

## Scrag Oak Site B – Embankment Stabilisation Buttons Lane, Wadhurst, East Sussex

J Murphy and Sons Ltd

*BIG Challenge 2015 submission category: Small scale permanent*

### Project overview

J Murphy & Sons Ltd. were contracted by Network Rail as the main contractor for the design & construction of an embankment stabilisation system as part of Network Rails emergency works at Scrag Oak in Wadhurst.

Following an embankment slip on the railway cutting, works have been carried out to stabilise the bank and improve drainage.

As the Ecological report conducted prior to the works noted dormouse habitat on site, so vegetation management had to include the potential issue of dormice in early hibernation being disturbed or harmed.

Biodiversity enhancements included dormouse boxes, log piles and seeding of wildflower on the embankment.

There were circa 20 people on site for the majority of the project which commenced in July 2014 and was completed in April 2015.

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



*Photo: Embankment stabilisation at Scrag Oak*

Plants species that were present included Hazel and Hazel coppice, Oak, Bramble, Sweet Chestnut and Hawthorn and abundant pollenating plants.

The dense and heavily connected structure of these habitats and the tree canopies also make these of high potential for both hibernating and foraging dormice.

### Were there any specific conditions that led to you carrying out this work?

As part of the conditions of the Natural England Mitigation Licence our methodology included the erection of dormouse boxes to maintain this site as optimal dormouse habitat.

The site will be also be identified as dormouse habitat on Network Rail plans. All further vegetation maintenance works will be carried out to ensure habitat is maintained as suitable for dormouse.

### What were the biodiversity measures taken?

Due to the location of the site being bordered by the railway line on one side and by the small road on the other, on both embankments, the creation of new habitat at the area of works was not an option.

The area of habitat that is being lost during the works, will be allowed to regenerate into dormouse

habitat relatively quickly and so, in the medium (1 year) to long-term no habitat is being lost.

Dormouse boxes were installed along the existing habitat and these were placed amongst the retained vegetation at the top of the slope in a line, spaced 20m apart (PTES monitoring guidelines).

The site that will be affected by the works, is approximately 200m in length and a total of 20 dormouse boxes were installed in the suitable habitat, 10 on each side of the embankment by our ecologists Southern Ecological Solutions (SES).

As there were several trees felled on the crest to allow for drainage to ensure no further embankment slips, it was decided to create log piles with the logs rather than disposing them as waste off site. Log piles are great for insects, small mammals and birds and are easy to construct.

Permission was granted from the neighbouring farmer to install some of log piles on his land and altogether 15 log piles were erected along the crest (away from the railway line) and inside the farmers boundary.



*Photo: Log piles*

The area of the slip which was stabilised, the topsoil was seeded with wildflower which also contributed to biodiversity enhancements on site.

**How would you best describe the project?**  
Mitigation.

#### **Further information**

Dormouse nest boxes were secured to mature/coppiced, upright trees using tying wire at 20 metre interval on the top of the crest further down the railway line.

All nest boxes were located within the retained woodland at the top of the railway cutting which was conducted by SES.

The logs for the log piles were stacked in a secure manner no closer than 2m from the edge of the crest

more than 3m from the nearest adjacent line. All the habitats were kept clear of the drainage and catch pits to allow easy access and maintenance and the logs were secured together using fencing grade wire and “U” nails.

SES will conduct dormouse surveys of the newly erected boxes/tubes. This will provide essential data on the dormouse status in the area and could become part of the NDMP (National Dormouse Monitoring Program) for PTES (People’s Trust for Endangered Species) and will also result in the boxes being maintained.

They will undertake the population monitoring, habitat management and site maintenance work and reporting details.

**What was your personal motivation for carrying out the enhancement?**

By working closely with ecologists SES it was satisfying to be involved in providing new habitat for the endangered dormouse in the area.

Our subcontractor QTS also provide assistance in creating habitat by installing the log piles on site and hopefully biodiversity will flourish.



*Photo: Dormouse box*