

Responses to consultation on Investment Recovery Charge for Phase One of HS2 launched in March 2022

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Telephone:

13th May 2022

Consultation Contact
Office of Rail and Road (ORR)

Sent by email

Re: ORR's consultation on Investment Recovery Charge for Phase One of HS2

1. Thank you for the opportunity to respond to this consultation on the ORR's treatment of an Investment Recovery Charge (IRC) for Phase One of HS2.
2. HS1 Ltd has held the 30 year Concession for HS1 route and stations since 2010 and our role is to be the custodian of the UK's first highspeed railway. HS1 has changed the lives of hundreds of thousands of people - from the families that now have a home with a garden, because affordable private housing has been brought into their reach, to the businesses that have set themselves up because of the diverse and skilled international workforce now at their fingertips. It delivers significant environmental benefit and is a key enabler for the Government's net zero commitments. The route delivers almost £0.5 billion of economic benefits every year. There can be no greater testament to our success than the growing popularity among the people who use it.
3. Before the pandemic HS1's highspeed services were at an all-time high, having risen by 93% in the past 10 years. A huge number of people – those using the services as well as living, studying, or working close to the route – all benefit. We deliver access to more affordable private housing, more opportunities to work, cleaner air and safer roads. Highspeed services allow people to be more productive by reducing their journey times so they can spend more time doing what they want. We boost domestic and international tourism. We bring London and Kent closer to the rest of the world and have proven that European investment into the UK has grown massively since HS1 services opened. More French businesses have registered in the UK, particularly within the HS1 catchment area, and Belgian investment into the UK has grown six-fold. Trade is growing and businesses say that the presence of a highspeed railway is a key reason why.

4. The success of HS1 is based on the longer-term economic value and planning that was part of the vision for its construction. Central to this was also setting up the infrastructure concession based on the levying of an IRC and setting up an attractive risk profile to maximise the sale price, and immediately reduce the government's debt in relation to construction of the asset. Sustainable private sector financing is a key objective for government moving forward as set out in the Williams – Schapps Plan for Rail, and the HS1 Concession provides a blueprint for how this could be done in the future, both for HS2 and other elements of the railway.
5. HS1 is therefore well placed to comment on this consultation and the lessons we have learned in our first 12 years as the infrastructure concessionaire. The remainder of this letter sets out HS1's comments in relation to the rationale for the potential sale for HS2 and the legal tests.

The rationale for an infrastructure concession model

6. HS1 welcomes the ORR's focus on the potential for HS2 to be sold by the DfT as an infrastructure concession in the future.
7. The arguments made by DfT and endorsed by the ORR (para 2.29) that seeking to monetise the up-front investment and recover costs is compelling in our view – and as was the case with HS1, would mean a capital lump sum, potentially a significant one, flowing back to the taxpayer to offset part of the initial construction cost.
8. The HS1 Concession was sold in 2010 for £2 billion for the right to operate, maintain and renew the assets for 30 years. This revenue immediately allowed the government to offset a large proportion of the £6.2 billion build costs associated with the project. To effectively monetise a revenue stream, under the HS1 Concession an indexed linked IRC was set to a cap £69.57 per minute (Feb 2009 prices). Sizing the IRC appropriately is critical to this and the success of the concession. In addition, a baseline domestic traffic commitment was made to partly offset volume risks faced by HS1. Further certainty was provided because investors could recover their invested capital without the risk of further regulatory review over the life of the concession.
9. While this provided a relatively low risk profile to attract investors, the volume risk associated with open access was passed to HS1. Setting IRC therefore needs to be based on appropriate traffic forecasts, and as is the case with HS1, demonstrate that it is set at a level that still attracts operators. The DfT's international traffic forecasts for HS1 have proven to be very optimistic, and this has impacted the financial case made by investors at the point of sale. Although the underlying structure meant the private sector could effectively price, and efficiently seek debt finance, not accounting for open access volume risk undoubtedly impacted the sale price at that time. The degree to which open access is considered in future HS2 operating models and how volume risk is treated will be one of a number of important considerations for the DfT as it considers maximising the capital sum it might receive through a potential sale of the HS2 asset in the coming years.

The legal framework

10. HS1 welcomes the ORR's approach to HS2 which adopts the second charging exception enshrined in paragraph 3 of Schedule 3 to the Railways (Access

Management and Licensing of Railways Undertakings) Regulations 2016 (the 2016 Regulations). As HS1 set out as part of its last periodic review process (PR19), it is important for the ongoing certainty of long-term rail infrastructure finance in the UK that the ORR maintains this approach for HS1, HS2 and other potential concession models in the future. It is legitimate that operators face a charge to recover the cost of building infrastructure on the basis it would not have been reasonable to expect the infrastructure to have been built if they did not.

11. However, within the legal framework HS1 believes it is also important to ensure IRC recovery has the flexibility to be applied to evolving markets – particularly given the long term nature of infrastructure concessions. An important consideration for the ORR should be the market segments to which IRC can be levied on HS2 in the future. For example, as part of the ambition to move towards net zero – highspeed parcel freight provides a compelling case for taking HGV traffic off the road network. Private sector investors need the right commercial incentives to grow traffic on their networks and this can be limited unless there is a clear revenue stream.
12. HS1 looks forward to working with the ORR and other stakeholders as the model for HS2 in the future becomes clearer.

Yours sincerely

Head of Regulation and Customer Relationships

ORR HS2 Investment Recovery Charge consultation March 22
Submission from responding as an Individual

I thank you for the opportunity to comment on your proposal to allow Investment Recovery Charge for Phase One of HS2.

While in principle this may seem a reasonable approach I do not believe the proposal meets the legal requirement: -

(2) For sub-paragraph (1) to apply- (a) the project must increase efficiency or cost effectiveness;

I wonder whether you have all the information that was available at April 2020, needed to decide this point.

At para. 2.12 of your assessment you cite the April 2020 HS2 economic case (abstract below) (i.e. every £1 invested will receive £1.20 in benefits) however this figure does not take into account a) sunk costs or b) revisions to the OBR GDP growth forecast from March 2018 to April 2020 (particularly the reduction of the OBR long term productivity growth forecast from 2%/year to 1.5%/year made prior to April 2020).

I believe that to carry out the Paragraph three tests at April 2020 both these matters need to be taken into account. The economic case economics were prepared for a different purpose, the Paragraph three test presumably looks at efficiency and effectiveness in the light of the total forecast investment cost of the project and the best information available at the point of the decision.

If the sunk costs were included at April 2020 the benefit cost ratio drops to 1 (for every £1 spent there is £1 in benefits). Source DfT - House of Lords response to a question from Lord Berkley. From the recent events in the economy, cost pressure, delays, and the drop in rail usage it is difficult to see that the project gets better than 1 when sunk costs are considered. (2) (a) becomes nonsensical if sunk costs are not included. I would also suggest that the current proposed full scheme that Phase 1 enables would on a full cost basis also have a BCR below 1 (i.e. poor value).

If the last pre April 2020 OBR forecast were also used, based on previous sensitivities in the HS2 economic case documents, the BCR with Wider Economic Impacts probably drops to about 0.8 designated POOR (the benefits are about 80p for every £1 spent). I feel most people using common English would not assess such an arrangement "efficient or effective".

In January 2019, HS2 Ltd were aware of and (as part of the preparations for the April 2020 Economic case) in discussion with the DfT about the impact of the OBR revisions to GDP forecasts on the Economic case. Source - Information Tribunal Decision EA/2020/0007V. However the April 2020 case was still based on the 2018 OBR forecasts and the April 2020 documents did not include a sensitivity of the impact of known changes since 2018.

I am not objecting to HS2 investment costs recovery hopefully it would not lead to unchecked or effectively un-regulated rail fare increases, however I do believe any decision needs to be made in the light of the accurate predicted economic benefit of the project at April 2020.

As a point of interest the Information Commissioner and the Information Tribunal have both directed HS2 Ltd to release information concerning what was known of the impact of OBR forecast changes at January 2019; one year after the Information Tribunal direction HS2 Ltd have not yet released the information into the public domain.

References

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/939905/full-business-case-hs2-phase-one.pdf

Table 2.1: Economic analysis of HS2

PV, 2015 prices, £bn	Phase One Only "Parliamentary Powers"	Phase One and 2a "Statement of Intent"	Phase One, 2a and 2b "Full "Y" network"
(1) Net Transport Benefits (Incl. Wider Economic Impacts)	32.8	38.0	94.7
(2) Total Costs	43.3	51.2	108.9
(3) Revenues	15.7	18.4	45.4
(4) Net Costs to Government (2) – (3)	27.6	32.8	63.5
Benefit Cost Ratio (Incl. Wider Economic Impacts) (1) / (4)	1.2	1.2	1.5*
Value-for-Money Category	Low	Low	Low to Medium

2.20 Economic appraisal is conducted based on the costs that will be incurred following the decision to go ahead with HS2. Therefore, spend up to the end of 2019 has been treated as sunk and excluded from the appraisal except for

purchase costs on land and property that could be recoverable were HS2 not to go ahead.

<https://questions-statements.parliament.uk/written-questions/detail/2020-04-28/hl3454>

Answer



Baroness Vere of Norbiton >
Conservative
Life peer  Lords

Answered on

13 May 2020

The spend to date on HS2 up to the end of 2019 was £7.5bn (2015Q1 prices, excluding VAT). However not all of this is treated as sunk costs in the economic case as the land and property costs could be recoverable were HS2 not to go ahead.

what would the benefit-cost ratio figures be if those costs had been included;

The benefit cost ratio figures including sunk costs are as follows:

	Full Network	Statement of Intent	Parliamentary Powers
BCR without WEIs	1.1	0.8	0.8
BCR with WEIs	1.3	1.0	1.0

whether the writing off of development costs up to the time of Notice to Proceed is in compliance with the HM Treasury's Green Book;

The appraisal of HS2 has been undertaken in compliance with HM Treasury's Green Book. The Green Book states that "[w]hat matters are costs and benefits affected by decisions still to be made."

what other Government-funded projects have had the development costs written off; and whether any such costs were written off in order to improve the benefit-cost ratio figures.

Costs have not been written off in the approval of HS2, HS2 Ltd's delegated Funding Envelope (the "Target Cost") for Phase One is £40bn (2019 prices). This Target Cost includes the costs already spent on the project.

Organisation details

Organisation name

The Madeley Independent Residents STOP HS2 Action Group

Details of individual in organisation

First name(s)

Last name

Address line 1

Address line 2

Staffordshire

Post Code

CW3

Country

England

Email

Check this box to receive updates from the High Speed Rail (West Midlands to Crewe) Bill Committee?

Phone

Who should be contacted about this petition?

Individual above

Another contact

If another contact, complete the 'main contact's details' section.

Main contact's details

First name(s)

Last name

Address line 1

Address line 2

Post Code

Country

Email

Check this box to receive updates from the High Speed Rail (West Midlands to Crewe) Bill Committee?

Phone

Terms and conditions

Personal information

A copy of this petition and information provided in the online form will be:

- kept in the Private Bill Office and as a record in the Parliamentary Archives.
- sent to the Department for Transport and High Speed Two (HS2) Limited after the petition has been received by the Private Bill Office.

We will publish your petition on UK Parliament's website. This will include your name and address.

The personal information you have provided may be kept in a database by both Private Bill Offices.

Communications

Private Bill Office staff may call or email any of the people named in the petition to verify the information provided.

Communications may be stored in databases to keep track of information you have given or received. This information may be shared between the Private Bill Offices.

Consent and confirmation

The information you have provided in the petition and online form is accurate.

If you have completed the form on behalf of an individual, a group of individuals, an organisation, or a group of organisations, you have been authorised to do so.

Check this box if you agree to the terms and conditions

Hybrid Bill Petition

House of Commons
Session 2017-19
High Speed Rail (West Midlands – Crewe) Bill

Do not include any images or graphics in your petition. There will be an opportunity to present these later if you give evidence to the committee.

Your bill petition does not need to be signed.

Expand the size of the text boxes as you need.

1. Petitioner information

In the box below, give the name and address of each individual, business or organisation(s) submitting the petition.

The Madeley Independent Residents STOP HS2 Action Group

Address

c/o Bramble Lea, Madeley Staffordshire CW3

In the box below, give a description of the petitioners. For example, “we are the owners/tenants of the addresses above”; “my company has offices at the address above”; “our organisation represents the interests of...”; “we are the parish council of...”.

We are residents in and around the parish of Madeley who are directly and badly affected by the HS2 proposal.

2. Objections to the Bill

In the box below, write your objections to the Bill and why your property or other interests are [specially and directly affected](#). Please number each paragraph.

Only objections outlined in this petition can be presented when giving evidence to the committee. You will not be entitled to be heard on new matters.

The Madeley Independent Residents HS2 Action Group

We are as the title states a group of independent residents who have successfully organised groups of people. We have held meetings which include a workshop on How To Petition Parliament. Although primarily for individuals this event organised by us was attended by representatives of three parish councils, two schools, churches and farm businesses.

Members include a former professional researcher to the Chair of The Select Committee on The Environment Audit. Other members have professional expertise in one or more of the technical issues under consideration. Yet other residents have valuable local knowledge and practical experience.

We are a separate NGO from that run by any local council. That means we do not stand in the shoes of a public authority. That also means of course we are not bound by those legal rules. Further only council invitees have been allowed to attend their meetings concerning HS2. This means the need to hear the voices of the independent resident is vital. This requirement is also supported by the independent assessor's report.

We restrict our comments to the proposal in front of us.

Our main contact will articulate the views obtained from our forums and expressed in this document.

Methods

We use classifications of issues closely informed by social reality as opposed to remote poorly informed desk based research found in this HS2 proposal. Our classifications are derived from how people understand this proposal.

Views were offered to us in a very constructive technical manner and approached using qualitative research methods.

Methodology

In brief

We talked to local people in focus groups about what they think of this proposal. This is a longitudinal study and our findings will inform us on the best ways to proceed.

It is noted that HS2 despite its resources has not provided a forum where they have properly consulted with local people to obtain detailed local knowledge and views before committing billions of pounds on writing a heavily technically flawed document and ensuing proposal.

Ethics

Despite a rapid expansion in the literatures on the societal dimensions of HS2, there remains a paucity of studies into the normative ethical dimensions of HS2 policy and practice.

We adapt an ethical framework for policy evaluation based upon Shrader-Frechette's (2002) Shrader-Frechette, K.S., 2002. *Environmental justice: creating equality, reclaiming democracy*. Oxford: Oxford University Press.) Principle of Prima Facie Political Equality (hereafter PPFPE); one that directly addresses the interrelationship between distributive and procedural elements of environmental justice.

Shrader-Frechette's central concern is that threats to equality and informed consent commonly underlie violations of environmental justice. The PPFPE is a response to this concern – it is an ethical position grounded in Rawls's (1999) Rawls, J., 1999. *A theory of justice*. 2nd ed. Oxford: Oxford University Press. philosophy of justice-as-fairness, and Dworkin's (1978) Dworkin, R., 1978. *Taking rights seriously*. Cambridge, MA: Harvard University Press. Dworkin, G., 1988. *The theory and practice of autonomy*. Cambridge, MA: Cambridge University Press. notion of political equality, whereby all citizens are given equal consideration and concern with respect to decisions over distributive outcomes.

In the PPFPE, “equality is defensible and that only different or unequal treatment requires justification”, in the sense that the onus for justifying environmental risks rests with those proposing potentially environmentally damaging developments, not those opposing them. “Equality of treatment under the law” is a key component, and it is “proportional to the strength of one's claims to it”; that is, in practice this may vary according to individual circumstances, compensation due to one's individual needs or society's general interest in providing incentives for certain kinds of actions.

Distributive justice is defined as “morally proper apportionment of benefits and burdens” (if environmental harm occurs, equality is therefore ensured through economic redistribution or else by providing equality of economic opportunity in return). This then relates to a concurrent need for *participative* justice (a form of procedural justice) involving “institutional and procedural norms that guarantee all people equal opportunity for consideration in decision-making”. This second facet requires that “stakeholder and expert deliberation [be] given equal weight” and that heterogeneous stakeholders including affected citizens be given “the same rights to consent, due process, and compensation that medical patients have”:

Hence it is unethical to expose people to environmental risks without first obtaining free, informed, competent and autonomous consent, free of coercion, with access to relevant information concerning the risks/harms, and capability to understand the relevant information and use it in individual decision-making (all of the above from Shrader-Frechette 2002 - Shrader-Frechette, K.S., 2002. *Environmental justice: creating equality, reclaiming democracy*. Oxford: Oxford University Press., p. 24–29, 77).

To summarise we see four component elements that underpin the PPFPE:

1. That the onus for justifying the impositions of environmental health burdens on individuals, rests with the polluter/developer/proponent, not with the opponent of development.
2. That equal rights are asserted under the law and that unequal treatment must therefore be compensated for (primarily through economic means of wealth redistribution or increased community economic opportunity).
3. That stakeholders including heterogeneous publics must have access to information about environmental impacts and harms.
4. That affected communities, and other stakeholder groups including heterogeneous “publics” must have access to participatory processes over environmental decision-making free from coercion and that affected individuals must give free, informed and autonomous consent to environmental degradation, given all of the aforementioned criteria.
5. The people who decide whether any restorative justice is proportionate to harm done must be the residents in the area affected and not those in areas unaffected by HS2. How and why would any other way be ethical?

Our Findings Todate

A) (1) Poor Public Engagement By HS2, By Government and Parliament

A number of points came out of the 'consultative' meeting at Madeley 2017

One thing that we do expect from consultative meetings is a table and facilities where our community group can also talk to people coming in to the room occupied by HS2 staff. We need to ensure people have all the facts to properly consider such a huge structure likely to adversely affect people's lives. Looking at the paper copies of maps we can see where the mistakes are.

This community group The Madeley Independent Residents HS2 Action Group demands funding. The government should properly fund this group and provide Legal Aid. If it fails to do so errors by HS2 will be compounded and we will be in position to construct costly civil cases against HS2. and or the government/parliament backing these errors.

2) Harassment of Residents by HS2 Staff - supported by Government and Parliament (all three can be seen as intertwined)

The experience by residents of HS2 staff to date.. On 24th August 2017 the residents' action group organised by semi retired residents, attempted to talk to other residents about How To Petition Parliament and advertise a workshop hosted by parliament staff. The action group was asked to stop talking to other residents and stop giving out a simple none contentious leaflet. The leaflet simply gave the venue, time and date of the meeting and that a public engagement officer from parliament will be leading the workshop on How To Petition Parliament.

The person from the action group who is legally trained left the room. Despite that, this person was followed out into a very public area by two HS2 staff.

HS2 staff were then advised they were now attempting to harass a member of the action group in a public place. HS2 staff were asked to walk away to avoid a complaint against them. They only did so at the third time of asking, and after the semi retired older person pointed out in measured tone that harassment was a criminal offence... The point here is that the meeting advertised, was about a simple democratic right to petition parliament, and how to do that. It would appear HS2 staff have a problem with residents accessing democracy. This then is an example of clear hostility towards an action group and ordinary people, who cannot possibly bother a big huge company such as HS2. The action by HS2 staff has been shameful. This reflects on the state of both government and parliament with its overwhelming support of what HS2 is doing.

3) The Equality Act 2010

It has been brought to the attention of the HS2 company that any of their references to the maps and associated documents being on line and the parliamentary consultative process is online creates discrimination for at least two protected groups of people namely the elderly and disabled. Despite numerous emails and telephone calls obtaining paper copies was very difficult . Indeed it wasn't until the 24th August (at The Madeley Centre meeting with HS2) that a complete set of paper copies were actually available.

Elderly and Disabled

This means that neither the elderly nor disabled have had materials for a sufficient amount of time (the deadline for responses was the end of September 2017) to properly engage with a public consultation. This point is also revisited in the communications section of this piece.

Elderly and disabled people are the two groups who will both find the construction phase particularly difficult and will not see any benefit going forward. Please note that there will always be elderly people generation on generation who have no need to go to London each day. The disabled will find London a difficult and dangerous place to

navigate.

Children

Further children were also disadvantaged as their schools were on holiday, and staff could not comment on this proposal for professional reasons, until schools came back into session.

Religion

This proposal also contravenes the Equality Act 2010 in the way it is negatively impacts on a Christian cemetery, a Christian medieval church, and ancient Christian Burial grounds. Christian outdoor ceremonies take place during Easter and the services will be disrupted by pollution from HS2 construction and later by the noise of the railway.

A Timely Reminder of The Intent Behind the Equality Act 2010

In the sphere of securing fundamental human rights, such as that to equality, engagement is seen primarily as a process of exchange of information, learning about the parties' respective positions, followed by persuasion based on reasoned argument, with a view to reaching agreement on the implementation of the duty. This goes beyond 'consultation' which, as usually interpreted, gives only a passive role to those consulted to respond to proposals made by the holder of power. Instead 'engagement' in the context of equality law must ensure that certain basic moral and political values are upheld. These include respect for the dignity of vulnerable individuals, the elimination of discrimination, the advancement of equality of opportunity and the need to foster good relations between different groups. This approach to engagement is consistent with a modern understanding of deliberative democracy. One may conclude that the disadvantage of the reflexive regulation model is that it may simply serve to legitimate or rubber-stamp the exercise of corporate and institutional power unless individuals and groups affected by their actions have the legal power to compel engagement, and the enforcement agency has the power to ensure that agreements uphold the values of the legislation and, where necessary, to impose deterrent sanctions.

Ind Law J (2011) 40 (4): 315 at 323

Parliament must ensure consultation isn't a byword for passive rubber stamping by authority. You are advised not to underestimate residents' capacity to fight this noxious proposal tooth and nail over time.

Further Legal Aid must be granted in discrimination cases. See:

<http://www.publiclawproject.org.uk/news/100/how-will-legal-aid-now-be-made-available-in-discrimination-and-education-cases-it-is-the-lord-chance>

B) We see the following faults with the proposed plan:-

1) Health Over View

(1) a) Locally

The effect on the local population's health will be characterised by physical and mental ill health including stress related illness, bronchial complaints, suicidal thoughts and attempts at suicide. This is likely to be exacerbated by marriage breakdowns, domestic upsets, and financial worries as a result of problems getting to and from normal daily destinations, directly caused by disruption presented by HS2. All this has already been relayed to the governments own assessor by numerous individuals.

Sleeplessness in particular develops its own aetiology.

Sleep is one of the most important aspects of our life, health and longevity and yet it is increasingly neglected in twenty-first-century society, with devastating consequences: every major disease in the developed world - Alzheimer's, cancer, obesity, diabetes - has very strong causal links to deficient sleep.

Until very recently, science had no answer to the question of why we sleep, or what good it served, or why its absence is so damaging to our health. Compared to the other basic drives in life - eating, drinking, and reproducing - the purpose of sleep remained elusive.

Now, in this book, the first of its kind written by a scientific expert, Professor Matthew Walker explores twenty years of cutting-edge research to solve the mystery of why sleep matters. Looking at creatures from across the animal kingdom as well as major human studies, *Why We Sleep* delves in to everything from what really happens during REM sleep to how sleep deprivation affects the immune system and mental health, and why our sleep patterns change across a lifetime, transforming our appreciation of the extraordinary phenomenon that safeguards our existence.

Why Sleep Matters by

Matthew Walker

Already we have evidence that this HS2 proposal is causing sleeplessness in residents, and now we have proven scientific evidence of the ill health that continued sleeplessness will bring...

(1)b) Longer commutes increasing loneliness

Growing commute times for workers is taking a toll on job satisfaction. In fact, a recent study from researchers at the University of the West of England found that workers equate a 20-minute increase in commute time with a 19% pay cut in terms of job

satisfaction, according to The Telegraph.

Lengthy commutes have been correlated with an increase in feelings of loneliness, stress, and anxiety, reports Quartz. And amid rising housing costs in many urban areas, a growing number of workers are commuting longer distances to their offices. Some 3.7 million British workers spent at least 2 hours on their daily commute in 2015, a 32% increase from 2010, according to The Guardian.

Hence door to station and an onwards journey to London will look more like a three hour trek with associated mental health problems. Has this ill health associated with this proposal been properly considered for the travelling population ie those who may initially think this railway will get them somewhere quicker?

This has to be a matter of public concern.

2) Evidence That A New Railway is Unnecessary In This Location

The Flawed Environmental Basis of this Railway

It is noted that the Member for Derbyshire Dales (), sought powers for a new railway line between London and the north. Note that while it is the North East with the excessive amount of CO2 it is exactly that area which is not being ruined/served by this railway. No, that Minister wanted this project situated well away from his constituency. Also note well as our heavily populated area is destroyed by this railway, government can look over its shoulder as constituents vote with their feet and stay away from the ballot box, and so threaten the stability of this or any other hue of government, or even better still demand a referendum.

This is heavily flawed project, looking at the CO2 evidence there is no case to make the West Midlands pay for emissions either in Wales or anywhere else. The West Midlands stands at 5.8t/person far less than the North East for example yet this railway is to threaten that figure by increasing the number of HGV's, LGV's and other vehicles. Why isn't this railway going up the eastern side of this country to alleviate the clear problem there?

The 2015 Local Authority Carbon Dioxide Emissions: Further information is found below:

<https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissionsnational-statistics> Enquiries:

Greater London has the smallest and Wales has the largest CO2 per capita emissions for 2015

It makes NO SENSE to take this railway up the western side of England.

However according to he believes that Stoke-on-Trent will benefit greatly from HS2 because of its link, its service and its closeness to Crewe.

He goes on -We then have to improve some of the road structures in and around Stoke-on-Trent so that people can receive the benefit. So more CO2 then, more cars all converging on the same place, more nuisance, more congestion, more health problems and the killing off of other people's business and livelihoods with skills moving to

London. What a Cynical project.

3)The Atkins Report

It is noted that a very indepth report has been written by another resident and we wish to support and incorporate the findings from this report in our own document.

In addition many residents still want the answer to the question Who said initially that this railway line was necessary and where is the data to support that view?

Further it is noted 2017 that there are numerous references by HS2 that the line chosen is not the preferred route. We understand that Woore parish council. in particular has being trying to get to the bottom of this. What is the preferred route? Now 2018, it appears HS2 has merely changed its wording to accommodate this anomaly. Again what is the preferred route that HS2 had in mind in the summer of 2017.

Cont'd

C) Lack of Access To Parliamentary Proceedings Equals Lack of Democracy in Proceedings.

Examiners Committee Meeting Re HS2 Private Bill 12th September 2017

References to Standing Orders

We note HS2 were invited along with professional representatives of both houses. However residents and or their representatives were not invited to present relevant information concerning whether notices have been correctly published, and notices on public footpaths correctly positioned and published. We are in the best position to provide such information. Without input from residents and their representatives this committee cannot consider it has been properly informed.

It is further noted our residents group had to accidentally come by information which granted us rights to be represented - neither this group nor the councils directly concerned were properly informed by letter in the same way as the HS2 company.

We have grievances concerning the accuracy of publication of notices, the timing of publication and constraints on responding effectively to this planning proposal. Administrative mistakes (regardless of how caused) and subsequent carry on by HS2 not rectifying errors in timely fashion have compounded confusion. Further an accurate scientific Environmental Statement has not been submitted by HS2. We will provide further information concerning this below.

Please note the audio transmission of the proceedings of this committee was of poor quality, it was not always possible to hear who was speaking on behalf of whom, and what they were referencing.

Nevertheless a transcript eventually received clarified that none of the relevant councils, NGO's or individuals were present at that meeting.

We can now see that any petitioning is just a rubber stamp and there was little or no attention paid to getting anything right for petitioners. Far from it we had to fight to obtain this right to object and it was only possible to just about get a letter into the correct office before the deadline. The lack of interest by parliament to listen to those directly affected speaks volumes. There has been a democratic deficit at this point.

D) The So Called Environmental Statement From The HS2. Company

This proposal has merely used desk based material from other organisations for example Wild Life Trusts. The average wildlife Trust caters for volunteers and school children and was never intended for complex projects such as this.

What should happen particularly with the ecology report is a survey carried out by scientists using Genomic Technology to accurately gauge the standing of the different species of small mammal, reptile and amphibian together with a similarly accurate soil analysis and water habitat analysis.

Below is one important example of how this technique can be successfully employed:

Professor Wellington of Warwick University developed PCR technology in relation to the detection of Tuberculosis in wildlife and people. This technology has been successfully used in Ireland and Africa to control this disease and to understand the spread of disease between animals and humans. This PCR test was funded by the British taxpayer but as yet not released by the government for use by those affected here.

Here is a sample of this peer reviewed published research there are literally hundreds more. So why has all this environmental research been ignored by parliament with reference to this proposal?

1) Wellington E. and Dr Orin Courtenay A Novel Way to Detect Infection Status of Wildlife likely to have Bovine Tuberculosis ('Badger Infection Forensics') 2010 University of Warwick. accepted by DEFRA 2013

[Prof Liz Wellington: Is Mycobacterium bovis in the environment important for the persistence of bovine tuberculosis?](#)

Researchers in SLS led by Liz Wellington and Orin Courtenay have been investigating the microbiology of bovine tuberculosis (bTB) since 2002. bTB is caused by *Mycobacterium bovis* (*M. bovis*), a pathogen that has persisted in farmed cattle for more than 100 years and has had a huge impact on the farming industry. Badgers are known to act as reservoirs for the bacteria, and cattle become infected through contact with contaminated faeces.

Culling badgers as a method to control the spread of infection remains a controversial and much-debated topic. Our researchers have developed a reliable non-invasive method for detecting *M. bovis* in soil and faeces, which will allow the success of such control measures to be evaluated and the spread of disease to be monitored. In addition to benefits to the farming industry due to the low cost and simplicity of the test, there are also animal welfare advantages as it is no longer necessary to trap and anaesthetise badgers for invasive sampling. The research has also stimulated policy debate, and Government Minister Owen Paterson visited SLS researchers in 2013 to discuss the potential adoption of their test by Defra

Also as of 2013 an experienced company and government contractor ADAS suggests this is the standard expected in the 21st century. This company has utilised PCR technology within localised environmental analysis for a range of planning proposals. Again there are now numerous companies providing this service. So why suddenly is this ignored when we come to this proposal?

Is parliament afraid of the result from such tests? (and if the answer is no)

So where are they?

2) FROM ADAS

NEWS / PROJECTS

The detection of aquatic species using environmental DNA

Published on 27 February 2013

Author: Dr Helen Rees

Environmental DNA analysis is a new method for species monitoring in water bodies. It gives a quick result from an easily collectable water sample thus having potential time and cost savings. It offers the ability to look for species in a water body that may not be practical by other methods, particularly the encroachment of invasive fish species where fishing or electro-fishing are not effective and the distribution of rare or threatened species where conventional methods of survey require a huge sampling effort. eDNA analysis has been shown by various laboratories to be a reliable detection method and has been shown to correlate with conventional survey results, in some cases being a more sensitive method of detection.

Environmental DNA (eDNA) is the total DNA found within a particular environment and is most often used in reference to water bodies e.g. a pond, stream or lake. Some of this material will have originated from animals present within that water body via their faeces, saliva, urine, skin cells, etc. The DNA that is present will not only be from animals that live in the environment, but also from visitors such as birds and mammals which, for example may use the water for drinking. The analysis of water for eDNA specific to different animal species is a new and emerging technique that will have application to aquatic organism surveys and conservation projects.

Within a water body the rapid spread or diffusion of the DNA from its source means that

in theory the presence of a specific organism should be detected anywhere within the water and not just at its point of origin. Importantly what makes eDNA a very useful biomarker for detecting aquatic species is that any DNA material released into the environment is broken down and lost by the action of UV light and microbial activity over a period of around two to three weeks. This means that at any one time a sample of water should contain the DNA from organisms that were present or had visited that water body within the previous two to three weeks. Thus detecting the presence of eDNA allows us to detect the presence or very recent presence of an organism without having to directly observe or trap it. This becomes particularly useful for those species that are difficult to detect using conventional methods, require trapping or special licences, such as endangered or under-threat species, like the Great Crested Newt.

Analysis of this eDNA involves the collection of a sample, a small volume of water in the case of a pond, which does not need to be collected under license. The sample is sent to a laboratory where it is treated to extract the total DNA present (eDNA). This eDNA is subjected to a technique called 'real-time PCR' which is basically molecular biology's answer to the Xerox machine such that we can target a small defined sequence of the total eDNA present (specific to the species of interest) and use it as a template to make many millions of copies of itself. Amplification allows us to detect whether the original sequence was present to start with. DNA extraction and real-time PCR can be carried out within a few hours, making this technique a quick method for detecting the presence of a species of interest.

(Image removed in line with parliament's instruction)

Figure 1. Shows a screenshot of the results of the PCR technique.

eDNA and the detection of the Great Crested Newt

Great Crested Newts (GCN), both adults and juveniles, normally live on land and hibernate between October and February. During the breeding season, peaking in March to May, they breed in ponds and pools. Once hatched the larvae live in these breeding ponds until they develop into air-breathing juveniles. Due to enormous declines in the last century, the great crested newt is strictly protected by UK and European law which makes it an offence to: kill, injure, capture or disturb them; damage or destroy their habitat; and to possess, sell or trade them. This law means that developers and others involved in land-use change which might affect the conservation of this species are obliged to carry out surveys for GCN, which are carried out under licence and set conditions as set out by Natural England (NE).

ADAS carry out GCN surveys under licence from NE. During the 2012 sampling season ADAS trialled GCN eDNA detection methods in collaboration with the University of Nottingham to see if this technique could offer any advantages over the conventional survey. The survey methods that are currently stipulated by NE, consist of aquatic funnel traps (including bottle traps), netting, torchlight and egg counts. Alongside these surveys our ecologists also collected water samples from each pond that was visited, which were sent back to the laboratory for GCN eDNA analysis. Our preliminary data from twenty six ponds, showed that GCN eDNA could be detected and that these results correlated with the conventional GCN survey. Our preliminary investigations suggest that GCN

eDNA analysis also has the potential to be more sensitive than conventional GCN surveys. For the GCN, the breeding window is particularly important as this is the optimal time when GCN presence/absence surveys can be carried out; bottle trapping/torching can be used during August/September to check for larvae and is a valid, but not optimal survey method. Using eDNA we may be able to improve surveys carried out during late summer and it might be possible to extend this survey window.

We anticipate carrying out further trials of eDNA analysis for the detection of GCN with a time frame extended beyond that of the breeding window, to determine whether the technique could be a suitable addition to current survey methods and whether it could allow the extension of the current survey window for the whole period that newts may be present in a pond at all life stages i.e. March to Sept.

eDNA analysis has the potential to be applied to a variety of important aquatic species and we anticipate the extension of this technique to other species of interest that are either endangered, under-threat, or invasive in the very near future. Although this technique is unlikely to replace current survey methods, there is some research to suggest that the eDNA method could give an indication of population density, rather than just presence which could have future applications for reduced field survey effort. Current best practice suggests six to eight visits per pond for population counts using conventional methods. The eDNA method could be used as a relatively quick, inexpensive tool for collecting basic species presence and distribution data, which could then be used to target specific water bodies for full ecological surveys by licensed ecologists.

And from FERA Fera_Soil_Testing_110917_FINALreduced.pdf

A SCALABLE SOIL EXTRACTION METHOD

Currently available direct soil tests are usually performed on small samples (<10g) or involve bioassays which are laborious and time consuming to perform. Improvements in our methods used to extract DNA from soil now allow us to significantly increase sample sizes to handle volumes of up to 500g. This allows us to pool representative samples from a given area to increase the accuracy of soil tests where a simple presence/absence answer is required, increasing the likelihood of detection from a single test when populations are in low numbers or clustered, yet still present a significant infection risk.

It is exactly this level of work which has NOT been done by HS2 or requested by parliament by 2018 WHY is that?

During the 2nd reading of this Bill 2018 Parliament and the Minister speak of bucketing ancient woodland flooring up and sticking it somewhere else. Oh really with what contaminants present and stirred up. Does the minister know or is the bucketing up technique the extent of parliament's knowledge about the environment. You simply make parliament look like environmental thugs.

Kindly note the electorate will decide whether you have done 'some sterling work on something' not your best mates in parliament.

Also note the combined number who voted for this in parliament is miniscule compared with the tens of thousands who object to this proposal. There is a clear democratic deficit present in parliament and this has also been noted.

3) Water

We suffer from flooded main and side roads in winter during rainfall. This happens very quickly.

There have been NO mathematical calculations regarding the displacement of water on sodden fields in winter, as these fields are covered with hard core for 7 years during construction. There is currently no plan as to what happens to this rainfall. HS2 said these calculations have yet to be done. This means that overall the current HS2 plan is without mathematical calculations connected with water displacement during the construction phase or indeed after.

While there has been some pencilling in for water displacement from the track once constructed, the question is if NO mathematical calculations have been done how is this provision accurate.

It is noted that HS2 has not consulted with the water company that supplies water to Madeley. See Vol 2 Community Area Report 15.1.2. It is NOT Severn Trent. This means not all the relevant companies directly connected with service provision have been contacted. That also means they have had no consultation opportunity or limited consultation opportunity.

Ref 15.3.4 If specialist field surveys have been done where is the data to be found The so called Environmental Statement doesn't tell us.

With Reference to footnote 214 on page 256 of Volume 2 Community Area Report each body of water under and over ground has a unique water body identification number. This numbering and therefore identification system is missing from this report and/or is not presented in an easily accessible way. Why is this missing?

Ref pg 261 Volume 2 Community Area Report The Newcastle u Lyme Borough Council Strategic Flood Risk Assessment (SFRA) (2008) Halcrow is seriously out of date. Flooding of the ground floor of houses in Bramble Lea Madeley occurs with run off coming from the concreting of hillsides allowed to be built on. During storm weather flooding of ground floors regularly occurs. Further roads in and out of Madeley are flooded as drains are unable to take rainfall. Other regular flooding occurs on the A531

turning towards Crewe out of Newcastle Road also known as the A 525 .

In addition there is regular flooding of Manor Road at the site of The WhiteStar Football ground as a result of drainage unable to deal with rainfall and water running of fields after underground aquifers fill up.

Halcrow (the council sponsored document) was not designed to deal with diverted drainage and features found within this HS2 proposal it was designed as a flood risk tool connected with housing. HS2 will by its own publication disrupt drainage systems in and around Madeley and interfere with delicate systems of geo hydrology, and hydrology within a complex geology. Where is the research which covers these underground and above ground systems and how do they interact with the geology? Please see your research in Cheshire which highlights considerable problems there.

<https://www.geolsoc.org.uk/Geoscientist/February-2018/Geology-and-HS2#>

Where is the research for Madeley? Are you saying it hasn't been done?

4) About the Pit the size of Four Football Fields

Nevertheless HS2 have proposed a huge pit of water the size of 4 football fields above the village. Residents have been told that if this gets to capacity excess water will be tankered away. This can only be done by using Bower End Lane which joins Footpath 53 HS2 Ref map CT-06-233 . This is a one track lane with no passing places. Tankers will cause considerable danger to pedestrians and riders. Bower End Lane continues as Bridle Way 5 branching North East and Footpath 6 branching North West. That means that both pedestrians and riders will be put in danger as they attempt to use public amenities post construction. During construction for 7 years these amenities will be denied local residents.

The body of water directly above Moor Hall is of particular concern. No scientific calculations have been provided by HS2 concerning the capacity of this pit, the estimated rainfall expected, the displacement of underground water and runoff rainfall over ground caused by concreting over the countryside.

Newcastle under Lyme B.C. in their response to this proposal believes this could also become a steep sided pit possibly/probably with a substantial amount of mud at the bottom. Effectively a mud pit. Potentially this could happen in a drier time during summer months.

We now refer you back to The Equality Act 2010 Protected Group - Children

We believe that children will be directly adversely affected by this element of the HS2 proposal. Children will naturally gravitate towards water. This water body (HS2 description) will be unsupervised and unmonitored in any form suitable for child safety. This is a relatively remote place away from the village exactly where children will explore. It is different from the village pond which is constantly monitored by the houses and people immediately surrounding it. This also stands for any other water bodies created by HS2.

We remind this company of its legal corporate responsibilities and we demand access to Legal Aid .

5) The Drummer Stile Inverted Syphon

Volume 2 Map Ref CT-06-233 This does not appear in the Glossary of Terms and Abbreviations Manual issued by the company about its Environmental Statement. Why is this missing? Clearly we cannot consult on anything which is hidden away from us. Also there is no mention of this feature in Volume 1 Introduction and Methodology. Further it appears that vehicles will use Red Lane to access this feature. Red Lane is designated as a bridlepath - Bridle Way 1 both before and after construction. How can it be a successful and safe bridle path with HS2 access allowed. We do not know if the access vehicles will be tankers or other vehicles. *Again and again in Volume 2 The Community Area Report we are told there will be no temporary or lasting effect on community facilities - quite clearly just looking at this one point there will be.*

Further what capacity of water is this Drummer Stile inverted Syphon able to deal with and where is it expected that any water collected will then go? How many tankers per week to clear excess water? Where will this water be taken?

We remind this company of its legal corporate responsibilities and we demand access to Legal Aid .

6) Aqueduct

Ref Volume 2 Map Book CT-06-233 There is an above ground aqueduct proposed called The Bar Hill Aqueduct. We are not told what the capacity of this aquifer is and what estimates the company have of likely rainfall needing to run off. Further we are not told where this runoff will go . Please see above our drainage system already over flows at times of moderate to high rainfall. Question where is this water to go? If they assume it will sit within the area marked out as a swamp area and stay there please be advised this is unlikely given the nature of water to continue to flow downhill. Further water logging an area near trees will kill the roots of immediately adjacent protected Wych Elm trees.

Drainage channels inlets, culverts and associated system

These devices in place to ensure the drainage of water is highly complex and is notably so. A Natural England field officer confirmed this during inspection of farm land in Madeley . On testing with coloured dye the results showed the multiple ways water filtered through rock to enter water courses downstream. The idea that drainage channels can suddenly be diverted and be successful is improbable. At each stage each drain altered must be tested for effectiveness. This is possible using coloured dye. Where is the data that these tests have been undertaken specifically for this project involving the disrupted drainage for this project?

We remind this company of its legal corporate responsibilities and we demand access to Legal Aid .

7) Noise.

There have only been predictions of noise impact. This means that there has been NO testing of hypothesis on the site itself at Madeley using simulated noise at the decibels of a train entering a tunnel. When will these site tests at Madeley be done? High speed rail is in other European countries why is it not possible to take a reading of the sound and play the sound at the appropriate site in Madeley, so residents and their experts using industrial quality decibel meters can make an informed judgment. Noise pollution is a known health hazard, government needs to monitor the effect of this noise on the humans and animals.

Further any trees planted near the line will actually be considered dangerous when leaves fall on the line and will be cut back. This means any claim that trees can be used in a noise abatement strategy is false.

<http://www.railforums.co.uk/showthread.php?t=74515> in particular see the commentary by someone called DarloRich this person seems to have technical experience. So can HS2 confirm or deny this is the case.

We remind this company of its legal corporate responsibilities and we demand access to Legal Aid .

8) Ecology

There have been little or no ecological surveys on the line or surrounding land, when will there be ecological surveys undertaken by professionals, completely unaffiliated to the HS2 company? As of 24th August 2017 the HS2 Ecologist has said some surveys have been done by the company. Were these desk based surveys or actual field surveys?

Questions

- 1) Which HS2 staff did these wildlife surveys
- 2) What Natural England wildlife certificates did the surveyor have?
- 3) What is the nearest postcode of the area surveyed?
- 3) What is the field number where the surveys were undertaken?
- 4) Using Environmental Agency maps what are the coordinates of each survey area?
- 5) What research Method was used?
- 6) What research Methodology was used?
- 7) What were the findings of each survey?
- 8) Were these field based survey/s or desk based survey/s
- 9) Did they utilise tests in line with GCN eDNA analysis Or did they just use someone elses work intended for conservation activities by volunteers and children.

Survey material set out for volunteers and children's' education are not fit for purpose when building a high speed railway. Hence they must start again, rewriting their environmental survey.

9) Further Disease Control

Tests using PCR techniques have found that Red squirrels are dying from Leprosy which emanates from the environment and not a pox contracted from grey squirrels as previously thought.

[Science](#). 2016 Nov 11;354(6313):744-747.

Red squirrels in the British Isles are infected with leprosy bacilli.

If Red Squirrels are infected with the same bacilli which killed human beings in medieval times what other mammals are carriers of this disease? Further are the ancient burial mounds infected with this disease or other diseases and what steps will be taken to prevent the release of pathogens within the soil. You are reminded that not only is there a medieval church but also Alms houses - Alms houses were usually built on the sites of medieval hospitals and the burial of infected people was undertaken away from the village where people lived. Does HS2 know what pathogens it will be dealing with as it disturbs the soil of the ancient burial sites located a short distance away from the village?

What health tests will be done of those working on site? What vaccinations given to local residents and work force? What health tests of those living near the site? What monitoring of soil, streams and rivers will take place? Will that data be published and

reported to health professionals and public?

Further it is noted despite Mouchel (the HS2 contractor supposedly conducting ecological surveys) approaching many people and asking for their personal details of ownership this contractor has since not acted on its own remit to take surveys. This leaves people concerned about where their private details have gone and why surveys on the land concerned with mitigation of the effects of HS2 on wildlife have not been done.

10) Reptiles

Very concerning is on pg 137 Volume 2 reference in table 13 - Reptiles according to HS2 'No Reptiles were found during field surveys' During a study as part of Natural England's HLS status of farm land, reptiles were noted. In particular Grass Snakes have been seen. These are a conservation priority

11) Hazel Dormice

Further concern is expressed about the Hazel Dormouse. Hazel Dormice are shy creatures and are unlikely to be seen in an adhoc survey. Given that, the **evidence of suitable habitat** should apply, this is the standard used to establish presence of the Harvest Mouse seen on pg 136 of the same volume 2.

12) Badger

One major badger sett is located behind Moor Hall. This is exactly in the path of this railway. Where exactly is HS2 going to relocate that badger sett? What is its health status?. How many other setts are going to be disturbed by this railway? What is their health status? How much will it cost to relocate them? Which contractor will do that work? What methodology of removal will be undertaken? As this pathogen can be transported by wheels from vehicles what bio security measures will be undertaken with the HGV's, LGV's and cars associated with HS2. What tests will be undertaken to monitor bio security. Note yet another farm has gone down with T.B. in the immediate area 2018.

13) Bats

Rare species have been found at the North of Bar Hill

At Checkley Noctule a rarer species both close to this proposed line in this case just 80 m away from the proposed line.

Soprano pipistrelle South West of Bent Lane close to Meece Brook and within land to be destroyed by this proposal.

What is HS2 going to do humanely kill them or let them die from starvation or accident with machinery?

We remind this company of its legal corporate responsibilities we demand access to

Legal Aid .

14) Archaeology

At Manor Hall Farm and Bower End Farm HS2 declare in the Community Report that ancient burial sites will be destroyed. Absolutely no mitigation is being considered by HS2.

Further the same is to happen to the remains of a Roman Settlement at the bottom of Bar Hill. That is also to be completely destroyed.

Has UNESCO been informed? If this were any other country such destruction would be subject of complaint to UNESCO.

This matter is of national concern we demand access to Legal Aid .

We remind this company of its legal corporate responsibilities.

15) Geology and appropriate level of expertise found in HS2 staff

For example the 'geologist' at the meeting of the 24th August 2017 wasn't a Geologist at all but another engineer who only was able to use the terms Limestone and Sandstone. This person was quizzed by a Professor of Geology and found wanting in the area of expertise being claimed.. It is noted that the very young staff employed will not be chartered engineers but merely at a level a few years out of university. Is this low level of experience suitable for such a major technical project?

Since HS2 have released/undertaken geology surveys since the published proposal when exactly are residents in Madeley going to be given access to the same, that is in the same form and detail as found in the following publication completed by HS2 contractors.

<https://www.geolsoc.org.uk/Geoscientist/February-2018/Geology-and-HS2>

There are concerns from an anthropogenic climate change perspective over atmospheric fugitive methane emissions as rock containing methane is drilled into.

(Howarth *et al.* [2011](#) Howarth, R., Santoro, R., and Ingraffea, A., 2011. Methane and the greenhouse-gas footprint of natural gas from shale formations. *Climatic Change*, 106 (4), 679–690. doi: 10.1007/s10584-011-0061-5 [[Crossref](#)], [[Web of Science](#)], [[Google Scholar](#)], Wigley [2011](#) Wigley, T.M.L., 2011. Coal to gas: the influence of methane leakage. *Climatic Change*, 108 (3), 601–608. doi: 10.1007/s10584-011-0217-3 [[Crossref](#)], [[Web of Science](#)], [[Google Scholar](#)]) You are reminded that this area has coal seams and shale bearing ground.

We remind this company of its legal corporate responsibilities we demand access to Legal Aid .

16) Surveys

There have been NO geological surveys undertaken by independent geologist unaffiliated to the company when will that happen? This area has a rock fault running East to West exactly where HS2 wishes to place its track. Further there have been NO Hydrogeology ((typically water less than 450 m or 1,500 ft below the land surface) being surveyed by specialist Hydrologists independent and unaffiliated to HS2 when will that happen? This is important since in winter the aquifers bubble up to the surface producing springs on the ground surface everywhere. There have been no surveys by independent experts or specialist reports and calculations by experts on the flowing of groundwater.

HS2's own engineers have yet to undertake sufficient surveys and publish their onsite data collected. When will we obtain their data in order to assess it. We need access to Legal Aid we need answers.

What is the cost of producing the inaccurate maps we have seen todate with attendant documents? These documents are without critical mathematical calculations absolutely required in any consultation? Estimates or predictions will not suffice for such a big project. **Where are these on site calculations from onsite surveys?**

Further given the lack of scientific data required for such a big project.

We demand a Public Inquiry into this proposed plan.

17) Traffic

Lets use an analogy parliament understands that is Westminster Hall. It has a floor area of about 1,850 sq yds slightly more than one square mile. In one square mile of Madeley village we will have 401 HGV's, 653 LGV's and cars arriving daily, according to this proposal. Can you imagine the hell that will ensue. **COULD YOU PUT UP WITH THAT.** Why are we considered collateral damage for this project? Are we faceless nameless people to be wiped off the map. Come to this area and explain why our human rights are not worth the same as that of anyone else in this country.

Clearly throughout considering the above it is noted the amount of HGV traffic fuelled by diesel which will be used in this area. **One a minute going through Woore alone.** Further vehicles will attempt to navigate narrow lines and numerous pinch points and tight turns totally unsuited to HGV traffic. Many of the tight turns have homes situated on the corners. If HS2 demolish these homes and/or take gardens off people that will increase costs not yet budgeted for. - So what is the true cost of this project ?

The Equality Act 2010

What extra provision will be made for protected groups. So for example what monitoring of air quality will be undertaken to avoid breathing difficulties of protected groups eg children, the elderly, the disabled?

What monitoring of traffic numbers will take place and how will this be controlled?

We remind this company of its legal corporate responsibilities.

18) Consultations and Communication

On 24th July 2017 there was a further 'consultation' meeting at Madeley where the public engagement officer for HS2 simply said the maps and document are online and there is a parliamentary process where the details are online. He stated that over and over again regardless of the question asked.

So further from the meeting 24th July 2017 we see the following communication problem.

That maps dated July 2017 are impossible to understand. For example the Noise and Vibration Prediction map only **still** use **predictions** that have come from **desk based** materials and so a true assessment has not been done. This map and others contain engineering jargon which is impossible to understand without an engineering degree level specialist qualification. Yet elderly and disabled people are expected to know what this means and know how this will affect them and go on to engage with a public consultation.

Clearly without technical assistance they will not be able to participate in a public consultation connected with this railway. We have written to HS2 using the Equality Act 2010 stating the above using the EASS. To date we have not received any answers from HS2 that means we have yet to receive any written reply to our written questions - WHY?.

We have also said in this letter that for HS2 to keep stating everything is online discriminates against both elderly and disabled groups of people who a) don't have a computer or b) even if they do have a computer will find navigating a complex website difficult. Further relevant paper maps and documents were very difficult to obtain from HS2, are incomplete on arrival and to reiterate what is sent impossible to understand.

Further we notice that there are no copies of these maps and documents in braille or minority community languages. The HS2 consultation by its own rules allows for just over 8 weeks of consultation and finishes at the end of September 2017. However this consultation has been curtailed by the absence of paper copies being made available in time and being made available in appropriate medium. This short window of consultation

is non compliant with parliamentary rules and The Equality Act 2010.

Desk based material is material lifted from other organisations websites as opposed to discrete field research conducted by HS2.

19) Planning Rules

Specific Reference is made to the provisions of the Environmental Protection Act (1990) regarding noise and nuisance.

Within The Community Report it states that normal planning rules apply. This means that HS2 will need to comply with existing Environment Law on dust, noise etc. These rules are overseen by local councils with planning regulation responsibility. These councils must act according to those rules and police the details of this proposal effectively. To that end estimates must be accurate and failure to keep within estimates must be closely monitored by industry standard equipment. We remind councils of their legal responsibilities and duty of care.

We remind this company of its legal corporate responsibilities. We demand legal aid.

20) The Jobs Argument

The country has full employment of those people who want to work. This does not mean there is not any unemployment. HGV Lorry drivers are particularly in short supply evidenced by advertisements:-

Drivers | HGV Driver Jobs | Eddie Stobart
eddiestobart.com/drivers

Eddie Stobart have a large range of **HGV driver jobs** available across the UK, Ireland and Europe.

HGV Drivers Wanted | Guaranteed Hours & Shifts

Adwww.logisticspeople.co.uk/

01536 726870

Excellent rates of pay - Apply Online Today - UK Wide **Opportunities**

Locations: Chesterfield, Goole, Middlesbrough, Warrington

Services

Industrial

Driver Training

Logistics People

News

Driving

.... so the question becomes where are those enormous numbers of lorry drivers going to

come from?

Further contracting companies should not be allowed to by pass the National minimal wage by using foreign agencies or non British nationals. We refer you to the current discussion between the Road Haulage Association and government please see the pdf here.

https://www.rha.uk.net/getmedia/b45e361b-bfe4-44ef-ac2c-85ac454ea6ba/161206-Cabotage-Min-Wage-web-Policy-fin_1.pdf.aspx

In lieu of enough drivers being available: Any convoy or droned vehicles must be fully insured and convoy/droned vehicles compliant with all vehicle registration and safety requirements and fully tested on rural roads (testing data should be made fully available to the public and independent specialists) before deployment.

The government must ensure that insurance companies do not penalise any resident in any form when attempting to access household insurance, building insurance and car insurance given that they may have to claim as a result of damage caused by HS2 traffic, procedures/ processes/incidents or accidents associated with the building of HS2.

All insurance liabilities must be met by HS2 that means individuals claiming via insurance policies for an incident must not have to pay the excess charge.

Government must ensure that residents can obtain insurances at an affordable premium and that to ensure premiums are not inflated by HS2 construction or subsequent running consequences of HS2.

21) Cross Principles

In London different people have very stringent rules about protecting the environment below are just some examples of this.

<https://www.innertemple.org.uk/filming/code-of-practice/>

If London land marks are considered so important that they need protecting then out 11th century church and ancient burial sites need even more consideration.

22) Construction Contracts

Contracts with residents should contain that in the event of a dispute that English Law and the English Court is applicable. Any ombudsman service specifically set up to monitor HS2 would have to adhere to international law on the conflicts of law in any event. The expressed use of the terms English law and English court being applicable is

crucial.

An international company (companies are changing hands quickly on the back of being bank rolled by the British taxpayer) with registered offices anywhere in the world, could insist on having cases being heard anywhere, according to conflict of laws rules. It would be very difficult for a weaker party in this case an individual resident in Madeley to pursue a company in another jurisdiction overseas in the event of a dispute. We reiterate the ombudsman would have to comply with International rules on the conflicts of laws. Are you really selling the rights of your own people to the highest foreign bidder?

23) Restorative Justice and full compensation

Further the nuisance connected to HS2 build will be substantial, to considerably more people than just those living within a few yards (meters) from the line. The compensation for nuisance must be extended and include delays and diversions from individuals normal business.

Environment projects will not compensate for lost work and business. Compensation for this personal loss must be made available.

23)(a) Community Funding From Government

£54 million in mitigation funding for 'community environmental and other projects' is derisory and an insult. Clearly this project has not been properly costed. We want to know how the government has arrived at that figure? One business alone is going to lose £1million a year as construction routes effectively cut off their business.

Other businesses will not be able to use important trunk routes East to West or vice versa again their businesses will be effectively shut down. This also will impact on residents and businesses being able to comply with a range of other laws.

If traffic management rules and regulations are going to be suspended will this happen for other laws, rules and regulation applicable to the private citizen or business in and around Madeley?

Will the secretary of state control traffic regulations in constituencies right across the country or just ours?

Does this mean that Madeley residents have less rights to go about our business than residents in other constituencies?

We call for the suspension of private and business council tax for the duration of disruption to our private and business lives. This must be paid for by central government.

24) Austerity

As the conditions of austerity continue, the question is put exactly how much pressure will this huge vanity project put on the public purse and over time, particularly as civil litigation and criminal negligence cases ensue.

25) Human Rights

We believe Human Rights Law has been breached by HS2 this will be dealt with in due course. How can it be in the public interest to pursue such a flawed project. How can dumping all the above on one section of the population without any meaningful restitution /compensation be in the public interest or proportionate. We reference back to the ethics of this proposal.

26) NO CONFIDENCE

We will seek remedy in law civil and criminal law, and deal with our humiliated representatives - with a tendency to be selective -- at the ballot box. When people have gone through the process of 'petitioning parliament' and get nothing at the end, other than chaos, they will respond in the only way they can - act and vote strategically. A hung government is just that HUNG.

27) Alternative Transport Coming Soon. The supersonic loop

This makes your railway look barbaric in character. Yes we will be fighting for compensation as we see more of what could have been done better.

https://www.youtube.com/watch?v=GiYb_0wOWqY

Other freight can be moved by sea around the coast, better still manufacture the goods close to the cities that need them.

With regards to trains carrying just people, at one points stop - where trains slow down - it was possible to see that in the period September 2017 until end of January 2018 that out of 80 trains randomly surveyed only 30 appeared to be 50% full. 33 were 25% full and the remainder of 20 were less than 25% full. So again why is there any need for extra capacity to London. Where is the research?

28) Your Speeches at the 2nd reading

These were about capacity and speed not about people. So who precisely needs capacity and speed at the expense of people who clearly do not benefit from this project? WHO?

Who lobbied parliament for this railway?

29) Failure To Disclose Information

Given that much of this proposal has documents behind it which are unpublished/ secret/ undisclosed and which we have not been able to comment upon, we reserve all rights to comment on those undisclosed documents at any time as they become available. That means the above points mentioned and comment provided are not necessarily a complete list. Failure to disclose information available but not published will be treated as an attempt to defraud and manipulate outcomes.

Further we reserve the right to utilise more than 300 other relevant laws as applicable to HS2.

30) High Security Over Time Re HS2 features and railtrack

This has not been placed in the proposal or costed. Numerous questions arise.

30)(a) Maintenance

Maintenance of features must not fall on the local taxpayer at any time. We know they will fail.

30) (b) Subsidy Transparency

Subsidy of the railtrack now and ongoing. Where is the estimate of this cost to the general taxpayer?

31) Electric Capacity

It is questioned the country has further power capacity to run the electrification of HS2 plus other forms of electrification of vehicles also in the pipeline.

32) Miscellaneous Provision

We reserve the right to include any other information which cannot be placed under the aforementioned headings at any time in the future.

Finally

Today as preparation work for HS2 gets under way one queue alone meant a 15 minute journey took three quarters of an hour. Trees were being felled everywhere. The scene looks like Armageddon. Birds are now well into the mating season and nesting sites are being destroyed. Clearly parliament is not bothered. Do we smell wedges of fat brown envelopes now or in the future? What do you think. We will investigate you over time. Why did specific construction firms get the jobs they did? Why don't the construction contracts use English Law and The English Court in the event of a dispute with a contractor?. Why weren't local people listened to? How is it that this work has started, before the Bill has even gone through parliament and before objectors have been heard? The official written petitioning date doesn't expire until the end of February 2018 yet work on the destruction of our environment has begun. Yet another cynical move by parliament.

As the landscape is cleared the potential for noise to carry is clear. Gusts of wind without the tree line windbreak are a danger to high sided vehicles. Parliament appears to have suspended its commonsense.

Under F.O.I. Act

- 1) How many trees have been felled and exactly where postcodes and map coordinates please?
- 2) What species of tree have been felled?
- 3) What wildlife assessments were undertaken before felling and after felling?
- 4) What noise abatement tests were done before felling and what noise tests after felling?
- 5) Who were the contractors?
- 6) How much were they paid?
- 7) As more concrete is used where trees once grew what water displacement does that involve?
- 8) Where will that water go?
- 9) What flooding prevention measures have been put in place downstream?
- 10) Where are the calculations for water displacement?

You should know this information.

Please note our research is just beginning and will be passed on to other independent individuals and their counsel.

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3. What do you want to be done in response?

In the box below, tell us what you think should be done in response to your objections. You do not have to complete this box if you do not want to.

The committee cannot reject the Bill outright or propose amendments which conflict with the principle of the Bill. But it can require changes to the Government's plans in response to petitioners' concerns, which can take the form of amendments to the Bill or commitments by HS2 Ltd.

You can include this information in your response to section two 'Objections to the Bill' if you prefer. Please number each paragraph.

To Start

1) The Equality Act 2010. Reasonable adjustment. That means moving the location of the select committee to the people directly affected who satisfy a protected characteristic. Individuals want to represent themselves.-The select committee should hear the grievances of Madeley people in Madeley.

2) We demand that over 50% of the select committee is made up of M.P's whose constituents will be badly affected by this proposal. Why should the percentage be any different? Indeed why should it consist of any M.P whose constituents WILL NOT be badly affected?

3) A judge led robust HS2 tribunal system where local people can take grievances at NO cost to them. Grievances should be reported and published together with the compensation outcome. There should be No Secrecy surrounding grievances....

4)A public inquiry launched and chaired by a judge so people can talk about how this proposal will affect them (or has affected them) and provide evidence to the criminal investigation.. A criminal negligence investigation into the obvious and clear shortcomings involved within this HS2 project. Now or in the near future

4) The select committee should visit this village and speak to people face to face in a public meeting. Many cannot travel to London and so we reference The Equality Act 2010. Reasonable adjustment.

5) Parliament has one last opportunity to listen to people who have analysed the environmental, business and personal impact on local people and wider.

You have now been properly informed.

Ignorance of the law is not a defence.

Next steps

Once you have completed your petition template, save it and either email it to prbohoc@parliament.uk, post to Hybrid Bills Office, Houses of Parliament, London, SW1A 0AA, or call 020 7219 3250 to arrange a time to deliver it in person.

Response To: Public transport in towns and cities inquiry, launched by Lords Committee 2022

Introduction

This document is compiled by residents within Staffordshire who have a daily journey in and out of North Staffordshire towns and/or towns further to the South including Stone and Stafford.

Rural Areas Must Be Included and Why

We have a number of concerns the first of course is the absence of calls for the experience of people in rural areas. Not only people who are too young to run private transport, but those who do not have private transport who work on farms and are engaged with getting food produce to local towns and markets. Food is grown and raised in rural areas. It is supplied to towns and cities. Food production is therefore essential for the survival of our towns and cities. Rural areas must be properly considered in light of the important role they have.

Public transport is scarce and disjointed as it is. However this is likely to be increased by the very presence of HS2. HS2 has meant the diversion of services away from need and has already effectively isolated farms, hamlets and village where people rely on each other to carry out the basic function of getting about from a to b.

The children's rural bus has or will be diverted away from homes meaning those young people will have to walk along dangerous main roads with no pavements or narrow country roads with no pavements. This is an accident waiting to happen and is to be deplored. The Highways authority in Staffordshire has a statutory role but fails in its duty of care in this respect. If this were an urban area we believe all hell would break out but because it's a rural area to be blighted by HS2 there has been nothing but silence from Staffordshire County Council and relevant councillors – We wonder why?

So our first plea is to ask that this inquiry looks into rural connectivity so that those engaged in food production can go to work. They can be some of the lowest paid workers but easily one of the most essential. They need assistance from the work of this inquiry.

Our second but equally important plea is that children and young people unable to use anything but public transport need easy access to public transport as a priority.

Our third plea, critically important to the above, is that HS2 has been found to be mired in corruption, mismanagement possibly/probably emanating from corruption clearly identifiable from the way it was forced through parliament both via the royal prerogative and continued misinformation over cost. Since then, HS2 has ignored a raft of Environmental Laws, Human Rights laws and Public Health Laws and Health and Safety Legislation to further the ambitions of corrupt and corruptible vested interests, vested interests which may also involve organised crime. Our evidence to this effect is attached below.

We pull no punches HS2 is a dangerous project now and for generations to come. There must be no hiding places for those councillors who fell silent as noses were put to the bottomless public trough. There must be no hiding places for contractors who file false information - as indeed they must to justify their response to known serious geological problems - and then over bill the public purse.

Not even the Chinese¹, would tunnel through a known coalfield with unknown pockets of Methane and Hydrogen Sulphide amongst other toxic gas present. On top of that there is the need to stabilise then tunnel through three active faults. According to the mining industry the foams used are carcinogenic. Please see our evidence.

So why hasn't Staffordshire County Council- with its coordinating role, flagged this as a serious problem with all manner of organisations. What conversations have they had with The Coal Authority, The Environmental Agency, The Geological Survey and what of these conversations have they communicated to the electorate who will have to pay for mistakes?

Meanwhile public transport will fade quietly away from those very people who will need to visit the doctor, pharmacist and hospital more, as the consequences of HS2 bites, and as the financial burden of HS2 grows exponentially.

¹ METHANE And Other Gas Encountered in Coal Bearing Rock [A Chinese study](#). Risk Analysis of Harmful Gas in Deep Buried Long Tunnel ...[https://www.atlantis-press.com > articlePDF](https://www.atlantis-press.com/articlePDF) by Y ZHAO · 2015 — Keywords: Deep buried *tunnel*; construction; harmful gas; risk analysis. ... International Conference on Advances in Energy, Environment and *Chemical Engineering* ... study shows that the limits of the *toxic* effects of different harmful gases on ...

HS2 Review 2021 Petition

By

Madeley And Whitmore Independent Residents STOP HS2

Who We Are

This is written on behalf of a community group that organised the parliamentary workshop led by a parliament representative on how to construct a petition. This was attended by The High School Headteacher, The Governor of a local primary school, The Chair of Whitmore parish council, and the Chair of Woore parish council. Local farmers and other residents also attended. Significantly The Chair of Madeley parish council was absent.

You will note a number of contributions from different authors set within this one document.

History

From the beginning we had concerns and doubts about two councillors on Madeley parish council and their questionable behaviour surrounding planning. They gave themselves the task of liaising with HS2. More details about that has come to light.

Our petition was rejected by HS2 and was never seen by the HS2 Select Committee.

We spoke to The Newcastle under Lyme Planning Department and the Head of that department in 2017 said we would be represented by them and they would liaise with Staffordshire County Council. Under a recent F.O.I we find out Staffordshire County Council did not receive our petition and have no record of that document at all.

That means to date we did not receive representation from the local authorities charged with protecting our interests.

The committee set up by the then Chair of Madeley parish council to represent local residents interests quickly folded. The reason for that will become clear..

Official petitioning by Madeley parish council was heavily delegated to one man – a member of the public- who lives outside Madeley. He was given just 4 minutes in front of the Select Committee. He fell out with Madeley parish council (in the main the Whites) and this led to a civil court case to recover costs. We believe there is a conflict of interest between the people who have main control over the Parish council at the time, and local people who needed representation. This conflict of interest remains.

Our independent group remained apart from these goings on.

At the time of writing there is no group being run by the Parish Council to represent local residents concerns about HS2. The official HS2 liaison representative of the council is still Gary White as we understand it.

HS2 said at some point a community fund will be made available. To date we have seen no accounts for this money.

Madeley Independent Residents Concerns About HS2

Environment

The following questions have yet to be answered by HS2

Under The Water Framework Act as amended

1) QUESTIONS - Drainage channels inlets, culverts and associated system

These devices are in place to ensure the drainage of water. Drainage of water is highly complex and is notably so in Madeley. A Natural England field officer confirmed this during inspection of farm land in Madeley. On testing with coloured dye the results showed the multiple ways water filtered through rock to enter water courses downstream. The idea that drainage channels can suddenly be diverted and be successful is improbable. At each stage each drain altered must be tested for effectiveness. This is possible using coloured dye. Where is the data from HS2 that these tests have been undertaken specifically for this project involving the disrupted drainage for this project?

2) Aqueduct Questions

Ref Volume 2 Map Book CT-06-233 There is an above ground aqueduct proposed called The Bar Hill Aqueduct. We are not told by HS2 what the capacity of this aquifer is and what estimates the company have of likely rainfall needing to run off. Further we are not told where this runoff will go . Please see above our drainage system already over flows at times of moderate to high rainfall. Question where is this water to go? If they assume it will sit within the area marked out as a swamp area and stay there please be advised this is unlikely given the nature of water to continue to flow downhill. Further water logging an area near trees will kill the roots of immediately adjacent protected Wych Elm trees.

3) More questions for HS2: The Drummer Stile Inverted Syphon

Volume 2 Map Ref CT-06-233 This does not appear in the Glossary of Terms and Abbreviations Manual issued by the company about its Environmental Statement. Why is this missing? What is this? Why has this device been hidden?

Further what capacity of water is this Drummer Stile inverted Syphon able to deal with and where is it expected that any water collected will then go? How many tankers per week to clear excess water? Where will this water be taken? Will it be tested for contaminants from the Tunnel Boring Machine or other building materials .

Also there is no mention of this feature in Volume 1 Introduction and Methodology. Further it appears that vehicles will use Red Lane to access this feature. Red Lane is designated as a bridlepath - Bridle Way 1 both before and after construction. How can it be a successful and safe bridle path with HS2 access allowed. We do not know if the access vehicles will be tankers or other vehicles. Again and again in Volume 2 The Community Area Report we are

told there will be no temporary or lasting effect on community facilities - quite clearly just looking at this one point there will be.

4) We will lose numerous footpaths and bridle paths how will Staffordshire County Council replace them?

5) Under The Water Framework Act as amended

Bodies of Water

We suffer from flooded main and side roads in winter during rainfall. This happens very quickly.

There have been NO mathematical calculations regarding the displacement of water on sodden fields in winter, as these fields are covered with hard core for 7 years during construction. There is currently no plan as to what happens to this rainfall. HS2 said these calculations have yet to be done. This means that overall the current HS2 plan is without mathematical calculations connected with water displacement during the construction phase or indeed after.

While there has been some pencilling in for water displacement from the track once constructed, the question is if NO mathematical calculations have been done how is this provision accurate.

It is noted that HS2 has not consulted with the water company that supplies and takes water to and from Madeley. See Vol 2 Community Area Report 15.1.2. It is NOT only Severn Trent. This means not all the relevant companies directly connected with service provision have been contacted. That also means they have had no consultation opportunity or limited consultation opportunity.

Ref 15.3.4 If specialist field surveys have been done where is the data to be found The so called Environmental Statement doesn't tell us.

With Reference to footnote 214 on page 256 of Volume 2 Community Area Report each body of water under and over ground has a unique water body identification number. This numbering and therefore identification system is missing from this report and/or is not presented in an easily accessible way. Why is this missing?

Ref pg 261 Volume 2 Community Area Report The Newcastle u Lyme Borough Council Strategic Flood Risk Assessment (SFRA) (2008) Halcrow is seriously out of date. Flooding of the ground floor of houses in Bramble Lea Madeley

occurs with run off coming from the concreting of hillsides allowed to be built on. During storm weather flooding of ground floors regularly occurs. Further roads in and out of Madeley are flooded as drains are unable to take rainfall. Other regular flooding occurs on the A531 turning towards Crewe out of Newcastle Road also known as the A 525 .

In addition there is regular flooding of Manor Road at the site of The WhiteStar Football ground as a result of drainage unable to deal with rainfall and water running of fields after underground aquifers fill up.

Halcrow (the council sponsored document) was not designed to deal with diverted drainage and features found within this HS2 proposal it was designed as a flood risk tool connected with housing. HS2 will by its own publication disrupt drainage systems in and around Madeley and interfere with delicate systems of geo hydrology, and hydrology within a complex geology. Where is the research which covers these underground and above ground systems and how do they interact with the geology? Please see your research in Cheshire which highlights considerable problems there.

<https://www.geolsoc.org.uk/Geoscientist/February-2018/Geology-and-HS2#>

So where is the research for Madeley? Is HS2 saying this hasn't been done?

6) About the Pit the size of Four Football Fields

Nevertheless HS2 have proposed a huge pit of water the size of 4 football fields above the village. Residents have been told that if this gets to capacity excess water will be 'tankered' away. This can only be done by using Bower End Lane which joins Footpath 53 HS2 Ref map CT-06-233 . This is a one track lane with no passing places. Tankers will cause considerable danger to pedestrians and riders. Bower End Lane continues as Bridle Way 5 branching North East and Footpath 6 branching North West. That means that both pedestrians and riders will be put in danger as they attempt to use public amenities post construction. During construction for 7 years these amenities will be denied to local residents.

The body of water directly above Moor Hall is of particular concern. No scientific calculations have been provided by HS2 concerning the capacity of this pit, the estimated rainfall expected, the displacement of underground water and runoff rainfall over ground caused by concreting over the countryside.

Newcastle under Lyme B.C. in their response to this proposal believes this could also become a steep sided pit possibly/probably with a substantial amount of mud at the bottom. Effectively a mud pit. Potentially this could happen in a drier time during summer months

We now refer you back to The Equality Act 2010 Protected Group - Children

We believe that children will be directly adversely affected by this element of the HS2 proposal. Children will naturally gravitate towards water. This water body (HS2 description) will be unsupervised and unmonitored in any form suitable for child safety. This is a relatively remote place away from the village exactly where children will explore. It is different from the village pond which is constantly monitored by the houses and people immediately surrounding it. This also stands for any other water bodies created by HS2 as yet unknown.

We remind this company of its legal corporate responsibilities and we demand access to Legal Aid .

6) Road Access

Bar Hill the road to Woore from Madeley and Manor Road connecting villages North to South will be closed. This means all traffic will have to be diverted on to the A531 which given the blocking of other roads East to West will be grid locked daily. It is entirely possible neither emergency service, or private citizens will be able to travel in a safe timely manner.

7) Planning Rules

Specific Reference is made to the provisions of the Environmental Protection Act (1990) regarding noise and nuisance.

Within The Community Report it states that normal planning rules apply. This means that HS2 will need to comply with existing Environment Law on dust, noise etc. These rules are overseen by local councils with planning regulation responsibility. These councils must act according to those rules and police the details of this proposal effectively. To that end estimates must be accurate and failure to keep within estimates must be closely monitored by industry standard equipment. We remind councils of their legal responsibilities and duty of care. We have considerable misgivings about Newcastle under Lyme's ability to operate planning rules in an open and transparent manner. More information is

supplied on governance later in this piece. We have grave misgivings that policing of planning rules will not happen under the control of Newcastle under Lyme Borough Council.

We remind this company of its legal corporate responsibilities. We demand legal aid.

8) Emissions

Paris Climate Change Agreement

The government is already breaching its own rules on Climate Change at Madeley Heath where emissions exceed agreed limits. The number of vehicles plus concrete materials produced for this project will create more emissions not less.

9) Noise

There have only been predictions of noise impact. This means that there has been NO testing of hypothesis on the site itself at Madeley using simulated noise at the decibels of a train entering a tunnel. When will these site tests at Madeley be done? High speed rail is in other European countries why is it not possible to take a reading of the sound and play the sound at the appropriate site in Madeley, so residents and their experts using industrial quality decibel meters can make an informed judgment. Noise pollution is a known health hazard, government needs to monitor the effect of this noise on the humans and animals.

Further any trees planted near the line will actually be considered dangerous when leaves fall on the line and will be cut back. This means any claim that trees can be used in a noise abatement strategy is false.

<http://www.railforums.co.uk/showthread.php?t=74515> in particular see the commentary by someone called DarloRich this person seems to have technical experience. So can HS2 confirm or deny this is the case.

From This Rail Engineer Article below we can see the lack of technical application of scientific material available.

<https://www.railengineer.co.uk/hs2-way-out-in-front-in-tunnel-design-for-high-speed-rail/>

‘Noise levels generated by HS2 are embedded in the Act of Parliament that authorised the project, but this is wheel/rail/aerodynamic noise arising from the running of trains. Despite there being hundreds of papers written on the subject of micro-pressure waves at tunnel portals, there is practically nothing that defines the levels that are acceptable. What constitutes a nuisance in some circumstances will be benign in other cases. An audible thump at the dead of night in rural surroundings will cause many more issues than one in an industrial estate’.

And the solution by the rail Industry is a guesstimate.

‘Eliminating the problem

Given the dilemma of ‘guessing’ what noise level would be acceptable, Mark’s team made the decision to opt for a design that eliminated the noise altogether – or at least to sound frequencies below the capability of the human ear. The HS2 designs will give rise to pressure changes that may well be detectable using instrumentation, but nothing will emerge into the open air that will be within the audible range.’

So HS2 wants to simply eliminate the problem by the simple method of keeping the noise below what is audible by the ear. That is a problem since the Hertz value of measurement can be recorded and matched to the values seen on research papers, they in turn point to the detrimental effect of that value on health.

We would point to the numerous research papers that conclude that vibration is a serious health risk.

10) So Further Problems With Noise And Associated Health Problems

Low Level Frequency Vibration

Not restricted to the tunnel.

Low Frequency Vibration - The Research Review

Joining the dots between HS2, vibration -specifically low level vibration - and the serious ill effects on human, farmed animal and wildlife health

To date the government, HS2 and its contractors have failed to research the dangerous affect of its trains vibration on reproductive health.. Hz and dB are two different measurements and need to be considered quite separately as the different phenomena produced by Hz waves seriously affects human and animal health.

Documents relating to both HS1 and 2 are provided below and provides evidence of what is missing.

Firstly lets consider the document produced by the government (HS2) on noise and vibration in July 2017 when the community first began to realise the hideous plan ahead. This document fails to deal with the problems surrounding low level vibration Hz.(Herz) It merely deals with dB (decibels).

Please see the lack of consideration given to Hz in the link below.
https://assets.publishing.service.gov.uk/000_W...

Furthermore the document referencing both HS1 and HS2 and the impact of noise AND vibration on livestock is below. The sheer lack of a scientific approach is worrying.

https://assets.publishing.service.gov.uk/.../Noise_Effects_on....

There is absolutely no mention of low frequency vibration and the ill health this vibration causes. The reports above prepared by HS2 just look at one measurement decibels, decibels is just one form of noise measurement, and must not be confused with Hz something quite different. Furthermore an engineering company

should know this and should have addressed the serious health problems produced by low level vibration..

The effect of Hz has been considered in a number of different studies and is a problem for human and animal health. The study below spells out the problem from an engineering perspective, that the low level vibration has a dynamic that needs considerably more research. An example of just one point made is that horizontal waves - the longer wave length-and the lower vibration will carry to more than 30 metres. See points 3.4 and 3.7 from the published work below.

<https://www.sciencedirect.com/.../artic.../pii/S0267726114001857>

Field testing and analysis of high speed rail vibrations
D.P.Connolly et al 2014.

Open Access funded by Engineering and Physical Sciences
Research Council.

Other studies published in international peer reviewed journals directly connect low level vibration with deformity and miscarriage. Note the level in Hz measurement terms for the threshold for changes in the embryo to begin at just 7 to 8 Hz. See this study for confirmation of this point.

Low Frequency Vibrations Disrupt Left-Right Patterning in the Xenopus Embryo Laura N. Vandenberg, et al Plos Published: August 3, 2011

That study in particular gives details of the changes which occur in the embryo to cause deformity.

There is more:

<https://www.ncbi.nlm.nih.gov/pubmed/8851896>

Uterine circulatory dysfunction induced by whole-body vibration and its endocrine pathogenesis in the pregnant rat. Nakamura H et al Eur J Appl Physiol Occup Physiol. 1996;72(4):292-6.

With the rat being the most resilient of mammals it is often used in laboratory studies where ethically it would be impossible to use a human substitute. In other words if the rat is affected the likelihood of other mammals being similarly affected is likely.

There is more

Low Frequency Vibrations Induce Malformations in Two Aquatic Species in a Frequency-, Waveform-, and Direction-Specific Manner Laura N. Vandenberg, et al Plos One Published: December 10, 2012

This study in particular debunks HS2 and its 'green corridor' claims. Not only is this idea of 'greening' a massive P.R. stunt but if anything green is allowed to remain standing for long enough, it will not be able to sustain any meaningful life in any event.

There are other studies which back up this up

<http://journals.plos.org/plosone/article...>

Health Effects Related to Wind Turbine Noise Exposure: A Systematic Review Jesper Hvass Schmidt , et al Published: December 4, 2014

That also means whatever the source, low frequency vibrations are a health hazard.

and

Effects of self-reported sensitivity and road-traffic noise levels on the immune system Ahra Kim, et al Plos Published: October 30, 2017

So not only do we have to tolerate low frequency vibration from the running of high speed trains, but also the huge increase in HGV's used to construct and then maintain some really hideous water features, according to this study, this will also cause ill health.

and

On the Influence of Freight Trains on Humans: A Laboratory Investigation of the Impact of Nocturnal Low Frequency Vibration and Noise on Sleep and Heart Rate Michael G. Smith et al Plos Published: February 7, 2013

The studies go on and on each backs up the other.

plus

There are many more research studies within international peer reviewed scientific journals producing similar concerns about whole body vibration. The above studies and more as we download them will be found on the website below.

<https://www.facebook.com/Madeley-and-Whitmore-Villages-STOP...>

So these studies from international peer reviewed journals looks at whole body vibration from different sources and focuses on reproductive health and then health in general.

The readings for High Speed Rail trains is between 7 and 35Hz see Connolly 2014 at 3.7

(The lower frequency content was bound in the region 8–35 Hz, with a significant eigenfrequency at 17 Hz) and this travels over 30 metres according to Connolly 2014.

That is 30 metres where there is a risk of deformity or miscarriage to the foetus. There is a risk to women before and during pregnancy and certainly to any animal, bird or aquatic species which produces eggs. This certainly debunks the idea of a green corridor replacing destroyed habitat.

NONE of this has been considered by HS2 its contractors or government to date yet all the research is there and available. We call on the government to halt this headlong fall into the chaos of HS2 as it rips through communities, producing the hideous prospect of killing or deforming embryos within at least 30 metres either side of its tracks and perhaps more. The engineering research on High Speed Rail says it does not know why the geophysical features act the way they do. That also means that more could be revealed about the serious health ill effects of HS2.

- 1) This information must be put before The Health Minister and Health Select Committee
- 2) The local health providers must be informed
- 3) Monitoring of the health of local residents must be made over time.

We look forward to your comments.

Independent Madeley And Whitmore Independent Residents
STOP HS2

We remind this company of its legal corporate responsibilities and we urge access to Legal Aid to defend local public health.

11) Waste Slurry

Waste water generated on test sites is a problem. We already have a huge problem locally with waste. Waste is the responsibility of Staffordshire County Council yet they admit they have yet to formulate a policy on HS2 waste. So question where did the waste water go that was on the drilling sites on the heath at Bower End Lane Madeley Staffordshire. If there is no policy on waste water, sub soil and other contaminates where did it go.? We have photographic evidence of this waste water. Please contact us if you wish to view these photographs.

12) The Tunnel Boring Machine and Contaminated Soil

We have concerns about the chemicals associated with Tunnel Boring machines. The studies mentioned are represented as seen in order to fact check as easily as possible.

<https://www.socotec.co.uk/.../crossrail-building-london...>

'Due to the Intellectual Property rights of the polymer manufacturers, ESG (along with the Joint Ventures and Atkins) were not party to the chemical makeup of each type of polymer, significantly increasing the difficulty in determining their potential environment impacts.' While they tried to use ICP-OES (Inductively Coupled Plasma – Optical Emission Spectroscopy) and GC-FID (Gas Chromatography – Flame Ionisation Detector). Both of these methods have problems . Further according to this report the following is significant - This process allows ESG to determine the concentrations of polymer within the excavated soil following biodegradation, and also the potential for it leaching into the surrounding environment'..

Our words - following bio degradation and leaching into the surrounding environment- That has to mean this experiment is ongoing.. .

Meaningful Testing

Below is a really interesting paper. It states clearly for there to be meaningful testing - the chemicals being tested for have to be known. Secrecy of the chemical compounds is a problem.

<https://www.scielo.br/j/alb/a/rRg88F6FwrrNpJWNtPXLhws/...>

Also Look at The Limits of Bentonite Cement Grouting

<https://www.eoi.es/blogs/imsd/hallandsas-tunnel-project-%E2%80%93-a-failed-project/>

The above analysis of The Swedish tunnel speaks volumes. We also live in a very wet area, the idea that the grout will set and keep out a volume of water is untested. This grout will have load placed up on it from water dynamics that have yet to be researched properly. We have asked HS2 for their modelling and calculations but to date have not received any information.

Toxicity of Foaming Agents Used in Tunnelling

<https://www.aria.developpement-durable.gouv.fr> >

[Leak of a toxic agent during the construction of the ... - ARIA](#)

[Leakage of acrylamides from a tunnel construction work ...](#)

<http://www.eu-alara.net> > [program4](#) > [An-Tornqvist](#)

[Will HS2 Spray Tunnels?](#)

Scientist Warns Against Spraying Tunnels Using Toxic ...

<https://africanminingbrief.com> > [scientist-warns-against-...](#)

21 May 2020 — Scientist Warns Against Spraying *Tunnels* Using *Toxic Chemicals*. "The WHO feels that hypochlorite at dilution safe for use on humans was not ...

TBM ADDITIVES - Normet

<https://www.normet.com> > [uploads](#) > [2020/05](#) > [n...](#)

Testing For Chemicals The Problem Cont'd

[Scholarly articles for problems with inductively coupled plasma – optical emission spectroscopy](#)

[... coupled plasma.](#) *Optical emission spectroscopy - Fassel* - Cited by 425

Featured snippet from the web

Common problems with ICP-OES include poor precision,⁴⁹ sample drift,⁵⁰ non-ideal detection limits, and inaccurate identification. Each of these problems will be discussed in turn. Poor precision is defined as a lack of reproducibility in results obtained for the same sample. 17 Mar 2021

<https://journals.sagepub.com/doi/pdf/10.1177/1178622119869002>

The above is one of the flawed testing regimes used by Crossrail to determine the toxicity of contaminants. Again without knowledge of the chemical it is impossible to successfully test that the sub soil contains no harmful substances.

Tunnel Boring Machines And Methane

METHANE And Other Gas Encountered in Coal Bearing Rock [A Chinese study](#).

Risk Analysis of Harmful Gas in Deep Buried Long Tunnel ...

<https://www.atlantispress.com> › article

PDF

by Y ZHAO · 2015 — Keywords: Deep buried *tunnel*; construction; harmful gas; risk analysis. ... International Conference on Advances in Energy, Environment and *Chemical* Engineering ... study shows that the limits of the *toxic* effects of different harmful gases on ...

So even the Chinese would not recommend boring through coal bearing rock . Madeley is on the site of a coal field.

[Risk Analysis and Major Incident](#)

TBM rescue projects_20111213_loe - CDM Smith

<https://cdmsmith.com> › media › White-Papers › P...

Without appropriate analysis of water load and contaminants we will find ourselves with multiple problems of huge scale.

What major incident plans are in place?

Questions posed by _____ about The Tunnel Boring Machine --
He is a resident and former military aircraft engineer.

These questions have also been sent to the TBM manufacturers.

I have been given your contact details as a point of contact to ask questions regarding TBM's that will be used in the HS2 project. I am a resident living close to where HS2 will be boring a tunnel and I am doing my own research into the oils and chemicals their TBM's will be using. Could you be so kind as to answer the following questions?

1/ The manufacturer's recommendations for oil to be used on the slew bearings is graphite based or graphite-nickel based lubricants. Given the rise in vegetable based lubricants - is a graphite based lubricant on the slew bearing still your recommendation?

2/ Is there an acceptable oil usage/leakage rate and are any kind of drip-trays installed to collect oil?

3/ What is the maintenance procedure for the oil/sealant system and, is there a recommended schedule?

4/ In the absence of vegetable based polymers and foams - what are the recommended alternatives and their chemical make-up?

5/ I see there is a formula to calculate how much foam will be required, which takes into consideration a number of variables. Do you have a simplified chart or explanation for me to interpret an average usage of foam that will be used?

6/ My understanding, TBM's have no reverse gear - is there a procedure to follow if a TBM becomes stuck in clay?

7/ Is there a procedure to follow if a TBM is flooded with groundwater?

8/ How are anti-wear polymers applied to the cutter tool - and is waste polymer collected?

9/ In what quantity are these anti-wear polymers used?

10/ What are the recommended anti-wear polymers?

To date we have not received answers to these questions. As HS2 is a public body will you ask HS2 to answer these questions please.

Applicable Treaties

You are politely reminded of the applicable treaties

Biological Diversity

Convention on Biological Diversity.

Adopted: Nairobi, 11 May 1992

Signed: Rio de Janeiro

Date: 5 June, 1992

Depositary: United Nations

Publication Reference: Treaty Series No.051/1995 : Cm 2915

UK Signature: 12 June, 1992

UK Ratification: 3 June, 1994

Cartagena Protocol on Biosafety to the Convention
on Biological Diversity.

Adopted: Montreal, 29 January, 2000

Signed: Nairobi

Date: 15 May, 2000

Depositary: United Nations

Publication Reference: Treaty Series Misc. Series No. 007/2003: Cm 5833

UK Signature: 25 May, 2000

UK Ratification: 19 November, 2003

Nature/Animal Conservation

Convention relative to the Preservation of Fauna and Flora in their Natural State

Signed: London

Date: 8 November, 1933

Depositary: United Kingdom

Publication Reference: Treaty Series No.027/1936 : Cmd 5280

UK Signature: 8 November, 1933

UK Ratification: 9 April, 1935

Convention on Wetlands of International Importance especially as Waterfowl Habitat

Adopted at: Ramsar

Date: 2 December, 1971

Depositary: Unesco

Publication Reference: Treaty Series No.034/1976 : Cmnd 6465

UK Signature: 6 September, 1973

UK Ratification: 5 January, 1976

Convention on the Conservation of Migratory Species of Wild
(CMS)

Signed: Bonn

Date: 23 June, 1979 to 22 June, 1980

Depositary: Federal Republic of Germany

Publication Reference: Treaty Series No.087/1990 : Cm 1332

UK Signature: 23 June, 1979

UK Ratification: 23 July, 1985

Convention on the Conservation of European Wildlife and Natural
Habitats (ETS No. 104)

Signed: Berne

Date: 19 September, 1979

Depositary: Council of European

Publication Reference: Treaty Series No.056/1982 : Cmnd 8738

UK Signature: 19 September, 1979

UK Ratification: 28 May, 1982

Note: UK is a Party to :

Amended Appendix I (adopted by the Standing Committee on 11 January, 1991) entered into force on 12 April 1991 [Treaty Series No.106/1991 : Cm 1774];

Further amendments to Appendix I Adopted at Strasbourg on 6 December 1991 [Treaty Series No.052/1992 : Cm 2002], and 3 December 1993 [Treaty Series No.016/1996 : Cm 3071];

Amendments to Annex IV Signed at Strasbourg on 24 March, 1995 [Treaty Series No.039/1996 : Cm 3229];

Amendments to Appendices II and III Adopted at Strasbourg, 26 January, 1996 [Treaty Series No. 041/1996 : Cm 3244], and 6 December, 1996 [Treaty Series No. 020/1997 : Cm 3583].

Agreement on the Conservation of Populations of European Bats [Formerly known as the Agreement on the Conservation of Bats in Europe; “Eurobats”]

Signed: London

Date: 4 December, 1991

Depositary: United Kingdom

Publication Reference: Treaty Series No.009/1994: Cm 2472

UK Signature: 4 December, 1991

UK Ratification: 9 September, 1992

Note: UK is a Party to i) Amendment adopted at Bristol on 18 July, 1995 [Treaty Series No. 009/2002 : Cm 5386]; ii) Amendment adopted at Bristol on 24 July, 2000 [Treaty Series No. 049/2003 : Cm 6069]

Convention on the Transboundary Effects of Industrial Accidents

Signed: Helsinki

Date: 17 March, 1992 to 18 September, 1992

Depositary: United Nations

Publication Reference: Treaty Series No.005/2003 : Cm 5741

UK Signature: 18 March, 1992

UK Ratification: 5 August, 2002

Ecology at Madeley

Our ecology will be disrupted beyond recognition. The only evidence HS2's ecologists considered was heavily compromised by pressure not to see anything that would trigger protection laws. They could not possibly be considered neutral hence, the scientific approach and professionalism was compromised.

This is what they should have done.

Ethics

Despite a rapid expansion in the literatures on the societal dimensions of HS2, there remains a paucity of studies into the normative ethical dimensions of HS2 policy and practice.

We adapt an ethical framework for policy evaluation based upon Shrader-Frechette's (2002) Shrader-Frechette, K.S., 2002. *Environmental justice: creating equality, reclaiming democracy*. Oxford: Oxford University Press.) Principle of Prima Facie Political Equality (hereafter PPFPE); one that directly addresses the interrelationship between distributive and procedural elements of environmental justice.

Shrader-Frechette's central concern is that threats to equality and informed consent commonly underlie violations of environmental justice. The PPFPE is a response to this concern – it is an ethical position grounded in Rawls's (1999) Rawls, J., 1999. *A theory of justice*. 2nd ed. Oxford: Oxford University Press. philosophy of justice-as-fairness, and Dworkin's (1978) Dworkin, R., 1978. *Taking rights seriously*. Cambridge, MA: Harvard University Press. Dworkin, G., 1988. *The theory and practice of autonomy*. Cambridge, MA: Cambridge University Press. notion of political equality, whereby all citizens are given equal consideration and concern with respect to decisions over distributive outcomes.

In the PPFPE, “equality is defensible and that only different or unequal treatment requires justification”, in the sense that the onus for justifying environmental risks rests with those proposing potentially environmentally damaging developments, not those opposing them. “Equality of treatment under the law” is a key component, and it is “proportional to the strength of one's claims to it”; that is, in practice this may vary according to individual circumstances, compensation due to one's individual needs or society's general interest in providing incentives for certain kinds of actions.

Distributive justice is defined as “morally proper apportionment of benefits and burdens” (if environmental harm occurs, equality is therefore ensured through economic redistribution or else by providing equality of economic opportunity in return). This then relates to a concurrent need for *participative* justice (a form of procedural justice) involving “institutional and procedural norms that guarantee all people equal opportunity for consideration in decision-making”. This second facet requires that “stakeholder and expert deliberation [be] given equal weight” and that heterogeneous stakeholders including affected citizens be given “the same rights to consent, due process, and compensation that medical patients have”:

Hence it is unethical to expose people to environmental risks without first obtaining free, informed, competent and autonomous consent, free of coercion, with access to relevant information concerning the risks/harms, and capability to understand the relevant information and use it in individual decision-making (all of the above from Shrader-Frechette 2002 - Shrader-

Frechette, K.S., 2002. *Environmental justice: creating equality, reclaiming democracy*. Oxford: Oxford University Press., p. 24–29, 77).

To summarise we see four component elements that underpin the PPFPE:

1. That the onus for justifying the impositions of environmental health burdens on individuals, rests with the polluter/developer/proponent, not with the opponent of development.
2. That equal rights are asserted under the law and that unequal treatment must therefore be compensated for (primarily through economic means of wealth redistribution or increased community economic opportunity).
3. That stakeholders including heterogeneous publics must have access to information about environmental impacts and harms.
4. That affected communities, and other stakeholder groups including heterogeneous “publics” must have access to participatory processes over environmental decision-making free from coercion and that affected individuals must give free, informed and autonomous consent to environmental degradation, given all of the aforementioned criteria.
5. The people who decide whether any restorative justice is proportionate to harm done must be the residents in the area affected and not those in areas unaffected by HS2. How and why would any other way be ethical?

A Timely Reminder of The Intent Behind the Equality Act 2010

In the sphere of securing fundamental human rights, such as that to equality, engagement is seen primarily as a process of exchange of information, learning about the parties' respective positions, followed by persuasion based on reasoned argument, with a view to reaching agreement on the implementation of the duty. This goes beyond 'consultation' which, as usually interpreted, gives only a passive role to those consulted to respond to proposals made by the holder of power. Instead 'engagement' in the context of equality law must ensure that certain basic moral and political values are upheld. These include respect for the dignity of vulnerable individuals, the elimination of discrimination, the advancement of equality of opportunity and the need to foster good relations between different groups. This approach to engagement is consistent with a modern understanding of deliberative democracy. One may conclude that the disadvantage of the reflexive regulation model is that it may simply serve to legitimate or rubber-stamp the exercise of corporate and institutional power unless individuals and groups affected by their actions have the legal power to compel engagement, and the enforcement agency has the power to ensure that agreements uphold the values of the legislation and, where necessary, to impose deterrent sanctions.

Ind Law J (2011) 40 (4): 315 at 323

Parliament must ensure consultation isn't a byword for passive rubber stamping by authority. You are advised not to underestimate residents' capacity to fight this noxious proposal tooth and nail over time.

Further Legal Aid must be granted in discrimination cases. See:

<http://www.publiclawproject.org.uk/news/100/how-will-legal-aid-now-be-made-available-in-discrimination-and-education-cases-it-is-the-lord-chance>

Lack of Access To Parliamentary Proceedings Equals Lack of Democracy in Proceedings.

Examiners Committee Meeting Re HS2 Private Bill 12th September 2017

References to Standing Orders

We note HS2 were invited along with professional representatives of both houses. However residents and or their representatives were not invited to present relevant information concerning whether notices have been correctly published, and notices on public footpaths correctly positioned and published. We are in the best position to provide such information. Without input from residents and their representatives this committee cannot consider it has been properly informed.

It is further noted our residents group had to accidentally come by information which granted us rights to be represented - neither this group nor the councils directly concerned were properly informed by letter in the same way as the HS2 company.

We have grievances concerning the accuracy of publication of notices, the timing of publication and constraints on responding effectively to this planning proposal. Administrative mistakes (regardless of how caused) and subsequent carry on by HS2 not rectifying errors in timely fashion have compounded confusion. Further an accurate scientific Environmental Statement has not been submitted by HS2. We will provide further information concerning this below.

Please note the audio transmission of the proceedings of this committee was of poor quality, it was not always possible to hear who was speaking on behalf of whom, and what they were referencing.

Nevertheless a transcript eventually received clarified that none of the relevant councils, NGO's or individuals were present at that meeting.

We can now see that any petitioning is just a rubber stamp and there was little or no attention paid to getting anything right for petitioners. Far from it we had to fight to obtain this right to object and it was only possible to just about get a

letter into the correct office before the deadline. The lack of interest by parliament to listen to those directly affected speaks volumes. There has been a democratic deficit at this point.

The So Called Environmental Statement From The HS2. Company

This proposal has merely used desk based material from other organisations for example Wild Life Trusts. The average wildlife Trust caters for volunteers and school children and was never intended for complex projects such as this.

What should happen particularly with the ecology report is a survey carried out by scientists using Genomic Technology to accurately gauge the standing of the different species of small mammal, reptile and amphibian together with a similarly accurate soil analysis and water habitat analysis.

Below is one important example of how this technique can be successfully employed:

Professor Wellington of Warwick University developed PCR technology in relation to the detection of Tuberculosis in wildlife and people. This technology has been successfully used in Ireland and Africa to control this disease and to understand the spread of disease between animals and humans. This PCR test was funded by the British taxpayer but as yet not released by the government for use by those affected here.

Here is a sample of this peer reviewed published research there are literally hundreds more. So why has all this environmental research been ignored by parliament with reference to this proposal?

1) Wellington E. and Dr Orin Courtenay A Novel Way to Detect Infection Status of Wildlife likely to have Bovine Tuberculosis ('Badger Infection Forensics') 2010 University of Warwick. accepted by DEFRA 2013

Prof Liz Wellington: Is *Mycobacterium bovis* in the environment important for the persistence of bovine tuberculosis?

Researchers in SLS led by Liz Wellington and Orin Courtenay have been investigating the microbiology of bovine tuberculosis (bTB) since 2002. bTB is caused by *Mycobacterium bovis* (*M. bovis*), a pathogen that has persisted in farmed cattle for more than 100 years and has had a huge impact on the farming industry. Badgers are known to act as reservoirs for the bacteria, and cattle become infected through contact with contaminated faeces.

Culling badgers as a method to control the spread of infection remains a controversial and much-debated topic. Our researchers have developed a reliable non-invasive method for detecting *M. bovis* in soil and faeces, which will allow the success of such control measures to be evaluated and the spread of disease to be monitored. In addition to benefits to the farming industry due to the low cost and simplicity of the test, there are also animal welfare advantages as it is no longer necessary to trap and anaesthetise badgers for invasive sampling. The research has also stimulated policy debate, and Government Minister Owen Paterson visited SLS researchers in 2013 to discuss the potential adoption of their test by Defra

Tue 08 July 2014, 14:10

Also as of 2013 an experienced company and government contractor ADAS suggests this is the standard expected in the 21st century. This company has utilised PCR technology within localised environmental analysis for a range of planning proposals. Again there are now numerous companies providing this service. So why suddenly is this ignored when we come to this proposal?

Is parliament afraid of the result from such tests? (and if the answer is no)

So where are they?

) FROM ADAS

NEWS / PROJECTS

The detection of aquatic species using environmental DNA

Published on 27 February 2013

Author: Dr Helen Rees

Environmental DNA analysis is a new method for species monitoring in water bodies. It gives a quick result from an easily collectable water sample thus having potential time and cost savings. It offers the ability to look for species in a water body that may not be practical by other methods, particularly the encroachment of invasive fish species where fishing or electro-fishing are not effective and the distribution of rare or threatened species where conventional methods of survey require a huge sampling effort. eDNA analysis has been shown by various laboratories to be a reliable detection method and has been shown to correlate with conventional survey results, in some cases being a more sensitive method of detection.

Environmental DNA (eDNA) is the total DNA found within a particular environment and is most often used in reference to water bodies e.g. a pond, stream or lake. Some of this material will have originated from animals present within that water body via their faeces, saliva, urine, skin cells, etc. The DNA that is present will not only be from animals that live in the environment, but also from visitors such as birds and mammals which, for example may use the water for drinking. The analysis of water for eDNA specific to different animal species is a new and emerging technique that will have application to aquatic organism surveys and conservation projects.

Within a water body the rapid spread or diffusion of the DNA from its source means that in theory the presence of a specific organism should be detected anywhere within the water and not just at its point of origin. Importantly what

makes eDNA a very useful biomarker for detecting aquatic species is that any DNA material released into the environment is broken down and lost by the action of UV light and microbial activity over a period of around two to three weeks. This means that at any one time a sample of water should contain the DNA from organisms that were present or had visited that water body within the previous two to three weeks. Thus detecting the presence of eDNA allows us to detect the presence or very recent presence of an organism without having to directly observe or trap it. This becomes particularly useful for those species that are difficult to detect using conventional methods, require trapping or special licences, such as endangered or under-threat species, like the Great Crested Newt.

Analysis of this eDNA involves the collection of a sample, a small volume of water in the case of a pond, which does not need to be collected under license. The sample is sent to a laboratory where it is treated to extract the total DNA present (eDNA). This eDNA is subjected to a technique called 'real-time PCR' which is basically molecular biology's answer to the Xerox machine such that we can target a small defined sequence of the total eDNA present (specific to the species of interest) and use it as a template to make many millions of copies of itself. Amplification allows us to detect whether the original sequence was present to start with. DNA extraction and real-time PCR can be carried out within a few hours, making this technique a quick method for detecting the presence of a species of interest.

(Image removed in line with parliament's instruction)

Figure 1. Shows a screenshot of the results of the PCR technique.

eDNA and the detection of the Great Crested Newt

Great Crested Newts (GCN), both adults and juveniles, normally live on land and hibernate between October and February. During the breeding season, peaking in March to May, they breed in ponds and pools. Once hatched the larvae live in these breeding ponds until they develop into air-breathing juveniles. Due to enormous declines in the last century, the great crested newt is strictly protected by UK and European law which makes it an offence to: kill, injure, capture or disturb them; damage or destroy their habitat; and to possess, sell or trade them. This law means that developers and others involved in land-use change which might affect the conservation of this species are obliged to carry out surveys for GCN, which are carried out under licence and set conditions as set out by Natural England (NE).

ADAS carry out GCN surveys under licence from Natural England

During the 2012 sampling season ADAS trialled GCN eDNA detection methods in collaboration with the University of Nottingham to see if this technique could offer any advantages over the conventional survey. The survey methods that are currently stipulated by NE, consist of aquatic funnel traps (including bottle traps), netting, torchlight and egg counts. Alongside these surveys ADAS ecologists also collected water samples from each pond that was visited, which were sent back to the laboratory for GCN eDNA analysis. ADAS preliminary data from twenty six ponds, showed that GCN eDNA could be detected and that these results correlated with the conventional GCN survey. ADAS preliminary investigations suggest that GCN eDNA analysis also has the potential to be more sensitive than conventional GCN surveys. For the GCN, the breeding window is particularly important as this is the optimal time when GCN presence/absence surveys can be carried out; bottle trapping/torching can be used during August/September to check for larvae and is a valid, but not optimal survey method. Using eDNA we may be able to improve surveys carried out during late summer and it might be possible to extend this survey window.

ADAS anticipate carrying out further trials of eDNA analysis for the detection of GCN with a time frame extended beyond that of the breeding window, to determine whether the technique could be a suitable addition to current survey methods and whether it could allow the extension of the current survey window for the whole period that newts may be present in a pond at all life stages i.e. March to Sept.

eDNA analysis has the potential to be applied to a variety of important aquatic species and ADAS anticipate the extension of this technique to other species of interest that are either endangered, under-threat, or invasive in the very near future. Although this technique is unlikely to replace current survey methods, there is some research to suggest that the eDNA method could give an indication of population density, rather than just presence which could have future applications for reduced field survey effort. Current best practice suggests six to

eight visits per pond for population counts using conventional methods. The eDNA method could be used as a relatively quick, inexpensive tool for collecting basic species presence and distribution data, which could then be used to target specific water bodies for full ecological surveys by licensed professional ecologists.

And from FERA Fera_Soil_Testing_110917_FINALreduced.pdf

A SCALABLE SOIL EXTRACTION METHOD

Currently available direct soil tests are usually performed on small samples (<10g) or involve bioassays which are laborious and time consuming to perform. Improvements in our methods used to extract DNA from soil now allow us to significantly increase sample sizes to handle volumes of up to 500g. This allows us to pool representative samples from a given area to increase the accuracy of soil tests where a simple presence/absence answer is required, increasing the likelihood of detection from a single test when populations are in low numbers or clustered, yet still present a significant infection risk.

Question

It is exactly this level of work which has NOT been done by HS2 or requested by parliament by 2018 WHY is that?

During the 2nd reading of this Bill 2018 Parliament and the Minister speak of bucketing ancient woodland flooring up and sticking it somewhere else. Oh really with what contaminates present and stirred up. Does the minister know or is the bucketing up technique the extent of parliament's knowledge about the environment. Parliament is made to look like intellectually deficient environmental thugs by HS2 and its small number of continuing friends who are in need of remedial education. But didn't HS2 see to that by banning other evidence.

Kindly note the electorate will always decide whether parliament has done 'some sterling work on something'

Also note the combined number who voted for this in parliament is miniscule compared with the tens of thousands who object to this proposal. There is a

clear democratic deficit present in parliament it appears. This is already earning parliament reputational damage.

Local Public Administration and Constitutional Concerns

Madeley Parish Council and Newcastle under Lyme Borough Council
And Staffordshire County Council

Please see Annex 1 for more detail.

- 1) Madeley Parish Council's representative's association with HS2 is a problem and forms a conflict of interest.
- 2) Newcastle Borough Council has not answered letters sent by signed for delivery, or emails for well over a year.
- 4) Staffordshire County Council is subject to a formal complaint over its misuse of the economic, public interest, manifestly unreasonable excuses (despite being given restrictive dates) to avoid answering pertinent questions under F.O.I. and EIR rules. The behaviour of some staff has been deplorable.

About Your Questions – 2021 Review

General questions

1.	<p>What should Parliament do to ensure that those who are directly and specially affected by a hybrid bill (that is, potential petitioners) know how to use the petitioning process effectively?</p> <p>Answer</p> <p>That suggests we the petitioners did something wrong. We did not. We were banned from speaking by HS2. Please see the full 2021 petition above and also our original petition attached.</p>
2.	<p>Is there an imbalance in the roles and resources of the promoters and the petitioners that creates problems of unfairness and, if so, is there anything that Parliament should do to remedy it?</p> <p>Answer</p> <p>We have repeatedly asked for legal aid. We are going to have our lives ripped apart but we were banned from speaking by HS2. Why? So parliament could be misinformed more easily without question. Please see our petition</p>
3.	<p>Are there procedures and practices used in other systems for determining planning applications, such as planning inquiries for major construction projects, which could usefully be applied to the hybrid bill procedure when dealing with works bills?</p> <p>Answer</p> <p>We need legal aid so that we can inform a planning inquiry in a thorough technical manner. Please see our petition particularly concerning the secrecy overall and particularly surrounding chemicals to be used by HS2 plus the absence of waste management by Staffordshire County Council. How can they formulate a robust strategy and management plan when they are not informed about the exact chemicals involved? We already have a huge waste problem in Newcastle under Lyme. The response from Staffs CC is severely wanting with one public authority trying to push the blame., work, duty of care on to another. The governance over Walleys Quarry and Red Industries is a disgrace and HS2 will add to the already big problem. People are not standing idly by, and will act appropriately. They will have to in order to simply survive.</p>

Are there procedural, or any other, changes that could be made to promote negotiation between the promoters and petitioners

(or potential petitioners) so that agreement might be reached at an earlier stage and in advance of committee hearings?

Answer

4. Ask HS2 to properly write an Environmental Risk Assessment. As part of the planning process each part of the plan needs a risk assessment. We have already demonstrated where this is needed and why this is needed. Further inform their insurance company of fraud surrounding the current absence of accurate risk assessments particularly in the case of leaching chemicals, waste management, damage to the environment, the creation of dangerous bodies of water, drainage and flood risks, plus risks to public health via vibration. Finally ask the proposer HS2 to stop lying to you and return the huge amount of public money they have obtained on the back of lies, deceit and fraud to date.

Specific procedural questions

Should parties to hybrid bill proceedings (whether promoters, petitioners, witnesses, or Members of the hybrid bill select committee) be able to appear at and participate in meetings remotely?

Answer

5. Actually the face to face meetings need to be located here in Madeley or Staffordshire. In line with The Equality Act 2010 – reasonable adjustment. You must not assume that all people with protected characteristics can use technology sufficiently well to compete with others. We refer to the elderly and disabled. Will this review committee come to Staffordshire and meet us.

6. Should the £20 petitioner's fee be retained? What are the arguments for and against its retention? If it is retained, what

	<p>should govern the level of the fee?</p> <p>Answer</p> <p>We want our money returned on principle. We were banned from speaking by the very organisation we raised concerns about. That is contrary to natural justice and will form part of our complaint to the U.N.</p>
7.	<p>What further guidance might assist potential petitioners in understanding the concept of “right to be heard”?</p> <p>Answer</p> <p>How can we have the right to be heard when we were first barred by HS2 then the public authority that said it would speak up for our group did not send our petition to Staffordshire County Council – the main coordinating local authority. What rights we had in theory were taken away in practice first by HS2 then by Newcastle under Lyme Borough Council’s Planning Department.</p>
8.	<p>Should promoters be able to propose Additional Provision in either House? What would be the consequences of allowing Additional Provision in the second House?</p> <p>Answer</p> <p>And why do they want yet more power. Are they not embarrassed by the power they have already. The corruption is already over whelming. Doesn’t parliament realise that when the effects of this railway start as per the ill health of local people, parliament will have to act as the statistics come to light. However that will have caused death and disease amongst a vulnerable population – all research points to that happening.</p>
9.	<p>Where promoters make undertakings to a hybrid bill select committee, or give assurances, how can Parliament most effectively ensure that they fulfil those obligations?</p> <p>Answer</p> <p>Stop the nonsense. We want to see risk assessments for each part of this work before it is allowed to proceed. Parliament can do that. First obtain the scientific names for the chemicals involved with The Tunnel Boring Machines. Then ask for the material to be tested with full knowledge of what the waste</p>

material needs to be tested for. We have gone into the chemicals used with TBM's in our petition 2021 above. Find out the scientific names of those chemicals please, carry out accurate tests, before they are used on the public. We are watching.

Finally

10.

Are there any other changes to hybrid bill procedure and practice that are needed, or would be desirable, in order to promote the overall purpose of the review?

Answer

Stop the promoter from banning petitions that they don't want parliament to see. That is deceitful, parliament cannot make an informed judgment. Prior to Royal Assent parliament did not see the information in our petition as just one example. Surely they would have asked HS2 at least one question as the result of seeing it.. What do you think.



Office of Rail and Road
25 Cabot Square
London
E14 4QZ

Transport for London
Palestra
London
SE1 8NJ

11th May 2022,

By email only to:

Dear

Investment Recovery Charge for Phase One of HS2 – Consultation on proposals and invitation to comment (the "Consultation")

- 1 This letter forms the response of Transport for London ("TfL") to the Consultation. Unless otherwise specified, where a defined term is used in this response, it has the meaning given to it in the Consultation.
- 2 TfL is pleased to see the ORR proposing to approve an IRC for Phase One of the HS2 project on the grounds set out in paragraph 4 of the Consultation. As the ORR will be aware, those grounds are very similar to the justifications for TfL proposing to recover an IRC for the Crossrail Central Operating Section ("**CCOS**"). Indeed TfL, together with the DfT, sought equivalent assurances from the ORR prior to the Crossrail project documentation being signed¹ and any resulting funding being spent on the CCOS project. TfL is therefore pleased to see the approach being adopted to the Paragraph 3 Test by the ORR and the consistency of regulatory approach.
- 3 TfL supports an IRC being levied on future rail users of Phase One of HS2 and recognises that the decision made following this Consultation is intended to form part of the charging framework for Phase One of HS2. Of course, the actual charging framework for services operating on Phase One of HS2 will need to be determined closer to the start of operations based on the relevant legal framework that exists at that point.

¹ <https://www.orr.gov.uk/media/10780/download>

Other examples of IRCs

- 4 IRCs can facilitate upfront investment in the railway network through the prospect of recovering that investment through higher access charges in future. IRCs can encourage private sector involvement in the railway such as through earning a return on investment in railway enhancements or through a sale or concession of railway infrastructure. IRCs provide a source of future income against which finance can, in principle, be raised. IRCs can also be used to ensure that public sector entities, like TfL and the DfT, can recover their investments in projects, it being recognised (as the ORR does in the Consultation) that "*the realistic prospect of "surplus revenues from rail users" contributing to the long-term costs of the project*" can be sufficient to justify an IRC being levied. This was certainly the case for the CCOS and the prospect does appear commercially realistic for Phase One of the HS2 project.
- 5 There are a number of existing examples of IRCs used on the railway network – and as the ORR notes, in order to be able to levy an IRC, the Paragraph 3 Test must be satisfied:
- 5.1 **HS1:** the IRC for HS1 was established through a Concession Agreement between the Secretary of State for Transport and HS1 Limited. It facilitated the concession of HS1 by the UK government to the private sector for a 30-year period and the associated raising of £2.1bn for the public sector². TfL recognises the need to keep options open for the future in relation to the potential concessioning or sale of Phase One of the HS2 project and agrees that this is a factor that should be taken into account by the ORR in deciding whether to approve an IRC.
- 5.2 **Crossrail Supplemental Access Charge:** the IRC is to be levied by Network Rail to finance the costs of certain on-network works connected with the Crossrail project. As the ORR concluded, "*the Sponsors always considered it necessary to implement higher charges in order to fund the Crossrail Project*"³. This shows an IRC (or CSAC as it is known in that context, as it was approved by the ORR by reference to the Paragraph 3 Test being satisfied) is an appropriate way of facilitating enhancements to the railway network even where funded by the public sector, which is directly relevant for Phase One of HS2.

TfL and its wholly-owned subsidiary, Rail for London (Infrastructure) Limited, have also made an application to the ORR for an IRC to

² <https://www.gov.uk/government/news/uk-government-sells-right-to-operate-first-high-speed-railway>

³ <https://www.orr.gov.uk/media/10781/download>

recover the contributions of TfL and the DfT to the Crossrail project. The basis of satisfying the Paragraph 3 Test is broadly the same as set out in the existing examples above, as well as the reasons given by the ORR for its initial view that Phase One of the HS2 project satisfies the Paragraph 3 Test. If Phase One of the HS2 project satisfies the Paragraph 3 Test, so too does the CCOS – and we think both projects do.

- 6 All of the above goes to clearly demonstrate that an IRC can and in practice does facilitate significant improvements to the railway network for major projects on the railway. Whether it is used to facilitate private investment or the recovery of significant sums of public investment which can then be used to benefit the taxpayer and farepayer in other ways, it is an important component of the railway investment framework. Whilst we recognise that care needs to be taken as there will be railway projects out there that could and would have proceeded irrespective of the prospect of recovering higher charges from users of the railway (so will not satisfy the Paragraph 3 Test), we do not think Phase One of HS2 is an example of this.
- 7 Phase One of HS2 falls in the category of a major project that will facilitate significant improvements to the railway network and will involve significant public investment. It does not form part of a wider enhancement or connectivity project that means it would have proceeded in any event. It therefore seems entirely appropriate to TfL that Phase One of the HS2 project is a project for which an IRC should, in principle, be levied. Of course, we accept the ORR must be satisfied that the project meets the Paragraph 3 Test – from the Consultation it appears Phase One of the HS2 project does given it the reasons adopted by the ORR are very similar to those we believe justify an IRC for the Crossrail project.

Specific grounds on which the ORR is determining Phase One of the HS2 IRC

- 8 Turning to the reasons which the ORR considers the Paragraph 3 Test to be satisfied for Phase One of the HS2 project, and taking into account the information made available in the Consultation:
 - 8.1 *No realistic possibility that the HS2 Phase One project would have been approved without at least part of the long-term costs of the project being recovered from railway users:* TfL notes that the test is whether "at least part" of the long-term costs would be recovered. This appears to be a realistic approach to assessing an IRC for Phase One of HS2 and the Consultation indicates that this is supported by appropriate evidence, on a similar basis to the request made by TfL and the DfT to the ORR

prior to committing funding to the Crossrail project⁴. This therefore seems to be an appropriate reason for permitting an IRC for Phase One of HS2.

- 8.2 *Approval was conditional on a significant contribution from surplus revenues towards the costs of the project:* A major railway project is unlikely to be justifiable through the infrastructure alone. It is about the operation of services, generating revenue, which result in the project as a whole being given the approval to proceed. It makes sense that this would be the case for Phase One of HS2, much like it formed part of the case for the Crossrail project. TfL considers it entirely appropriate that this should be a factor taken into account in determining whether an IRC is appropriate for Phase One of HS2.
- 8.3 *Sale of an infrastructure concession is an option that has been in the contemplation of the DfT throughout the project, as set out in the FBC:* Again, there are parallels with the Crossrail project which expressly envisaged this as being a possibility. TfL agrees that the sale of an infrastructure concession for Phase One of HS2 would necessarily require an IRC: under the current charging regime, it is the IRC component of an access charge that would directly feed into the price bidders are willing to pay for the concession. The higher the IRC, in principle the higher price you would expect to receive from bidders for the concession. We agree, therefore, that the possibility of a sale or infrastructure concession being an option in contemplation of the project proponent(s) would indicate that an IRC is appropriate, as appears to be the case for Phase One of HS2.
- 8.4 *Both a long-term operating franchise and an operating concession must allow for the possibility of non-discriminatory access to the HS2 network by another operator. As such, both would require an IRC in order to be commercially viable:* We agree with this rationale for levying an IRC for Phase One of HS2, which is consistent with the position on other major infrastructure projects which fall within the scope of the 2016 Regulations, such as Crossrail. It ensures that the Managing Public Money criteria referred to by the ORR in the Consultation can be satisfied, as we have sought to do for the CCOS.
- 9 Many new major projects, like Phase One of HS2, will have a number of similar features, to those identified by the ORR as being justifications for levying an IRC on future rail users of the railway. The possibility of an IRC is an important factor in attracting investment to the railway and enabling a project to go ahead. We have seen this ourselves through our experience of the Crossrail project which has many of the same features as Phase One of HS2. We think it is important that the DfT is

⁴ <https://www.orr.gov.uk/media/10780/download>

given certainty early on, much like TfL and the DfT obtained from the ORR in advance of the Crossrail project being given the approval to proceed. From the information made available in the Consultation, it appears that Phase One of the HS2 project is an appropriate project for an IRC to be levied.

Yours sincerely,

A handwritten signature in black ink that reads "S. Hatch". The signature is written in a cursive style with a long horizontal flourish at the end.

CCOS Regulation Manager
for and on behalf of **Transport for London**