## Report on the Impacts on Biodiversity Esso Pipeline Southampton to Heathrow

The following is a summary of potential impacts of the works to install a new pipeline on biodiversity and some key areas for consideration.

- 1. Hedgerows. The route cuts through many hedgerows and the species diversity and connectivity of these should be considered, in some cases they may be protected by the Hedgerow Regulations (1997). Where possible damage to hedgerows should be avoided, by utilising gateways or for important species rich hedgerows consider direct drilling. Hedgerows that need to be removed should be replaced with a similar species mix.
- 2. Farmland birds and HLS. Many of the farm holdings will be in Higher Level Stewardship schemes and consideration needs to be given to the prescriptions in these schemes and any compensation required. There will be specific schemes with arable plots for ground nesting birds such as lapwing and skylark, where possible disturbance to these plots should be avoided.
- 3. Designated sites and local sites. The route has been planned to avoid as many issues as possible, this includes the avoidance of national and international designated sites. Local wildlife sites (Sites of Importance for Nature Conservation) also have an important role in protecting species and habitats at a local level. A number of sites have been identified close to the proposed route and in the corridor, these include sites with section 41 protected species and locally rare ground flora including orchid species. Ideally these sites should also be avoided but if this is not possible then the applicant should look at the site designated features and seek the least damaging route. There should also be a plan for re-instatement.
- **4. Chalk grassland.** This is a rare habitat and susceptible to damage. Where the route crosses any area of Calcareous grassland consideration should be given to minimising damage. The downland turf should be carefully removed and preserved and then reinstated as soon as possible.

## **Protected Species issues**

- 5. Dormice. There are numerous records of dormice in the area and so survey work will be required to ensure that populations are not affected. Hedgerow connectivity is an important factor and where dormice are present temporary hedgerow barriers may be required across the route when work is not in progress.
- 6. Bats. There are records of several bat species in the area so survey work will be required to ensure that no bat roosts are affected. Once again connectivity of woodland and hedgerow habitats is an important factor.
- 7. Badgers. There are badgers present in the area so survey work should ensure that there is no impact on any badger setts.
- 8. **Reptiles.** There are many reptile records in the area so survey work will be required to check for reptiles along the route and to take mitigation measures as required.
- **9. Breeding birds.** A wide variety of breeding birds will be present along the route including woodland, hedgerow and ground nesting species. These are protected by law and so measures should be taken to avoid the disturbance of breeding birds, this will need to include the timing of removal of and hedgerows outside the breeding season. Note should also be taken of the above point on ground nesting birds on farmland.

## Soils

**10. Types.** The route crosses several distinct types of geology, but within these areas there can also be considerable variation due to deposits of other materials (clay caps on chalk for example). It is important therefore for investigations to be undertaken throughout the route to understand local conditions.

- **II. Profiles.** Working methodology needs to protect and re-instate current soil profiles. Ideally different soli layers should be separated and stored apart, they can then be easily re-instated after installation.
- 12. Invasive Non-native species. There are records of several non-native species in the area, these will need to be considered in the methodology, removed where possible, but not spread by the works.
- **13. Mitigation projects.** There are opportunities for the pipeline project to contribute to habitat improvements in the corridor of the route. This could include restoration of chalk grassland sites, pond creation, woodland management, improving habitat connectivity and support for existing species projects in the area.

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