Written Summary of Oral Representations at Issue Specific Hearings

A303 Stonehenge Examination TR010025

Barry Garwood

ISH 8 Cultural Heritage, Landscape and Visual

21 August 2019

Item 3.1 The WHS and harm to OUV

Dr Helen Woodhouse for Historic England referred to ICOMOS guidance that acknowledges sometimes harm is unavoidable.

I pointed out that harm to the OUV could be avoided by finding a route outside the WHS.

However, I was informed that alternative routes were not being considered here.

Subsequently, under item 3.2, Reuben Taylor QC for Highways England pointed out that the World Heritage Committee were no longer mentioning alternative routes in their latest report.

My point here is that there has been almost no consideration of alternative routes.

A tunnel is the only option available for Examination.

The World Heritage Committee are urging that the scheme does not go ahead in its current form.

ISH 9 Traffic and Transport

22 August 2019

Item 3.8 Public Right of Way to Stonehenge visitor centre

A shared use path alongside the A360 would be the safest place for equestrians, as well as pedestrians and cyclists.

If I were riding a horse along the route, I would certainly use such a path rather than ride in the road, regardless of its designated status.

I support the creation of a mixed use Public Right of Way suitable for equestrians, cyclists and pedestrians along this route.

Item 4. Trail Riders Fellowship Amendments

My position is to support access to Byways for all users, in the expectation that they will have due consideration for all other users.

If a motor vehicle encounters a non-motorised user on a Byway, they should be prepared to give way.

In this way, walkers, cyclists and equestrians can live alongside agricultural traffic, trail riders and other leisure users on Byways.

Equally, there is a need for the relevant authority, Wiltshire Council, to ensure that Byways are maintained in adequate condition for all such users.

Farm traffic and other heavy vehicles are most likely to cause damage to the surface of a Byway, particularly during winter conditions.

Lighter vehicles such as cars vans and motorcycles are much less likely to cause damage, especially during summer when visitor numbers are greater.

I draw attention to REP 4a – 032 by Nigel Linge MBE, who states that he was formerly involved in the maintenance of tracks on Salisbury Plain for MOD use.

He notes that ruts on Byway Durrington 10 appear to be caused by agricultural traffic on an unmetalled section and that further south on Amesbury 12, the lack of a camber to ensure proper drainage has led to minor pot holing.

Byway Amesbury 12 is popular because it affords access to the WHS and views of the Stones.

If the A303 is closed to motor vehicles, along all or part of its length through the WHS, there will undoubtedly be a reduction in traffic accessing the Byways from it.

The principal access point for Byway Amesbury 12 would be from the north at Larkhill. Heading south Byway 12 crosses the route of the A303 and rises up onto Normanton Down.

South of Normanton Down, conditions are challenging. This may be fun for trail riders, but it is unsuitable for most vehicles. The majority of traffic using the route would need to turn around and go back to Larkhill to rejoin the road, if prohibited from using the A303.

If access to the A303 is maintained, it would be possible to turn onto it and join Byway Amesbury 11, which has a more gentle gradient that Byway 12 south of the A303.

Byway 11 is currently in good condition, with light rutting. Combined with Byway 12 and the A303, it forms a route suitable for most vehicles through the WHS.

Byway 11 is less used than Byway 12 and may require maintenance if use increases. Byway 12 south of the A303 requires considerable maintenance if it is to be used as a through route for most vehicles.

It would be desirable to retain access along the A303 for motor vehicles, preferably to link up with the rest of the road network.

The alternative is that vehicles on Byway 12 will have to turn around and go back past the Stones, the shuttle bus turn around point and the Cursus to Larkhill, in order to rejoin the road network.

Other north-south routes are set to be lost by the scheme.

It is important to maintain access for all to the Stones.

I do not consider the Amendments put forward by the Trail Riders Fellowship to be material changes, as they do not require any physical changes on the ground. They are a matter of access rights only.

My preferred position is to maintain vehicle access along the A303, linking with the rest of the road network.

If an alternative route is provided, preferably outside the WHS, with Byway access along the A303, there would be at least a 99% reduction in traffic through the WHS.

This would satisfy the Statement of OUV, which calls for a long term solution to the negative impact of the A303.

It would also retain the sight of the Stones for those who wish to see them, including those with mobility issues, allowing access for all.

ISH 9 Flood Risk, Groundwater Protection, Geology and Land Contamination

29 August 2019

Item 3.2 Road Drainage Pollution Prevention

I am concerned about the eastern area of the scheme. The Avon flood plain is a very sensitive area, with Blick Mead and other sites of Mesolithic interest in the vicinity.

I sought assurance that in the event of long term failure of any pumps or equipment, or blockage of drainage routes, the default position would not be to run off to these sensitive areas.

No such assurance has been given.

The Applicants response to the ExA's Written Question on road pollution control in the eastern part of the scheme (REP 6 -028, Fg.2.16), that road edge channels or gullies would flow into carrier pipes.

It seems likely that in the event of a blockage, any road pollution would enter the surrounding environment.

Item 6. Tunneling and Dewatering

The plan we were shown at the previous round of Issue Specific Hearings showed a design with a tunnel well below the water table, creating a dam across the aquifer at such depth that water may be able to flow across the top of it.

Cross tunnel passages and a low point sump would need to be excavated below the water table.

The wording of the Application does not exclude dewatering.

However, in response to the ExA's Written Question on small-scaledewatering (REP 6 – 028, Fg.2.33), the Applicant excludes small-scale dewatering.

I am left wondering what amount of dewatering may be required. The low point sump would involve excavation well below the water table.

It is difficult to see how this could be constructed without considerable dewatering, even in the light of the possible method for cross passage construction described at the hearing.

Presentation by Dr G. M. Reeves on the Hydrogeology of the Chalk Aquifer

Dr Reeves gave a presentation of his analysis of the bore hole data made available to him to date.

His findings show an impermeable layer of Whitway Rock throughout the area, underlying a fractured zone of high permissivity known as the Barrois' Sponge Bed.

This acts as fast conduit for groundwater flow towards Amesbury Abbey, giving rise to springs in the area.

No other known location has such geology.

Dr Reeves noted that Highways England have employed Prof Rory Mortimore to inform them of the ground conditions, but he was noticeable by his absence at these hearings.

Highways England confirmed that they were unwilling to provide a copy of the most up to date bore hole data.

My understanding of Dr Reeves' analysis is that the Whitway Rock forms an impermeable barrier below the highly permeable layer.

The resultant hydrogeology is a zone just above the Whitway Rock where water can flow freely and rapidly in a horizontal direction, but is prevented from flowing down into the rock.

This, not surprisingly, leads to springs where the Whitway Rock comes near to the surface.

I understand from Dr Reeves that the Whitway Rock is found in the vicinity of Blick Mead, just above the level of Mesolithic deposits.

This implies a flow, perched on the Whitway Rock, continuously maintaining the damp ground at Blick Mead.

The act of tunneling would shatter the Whitway Rock over a wide area as the boring machine passed through the vicinity.

Vibration would cause settling of material into the fractures above, restricting the flow in the highly permeable zone and allowing water to transmit down through the impermeable Whitway Rock layer.

I cannot see how any amount of grouting would prevent this. Indeed, grout would serve to further block the faults in the permeable layer, while being unlikely to repair the fracturing of the impermeable layer.

The result will be unknown changes to the hydrogeology of the Chalk.

What seems likely is that horizontal flow will be disrupted by the act of tunneling.

This is likely to result in reduced flow towards Blick Mead and Amesbury Abbey springs.

The Applicant notes in their answers to the ExA's Written Questions (REP 6 – 028, Fg.2.45), that there will be at least 0.35 m of saturation above the Mesolithic layer when groundwater levels are high.

There does not seem to be any specific consideration of when groundwater levels are low, which would be more relevant.

I submit that the proposed tunnel is likely to lead to changes to the hydrogeology of the Chalk, which could reduce groundwater flow to Blick Mead, with potential loss of unique Mesolithic archaeology.