

AEF Planning & Aviation Seminar,  
CIPFA, London, 19<sup>th</sup> March 2008

***Habitats Regulations  
Assessment for airport  
expansion***

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[www.aef.org.uk](http://www.aef.org.uk)

- What is HRA?
- Screening
- Appropriate assessment
- The (obvious) airport baddies

# WHAT IS HRA?

Required by European Habitats Directive

Conservation (Natural Habitats, &c)  
(Amendment) (England and Wales)  
Regulations 2007

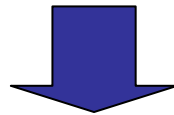
- Tests impact of plan on
  - Special Protection Areas (birds)
  - Special Areas of Conservation (habitats, species)
  - Ramsar sites (wetlands)
  - European Marine sites)
- Concludes with yes/no statement: will plan have significant impact on European site?
- It is very precautionary

**6.3** Any **plan** or project not directly connected with or necessary to the management of the **site** but likely to have a **significant** effect thereon, either individually or **in combination** with other plans or projects, shall be subject to **appropriate assessment** of its implications for the site in view of the site's conservation objectives... the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned..

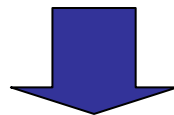
**6.4** *If, in spite of a negative assessment of the implications for the site and in the absence of **alternative solutions**, a plan or project must nevertheless be carried out **for imperative reasons of overriding public interest...** the Member State shall take all **compensatory measures** necessary to ensure that the overall coherence of Natura 2000 is protected...*

HRA promotes hierarchy of measures:

**avoidance**: prevent significant impacts from happening in the first place



**mitigation**: reduce the magnitude and/or likelihood of an impact



**compensation**: provide a new benefit to balance out the impact

**SCREENING**

**1. 'Long list' of sites:** Be precautionary  
(~15km from project plus up- and down-  
stream)

**2. Why they were designated:** from JNCC  
records, plus conservation objectives from  
Natural England

### **3. Environmental factors that maintain site integrity.** Will vary by habitat/species, e.g.

- Beech woodland – good air quality
- Wetland birds – absence of disturbance & maintenance of water levels
- Bats – absence of disturbance, & maintenance of roosting & feeding grounds

Probably requires ecological expertise

HRAs of RSSs give much of this information

**4. Whether plan is likely to affect 3.**

**5. Whether other plans, projects etc...**

Include underlying trends and likely future plans

Be precautionary

Site	Qualifying features	Key environmental conditions to support site integrity	Possible impacts arising from plan	Is there a risk of a significant effect	Possible impacts from other trends, plans etc.	Is there a risk of significant 'in combination' effects?
Arun Valley <sup>1</sup> SPA/Ramsar	<ul style="list-style-type: none"> <li>•Used regularly by more than 1% of GB's population of Annex I species Bewick's swan (<i>Cygnus columbianus bewickii</i>)</li> <li>•Supports nationally important wintering population of 20,000+ waterfowl including tundra swan</li> <li>•The neutral wet grassland ditches support rich aquatic flora and invertebrate fauna.</li> <li>•The area is of outstanding ornithological importance notably for wintering wildfowl and breeding waders.</li> </ul> <p>The Ramsar site</p> <ul style="list-style-type: none"> <li>•holds 7 RDB threatened species, one of which is endangered; plus 4 rare and 4 nationally scarce plant species.</li> <li>•supports an internationally important waterfowl assemblage.</li> </ul>	Sympathetic management of lowland wet grassland /grazing marsh (including water level management).	None	No	None	No
		Maintenance of hydrological regime, including winter flooding	Development of 10,575 new homes in Horsham district would add to demand for water. Also urbanisation of the catchment may alter water flows and hydrology.	?	Water resources in the area are already a problem: Environment Agency has been unable to conclude no adverse effect upon integrity of SPA Housing proposed for Arun and Chichester districts (9,300 and 8,600 respectively to 2026) would result in additional demand for water Proposed investment by Southern Water and new reservoir on Chichester-Horsham boundary could reduce these impacts	Yes: see Section 3.1
		Maintenance of adequate water quality	Development of 10,575 new homes in Horsham district would increase requirements for wastewater treatment	?	Housing proposed for Arun and (9,300 to 2026) would result in additional wastewater requiring treatment.	Yes: see Section 3.2.

## **Screen out obvious sites, e.g.**

- That impacts are very unlikely to reach
- Where conditions & underlying trends are fine and plan impacts are minimal

## **Consider avoidance measures for others, e.g. rules on**

- siting new development
- managing new development

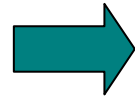
Beware avoidance v. mitigation issues: see  
Dilly Lane, Hart DC

**Prepare draft screening report and discuss...** with Natural England, Environment Agency, others?

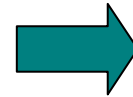
Take forward remaining 'short list' of sites to...

# **APPROPRIATE ASSESSMENT**

source



pathway



receiver

airport expansion



more light and noise

bird scarers



more disturbance



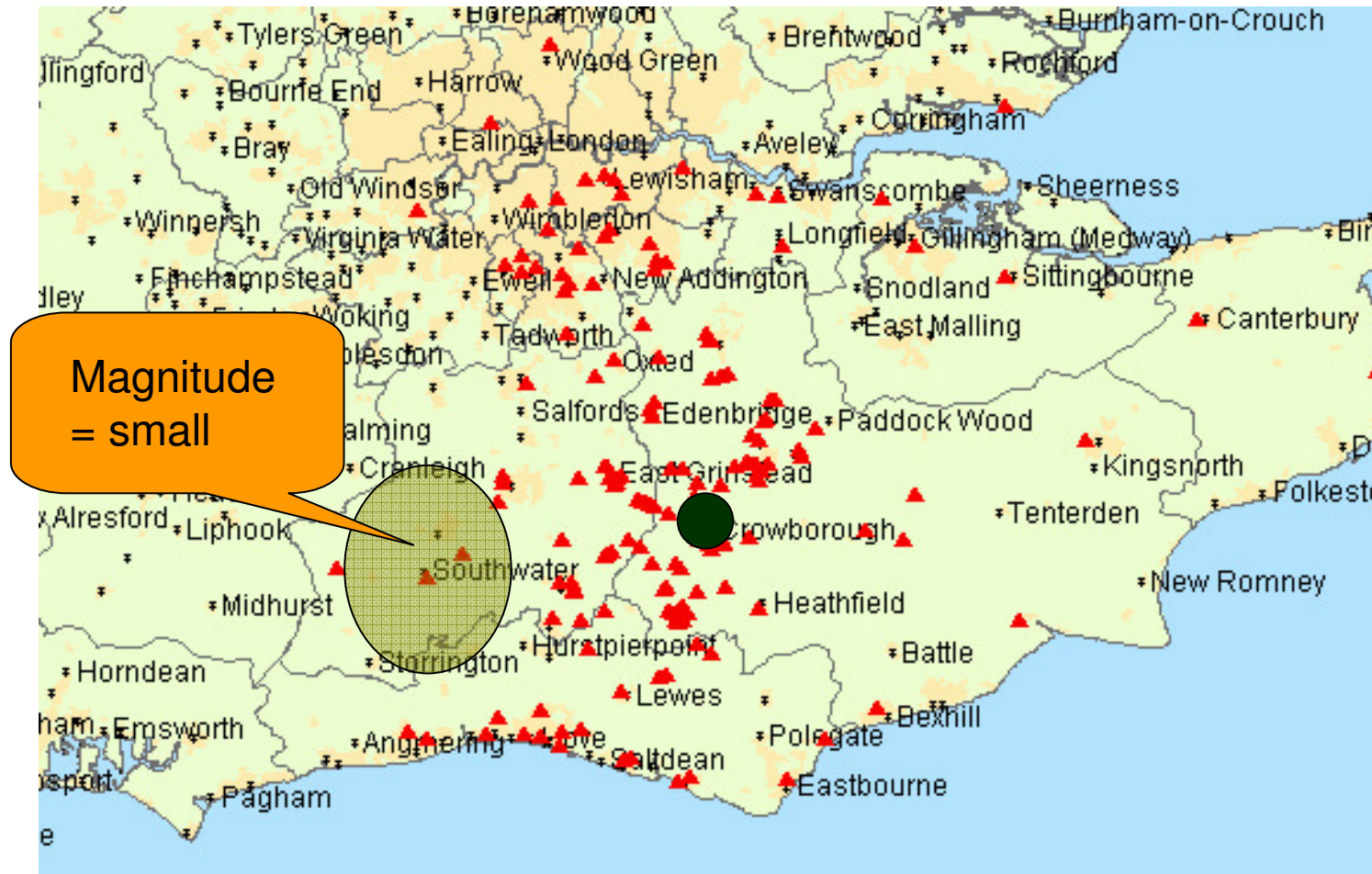
impact on birds

# Key impact of airport on species and habitats

	Airport construction	Airport operation	Ground transport, hotels, parking etc.
Land take			
Disturbance from aircraft/vehicle movement			
Disturbance from bird scarers			
Light disturbance			
Noise disturbance			
Air pollution			
Water pollution			
Climate change			

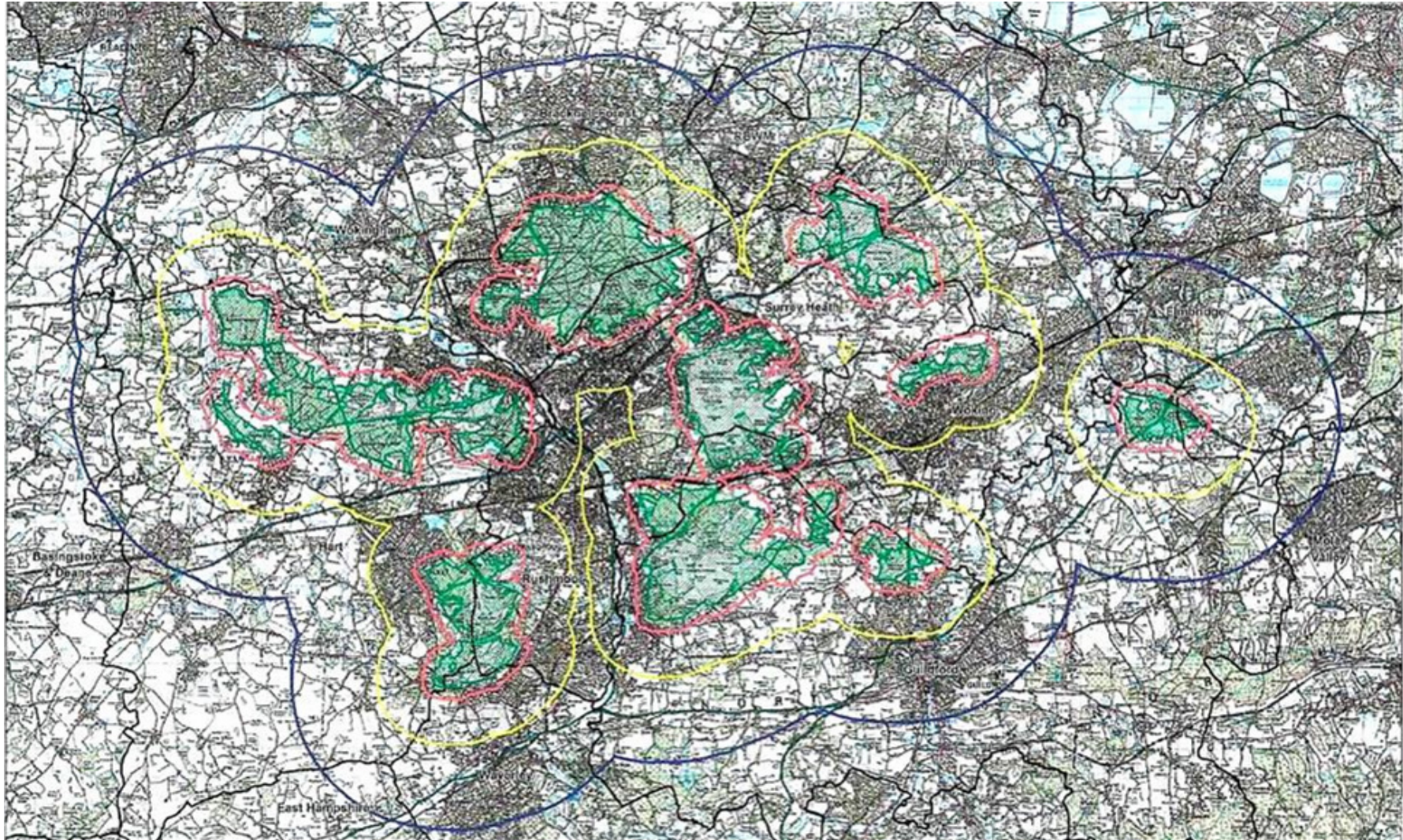
# Recreational disturbance on Ashdown Forest SAC

Sensitive feature = ground nesting birds

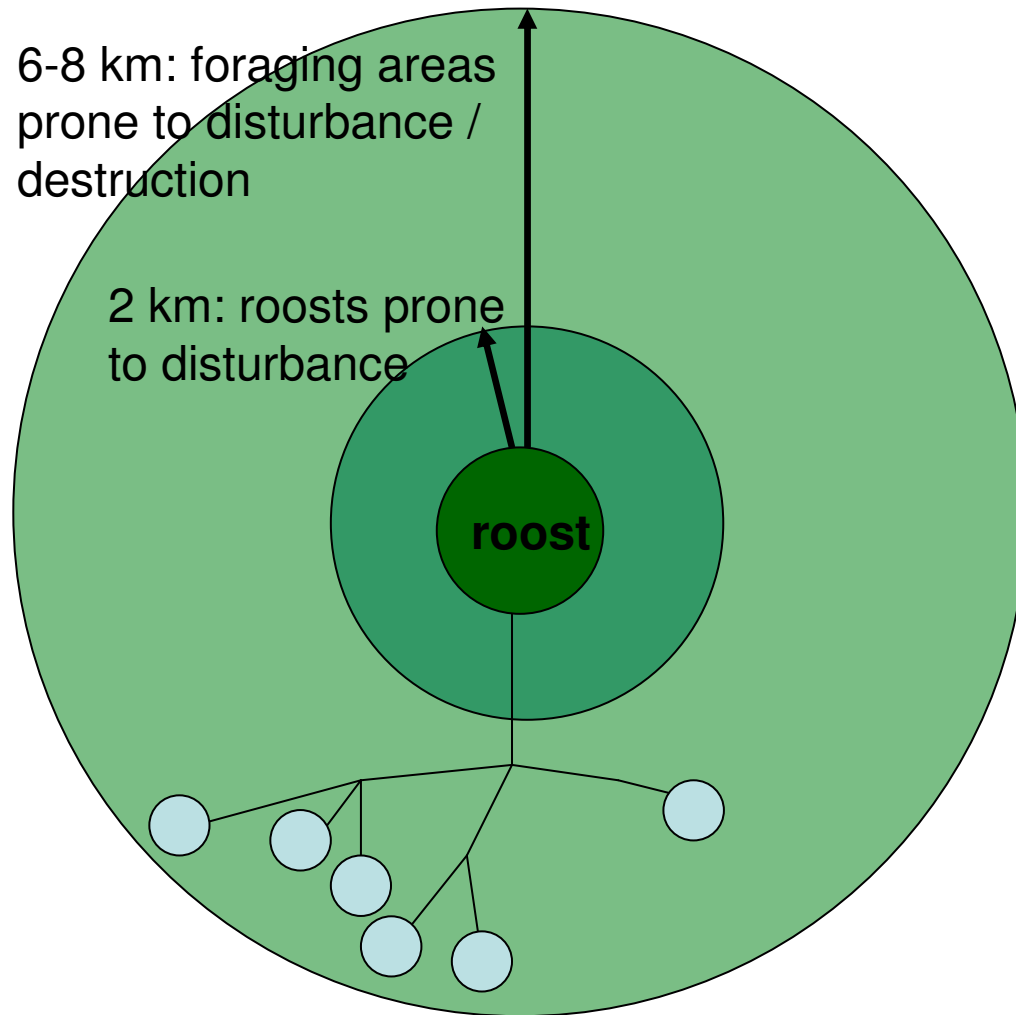




# Thames Basin Heaths SPA: mitigation using buffer zones and SANGS (Suitable Alternative Natural Green Space)



# Land take and disturbance impacts on Barbastelle bats at The Mens SAC



**RULE:** No destruction of hedges/trees within 8km of boundary  
OR  
No destruction of hedge A, woodland B etc.

## Diffuse air pollution

site	habitat	pollutant, measurement	critical load range	deposition
The Mens	beech woodland	acid deposition, keq/ha/yr	2.54	2.67
		N deposition, kg N/ha/yr	10-15	33.2
		ozone, ppb hours	5000	8201
Thursley, Ash, Pirbright+C	lowland heathland	acid deposition, keq/ha/yr	0.1	1.81
		N deposition, kg N/ha/yr	10-20	20.3
		ozone, ppb hours	3000	4763
Woolmer Forest	lowland heathland	acid deposition, keq/ha/yr	0.1	1.74
		N deposition, kg N/ha/yr	10-20	19.5
		ozone, ppb hours	3000	4912

## Conclusion of AA stage:

For some European sites: plan is unlikely to have a significant 'in combination' impact

For others: plan is likely to have a significant 'in combination' impact + propose effective avoidance / mitigation rules

For still others: plan is likely to have significant 'in combination' impact + mitigation not possible

→ Stage 3 Alternatives

## Which issues should be dealt with at which level?

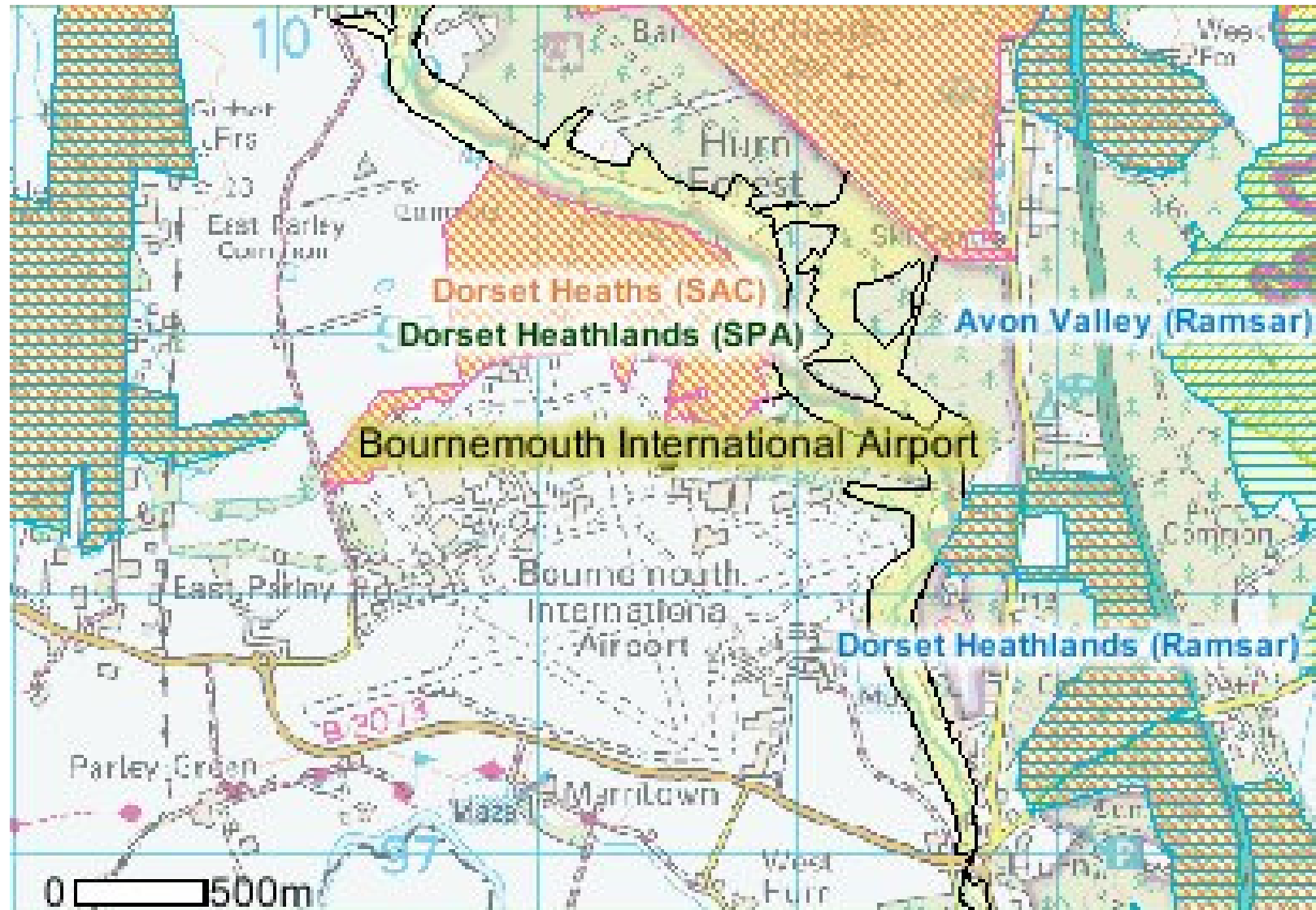
<b>Spatial scale</b>	<b>National</b>	<b>Regional</b>	<b>Local</b>	<b>Project</b>
air pollution (traffic, air, ship)				
air pollution (housing, employment)				
water levels				
water quality				
climate change, coastal squeeze				
recreational disturbance, urbanisation				
other disturbance (traffic, air, etc.)				
habitat loss/fragmentation				

**THE (OBVIOUS)  
AIRPORT BADDIES**

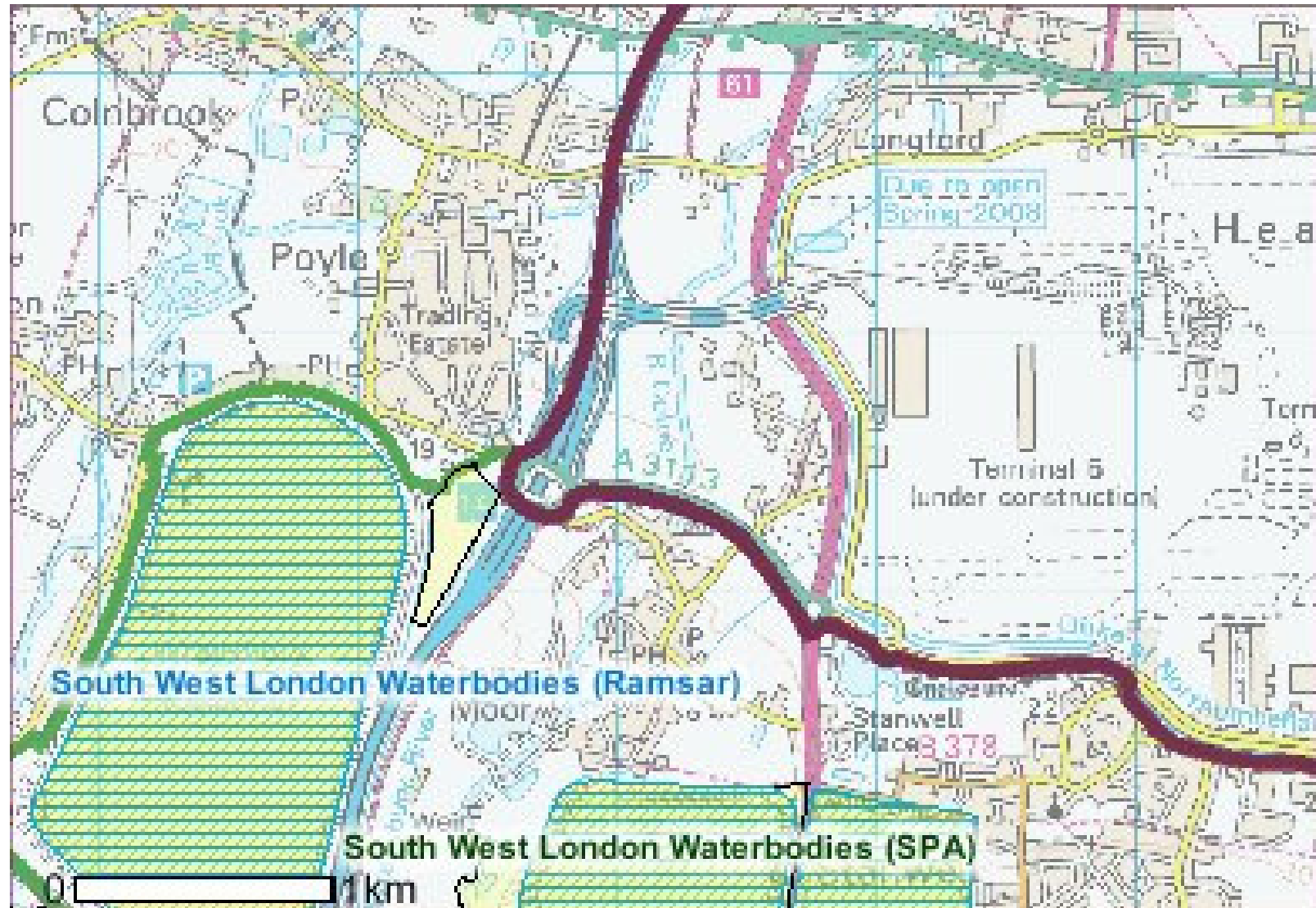
# Blackpool



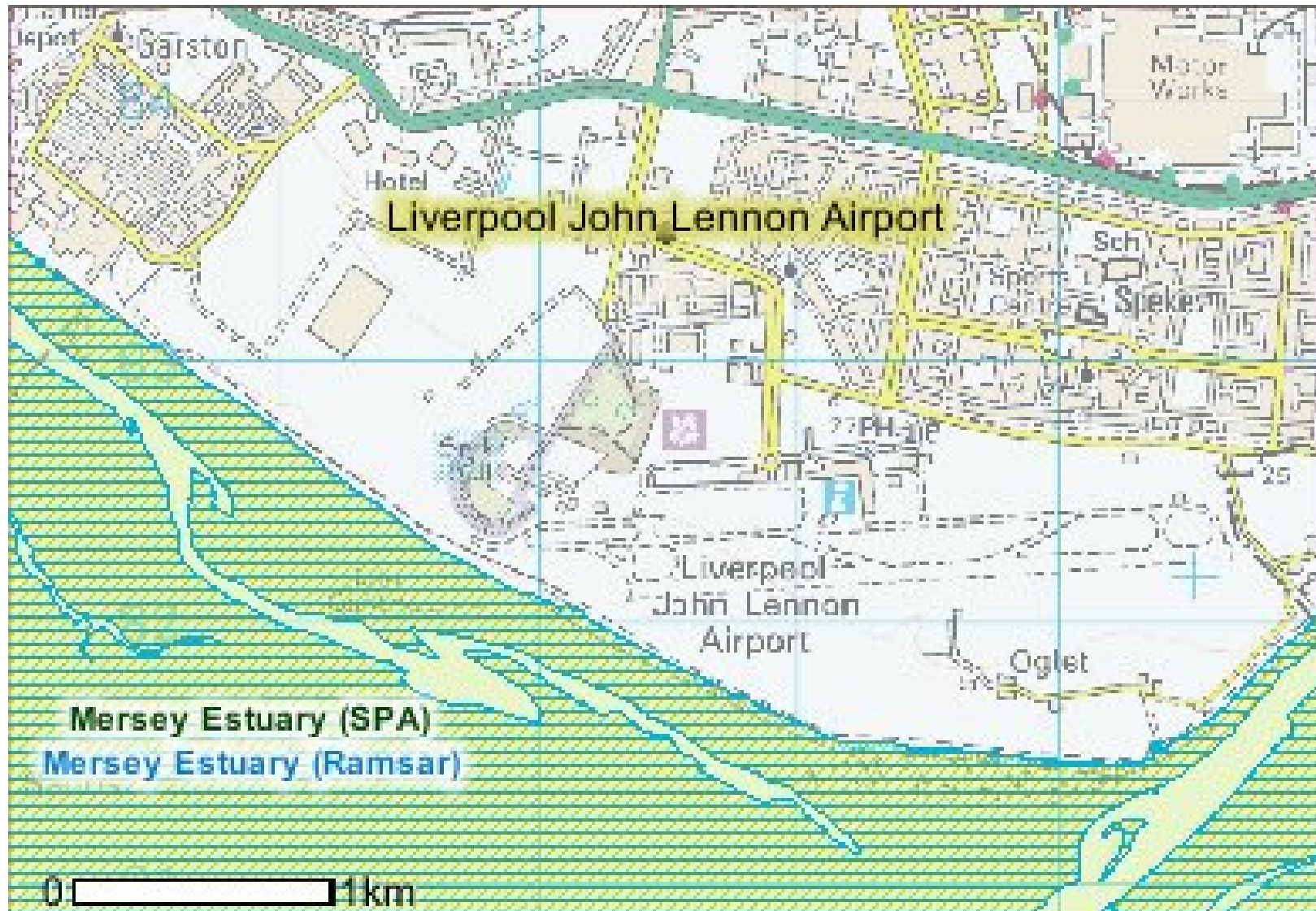
# Bournemouth



# Heathrow



# Liverpool



# Lydd



# Southampton

