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Ms Emily Catcheside  
Planning Department  
Oxfordshire County Council

My Ref: CVH/OCC/HIF1

13<sup>th</sup> June 2022

SENT BY EMAIL

Dear Ms Catcheside

**Re: Didcot HIF1 Scheme. Planning Application Ref. No. R3.0138/21.**

**Interim Objection pending receipt of Regulation 25 Further Information.**

I continue to be instructed by and act for 5 Parish Councils (Appleford, Sutton Courtenay, Culham, Nuneham Courtenay and Burcot & Clifton Hampden) who are referred to throughout as the Neighbouring Parish Council Joint Committee (NPC-JC).

The NPC-JC maintains its objection to the planning application on the following grounds, which are set out in summary form below:

- The application conflicts with a significant number of policies in the adopted Development Plan. Details are set out below.

- The application conflicts with national planning guidance as set out in the National Planning Policy Framework (NPPF) as revised in 2021 and Planning Policy Guidance (PPGs). Details are set out below.
- The application, if approved, will have the effect of undermining legally binding national targets for significant reductions in carbon emissions and carbon neutrality.
- The application, if approved, will have the effect of undermining policies and targets set out in the emerging Oxfordshire Plan 2050.
- The application, if approved, will conflict with policies in the emerging Local Transport Plan – the Local Transport and Connectivity Plan January 2022 (LTCP).
- No Habitats Regulation Assessment (HRA) appears to have been undertaken in breach of the requirements of the Conservation of Habitats and Species Regulations 2017. No planning permission may be granted until an HRA has been undertaken.
- A Climate Change Position Statement should accompany this planning application, given concerns relating to the cumulative impacts of the scheme.
- The Environmental Statement submitted with the planning application fails to comply with the Environmental Impact Assessment Regulations 2017.

### **Prematurity.**

The NPPF advises that, in general, arguments that an application is premature will usually fail to justify a refusal of planning permission, except in limited circumstances. Where a proposed development is so substantial, with significant cumulative effects, and, given its scale and location that it would have the effect of undermining the future DP, and that plan is at an advanced stage, then an application can legitimately be refused on the grounds of prematurity (see NPPF para 49). In our submission, such circumstances exist in respect of this application and refusal of planning permission on the grounds of prematurity would be wholly justified.

It is noted that the Planning Statement is surprisingly silent regarding matters of prematurity.

The most relevant emerging plans include:

The Oxfordshire Plan 2050 Joint Strategic Spatial Plan (JSSP)– now at Regulation 19 consultation on submission draft stage, with an Examination in Public timetabled for Nov/Dec 2022 and adoption anticipated in May/June 2023.

The Local Transport and Connectivity Plan (LTCP), published in January 2022 should be adopted by 2023.

### **Oxfordshire 2050 Plan.**

The 2050 Plan has been jointly prepared by all the District Councils in Oxfordshire, together with the City and County Councils. It sets out strategic spatial policies for the plan period up to 2050.

The Foreword to the Plan (para 2) recognises the need to change the way that the County’s future will be planned, that “transformative change” will be required over the wider area and that issues such as climate change are best tackled at this level through a process of joined-up policy responses.

Plan Objective 1 (p 22) seeks to “significantly” reduce greenhouse gas emissions over the plan period.

Theme One of the Themes and Objectives section of the Plan is headed “Addressing Climate Change”. Para 59 states that:

*“Climate change is the most significant threat facing humankind today.”*

*“It is essential that climate change considerations run through the Oxfordshire Plan strategy...”* (para 60)

and:

*“Climate change is central to each of the Oxfordshire Plan’s themes and policies...”* (para 61)

The Oxfordshire Energy Strategy recognises that the main sources of greenhouse gas emission in the county are road transport and housing (para 75).

Theme Four of the 2050 Plan is entitled “Planning for Sustainable Travel and Connectivity.”

Para 330 recognises that new development over the plan period, such as housing, will increase the demand for travel. Given climate change considerations however, it also recognises the need for supporting sustainable transport choices and reducing the need to travel where possible. As the Plan states:

*“...there will be a need to ensure the Oxfordshire Plan supports a move towards a transport network across Oxfordshire and beyond that significantly reduces carbon emissions over the next few years. In practice, this will mean significant enhancement to bus and rail services and a focus on delivering comprehensive active travel networks that enable people to choose walking and cycling for more local journeys...”*

The Preferred Policy Option identified in the Plan is Policy Option 17 – Towards a Net Zero Carbon Transport Network.

Para 334 recognises that emissions from transport account for approximately a third of all greenhouse gas emissions across the County and that the greater part of this is made up of emissions from road transport. In more rural districts such as the Vale of White Horse and South Oxfordshire that percentage arising from road transport rises to 50% (see Pathways to a Zero Carbon Oxfordshire Report 2021, produced by Oxford University Centre for Environment).

In passing, this Report notes that in Oxfordshire:

*“CO2 emissions from transport only fell by 1.9% between 2008 and 2018, and were rising between 2014 and 2017, despite the target of a 35% reduction between 2005 and 2020 as set out in the Low Emissions Strategy. (Page 70)*

and,

*“Road building, particularly to support new developments which may then be more car-dependent, is short-sighted when it has become clear that the transition to zero carbon vehicle technologies is insufficient to reach net-zero within the timescales set by the Paris Agreement or most local governments. Local policy-makers recognise this, and, as climate policy was strengthened over the past two years, the decision was made to revisit the Infrastructure Strategy. In developing the fifth LTCP and revising OXIS, there is consensus around seeking opportunities to accelerate the decarbonisation of transport.” (Page 98)*

Para 336 of the 2050 Plan notes that policies from a national to a local level indicate significant changes will be necessary to the planning and management of transport if carbon reduction targets are to be met. These changes include:

*“A reduction in overall travel movements, especially by private vehicles.”*

*“A shift to public transport and active travel modes, especially for shorter journeys, enabled by increased investment in public transport, walking and cycle networks.”*

All of these considerations are carried across into Preferred Policy Option 17 which is likely to become a key part of the new JSSP due for adoption in 2023.

Preferred Policy Option 18: Sustainable Transport in New Development is of particular relevance given that the main justification for the HIF1 scheme is to facilitate the delivery of new homes. The preferred policy states that;

*“all development proposals should consider and plan for transport and access against a vision, focussed on enabling people to travel by active and sustainable means”*

Prioritisation should be given to “reducing the need to travel and “ensuring” that new development is “primarily designed to enable movement by active travel and public/shared transport and that sites are well connected to surrounding sustainable transport networks.”

From the extracts of the 2050 Plan set out above, there can be no doubt that were the HIF1 scheme to proceed the visions, aims, objectives and policies of the 2050 Plan would be wholly undermined, contrary to national planning guidance as set out in para 49 of the NPPF.

### **Local Transport and Connectivity Plan (LTCP).**

Similar considerations apply to the emerging LTCP, which, at the time of writing is subject to a further round of public consultation. It is anticipated that the Plan will be adopted early in 2023.

OCC published its 4th Local Transport Plan in 2016, but they are now developing their 5th Local Transport and Connectivity Plan (LTCP), partially in response to the declaration of a climate emergency and the lack of progress in reducing road traffic emissions.

The draft LTCP published in January 2022 sets out a series of targets. They include:

- By 2030 to replace or remove 1 out of every 4 current car trips in Oxfordshire
- By 2040 to deliver a zero carbon transport network and to replace or remove 1 out of every 3 current car trips in Oxfordshire

The Plan aims to achieve these targets through a combination of transport policies focussed on the promotion of walking and cycling, investment in strategic public transport, improving multi-modal travel and making sustainable travel more attractive.

The Plan sets out a series of key policies which aim to deliver these targets. These are considered below.

Policy 1 seeks to prioritise alternatives to travel by the private car, through the establishment of a transport user hierarchy. This hierarchy will be applied to the assessment of transport schemes (such as HIF1), with private car travel given the lowest priority in the hierarchy. As the explanatory text sets out, this approach, apart from enabling carbon reduction targets to be met, will bring further benefits in respect of improving air quality, reducing noise pollution and improving levels of physical activity.

With regard to new development, Policy 3 seeks to ensure that internal routes are easily connected to a comprehensive walking and cycling network, whilst Policies 16 and 17 will apply the 20-minute neighbourhood model in order to reduce the need to travel by private car and improve connectivity by walking and cycling.

Policy 26 prioritises bus travel over the private car through the development of infrastructure measures and will ensure that new strategic development is designed for bus access.

Most significantly, Policy 44 will assess, manage and minimise both embodied and operational carbon in infrastructure projects whilst pursuant to Policy 63 OCC will adopt a “decide and provide” approach (as opposed to the now outdated and ineffective “predict and provide” approach which appears to inform the HIF1 scheme) to transport planning throughout the County. This approach will apply to all new transport infrastructure schemes such as HIF1.

At a strategic level the LTCP envisages both area transport strategies which will align with the vision of the Plan to be utilised in bidding, funding and developer negotiations, (Policy 91) together with a similar approach to transport corridor strategies (Policy 92).

As with the emerging Oxfordshire 2050 Plan, the emerging LTCP will be wholly undermined by the HIF1 scheme, and the scheme should be withdrawn or refused on this basis.

### **Principle of Development**

The adopted Development Plan (DP) comprises the South Oxfordshire Local Plan 2036 (SOLP) and the Vale of White Horse Local Plan 2031 (VoWHLP).

The VoWHLP Part 1 was subject to statutory Review in 2021. In accordance with the advice set out in para 74 of the NPPF the housing figures for the area have been reviewed, pending the adoption of the Oxfordshire Plan 2050 and the Joint Local Plan.

The recalculation of the housing figures using the standard method has resulted in a decrease in housing requirements from 1,211 dwellings per annum to 819 dpa, a reduction of 32% over the period 2019 - 2031.

South Oxfordshire is due to undertake a similar statutory review in 2025, and there is no good reason why a similar reduction in housing requirements will not be achieved utilising the same standard method recommended in the NPPF.

The effect of this has significant bearing on the purported justification for HIF1 and the calculations upon which the TA are based. A 32% reduction in housing across the scheme area significantly reduces the need for the scheme, whilst simultaneously increasing the 5 year housing land supply in both districts, enabling the district authorities to more easily meet housing targets without the scheme.

This reduction also impacts on the traffic modelling of the scheme. 32% less new dwellings should result in a pro rata reduction in vehicle movements. This reduction has not been factored into the TA, which is now clearly out-of-date. At the very least the model should be re-run using the new housing figures available.

The Planning Statement (PS) submitted by AECOM in support of this application lists the relevant DP policies at pages 29-32. It is not proposed to repeat that list here.

In normal circumstances planning applications should be determined in accordance with the DP unless material considerations dictate otherwise (see NPPF para 47).

Whilst it is acknowledged that a number of adopted plan policies support the principle of the HIF1 scheme, including TRANS3 of the SOLP, Core Policy 18 of the VoWHLP and a tranche of policies in the LTP4, these policies now require to be considered and afforded due weight in the context of a radically different policy environment.

LTP4, which was adopted by OCC in Sept 2015, should now be considered to be out-of-date. It pre-dates the Paris Agreement on Climate Change and COP 26. It pre-dates the government's commitment to significantly reduce carbon emissions by 78% by 2035 and it pre-dates the revised NPPF of 2021. There can be little doubt that were LTP4 to be promoted by a County Council in 2022 it would be rejected out of hand as failing to be consistent with national policy.

It is noteworthy in passing that the predecessor to LTP4, LTP3, took the following view towards any new river crossing;

*"Improvements to the Culham and Clifton Hampden road river crossings or implementation of a new bridge are not identified projects within the Transport Strategy. This was discussed extensively at SODCs Core Strategy examination and the arguments still stand. The Strategy to accommodate movement north /south is focussed on rail and the A34. Capacity problems are not only created by the bridges themselves but also by the surrounding road network and junctions. This capacity issue acts as a deterrent to some drivers and aids commuters to make a choice about how/when they travel."*

*Local Transport Plan 3 2011-2030 (para 15)*

Whilst it is trite to state that Development Plans and national policy guidance such as the NPPF should be taken as a whole, it should be borne in mind that specific proposals should be considered against the policy context taken as a whole. There will be tensions and conflicts between DP policies and many development schemes will not fully meet policy requirements. The planning balancing exercise is therefore

unavoidable, and if harms outweigh benefits even in cases where land has been safeguarded for a particular purpose such as here, then planning permission must be refused.

In any event, a safeguarding policy is precisely that, it is prohibitive of development that could prejudice development identified in an adopted plan, but it does not provide either in principle support for a particular planning application or a presumption in favour of development simply by dint of the fact that a scheme falls within the broad scope of a safeguarding policy.

### **Sustainable Transport**

A report on transport and sustainability issues by Prof John Whitelegg is set out at Appendix 1 to this document. The conclusions of his report are set out here.

*“The planning application is deeply flawed and should be withdrawn and resubmitted giving full attention to the key dimensions of policy failure. In the event of the application not being withdrawn it should be refused.*

- 1 *It fails to follow WebTag guidance and ignores the importance of the need for a clear definition of the nature of the problem that has given rise to the £294 million funding decision, the range of solutions available to solve that problem and a very clear and transparent methodology that is employed to select the best performing option that would be recommended for adoption, funding and delivery.*
- 2 *The re-submission of the planning application must give central prominence to carbon emissions that will be generated by the proposals over the next 60 years, policy consistency, value for money and alternatives to the simplistic prioritisation of road infrastructure that based on evidence will deliver a full range of environmental, climate change, public health, fiscal and quality of life outcomes.*
- 3 *In the context of a very severe and urgent climate emergency that has been declared by national government, Oxfordshire County Council and the District Councils, it is perverse and unreasonable to pursue a policy (road building and the expansion of highway capacity) that is clearly linked*

- to increasing transport carbon at a time when it is widely accepted that we must reduce transport carbon.*
- 4 *Spending £294 million to generate an additional 288,414 tonnes of CO<sub>2</sub>e (para 4.7) is not compatible with the County and District Councils' declarations of a climate emergency and a departure from an agreed high level strategic policy (climate change).*
  - 5 *The re-submission of this planning application must include a full, independent, robust, scientific analysis of embodied carbon and operational carbon (CO<sub>2</sub> emissions from future growth in vehicle kms of car trips based on the evidence of induced traffic as a result of increasing highway capacity).*
  - 6 *The emphasis on road building and highway expansion with its weak inclusion of non-transformational support for walking and cycling and its lack of commitment to scenarios that embed modal shift in major spending decisions is contrary to accepted and evolving Oxfordshire County Council policies.*
  - 7 *The council's draft Local Transport & Connectivity Plan (LTCP5) includes ambitious targets to **"Replace or remove 1 out of every 4 current car trips in Oxfordshire by 2030"** and **"Replace or remove 1 out of every 3 current car trips in Oxfordshire"** by 2040. The proposals in this planning application are not supported by any modal shift evidence and the evidence around "new roads generate new traffic" is unambiguous. The £294 million spend will increase car trips.*
  - 8 *The current planning application is based on denial. It denies the importance of climate change. It denies the significant progress made nationally and internationally on sustainable transport and how we can support vibrant local economies with no expansion of highway capacity. It denies the importance of value for money in public spending. It denies the evidence around modal shift and how we can achieve the outcomes already achieved in one of the most vibrant, economically successful, climate change aware city regions in the world, Freiburg-im-Breisgau in Southern Germany (Figure 1).*
  - 9 *The very low levels of car use in Freiburg are the result of sustained modal shift and economic success greater than any English region."*

In addition, on 7<sup>th</sup> March 2022 Prof Phil Goodwin presented a paper entitled “Outline Comments on HIF1 Forecasts and Appraisal” to OCC’s Transport Scrutiny Working Group. With his permission his paper is appended to this objection as Appendix 2.

Prof Goodwin concludes that:

- The traffic forecasts in the TA are based on inappropriate, outdated inputs, derived from a narrow range of factors.
- The TA Paramics model fails (and does not have the capability) to calculate induced traffic.
- As a consequence of these shortcomings the benefits of the scheme in terms of reducing congestion and CO2 emissions have been overstated and any value for money calculation should be reduced accordingly.
- It is unclear how the forecasting methodology adopted allows for various development design considerations to effect traffic.

Given this, Prof Goodwin commends the approach of the Welsh Government, which has effectively paused all new road schemes to allow for the reassessment of schemes in light of wider policy objectives such as carbon reduction and zero carbon targets. In our submission this is precisely what should happen with the HIF1 scheme.

Professor Goodwin concludes that the forecasts over-state the benefits of the scheme and thereby understate the impact on the surrounding villages. This adds weight to the concerns of parish councils, which have been expressed in frequent requests for the data underpinning the application and re-iterated in the NPC - JC paper of November 2021. For instance, the applicant fails to prove whether the addition of a junction on the Appleford Road (B4016) would increase or decrease traffic through Sutton Courtenay or that the HIF proposal would not exacerbate traffic congestion in Culham and Nuneham Courtenay.

### **Green Belt and Landscape**

The County Council acknowledges that the proposed scheme is a departure from the Development Plan (13 Oct. 2021), and despite some limited policy support for the scheme as considered above, the scheme is nevertheless regarded as inappropriate

development in the Green Belt.in that it would permanently encroach into the countryside, would not protect the setting of historic towns and would not preserve the openness of the Green Belt.

The prohibition on inappropriate development in the Green Belt can only be overcome by OCC establishing that any harm arising from the scheme is clearly outweighed by other considerations which constitute “very special circumstances”. (See NPPF paras 147 – 148)

This is a matter of planning balance, and on the current state of information provided it is not considered that the requisite very special circumstances are established.

An expert report on Landscape and Green Belt issues will be submitted by the PCs following receipt of the Regulation 25 further information.

### **Other matters**

Other areas of concern to the PCs such as Design, impacts on the Historic Environment, Biodiversity and Hydrology and the planning balance will be addressed in a further submission once we are in receipt of AECOM's further information.

### **Regulation 25 request for further information.**

With respect to your request to AECOM for further information dated 20 April 2022, you will recall that we wrote to you on 18 February 2022 setting out a number of detailed requests for further information (some of which were made as long ago as the 11<sup>th</sup> January 2022). We still await this information, despite repeated requests.

It is very disappointing and surprising that, given that the LPA has now made a formal Regulation 25 request for further information, our requests appear not to have been included in your letter to AECOM.

Our team of experts have considered the Regulation 25 letter and are unanimous in their view that their questions set out in our letter of 18 February 2022 have not been addressed.

In addition to those requests, our hydrologist, Dr G M Reeves, has set out his concerns in a note attached to this letter, which we would ask you to take into consideration.

Further, we attach a document entitled "Proposed additions to Regulation 25 request" setting out additional concerns relating to option assessments, traffic modelling and noise, which we consider should be addressed by AECOM.

We would like to take this opportunity to ask that you forward all our outstanding questions to AECOM by way of an addendum to the Regulation 25 request.

For the avoidance of any doubt we consider that the information that we have requested is essential in order to render the Environmental Statement accompanying the planning application compliant with the 2017 EIA Regulations.

I look forward to hearing from you.

Sincerely,

Charlie Hopkins MA (Oxon) PG Dip Law

Solicitor (non-practicing), Planning & Environmental Consultant

13<sup>th</sup> June 2022

## **APPENDIX 1**

### **Didcot HIF1**

**21<sup>st</sup> January 2022**

**Professor John Whitelegg BA PhD LLB**

#### **1 Introduction**

The planning application for the Didcot HIF1 scheme is an application for infrastructure provision and an increase in highway capacity in the parishes of Milton, Didcot, Harwell, Sutton Courtenay, Appleford-on-Thames, Culham and Clifton Hampden in Oxfordshire. Oxfordshire County Council is the planning authority.

1.1

**Planning application: R3.0138/21**

[Planning Register | Oxfordshire County Council](#)

Planning permission is sought for the following:

Planning application seeking full planning permission for the dualling of the A4130 carriageway (A4130 Widening) from the Milton Gate Junction eastwards, including the construction of three roundabouts; a road bridge over the Great Western Mainline (Didcot Science Bridge); realignment of the A4130 north east of the proposed road bridge including the relocation of a lagoon; construction of a new road between Didcot and Coltham (Didcot to Culham River Crossing) including the construction of three roundabouts, a road bridge over the Appleford railway sidings and road bridge over the River Thames; construction of a new road between the B4015 and A415 (Clifton Hampden bypass), including the provision of one roundabout and associated junctions; and controlled crossings, footways and cycleways, landscaping, lighting, noise barriers and sustainable drainage systems. At Land in the parishes of Milton, Didcot, Harwell, Sutton Courtenay, Appleford-on-Thames, Culham and Clifton Hampden.

1.2 The cost of the road building and expansion of highway capacity listed in this planning application is £294 million (OCC Cabinet 18.1.22)

1.3 I have been asked to produce an overview of the issues raised by this planning application with an emphasis on sustainability issues, conformity with current levels of professional and academic conclusions about interrelated transport, housing, economic development, environmental and climate change issues.

1.4 My report will focus on 4 themes:

- Current practice on scoping, developing and implementing solutions to clearly defined transport and transport related problems. I will discuss WebTag guidance
- Current best practice on sustainable transport, sustainable urban mobility plans (SUMP) and the links between highway capacity, new roads and local economic success
- An estimate of the additional CO<sub>2</sub>e (embodied carbon) associated with all the road building plans in the planning application and its conformity with national and Oxfordshire climate change policies and targets.
- Best practice integrated transport, housing and land use planning in areas that compare with the area covered by this planning application and clearly identify the potential for economic success and the decoupling of transport investment from measures of economic success. New road building and the expansion of highway capacity as a policy to stimulate economic growth is now discredited and best practice examples reveal the full potential of policies and interventions that deliver local economic success, congestion reduction and net zero carbon all at the same time and in the same place.

## **2 Transport Appraisal Guidance (WebTag)**

2.1 Official government guidance on Transport Appraisal has not been followed and the adoption of a road-building option has not followed careful evaluation of all options including non-road building options

<https://www.gov.uk/government/publications/webtag-transport-appraisal-process-may-2018>

2.2 The UK government's guidance on transport appraisal, known as WebTag, makes it very clear that there should be a sequential approach to dealing with transport problems followed by option listing and scoping and concluding with a clear and transparent comparison and evaluation of the options leading to the selection of the best performer.

2.3 This sequential approach has not been followed in the case of the road building proposals in this planning application.

2.4 The three stages in the Transport Appraisal Process are as follows:

Stage 1 – Option Development. This involves identifying the need for intervention and developing options to address a clear set of locally developed objectives which express desired outcomes. These are then sifted for the better performing options to be taken on to further detailed appraisal in Stage 2.

Stage 2 – Further Appraisal of a small number of better performing options in order to obtain sufficient information to enable decision-makers to make a rational and auditable decision about whether or not to proceed with intervention. The focus of analysis is on estimating the likely performance and impact of intervention(s) in sufficient detail.

Stage 3 – Implementation, Monitoring and Evaluation.

There must be consideration of genuine, discrete options, and not an assessment of a previously selected option against some clearly inferior alternatives. A range of solutions should be considered across networks and modes. (para 1.1.5)

**It is important that as wide a range of options as possible should be considered, including all modes, infrastructure, regulation, pricing**

**and other ways of influencing behaviour. Options should include measures that reduce or influence the need to travel, as well as those that involve capital spend. Revenue options are likely to be of particular relevance in bringing about behavioural change and meeting the Government’s climate change goal. (para 2.8.2)**

**Studies should not start from an assertion about a preferred modal solution, or indeed that infrastructure provision is the only answer. Following the Eddington Transport Study (Eddington, 2006), Sponsoring Organisations will be looking to encourage the better use of existing infrastructure and avoiding “solutions in search of problems”. In this context, it is recognised that small schemes can represent high value for money. (para 2.8.3)**

2.5 There is no evidence that the DGT planning process has scoped a wide range of options and in a transparent way has identified the option(s) that perform best

2.6 There is an extensive literature on options that are in conformity with WebTag (para 2.8.2): “all modes, infrastructure, regulation, pricing and other ways of influencing behaviour.”

2.7 The options include the full list in the DfT document “Smarter Choices” (DfT, 2005) and the options identified by Professor Whitelegg in a report to the Welsh Government on options that could be implemented in South Wales following the cancellation of the M4 Relief Road (Newport, South Wales). These include road pricing/congestion charging, work place parking levy as implemented in Nottingham, wide ranging travel plans (school, workplace and residential (Whitelegg, 2019). The majority of these options have been adopted by the Welsh Government.

2.8 There are a number of fiscal and regulatory interventions that should be evaluated before preceding down the default “build a road” option. These are reviewed in Nash and Whitelegg (2016)

### **3 Current best practice on sustainable transport, sustainable urban mobility plans (SUMP) and the links between highway capacity, new roads and local economic success**

3.1 There is a substantial body of literature on these topics which is evidence and science based whereas it has been customary in the UK for road proposals to be supported without reference to evidence. For example:

#### **Key Evidence 1**

New roads do not bring economic success, the evidence cited in support of links with local economic success is weak or non-existent and new roads are just as likely to drain economic activity away from a local area as they are to generate jobs and inward investment

<https://uwe-repository.worktribe.com/output/875133/does-transport-investment-really-boost-economic-growth>

[https://webarchive.nationalarchives.gov.uk/ukgwa/20050301192906/http://dft.gov.uk/stellent/groups/dft\\_econappr/documents/pdf/dft\\_econappr\\_pdf\\_022512.pdf](https://webarchive.nationalarchives.gov.uk/ukgwa/20050301192906/http://dft.gov.uk/stellent/groups/dft_econappr/documents/pdf/dft_econappr_pdf_022512.pdf)

#### **Key evidence 2**

New roads generate new traffic and do not reduce congestion - **Beyond Transport Infrastructure. Lesson for the future from recent road projects, CPRE, 2006**

<http://www.transportforqualityoflife.com/u/files/Beyond-Transport-Infrastructure-fullreport%20July2006.pdf>

Naess, P, Nicolaisen, M and Strand, A (2012) Traffic forecasts ignoring induced demand: a shaky foundation for cost-benefit analyses, European Journal of Transport Infrastructure Research (EJTIR), Issue 12 (3), pp 291-309

[http://www.ejtir.tbm.tudelft.nl/issues/2012\\_03/pdf/2012\\_03\\_02.pdf](http://www.ejtir.tbm.tudelft.nl/issues/2012_03/pdf/2012_03_02.pdf)

## Key Evidence 3

### Sustainable Urban Mobility Plans (SUMP)

Traditional Transport Planning		Sustainable Urban Mobility Planning
Focus on traffic	→	Focus on <b>people</b>
Primary objectives: Traffic flow capacity and speed	→	Primary objectives: <b>Accessibility</b> and <b>quality of life</b> , including social equity, health and environmental quality, and economic viability
Mode-focussed	→	<b>Integrated development of all transport modes</b> and shift towards sustainable mobility
Infrastructure as the main topic	→	<b>Combination</b> of infrastructure, market, regulation, information and promotion
Sectoral planning document	→	Planning document <b>consistent with related policy areas</b>
Short and medium-term delivery plan	→	Short and medium-term delivery plan embedded in a <b>long-term vision and strategy</b>
Covering an administrative area	→	Covering a <b>functional urban area</b> based on travel-to-work flows
Domain of traffic engineers	→	<b>Interdisciplinary</b> planning teams
Planning by experts	→	Planning with the <b>involvement of stakeholders and citizens</b> using a transparent and participatory approach
Limited impact assessment	→	Systematic <b>evaluation</b> of impacts to facilitate <b>learning</b> and improvement

<https://www.eltis.org/mobility-plans/sump-concept>

[https://www.eltis.org/sites/default/files/sump\\_guidelines\\_2019\\_interactive\\_document\\_1.pdf](https://www.eltis.org/sites/default/files/sump_guidelines_2019_interactive_document_1.pdf)

3.2 The road building plans in the planning application are text book examples of “traditional transport planning” with a focus on traffic, traffic flow capacity and infrastructure. This has now been superseded by Sustainable Urban Mobility with its emphasis on people, accessibility, quality of life and modal shift.

## 4. Climate Change, road building and embodied carbon

4.1 There is widespread national and international recognition that large reductions in carbon emissions from all sectors are required if we are to eliminate or minimise the devastating effects of climate change. The arguments, issues and targets were fully explored and agreed at COP26 in Glasgow. Reductions have been achieved in the energy sector but transport carbon emissions remain high and are likely to increase even if electric vehicles achieve widespread adoption:

*“Transport is the single biggest contributor to the UK’s emissions and is the only sector that has not yet achieved reductions from the 1990 baseline. This means that the transport sector has just one decade to reduce its emissions by at least two-thirds. There are no longer any sectors of the economy that can deliver bigger emissions reductions so that the transport sector can deliver less: the “low hanging fruit” has now all been picked”*

*“Even with a newly announced Zero Emission Vehicle (ZEV) mandate, the government expects only 55-60% of new cars to be battery electric by 2030. This means that most cars on the road will still be fossil fuelled in 2030. Moreover, those cars will be relatively high polluting given that the ZEV will do nothing to ensure that the tailpipe emissions from new petrol and diesel cars will reduce steeply between now and then. Therefore, even if sales of battery electric and plug-in hybrid cars increase steadily from today, electrification would only reduce car tailpipe CO2 emissions by – at best – about 25-30% by 2030”*

<http://www.transportforqualityoflife.com/u/files/211214%20The%20last%20chance%20saloon%20to%20cut%20car%20mileage.pdf>

4.2 The UK has committed to reduce its greenhouse gas emissions to net zero by 2050 and to cut emission by 78% by 2035 compared with 1990 levels.

4.3 The Tyndall Institute (Manchester University) has produced an estimate by local authority area of what must be achieved by way of carbon reduction to

meet internationally agreed targets. The planning application “sits” in two local authority areas (1) South Oxfordshire and (2) Vale of the White Horse and Tyndall has concluded:

### **South Oxfordshire**

*“Based on our analysis, for South Oxfordshire to make its ‘fair’ contribution towards the Paris Climate Change Agreement, the following recommendations should be adopted:*

- 1. Stay within a maximum cumulative carbon dioxide emissions budget of 5.6 million tonnes (MtCO<sub>2</sub>) for the period of 2020 to 2100. At 2017 CO<sub>2</sub> emission levels, South Oxfordshire would use this entire budget within 7 years from 2020.*
- 2. Initiate an immediate programme of CO<sub>2</sub> mitigation to deliver cuts in emissions averaging a minimum of -13.4% per year to deliver a Paris aligned carbon budget. These annual reductions in emissions require national and local action, and could be part of a wider collaboration with other local authorities.*
- 3. Reach zero or near zero carbon no later than 2041. This report provides an indicative CO<sub>2</sub> reduction pathway that stays within the recommended maximum carbon budget of 5.6 MtCO<sub>2</sub>. At 2041 5% of the budget remains. This represents very low levels of residual CO<sub>2</sub> emissions by this time, or the Authority may opt to forgo these residual emissions and cut emissions to zero at this point. Earlier years for reaching zero CO<sub>2</sub> emissions are also within the recommended budget, provided that interim budgets with lower cumulative CO<sub>2</sub> emissions are also adopted.”*

<https://carbonbudget.manchester.ac.uk/reports/E07000179/>

### **Vale of the White Horse**

*“Based on our analysis, for Vale of the White Horse to make its ‘fair’ contribution towards the Paris Climate Change Agreement, the following recommendations should be adopted:*

- 1. Stay within a maximum cumulative carbon dioxide emissions budget of 5.2 million tonnes (MtCO<sub>2</sub>) for the period of 2020 to 2100. At 2017 CO<sub>2</sub> emission levels, Vale of the White Horse would use this entire budget within 7 years from 2020.*
- 2. Initiate an immediate programme of CO<sub>2</sub> mitigation to deliver cuts in emissions averaging a minimum of -13.7% per year to deliver a Paris aligned carbon budget. These annual reductions in emissions require national and local action, and could be part of a wider collaboration with other local authorities.*
- 3. Reach zero or near zero carbon no later than 2041. This report provides an indicative CO<sub>2</sub> reduction pathway that stays within the recommended maximum carbon budget of 5.2 MtCO<sub>2</sub>. At 2041 5% of the budget remains. This represents very low levels of residual CO<sub>2</sub> emissions by this time, or the Authority may opt to forgo these residual emissions and cut emissions to zero at this point. Earlier years for reaching zero CO<sub>2</sub> emissions are also within the recommended budget, provided that interim budgets with lower cumulative CO<sub>2</sub> emissions are also adopted.”*

<https://carbonbudget.manchester.ac.uk/reports/E07000180/>

4.4 Transport in South Oxfordshire (territorial direct emissions) is responsible for 52% of all CO<sub>2</sub> emissions. In the Vale of the White Horse it is 50%. My view as a transport and climate change specialist is that it is impossible to meet a 13.4% pa or a 13.7% annual reduction in transport carbon in these two local authority areas when large infrastructure projects such as this planning application are increasing transport carbon emissions (Note 1)

4.5 The total estimated cost of the proposals at the time of writing is £294 million

4.6 A group of researchers at Leeds University has developed a methodology for the National Committee on Climate Change to provide an estimation tool that can be

used to quantify embodied carbon in infrastructure projects (Scott, Giesekam, Owen and Barrett 2015). This is the top-down environmentally extended input-output analysis (EE-IOA).

*“EE-IOA generates an emissions intensity factor for the emissions embodied in UK construction per £ spent on the construction sector’s output (kgCO<sub>2</sub>e/ £), which we take as representative of the emissions intensity of infrastructure. This relates to all the physical goods and services required along the construction sector’s supply chains, whether produced in the UK or abroad”*

4.7 Referring to the data on kgCO<sub>2</sub>e per £ of infrastructure spending in the Leeds University report we can see that the calculation produces an estimate of embodied kgCO<sub>2</sub>eq of 0.98 per £spent. The present day estimate of the costs of the proposal in the planning application is £294 million which produces an embodied carbon total of 288,414 tonnes.

4.8 Adding 288,414 tonnes of CO<sub>2</sub>e is not compatible with the Council’s objective in the emerging Oxfordshire Plan 2050 “to demonstrate leadership in addressing the climate emergency by significantly reducing greenhouse gas emissions. The word “significantly” has a clear meaning and that meaning is “do not make things worse”.

¶

## **Oxfordshire Plan – Regulation 18 (Part 2) Consultation Document**

**VERSION 30 (Full Text) with paragraph numbers  
At 23 July 2021**

¶

Oxfordshire Plan Objectives

1. To demonstrate leadership in addressing the climate emergency by significantly reducing greenhouse gas emissions.

**5. Best practice integrated transport, housing and land use planning in areas that compare with the area covered by this planning application and clearly identify the potential for economic success and zero carbon in a “no additional highway capacity” scenario.**

5.1 There is an abundance of best practice in mainland EU countries and very little in the UK. The best examples can be found in this ITDP report, summarised in Table 1.

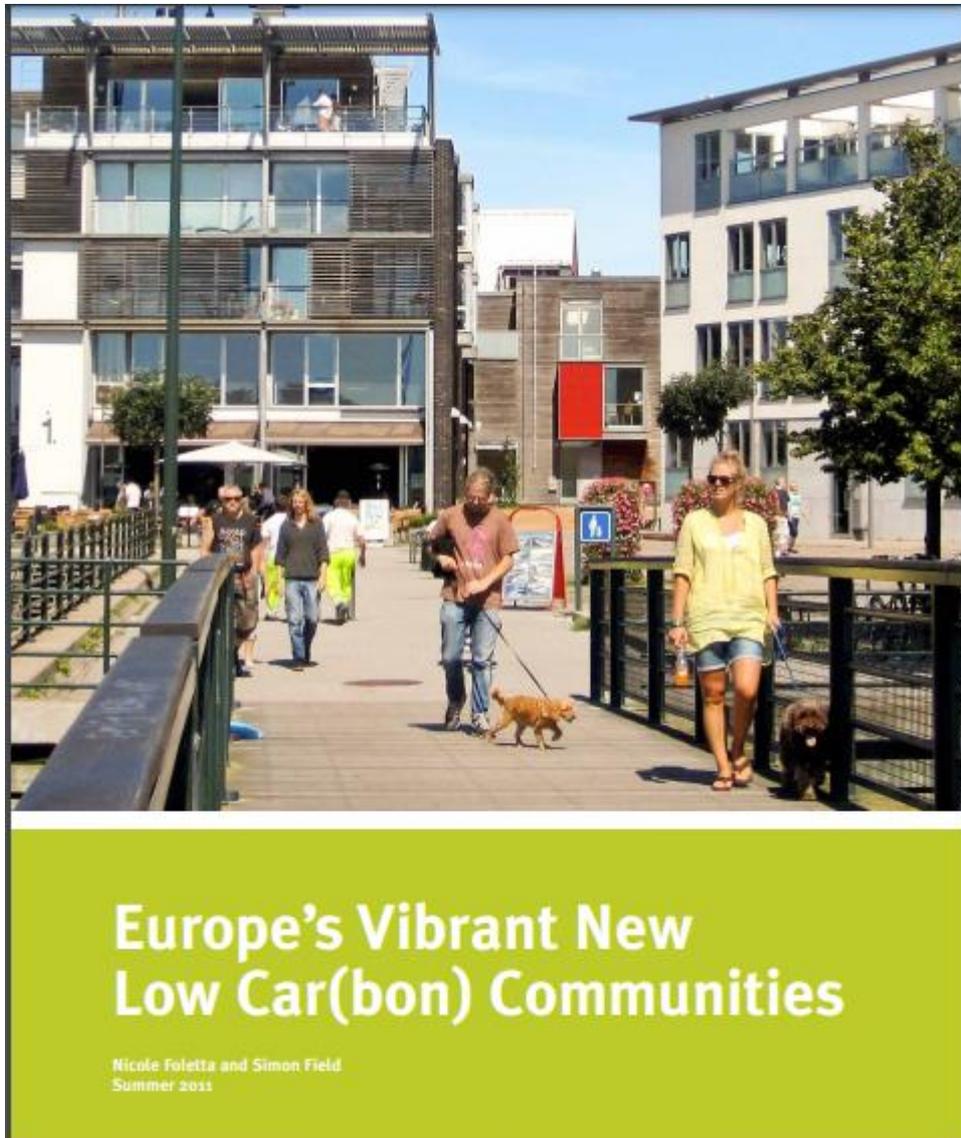
**Table 1**

Vibrant Low Car(bon) Communities

	Population	Cars per 1000 residents	Non-motorised transport %of trips	Public Transport % of trips	
GWL Terrein, Amsterdam	1,400	190	80	14	
Hammerby Sjostad, Stockholm	17,000	210	27	52	
Stellwerk 60, Cologne	750	60	26	53	
Vastra Hamnen, Malmo	4326	440	60	17	
Vauban, Freiburg	5000	160	64	19	

The number of licensed vehicles (UK) is 596 per 1000 residents “with the rate being highest in the southern English regions”

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/800502/vehicle-licensing-statistics-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/800502/vehicle-licensing-statistics-2018.pdf)



<https://www.itdp.org/2011/09/22/europes-vibrant-new-low-carbon-communities-2/>

All the locations in Table 1 are economically successful with a higher GDP per capita than UK locations (excluding London)

5.2 A commonly used measure of economic performance is GDP per capita by city or region. South East England is £34,083.

<https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/regionaleconomicactivitybygrossdomesticproductuk/1998to2018>

GDP per capita in Stockholm and Freiburg

Stockholm is \$63,258 (£46,708)

<https://www.oecd.org/cfe/SWEDEN-Regions-and-Cities-2018.pdf>

Freiburg is 87,245 Euros (£73,263)

<https://moneyinc.com/richest-cities-in-germany/>

## **6. Conclusions**

The planning application is deeply flawed and should be withdrawn and resubmitted giving full attention to the key dimensions of policy failure. In the event of the application not being withdrawn it should be refused.

- 1 It fails to follow WebTag guidance and ignores the importance of the need for a clear definition of the nature of the problem that has given rise to the £294 million funding decision, the range of solutions available to solve that problem and a very clear and transparent methodology that is employed to select the best performing option that would be recommended for adoption, funding and delivery.
- 2 The re-submission of the planning application must give central prominence to carbon emissions that will be generated by the proposals over the next 60 years, policy consistency, value for money and alternatives to the simplistic prioritisation of road infrastructure that based on evidence will deliver a full range of environmental, climate change, public health, fiscal and quality of life outcomes.
- 3 In the context of a very severe and urgent climate emergency that has been declared by national government, Oxfordshire County Council and the District Councils, it is perverse and unreasonable to pursue a policy

(road building and the expansion of highway capacity) that is clearly linked to increasing transport carbon at a time when it is widely accepted that we must reduce transport carbon.

- 4 Spending £294 million to generate an additional 288,414 tonnes of CO<sub>2</sub>e (para 4.7) is not compatible with the County and District Councils' declarations of a climate emergency and a departure from an agreed high level strategic policy (climate change).
- 5 The re-submission of this planning application must include a full, independent, robust, scientific analysis of embodied carbon and operational carbon (CO<sub>2</sub> emissions from future growth in vehicle kms of car trips based on the evidence of induced traffic as a result of increasing highway capacity).
- 6 The emphasis on road building and highway expansion with its weak inclusion of non-transformational support for walking and cycling and its lack of commitment to scenarios that embed modal shift in major spending decisions is contrary to accepted and evolving Oxfordshire County Council policies.
- 7 The council's draft Local Transport & Connectivity Plan (LTCP5) includes ambitious targets to ***“Replace or remove 1 out of every 4 current car trips in Oxfordshire by 2030”*** and ***“Replace or remove 1 out of every 3 current car trips in Oxfordshire”*** by 2040. The proposals in this planning application are not supported by any modal shift evidence and the evidence around “new roads generate new traffic” is unambiguous. The £294 million spend will increase car trips.
- 8 The current planning application is based on denial. It denies the importance of climate change. It denies the significant progress made nationally and internationally on sustainable transport and how we can support vibrant local economies with no expansion of highway capacity. It denies the importance of value for money in public spending. It denies the evidence around modal shift and how we can achieve the outcomes already achieved in one of the most vibrant, economically successful, climate change aware city regions in the world, Freiburg-im-Breisgau in Southern Germany (Figure 1).

- 9 The very low levels of car use in Freiburg are the result of sustained modal shift and economic success greater than any English region.
- 10 The current planning application is based on “Nelsonian Knowledge”. Planning decisions and wider issues around public policy consistency, value for money and evidence must never be based on “Nelsonian Knowledge”

### Nelsonian knowledge

(law) Knowledge which is attributed to a person who has engaged in willful ignorance of that knowledge and ought to have known it.

Professor John Whitelegg BA PhD LLB

21<sup>st</sup> January 2022

## Note 1

### [2005 to 2018 UK local and regional CO2 emissions – data tables](#)

Oxfordshire carbon emissions (Kt) 2018

Transport = 1860.3 Kt

Grand Total = 4078.9 Kt

Transport % =45.6%

South Oxfordshire DC carbon emission (Kt) 2018

Transport= 426.7 Kt

Grand Total = 828.2 Kt

Transport % = 52%

Vale of the White Horse DC carbon emissions (Kt) 2018

Transport = 411.8 Kt

Grand Total = 821.6 Kt

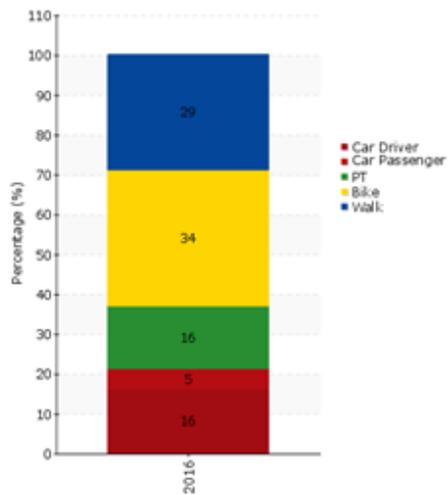
Transport % = 50%

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018>

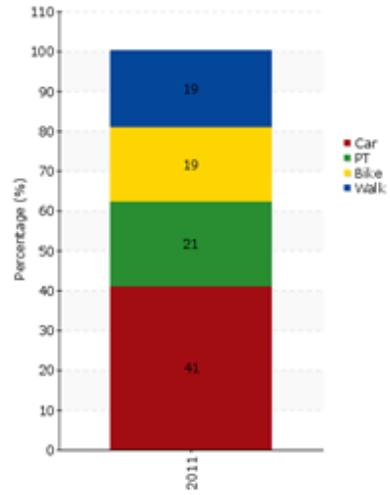
Figure 1

# Modal Split

Freiburg



Oxford



Source: Whitelegg, J (2015)

## References

DfT (2005) Smart Choices. Changing the way we travel

<https://webarchive.nationalarchives.gov.uk/ukgwa/20100304004945/http://www.dft.gov.uk/pgr/sustainable/smarterchoices/ctwwt/>

Eddington report (2006) The Eddington Transport Study. Main Report: Transport's Role in Sustaining the UK's Productivity and Competitiveness

<https://researchbriefings.files.parliament.uk/documents/SN04208/SN04208.pdf>

Scott, K., Gieskam, J., Owen, A and Barrett, J (2015) Embodied greenhouse gas emissions of the UK National Infrastructure Pipeline (NIP), University of Leeds

Nash, C and Whitelegg, J (2016) Key research themes on regulation, pricing, and sustainable urban mobility, International Journal of Sustainable Transportation, 10, 1, 33-39

Whitelegg, J (2015) Mobility: A New Urban Design and Transport Planning Philosophy for a Sustainable Future

[https://www.researchgate.net/publication/281318694\\_Mobility\\_A\\_New\\_Urban\\_Design\\_and\\_Transport\\_Planning\\_Philosophy\\_for\\_a\\_Sustainable\\_Future](https://www.researchgate.net/publication/281318694_Mobility_A_New_Urban_Design_and_Transport_Planning_Philosophy_for_a_Sustainable_Future)

Whitelegg, J (2019) Excellent and effective solutions to solving congestion problems identified in the case for the M4 relief road, Newport, South Wales, Liverpool John Moores University

## Appendix 2

### Outline Comments on HIF Forecasts and Appraisal

Professor Phil Goodwin<sup>1</sup>, BSc (Econ), PhD (Civil Engineering), FCILT, FIHT

#### Introduction

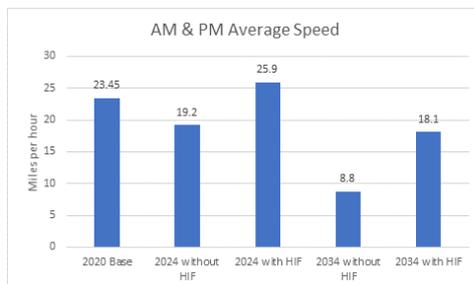
Cllr Charlie Hicks, Chair of the Transport Scrutiny Working Group and Climate Scrutiny Working Group, Oxfordshire County Council, asked me to comment on the treatment of forecasts of traffic, including induced traffic, which are used to support compulsory land purchase for the construction of HIF road projects. These are part of County's housing and other development plans. He provided me with an email chain between himself and the Head of Infrastructure Delivery, Ms Hannah Battye, and links to various published summary material about the proposals, which I have read, but I have not studied the voluminous earlier work about the development proposals themselves, and do not have a view about these.

The main relevant material is contained in an email from Ms Battye dated 17.2.2022, which embodies earlier correspondence. The extracts below are taken from that email.

#### Background

Oxfordshire County Council has worked up, over some years, a proposal for additional housing, employment and related development in Didcot and neighboring areas. This would increase the number of people living and working in the area, and therefore the volume of traffic. Calculations suggest HIF proposed road schemes would allow the development to go ahead while reducing congestion and carbon emissions.

#### Traffic Forecasts



The main forecasts cited by Ms Battye are made by the Consultancy Systra using a model called the Didcot Paramics Microsimulation model, owned by OCC.

At face value, they show that without the road schemes, average peak speeds on the relevant part of the network would reduce as a result of the development, from 23.45 mph in 2020, to 19.2 mph in 2024 and a further decline to 8.8 mph in 2034. However, if the HIF schemes are implemented speeds would rise to 25.9 mph in 2024. But then they would fall back to 18.1 mph in 2034 even if the HIF schemes are implemented. This speed is not only less than in 2024, but is even less than the 2020 base figure.

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<sup>1</sup> See personal statement at end.

Therefore it seems that the forecast relief from congestion of the HIF schemes is expected to be very short lived. I do not know if there is an implied further set of road schemes that is planned for the early 2030s.

The Paramics model, as I understand it, is essentially a comparison of two cases: both with the development in place, which produces a given total number and location of journeys, but one figure with and one without the road schemes.

Traffic forecasts from 2020 to 2024 and 2034 must clearly be influenced by many other factors than the development and the roads – assumptions about demographics, the state of the economy, the level of car ownership, the cost of fuel, the cost and quality of public transport, policy on traffic management, speed limits, the proportion of vehicles of different types, progress on active travel, and any additional traffic that would be induced by the presence of the road improvements themselves. If I have understood correctly, the Paramics model has itself not been used to make forecasts of all these factors, and indeed does not have the functionality to do so. Rather it has looked at the effects only of the traffic generated by the proposed developments themselves.

But in that case, therefore, the actual forecasts of traffic due to all these other factors have not come from the Paramics model, which seems to be overlaid (I think) on forecasts produced earlier using the Oxfordshire Strategic Model (OSM) which does have the functions to calculate the effects of some of these other factors. I am familiar with the nature of this Model, but have not seen a report of its earlier calculations.

The issue of concern is that I believe this work must have been carried out during the period when the dominant general traffic forecasts were informed by the DfT's 2015 or 2018 National Traffic Forecasts. These were made before the onset of (a) Brexit, (b) Covid19, and the radically increased recognition of (c) the effects of climate change and (d) the importance of policies to combat it, both nationally and in Oxfordshire. It is my view that these four factors radically change the forecasts of traffic which would now be appropriate. Therefore even if the Paramics simulation is correct on the basis of these earlier forecasts, it would not necessarily be accurately representing the relevant current base level, or the factors leading to change. The assessment of the impact of the HIF schemes cannot be more accurate than the assessment of the base level of demand and the factors operating on it.

### **Induced Traffic**

Induced traffic is defined as the additional traffic which results from the provision of additional road capacity which reduces travel times. It may be thought of as the equivalent of the extra traffic which results from reduced journey costs. Both are also influenced by convenience, comfort and other conditions, as well as the availability and attractiveness of other modes of travel. The induced traffic will be made up of the net effect of additional trips or greater frequency of trips, transfer from other modes, increased journey length from more distant origins or to more distant destinations, changes in routes chosen, and will have different effects depending on location, time and season. Where road provision changes land use patterns, this can also be treated as induced traffic.

The only response included in the Paramics modelling is the choice of route travelled, for the two cases with and without the schemes, but both taking the development as given<sup>2</sup>. It is very widely experienced that the provision of additional road capacity does in fact change behaviour in the ways described, and such induced traffic is therefore likely to occur. This means that there will be additional traffic due to other people using the road system. It is also clear that the Paramics model does not have the facility to make such calculations, and has not tried to do so. My understanding is that there is no claim that such induced traffic will not exist. Rather, the suggestion by Ms Battye is that it is unlikely to be big enough to make any difference:

“for any ‘induced demand’ to have a negative impact on HIF results (make the speed lower than 2024 without HIF), the induced trips would have to be approximately at least the same as the number of trips from ten years of housing and employment growth”

Note that a ‘negative impacts’ is defined, in the brackets, as making the speed in 2024 with the roads lower than the speed without the roads. It is established in traffic science that it is possible for such a big effect to occur, but in the short run it is thought to be rare. However, even in the short run I do not think that this is the correct comparison. Induced traffic has a negative impact on the HIF results even if it is say half the number of trips (or even just 10% of the number of trips) from the housing and employment growth. In these cases the speeds will be lower than calculated, and the benefits therefore less<sup>3</sup>. This would be revealed when any consideration is made bringing the normal criteria for value for money for road schemes into consideration of the special criteria of value for money of development.

In the longer run, there is a further effect. The question is whether the combined effect of the development and the roads results in a more car dependent life style, a dynamic process which tends to reduce the quality of public transport, and location of facilities, triggering a sort of vicious circle in which the end result is indeed worse for all. This is not inevitable – it would depend, for example, on parking policies, density, provision of facilities like shops, frequency of buses, access to rail services, cycling and pavement standards, schools, doctors etc. But then the traffic forecasts would need to be different depending on the outcome of all these decisions. It is difficult to see how this would be done using the Paramics model, which implicitly will be assuming particular details of development whether or not they have yet been defined.

Taking account of induced traffic will have the effect of further reducing the predicted benefits of both reduction in congestion and reduction in CO<sub>2</sub>. (That is, they will be worse than the current forecasts for 2034 'with' the schemes). This will reduce the value for money of the schemes and increase the climate damage caused even if the amount of induced traffic is smaller than the amount of increased traffic from the development. I am not aware that there has yet been any calculation of value for money, but that will may be scrutinised in any Inquiry or Public Examination.

### **Other considerations.**

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<sup>2</sup> Note that the roads schemes are described as a necessary condition of the development, which means that strictly the traffic speed forecasts for the case with the development but without the road schemes could not actually occur. Sometimes this causes considerable misunderstandings.

<sup>3</sup> At a technical level, the relationship between speed and traffic flow is not linear, especially in congested conditions, so I'm not sure I understand the 'at least the same as...' rule of thumb.

The effect of speed on carbon emissions is different for an individual vehicle travelling at those speeds (which I think the graphs refer to), compared with a stream of traffic whose average speed varies (which the traffic forecasts refer to). Also, low speeds have entirely different effects if they are in stop-start conditions due to heavy congestion, or if they are a smooth lower speed due to reduced speed limits and managed traffic flows which, hopefully, is what can be implied in the future. Slower speeds are in general inefficient for vehicle which have been designed to be able to travel must faster than the design speed (or speed limit) or the road. I note that there is currently much more consideration of the effect of different designs of development can have on traffic conditions, for example if housing design is on the basis of multiple car ownership, or reduced car use by provision and accessibility to local services and attractions, and good alternative facilities for walking, cycling and public transport. These are of course, quite rightly, a priority for the Council, but it is not clear how the forecasting methodology allows such policies to have any effect on the traffic.

### **What to do?**

Oxfordshire is not alone in being faced with this problem, which is not uncommon in Local Government when a large proposal inherited from a previous administration has to be assessed (a) following a change in the political complexion of the County, and (b) in the middle of a very substantial change in Government objectives and appraisals, due primarily (though not only) to climate change.

I think the current experience in Wales may be helpful to Oxfordshire. Faced by a large number of 'inherited' road schemes whose appraisals had been carried out at a time of different traffic forecasts and different policy priorities, the Welsh Government has announced a pause in further progress on those schemes, and set up an Independent Commission of well qualified people to reconsider each one to assess its contribution to the Government's wider policy objectives. Their approach derives from similar thinking to the UK Treasury revision last year of its 'Green Book' of the general rules of appraisal. So far one scheme has been formally abandoned, and another I think will be modified. I don't prejudge the overall outcome, but what is clear is that existing or modified schemes which go ahead, will do so with a much greater confidence that they are well thought through and consistent with objectives.

### **Personal Statement**

I have experience in the assessment of traffic forecasts, the calculation of induced traffic from road schemes, and similar matters. I am Senior Fellow of the Foundation for Integrated Transport, and Emeritus Professor of Transport Policy at University College London and the University of the West of England. I was formerly Director of the Oxford University Transport Studies Unit (1979-1995) and a resident of Oxford during that time. I have been an advisor to the Department for Transport on traffic forecasting and road appraisal methods for 40 years, and currently, including being co-author of the official SACTRA report on Induced Traffic in 1994, and reports on suppressed or 'disappearing' traffic and forecasts. I am also currently advising the Welsh Government on its new road appraisal methodology. I have appeared as an expert witness in a number of planning enquiries particularly Public Examination of road schemes.

I am conscious that I have not had the opportunity to read all the documentation and technical reports that surely exist even if not all published, on all the background to the Oxfordshire Transport Strategy, the development proposals and the technical modelling reports, as I would expect to do in a proper professional study. Therefore my conclusions are necessarily provisional. I built my career in Oxford during the late 1970s to mid 1990s, with good working relationships with both City and

County at that time, and have a great affection for the region. These comments are offered pro bono publico.

Phil Goodwin 28.02.2022

## **Didcot Garden Town Housing Infrastructure Fund (HIF 1) Scheme.**

I have now read the Regulation 25 request for further environmental information from the LPA (OCC) to AECOM consultants. In my professional opinion the request fails to address a significant number of outstanding concerns in respect of hydrological issues associated with the development scheme.

As a consequence, even if AECOM answered the requests in full, the Environmental Statement (ES) would remain deficient in its assessment of likely significant environmental effects of the scheme.

My main outstanding concerns include, but are not limited to;

- Changes will inevitably occur to conditions affecting **surface and shallow sub-surface movement of through-flow and groundwater drainage**, both in “normal” weather conditions, and during periods of high rainfall and flooding, throughout the areas and elements of the proposed scheme. (See Figure 1).
- **Land drainage** will be considerably modified throughout the extent of the proposed project (see location plan; Figure 1), and many of the changes to the landscape and detailed road route layouts, could well produce **unintended consequences for land drainage and even exacerbate flood risk**, especially in the vicinity of the River Thames NW of Appleford (Sections 12, 13 & 14; Figure 1).
- The proposed developments and changes in surface and shallow groundwater drainage will significantly **alter and make relatively impermeable, large surface areas of this part of Oxfordshire**. Both **surface and groundwater flows, water quality and resources are highly likely to suffer** significant derogation as a consequence of the proposed developments.
- With such profound changes to the Oxfordshire landscape over such a large area of ground, (with a considerable variety of soil types, superficial deposits and bedrock involved) it is inevitable that **numerous land drainage, surface and groundwater recharge problems** will occur, with **localised and wider scale flooding incidents and longer-term detriments** likely.
- With such complexity of changes to surface and shallow sub-surface conditions to be created, **detriments to groundwater conditions will occur either during construction or in operation of the proposed Scheme**.

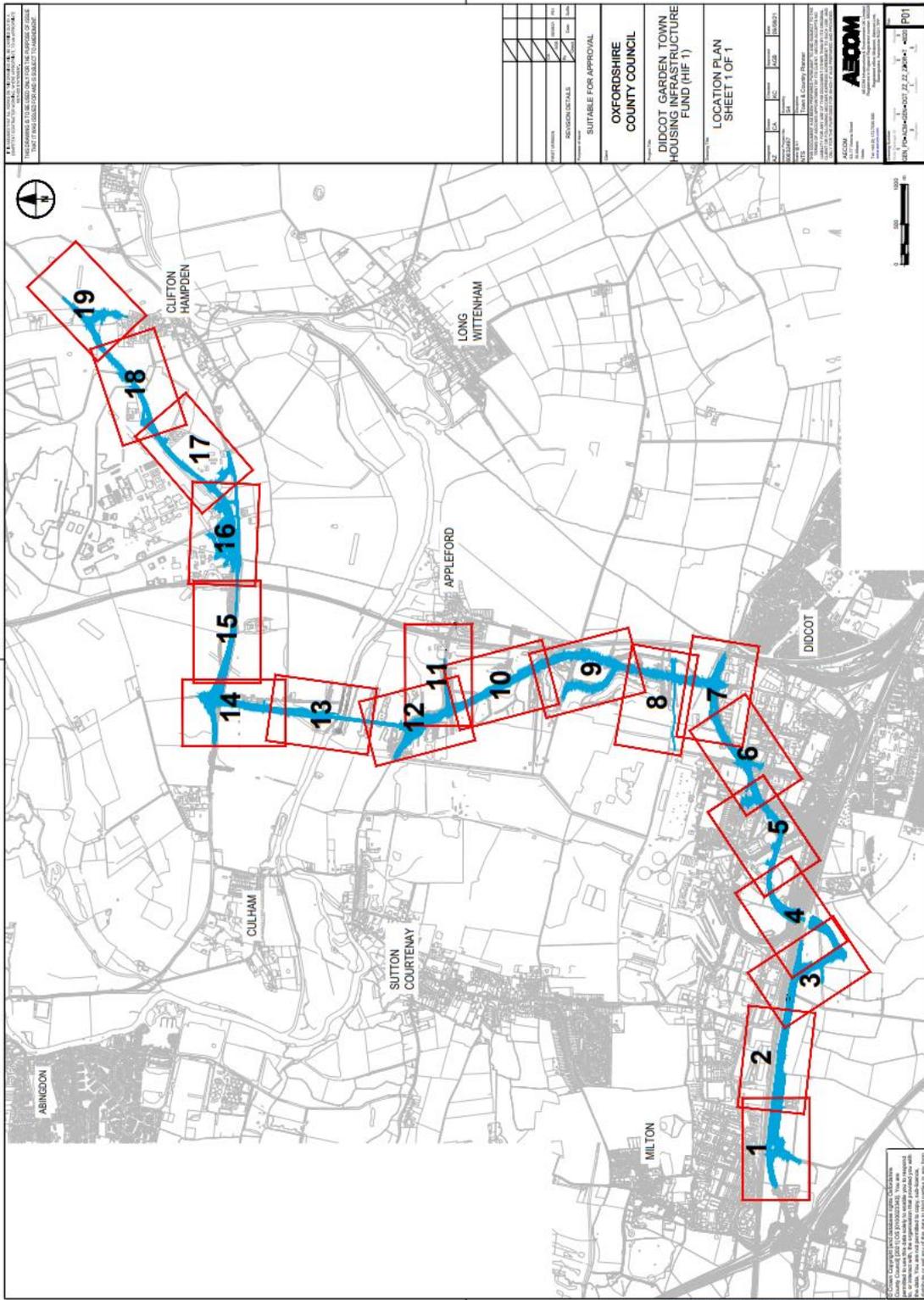
### Summary of Concerns

- There have been extensive desk-study reports included in the AECOM Environmental Statements (in particular Chapters 11 and 14 of ES Volume 1), outlining **the difficulty of predicting future surface drainage flows, sub-surface and interflow problems**. This is in addition to the potential for contamination incidents from both historic wastes and land-use, (in addition to accidental roadside spills of contaminants). All these issues present **unpredictable threats to surface and groundwater quality and quantities which will undoubtedly exacerbate existing flood levels in periods of high rainfall**.
- Despite the enormous amount of documentation assembled in support of this Planning Application, **the scale and extent of the Proposed Scheme demands extensive further studies, including flood event modelling, on a regional as well as on very localised and detailed levels, for all the components of the proposed works**.

- Anything that can conceivably affect **surface waters/hydrology, groundwater flows and quality, or has the potential to adversely affect the geotechnical properties of the shallow and deeper superficial and bedrock materials, must be examined in much more extensive detail, and over longer timeframes, before any permission is granted for each of the many components of this highly complicated Scheme throughout the affected areas.**

GM Reeves 01.05.22

**Figure 1- Location Plan:- (from AECOM Documentation)**



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## **Proposed additions to Regulation 25 request.**

### **Option Assessment Report (OAR) Part 1 March 2018**

Document supplied by OCC on 08 March 2022.

Ref 3.45 Didcot to Culham Optioneering and Proof of Concept R2  
New Road and Thames Crossing 24 March 2016 by Atkins.

Appendices A to T are missing from this document, please supply.

This report is a precursor to the Option Assessment Report (OAR) of Sept 2021, is referred to in that document and has influenced the choice and rating placed upon phase 1 options. No explanation is presented for the objectivity of the option scoring, undertaken using the DfT's Early Assessment & Sifting Tool (EAST). Please provide the method used to ensure objectivity in the scoring.

### **HIF1 Design and Access Statements**

#### **Option Assessment Report (OAR) Sept 2021**

"Appendix C Phase 1 Sift Results" tabulates scoring for a range of options, including road building, bus networks, park & ride, rail improvements, road improvements, rapid bus transit, light rail. The scores for each are summated. There is no evidence presented on any research, consultation undertaken and on the objectivity of the attributed scores. Please provide this evidence.

### **Traffic Modelling.**

1 "New Road and Thames Crossing" 24 March 2016 - Atkins.

This includes predicted traffic flows" extracted using the SATDB module of the SATURN suite, for the Base Year (BY – 2013)". Please confirm and show the measured traffic flow values of the base year assumed in the Option Assessment Report part 1.

2 No traffic modelling has been undertaken on alternative traffic management strategies for existing or modified roads within a plan for future development in the Science Vale. It has been pointed out that traffic forecasts must be clearly influenced by demographics, level of car ownership, fuel costs, provision of public transport, traffic management policies, speed limits, vehicle type mix, active travel incentives, alternative road improvements and the induced traffic arising from a new road.

Presentation of modelled alternative strategies are required to reflect these influences and those that also address the climate emergency and the objective to reduce carbon emissions.

### **Additions to Regulation 25 request - Noise**

1 The baseline noise survey in which subsequent noise predictions are based, are limited to only twelve monitored locations. At some locations the noise sources have not been identified, e.g. rail, road and industrial sources with impulsive and tonal character at Appleford Sidings. The noise survey needs to be extended to include locations affected by the Scheme, e.g. A4074 at Nuneham Courtenay , Main Road & Chambrai Road Appleford, properties in Sutton Courtenay along the B4016 (Church Street), properties along the Tollgate road at Culham , properties along High Street in Long Wittenham , Home Farm & the Coppice Clifton Hampden , Burcot and surrounding properties on the A415.

2 The particular noise impacts on the three Noise Important Areas have not been examined:

- In Clifton Hampden, road noise on the A415 near Watery Lane (ID 13243)
- In Appleford, rail noise at Appleford Sidings (ID 564)
- A34 road noise at Milton Height (ID4187)

A Noise Action Plan is required for each of these locations.