

Ecological Mitigation and Enhancement, Pinewood Studios Buckinghamshire

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BIG Challenge 2015 submission category: Large scale permanent

Project overview

Pinewood Studios is currently expanding its facilities across a 23 hectare green belt site that supports a number of ecological features and resources.

As a result, various measures have been undertaken to mitigate the impact on biodiversity values and maintain and enhance ecological connectivity through the site, ensuring that it remains functional as a green corridor during construction and operation.

The DEFRA offsetting metric has been applied to this site as a fundamental part of the planning process.

This assessed the ecological value of the site pre- and post-development and quantitatively demonstrated that there will be no net loss of biodiversity across the site once built out with all ecological enhancements incorporated.

[What were the biodiversity conditions on site, prior to the enhancement?](#)



Photo: Area TPO protection and reptile fencing

There are a number of biodiversity characteristics to this sensitive site, which was previously a landfill site, mixture of arable farmland and unimproved grassland, located in an area of green belt. These include:

- Various protected and notable species present, including: slow-worm, ground-nesting birds (e.g. skylarks), bats, badgers, and deer.
- Various important habitats, including: hedgerows, acid grassland, and The Clump (an area of Ancient Woodland and a key foraging area for bats).

- The site is an ecologically permeable area, with numerous vegetated connections between significant habitats creating foraging and commuting routes for species.
- There are two area TPOs (Tree Preservation Orders) on the site.
- The intrinsic ecological value of the area holds a high level of importance with local residents.

[Were there any specific conditions that led to you carrying out this work?](#)

Given the biodiversity value of the site prior to construction, various planning conditions were placed on the project.

Specialist Ecologist input has been integrated into the project from the outset, to ensure that the works have been undertaken in the most ecologically sensitive way, to avoid harm or disturbance to wildlife and minimise impacts on important habitats.

What were the biodiversity measures taken?

Various biodiversity measures have been incorporated in the project, including:

- 2000m of reptile fencing installed to exclude breeding slow-worm, a protected species, from the development when they emerged from hibernation.
- Three reptile hibernacula were also created early in the project using site won timber and vegetation to provide a safe refuge for the slow-worm population and help increase the site's capacity to accommodate reptiles. Five more hibernacula and basking areas are due to be constructed during the project.
- Vegetation clearance was completed as early as possible in the year to avoid potential conflicts with nesting birds.
- 3,000m of tree protection fencing was installed across the site in order to minimise potentially



Photo: Attenuation pond to manage storm water

- adverse impacts, especially in relation to The Clump.
- Solid hoarding has been erected on the western boundary of the development to help protect known bat roosts from light and noise associated with construction.
- Two large attenuation ponds designed to manage storm water have been excavated and will be planted with reedbed, marginal vegetation and wet woodland to create ecologically sensitive habitats. These areas will also form part of a significant natural corridor which will run through the site to ensure it remains permeable for wildlife.
- Wherever possible, stripped top soil is being re-used on site. For example, the soil from the pond excavations is being stockpiled and will be used to create the acid grassland (a locally important habitat) that will be reinstated in parts of the site.
- The project Ecologist is part of the Project Leadership Team and presents at the workforce engagement sessions which all site workers take part in before they begin working on site.

The Ecologist informs the site workers of the key ecologically sensitive features and areas on the site and the implications this has for construction, as well as the procedures should a protected species be discovered by them on site.

The understanding of the importance of ecology was well demonstrated when site workers discovered a nesting bird in the vicinity of works.

Works were immediately stopped, an exclusion zone set up and the Ecologist informed in line with the procedure outlined during the workforce engagement sessions.

- Every week, the sequence and nature of works on site is issued to the project Ecologist for review prior to works starting to ensure that no unintentional ecological impact occurs.
- Educational visits with local school children are planned in which we will be bringing the children to site to give them a lesson on biodiversity in the 'woodland classroom' (The Clump) and creating ecological features such as reptile hibernacula.

How would you best describe the project?

An enhancement.

Further information

This project has demonstrated the value of having early and continued expert ecological input in order to ensure that biodiversity values remain integral to the project development on-the-ground and that delays are not



Photo: CGI of completed project

caused to the construction programme. It was determined that the best way to minimise ecological risk, specifically to reptiles and birds, was to get the site set up at the right time of year, e.g. February when reptiles are hibernating and before the main bird nesting season.

The project has also demonstrated the value in having a transparent and open dialogue with the Local Authority, South Bucks District Council.

There is great understanding of the construction works going on at any one time and any issues can be raised and addressed in a timely manner to avoid disruption.

Given the ecological sensitivity of the area and

how this is valued by the local community, the communications plan is vitally important.

The plan keeps the local community fully informed of the completed and upcoming works on site.

This level of engagement demonstrates the commitment to treat the site and the surrounding community with respect, providing a forum for any concerns or ideas to be raised.

Our team has also sourced a local quarry less than one mile from site to take topsoil for recycling, supporting our commitment to reducing carbon locally wherever possible.

What was your personal motivation for carrying out the enhancement?

Working on such an ecologically sensitive site brings a level of responsibility that the project team have taken very seriously.

By involving the relevant expertise throughout the project, this has ensured that the opportunities for mitigation and enhancement continue to be explored and maximised.