

Collection: Coal mine water treatment

The Coal Authority's work to treat mine water has directly:

- protected and improved over 350km of rivers
- protected several important regional aquifers
- enhanced biodiversity and provided local amenity land

Why do we need coal mine water treatment?

When a coal mine closes, the pumps that were used to keep the water out of the mine while the mineral was extracted are switched off and removed.

Over time the water level recovers within the mine and picks up naturally occurring minerals from the rocks, such as iron. This can coat river beds, stopping plant growth, causing wildlife to move on as they no longer have food.

How do we treat coal mine water?

Typically mine water is brought to the top of a cascade structure. Water flows down these steps, which mixes in air.

The air encourages the dissolved iron in the water to become solid.

The water then flows into lagoons where the iron has time to settle at the bottom for removal.

The remaining finer iron particles are filtered out when the water passes through a series of reed beds.

[How we treat coal mine water](#)

News story: Future Aviation Security Solutions network event – information pack

Details of the completion of the two challenges that make up the Defence and Security Accelerator competition can be found at [Future Aviation Security Solutions \(FASS\): finding explosives hidden in electrical items](#).

Event summary

Accelerator Innovation Partner Jim Pennycook opened the [innovation network](#)

[event](#) by welcoming the delegates and gave an [overview of the day](#) which signposted the research funding opportunities for innovative science and technology providers in this themed competition.

FASS programme overview and keynote address

Tim Cook, Programme Manager for the Department of Transport briefed the audience on the Department of Transport (DoT) [FASS programme](#) – the background, current projects currently being funded and future plans to address the barriers to innovation in aviation security.

Parliamentary under Secretary for the Department of Transport Baroness Sugg CBE gave the keynote presentation.

Competition briefing

After coffee break, Tim Cook then gave the audience an [overview of this competition](#) and highlighted key points. James MacDonald gave a science and technology perspective and Andy Price provided an airport perspective which brought the challenges to life.

Competition process and overview

Information on the [competition's scope, process and key milestones](#) was briefed by Emma Howe, Accelerator Competition Manager.

How to work with DASA

Mike Madden, Open Call for Innovation Lead then gave an [overview and update on DASA](#) and then outlined how organisations can work with the Accelerator and gave advice on [how to submit good proposals for funding](#).

The competition closes at noon on 17 January 2018.

All queries will be answered by email. Send queries to our competition FASS@dft.gsi.gov.uk and DASA accelerator@dstl.gov.uk email inboxes.

[Press release: Company fined £80,000 for polluting brook with hazardous chemical](#)

Firth Rixson Metals Limited has been ordered to pay a fine of £80,000 after pleading guilty to polluting a watercourse in Glossop.

The Environment Agency prosecuted the company after over 600 litres of a solution of hydrochloric acid, caustic soda and water polluted nearby Shelf Brook.

This had a significant impact to the brook, resulting in 199 dead brown trout within a 500 metre stretch, with invertebrates also affected over two kilometres. The fins and eyes of the fish were noted to have a burnt appearance.

Member of the public reported incident

A member of the public initially reported the pollution in Shelf Brook to our Incident Hotline in April 2015.

Officers attended the area and found dead fish. Samples taken from the brook and a drain leading from the Firth Rixson Metals site into the brook were found to contain a highly alkaline liquid, made up of various metals, at elevated levels.

As part of Firth Rixson Metal's manufacturing process, an acid scrubber was used. Hydrochloric acid emissions were neutralised with caustic soda. Below the scrubber was a waste tank in a plastic containment bund.

Environment Agency launched investigation

The Environment Agency investigation identified a valve had been left open. This allowed water into the scrubber unit and the automatic dosing equipment had continued to add caustic soda. Staff failed to respond properly to alarms and a pump, which should have returned the solution, failed to activate.

This resulted in a highly alkaline solution overflowing from the containment bund, which entered the nearby drain to the brook. The company had failed to cap the drain, despite recent advice from local authority inspectors.

Pollution had significant impact

In sentencing, District Judge Davison said Firth Rixson Metals Ltd had allowed a state of affairs to exist which led to the incident.

Mark Easedale, Environment Manager for Greater Manchester, said:

This pollution incident had a significant impact on Shelf Brook, killing brown trout, which are a key indicator species of good water quality. The sentencing sends out a very clear message to anyone whose recklessness and negligence causes serious pollution to the environment. We will not hesitate to take action against polluters.

Our staff work 24/7 to protect people and wildlife from pollution incidents and we encourage people to report such incidents to the

Environment Agency's Incident Hotline on 0800 80 70 60.

Firth Rixson Metals Ltd pleaded guilty to causing a water discharge activity not under and to the extent authorised by an Environmental Permit contrary to the Environmental Permitting (England and Wales) Regulations 2010.

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[News story: Job opportunities at HMCTS Business Centres](#)

We are responsible for the administration of criminal, civil and family courts in England and Wales and tribunals in England, Wales and Scotland. Our National Business Centres provide administrative and customer service support taking on key administrative tasks such as processing, listing of cases, and dealing with correspondence and enquiries.

Supporting court and tribunal users

We work to deliver an effective and efficient service to our users, standardising and improving processes to provide a consistent level of service. Listening to customers helps us understand any issues and staff are expected to contribute to the continuous improvement of our services and processes.

Supporting our staff

We value our staff and offer a range of development and training opportunities for new starters and provide continued management and coaching support to help our employees deliver to the best of their abilities.

There are opportunities and further development for high performers who want to progress.

We offer a competitive salary, leave allowance and pension. Staff are supported through family-friendly policies such as maternity, paternity and adoption leave and salary sacrifice arrangements for childcare vouchers.

Working for us offers benefits such as training and development and a competitive leave allowance and pension scheme.

We are currently recruiting at the Salford County Court Money Claims Centre:

[Administrative Officer \(Band E\)](#)

[Administrative Assistant \(Band F\)](#)