

19 November 2021

Rt Hon Philip Dunne MP
Chair
Environmental Audit Committee
House of Commons
London
SW1A 0AA

Dear Philip

Whitburn

Following on from recent correspondence from a member of the public after the Committee session in early October, Heidi Mottram has asked me to provide the Committee with some further information on the specific circumstances of Whitburn sea outfall.

The original requirement dates to the early years post-privatisation, with the objective to achieve a bathing water standard. The solution consisted of a tunnel extending from Roker through to Whitburn and a Storm Pumping Station. The tunnel intercepted five storm outfalls that had previously discharged out to sea and had the potential to contribute towards bacteriological failures after a storm event.

Under normal conditions the system is designed to contain flows in the network, sending them to Hendon Sewage Treatment Works for primary and secondary treatment followed by UV disinfection before being discharged back to the environment through an outfall 1km out to sea. Under storm conditions, the Storm Pumping Station is designed to provide the capability to screen flows to 6mm and then pump out to sea 1.5km away from the bathing water. When the station is pumping at 3 cubic metres per second, and all of the storage capacity has been taken up by the intensity of a storm, further relief is provided through overflows built into the sea walls to protect property flooding. The Scheme delivered what it was supposed to do and since then hugely improved bathing water quality has been consistently achieved. It exceeded expectations by achieving excellent standards when the enhanced Bathing Water classifications were introduced in 2015.

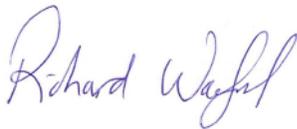
However, following a finding against the UK Government in the European Court in 2012 relating to a range of schemes, the European Commission accepted a proposal from Defra, the Environment Agency and ourselves that would limit the pumping station operation on average to less than 20 times in a 12-month period. The station frequently achieved lower levels than this in a normal to dry year but could potentially reach 30 events in a wet year such as 2008 and 2012, which required significant investment to improve.

The enhanced Whitburn Roker Scheme started in 2014 and an initial study identified that large volumes of additional storage would be required in the sewer network to meet the objectives of reducing the frequency of discharges. We adopted an innovative approach focusing beyond traditional 'end of pipe' solutions and instead on a scheme that would offer wider benefits to customers in the vicinity of the work while introducing nature-based solutions. It focused on optimising the operation of existing assets, reducing the amount of surface water entering the sewer network and reducing peak flows in the network during heavy rainfall by provision of storage at key points. This additional storage capacity was achieved by using a combination of traditional underground concrete tanks and Sustainable Drainage Systems (SuDS) features. This both met the original project objectives and at the same time improved the resilience of the sewer network during heavy rainfall and reduced the risk of flooding to more than 900 properties. The construction of the SuDS features has enhanced biodiversity in a predominantly urban area, while enabling close work with Sunderland and South Tyneside Councils, schools and local charities to deliver additional benefits.

The latest enhancement to the Whitburn Roker Scheme was successfully delivered with an investment of £10 million by the end of 2017 in time for the 2018 bathing water season and while we have experienced some particularly wet years since then, remains on course to achieve the agreed average of 20 operations per year over 10 years. We are confident this Scheme, developed in partnership using innovative nature-based and traditional solutions, fulfils the commitment we made with Defra and the Environment Agency. I am pleased to say that Whitburn North and Roker/Whitburn South bathing waters have had excellent bathing water standards continuously since 2015, as well as both being Blue Flag beaches.

I would be more than happy to answer any further questions that arise from this Scheme or any of our investments in improving the quality of our bathing waters in the North East.

Yours sincerely



Richard Warneford
Wastewater Director