News story: South West Water fined for polluting Salcombe and Dartmouth

South West Water has been ordered to pay £71,800 in fines and costs for failing to correct faults at sewage treatments works in two of Devon's most popular coastal towns. The prosecution was brought by the Environment Agency.

Problems at the company's sewage treatment works in Salcombe and Dartmouth culminated in the sites breaching their environmental permits. Both sites suffer from saline (sea) water infiltration. However, the main issue was failure to manage and maintain processes and infrastructure at the two sites between 2015 and 2016.

Salcombe treatment works serves Salcombe and the nearby village of Malborough. Sewage pipes upstream of the works cross the estuary foreshore and are submerged at high tide. Some of these pipes have faults that allow saline water to enter the sewer network. The treatment process, that involves the use of bacteria to break down effluent, cannot treat excessively salty sewage.

Excessive salinity can damage or kill bacteria used to break down the effluent and prevents the biological treatment process from operating properly. It can prevent suspended solids from breaking down adequately and disrupt the final stage of ultraviolet disinfection before effluent is discharged into the Kingsbridge estuary.

In 2016 South West Water received a report from consultants that said it could not treat the volume of sewage produced in Salcombe to the required standard during the summer months because of the town's increased summer population.

Between September 2014 and August 2016, Salcombe sewage treatment works breached its permit by repeatedly exceeding the maximum number of non-compliant samples it was allowed.

South West Water is permitted to discharge sewage effluent tainted with saline in an emergency. This normally occurs when saline has be diverted away from the normal treatment process, but the holding tank is full.

In September 2015, the Environment Agency expressed concerns at the frequency of discharges from the saline balancing tank, which holds effluent mixed with saline until it is ready to enter the treatment process. Between 3 February 2015 and 2 May 2015 there had been 36 discharges – one of which lasted 53 hours.

The court heard there were similar seawater ingress and equipment failure problems at Dartmouth sewage treatment works. In January 2015, a valve that keeps seawater out of the sewer was identified as in need of replacement, but wasn't finally replaced until October 2015. The 8-month delay would have

resulted in a worsening saline ingress problem.

Helen Todd of the Environment Agency said:

> We use the environmental permitting regime to protect and enhance the environment for current and future generations.
>
> South West Water's repeated failure to comply with the conditions of its permit at Salcombe and Dartmouth meant that effluent which had not been fully treated was being released into the water environment.
>
> We are working closely with the water company to improve permit compliance and reduce waste water pollution.

Appearing before Exeter Crown Court, South West Water was fined a total of £50,000 and ordered to pay £21,800 costs after pleading guilty at an earlier hearing to two offences under the Environmental Permitting Regulations 2010.

Notes to editor

- South West Water's Salcombe Sewage Treatment Works contravened its environmental permit when it exceeded its maximum number of samples permitted to exceed the limit for suspended solids on 7 occasions between 7 August 2014 and 17 August 2016, contrary to Regulation 38(2) of the Environmental Permitting Regulations 2010.
- South West Water's Dartmouth Sewage Treatment Works faced two counts of contravening its environmental permit, contrary to Regulation 38(2) of the Environmental Permitting Regulations 2010. The first charge related to discharges containing more than 60mg/l of suspended solids on 3 occasions between 26 January 2015 and 3 November 2015. The second charge related to discharges exceeding the limits for chemical oxygen demand on 3 occasions between 24 July 2015 and 3 November 2015.

Notice: DN41 8BZ, Newlincs Development Limited: environmental permit issued

The Environment Agency publish partial surrenders that they issue under the Industrial Emissions Directive (IED).

This decision includes the surrender letter, decision document and site condition report evaluation template for:

- Operator name: Newlincs Development Limited
- Installation name: Newlincs Development Limited

- Permit number: EPR/BT4249IB/S006

Notice: Bristol Water Plc and Wessex Water Services Limited: application made to abstract water

The Environment Agency consult the public on certain applications for the abstraction and impoundment of water.

These notices explain:

- what the application is about
- which Environment Agency offices you can visit to see the application documents on the public register
- when you need to comment by

Press release: Coal Authority calls for full consideration of legacy issues

The Coal Authority has today called for local authority planners, surveyors, developers and geotechnical and engineering consultants to ensure coal mining legacy issues are considered in light of their findings from a recent subsidence event in north-east England.

The government body, which manages the effects of past coal mining across Britain, said it had issued the information to share its early recommendations.

Initial ground investigations were undertaken at a housing development in North Tyneside by the Coal Authority in July 2016, after it was contacted by the National House Building Council in relation to an extensive area of subsidence. It has since carried out further extensive ground investigations, including underground camera and laser void surveys, to identify the root cause of the subsidence, and installed 300 survey points above and below the ground to monitor for ground and property movement.

The Coal Authority’s ground investigations revealed coal mine workings at a

depth in excess of 30 metres. These dated back around 120 years and had not been recorded on the historical mining plans held for the former colliery for this specific area.

The ground investigations proved this specific area had been extensively worked with extraction rates at over 70%, however the plans had showed an area of solid coal. Recorded workings adjacent to this area had typical extraction rates of between 45% and 50%.
This high level of extraction resulted in narrow residual supporting coal pillars and wide extraction rooms in the High Main coal seam, leading to compression on the remaining coal pillars and roof instability. This, together with a fractured sandstone layer above the coal seam, resulted in an underground collapse and subsequent movement at the surface that affected 35 properties on an estate and had an elliptical subsidence zone footprint of around 150 metres x 70 metres.

Coal Authority engineers designed a solution to stabilise the ground, and work to drill and grout the voids has been completed. Ground monitoring will continue to ensure the ground is stable for redevelopment.

Simon Reed, Chief Operating Officer, Coal Authority, said:

“We have released our initial recommendations to ensure there is awareness of the risks posed by historical coal mining legacy, in light of our findings from this recent subsidence event.

“In this instance, given the depth and age of the workings, and knowledge about risks of subsidence at the time, we cannot criticise the developer’s

approach taken with respect to these mining circumstances, but we must now build on this new knowledge to address these risks better moving forward.

“This was an area of unrecorded mine workings and caution must be adopted in assuming that the absence of a record means the absence of mining. Although our historic plans did not, in this case, reveal the coal workings they are a vital part of any site assessment prior to development, therefore in future we may ask for more information, or for more works to take place, to reduce the likelihood of a similar subsidence event happening again.”

The Coal Authority expects to release further information in the form of a Technical Guidance Note later this year, after works are completed and following a period of monitoring.

Information issued by the Coal Authority

Historic mining plans are invaluable but don’t always give a true representation of the coal workings underground, meaning:

- areas mined may vary from those shown on historical plans
- extraction rates may vary from those shown on historical plans
- plans held in historical records may not be the final abandonment plan for the seams and the mine
- not all historical coal workings are recorded

Both desk-based research and ground investigations should be undertaken to confirm the:

- potential for unrecorded shallow workings
- accuracy of the shallow coal old working plans
- competence of the strata overlying the coal
- potential effects of groundwater, including assessment of recovering levels post mining which are still taking place today

The 10 times rock cover guidance outlined in CIRIA SP32* is only ‘a rule of thumb’:

- in this case, the coal was at a depth that exceeded the 10 times rock cover
- appropriate ground investigations should always be undertaken to confirm site specific conditions and local geology also needs to be considered

*Special Publication 32

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Press release: Events to spread the word about Hull's £42m tidal flood scheme

Hull residents and businesses are being invited to learn more about a multi-million scheme to protect thousands of properties from flooding from the Humber at two events this month (May).

They will be held at Mr Chu's Chinese Restaurant in St Andrew's Quay Retail Park on Tuesday 15th May and Victoria Dock Village Hall on Wednesday 16 May. Visitors can drop-in anytime between 1-7pm.

Representatives from the Environment Agency and contractors BMM JV will be on hand to discuss plans for the £42million Humber Hull Frontage Improvement Scheme which will improve flood protection to 113,000 properties in Hull.

Following on from an event at the Guildhall last month, this will be a chance for people to discuss plans for these areas in more detail.

Led by the Environment Agency, the Humber Hull Frontage Improvements Scheme presents an opportunity to improve 7-8 kilometres of tidal flood defences at various sites along the Humber Estuary frontage to better protect homes and businesses that are at risk of flooding.

Subject to planning approval, work on the Humber Hull Frontage Improvements scheme will start in late summer and will be complete by the end of 2020.

Project contractor BMM JV – a joint venture between BAM Nuttall and Mott MacDonald – will be sharing early designs and plans which will build resilience along the city's 19 kilometre waterfront.

Helen Tattersdale, project manager at the Environment Agency, said:

> These two drop-in sessions follow one we held at The Guildhall last month to share our plans. We want to make sure as many residents as

possible are aware of what is being proposed and we’re keen to get feedback from them.

Our team is ready to answer any queries residents of business owners may have about what work needs to be done to better protect the city from flooding from the Humber Estuary.

In recent years we have seen the impact tidal flooding can cause and it is vital for the city to have improved flood defences to ensure devastating flooding like that which resulted from the December 2013 tidal surge is few and far between.

Improvements in Hull will be supported by a further four kilometres (2.5 mile) of new and raised tidal defences on either side of the city in the East Riding of Yorkshire, at Hessle and Paull, delivered by East Riding of Yorkshire Council in partnership with the Environment Agency.

The Humber Hull Frontage Improvement Scheme is one of a number of tidal flood alleviation projects that form part of the Humber Flood Risk Management Strategy. The Environment Agency and local partners are now in the process of developing an advanced approach to managing flooding in tidal areas by the Humber for the next 100 years.

It will be a long-term investment that will contribute to securing the viability of Hull and the wider Humber region, ensuring it retains its place as the eastern gateway to the UK economy.