

water magazine

FEBRUARY 2024 - Full coverage of industry issues, from rainfall to outfall

WATERMAGAZINE.CO.UK

Reporting on the UK's municipal and industrial water, wastewater and stormwater sector.

REPORT REVEALS THE POLICIES NEEDED TO PROTECT UK WATER SUPPLIES

The UK is facing a shortfall of 200 million litres of water in 2038

SURVEY REVEALS THE STATE OF RIVERS AROUND THE WORLD

86% of respondents agree that river pollution greatly affects human health

SIGNIFICANT EMISSION REDUCTIONS POSSIBLE THROUGH GLOBAL WATER SECTOR

Finance from high-integrity voluntary carbon markets can drive access to safe water for millions

THIS MONTH'S EDITORIAL FOCUS

Drains, manholes & sewer systems
Excavation, tunnelling & trenchless
Industrial water & wastewater treatment

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By Phil Alsop, Editor



The news pages in this issue of Water Magazine are an excellent snapshot of the great work being done across the globe to highlight the many ways in which water-related challenges can be converted into significant opportunities to make a positive difference to both the environment and us folks who live in it.

Front and centre are the appointment of a Minister for Water and the creation of a National Water Council (sound familiar to readers of my column?!) to bring together all the relevant stakeholders.

There is the ongoing debate to be had as to the environment versus business (although the two are far from incompatible)... if only we had a National Water Council to address such an issue...

Elsewhere, there's discussion of a creative way to achieve global water emission reductions, presented by WaterAid at last year's COP event. And we have research relating to the more sustainable separation of contaminants from water, thanks to the use of transmembrane proteins.

Of course, our spotlight articles and technology features provide further evidence as to the quantity and quality of work which goes on in and around the water industry to help improve both clean and dirty water infrastructure.

The reason for my unusually upbeat comment this month? Well, 'that' ITV drama gives hope to us all that the manifest incompetence and iniquities of government and big business can finally be brought to justice and I live in hope that our water industry will have its Mr Bates moment at some stage in the future!

Phil



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Bubble technology protects salmon during Tyneside dock redevelopment

The creation of a new river wall as part of the £20 million Tyne docklands redevelopment is nearing completion with the work supported by an innovative new technology that protects marine and river life.

THE RIVER TYNE is the UK's most important river for Atlantic salmon and was singled out by the Environment Agency in 2019 as the only river in England in which the salmon population is not at risk of falling below sustainable levels.

A bubble curtain the length of a football pitch – 91 m – was placed around the work to limit the underwater noise to meet environmental regulations. This enabled contractor John F Hunt Regeneration to continue work without affecting the salmon migration.

The technology was provided by RSK Group joint venture company Frog Environmental. Its deployment for noise reduction during piling – driving cylindrical steel or concrete pile foundations deep into the ground – is a UK first and has earned the project an International Gold Green Apple Environment Award for Environmental Best Practice.

Frog Environmental Technical Director Leela O'Dea said: "Up until now, the only responsible way to structure project work during salmon migration seasons was to carefully plan your works to avoid this period. From March

until November, it was not an option to carry out piling work for up to seven hours a day, so depending on what time those tides fell, whole working days could be lost. By using this bubble curtain, the noise of the work is significantly dampened and reduced, so the salmon aren't stressed, or worse yet, killed as a consequence. In effect, it becomes background noise. This allows work to continue even during formerly limited periods."

A bubble curtain is a simple yet innovative solution to help with water quality and environmental protection. Made of a linear perforated hose, which is operated by a small air compressor, it creates a constant flow of bubbles across the entire body of water, which can be used for aeration and can act as a barrier around an area or to contain a pollutant.

Water-based construction projects can benefit from the bubble curtain's ability to reduce underwater noise pollution or silt movement. The curtain can be used for environmental initiatives, such as aeration, or to create bubble barriers to prevent oil spills, litter or algae or for deflecting jellyfish and fish from areas.



It can be used in both freshwater and marine environments for temporary works or as permanent infrastructure. It lies dormant on the floor of the waterbody until it needs to be activated.

John F Hunt Regeneration Manager for Marine and Civils Dave McLaren said: "We couldn't believe the results. There was a staggering 99% reduction in noise from the impact piling when the curtain was in operation – well below the danger level for salmon. We used it last year and it has saved us tens of thousands of pounds and sped up our timeframe for completion by a full week. We'll definitely be using it again on other projects."

According to South Tyneside Council, the Holborn area has been largely derelict for years, and the remediation of disused drydocks at East Holborn and conversion into a riverside quarter for living and working is part of a larger mixed-use development. Along with the new quay wall and the restoration of three derelict docks, the site will be regraded to protect against flooding and remediated to deal with past industrial contamination, to turn former industrial land into a desirable location for residents and visitors.

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