

## **I. M3 Junction 9. Headlines from Biodiversity**

- I.1 The SDNPA Landscape and Biodiversity Lead (water) commissioned a data search from the Hampshire Biodiversity Information Centre (HBIC) and carried out an ecological desk-based assessment for the proposed Junction changes and are of influence.
- I.2 Proposals from Highways England for alterations to Junction 9 of the motorway and the feeder routes to the A34 trunk route. These proposals are shortly to go to a public consultation stage. Due to the range of potential options a search area 2km from the current Junction has been undertaken. All routes would be likely to have a significant negative impact on biodiversity: protected sites, semi-natural habitat extent, quality and connectivity, and populations of native species.

### Designated sites:

#### I.3 International.

The River Itchen SAC is to the North and the West of Junction 9, however both the M3 and the A34 cross the SAC and proposed improvements to the A34 will have a direct impact on the site. Any cumulative impacts caused by the improvements and construction process will also need to be considered. The SAC citation is for a classic chalk river with a rich flora dominated by crowfoot species (*ranunculus* sp.). The fish Fauna includes bullhead, Brook lamprey and spawning grounds for Atlantic salmon. Adjacent to the river are areas of fen, swamp and wet meadow where diverse vegetation is present supporting populations of the nationally rare Southern Damselfly (*Coenagrion mercuriale*).

#### I.4 National.

The River Itchen is also a Site of Special Scientific interest (SSSI). This designation is similar to the SAC citation but with additional reference to White clawed crayfish, otter, water vole and the importance of the area for breeding wildfowl, wading birds and wetland passerines.

#### I.5 Designated sites: Local

Six locally-designated nature conservation sites are situated within the 2km radius but only one of these, Easton Down is close to the proposed schemes. This site is an area of relict lowland calcareous grassland. There is also one notable roadside verge, but this is on the A272, over 1km south of the junction.

### Protected Species

#### I.6 A significant number of protected and notable species records occur within the 2KM search area. These records are summarised briefly below;

- Four species of amphibian and reptile, including Common Lizard and Slow worm, both these species can be associated with roadside grasslands.
- Numerous species of protected birds including many unusual breeding species that will be subject to disturbance (including those listed in the citations above). Others include kingfisher, snipe and away from the wetlands a range of farmland species including grey partridge, yellowhammer, turtle dove and corn bunting.
- Fish species are detailed in the citations above but in addition there are records of European eel, a species of conservation concern.
- There are a wide range of plant records including those noted for Chalk Rivers and fens. Away from the wetlands there are chalk grassland species, including several species of orchid, and several notable arable weeds including Corn cockle and Night flowering Catchfly.

- Invertebrate records include stag beetle (a European protected species), 40 species of moth listed in section 41 of the NERC act, Butterfly species including chalk grassland specialists, woodland species such as pearl bordered fritillary and also the rare Marsh fritillary.
- Molluscs include Desmoulins's Whorl snail which is protected under the European habitats directive.
- Protected species of mammals include 8 species of bats, Water voles, European otter and hazel dormouse.

It is recommended that future ecological appraisal work should include detailed assessment of impacts on all protected species, supported where required by an appropriate level of survey.

- I.7 Badger records are confidential and are not included in the report, however the large areas of woodland, grasslands and parkland make it likely that there will be a large population of badgers in the area. A full badger survey will need to be carried out in advance of any works.
- I.8 There is a concern that the routes will sever extensive areas of habitat reducing connectivity and feeding corridors for species such as bats and dormice.

These impacts will need to be fully assessed based on robust baseline information and field surveys; if this is not available for the initial route selection however, a precautionary approach to potential impacts is recommended which should first seek to avoid ecological impacts.

#### Priority habitats

- I.9.1 Scheme proposals may impact on known areas of priority habitats. These include floodplain grazing marsh, lowland meadows, purple moor grass and rush meadow and Chalk Rivers within the river valley. Away from here there is extensive mixed deciduous woodland and calcareous grassland.

#### Invasive non-native species

- I.10 The highway route options pass through areas where a number of non-native and invasive species have been recorded. In the majority, these relate to plant species and garden escapees, but include 16 species listed on Schedule 9 of the Wildlife and Countryside Act in England and Wales (including plants which are an offence to plant or otherwise cause to grow in the wild and plants that are illegal to sell) such as Japanese Knotweed.

Controlling the spread of these species is important but, especially in the case of Schedule 9 plants, construction projects can contribute to the spread of invasive species. The exact location of invasive species will need to be targeted for managed removal prior to any clearance or construction work. Based on the evidence reviewed to date there is considered to be **high potential** for non-native and invasive species to be present on all route options.

#### Ecological Enhancement

- I.11 Natural Environment and Rural Communities Act 2006 encourages the incorporation of ecological enhancements into proposals. It is recommended that initial ecological surveys and reporting seek opportunities to contribute to biodiversity enhancement of adjacent habitats and contribute to existing initiatives.