

Seeking a Saline Solution at Bates



species were obtained from a variety of sources, some were grown from seed in saline waters and others were relocated in a sustainable manner from existing estuarine environments and transplanted into the reedbeds at Bates.

The study is being run by the Authority in partnership with the Hydrogeochemical Engineering and Outreach Unit of the Institute for Research on the Environment and Sustainability at Newcastle University. The initial project will run until Summer 2006 but may extend over a longer period.

The Bates minewater treatment scheme has an important role both in controlling minewater levels in the area and in protecting the River Blyth and Wansbeck Estuary from minewater pollution. Information boards, showing the development of the minewater scheme form part of the overall landscaping and restoration of the site.

Says Stuart Rolley, Senior Development Manager in the Authority's Estates and Environmental Projects Team: "The reason this scheme is important is that it will pave the way for other schemes on the North East coast which have higher than average levels of salinity within the polluted minewater.

"The scheme at Bates combines both minewater treatment and the creation of an enhanced landscape. Diverse habitats are created with a combination of blocks of native broadleaf trees and shrub planting, creating a woodland environment alongside wetland and marginal habitats."

A pioneering project in the Blyth estuary, which has been developed to remediate minewater with a higher than normal saline content, could provide a sustainable solution for other minewater schemes on the North East coast.

"Footpaths provide for public access through areas of native grassland and trees enhance the appearance of the area enabling the site to be used as an important public amenity."

Polluted minewater pumped out at the former Bates Colliery in Northumberland has a relatively high salinity due to the underground salt deposits located close to the former mine workings.

In order to utilise the use of wetlands within the treatment process it was necessary to source reed species which would thrive in both iron rich water and a saline environment.

It was, therefore, necessary to establish a large scale research study, using 24 different types of reeds known to grow naturally in a saline environment, to determine the optimum species to be used in the wetlands. The plant

