

Planning Application R3.0138/21, HIF1 road between A34 Milton Interchange and B4015 north of Clifton Hampden.

STATEMENT OF OBJECTION ON THE BASIS OF AIR QUALITY AND HEALTH .

Based on

A REVIEW OF THE ENVIRONMENTAL STATEMENT, CHAPTER 6, AIR QUALITY , ACCOMPANYING THE APPLICATION.

1.0 Basis for Refusal

The application for the development of the HIF1 road should be refused planning permission for the following reasons.

The proposal fails to comply with the following parts of Local and County Plans:

1.1 South Oxfordshire District Council

SOLP – Policy EP1 Air Quality; In so far as the Air Quality Assessment for this significant development is inadequate and fails to account for cumulative impact in the sector, Didcot to River Crossing.

SOLP – Policy ENV12 Pollution – (Impact of Development on Human Health, the Natural Environment and/or Local Amenity (Potential Sources of Pollution)); The development will result in significant cumulative impact on health and amenity in the sector Didcot to River Crossing.

1.2 Vale of White Horse District Council

VoWHLP – Development Policy 23: Impact of Development on Amenity. In so far as the development will result in significant adverse cumulative -impacts on Appleford Village in respect of visual intrusion, noise, emissions and road lighting .

VoWHLP – Development Policy 26 Air Quality. The Air Quality Assessment for this development is inadequate and has not demonstrated that it has been design to minimised the impact on air quality in the adjacent community of Appleford.

1.3 Health Impact Assessments

District Council policies identify the need for Health Impact Assessments (HIA) to be conducted for all strategic developments to determine how the development will improve health and wellbeing .

OCC , LTCP 2021 policy 12 states : *12 – Oxfordshire County Council will require transport plans and infrastructure schemes to deliver health benefits and to mitigate any negative impacts by:*

a. Requiring all major schemes or plans where potential health issues are likely to arise, to screen for possible health and wellbeing impacts.

b. Requiring a Rapid or Full HIA to be submitted for larger-scale infrastructure proposals.”

The HIF1 scheme has not been subject to a Health Impact Assessment (HIA) as required in District Council policies, LTCP 2021 and as suggested by Oxfordshire’s Director of Public Health.

The proposal is not based on analyses to minimize pollution and emissions at existing communities adjacent to the proposed road, to be demonstrated through an HIA.

2.0 Environmental Statement Chapter 6, Air Quality

This document (Didcot HIF1 ES Chapter 6 Air Quality) submitted to accompany the application contains inaccuracies and limitations that renders it unreliable to assess the impact of the proposal on public health for reasons as explained below.

- 2.1 Section 6.2 makes no reference to the air pollution guidelines produced by the World Health Organisation (WHO).

In their response to this planning application The UK Health Security Agency has advised OCC that :
“Reducing public exposures to non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards has potential public health benefits. UKHSA support approaches which minimise or mitigate public exposure to non-threshold air pollutants.”

Recently updated WHO guidelines (2021) are based on the evidence that toxic particles and gases harm human health at much lower concentrations than previously thought. Current WHO guidelines for annual emissions limits pollutant concentrations to 5 mcg/m³ for particulates PM_{2.5} and 10 mcg/m³ for nitrogen dioxide NO₂. It is now recognised that UK legislation is no longer adequate to assess the impact of new road proposals. The permitted emissions assumed in the HIF1 Air Quality Assessment exceed the current WHO guidelines by 500% for PM_{2.5} and 400% for NO₂. Whilst there are difficulties in reducing current emissions for existing roads there are no such difficulties in assessing a new road proposal in an area where existing emission are low. The highest standard for AQ needs to be adopted for new sections of the HIF1 road. Appleford village is one community lying closest to a new section of the proposed road. It is reasonable to position the road in relation to Appleford to ensure that the road does not , in itself, create toxic emissions in excess of the WHO guidelines. If more punishing level of emissions are to be considered to facilitate the road, this must be through consultation and agreement with the communities that will be affected. OCC undertook no consultation with affected Parish Councils and residents of parishes like Appleford to agree emission standards to assess the road proposal.

- 2.2 In so far as the change to air quality, due to the proximity of the proposed HIF1 road close to communities like Appleford, has not been properly assessed, the road scheme does not follow the Planning Policy Guidance of the NPPF.
- 2.3 The document makes no attempt to model PM_{2.5} (as section 6.4.17 confirms). There is increasing awareness that smaller particulates have a critical effect on respiration. The Air Quality Analysis is therefore incomplete.
- 2.4 There have been no adequate measurements of the current levels of NO₂ and PM_{2.5} at property boundaries for critical areas in Appleford. A single roadside measurement at a junction of the village Main Road and Church Street (table 6.10 location RIV3) indicated an annual NO₂ mean of 25.5 µg/m³. Unfeasibly this appears to exceed all roadside values measured at the busy A4130 between the A34 and Didcot. This single measurement , possibly in error, cannot be relied upon to characterise the current air quality in Appleford. The Air Quality Assessment has no reliable basis to predict the change to Appleford’s air quality.

- 2.5 With insufficient local air quality monitored data for Appleford, the air quality dispersion model, as described in paragraph 6.4.25) cannot be calibrated to real data. The output from the dispersion model for Appleford is therefore unreliable.
- 2.6 Contrary to paragraph 6.4.28, as there is insufficient local air quality monitored data for Appleford, existing pollutant concentrations from specific local activities have not been included in the assessment, e.g. rail aggregate handling at Appleford Sidings, asphalt works at Appleford Sidings, landfill and HGV movements immediately south west and upwind from Appleford.
- 2.7 The modelled pollutant concentrations at “public exposure receptors” along Main Road in Appleford, (locations R107, R26, R90, R69, R24, R100, R66, R74, in table 2 of ES vol III Appendix 6.2) are not based on credible traffic flows. Restrictions on HGV will continue to apply through Appleford village. Speed restrictions will apply and be tightened with or without the HIF road. The modelled reduction in NO₂ along Main Road due to the HIF is not credible. The only location of monitored real data, (location R107, matched to location RIV3), shows modelled values from the road well below the present measured value. The contribution from HIF1 and also local road traffic on top of other sources of pollution is not explored or explained.
- 2.8 THE HIF1 Planning statement . para 7.11.2 asserts that *“the Site is not considered particularly sensitive in terms of air quality”*. And *“there will be no exceedance of the objective for annual mean NO₂”*. [HIF ES Chpt 6 Air Quality, section 6.9] confirms *“that no specific, essential or enhanced air quality mitigation measures have been incorporated into the Scheme design.”* And *“no monitoring of significant effects is proposed”* para 6.11.2

There is no justification for these statements moreover they conflict with the following statement.

[HIF1 ES Chptr 6 Air Quality] states *“Higher traffic flows and average speeds are expected on the new proposed roads and bridges when compared (to) a do minimum situation without these roads. This could lead to higher emissions and higher annual mean concentrations of NO₂, NO_x, and PM₁₀ at sensitive receptors close to these new roads in the opening year with the Scheme when compared to the opening year without the Scheme.”*

Due to extensive errors and omissions in the Air Quality Assessment the true magnitudes of the resulting emissions in communities close to the proposed road have not been established and are likely to be under reported.

- 2.8 [HIF1 ES Chptr 6 Air Quality. Para 6.10.16] refers to modelled levels of NO₂ and states *“The largest increase in annual mean NO₂ concentration is predicted at a residential property north of Hall Farm (R75, Appleford). With the Scheme in operation, the annual mean NO₂ concentration predicted at this receptor in the Scheme opening year is 16.0µg/m³, an increase of 3.3µg/m³ from 12.7µg/m³”*. This statement is likely to be the nearest reflection of the effect of the HIF road on the dwellings along Main Road in Appleford. However this assessment fails to include existing emissions from the adjacent industrial activities around Appleford sidings. Moreover, the modelling is for a ground level road, at this location. Pollutants will distribute more widely from the proposed elevated HIF road which will be above roof level as it passes Appleford dwellings. The total pollution load and extend of distribution is likely to be well in excess of these figures.

- 2.9 [HIF1 ES Appendix 6.2 Local Air Quality Assessment Results] states at paragraph 1.2.12 *“Along the Didcot to Culham River Crossing on the east side there are 12 receptors (R24, R25, R26, R27, R66, R68, R69, R74, R90, R100, R107 and R116) in Appleford which are predicted to experience decreases in annual mean NO₂ concentrations of 0.5µg/m³ to 2.8µg/m³ resulting in predicted concentrations of 12.9µg/m³ to 14.9µg/m³. This improvement is due to a predicted reduction of approximately 4,000 AADT on Main Road through Appleford.”*

This statement does not represent the actuality of the relationship between traffic on Main Road, Appleford and traffic on the proposed HIF1 road adjacent to Appleford. Main Road has weight restrictions prohibiting HGV traffic now and in the future. Traffic calming measures or vehicle restriction for commuter cars on Main Road must be in place if there is a future traffic growth, either due to the HIF1 road or other road scenarios. There should be no substantial increase in traffic on Main Road (B4016) for future scenarios. The Air Quality Assessment is therefore in error. The HIF1 road will not create a reduction in NO₂ concentrations through Appleford village. However, the siting of HIF1 as an arterial road , will bring many HGVs within 60m of dwellings in Appleford. This is unprecedented and poses a substantial increase in all forms of traffic emissions close to Appleford, which is not represented in the Air Quality Assessment.

- 2.10 [HIF1 ES Appendix 6.2 Local Air Quality Assessment Results] states at paragraph 1.2.13 *“There are three receptors (R23, R65 and R75) close to the new road which are predicted to experience increases in annual mean NO₂ concentrations of 1.5µg/m³ to 3.3µg/m³ resulting in predicted concentrations of 14.3µg/m³ to 16.0µg/m³. This deterioration is due to a predicted flow of around 12,000 - 13,000 AADT with a speed of approximately 65 km/h on this section of the Didcot to Culham River Crossing.”*

This statement fails to recognise the particular circumstances of the traffic flow on the HIF1 road at the closest position to Appleford, and under-estimates the resultant NO₂ concentration;

- The road is elevated above the roof level of dwellings that lie downwind and within 60-70m of the road. This will result in a widespread distribution of the emissions from the road. The uninterrupted spread of emissions from the road at this distance is not specifically recognized in the modelling.
- The HIF1 road is at a gradient at both approaches to the road bridge over Appleford Rail Sidings. The changes of gear and engine speed, particularly for loaded HGVs will result in an increase in emissions. This is not specifically recognized in the modelling.

- 2.11 [HIF1 ES Chptr 6 Air Quality paragraph 6.8.5] states the objective of reducing emissions on the A4130 between Milton Interchange and Didcot will be achieved by reducing congestion, slow moving and idling traffic. This is inaccurate. The net result, on this stretch of road, will be an overall growth in the amount of traffic, attracted from the A34 by the HIF new route to east Oxford and the M40. The document recognises this, as it is stated that the HIF will relieve congestion on the A34 (and by implication, on the Oxford Ring Road). Overall emissions on this part of the A4130 will rise, not fall. Moreover much higher levels of emissions will now be generated close to settlements, not currently experiencing high flows of passing traffic, e.g. the parishes of Appleford, Sutton Courtenay, Culham , Clifton Hampden, Nuneham Courtenay and Long Wittenham.

3.0 Conclusion

The concluding statement in para 6.10.17 of ES Chptr 6 : *“Therefore, a conclusion of no likely significant air quality effects for human health is recorded”* is in error. For communities that will be

close to the proposed road alignment there will be serious health implications. Not only will the pollution levels for NO₂ and PM_{2.5} clearly exceed current WHO guidelines, proper measurement and analysis of the actual circumstances of the dwellings close to the road is likely to show that the concentrations will exceed even the more harmful thresholds taken as acceptable for the study.

The NPPF National Planning policy framework States "*planning Policies and decisions should aim to achieve healthy inclusive and safe places.*"

The Environmental Impact Analysis fails to demonstrate that the HIF1 proposal will meet this objective.

The lack of investigation of alternative alignments for the HIF1 road indicates that the current planning application is not based on analyses to minimize pollution and emissions at existing communities adjacent to the proposed road. This planning application should therefore be rejected.

C J Hancock

On behalf of Appleford Parish Council

7th February 2022.