

## **Highways and Water Pollution**

At the inaugural meeting of the inquiry, it was identified that land based activities can influence water quality as runoff from buildings and roads, collected by surface water sewers and highway drains, is in some areas directed to watercourses. This can lead to an increase in oils, chemicals, salts and rubber/plastic particles as well as litter entering rivers and the sea. Where highway gullies are collected by a combined sewer system (one that carries both surface water and wastewater), the increase in surface water during heavy rainfall can reduce capacity for wastewater, adding pressure on combined sewer overflows.

Sustainable Drainage Systems (SuDS) that work with nature to slow the flow and recharge the ground at the point rain falls were identified as being effective at reducing the number of combined sewer overflows and, alongside oil interceptors in high risk areas, were capable of supporting improving the quality of highway runoff, and reducing the volumes of water arriving into sewers, reducing capacity issues during heavy rainfall

In recognition that pollution via highways was likely to be raised at the 17 November meeting when water quality was being discussed, the Scrutiny Manager asked officers to provide the Panel with information outlining any steps the City Council and our partner Balfour Beatty Living Places (BBLP) are considering, or taking, to reduce pollution into the River Itchen or connected watercourses via our highway network.

### **Summary of response from Colin Perris, Service Manager – Highways Contracts**

The general point is that it's very much business as usual for all highways gullies to trap silts, but they don't have oil intercepting specifications, unless retrofitted or designed-in as part of new works / investment.

The Council does not have a budget allocated to specifically retrofit to oil intercepting specifications. The priority currently is to invest in the general improvements to highways drainage to address surface water flooding and will also react to wildlife or other legislation or complaints that require amendments on an ad-hoc basis.

The Council has not recently recommended oil interceptor measures to be put in place but would always do so if the need arises. Asset inventory information from BBLP's drainage sub-contractor should identify oil interceptor or other measures in existence on the existing public highway, but they are minimal.

It is recognised that well-designed SuDS such as balancing ponds, filter strips and swales could help improve the quality of water arriving at waterbodies but there is no dedicated highways SUDS rollout or budget specified at present.

There is nothing to stop the Council, resources aside, considering an approach or policy of setting a target of 'x' number of highways maintenance schemes per year that introduce SUDs, even if only in a very small sense of kerb build-outs housing more vegetation / trees and having adjoining gullies that divert highway run-off through a surface filter into a sub-surface crate or soakaway.

## **Buckinghamshire Case Study**

Whilst researching the issue of water pollution from highways I was directed to a recently published scrutiny inquiry undertaken by Buckinghamshire Council titled 'Pollution in Buckinghamshire's Rivers and Chalk Streams'.

Amongst the detailed report the review included the following extract and recommendation

### ***Water Pollutants & Run-off***

- The urban and transport sector accounts for 19% of the poor river water quality in the Thames River Basin.
- Road gullies are designed to divert surface water run-off from highways and divert it into the surface water drainage network. The gullies include gully pots which trap solids to reduce contaminated sediment from entering watercourses.
- It was reported that diffuse urban pollution is a significant issue for most of the chalk streams in Buckinghamshire due to surface water from road run-off carrying pollutants directly into watercourses. These pollutants include decomposing plant and animal matter (humus) and by-products from vehicles such as hydrocarbons, oil, brake dust, tyre fragments, hydraulic fluids, and anti-freeze.
- The inquiry group heard of instances where technology can be utilised in gullies to remove further pollutants from flowing surface water. One example is an adaptor that fits into standard road gullies and skims surface water to remove contamination without impacting flow or silt maintenance procedures. The waste it collects can then be recycled. This type of product could potentially remove 95% of oil and pollutants that enter the gully if regularly maintained and replaced when necessary.

**Recommendation 1 - The Cabinet Member for Transport should investigate the use of new and practical gully technology with the intention of reducing harmful chemicals from the highways entering the watercourse.**

The full report is available here - [TECC Rivers Report.pdf \(moderngov.co.uk\)](https://www.moderngov.co.uk/TECC-Rivers-Report.pdf)