

Report on Pollution Events and a way forward

There has been concern on the performance of SWW (South West Water) recently and the link to recent pollution events on our beaches plus the poor state of our rivers and estuaries related to EA (Environment Agency) funding cuts.

This report shows that there are many other failures and underfunding that contribute to the failure of the appropriate duty of care to manage both the treatment of sewage and surface water flooding in East Devon and Nationally.

Pollution of our rivers and seas.

Since the start of September, we in East Devon have had numerous "pollution forecasts", and a number of "pollution incidents" which required the council informing beach users that there is a probable danger to health if they entered the sea.

There is a neon sign located at our beaches that is directly linked to the EA which provides the forecast information, which is required for our Blue Flag status requirements. We also send a standard press release and social media inserts, plus notices on our beach notice boards and inform the lifeguards to put out red flags.

The National Press reports have been suggesting that our beaches are covered in sewage and a danger to health when in most cases the forecast of a pollution incident has not actually materialised. This potentially could affect our tourist trade.

There is an important distinction between a forecast and an incident

Pollution Forecasts are provided by the EA (Environment Agency) when they predict there may be a pollution incident at our bathing beaches, usually following a weather warning of heavy rain. The EA use their data and modelling to predict pollution affecting the whole river catchment and calculate how that effects the bathing waters close to the river outfalls.

Pollution Incidents are when there has been a discharge of a pollutant. This can be an oil tanker leaking, chemical discharge but in most cases it's a discharge of untreated sewage into our watercourses. In this area SWW (South West Water) provide data when there is a Pollution Incident.

Water Quality in our bathing waters has improved enormously since 1991 when only 29% of the South West beaches met the required environmental standards, to 98% last year. However due to increase in population of 20% since 1991 plus more tourism our wastewater networks risk failure without vast investment, not only because of the increase in population and demand but also due to climate change increasing the number of storm events of higher intensity.

Storm overflows from sewage works or manhole covers blowing are due to surface water run off entering the regions sewage system, plus the numerous private systems installations are unable to process and deal with the increased volume. In the case of private systems most owners are unaware of the incident and in the case of SWW they are aware of the time the overflow was operated but they do not know the volume or density of the discharge.

Surface water management is the least funded, least controlled, and least understood. Removing storm water entering the system, will in principle, remove many of the problems when managing foul sewage. Until the 1960s the sewage system was a combined surface water and foul sewage network. Due to modern appliances such as washing machines dishwashes and most people having daily baths and showers its was recognised that the combined systems should be separated. However, a lot of the systems prior to the change,

are still connected, with road drains, gutters from roofs, drains from people's driveways entering the sewage system and overwhelming the systems.

River catchment quality locally is acknowledged as poor. Why are we not achieving good ecological status in our rivers? According to a recent study 46% of pollutants is due to agriculture and rural land management and 19% due to the Water Industry. the rest is down to Transport, Industry, Domestic and others.

Storm Events. During a storm, surface water picks pollutants and chemicals and soil from fields, and deposits them into our rivers, domestic and highways systems inundate our sewage systems and then overflows into our rivers and the result is a polluted river which then pollutes our bathing waters. So how is the problem solved?

Action is clearly needed, not only by the Water Companies but, also by individuals, Communities, Landowners, Farmers, Developers, Planners, Local Councils, County Councils, Rivers Trusts, the EA, and the Government.

Monitoring of our rivers has taken a backward step mainly due to the EA budget reduction some years ago, means only reported incidents are investigated and the general health of a river is observed mainly by a voluntary group and/or Rivers Trusts. How can we stop the pollutants entering our rivers, when we are unable to pinpoint where pollution is coming from, and we don't know the quantity of the overflows during an event?

Local based solutions

Citizen science-based water quality monitoring can provide a link between the local people and the EA providing a database to better understand the impacts on our rivers, and to identify the key locations where pollution is taking place. Groups are already providing data to the EA throughout the country, and there are already some active groups in East Devon. This scheme helps individuals and groups to better understand their local river catchment, involves them with the EA and the local Rivers Trust to help provide a clearer picture of how a river is being affected by pollutants and the separate issue of invasive species.

Note on Signal crayfish have been so successful at invading our rivers as they produce a lot of offspring and eat almost anything, from detritus and aquatic plants to small invertebrates, fish and even each other, they pose a grave threat to native wildlife within our rivers.

Nature based solutions, such as tree and hedge planting, improve soil cover, diverting water flows to create water storage areas, create leaky barriers, restoring salt marshes, mudflats and peat bogs should be encouraged to increase water absorption.

Note The Lower Otter Restoration Project, The Seaton Wetlands, and future projects within the Clyst Valley Regional Park are examples of Nature based solutions.

Sustainable drainage solutions separate surface water by natural drainage, expanding catchment management through landowners, developers and planning.

South West Water Actions locally require overcoming the over capacity of the Countess Wear works that covers most of Greater Exeter. It presently covers 163,000 people and is at risk from flooding due to sea level rise plus it is located partly in a SSSI designated site and unable to expand. Therefore, a new treatment facility designed with sufficient headroom to cover the identified further expansion of the growth area is urgently required.

Separate combined networks by constructing new surface water networks, rationalising smaller treatment works and introducing smarter networks will further reduce storm overflows.

Exmouth Discharges There is also an urgent need at Exmouth to reduce or eliminate road transport carrying waste being imported into the Exmouth Sewage works and eliminating any untreated outfalls which directly affect our bathing waters.

Elsewhere in the district, to examine urgently the reasons for untreated discharges and to reduce them as soon as possible.

Proposal

1. For the District Council to liaise with the various local groups, Rivers Trusts, and the Environment Agency to help set up local volunteer group networks to carry out "Citizen Science monitoring" of our rivers and watercourses to provide the best possible data throughout the district.
2. For the District Council to liaise with landowners and farmers, the EA and Flood Resilience groups and other stakeholders to provide nature-based solutions.
3. To work with SWW on a strategy that will aid understanding and provide a clear direction of travel to reduce pollution and protect our beaches and clean our rivers.

Note At strategic planning on 04.10.2022 it was proposed for EDDC to link with Teignbridge, and Exeter Councils and South West Water to arrange meetings to facilitate a joint approach to eliminate sewage overflows and provide appropriate sewage infrastructure for the 3 councils growth points

Cllr Geoff Jung