

HIGH SPEED 2 BRIEFING NOTE

Ecology

Report by Mai Nielsen, Ecology Advisor, Bucks County Council

Ecology is the scientific study of interactions of organisms with one another and with the physical and chemical environment. The EIA Scoping and Methodology document should provide the outline of the ecological surveys proposed to establish the baseline ecological conditions. This will be used to identify the potential for adverse effects upon species and habitats, including sites recognised or designated for their significance for nature conservation that are found along the route of the Proposed Scheme.

A particular area of concern for the Ecology assessment is how and when information will be presented. Sufficient information has to be presented to be able to inform the decision but also needs to be relevant to construction timeframes.

For major infrastructure projects this may require more than one year's data, especially for some taxonomic groups (groups of biological organisms on the basis of shared common characteristics and giving names to those groups. Each group is given a rank and groups of a given rank can be aggregated to form a super group of higher rank and thus create a hierarchical classification). Given the relatively short period between now and the anticipated depositing of the Hybrid Bill (Oct 2013) this is a concern.

Local Authorities have a duty under the Natural Environment and Rural Communities (NERC) Act to protect and enhance ecological value of their areas. As such it is disappointing to see that Local Authorities have been left off the list of those providing concerns through the consultation on the AoS. The comments raised by Local Authorities should be considered equally important as other designated nature bodies.

Specialist surveys will include:

- Detailed botanical surveys
- Amphibian Habitat Suitability Index (HIS) surveys of water bodies
- Amphibian surveys of water bodies
- Reptile surveys
- Breeding bird surveys
- Wintering bird surveys
- Badger surveys
- Hazel dormouse surveys
- Bat surveys of suitable features, to determine suitability as bat roosts, and emergence and activity surveys to determine presence and patterns of use by bats (where Habitats Directive Annex 11 species are thought to be present, additional surveys will be agreed with Natural England)

- River habitat Surveys and River Corridor Surveys
- Otter surveys
- Water Vole Surveys
- Terrestrial invertebrate surveys
- Aquatic macro-invertebrate surveys
- White-clawed crayfish surveys
- Fish surveys

HS2 Ltd has provided little detail on exactly what surveys will be undertaken, with an indication of the geographic extent and survey effort to be employed.

During consultation on the AoS, The Wildlife Trusts emphasised the importance of looking at the large-scale ecological networks, as promoted in the Government's White Paper on the natural environment (2011). It should be clearly stated in the EIA Scope and Methodology that the assessment will take this document into account and that the Proposed Scheme will help to deliver improved large-scale ecological networks that will be maintained as such in perpetuity.

Potential construction effects in the EIA Scope and Methodology include;

- Temporary and permanent land-take
- Severance
- Barrier effects
- Noise and visual disturbance
- Disturbance from lighting
- Dust deposition
- Risk of water quality changes from surface water run-off
- Hydrological effects

This list should also include;

- Displacement effects (from breeding or foraging habitats)
- Genetic isolation and impoverishment
- Habitat degradation (and consequent loss of foraging resources)
- Introduction and spread of non-native and invasive species of plant and animal