Airport and Birds

The Thames Estuary airport and its impact on birds

The proposal to build an airport on the Isle of Grain would cause a **significant loss of coastal wetland habitat**, largely within the Thames Estuary and Marshes Special Protection Area (SPA), but also affecting the Medway Estuary and Marshes SPA. These areas are **protected under international law** for their internationally important bird populations; together they support more than **140,000 waterbirds**.

Development at these sites would have significant **negative impacts** on the bird populations that live there. This would occur through:

1. **habitat loss** within the footprint of the airport;
2. **disturbance** or habitat change affecting other areas near the airport.

Over 21,000 waterbirds currently use the area proposed for development. This represents around 25% of the current total bird population on the two affected SPAs, and 37% of the current bird population on the Thames Estuary and Marshes SPA.

Habitats Directive Requirements

Should an airport in the Thames Estuary be taken forward, there would need to be an **Appropriate Assessment** (under the 2010 Habitats Directive) to determine any 'likely significant effects' to these SPAs following any proposed mitigation.

- If '**likely significant effects**' are identified, the Habitats Directive may allow the project to go ahead on grounds of 'imperative reasons of overriding public interest' (IROPI) if there are no alternative solutions, but only if compensatory measures (usually habitat creation elsewhere) have been secured.

- Habitats Directive guidance suggests the area of **compensatory habitat** provided should be at least **twice the area lost**, meaning that replacing the habitats lost by the construction of the proposed airport (estimated as 1,700 hectares) would require a new site or sites of **at least 3,400 hectares** to be created. Finding suitable areas for such large-scale habitat creation will be **challenging** given the many competing demands for coastal land use in south-east England. It will add **significant financial cost** to the construction costs of the airport.

- **Compensatory habitat** should normally be in place before a development commences. Replacement habitats can take **several years to create**, and further years after that for birds to colonise. Sometimes it may be possible to gain an exemption from the requirement for compensatory habitat to be in place in advance if it can be demonstrated that the delay will not lead to a significant decline in bird populations, though where this is not possible it could lead to **significant delays** to the construction timescale.

Dunlin by Dawn Balmer
Bar-tailed Godwits by Al Downie
Heathrow Airport by Paul Hudson via: freeforcommercialuse.org

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Ecological Challenges

- **Compensatory habitat** could be created through managed realignment, topographic modification, or the creation of freshwater wetlands; a **combination of these approaches** would be needed. Currently there is limited understanding of how best to engineer and successfully retain the exact sorts of habitats the birds require and therefore there is **considerable uncertainty** about the density of each bird species that would be supported on newly created habitat.
- The provision of replacement habitat within or adjacent to the Thames and Medway Estuaries is likely to be the **most effective option** to compensate for the effects of the development on bird populations. It may be **challenging** to find suitable sites for this, especially given there are **already existing commitments** to recreate intertidal habitat in the area to compensate for that lost through coastal squeeze, and the need to manage bird numbers close to an airport to **minimise bird strike risk**.
- The **creation of new habitats** away from the Thames Estuary and Marshes and Medway Estuary and Marshes SPAs is likely to be **less effective** than providing such habitats locally, although it could still be partially effective for several species guilds.

Key Point: Creating compensatory habitat outside the Thames Estuary

- Bird species that would be affected are highly site-faithful, returning to precisely the same wintering sites each year, and will not readily move to new wintering sites in response to habitat loss.
- Colonisation of new habitat provided away from the Thames Estuary would only occur over a period of many years through the recruitment of juvenile birds to the new sites.
- Adult birds of site-faithful species that currently use the Isle of Grain would be likely to remain in the local area and suffer increased mortality over several years following development due to the reduced habitat (and therefore food) availability.
- Compensatory habitat provided at a distance would not provide direct compensation for displaced individuals of these site-faithful species, though may eventually support equivalent population sizes following several years of recruitment to the new site(s). This means compensatory habitat would need to be in place well in advance to have any chance of preventing a population decline compared to current levels. However, the long-term consequences of this for bird populations are highly uncertain.
- There is considerable uncertainty as to whether providing compensatory habitat at a large distance from the Thames and Medway Estuaries (for example between 100 and 500 km away as has been suggested in other reports submitted to the Airports Commission) would be effective in supporting displaced birds, or birds from the same 'biogeographic' populations that use the Thames and Medway Estuaries. It would be considerably less effective than providing compensatory habitat locally.

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