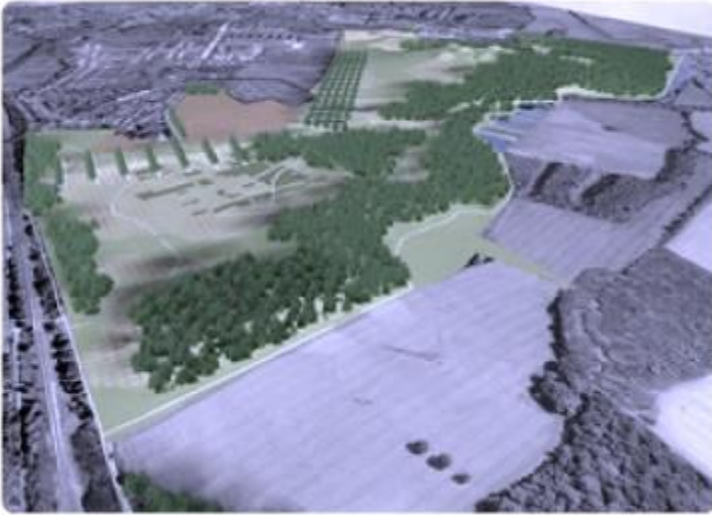


# Compost Use in Land Regeneration

## The restoration of the former Frickley Colliery

CO2Sense has been working in partnership with Yorkshire Forward to ensure the procurement and use of PAS 100 compost as part of the reclamation of the former Frickley Colliery in Wakefield



Extending across an area of some 85 hectares, the former Frickley Colliery site is located on the edge of South Elmsall in the south eastern part of Wakefield, approximately 18 km from the city centre. Currently owned by Wakefield Metropolitan District Council (WMDC), the site is one of 33 National Coalfields Programme sites in the Yorkshire & Humberside region. Following £9.9m funding from national regeneration agency English Partnerships, the site is being reclaimed to provide a creatively landscaped countryside park and up to 160 'ecohomes'. Yorkshire Forward, the Regional Development Agency, is coordinating the project.

Sinking was commenced by the Carlton Main Colliery Company Ltd in 1903, and in its heyday, Frickley Colliery employed over 2000 people. At one time, the site was one of the largest and most productive coal mines in the region, and when it closed in 1993, the community suffered around 700 job losses. The regeneration of the site is of significant importance to the local community and surrounding area, bringing back into productive use a large area of land which was formerly considered a blight on the landscape.

## Composting

- 9,000m<sup>3</sup> of PAS 100 compost derived from Local Authority green waste arisings used, demonstrating successful 'closed loop' recycling.
- Raising the profile of PAS 100 compost in the region.
- 35,000m<sup>3</sup> of TCSS containing 25% recycled green wastes and wood waste used.
- Local suppliers used to supply recycled content materials, minimising transport miles and carbon emissions.
- Encouraging other compost manufacturers that restoration projects offer viable long term sustainable markets for their product.

“ Yorkshire Water are delighted to be able to contribute to such a worthy scheme. ”

Jamie Gray – PRODUCT MANAGER – YORKSHIRE WATER

Due to the historic activities on the site, Frickley has a lack of soil/soil forming materials which could be used or reused as the basis for the 'greening' of the site.

Early on in the restoration process, it was established that significant volumes of these materials (approximately 210,000m<sup>3</sup>) needed to be imported to fulfil the requirements of the restoration, and with a scheme at the forefront of the public eye, it was considered important that where possible, a proportion of this requirement was obtained from a sustainable source.

With sustainability in mind, CO2Sense's experience in the regeneration sector was called in to assist. Through 12 months work with the Project Managers and Landscape Architects (White Young Green),

CO2sense has delivered a plan for recycled organic waste material to be used on the site, and overseen the delivery of organic amendments, to ensure a suitable growing medium for grassland habitats. A local composting facility, Brier Hills Recycling Ltd, has been contracted to supply 9,000 cubic metres of organic waste compost to the site.

The material was manufactured from locally derived green waste, including from green waste collected by South Yorkshire's Local Authorities. Brier Hills operate their facility to PAS 100 requirements, and are currently undergoing process validation. PAS 100 compost is compost that has met industry standards, and so gives confidence in the materials and provides recognisable product status.

Lorna Peacock, Development Project Manager for CO2Sense, commented, "The successful specification, procurement and use of PAS 100 compost on such a high profile restoration project is positive progress in opening up the regeneration market to PAS100 suppliers in the region.

"It is hoped that the sustainability credentials to be accrued by using recycled content materials such as this on large-scale developments will lead into further projects and confidence in product specification going forward."

In addition, approximately 35,000 cubic metres of Treated Conditioned Sewage Sludge (TCSS) sourced from Yorkshire Water will also be used on the site. The TCSS material contains approximately 25% recycled wood and green waste, and serves to improve the quality and structure of the material. This is a useful soil amendment that can be supplied in bulk quantities.



Jamie Gray, Product Manager from Yorkshire Water, added, "Yorkshire Water are delighted to be able to contribute to such a worthy scheme and to be able to demonstrate once again the suitability of our material for projects such as this.

"Through careful collaboration with White Young Green, the TCSS was supplied from three of our southern sites to minimise transport. TCSS is just one of a range of products we manufacture at 17 sites throughout the Yorkshire region."

It has been important to balance both the economics of material supply, quality and type of products, and the timescales for delivery. The differing physical properties of both TCSS and green waste compost make them suitable for different applications, and by clever combination of both components, the Landscape Architects have successfully met the requirements for the Frickley regeneration scheme.

Kevin Bailey, Engineer for White Young Green, stated; "the properties of the TCSS and green waste compost has allowed a variety of different grass and tree design options for wildlife and recreation use on this site. In addition, the use of the composts has resulted in a vast reduction for the requirements for subsoils and top soils which would have been required for grassed and tree areas. As a result, less lorry movement means a carbon saving to the project."

The entire restoration of the former Frickley colliery site was complete by the end of December 2008. It took 24 months to complete.

Graham Carter, Project Manager at Yorkshire Forward added "the task of 'greening' is a major part of the transformation of what is essentially a pit stack into an open country park. It has been pleasing to be able to utilise materials which are both locally sourced and sustainable to achieve this."

**CO2Sense was established by Yorkshire Forward to help businesses in the region to prosper in the low carbon economy.**

**We provide expertise and funding to help environmental companies to grow. We work with partners to help all organisations to fund and develop initiatives that reduce their carbon emissions.**