LOAEL is for.

8.6.2. It is not acceptable to model current noise levels. They should be measured. Modelling should be used for future forecasts and the comparison of actual noise levels should be used to validate the model.

L_{Aeq,16} is not a good method for measuring noise and its impact. This is especially the case at Farnborough Airport where the airport does not operate for 16 hours. Nor are other aircraft included in the model (non-Farnborough aircraft) overflying the same people, nor any other noise sources.

8.6.33. Suggests mitigation should be used where there are adverse noise effects. But there has been no appropriate noise mitigation suggested.

Table 8-5. These values are irrelevant in non-urban areas where the background noise is 35 – 40dB. 51 dB would be a SOEL in that environment.

8.6.36. States that no receptors experience noise above SOEL. This does not reflect situations in rural areas where background noise is about 40 dB during the day and helicopters produce 85 -95 dB.

8.6.44. States that 50 dB L_{Aeq,16h} is ‘moderate’ community annoyance and 55 dB L_{Aeq,16h} is ‘serious’ community annoyance. The background noise at the eastern end of the runway is permanently at or above 50 dB for most of the day and above 55 dB for some of the day. This is BEFORE the inclusion of aircraft noise.

8.7.3. Assumptions on future aircraft are misleading, particularly as they haven’t been built yet. Farnborough Airport proposed to increase the fleet mix to larger/heavier aircraft that will be noisier. Hydrogen powered aircraft will not be available before 2045 (safety, infrastructure requirements). Electric aircraft will only be small, short range, slower and noisier as they are propeller rather than jets.

8.8.2. The justification of the airspace change in 2020 was on the basis that fewer people were overflowed because of the introduction of flightpaths. Farnborough aircraft regularly do not follow these flightpaths (5 – 20%). The baseline modelling is set on aircraft that do follow the prescribed flightpaths. The baseline model is therefore incorrect.

Table 8-12. Misleading data as only Farnborough aircraft noise is included. The public are exposed to far higher levels of noise.

Table 8-13. Also misleading. Farnborough aircraft noise may be below 53 dB L_{Aeq,16} but during a six-hour school day, there could be aircraft passing every three minutes at 60dB that would significantly disrupt schooling but it would still be below 53 dB L_{Aeq,16}.

8.14.6 – 8.14.7. It is incomprehensible and defies common sense (and therefore undermines the modelling) that the conclusion of doubling the number of weekend flights, increasing from 50,000 flights to 70,000 flights and changing the fleet mix to heavier aircraft will have only a marginal impact on the number of “highly annoyed” people and that it will be about 700 people (i.e. 175 families).

Additional information/data needed

- Councils (other than RBC) may want to consider the application against their Local Plans.
- The model is just that and it is not representative of the noise people experience. Real noise data is required.

Review of ES Appendices Volume II: Appendix 8.1: Legislation, Policy and Guidance in relation to Noise

General comments

1.2.1. Civil Aviation Act 2006. FAL has the option of restricting and putting fines on noisy aircraft and ensuring aircraft follow defined routes but it does not. NATA allows pilots to choose the routes they fly, even if it disturbs more people.

1.2.2 Civil Aviation Act 2012, CAA must provide performance information. Emissions per passenger mile is an important measure to compare flight efficiency. FAL has refused to provide this.

1.2.4. Environmental Noise (England) Regulations 2006. FAL required to report noise and develop a “Noise Action Plan for places near the airport”. Plan is only very close to the airport, not including where the most complaints are.

1.3.2. NPPF 185. Increase in noise and increased distribution of noise (as well as other pollutants) breaches regulations e.g. Section b states “identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason”. The National Park and AONB areas south of Farnborough are now blighted by aircraft noise and this impacts rural businesses, recreation and the environment.

1.3.3 – 1.3.8. Noise Policy Statement for England (NPSE) 2010. The stated aims of the NPSE are to:

“Avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development;

Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development; and

Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.”

No effort has been taken by FAL to mitigate noise (e.g. assessing and restricting noisiest aircraft, formally providing respite flightpaths, restricting the number of flights that cause the most disturbance – weekends and early morning). The last paragraph includes all noise sources but FAL only considers the impact of its own noise. This is not the impact that the government expects to be considered.

SOAEL will be different in rural areas vs urban areas but the noise analysis has not recognised the difference and considered the impact in rural areas. No mitigation for SOAEL and LOAEL have been offered other than noise insulation and this only benefits a tiny number of people and does nothing to mitigate outdoor noise.

1.3.13 – 1.3.11. Aviation Policy Framework (APF) is out of date, poor, inconsistent with other noise and does adequately recognise issues. It would suggest that all flightpaths should be put over rural

areas that were not previously overflowed and that average noise over 16 hours is an appropriate measure of the disturbance caused by aircraft. It does not achieve this. It is only an approximate comparison of total noise produced by airports, not the disturbance experienced by the public. LOAEL and SOAEL in NPSE 2010 are much better measures for this.

1.3.22 – 1.3.24. Consultation Response on UK Airspace Policy 2017. This repeats the failings of APF in that the outcome of APF would result in aircraft overflying rural areas and this contradicts the protections they are given (Air Navigations Guidance 2017, Environment Act 2021). ICCAN was a key independent body to address these conflicts and it was abolished after less than two years. The CAA is not independent and is now marking its own homework.

1.3.28 – 1.3.21. Overarching Aviation Noise Policy Statement (OANPS) 2023.

“The Government’s overall policy on aviation noise is to balance the economic and consumer benefits of aviation against their social and health implications in line with the International Civil Aviation Organisation’s Balanced Approach to Aircraft Noise Management. This should take into account the local and national context of both passenger and freight operations, and recognise the additional health impacts of night flights.

The impact of aviation noise must be mitigated as much as practicable and realistic to do so, limiting, and where possible reducing, the total adverse impacts on health and quality of life from aviation noise.”

The airport has not provided economic benefits to justify its current operations, let alone an increase in flights (noise, pollution, emissions & health). It has provided no mitigations other than to slightly increase noise insulation grants (very few people benefit), and restrict the Piaggio Avanti aircraft at some time in the future (only a few flights a week). The extension of Sustainability Grants are a sop to reduce complaints rather than having any significant environmental impact.

1.4.1. Rushmoor Local Plan SP4.2. This policy applies to Rushmoor only but that is only about 150,000 of the 800,000 people impacted by Farnborough Airport’s noise. Other LPAs have policies that need to be considered against the proposal.

Additional information/data needed

- Councils (other than RBC) may want to consider the application against their Local Plans.

Review of ES Volume I: Main Report Chapter 9: Climate Change

Comment	Ref	Breach
Document is inconsistent saying infrastructure isn’t needed so not included but then saying aprons, taxiways, hangers and terminals will be needed	9.1.6 – 9.1.9, 9.4.8	Environment Act, OANP 2023, NPS 2010, DE10, IMEA Guidance
Increased emissions are significant resulting from increased flights but have been discounted as “not significant”	Table 9-3, 9.7 – 9.9	Environment Act, NPPF, Climate Emergency declaration
Consultation has not been sufficient with environmental groups		Civil Aviation Act 1982 Section 26

General comments

9.1.6 – 9.1.8. Aircraft emissions only included up to 3,000ft. No additional harm impact of emissions (NO₂, SO₂, contrails) included. But 9.5.7 says these factors are included in CO₂e. Also included in 9.6.5. for new terminal and Domus III hanger.

9.1.9. No construction included in scope. But 9.5.30 states additional taxiways will be needed to improve ground improvements to deliver GHG reductions.

9.1.10. All “without development” GHG has been scoped out as it would have happened anyway. But reductions are needed, even in “without development”.

9.3.1. Consultation took place with airport operators and two councils. It did not include Surrey or Waverley council. It did not consult with Friends of the Earth (environmental lead on FACC) or with Farnborough Noise Group that has relevant expertise and that FAL is required to consult with (Civil Aviation Act 1982 Section 26).

Table 9-3 says GHG has not been assessed against any carbon budget. The CCC states there should be no expansion in aviation until aviation emissions start to fall.

9.4.8. States “*The system boundaries for the GHG assessment must consider the full lifecycle of the Proposal, in line with IEMA Guidance*”. Emissions from construction of more aircraft not included.

Table 9-4. Methane has been excluded but most methane is produced during low load (idle/taxi). Methane is a GHG that is 28 times more potent than CO₂. No emissions of decommissioning or scrapping is included.

9.5.29. SAF does not reduce emissions. SAF growth has been included as a way to reduce emissions.

9.5.27. Suggests 1% of UK aircraft will be zero emissions by 2033. This is WILDLY optimistic of 21,000 registered aircraft. 95% of aircraft operating out of the Farnborough Airport are not UK registered. Fleet changes result from global changes, not national.

9.7 – 9.9. Carbon budgets presented are now recognised to be insufficient because reductions have not fallen as projected in the current carbon budget (in fact they continue to increase). So reductions will need to be faster and deeper than the 5th Carbon Budget predicted.

9.6.6. Assessment aligns with DfT high ambition scenario regarding the uptake of SAF but 1) SAF doesn’t reduce emissions 2) every SAF uptake forecast over the past 20 years has been wildly optimistic.

Data for the airport’s CO₂e in Section 7 are orders of magnitude out. E.g. 9.7.4 says 0.119 MtCO₂e for the airport but Scope 3 emissions are currently 128,000 MtCO₂e. Appears units of measure are wrong.

9.7. Actions listed have a negligible emissions reduction as the total of ground-based emissions is only 1.4% of total emissions. The introduction of SAF (that does not reduce CO₂ emissions) is slower than the increase in flights which still results in fossil fuel emissions increases.

9.9.8 ETS does not reduce emissions. Table 9-19 & 9-33 shows an increase in emissions “with development” (even though numbers are not correct). This is at a time when aviation is required to significantly reduce its emissions.

9.9.15 states “As no likely significant effects have been identified, no further mitigation is proposed”. This is ridiculous.

Additional information/data needed

- Units of measure of MtCO2e are incorrect in report. Emailed project team but no response.

Review of ES Volume I: Main Report Chapter 11: Biodiversity

Comment	Ref	Breach
Environmental measurement and baselining is insufficient, not realistic and has not been validated	All	SS1, NE4, DE10, NPSE 2010, Environment Act
Key protected sites have been excluded from scope and where environmental harm has been identified, it has been discounted	11.1.3, Table 11-2, 11.5.11, 11.6.7, Table 11-11	IN2, NE4, DE10, Environment Act
Only a sub-section of aircraft noise has been included in scope, this is not a true reflection of the aircraft noise disturbance experienced by the public	11.6.2, 11.6.5, Table 11-9	SP4, DE10, OANP 2023, NPSE 2010, NPPF

General comments

Very little actual measurement of environmental impacts in the report (noise, NO2, NOx, Particulates) has taken place. Almost all data provided has been modelled using various assumptions. There was no reason not to measure actual levels of noise and pollution as this real data could (and should) have been used to validate the models used for forecasts to 2045.

11.1.3. Surrey Hills AONB, RSPB reserves at Farnham Heath, SSSI at Frensham and Tice’s Meadow close to the airport are not included, but are within 10km from the airport. Various highly protected species are present at these sites (nightjar, woodlark, Dartford warbler, all UK reptiles, most UK bat species).

Table 11-2. States “Direct habitat loss of designated sites, priority habitats and or habitats supporting protected or notable species.” Response “No built infrastructure is required to support the Proposal.” But this misses the point regarding aircraft operations over protected areas (nitrogen deposition is 3 – 7 times over the maximum guidance in all areas). It is also an untrue statement as the report forecasts that more apron and taxi areas will need to be constructed to operate an increased number of flights. Report does not consider the consequential impacts from the airport’s operation e.g. displacement of General Aviation to protected areas or the design of flightpaths in the 2020 ACP to deliberately overfly rural areas/national parks and AONB.

11.5.1. Baseline volume has been set at 50,000 movements but this is incorrect as current movements are 33,000. The relative impact of increasing from 33,000 to 70,000 flights is therefore underestimated.

11.5.11. The new flightpaths from the south are at 2,000ft above ground level over SSSI, national park, ancient woodland, lowland heath.

11.6.2. Scope of noise excludes non-Farnborough aircraft operating in the area at low height. These include helicopters (very noisy), light aircraft, large commercial aircraft accessing Heathrow/Gatwick. Aircraft noise and its impact is therefore under-represented.

11.6.5. Suggests that there will not be any significant increase in noise near the airport despite a doubling of aircraft at weekends and more larger aircraft!!!

11.6.7. It is not average noise that disturbs wildlife but point noise (LAmax). Studies referenced say 85 dB LAmax is a threshold but this is exceeded by almost every aircraft and many helicopters.

11.6.13. States “As the Proposal does not seek to change the flightpaths, the operating hours of the Airport, nor the types of aircraft using the Airport, the changes in noise are anticipated to arise from an increased frequency of flights”. This is incorrect as there is a planned change in fleet mix with more larger aircraft operating.

When flightpaths were designed over highly protected sites south of Farnham in 2014, there was no sufficient environmental impact assessment and it is excluded from this assessment. Therefore, there has been no consideration of Farnborough Airport’s operations over highly protected and vulnerable habitats south of Farnham. Nor does the statement consider that more helicopters may be operating that have a considerably more significant noise impact than fixed wing aircraft.

11.6.14. States “This is due to the ongoing transition to newer quieter aircraft, which outweighs the forecast increase in aircraft movements”. The Advertising Standards Authority has challenged claims like this from aircraft manufacturers. <https://www.asa.org.uk/advice-online/environmental-claims-aviation.html>. Data must be supplied to support such claims.

New aircraft are already fully optimised and will not get quieter. There is also an issue with the way manufacturers provide noise data (similar to dieselgate) as it is not consistent with noise that people experience on the ground (flaps, undercarriage deployed, atmospheric conditions, etc). <https://www.endsreport.com/article/18518/boeing-adverts-misleading>.

11-9. How was the data modelled? If it was just fixed wing aircraft or just Farnborough aircraft, it will be a significant understatement of disturbance because of the number of helicopters and aircraft overflying (e.g. to/from Blackbushe). While it may or may not be correct that the area impacted by 85 dB LAmax is forecast to reduce over time, it is still significantly more at “with development” levels vs “without development” levels.

Table 11-11. Nitrogen deposition levels are 3 – 7 times higher than the minimum critical load in all areas. This will have a significant and ongoing impact on low nutrient land such as low nutrient lowland heaths and the ecosystems dependant on them.

Additional information/data needed

- Check environmental & ecological assessments in 2014 consultation.

Review of ES Volume I: Main Report Chapter 12: Cumulative Effects

Comment	Ref	Breach
Business case is incomplete (excludes costs) and benefits are overstated. Conversely, the harmful impacts (noise, emissions and pollution) are largely discounted individually so cumulative effects have also been discounted	All	SS1, SP4, IN2, NE4, DE10, OANP 2023

Impact to human health is likely to be significant but it has not been measured so such a statement cannot be substantiated. The same is true of all other potential harms. Not measuring something does not mean the harm doesn't exist	Table 12-1, 12.8.1	SP4, IN2, NE2, NE4, DE10, OANP 2023, NPSE 2010, NPPF, Environment Act
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General comments

12.5.1. Baseline conditions are set as 50,000 movements, not the 33,000 movements currently experienced. The baseline does not consider the impact of the airspace change that has still not been concluded and resulted in a significant impact to many people. There is no doubt at all that there will be a significant impact from 2020 and the way the airport operated to the “proposed development”.

12.7.1. Intra-project effects related to air quality and transport assessed as ‘negligible’ and therefore any in-combination effects are not considered to result in significant effects.

12.7.2. Noise, climate change and socio-economics – have been assessed as ‘Minor Adverse’ (not significant) intra-project effects due to the interactions of effects of climate change and noise. The level of effect up to Minor Adverse is dependent on the proximity of the receptor to the airport and its flightpaths.

12.7.3. *“The magnitude of the increase in emissions would not impact on the UK’s trajectory towards net zero in 2040 and therefore, this particular environmental topic is not expected to produce in-combination effects. Some noise effects on certain residential properties are rated as ‘significant moderate adverse’. These effects are weekends only and are not considered to produce a greater adverse effect in combination with greenhouse gases or climate resilience”*. This statement is totally unacceptable, irresponsible and inconsistent with the government’s legally binding commitment to REDUCE emissions, pollution and environmental harm.

12.7.4. Adverse noise effects are counteracted by major beneficial effects (employment and increased GVA). But no evidence is provided.

12.7.5. Assessment concluded there is unlikely to be any significant effects to human health. RBC agreed that human health could be scoped out but requested that human health be considered within the other technical chapters. As a result, intra-project effects on human health have also been considered.

Table 12-1. Regarding pollution - *“no likely significant effects on human health from changes to NO2 concentrations, or PM10 and PM2.5”*. But ultrafines have not been considered and pollution has not been measured, only modelled. Regarding noise - *“there will be increases in both air and ground noise but increases are small and do not result in any residential property being exposed to a level above which significant adverse effects on health occur. For a standard summer non-weekday, some residential properties are anticipated to experience significant moderate effects, but no property will be exposed to a level above which significant adverse effects on health occur”*. But noise away from the airport has not been measured, only modelled and only noise from Farnborough aircraft has been modelled.

12.8.1. *“The assessment has not identified the need for any additional mitigation or monitoring beyond that stated within the technical chapters. It is concluded that local residents may experience limited significant noise effects but also major beneficial socioeconomic effects. No significant intraproject effects are likely to arise from the Proposal”*. This is completely wrong.

Additional information/data needed

- Needs actual noise and pollution data, not modelled data.

Review of ES Volume 3: Non-technical Summary

Comment	Ref	Breach
Development is not sustainable	All	SS1, SP4, IN2, NE2, NE4, LIS EM3, NPSE 2010, NPPF
Does not fully consider Scope 3 emissions from aircraft (entire flight and non-CO2 impacts)	4.b	SP4
Results in unacceptable increase in pollution	P13	SP4, IN2, DE10, NPSE 2010, NPPF
Results in additional noise disturbance (near the airport and AONB/National Parks)	All	SP4, DE10, OANP 2023, NPS 2010, ANG 2017

General comments

Proposal only considers emissions to 3,000ft and does not consider climate change impact of non-CO2 effects (contrails, methane, etc).

P12. Proposal to achieve 50% SAF by 2050 but SAF doesn't reduce CO2 and the growth in SAF introduction is not as fast as the growth in fossil fuel emissions because of the growth/size of aircraft. Net emissions therefore increase. Despite the increase in emissions the report determined the GHG impact is "minor adverse" and "not significant".

P13. Proposal would cause no significant effect on human health from changes to nitrogen dioxide (NO2) or particulate matter concentrations. This is unproven as proper measurements have not been taken. Claims that proposal will not have a significant effect on odour - but odour is already a reported issue.

P16. Biodiversity impact only considers impact of Farnborough aircraft and the impact of "with development" growth, not the wider impact of all aircraft (e.g. General Aviation) as a result of FAL's operations. Biodiversity impact is therefore understated.

Additional information/data needed

- Need data for emissions over entire flight as flight emissions are 98.6% of total emissions (Gound operations are only 1.4%).
- P8. Movement volume projection graph. Put against historic movements as they are not consistent.
- P9. Safety changes. Specialist knowledge shows safety has deteriorated. Will be reported separately to RBC.
- P11. GVA and employment numbers are different to Lichfields Economic Impact Assessment report.

Review of Environmental Statement Volume I: Main Report Chapter 8: Noise + Appendices

The most concerning factor affecting noise is that there are currently no clear and rigid aviation guidelines outlining how to conduct an Environmental Impact Assessment resulting in the sponsor of any change, such as Farnborough Airport Limited (FAL), being able to select criteria for assessment that best suits its needs. The environmental impact conducted to date such as noise and those overflowed are inadequate as they have been based on FAL's interpretations rather than a robust, transparent and equitable process.

- 1) Actual noise measurements should have been included in the 2014 Consultation so that the impact of the new flightpaths introduced in 2020 could have been determined. Based on no actual 2014 noise data, no noise measurements were taken either in 2020 citing no comparison. There are however radar assessments of Farnborough movements in September 2012 (Consultation data) and of all other aircraft up to 20,000 feet on which some base noise modelling could have been undertaken for the planning application and PIR to make comparisons against.

No post review assessments of the ACP were undertaken on the same basis as those included in the consultation which is of concern as a number of discrepancies have been highlighted in respect of the data used. These discrepancies have been raised with both FAL, the CAA, MPs and the DfT over two years without any clarification. The only pre and post airspace change analysis (PIR) was based on June 2019 (pre) and August 2022 (post) movements and assumptions that were never consulted on.

Unfortunately, even the new analysis is misleading and insufficient with a very limited scope. Following intervention by FNG, Richard Moriarty, CEO of the CAA, confirmed in a letter to Jeremy Hunt MP in 2022 that noise measurements for all aircraft would be taken up to 7,000ft and 20 miles from the airport for the PIR. Despite this confirmation, no measurements were taken other than within Farnborough airport contours. One can surmise that the reason for not collecting this information and Farnborough Airport refusing to provide noise monitoring equipment (that it is required to do in the S106 agreement), may be because the noise measurements would show that it is already unreasonably high. The background noise as recorded in the Farnborough Airport's 6 monthly Environment Reports show that the eastern end of the runway is already constantly over 55 dB, without any aircraft overflying.

We are therefore in a position where no robust total noise analysis has been carried out in respect of the airspace change and the latest planning application. FAL will have assumed that noise will be most significant around the airport and as such believe noise modelling was only required around the airport and its contours up to the relevant dB 16 hour leq level. Unfortunately this assumption ignores all other noises, including aircraft from other airports, which means their results will be understated. Furthermore, noise has been presented as leq 16 (i.e. noise is averaged over 16 hours). As the airport operates for 15 hours during weekdays and 12 hours at weekends, the noise experienced by the public per hour is again understated. It should also be noted that in the latest planning application, FAL has even split out ground airport noise and aircraft flight noise with no total shown which is again misleading. It is therefore impossible to reach a conclusion as to whether there will be adverse or significant adverse impact on residents in relation to any increase in actual noise as no benchmark noise levels have ever been produced or verified.

Due to limited noise monitoring (two monitors at either end of airstrip), the noise data provided

by Farnborough Airport in its proposal is almost entirely modelled and there is no validation of that modelling. The modelling has been restricted to a small area near the airstrip and ignores the change in noise and total noise for many residents who believe they are already experiencing adverse impact and harm. The information provided to date is therefore incomplete because it needs to consider all noise, as that is what the public experience. Further clarification regarding the following is required before a proper and informed opinion can be reached regarding the latest planning application.

- G. Assessment only includes the noise from Farnborough aircraft, splitting out ground noise with no total which is unacceptable. In addition, all other aircraft such as General Aviation flying over the same people impacted by Farnborough aircraft should not be excluded.
 - H. Other background noise such as traffic is excluded.
 - I. Populations more than 5km from the airport are excluded, even areas such as AONB/National Parks that are protected by The Air Navigation Guidance 2017.
 - J. No consideration or assessment of noise impact has taken place in areas such as SSSI or RSPB reserves just 7 km from the airport.
 - K. Modelling is carried out on a 16 hour day (LAeq,16) which is not representative of the airport's hours of operation.
 - L. No assessment as to the noise impact of aircraft above 7,000 feet has been undertaken despite some residents being significantly impacted by noise from these aircraft.
 - M. No split or assessment between weekend and weekday frequency and noise levels has been provided other than an arbitrary suggestion that permitted number of weekend movements should be based on 2022 aviation movement "weekend/ total" ratio of 27% (8,708/31,731), an assumption that has no legal, aviation nor RBC relevance.
The Rushmoor Local Plan states in 7.116 "With regard to differential movement limits on weekends and bank holidays compared with weekdays, the 2013 noise study recommends that the current differential protection of weekends and bank holidays is maintained by using the same ratio of movement numbers to weekday movements as contained in the current consent". (*Hepworth Acoustics - commissioned by RBC).*
 - A. SP4.2 - Noise, and Flying at Weekends and Bank Holidays 4. "Maintain the same differential movement limit between weekday and weekends and bank holidays so that the proportion of weekend and bank holiday movements will not exceed 18% of the total overall maximum annual flight movement limit, excluding 'Other Aviation Activity'".
- 2) The noise and flight data also presumes Farnborough Airport aircraft are flying the flightpaths that they should be. This assumption was used to assess the impact of the change in airspace and the reduction in the number of people overflown that was a key part of the ACP proposal being accepted. In reality, 10% to 30% of aircraft are not flying the prescribed flightpaths (circling, "tactical vectoring", pilot choice). This results in people being overflown multiple times by the same aircraft so the baseline "reduction in overflown" on which assumptions have been made in this planning application is flawed. The assumptions used in the model are also flawed. For example, the model is supposed to be based on a "summer day" but the atmospheric data used is 76% humidity and 11.3 degrees. Atmospheric conditions have a significant impact on noise transmission. Incorrect modelling leads to incorrect conclusions.
- 3) It defies credibility that the proposal suggests that there will be no impact to emissions or pollution and that only a small number of people near the airport will be significantly impacted by the level of noise and the change in noise level.