

Carbon Emissions

One of the largest single sources of carbon dioxide emissions comes from the exhaust fumes on aeroplane. Currently it represents 6.4 percent of UK carbon dioxide emissions, 3.1 percent of this is the responsibility of Heathrow, which is about 18 million tonnes of carbon dioxide per year. With the expansion of Heathrow with the third runway in place it is expected that the carbon emission will go up to 25 million tonnes an increase of 32 percent. The government say that emission from aviation can rise if other sectors compensate by cutting down their emissions.

Noise

Noise is another big environmental issue of the development at Heathrow, and the commission approached this task by developing a noise soundcard, which splits the appraisal of noise into separate time allotments, spanning from 7:00am – 11:00pm, 11:00pm – 7:00am and the full 24 hours. The assessment not only recognised the intensity of the noise level but also the number of flights that are experienced by these allotted times. Day noises were measured to see if the 57-decibel level metric used by the government was exceeded and if so by how much. Night noise were measured against 48 decibel level and for the full 24 hours, noise levels were measured against 72-decibels. These tests were conducted again using European standards, which puts more weight on noises that occur during the evening time over ones that occur during the day. They say that noise should be around 55-decibels, and not exceed 75-decibels.

Local communities around the site of the existing development at Heathrow have put significant pressure on the government to reduce the noise around their dwellings. Studies conducted say that excessive noise can contribute to sleep disturbance, which in turn can increase the risk of hypertension and sleep disorder.

So, the government is considering how they might mitigate or address these issues. They say that aviation noise is predicted to go down because as new fleet of aircraft are built they will incorporate new more quieter engines, and they will be capable of steeper take-offs and landings which reduce the amount of time the aircraft fly low.

Air Quality

Proper assessment of the air quality impacts of an airport expansion scheme is important to enable an understanding of the schemes likely impacts on human health. Moreover, limits on air quality are enshrined in domestic and European legal frameworks; the delivery of any scheme would be dependent on compliance with these frameworks

In respect of the Heathrow Airport Extended Runway scheme, the Commission notes that even assuming that all the quantified mitigating actions were effective, it would not be possible to state reliably that NO₂ concentrations on the Bath Road would be lower than those on the Marylebone Road by 2030. In order to render the scheme compliant with the Directive, it may be necessary to consider more dramatic mitigating actions above and beyond those which the Commission believed it was credible to assess at this stage.

Biodiversity

The scheme is expected to take up land where bird and animals reside in their natural habitat. These biodiversity impacts could all be mitigated to a degree through good design and operations, and for all of the schemes an Appraisal of Sustainability (for which the Commission's analysis may provide a valuable foundation) and new public green space being proposed by Heathrow Airport Ltd, while not having a strong biodiversity impact itself, could help to reconnect areas of high biodiversity, allowing populations to move between these areas and not become isolated.

Water Quality and Flood Risk

The quality of water we drink and the risk of destruction by flood, is an important environment issue to many of the occupants in and around Heathrow and its developments. That is why the need to mitigate these issues are apparent. The development at Heathrow would require the diversion of more than one natural watercourses, which could inhibit the quality of water that Heathrow can get access to without importing it from other sources.

In respect to flood risk, almost the same rules apply. Heathrow will need to build bigger and longer culverts when diverting these rivers to plan for extra water coming through its drains at times of heavy rainfall.