

River Chess Association – HS2 meeting

River Chess Association Members

Paul Jennings

R Wotton

Allen Beechey

Scott Horton

Ken Austin

David Foster

Andy Garnett

Misbourne and Chesham Society representatives

HS2 Ltd attendees

David McCann Chiltern Tunnel Senior Project Manager

Luke Nipen Community Engagement Manager

Simon Dale-Lace Water Resource and Flood Risk
Manager

Agenda

1. Welcome and introductions
2. Impact of tunnelling on the chalk aquifer - specifically HS2's understanding and mapping of the aquifer
3. Loss of water supply resulting from this work
4. HS2 plans for mitigation in the Chesham and Misbourne Valleys

Questions arising

1. Face pressure control. We heard the pressure of the drilling fluid would be less than the pressure of the surrounding aquifer. As I understood it this was to ensure drilling fluid did not enter the formation. Is my understanding correct?
2. The boring operation will be moving at 120m per week?
3. The casing of the tunnel is a continuous process following immediately behind the boring operation?

4. The pressure of the "Grout" used to hold and seal the casing to the tunnel wall would be greater than the surrounding pressure to ensure grout filled all areas around the outside of the casing?
5. You did not use a seismic survey to better map the fracture patterns of the aquifer, can you explain why?
6. The 322 exploratory well bores that have been drilled, how have they been logged? Have you used downhole tools to map the area surrounding the well bores?
7. HS2 will start tunnelling before you have a clear understand of the aquifer. Is our understanding correct?

If these understandings are correct this is our main concern.

If you tunnel through a major aquifer migration path there is a real danger that your grout will cement or block that pathway. This would cause a major disruption to the flows of water and could damage the availability of water for the rivers. It could also depressure the aquifer causing flows at surface to slow or stop. This could have a major impact on both rivers.

We also note that in your presentation you say that the Chess catchment is unlikely to be affected by the tunnel construction, we know the Misbourne and Chess aquifers are connected so what evidence do you have for your statement?

What operational controls will the EA have over your tunnelling activity. Under what circumstances or criteria would the boring process be stopped?

Speaking for the River Chess Association we would rather there was no tunnel, if there is a an impact on the environment at surface it can be corrected. If it goes wrong subsurface there is little chance of correcting it.