

DERRBY AND DERBYSHIRE WASTE TREATMENT CENTRE DERBY, DERBYSHIRE

Interserve Construction Ltd, RPS, Derbyshire Wildlife Trust, PDS Ltd

BIG Biodiversity Challenge Award category: Small scale permanent

Project overview

The £145 million Derby and Derbyshire Waste Treatment Centre, is due for completion late 2017, with construction commencing in 2015. The facility comprises Mechanical Biological Treatment, Materials Recycling and Advanced Thermal Treatment facilities. It is being built for Derby City and Derbyshire County Councils as part of a 27 year waste services contract.

The facility will sort waste and recover recyclates. Non-recyclable waste is then processed into a Refuse Derived Fuel to fuel gasification and produce synthetic gas. Electricity generated will be exported to the national grid. The facility is expected to generate enough energy to power 14,000 homes. The project is located a few miles south west of Derby city centre. The site has a long history of industrial use, but had been disused for 30 years. The triangular site is bounded by a road, railway line and industrial premises.

Pre-existing biodiversity conditions

Self-seeded trees, scrub and Japanese knotweed were present. Ecological surveys identified the presence of a common lizard population on site. A mitigation plan was identified and an European Protected Species licence obtained to relocate the lizards to a safe area outside of the construction area before commencement of the work.

Specific reasons for the project

In addition requirement to protect a European Protected Species, mitigation works were required under the planning conditions for the project. Common Lizards are distributed widely throughout the UK, but this was the only known lizard-occupied site in the Derby area.

The local community had significant concerns regarding the impact of the development on the lizard population, resulting in a collaborative partnership approach to developing the lizard management plan.



Lizard-proof fencing and signage indicating the lizard protection area

What were the biodiversity measures taken?

Interserve has implemented a £100,000 translocation and mitigation plan, commencing with translocation in October 2014, including installation of 'Lizard Kerb' in summer 2016, with ongoing habitat management and monitoring. The management plan was designed to protect the lizards from harm during construction, and to create permanent enhanced habitat. Vegetation management by phased grass cutting encouraged the lizards to move out of the construction area. Following this, a capture and translocation exercise took place. Lizards were caught by placing refugia mats within the site, and placed into 380m² of retained vegetation, segregated by lizard fencing. Ongoing works include habitat management and presence/absence surveys. Consultant ecologists RPS managed the translocation of 80 lizards, working closely with Derbyshire Wildlife Trust. The local community have also been regularly updated on progress through our open community forums.

The lizards are now safely contained in the top left corner of the site, with specially preserved long grasses of the kind these lizards typically like to occupy. The team also built hibernaculuae using spare logs and arisings from site clearance.

The main innovative approach implemented on the project relates to surface water drainage. Derbyshire Wildlife Trust, Interserve and GHD Consulting Engineers have worked with drainage supplier Pipeline and Drainage Systems Ltd (PDS) to design and install a unique kind of drainage kerb. The large holes used for surface water drainage on standard kerbs were identified as a potential risk to the lizard population and other species such as common toads, frogs or newts, which could fall into the kerb gulley and get washed away. The team fitted a specially designed curb featuring several narrow (10mm) slots too small for lizards to fit through but big enough to allow for effective drainage.



'Lizard Kerb' designed by PDS specifically for the project

How would you best describe the project?

Mitigation with enhancement

Further information

The landscaping has been designed to create an ideal lizard habitat. It will include a mosaic of habitat types and a “lizard corridor” to link the existing habitat with other landscaping areas (921m² in total). The long-term benefits of the approach are still being assessed through the ongoing presence / absence surveys. Post completion, the effectiveness of the lizard management plan and habitat creation will be subject to further monitoring for a period of 5 years.

The decision was made at the outset that the project ecologists (RPS) would work in partnership with Derbyshire Wildlife Trust. The Trust had a long history of monitoring the site, and was able to provide invaluable experience and historic data. By developing the lizard management plan in conjunction with the Trust, we have been able to implement the plan with their full and ongoing support. Trevor Taylor, Biodiversity Planning Officer for Derbyshire Wildlife Trust has overseen the mitigation and is looking forward to writing a best practice report once the post-construction monitoring is complete. He says “the approach has been a fantastic partnership between everyone involved.”

By raising the concerns regarding the potential risk of lizard injury or death by entering the standard Envirokerb drainage system, we were able to work with our supplier PDS to develop a drainage kerb that presented much reduced risk to the lizard population. This product is now part of PDS’ product range and will be able to be used on other construction projects across the country.



The team built hibernaculuae for the lizards onsite using scrap pieces of wood

What was your personal motivation for carrying out the enhancement?

“I knew how sensitive the project was to the local community and the client. We needed to balance ecological constraints with programme pressure. We developed a partnership with Derbyshire Wildlife Trust and tailored our construction approach to give the best assistance we could.”

Tim Heath, Project Director, Derby Long Term Waste Management Project, Interserve Construction Ltd