

Appendix 7: feedback from the Environment Agency and Southern Water on the use of glyphosate

In October 2022, the council sought the Environment Agency and Southern Water's views on the impact / risks of using herbicides / glyphosate on highways and in parks. Particular questions were asked on whether herbicides / glyphosate would permeate through the aquifer and contaminate drinking water and the sea or would this only occur if using the chemical near to open water.

City Environment contacted the Environment Agency and Southern Water again in December 2023 to confirm that their position remained the same.

Their responses are detailed below:

Environment Agency

October 2022

"Glyphosate is monitored as part of the Environment Agency's Groundwater Quality Monitoring Network. While not routinely detected in groundwater, the data is limited, primarily because it is only monitored for annually at most, meaning peaks caused by applications to ground or heavy rainfall events can be missed. With the exception of two samples collected at Brighton Pavilion in 2012-2013 (glyphosate was not detected), we have no data for the Brighton Chalk. Therefore, a lack of monitoring points and data collection makes it difficult to adequately assess the impact and risks to groundwater, but we do know that it is more likely to be detected in shallow groundwater or where there are faster pathways to groundwater e.g. fractures, fissures, deep soakaways etc.

The Environment Agency's view on their application is that it should be avoided where possible. We would advise that any application is well managed in terms of timing and application rate to ensure minimal risk to groundwater and that application in the proximity of faster pathways is avoided. Brighton and Hove City Council have the deep soakaways mapped and if their use is restarted, we would advise avoiding areas where there is a risk of rapid migration to groundwater.

All our groundwater quality data is available here - [Open WIMS data](#). Local water companies also monitor groundwater quality at their sources and have detected glyphosate intermittently, so it might be worth contacting Southern Water. The Environment Agency and Southern Water are partners alongside Brighton and Hove City Council and SDNPA of The Aquifer Partnership which may be best placed to put you in touch with Southern Water".

December 2023

"Thank you for your enquiry. The Environment Agency's view on herbicides/glyphosate and the risks to groundwater have not changed since our previous response in October 2022. Application should be avoided where possible. Where it cannot be avoided its use should be limited and well managed in terms of timing and application rate to ensure minimal risk to groundwater".

Southern Water

October 2022

"I'd first like to say Southern Water are committed to helping protect our precious Chalk aquifers and work on a wide range of projects and initiatives, for example The Aquifer Partnership (TAP), to better understand water quality challenges in our groundwater catchments and work with landowners and stakeholders to help implement measures that will achieve long term improvements to the environment.

Across all of Southern Waters groundwater catchments, Glyphosate is the most commonly detected approved pesticide at levels of concern. It should be noted that any elevated detections occur as one-off events with most routine water quality samples historically containing either very low or undetectable concentrations. This is most likely related to rainfall events where Glyphosate/Herbicide applied to the ground is mobilised more rapidly downward to the aquifer.

The Chalk is generally highly vulnerable to surface contamination because the aquifer here in Brighton and Hove is unconfined (i.e. lacking any surface geological protection), there is a significant mix of potentially contaminating land uses in this area (i.e. transport, agriculture, urban, industry, wastewater), and one of the key properties of the Chalk, it having 'dual porosity', so water moves quickly along small gaps or fractures in the Chalk as well as much more slowly through the harder Chalk matrix. These properties make the Chalk a great aquifer for providing water, but it also means that it can transport contaminants rapidly over long distances with sometimes minimal attenuation.

Southern Water fully support the ban by Brighton and Hove City Council to end the use of glyphosate for weed removal in parks and highways, and would strongly encourage other landowners to follow suit".

December 2023

"Our position remains the same from a groundwater quality risk perspective we do not support the use of glyphosate within any of the groundwater catchments in Brighton and Worthing from which we abstract drinking water for customers.

As I covered in my previous email, the Brighton and Worthing area is particularly unique in relation to herbicide application because it is a Chalk aquifer which is highly vulnerable to surface contamination related to the dual porosity nature of the Chalk and lack of protection with the aquifer being unconfined and the risk of minimal contaminant attenuation. Our catchment risk assessments and water quality data show that glyphosate does travel down through the aquifer and is detected at elevated concentrations in drinking water.

From reviewing the EU commission decision on glyphosate we noted they did not reach a majority on the matter and seven application conditions are attached. The main change will be that a glyphosate risk assessment is required but no standardised assessment criteria has been released to our knowledge".