

**Airport Consultative Committee**

**ENVIRONMENTAL EFFECTS WORKING PARTY**

**9<sup>th</sup> October 2024 @ 10.00 hours,**

**Meeting held at Lulsgate House and virtually using Microsoft Teams**

**DRAFT Minutes of the Meeting**

**Present:**

David Hall, Chairman

Hannah Pollard, Head of Sustainability, Bristol Airport (HP)

Whitney Love, Sustainability Officer

Daniel Samson, Sustainability and Social Value, Bristol Airport

Gill Patch, Winford Parish Council (GP)

Laurie Vaughn - Wrington Parish Council (LV)

Joachim Steinback, PCAA

Alicia Fox- secretary

- **Apologies for absence**

Lindsay Howe North Somerset Council (LH)

Dee Mawn, North Somerset Council (DM)

Roger Wood- Yatton Parish Council

Hilary Burn, Cleeve Parish Council (HB)

- **Minutes of the previous meeting held on 29<sup>th</sup> May 2024**

The minutes were agreed as a true record of the meeting.

- **Matters arising from previous meetings**

None

- **Sustainability update– Presentation and slides by HP**

Presentation slides attached as appendix A

HP advised that the energy consultant said a 25% onsite renewable energy generation target by the end of 2025 was very ambitious and 20% was a more of reasonable target to work

towards. The Airport, however, are still going to aim to get as close to a 25% reduction as possible and will keep members updated on their progress.

LV asked whether the slides are referring to installed capacity or actual use and actual generation?

HP confirmed they are referring to actual use and actual generation. HP also advised that Hydro treated Vegetable Oil is now used for all landside buses.

DH asked for clarity around the gas reduction but the result of this will be an increase in the electricity use with the removal of the heat pumps.

HP advised members that the Airport have invested in procured renewable energy from a firm in Norfolk. They have invested to secure the energy and once the grid has decarbonated it will become clear if the fuel is 100% renewable.

HP told the members that the new onsite Waste Management Centre is now active

AF asked if the committee could have a tour of the facility at a later meeting.

HP confirmed this is something that can be arranged and will follow up.

JSt asked if a report around the waste management could be produced and independently verified which would help with transparency and enhance the reputation within the local community.

HP confirmed that the Carbon Footprint Scope 1,2 and 3 is always verified annually by external experts to endorse the report. Waste management and Environmental management is accredited by ISO 14001. These external verifications can be made clearer in the Annual Sustainability Report.

DS also advised that once the Carbon footprint annual figures have been obtained the report is externally audited by Arcadis. The Airport is also a member of ACAS and have been awarded level 4+, which is the highest level of accreditation the Airport can be without being Net Zero.

JSt was concerned that the bulk of emissions generated within the airport are by the airlines, he asks what are the airlines doing to help offset their emissions? JSt also requested an airline perspective on their actions for offsetting their emissions.

HP is aware of the members request to hear from the airlines, however as an operator they can only try and facilitate communications. There are conditions that airlines must meet regarding the aircrafts that are being bought in to operate from the airport. EasyJet are happy for some of their figures to be shared so HP will follow this up with them.

HP told the committee that the Airport will be publishing a league table. This will detail airline data such as aircraft type and emissions etc.

- **Environmental Update- Qtr 3 2024- WL**  
**Slides part of Appendix A**

LV noted there were 34 non conformities in Septembers figures, he asked if 24 were due to storms, what were the reasons for the other 10?

WL advised they were just normal CDA's not due to weather.

LV what accountability is there for the other 10? Is there a fine/penalty?

WL advised if an airline exceeds the noise limit there is a fine but that is not necessarily the case for CDA's. They will be analyzing the data in more detail.

JSt said he feels there are only 2 reasons airlines do not conform to the CDA' and these are cost cutting and external factors such as storms. He asked what repercussions do the Airlines impose for non-compliance?

WL said that each airline different but she is aware there are penalties for airlines. From the evidence the Airport have seen none of the CDA's for September have been for a cost cutting reason.

HP said that there are quarterly meetings with the airlines/pilots/ Airport team to discuss the tracking of the aircrafts movements. As part of these conversations this data can now be shared with these members to highlight the issues and track non conformities.

JSt asked to what extent is the Airport allowing the non-conformities to slip through without any repercussions. It would be helpful for the Airport to go public with the information that is produced around how they are pushing for 100% conformity.

JP said she was amazed that Ryanair are consistently top at hitting their CDA's and asked what they do differently to the other airlines?

WL advised it is unclear the exact reason but from research it seems to be linked to when the landing gear is triggered and when this is done later the CDA is more likely to be on target.

WL told members small aircrafts and helicopters are excluded from the data in the slides.

WL explained to the members that on the Q2 slide for complaints one complainant made up all the complaints in Corsham. The Airport have gone through all the data to look at the issues they have raised and the concerns have now been addressed.

JP asked if anyone has visited and stood in the garden of the complainant to hear the issues firsthand?

HP confirmed that a site visit has not happened, they did not offer mobile noise monitoring as they were so far out and no other complaints from the area had been made. They also spoke with the MP for the area who advised no other complaints had been brought to their attention.

However, as there have been more complaints from around that area WL is carrying out a lot more research data and looking into the "hot spots" and the causes. Once this is understood they can then look into what support could be offered to those residents. More of an update can be provided in due course.

The Q3 slide shows the Airport have been noise monitoring further afield of the noise contour area to start obtaining more data.

Night noise has made up the most complaints within Q3 with an increase of 20%. However, overall the number of complaints for 2023 are the same as last year, it is the composition of the complaints which has changed.

LV asked if the blue loops on the arrivals slide are where the aircrafts are stacked awaiting the landing, could that be what is creating the noise in Corsham?

WL said she will review the data and look into the cause.

The aircraft where its blue on the “Departure tracks by altitude” slide are the ones they are concerned about. There were reasons why these were blue and yellow and having this data allows them to address the aircrafts which were non-compliant with their track keeping.

As the daily tracking is being monitored, when there is a flight that has not been following the flight path they can then click on it and find out which aircraft it was and establish the reason for not complying with the CDA. This information is being recorded and monitored by the Airport team.

- **Net Zero Operations Progress – DS**  
Slides part of Appendix A

DH wanted to clarify the wording around the HVO reducing the emissions or is it just from a sustainable source?

DS confirmed that HVO it is from a sustainable source and the Carbon produced is lower than that from burning other fuels. This is why there is a reduction in the overall emissions.

LV asked what the “refrigerant” emissions referred to

DS advised that refrigerants refer to the leakage of gas from the chillers. Although it is such a small amount, the gas emitted has a high global warming factor so is monitored closely. HP mentioned that the airport is installing more efficient air handling units to replace the chillers as part of their net zero programme, which will reduce this risk.

JSt told the members it is difficult to understand the scientific data and asked if the Airport could make it simpler?

HP said they can add definitions on to the graphs.

JSt asked about what are the safety implications of using Hydrogen and how are they being addressed?

DS advised there are defined zones around a hydrogen dispensing unit, Ultima Forma will really look into the concerns around Hydrogen onsite.

HP said there is no current regulation around using Hydrogen airside. The whole point of Project Acorn was to work with the CAA and put forward suggestions for regulations to be put in place. The Airport are working on creating an Apron which will move around with the mobile hydrogen refueling system to ensure it is used safely.

AF requested someone from Equilibriion to attend an EEWP to give a presentation.

- **Any other business (AOB)**

**None**

- **Dates for future Meetings 2025**

**TBC- 15<sup>th</sup> January 2025**

**Distribution:**

Members of the Environmental Effect Working Party, plus the Airport Consultative Committee.

# Q3 Environmental Effects

# Sustainability Update

## Net zero operations by 2030

- Design work on Energy Centre to be commissioned, which will facilitate the removal of boilers that currently heat the terminal and will remove gas onsite by 2026.
- 19% on site renewable energy generation with plans in place to get to 22-23%.
- By end of 2024, 50% of airside buses will be electric. First landside bus was delivered last month, 2nd due although there are delays in delivery.
- CO2 emissions from airport operations have reduced by 15% lower compared with this time last year, ahead of 10% reduction target.

## Reducing indirect emissions

- 44% of based aircraft are NEO or MAX versions (the most modernised aircraft).
- EV Charging Hub to be developed opposite Lulsgate House.

## Noise management

- Full £200k awarded from Noise Mitigation Scheme in 2024.

## Waste management

- On site sortation facility now live which will significantly increase on-site recycling rates.



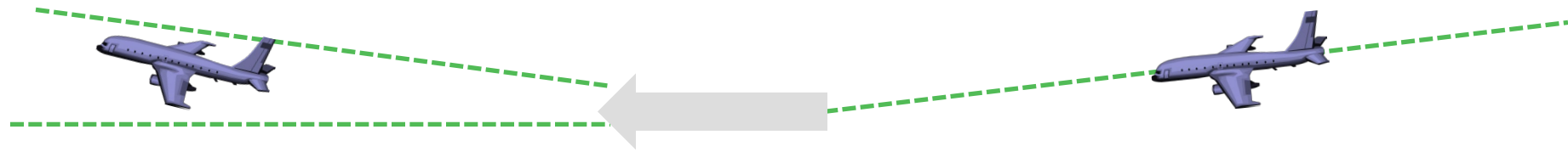
# Environmental Update

Whitney Love





# Airspace Activity- Approach and Departure



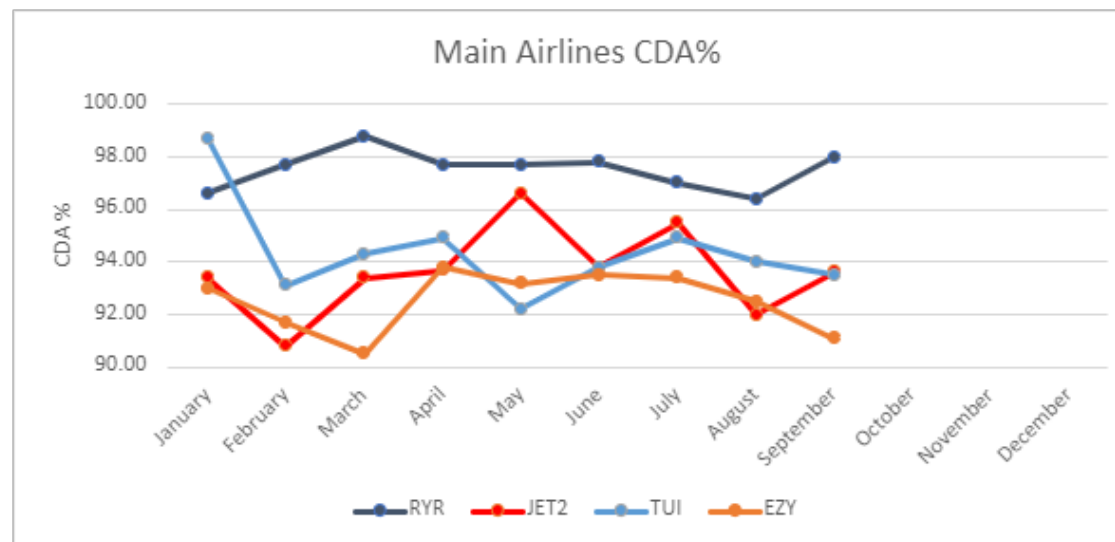
Track Keeping- within Departure Noise Preferential Routes

Continuous Descent Approach- higher for longer with smooth decent

Performing stronger YTD than in 2023, by 0.7%

- Factors affecting CDAs include weather and the experience of pilots operating flights that month that month
- EZY YTD performance remains up over 1.5% from 2023 in April 24. Main based airline at BRS. TUI and JET2 performance also up compared to YTD by Sept 23/24.
- All airlines – reviewing using daily compliance checks hereon, and retrospectively for rest of 24. Will review in full Q1 25.
- Six days of storm weather impacted CDA performance in Sept 24, resulting in 17 non-compliant main Airline CDAs over 3 days, equating to 81% compliance (vs daily average of 7 non-complaint main airline CDAs).

	January	February	March	April	May	June	July	August	September
<b>2024 Total Arrivals</b>	2113	2310	2712	3059	3633	3757	3847	3874	3793.00
<b>2024 CDA% (All Airlines)</b>	In Review								89.76
<b>YTD</b>	In Review								
<b>2024 CDA% (Main Airlines)</b>	95.43	93.33	94.25	95.03	94.93	94.73	95.20	93.73	94.05
<b>2024 YTD (Main Airlines)</b>	95.43	94.38	94.33	94.51	94.59	94.61	94.70	94.58	94.52



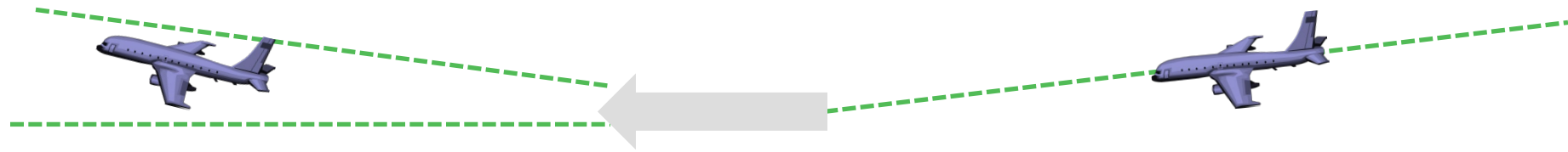
Engagement with airlines: flight path and glide slope for low drag approach

EZY– landing gear deployed ~2250ft in normal ops – declaration, 6nm

Jet2 - ~1300ft

RYR - ~500ft

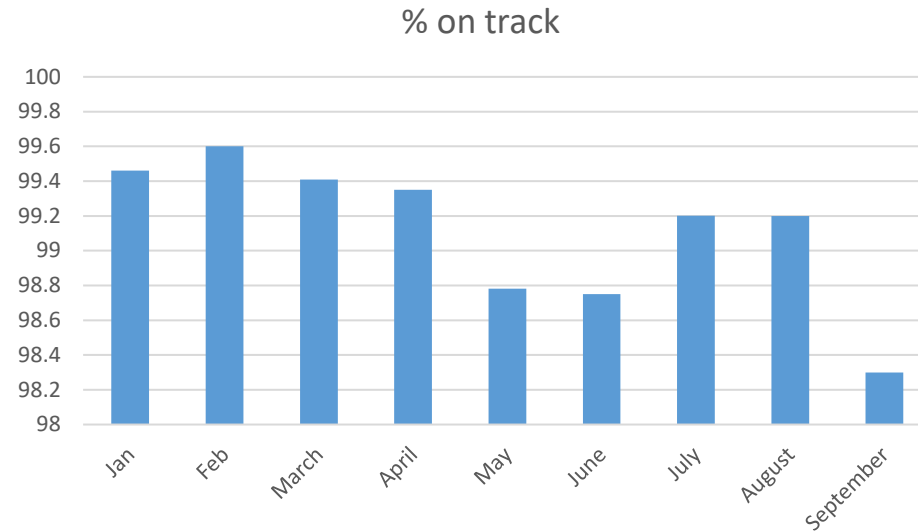
# Airspace Activity- Approach and Departure – All Airlines



Track Keeping- within Noise Preferential Routes

Continuous Descent Approach- higher for longer with smooth decent

2024	Departures	Violations	% on track
Jan	2,036	11	99.46
Feb	2,264	9	99.6
March	2,685	16	99.41
April	3,101	20	99.35
May	3,529	43	98.78
June	3,605	45	98.75
July	3,752	30	99.20
August	3737	30	99.2
September	3,814	64	98.3
October			
November			
December			
Average			99.12



## September:

- 6 thundery, storm days - 4 of which, ATC diverted Aircraft out of NPRs to avoid electrical storms
- 34 non-conformities to tracks from main Airlines – 24 of these occurred during ATC diversion days due to storms
- 2 days, AM storms – primarily affecting departures

Data only inclusive of movements of Aircraft over 5700kg in 2024

Previous data provided inclusive of helicopter movements and aircraft below 5700kg which are exempt from track keeping as aviation standard.

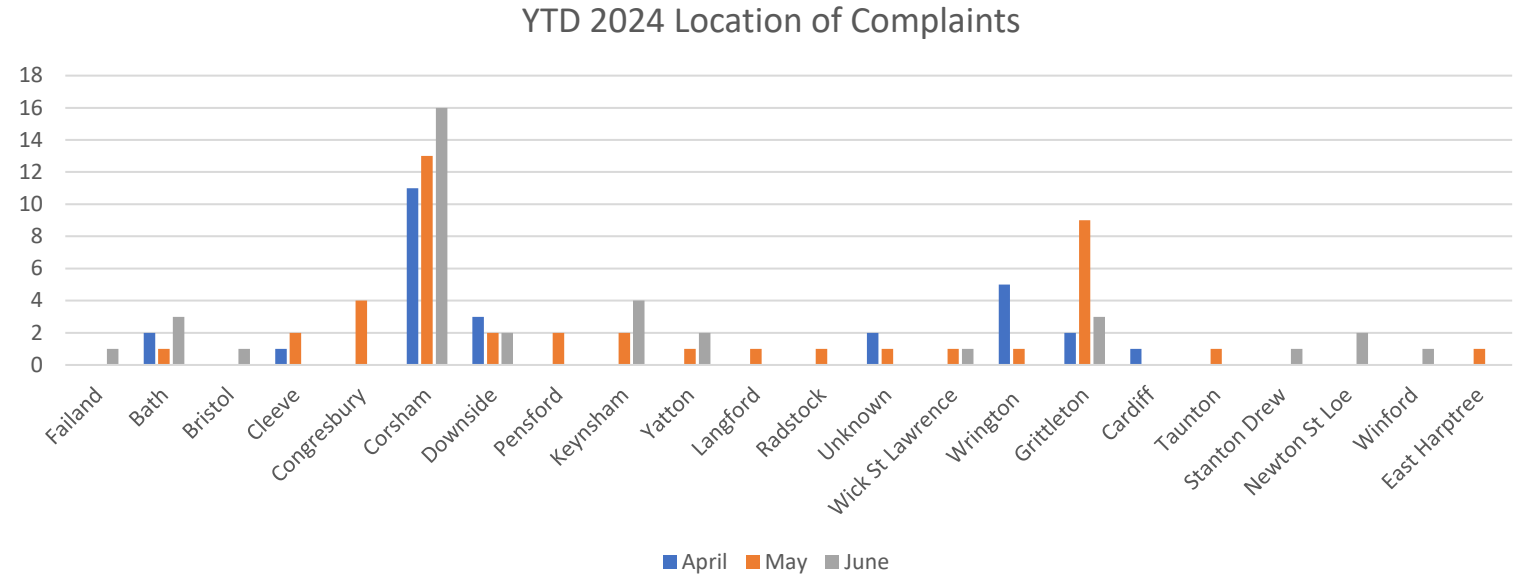
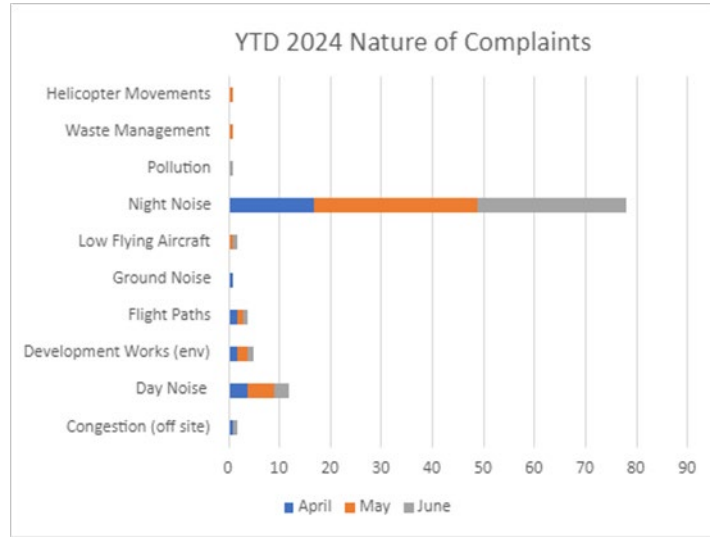
Track keeping – up to 4,000ft

# 2024 Noise Mitigation Scheme (NMS) - Closed

	No. of Households Granted Funds	Sum (from quotes - allocated)	Remaining Funds Distributed	
Backwell	2	£10,000.00	/	
Cleeve	5	£19,959.92	£3,579 (1 property)	
Felton	15	£87,881.60	/	
Winford	16	£59,262.40	£14,316 (4 properties)	
Wrington	1	£5,000.00	/	
Totals	39	£182,103.92	£17,896.08	<b>£200,000.00</b>

- Total of 34 eligible applicants across both periods - £182,103.92 total granted.
- **£80,284 has been paid to cover work at 17 properties to date.**
- £17,896.08 remained in fund minus eligible applicants.
- Community Fund reviewed 7 applications that were positioned slightly outside the contours and agreed to split the remaining balance across 5 households closest to contours. equaling circa. £3,579 per household. **£200k allocated to assist 39 properties.**

# Environmental Complaints – Q2



	April	May	June
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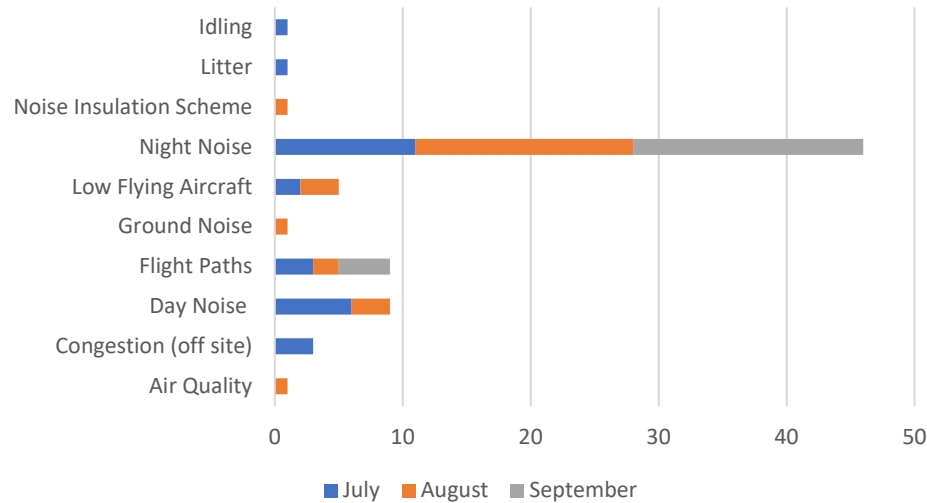
Complaints Total	27	43	37
Noise (CRM)	21	37	32
Other CRM	5	4	4
Other Sources	1	2	1
Complainants this month	11	21	20
Complainants (YTD)	65		

\* - Corsham – One complainer. From Q3, identified as a serial complainer and each month is identified as one complaint, so that the statistics are not skewed.

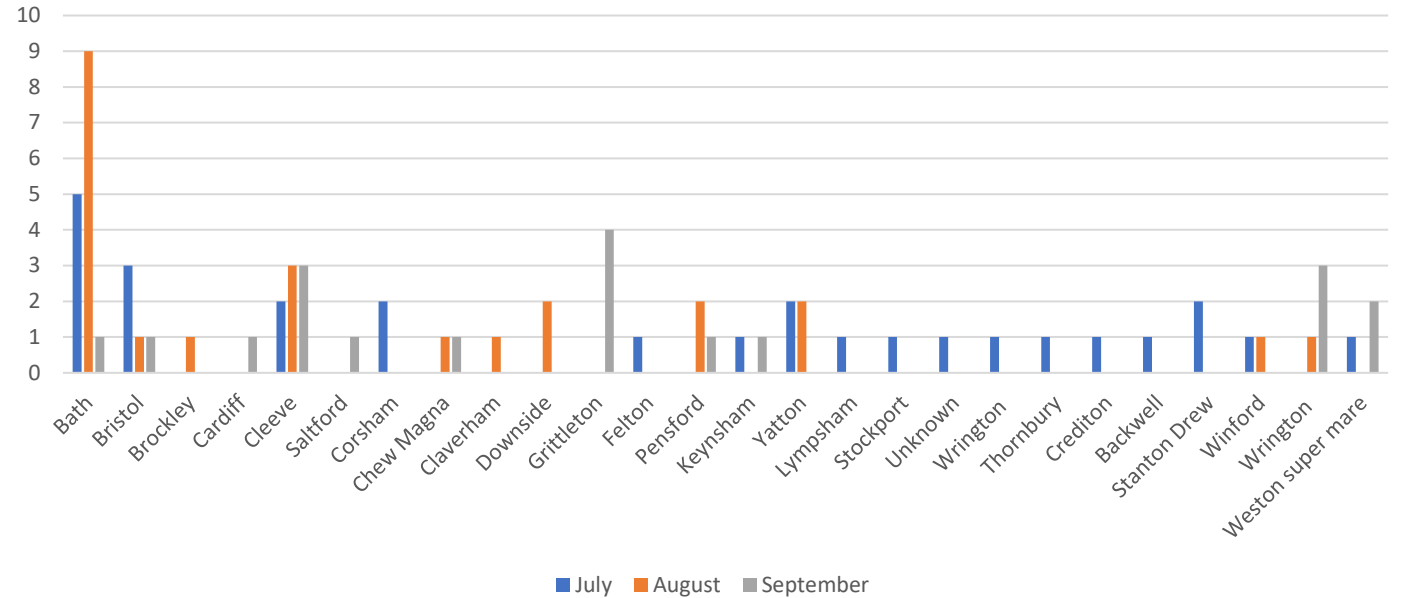
	January	February	March	April	May	June	July	August	September	October	November
2023	4	2	18	15	25	58	41	42	40	19	23
2024	10	12	27	27	43	37					

# Environmental Complaints – Q3

YTD 2024 Nature of Complaints



2024 Location of Complaints



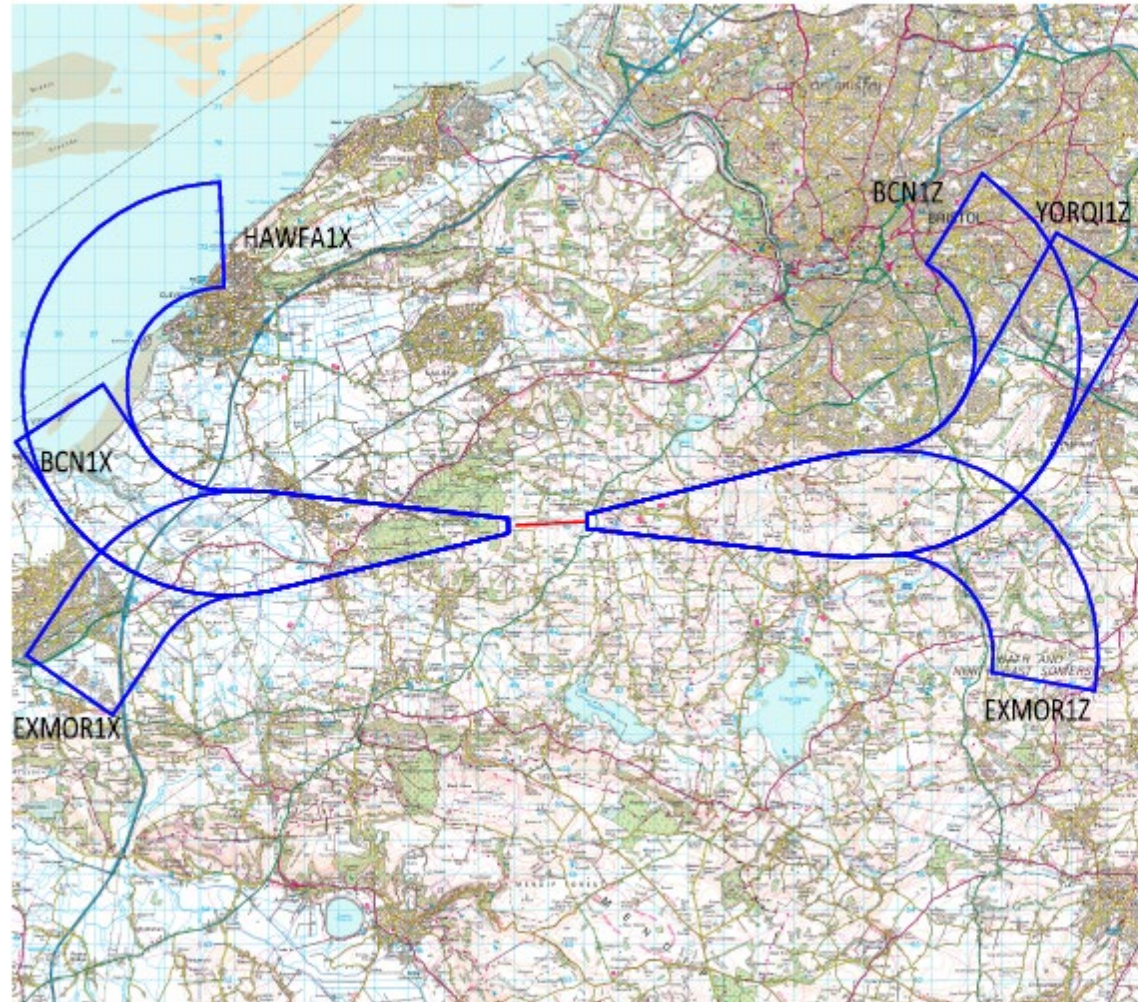
	July	August	September
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Complaints Total	27	28	22
Noise (CRM)	22	27	18
Other CRM	5	1	4
Other Sources	0	0	0
Complainants this month	25	25	14
Complainants (YTD)	115		

\* - Corsham – One complainer. From Q3, identified as a serial complainer and each month is identified as one complaint, so that the statistics are not skewed.

	January	February	March	April	May	June	July	August	September	Total YTD
2023	4	2	18	15	25	58	41	42	40	233
2024	10	12	27	27	43	37	27	28	22	233

# Noise Preferential Routes



This drawing contains Ordnance Survey data © Crown Copyright and database right 2023.

**LEGEND:**

- Bristol Airport Runway
- Departure Route Corridor

Rev	Date	Description	Initials

**REVISIONS**

**Bickerdike  
Allen  
Partners**  
Architecture  
Acoustics  
Technology

121 Salisbury Road, London, NW6 6RG  
 Email: mail@bickerdikeallen.com T: 0207 625 4411  
 www.bickerdikeallen.com F: 0207 625 0250

**Bristol Airport  
Noise Action Plan**

**Departure Route Corridors**

DRAWN: JC CHECKED: NW

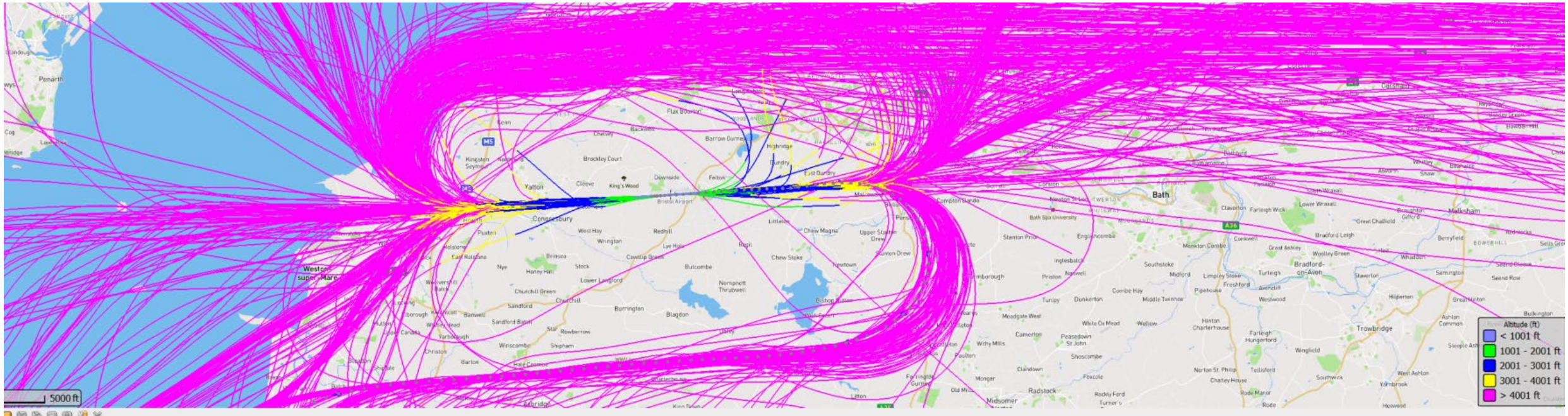
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# Departure Tracks by Altitude – WC 01/09 - Departures





# Departure Tracks by Altitude – WC 01/09 – Arrivals

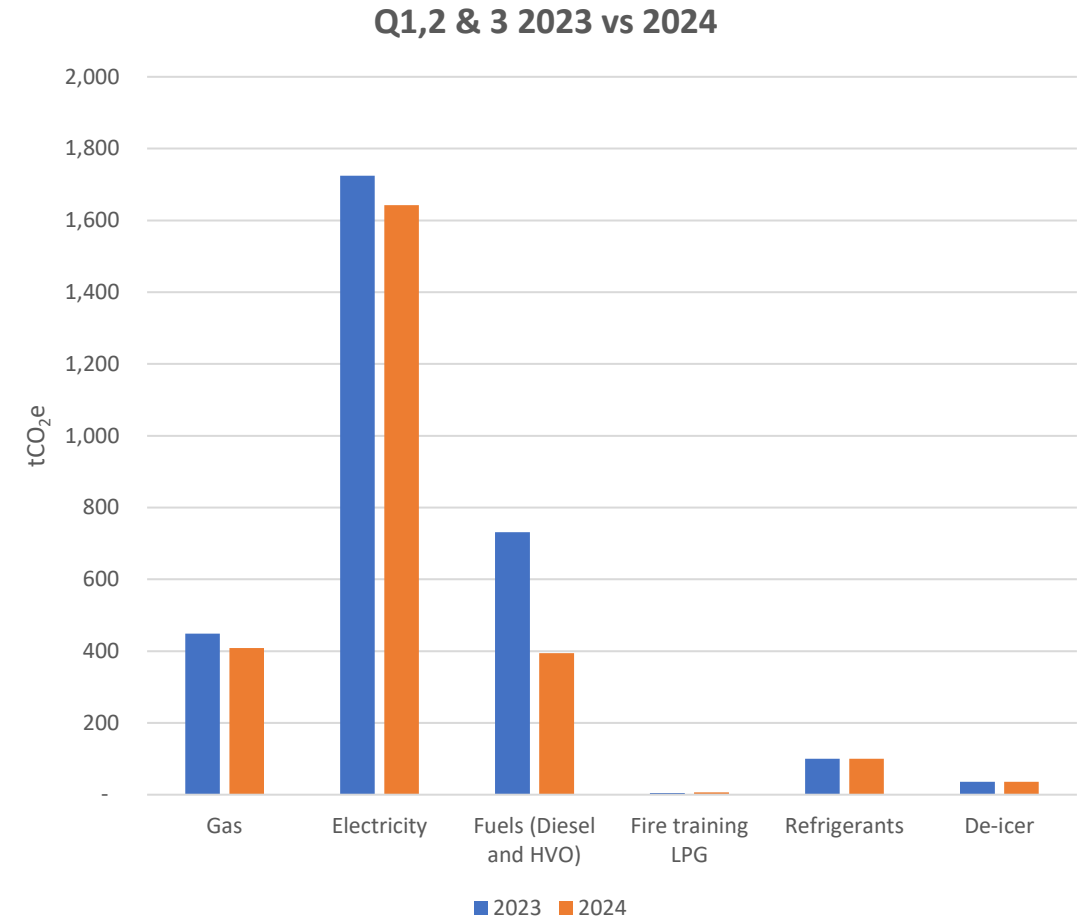


# Net Zero: Carbon update

Dan Samson

# 2023 vs 2024 Operational Emissions

- Significant progress has been made towards our 2030 Net Zero operational emissions goal this year.
- We are on track to surpass our 10% annual emissions reduction target.
- So far this year the solar farm has produced over 1,200,000 kWh of electricity (enough to power one of our electric cars to travel 4,000,000 miles).
- All landside buses are now either electric or run on HVO (Hydrotreated Vegetable Oil) which has reduced emissions from Bristol airport owned vehicles by over 40%.



# Aviation Carbon Transition Programme

# ACT 2024

- ACT - Aviation Carbon Transition
- The fund is limited to £250,000 per annum
- Aims to kick start and fast track decarbonisation initiatives in the South West focusing on Scope 3 emissions
- This is an annual fund running from 2021 to 2031

# Successful projects

## Nature investment strategy, Wanderlands

- The project will outline short, medium and long term investment strategies into UK carbon offsetting projects on a local, regional and national basis within the UK.
- This will secure carbon offsets from high integrity and transparent projects as this becomes an area of increased scrutiny and questioning from local groups.
- Along with the defined carbon benefits this project can offer, there are secondary benefits through increasing the habitat quality of a given area and enhancing the local environment.



Wanderlands

# Successful projects

## Hydrogen feasibility study, Ultima Forma

- The project involves designing, analysing, and animating a mobile liquid hydrogen refuelling system for Bristol Airport.
- The project would be overseen by Steve Newbury (MD) at Ultima Forma who led the academic research programme for the ATI's (Aerospace Technology Institute) FlyZero programme.
- The project will provide design drawings and analysis of how a mobile hydrogen refuelling system would integrate into the airport.



# Successful projects

## Nuclear derived SAF and hydrogen, Equilibrion

This project will carry out research and development on nuclear-derived SAF and hydrogen production, as part of a feasibility study to investigate how these fuels can be produced within the Bristol City and North Somerset regions and be delivered to Bristol Airport for use in planes and land transport vehicles.

Supporting objectives are:

- Assess technology development requirements
- Provide an evidence base covering economic, social value and carbon reduction impacts
- Identify other opportunities for nuclear to support airport carbon transition (e.g. direct air capture)
- Provide a delivery roadmap to making the scheme a reality





**AOB**

**All**