

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."

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

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.

[Press release: Blue Belt extended to protect rare seabirds](#)

Nearly 150,000 rare seabirds – including the iconic little tern and black-throated diver – will be better protected as the UK's 'Blue Belt' of marine protected areas extends by over 650 square miles, Environment Minister Thérèse Coffey announced today.

A newly classified marine [Special Protection Area \(SPA\)](#) will come into force along a 24 mile stretch of coast from Falmouth Bay to St Austell Bay in Cornwall. The area – equivalent to almost 55,000 football pitches – is the UK's most important site for the wintering black throated diver. This new protection will help to minimise disturbance to the feeding areas and marine habitats the birds rely on, providing a safe haven where they can spend the winter.

A further marine SPA has been announced in the Irish Sea between the Isle of Man and Anglesey – home to over 12,000 Manx shearwaters – while four other sites have been extended around the UK, ranging from Liverpool Bay in the north-west of England, Poole Harbour on the south coast, and the Outer Thames Estuary near London.

Marine SPAs are sites given special status to protect populations of rare, vulnerable and migratory birds. These latest designations will help to safeguard the feeding grounds of over one quarter of the UK's breeding population of little terns and bring the UK's total number of marine SPAs to 106.

Environment Minister Thérèse Coffey said:

Like the millions of others watching Blue Planet II, I am only too aware of the importance of protecting our precious marine environment, and the wildlife that relies on healthy and productive seas.

The UK is already a world leader in marine conservation, with over 23 per cent of our waters protected, and these new sites will help to strengthen our Blue Belt and give rare seabirds like the little tern a brighter future.

Natural England's Chairman Andrew Sells said:

Extending the Blue Belt gives vital new protection to some of our most precious coastal wildlife. Terns and Manx shearwaters, with their dramatic aerial displays, are a magnificent sight above our seas.

These Special Protection Areas will provide havens for nearly 150,000 birds that breed on our shores in summer or flock there in autumn and winter, helping them to thrive into the future.

The SPAs will afford protection to a range of species, including three species of breeding tern: little tern, Sandwich tern and common tern – all of which are “amber listed” because of factors such as declines in the size or range of their breeding populations. The sites also include the first SPA in the UK for wintering black-throated diver, great northern diver and Eurasian spoonbill, and the first offshore SPA to protect the feeding grounds of Manx shearwater.

The sites form part of the government's ongoing commitment to create a 'Blue Belt' of protected areas around the UK's coast – with over 23 per cent of UK waters already protected and with more than 300 sites across the UK.

[Press release: Berkshire boater](#)

prosecuted for keeping unregistered vessel on Thames

This is contrary to the requirements of Article 4(1)(a) of the Environment Agency (Inland Waterways) Order 2010.

The defendant pleaded guilty at Reading Magistrates Court on Friday 17 November 2017, and was ordered to pay £797.65 to the Environment Agency in respect of unpaid registration fees and a victim surcharge of £20. Mr Gardener-Collins was given a conditional discharge for a period of 12 months and warned by the magistrates that if he offended again during the 12 month period, he could be re-sentenced for this offence.

A compensation order was made in the sum of £597.65 and the defendant agreed to pay £200 directly to the Environment Agency and provide the necessary documentation to enable the vessel to be registered for the remainder of 2017.

Mr Gardener-Collins' vessel UBIQUE II (also known as UBIQUE) was spotted by an Environment Agency Waterways Officer without a valid registration on Tuesday 21 February 2017 downstream from Cleeve Lock on the River Thames. The boat was served with a registration enforcement notice and the defendant was made fully aware, both verbally and in writing, that he was legally required to register his boat and failing to do so would risk prosecution.

Despite ample advice and guidance from waterways officers and acknowledgement from Mr Gardener-Collins of receipt of the Environment Agency's boat registration direct-debit forms, the defendant had still not applied by June 2017 and therefore his boat remained unregistered for 2017.

The Inland Waterways Order 2010 requires all vessels 'kept' or 'used' on the River Thames, to be registered with the Environment Agency and display a valid annual boat registration plate (similar to a vehicle tax disc).

The Environment Agency carries out checks along all 135 miles of the navigable non-tidal River Thames to ensure that all boats kept or used on it have a valid registration plate. It takes enforcement action against all those that don't.

It also takes enforcement action against a wide range of other offences relating to boating, often working as part of a multi-agency approach with the police and local councils.

Nick McKie-Smith, Environment Agency Waterways Operations Manager for compliance, said:

All boats must have valid registration, boat safety certificate and minimum third party insurance at all times. Boaters must renew their annual registrations each year for the Environment Agency

waterway they want to keep or use their boat on. If they need to renew their registration for 2018 then they must do so before 1 January. For genuine visiting boats it is also possible to buy a visitor registration for shorter periods.

The income we raise from boat registration is vital. It helps fund every aspect of the service our specialist River Thames Waterways Operations team provides to enable safe boating on all 135 miles of the non-tidal Thames. This includes maintaining and repairing 45 sets of locks and weirs – many of which are important heritage features – as well as providing a range of facilities to help enhance boaters' experience while out on the river. By not complying, we lose vital revenue, which hinders our ability to maintain the high standards of service we set ourselves, and which our customers expect.

Owners of boats not displaying valid registration plates could face prosecution, so it is important that they are aware of and adhere to this requirement. Ignorance is not an excuse.

[Further information on how to register a boat.](#)