

# Rising Issues

A similar monitoring regime was established at Polkemmet, in West Lothian. Rising minewaters are currently being controlled by pumping from Polkemmet shaft and the water is chemically treated prior to discharge into the Cultrig Burn. Work continues to establish a longer term solution for minewater control in this area.

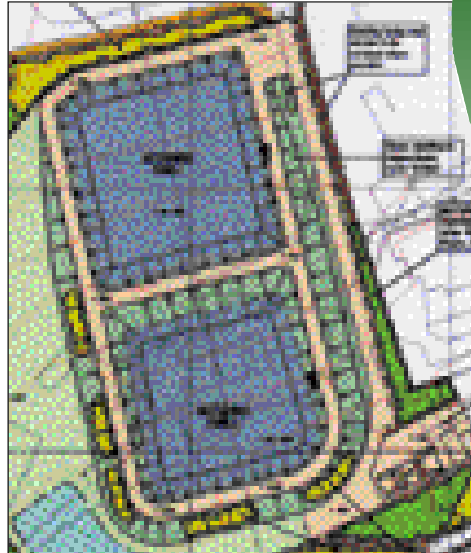
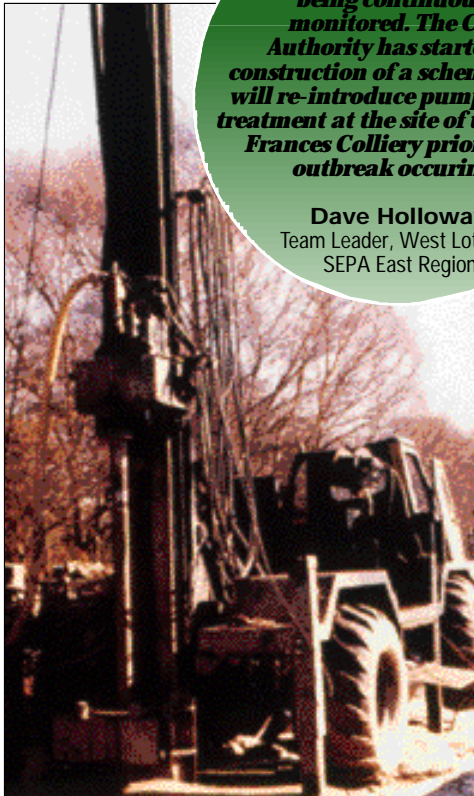
Monktonhall, the last colliery to be closed in Scotland, benefits from a minewater pumping system, lime dosing plant, settlement ponds and a wetland system, completed in summer 1999. The scheme has successfully prevented potential pollution to the River Esk by controlling rising minewater and discharging clean water to the Cairnie Burn.

Concern over the potential for an uncontrolled outbreak of polluted minewater at the former Whittle Colliery in Northumberland has resulted in a monitoring scheme to closely measure and predict the effects of rising minewater in the colliery workings. The Authority has purchased land, sunk the necessary pumping wells and conducted treatability testing on the minewater. Careful monitoring will enable the Authority to implement the scheme in good time.

Following the closure of Silverdale Colliery in Staffordshire at the end of 1998, close liaison between the Coal Authority and the Environment Agency resulted in an agreement allowing controlled recovery of the minewater to a pre-determined level.

***“The rising minewater in the Fife coalfield is being continuously monitored. The Coal Authority has started the construction of a scheme which will re-introduce pumping and treatment at the site of the former Frances Colliery prior to any outbreak occurring.”***

**Dave Holloway,**  
Team Leader, West Lothian,  
SEPA East Region



To enable this to take place, the pumps and pumping shaft have been extensively refurbished together with the original settling ponds, and preparations are being made to create additional pond capacity.

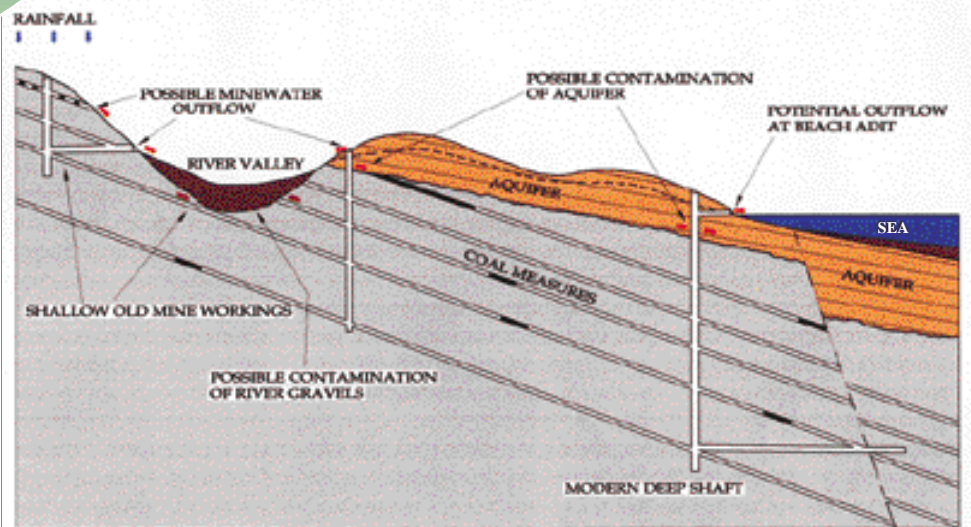


**Top left: Minewater treatment scheme at the former Frances Colliery in Fife**

**Left: Measuring the flow of pumped minewater at Monktonhall.**

**Bottom left: Drilling of the pumping borehole at Whittle in Northumberland.**

**Below: Typical section through a coastal coalfield illustrating minewater flow paths.**



***“A good example of the partnership in practice between the Coal Authority and the Environment Agency is evident through the management of the Durham Minewater Pumps which are operated to protect the River Wear in County Durham. The Authority has been working with the Agency to gain a better understanding of the underground flow regime in the Durham coalfield so that a sustainable solution can be found.”***

**Stephen Brooker**  
Environment Protection Officer,  
Environment Agency,  
North East Region

The Authority is also carrying out an exploratory drilling programme in North Staffordshire and Leicestershire in order to obtain a better understanding of water levels in former mining areas. At Cannock Chase in South Staffordshire, the Authority has entered into an agreement with the Environment Agency and South Staffordshire Water Plc to control pumping to allow waters to rise to an agreed level. Supported by careful monitoring, this will ensure that ground water resources are protected from potential minewater contamination.