

More sustainable way to refurbish reed beds is trialled

For the first time the Coal Authority has replanted existing reeds – rather than planting new ones – when refurbishing a reed bed at one of our mine water treatment schemes.

The experiment could offer sustainability benefits while also saving time and money, and it is hoped that many more of our sites across Britain could benefit from this approach in the future.

The trial is part of a series of operational changes made at our Deerplay scheme – which removes iron from water pumped out of the former colliery of the same name near Bacup in Lancashire – to improve the discharge into the River Irwell.

Reed beds are used as the final stage of the treatment process, to filter out remaining finer iron particles, but over time the resulting ochre build-up affects their performance and they need ‘desludging’.

At Deerplay, uneven reed growth was also creating preferential flow paths, which allowed water to run through the bed too quickly for effective treatment.

Previously when we have refurbished a scheme, new reeds have been used – but if these are young they can’t be planted until early spring and take longer to establish, while if they are mature they are more expensive and can struggle to adopt to the harsh environment.

Ian Osborne, project manager from our environment team, said:

The existing reeds were flourishing in places, so we knew they had already adapted to the challenging weather conditions and mine water quality.

As we started work in October 2018, transplanting them helped us to meet the project timescale.

This has also extended the life of the reeds, cutting waste disposal costs and reducing land fill emissions.

Desludging work was carried out in 3 sections, to enable the reeds to be trimmed and transplanted as clusters, with nutrient-rich top soil to enhance growth.

The reed bed was brought back online in 3 stages, while being continuously monitored and maintained, and is currently operating at full flow.

It won't be known until the end of the growing season, in September, how effective the new technique has been, but the reeds are in good condition and growing well.

[title of video](#)

Members of our Deerplay project team will be attending the Constructed Wetland Association annual conference, where you can talk to them about our wide range of environmental work and how it ties in with the government's [25 Year Environment Plan](#) and the United Nations' 17 global Sustainable Development Goals.

The event, Wastewater Management and Beyond, takes place at the Hilton Birmingham Metropole on Tuesday 16 and Wednesday 17 July.