

## CANNINGTON PARK AND RIDE, A39, CANNINGTON, ENGLAND

CLIENT: NNB GENERATION COMPANY (HPC) LIMITED PRINCIPAL CONTRACTOR: SOMERSET INFRASTRUCTURE ALLIANCE,  
DESIGNER: ROYAL HASKONINGDHV / GILLESPIES

### BIG Biodiversity Challenge Award Category: Temporary

#### Project overview

The project comprises construction of a Park and Ride facility located adjacent to Cannington village, north of the A39. The facility in itself is temporary, with a lifetime of approximately 10 years, spanning the duration of construction of the HPC Project. A number of mitigation and enhancement measures were included to improve the landscape and biodiversity features on site which are detailed overleaf.

#### What were the biodiversity conditions on site, prior to the enhancement?

The biodiversity baseline was measured using the Skanska Biodiversity Tool (based on DEFRA Metric). This included 4.5 Ha improved grassland, 0.34 Ha semi-improved grassland, 685m species-rich native hedgerow and 620m watercourse. Ecological receptors on site and in close proximity included a badger sett with foraging grounds across the site, local slow worm populations (particularly along the A39 verge), and a bat commuting route at the southern boundary. Along a section of watercourse small stands of Himalayan Balsam (*Impatiens glandulifera*) were also present.



#### What were the reasons behind this project ?

The parking facility forms part of the Transport Strategy for Hinkley Point C (HPC), and aims to limit vehicular traffic to the main construction site and enable the use of more sustainable forms of transport. The Park and Ride includes spaces for 252 vehicles, new access off the A39, cycleway, and security/welfare facilities.

### What were the biodiversity measures taken?

Biodiversity protection, mitigation and enhancement were incorporated into the design of the project from the outset. During the planning and design stage of the project, extensive surveys were undertaken by the client and their ecologists, AMEC/Mott MacDonald. The resulting requirements were detailed in both the Habitat Management Plan and Ecological Mitigation and Monitoring Plan which supported the permissions for the project and detailed how it would meet the requirements of the Development Consent Order. The key mitigation and enhancement measures undertaken as part of the project are summarised below.

#### Badger (*Meles meles*) mitigation

To reduce the impact and disturbance on the active main badger sett to the east of the Park and Ride the project team undertook a redesign of the location of the surface water outfall which omitted the need to close the sett and relocate badgers under licence. The project also included a combination of temporary and permanent badger proof security fencing during different phases of the works. Features were installed to enable badgers to continue to migrate across site while keeping them separate from works areas. This included a temporary corridor with 2 way access gates (closed to badgers during the day and opened at night), new badger tunnel under the newly constructed access road to the Park and Ride, and extension of an existing badger tunnel under the A39.

#### Tree and scrub planting

Mitigation and enhancement planting primarily for screening purposes but also providing additional habitat value. This comprised gapping-up of existing hedgerow, 185m of new hedgerow, temporary screening totalling 1,661m<sup>2</sup>, and permanent screening totalling 370m<sup>2</sup>. The timing of planting and the maintenance regime were highlighted as an important factor to the new habitat's success.

#### Reptile receptor area (0.24ha) and reptile exclusion fencing (528m)

A dedicated area of the Park and Ride site was set aside for reptile translocation as a high population of slow worm (*Anguis fragillis*) were found to be present on site and in the highways verge. 498no. Slow worms were translocated in 2015 and 528m of reptile fencing was temporarily installed along with strict grassland maintenance and supervision to further reduce the risk of slow worms making their way into the construction area as works progressed.



*Hibernacula, tree planting, receptor area and badger tunnel.*



## Measures taken (continued)..

### Hibernacula creation (x9 habitat piles)

Habitat piles were created to enhance habitat for invertebrates and reptiles within the receptor area. Materials (logs, roots and chippings) used from site clearance was able to be retained onsite for this purpose as opposed to disposal off-site.

### Bat monitoring

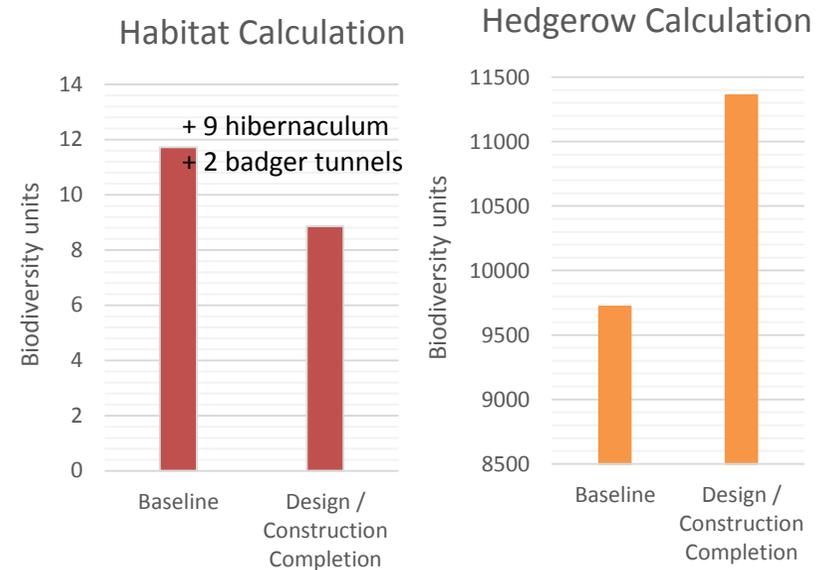
No evidence of roosting bats was found during pre-construction surveys, however surveys did identify a minimum of 6 no. species of bat using the site for foraging and commuting. Retained and new hedgerow and grassland aims to preserve and enhance the foraging opportunities and commuting routes for bats.

### Pond

A pond was constructed for surface water drainage attenuation primarily, however this will add to the diverse range of habitats available on site, particularly for invertebrates and foraging birds and bats.

### Further information

The Project made use of the Skanska Biodiversity Tool to measure the impact on biodiversity after construction. The calculator considers a range of habitat types, the quality, coverage, time to achieve target condition and risk of failure of the habitat changes as a baseline, during design and upon completion of the Project. To calculate this, the Phase 1 habitat assessment, design drawings and a site walkover were undertaken. On completion of construction, the site was calculated to have a temporary loss in habitat area of 1.6ha (24%), but a net gain in hedgerow of 185m (17%).



*Biodiversity units calculated by the Skanska Biodiversity Tool (based on DEFRA metric)*

### Project Team

- Client – NNB Generation Company (HPC) Limited
- Consulting Ecologists – AMEC/Mott MacDonald
- Principal Contractor – Somerset Infrastructure Alliance (Skanska, RK Bell and Forest Traffic Management)
- Designer – Royal HaskoningDHV
- Landscape Contractors – Freedom, Greenslades, Sedgemoor Tree Services

### Further information continued

It is important to note the calculator does not account for biodiversity features such as the two new permanent badger tunnels, 9no. hibernaculum and the temporary features implemented during construction. This could perhaps be considered as an addition to the tool going forward as a learning outcome of the Project.

### What was the motivation for carrying out the enhancement?

A unique challenge during the ECI stage of this project was the opportunity to find an alternative and solution to working near an active main badger sett. The whole project team worked collaboratively to implement design changes to the outfall and fencing as an alternative to closing the sett.

In addition, the temporary nature of this project on a green field site encouraged the team to reduce net loss and therefore enable the site to be restored back to, or if not better, ecological quality than the baseline after 10 years operation.

