

# [Depositing and accessing AGS and geotechnical data](#)

The BGS is actively working to promote the greater understanding of the subsurface, with the development of new data donation and data access services in conjunction with industry partners and the stakeholder community.

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## [Press release: Improving efficiency at mine water treatment schemes](#)

The Coal Authority, which manages Britain's coal mining legacy, employs contractors to clean water cascades and pipework across its 75 mine water treatment sites on a regular basis.

The manual 'wash and brush-ups' are needed to prevent a build-up of iron solids (ochre) that are produced as part of the treatment process. The ochre clogs up the system and reduces the effectiveness of the treatment scheme that pump the water out from disused coal mines.

In a move to reduce costs, the Coal Authority is working with Dr Maria Romero-Gonzalez and her research group in the Department of Geography at the University of Sheffield, in a 6 month trial of new super hydrophobic materials that will aim to repel the ochre and prevent it from clogging up the treatment systems.

"Hydrophobic materials are nothing new," explained Dr Chris Satterley, Technical Research and Development Manager for the Coal Authority. "But the most recent generation of super hydrophobic materials are now available commercially and we want to see whether they will help us to improve the efficiency of our operations.

"Currently we need to regularly remove the build-up of ochre, which obstructs the process of the schemes. But if this simple process works, it could be a significant development for our on-going maintenance programme."

Various hydrophobic materials were tested in laboratory conditions by Maria and her team and 2 were selected to be used on site at the A Winning mine water treatment scheme in Derbyshire.

"It worked very well in the laboratory but now we need to see if it is just as effective out in the open and on site," added Chris. "Initial observations show that the coating is working and is repelling large solids and ochre flocs. But it is still early days and we will be working closely with our

University of Sheffield colleagues to see how it works over a longer period of time.”

The mine water treatment schemes run by the Coal Authority are all individual and depend on the amount of water being pumped out of disused coal mines and the local geology. Typically, they comprise of water cascades, a series of settlement lagoons and reed beds. They treat around 122 billion litres of water each year and prevent 4,000 tonnes of iron solids from entering local watercourses and also protect important sources of drinking water for local communities.

At the treatment scheme located at the site of the former Blackwell A Winning pit at South Normanton, there are 4 water cascades. For the trial, one was fully cleaned and coated for testing, a second has also been cleaned to act as a control and the remaining 2 are continuing under the current maintenance regime for comparison.



The 4 water cascades at the mine water treatment scheme

Further testing and studies will also be carried out on a series of concrete slabs installed in the cascades. One sample will be retrieved every week for the first month followed by monthly sampling for the remainder of the 6 month trial.

Dr Maria Romero-Gonzalez, Director of the Environmental Science Programme at the University of Sheffield, said: “This is a unique opportunity to study the durability and performance of the coatings under a variety of weather conditions.

“We will use electron microscopy and other surface analysis techniques to investigate the efficiency of the coatings at surface level. This will help us to assess how good the coating is and evaluate its application for treating ochre accumulation. The results will allow us to estimate the technical and economic benefits of using coatings for treating mine water, providing the Coal Authority with innovative solutions for the future.”

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## **Press release: Sellafield Emergency Exercise – Wednesday 6 December 2017**

The exercise will take place after 7:30pm and will involve activities that may be visible and audible to neighbouring communities.

The site siren may be sounded and the public and agency alert cascade system may be activated. This means that local residents who have registered to receive automated SMS text, email and telephone warnings from us, may be contacted.

Exercise umpires and safety marshalls wearing high visibility clothing might be visible to people off site.

The exercise scenario will require the use of blank firearms and low level pyrotechnics which might be audible to neighbouring communities.

At no time will live ammunition be carried by those involved in the exercise.

The exercise scenario may also include the use of simulated casualties and injuries, although this is unlikely to be visible outside of the site boundary.

Emergency exercises are held regularly at all nuclear licensed sites to test their readiness in the event of an emergency.

If you would like any further information please contact us:

Public/stakeholder queries – 07736640682 / 01946 823362

Media queries – 07590 493749 / 019467 86227

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## **Press release: Free flood warning**

## [service for Silsden residents](#)

The Environment Agency has been updating its flood warning systems across West Yorkshire, using new data to provide more accurate alerts to help communities to be better prepared for flooding.

Due to these changes, the Environment Agency is encouraging Silsden residents to check if they are at risk of flooding and to sign up to receive these early flood alert and warning messages so they can be aware of when flooding is possible.

Members of the Environment Agency's flood resilience team will be at Silsden Town Hall on Wednesday 6th December between 4-7pm, to give residents an opportunity to come and have their say on the new flood warning area, register for the free service and learn how to be prepared for flooding.

Heather Cottrill, from the Environment Agency's Flood Resilience team said:

Silsden Beck can rise and flow very quickly after heavy rain, but this new warning aims to alert the community in a timely manner, giving them more time to prepare, and to be aware of flooding so that they do not put themselves at danger.

Flood warnings give people valuable time to prepare for flooding – time that allows them to move themselves, their families and precious items to safety. Flood warnings save lives and enable the emergency services to prepare and help communities.

5.2 million homes and businesses in England are at risk of flooding.

Residents can find out if they are eligible to receive free flood warnings, and also register, by calling Floodline on 0345 988 1188, or by visiting <https://floodsdestroy.campaign.gov.uk/>. This website also includes information on how you can prepare for a flood and keep yourself safe.

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