

Your Ref: NH/cy/CR
Our Ref: 9932jul10\AC\bdm MP-19-220

Telephone: 08081 434 434
Minicom: 08081 456 472
Email: hs2enquiries@hs2.org.uk
gov.uk/hs2

The Rt Hon Nick Hurd MP
Member of Parliament for Ruislip, Northwood and Pinner
House of Commons
London
SW1A 0AA

10 July 2019

Dear *Nick*,

COLNE VALLEY AREA – IMPACT OF HS2 LTD WORKS ON DRINKING WATER SUPPLY

Thank you for your letter dated 3rd July 2019 following your recent Constituency surgery in Harefield.

You have raised a number of questions regarding the impact of HS2 Ltd works on the drinking water supply in the Colne Valley area. I hope that the information in this letter is useful. However, should your Constituents have any further questions, they would be handled more quickly and effectively if they would please contact Andrew Mackinnon, our local Engagement Manager for this area, on 07493 864 583 or Andrew.Mackinnon@hs2.org.uk.

First of all I can assure you that, as required by the High Speed Rail (London – West Midlands) Act 2017, we will make sure that there are no adverse effects on controlled waters as a result of constructing the new railway. The design of the scheme and the selection of construction techniques and mitigation strategies are shaped by this commitment. Where necessary, all viable methods of aquifer protection have been assessed collaboratively with the water undertaker and the Environment Agency (EA). These include the selection of techniques appropriate to the local setting and measures to ensure the resilience of water supplies.

Our ground investigation programme has concluded that contaminated land is not expected to be encountered but, throughout the construction works, we will continue to monitor this to make sure that any areas of previously unknown contamination are identified. Should any be encountered, these will be assessed and any necessary mitigation implemented.

Water Framework Directive

HS2 Ltd is fully committed to delivering its obligations under the Water Framework Directive (WFD) along the whole of the route of the new railway. The potential effect on all WFD water bodies, including the Mid Chilterns Chalk, has been assessed. A draft WFD Compliance Assessment has been submitted to the EA and has been provided to Affinity Water for information. The assessment has taken into account appropriate mitigation and concluded that for the Colne Valley section of the route (HS2 Section C1), taking into account construction timescales, there are not anticipated to be any significant permanent impacts at a WFD water body scale. A comprehensive monitoring scheme has been prepared to check this and further mitigation can be implemented if required.

Source Protection Zone

The evaluation of risk to existing groundwater quality is of the utmost importance and the construction methodologies to be employed have been developed on that basis. Those construction techniques, controls and mitigation are subject to approval by the EA. The proposed construction works in the vicinity of Ickenham, including within Source Protection Zone (SPZ) 1, have been assessed to determine whether they will have a significant effect on the groundwater quality. The conclusion is that they will not exacerbate existing contamination from Newyears Green landfill and neither will they effect any plans by third parties to mitigate groundwater pollution arising from the landfill.

HS2 Ltd has prepared a hydrogeological risk assessment for the works proposed within the Ickenham SPZ. As the works will not affect the Ickenham source, no cost / benefit analysis is necessary.

Colne Valley Viaduct

Piles for the Colne Valley Viaduct will typically be drilled to a depth of 40 - 70m depending on ground conditions. The number and depth of piles are designed to transmit and distribute the forces from the railway throughout large areas and depths of the ground. This ensures that forces at any given point are not so high as to cause movement within the chalk and subsequently within the foundations of the viaduct. The type of piling proposed has been selected so that it does not cause new preferential pathways to be generated and any fissures encountered during the deep piling work would be sealed.

A hydrogeological risk assessment has been prepared to determine whether the effects of this piling are likely to be significant and an extensive monitoring and mitigation plan has been prepared. In addition, a programme of test piling is being undertaken at a number of locations in order to refine pile design and installation techniques.

There will not be any dewatering of the chalk aquifer during piling so there is no potential to induce drawdown that would cause exiting pollution to migrate towards the viaduct. In the event that the Blackford source is affected by the HS2 works, options for mitigation of this source have been identified and discussed with Affinity Water.

Replacement water and treatment

HS2 Ltd and Affinity Water have been working together for several years to identify and implement resilience options that include water transfer and enhanced treatment facilities.

Drinking Water Protected Area

As noted above, HS2 Ltd will be complying fully with the requirements of the WFD. In the course of risk assessment and the discussion of enhanced water treatment capacity with Affinity Water, further additional long term treatment that would result in a breach of the WFD has not been identified as likely to be required. A draft WFD Compliance Assessment has been completed that provides details of why HS2 will not be in breach of the Water Framework Directive in Section C1.

Preparation of the Thames River Basin Management Plan is the responsibility of the EA. HS2 Ltd is working closely with the EA to provide details of proposed construction techniques and assessment of potential effects on WFD water bodies, and appropriate monitoring to check the predicted effects.

Once again, I hope that the information in this letter is useful and helps to answer the issues raised by your Constituents.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Allan', written in a cursive style.

Allan E Cook CBE DSc
Chairman