

Green Tunnel and North Cutting excavation approved by the Environment Agency

We are delighted to announce a breakthrough with HS2 following 10 years of campaigning to protect Wendover watercourses.

HS2 has acknowledged that the Wendover North Cutting would impact the flow of water from the Coombe Hill Aquifer; and has now designed a scheme that will protect the Weston Turville Reservoir nature reserve for future generations. The first phase of the works has started following approval by the Environment Agency.

History

Back in 2013 the Wendover Parish Council was concerned that the draft "Environmental Statement" did not adequately address the impact of the railway on the local watercourses and commissioned a Consultant Hydrogeologist to investigate. We discovered that groundwater flowing from the Coombe Hill Aquifer would discharge into the "Wendover North Cutting", potentially reducing the supply to the Weston Turville Reservoir Site of Special Scientific Interest and Nature Reserve.

The diverted water would flow downhill towards Stoke Mandeville and increase the existing flood risks in Aylesbury.

Presentation to the House of Commons Select Committee in 2016 resulted in HS2 disagreeing with our view that "tanking" of the cutting would be needed and saying that any issues would be sorted out at the future design stage. However, the MPs demanded provision of a series of monitoring wells from HS2. We measured the groundwater in those wells until 2020 when we had conclusive proof that the water levels had been up to 5 metres above the expected track height at the North Cutting.

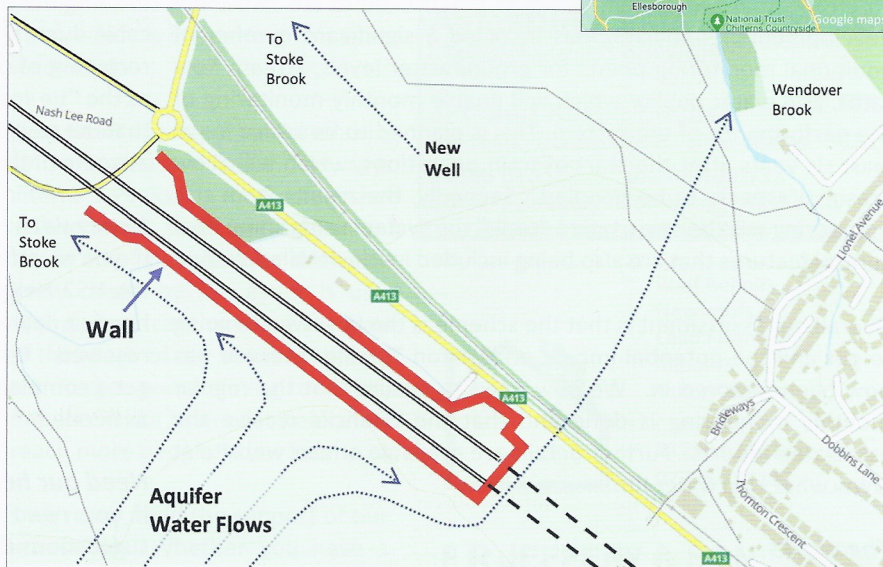
During 2021 we had several technical meetings with HS2 as its modelling of the ground conditions and water flows developed, but this appeared to be focused on the impact to the land within 1000 metres of the line; which excluded the Weston Turville Reservoir. We attempted further engagement with both HS2 and the Environment Agency during 2022 to understand the proposed design but this was blocked despite repeated escalation to the Secretary of State for Transport.

The high level design of the North Cutting was revealed in the August 2022 submission to Bucks Council, and we eventually gained access to the details in July 2023 and sought an opinion from a Consultant Hydrogeologist.

The design

A 600 metre section of the North Cutting immediately north of the Green Tunnel will be "tanked" using an underground wall going down 32 metres through the porous chalk layer and embedded into the underlying clay. Walls will be formed on east and west sides of the railway; and also underneath the track at the mouth of the Green Tunnel.

Groundwater flowing east from Coombe Hill will find new routes



to the south of the wall (flowing underneath the green tunnel in porous foundations) or heading north towards Nash Lee down a flight of ponds which will control the rate at which water will discharge into Stoke Brook.

The wall diverting some of the water to the north means that the flows heading east will be reduced, affecting Wendover Brook which feeds the Weston Turville Reservoir and some tributaries that flow into Stoke Brook.

We were pleased to see that the HS2 modelling has now included the impact on the reservoir, covering both the volume and quality

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