

Evidence Pack in support of petition hearing

Submitted by

Sian Froggatt for CH Froggatt & Sons

Re Quintons Orchard Farm and HS2 Phase 2a

Hearing Date 16th September 2020

House of Lords Select Committee

Annex 1 – evidence of adverse health attributed to HS2 stress

Annex 2 – Indicative plan of Quintons Orchard farm identifying HS2 proximity, HS2 construction, use and AP plans

Annex 3 – copy planning permissions for four new dwellings at Quintons Orchard

Annex 4 – FOI response identifying likely HGV movements in proximity of Quintons Orchard

Annex 5 – Quintons Orchard and Longacre Farm in relation to Quintons Orchard and HS2

Annex 6 – evidence of dust impact on crops

Annex 7 – Noise survey identifying Major Adverse Impact on Quintons Orchard

Annex 8 – suggested fencing and security quotations to protect fish and fish farming business

Annex 9 – Fish farming expert report

Annex 10 – evidence of requirements for bridge width

Annex 11 – copy of extract from the transcript of the 11th July 2018 Select Committee Oral evidence

Annex 12 - impact of dust on solar photovoltaic panels efficiency

Annex 13 – evidence of longer duration tenancy for Miscanthus land, were it not for HS2

Annex 14 – schedule of communications / meetings etc with HS2

Annex 15 – copy of extract from the transcript of the 11th July 2018 Select Committee Oral evidence

Annex I

Letter from DF's Consultant Cardiologist, Dr Stafford.

Universal Copy

DAVID HUGO FROGGATT NHS number: 4487262704 Hospital Number: S2680751

University Hospitals of Leicester NHS Trust
Department of Cardiology

MESSAGE TO ENABLED GP PRACTICE. YOU SHOULD HAVE RECEIVED THIS LETTER
ELECTRONICALLY. Please check

Patient Identification

DAVID HUGO
FROGGATT
QUINTINS ORCHARD
FAR
BLITHBURY, RUGELEY
STAFFORDSHIRE
WS15 3JL

Appointment Date: 16/10/2018
13:30

Sex: Male
Date of Birth: 20/05/1954
Marital Status: Married
NHS number: 448 726 2704
Hospital Number: S2680751
Telephone No: 01889 504222

Date Typed - 18 October 2018

Speciality / Members of Department

Dr P J Stafford
Department of Cardiology
The Glenfield Hospital
Groby Road
LEICESTER, LE3 9QP

Tel: 0116 2563183
Fax: 0116 2583956
Email: isa.middleton@uhl-tr.nhs.uk

PJS/LMH/US136488

Refer/Response to outgoing / Referring Consultant

Dr R Marios
Consultant Cardiologist
Queen's Hospital
Belvedere Road
Burton-on-Trent
Staffs
DE13 0RB

Clinic notes

Dear Ramon

Many thanks for referring back this 64 year old gentleman who we have previously seen to discuss the management of his atrial fibrillation and hypertrophic cardiomyopathy. Thank you for enclosing recent MRI scans and echocardiograms which suggest that the hypertrophic cardiomyopathy is minimally progressive in that his inter-ventricular septum continues to measure at about 16 mm Hg, which is very similar to that measured at MRI scanning here 3 years ago.

The other issue is his long QT which measures at 510 ms (QTc) today. It was longer when he was on amiodarone but has clearly not normalised with removal of this agent. Looking back through his notes, I note that his QTc has always been above the normal range. It is difficult to know whether this is an inherited or acquired situation but at the age of 64 the ongoing risk of cardiac arrhythmia from this in itself would be relatively low. His calculated sudden cardiac death risk according to the ESC calculator is 1.3% on up-to-date data.

Having said this, he would benefit from an increase in beta-blockade with support by a device for his atrial rate. If a device is contemplated for this reason, it would be reasonable for it to be an ICD rather than a pacemaker. I think therefore his best option for addressing all of his potential problems, would be implantation of a dual chamber ICD with subsequent increase in

[2745291/1]

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DAVID HUGO FROGGATT

NHS number: 4487262704

Hospital Number: S2680751

beta-blockade to the maximum tolerated dose. This may well reduce his QTc, reduce his risk of sudden cardiac death, and reduce his symptomatic atrial fibrillation.

The alternative of pulmonary vein isolation would not really address his QTc or bradycardia.

After some discussion we have agreed to go down the device route and I have listed him for a dual chamber ICD.

In the meantime Mr Froggatt is under considerable stress related to HS2 which is passing close to his farm and I am sure that this is contributing to his increased level of cardiac arrhythmia. In addition, it may be considered that in the presence of a long QT syndrome, an increased level of stress and adrenaline may contribute to an increased risk of sudden cardiac death. For this reason he requires sympathetic treatment in his negotiations with the HS2 contractors.

With best wishes,

Yours sincerely

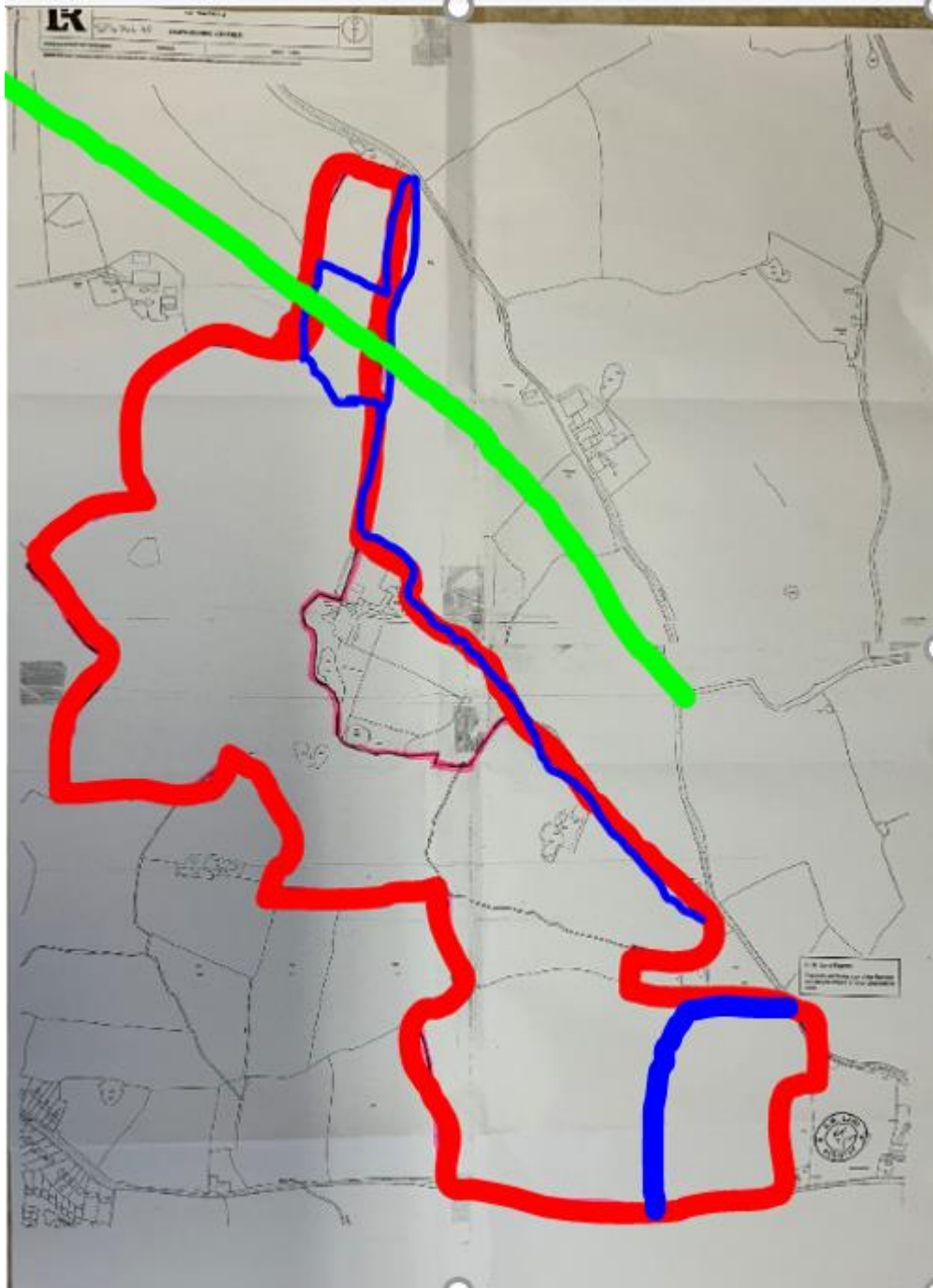
Peter

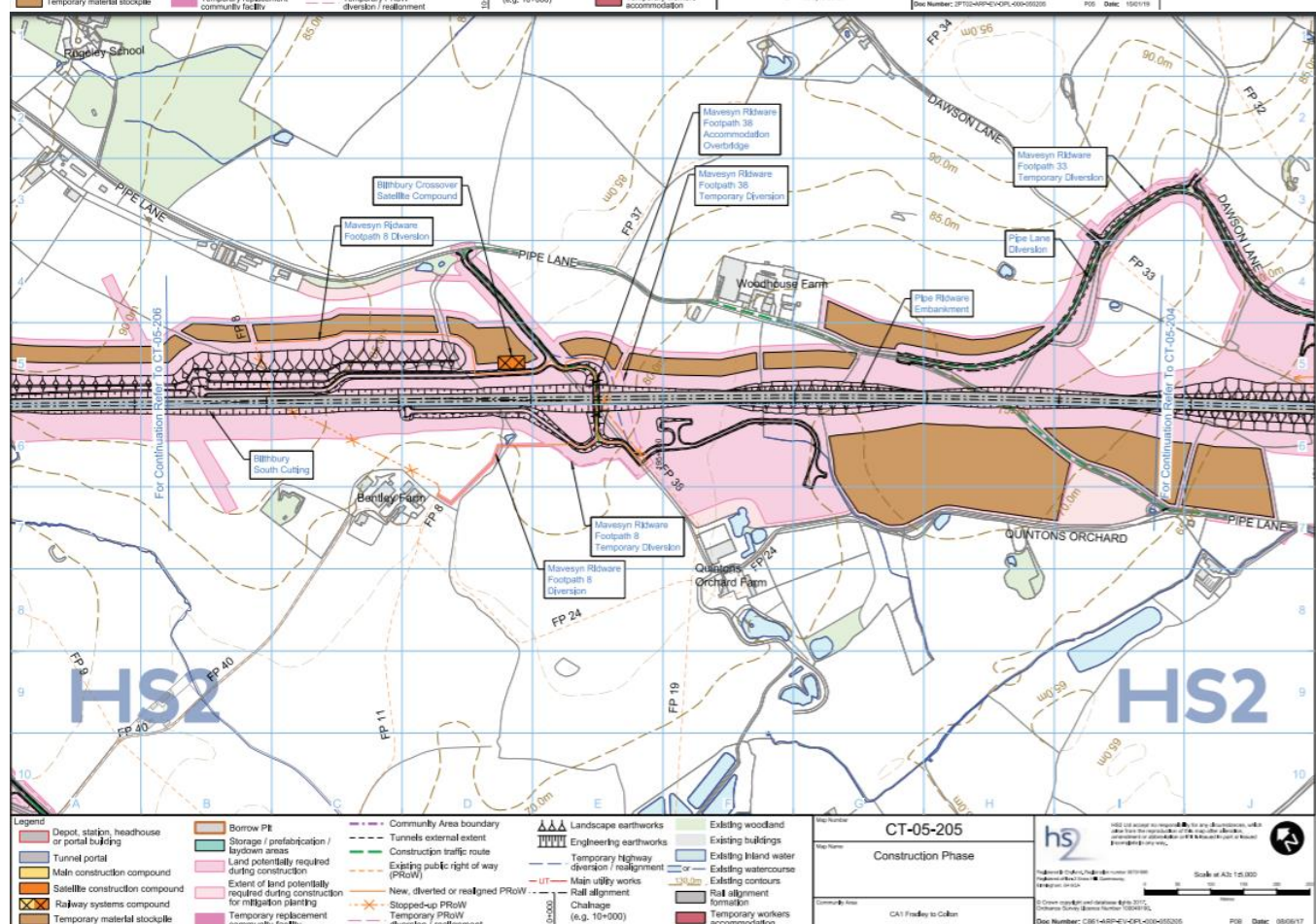
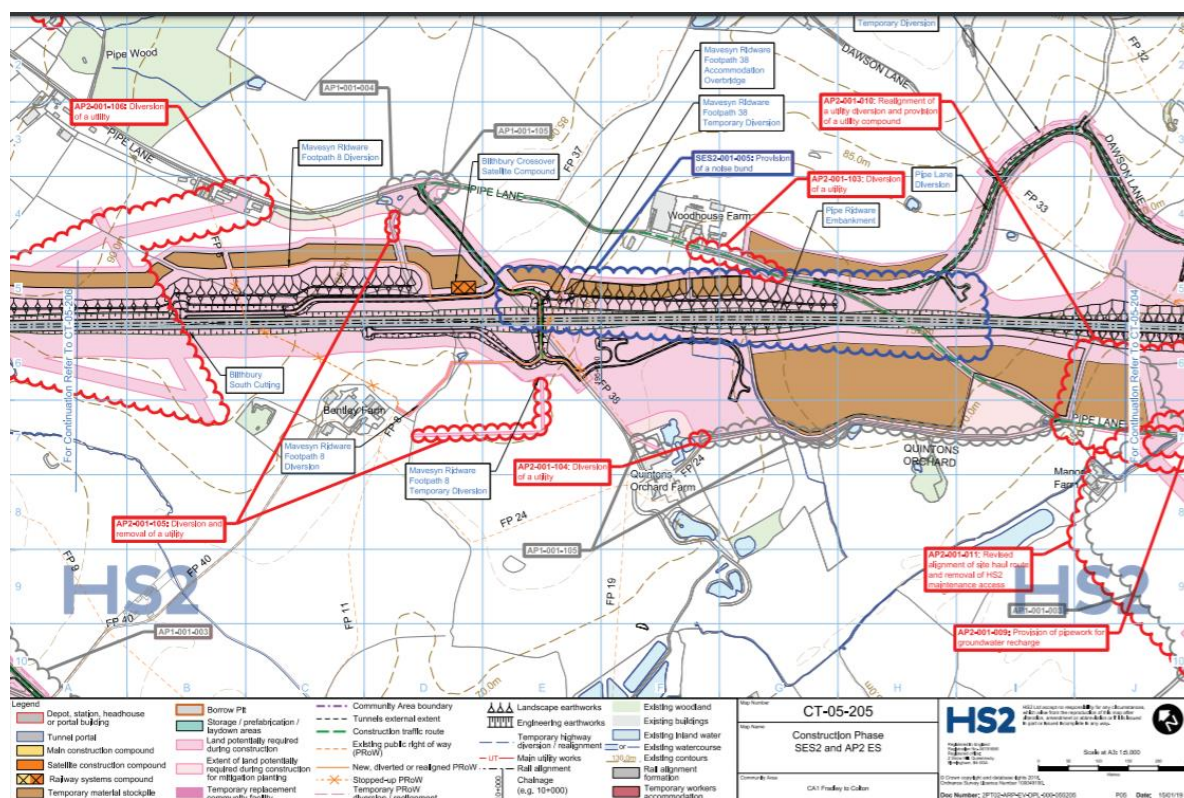
Dr Peter Stafford
Consultant Cardiologist

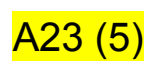
Annex 2

Quintons Orchard Farm & HS2

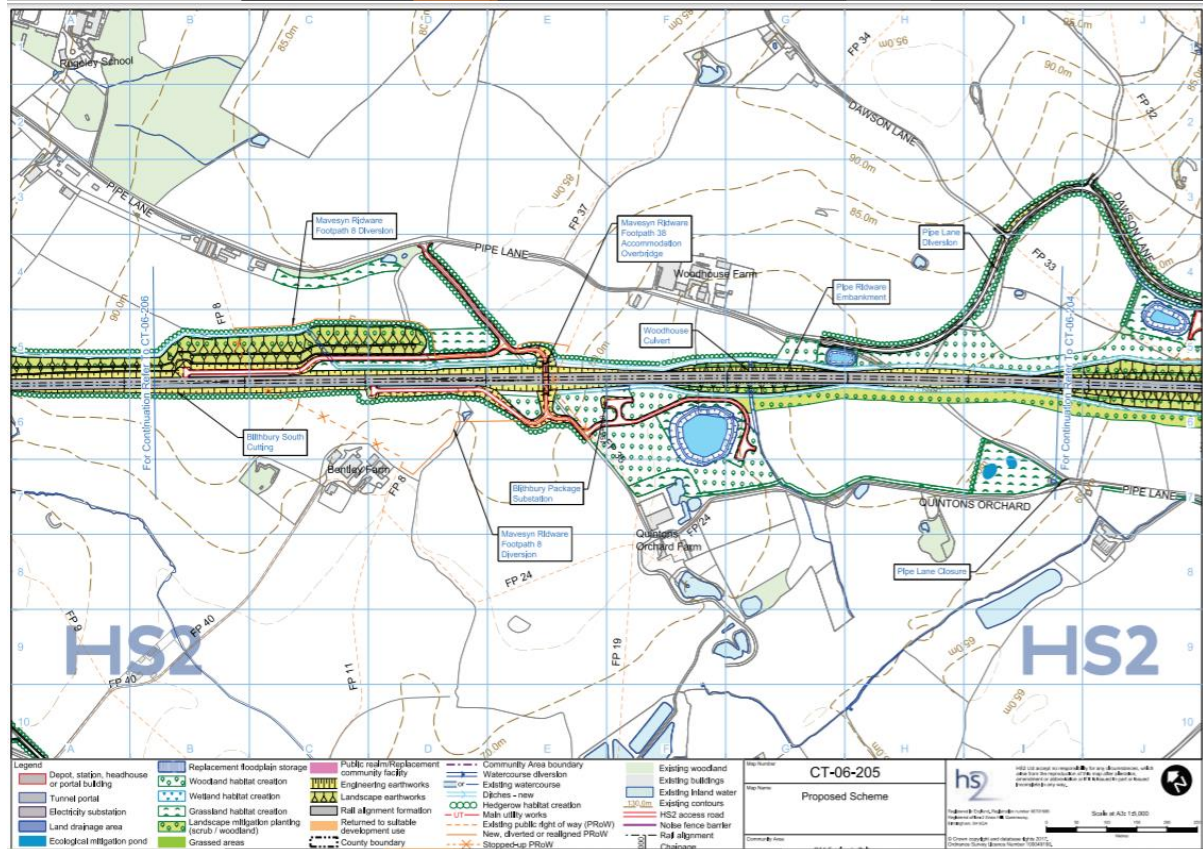
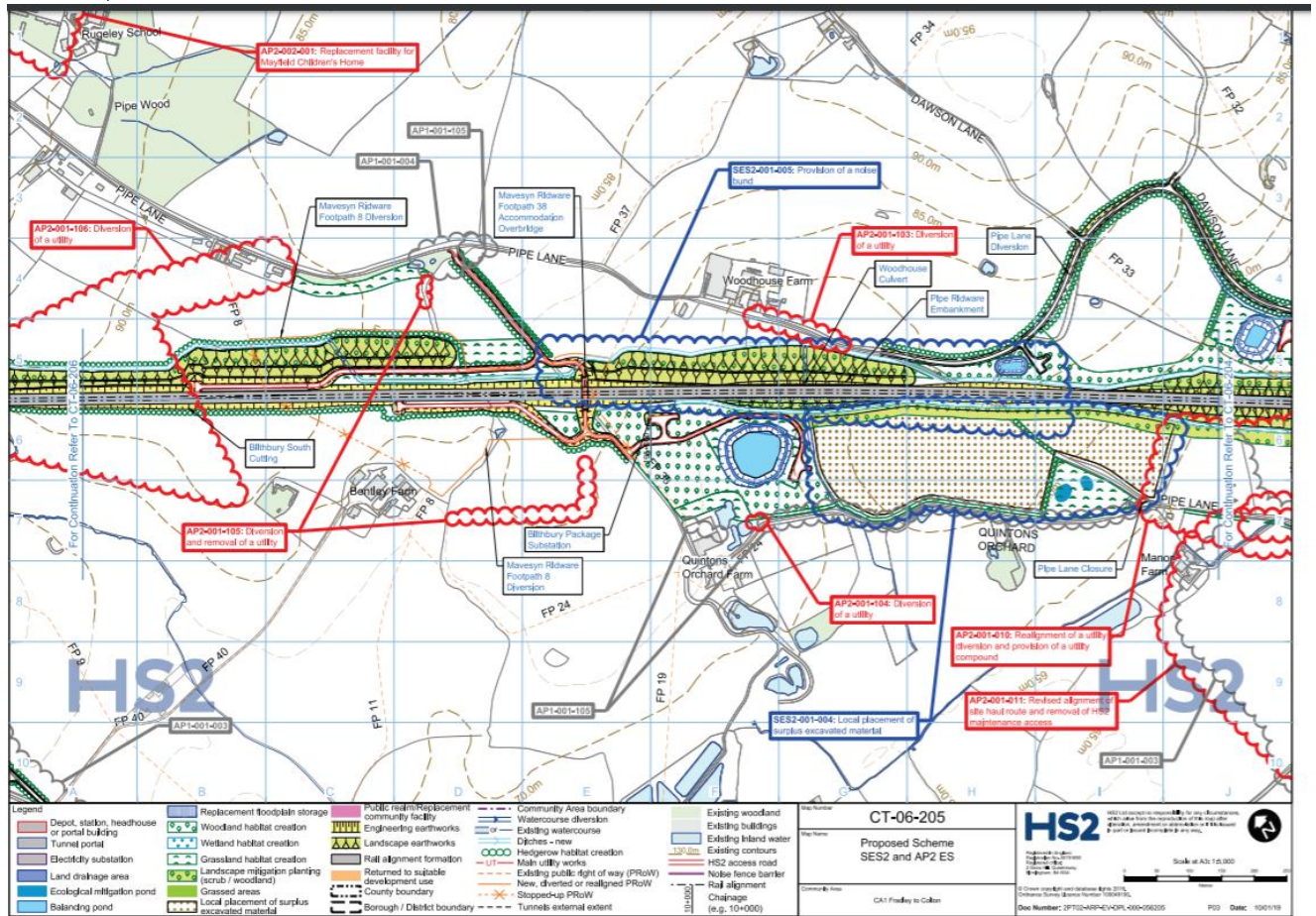
Annotated plan – approx route in green, approx extent of land required in blue, including Haul Road

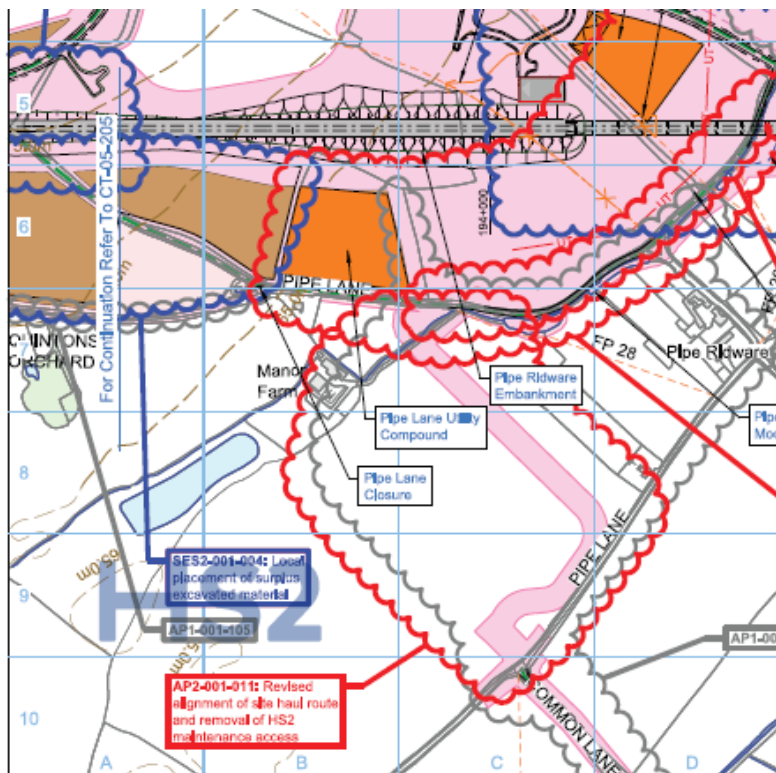
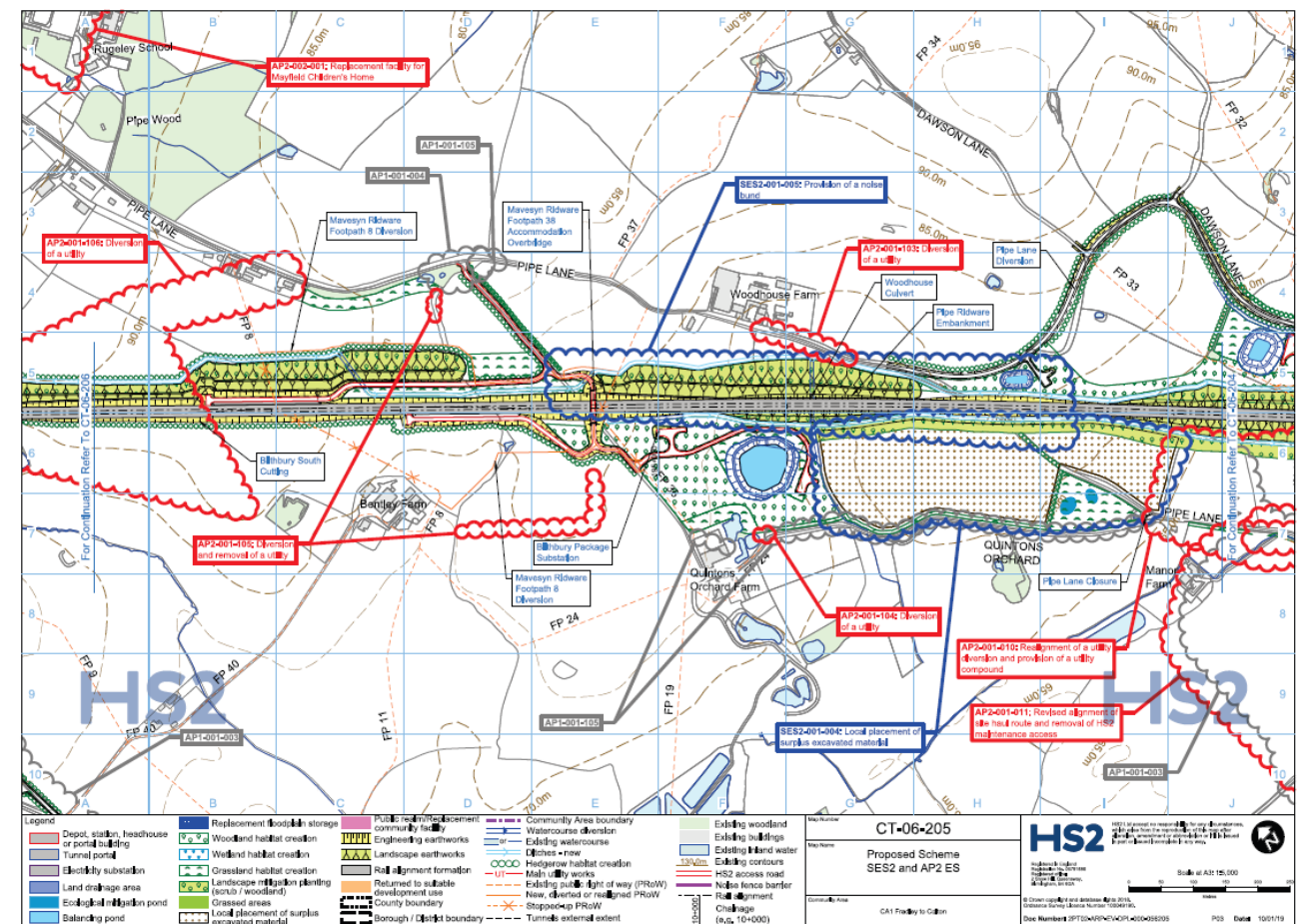






Scheme plans





Annex 3

Copy planning consents re Quintons Orchard – providing consent for an additional four new residential units

Consent to convert two redundant farm buildings to two houses

DEVELOPMENT SERVICES
District Council House
Frog Lane, Lichfield
WS13 6YZ



APPLICATION NO: 12/01025/COU

TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED)

APPROVAL OF PLANNING PERMISSION

APPLICANT:

Mr & Mrs Froggatt
Quintins Orchard Farm
Pipe Lane
Pipe Ridware
Rugeley
Staffordshire
WS15 3JL

AGENT:

Peter Diffey & Associates
Cotesbach Villa
54 Woods Lane
Stapenhill
Burton On Trent
Staffordshire
DE15 9DB

LOCATION OF DEVELOPMENT:

Quintins Orchard Farm, Pipe Lane, Pipe Ridware, Rugeley

DESCRIPTION OF DEVELOPMENT:

Conversion of existing agricultural buildings to two dwellings

Planning permission is hereby **GRANTED** for the above development in accordance with the application, plans and drawings received on 28th September 2012 and subject to compliance with the following conditions:

CONDITIONS:

- 1 The development hereby approved shall be begun before the expiration of three years from the date of this permission.
- 2 The development authorised by this permission shall be carried out in complete accordance with the approved plans and specification, as listed on this decision notice, except insofar as may be otherwise required by other conditions to which this permission is subject.
- 3 Except as required by the following conditions, this permission shall relate to the conversion and restoration of the building, the subject of this application, wholly in accordance with the approved plans, unless otherwise agreed in writing by the Local Planning Authority, and does not imply nor grant consent for rebuilding, replacement or other restoration.
- 4 This permission shall include the demolition of that part of the building or buildings hatched black on drawing no. C587/Quintons/2A. The building shall be taken down by hand. All other parts of the buildings shall be retained and made good in accordance with the provisions of the following conditions.

DEVELOPMENT SERVICES
District Council House
Frog Lane
Lichfield
WS13 6YZ



APPLICATION NO: 20/00456/COU

TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED)

APPROVAL OF PLANNING PERMISSION

APPLICANT:

Mr & Mrs D Froggatt
Quintins Orchard Farm
Pipe Lane
Pipe Ridware
Rugeley
WS15 3JL

AGENT:

Mr T Beavin
Houndhill Courtyard
Houndhill
Marchington
ST14 8LN

LOCATION OF DEVELOPMENT:

Quintins Orchard Farm, Pipe Lane, Pipe Ridware, Rugeley

DESCRIPTION OF DEVELOPMENT:

Change of use of garage to form a one bedroom dwelling with associated garden and parking space.

Planning permission is hereby **GRANTED** for the above development in accordance with the application, plans and drawings listed below and subject to compliance with the following conditions:

CONDITIONS:

1. The development hereby approved shall be begun before the expiration of three years from the date of this permission.
2. The development authorised by this permission shall be carried out in complete accordance with the approved plans and specification, as listed on this decision notice, except insofar as may be otherwise required by other conditions to which this permission is subject.
3. Except as required by the following conditions, this permission shall relate to the conversion and restoration of the building, the subject of this application, wholly in accordance with the approved plans, unless otherwise first agreed in writing by the Local Planning Authority, and does not imply nor grant consent for rebuilding, replacement or other restoration.

CONDITIONS to be complied with PRIOR to commencement of development hereby approved:

4. (a) Before the development hereby approved is commenced, a written scheme of archaeological investigation ('the Scheme') shall be submitted to and approved in writing by the Local Planning Authority. The Scheme shall provide details of a programme of historic building investigations, recording and subsequent reporting and appropriate publication.

Consent to convert office to one bed flat

- 1 -

Application No:
20/00224/COU

DEVELOPMENT SERVICES
District Council House
Frog Lane
Lichfield
WS13 6YZ



APPLICATION NO: 20/00224/COU

TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED)

APPROVAL OF PLANNING PERMISSION

APPLICANT:

Mr & Mrs David Froggatt
Quintins Orchard Farm
Pipe Lane
Pipe Ridware
Rugeley
WS15 3JL

AGENT:

Mr Thomas Beavin
JVH Town Planning Consultants Ltd
Houndhill Courtyard
Houndhill
Marchington
ST14 8LN

LOCATION OF DEVELOPMENT:

Quintins Orchard Farm, Pipe Lane, Pipe Ridware, Rugeley

DESCRIPTION OF DEVELOPMENT:

Conversion of office/garage and attached former pigsty to form a one bedroom dwelling with associated garden and parking space.

Planning permission is hereby **GRANTED** for the above development in accordance with the application, plans and drawings listed below and subject to compliance with the following conditions:

CONDITIONS:

1. The development hereby approved shall be begun before the expiration of three years from the date of this permission.
2. The development authorised by this permission shall be carried out in complete accordance with the approved plans and specification, as listed on this decision notice, except insofar as may be otherwise required by other conditions to which this permission is subject.
3. Except as required by the following conditions, this permission shall relate to the conversion and restoration of the building, the subject of this application, wholly in accordance with the approved plans, unless otherwise first agreed in writing by the Local Planning Authority, and does not imply nor grant consent for rebuilding, replacement or other restoration.

CONDITIONS to be complied with PRIOR to commencement of development hereby approved:

4. (a) Before the development hereby approved is commenced, a written scheme of archaeological investigation ('the Scheme') shall be submitted to and approved in writing by the Local Planning Authority. The

Anticipated HGV movements, from FOI request



High Speed Two (HS2) Limited
Two Sectors II – Stage 1 – Track 10
[Download the document here](#)

The following information will be available:
• Details of the proposed route
• Details of the proposed stations
• Details of the proposed track layout
[gov.uk/hst2](#)

Mrs Julia Hayhurst
Bagshaws LLP
69 Derby Road
Uttoxeter
Staffordshire
ST14 8EB
julia.hayhurst@bagshaw.com

19 June 2018

Dear Mrs Hayhurst

FOI18-2018

Thank you for your letter which we received on the 24 May 2018. I have processed your request under the Environmental Information Regulations 2004 ('EIR') as the information requested is environmental according to the definition in regulation 2 of the EIR. Section 39 of the Freedom of Information Act 2000 ('the Act') exempts environmental information from the Act, but requires us to consider it under the EIR.

In your letter, you requested the following information:

"At a recent meeting with Bob Flynn of Arup we asked to have the details of the estimated vehicle movements along the trace (construction route) during construction between Common Lane, Pipe, Ridware and the B5013 Uttoxeter Road at Admaston".

I can confirm that HS2 Ltd holds the information that you have requested.

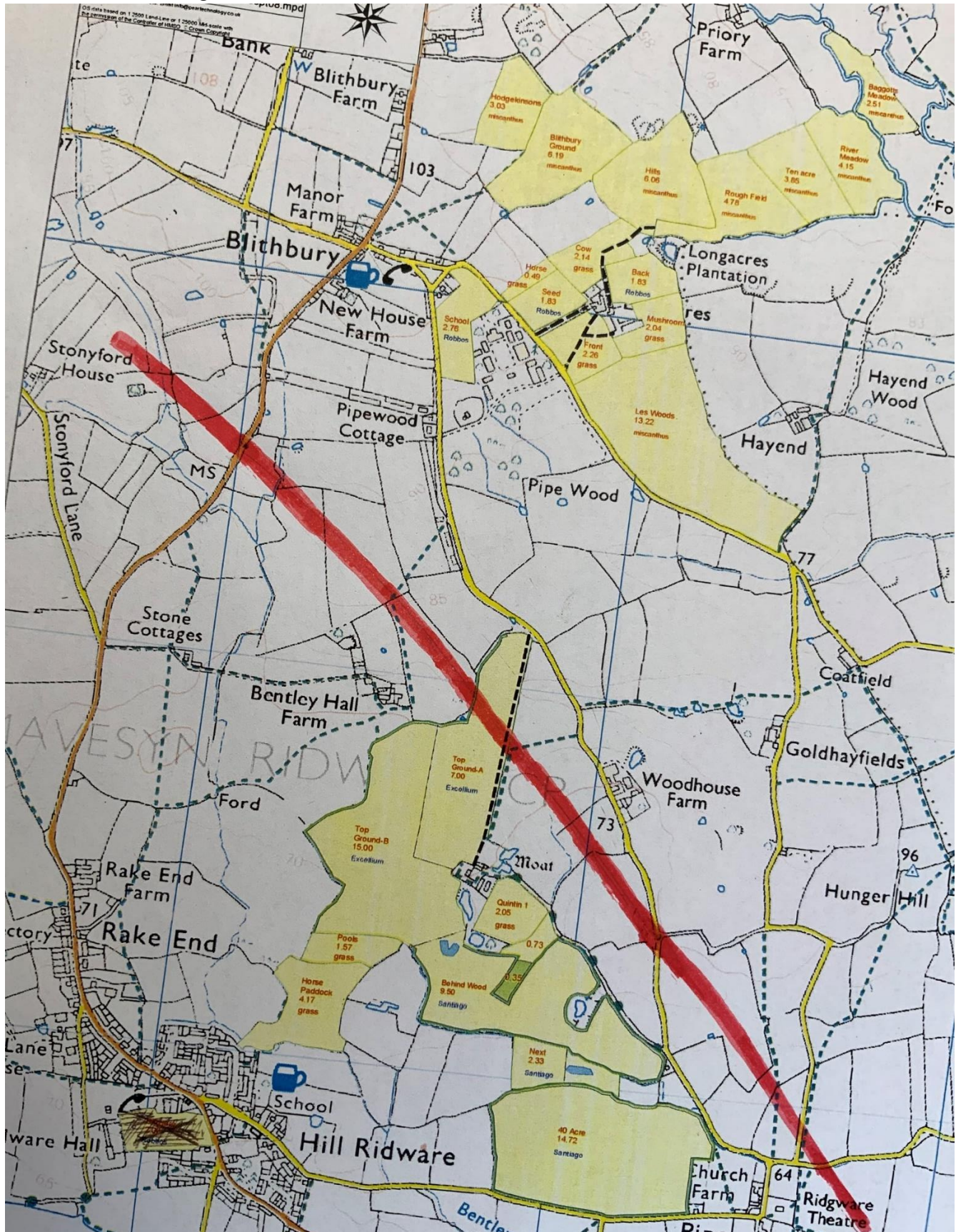
We currently estimate that the peak total vehicle movements per day along the trace on the section requested are as set out below. The information below includes the vehicles to and from the borrow pit where they travel along the trace.

	Between where Pipe Lane intersects the route and where Mavesyn Ridware Footpath 38 Accommodation Bridge would cross the route	Between where Mavesyn Ridware Footpath 38 Accommodation Bridge would cross the route and the B5014 Uttoxeter Road
HGV	77	89
ADT (Dumper Trucks)	880	900
Cars and LGVs	Cars and LGVs access compounds via the local road network and therefore do not use the haul route.	

If you are unhappy with the way we have handled your request or with the decisions made in relation to your request, you may complain in writing to HS2 Ltd at the address below. Please

Annex 5

Quintons Orchard, Longacre & HS2



Annex 6

Impact of dust on growing vegetables

MT

marktaplin@gmx.com

To

sianfroggatt@gmail.com

Cc

James Del Mar

This message was sent with High importance.

farmer-dust-effects-1993.pdf

.pdf File

effect of road dust on ag production systems10.1.1.610.1380.pdf

.pdf File

Reply

Reply All

Forward

Thu 03/09/2020 08:30

Dear Sian and David

I have considered the risk of increased dust on crop growing with particular regard to the CH Froggatt and Son farming operations at Quintons Orchard and Longacre farms, including as to specialist crop production (potatoes and vegetables etc).

There is a variety of evidence and opinion concerning dust and its impact on growth – and I attach some research articles.

Both farms currently benefit from virtually dust-free environments (in so far as any adverse impact on growth, production and quality). It is hard to ascertain the likely levels of dust that might arise from HS2 Ltd's operations, but in my professional opinion, any significant increase is likely to lead to a reduced crop yield and / or adverse impact on crop quality.

My recommendation and advice is that the dust levels should be monitored by an independent and suitably qualified third party expert before and during construction and, if levels rise above the average baseline there should be a notification system (both to the CH Froggatt & Son and to HS2) such that a claim for losses can be expected, quantified, compiled and settled, based upon reduced yield (or even complete crop failure) and or loss of crop quality.

Yours sincerely

Mark Taplin



EXISTING AMBIENT NOISE LEVELS AT QUINTONS ORCHARD FARM

BLITHBURY, RUGELEY, STAFFORD, WS15 3JL

NOISE LEVEL SURVEY

On behalf of:

C.H Froggatt and Sons

Dynamic Response (Reg. Office)
Unit 2 Pitt Street Business Centre
Pitt Street
Keighley
West Yorkshire
BD21 4PF

V: www.dynamic-res.co.uk
E: enquiries@dynamic-res.co.uk
T: 01535 357314

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Report No. DYN181019A/1 Rev. 2
September 2020

**EXISTING AMBIENT NOISE LEVELS AT QUINTONS ORCHARD FARM
BLITHBURY, RUGELEY, STAFFORD, WS15 3JL**

NOISE LEVEL SURVEY

Report Issued by:
Dynamic Response (Noise And Vibration Consultants) Ltd
The Techno Centre
Puma Way
Coventry
West Midlands
CV1 2TT

On behalf of:
C.H Froggatt and Sons
Quintons Orchard Farm
Blithbury
Rugeley
WS15 3JL

Report prepared by:
Anthony Robertshaw BSc (Hons) Dip. AMIOA

This Report Is Believed To Be Accurate And True. However, Should A
Mistake Be Found, Please Report It To Us As Soon As Possible. Distance
Measurements Have Been Used From Online Mapping Solutions Where
Necessary. However, The Accuracy Can Not Be Validated By Us.



Note; In this report Dynamic Response (Noise And Vibration Consultants) Ltd has been abbreviated to Dynamic Response for ease of reading

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1.0 INTRODUCTION

1.0 Dynamic Response was commissioned by 'C.H Froggatt and Sons' to assess the existing ambient noise levels at 'Quintons Orchard Farm, Blithbury, Rugeley, Stafford, WS15 3JL, the purpose being to obtain current baseline noise data.

1.1 'Quintons Orchard Farm' is located South of Blithbury, and North East of 'Hill Ridware', in an isolated rural location/area, with the next nearest development approximately 385m to the North East. We understand that the 'Quintons Orchard Farm' site is not that of a large scale busy active farm operation, but more a diversified site offering fish farming, equestrian services, occasional gun 'shoots' and other activities necessary to survive in a competitive industry, with the owners of the farm living on site.

1.2 The assessment has included:

- An inspection of the site and surroundings;
- Daytime and night-time measurements of mixed source noise;
- An assessment of the noise impact referring to guidance contained within BS 8233:2014 etc.

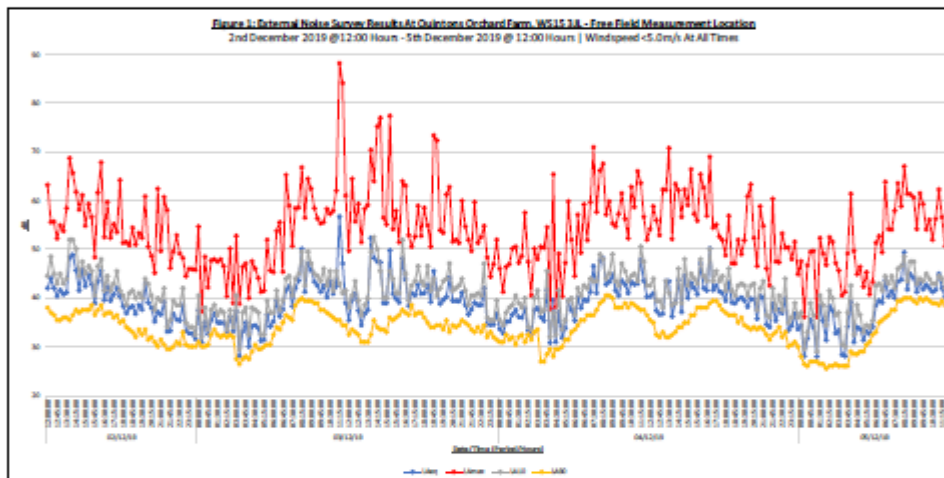
1.3 Noise levels referred to in this report, with the exception of measurement results where deemed applicable, have been rounded to the nearest whole decibel (dB) as fractions of decibels are imperceptible.

2.0 NOISE LEVEL SURVEY

- 2.0 An un-attended noise survey was carried out at the boundary of the residential farmhouse located on the 'Quintons Orchard Farm' estate/land, at least 3.5m away from any reflective surfaces i.e. the noise survey was a free-field noise measurement location. The ambient noise levels were taken at a height of 1.5m above ground level.
- 2.1 In order to determine typical noise levels, rather than a random individual point in time, the noise survey was carried out from Monday the 2nd of December at 12:00 hours until Thursday the 5th of December 2019 at 12:00 hours, with instrumentation used during the survey that of a Casella CEL-490 Type/Class 1 sound level meter (Serial No. 115840). The sound level meter held valid external laboratory calibration as per the requirements of the appropriate measurement standard and was checked in the field before and after the survey with a Norsonic 114 dB Type 1251 sound calibrator (Serial No. 31829) with no significant variation in level observed.
- 2.2 The sound level meter was contained within a locked environmental weatherproof box secured at the development (free from local influence/tampering), connected to a microphone which had a waterproof environmental windshield and bird spike fitted. The general principles defined in BS 7445 have been followed where possible and applicable, in order to ensure the accuracy and validity of the data obtained.
- 2.3 The weather conditions through-out the survey period were cold (with temperature below 11 degrees C throughout), with no precipitation during the survey duration, and windspeeds below 5.0 m/s.
- 2.4 The results of the noise survey have been summarised considering a logarithmic average over a 16-hour period during the daytime (averaged for a 16 hour period from the commencement time of 12:00 hours), and an 8-hour period during each night-time. In all instances, the noise survey sample duration chosen was that of 15-minutes and has been post processed to determine the required 16-hour daytime and 8-hour night-time noise levels.
- 2.5 The results of the noise survey are summarised in Table 1 and Figure 1, and have been detailed in Appendix II.

Table 1: External Noise Survey Results

Period	Daytime dB (07:00-23:00 hrs)	Night-time dB (23:00-07:00 hrs)
2 nd /3 rd December 2019	44 dB L _{Aeq}	35 dB L _{Aeq} 56 dB L _{Afmax}
3 rd /4 th December 2019	44 dB L _{Aeq}	37 dB L _{Aeq} 65 dB L _{Afmax}
4 th /5 th December 2019	42 dB L _{Aeq}	36 dB L _{Aeq} 64 dB L _{Afmax}

Figure 1: Summary Of External Noise Survey Results 02/12/19-05/12/19

2.6 Therefore, the measured daytime noise levels of 42-44 dB L_{Aeq}(16 hour) and night-time noise levels of 35-37 dB L_{Aeq}(8 hour) are typical of those expected at a rural location, with noise relatively low throughout daytime and night-time periods. Whilst the maximum dB L_{Afmax} noise levels did range between 56-65 dB during the night-time periods, repeated L_{Afmax} levels (within any single hourly period) were all below 60 dB L_{Afmax}.

2.7 The noise levels presented in Section 2.0, have been used as a basis for our assessment in Section 3.0.

3.0 ASSESSMENT OF EXISTING NOISE LEVELS

3.0 Guidance on acoustic design goals for residential development is set out in British Standard 8233: 2014: 'Sound insulation and noise reduction for buildings'. The criteria are summarised in Table 2.

Table 2: BS 8233 Recommended Acoustic Design Criteria

Location	Noise Levels
Living Rooms	Resting 35 dB L_{Aeq} (16 hour)
Dining Rooms	Dining 40 dB L_{Aeq} (16 hour)
Bedrooms	Sleeping (Daytime Resting) 35 dB L_{Aeq} (16 hour) 30 dB L_{Aeq} (8 hour)
Gardens	Upper limit of 55 dB L_{Aeq}

3.1 In addition, the World Health Organisation 'Guidelines For Community Noise' suggest the following noise criteria as summarised in Table 3.

Table 3: World Health Organisation (WHO) – Guideline Acoustic Design Criteria

Location	Noise Levels
Dwellings Indoors i.e. Living Rooms	35 dB L_{Aeq}
Inside Bedrooms	30 dB L_{Aeq} (45 dB L_{Amax})
Gardens	Upper limit of 55 dB L_{Aeq} (Serious Annoyance) Upper limit of 50 dB L_{Aeq} (Moderate Annoyance)

3.2 Therefore, it is recommended that for residential development that internal noise levels meet 35 dB L_{Aeq} between 07:00 hours to 23:00 hours within living rooms and bedrooms during the daytime, and 30 dB L_{Aeq} between 23:00 to 07:00 hours within bedrooms during the night-time of the recommended ranges of BS 8233: 2014 and World Health Organisation 'Guidelines For Community Noise'. It is further

recommended that internal L_{Amax} levels within bedrooms should not regularly/normally exceed 45 dB between 23:00 hours and 07:00 hours, and noise levels within garden areas do not exceed 55 dB $L_{Aeq,T}$.

3.3 The results of the noise survey demonstrate that the nearest residential building façades and gardens (depending on the receptor location) are expected to be subjected to noise that of an approximate 44 dB $L_{Aeq(16\text{ hour})}$, and 37 dB $L_{Aeq(8\text{ hour})}$ during the night-time. Based on the concept detailed in BS8233:2014 that any window in a facade left partially open has a weighted sound reduction of approximately 10-15 R_w dB (average 13 dB), the approximate resultant internal noise levels should be as seen in Table 4.

Table 4: Predicted Internal Noise Levels Due To A Partially Open Window – BS8233:2014

Façade	Predicted/Calculated Noise Levels – Equivalent Continuous Noise Levels					
	External L_{Aeq} (07:00-23:00 hours)	Predicted Internal Noise Level	Daytime 35 dB L_{Aeq} BS8233:2014 Criteria Met?	External L_{Aeq} (23:00-07:00 hours)	Predicted Internal Noise Level	Night-time 30 dB L_{Aeq} BS8233:2014 Criteria Met?
Façade/ Gardens	44 dB	31 dB	Yes	37 dB	24 dB	Yes
Lounges, Dining Rooms, Bedrooms Etc.				Bedrooms		
Gardens Near Monitoring Location 44 dB $L_{Aeq(16\text{ hour})}$				Noise Below 55 dB $L_{Aeq,T}$ = Yes		

3.4 Therefore, with windows left partially open to provide ventilation, the recommended acoustic criteria is expected to be met at present without further mitigation measures. It should be noted that whilst the existing ambient noise levels are such that internal acoustic requirements should currently be met with windows partially open, a change in external noise levels in the region of approximately 5-7 dB or more, may result in internal noise levels not being achieved by default, with moderate annoyance rising to serious annoyance in garden areas with an increased external noise level of approximately 6-11 dB.

3.5 The Department for Transport, High Speed Two (HS2) documentation 'Environmental Statement Volume 5: Map Book (July 2017) ES 3.5.1.10, made publicly available in document references Doc Number:C861-ARP-EV-MAP-000-131103-P03, and Doc Number:C861-ARP-EV-MAP-000-132103-P03, states that 'Quintons Orchard Farm' lies on the 5 dB contour changeover line between 60-65, and 55 to 60 dB during the daytime, and 50-55, and 45 to 50 dB during the night-time, with the 60 dB daytime and 50 dB night-time being the approximate crossover contour level. Panels A and B of document C861-ARP-EV-MAP-000-132103-P03 confirm the impact with Panel B specifically highlighting the farm with a red dot which we understand indicates a potential "Major Adverse Impact

>10 dB.” Therefore, considering this, the predicted increase in noise levels are likely to have a significant impact on the existing noise climate at ‘Quintons Orchard Farm’, both internally (with windows open) but also externally, in amenity areas.

4.0 SUMMARY AND CONCLUSIONS

- 4.0 Dynamic Response was commissioned by 'C.H Froggatt and Sons' to assess the existing ambient noise levels at 'Quintons Orchard Farm, Blithbury, Rugeley, Stafford, WS15 3JL, the purpose being to obtain current baseline noise data.
- 4.1 An un-attended noise survey has been carried in order to determine the existing ambient noise climate at residential occupancy buildings on the land/estate.
- 4.2 The results of the noise survey/assessment demonstrate that based on the current noise climate at the site the recommended internal acoustic criteria defined in British Standard 8233: 2014: 'Sound insulation and noise reduction for buildings', and World Health Organisation 'Guidelines For Community Noise' should be met with windows left partially open to provide natural ventilation.
- 4.3 It should be noted that whilst the existing ambient noise levels are such that internal acoustic requirements should currently be met with windows partially open, a change in external noise levels in the region of approximately 5-7 dB or more, may result in internal noise levels not being achieved by default, with moderate annoyance rising to serious annoyance in garden areas with an increased external noise level of approximately 6-11 dB. Therefore, considering the predicted increase in noise levels contained within The Department for Transport, High Speed Two (HS2) documentation 'Environmental Statement Volume 5: Map Book (July 2017) ES 3.5.1.10, made publicly available, we understand that noise is predicted to have a potential "Major Adverse Impact" and "be >10 dB" (in terms of an increase). Hence, likely to have a significant impact on 'Quintons Orchard Farm'.

APPENDIX I – NOISE UNITS AND INDICES**dB**

The dB (decibel) is the logarithmic unit used to describe sound (or noise) levels. When measuring sound (or noise) levels, it usually ranges from 0 dB (the threshold of hearing) to 140 dB (the threshold of pain).

dB(A)

Are decibels measured using a sound level meter using a frequency rating which relates sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) generally agree with peoples assessment of loudness.

Hz

Is a unit of frequency which is equal to one cycle per second. The frequency is related to the pitch of a sound.

L_{Aeq}

This is the A-weighted 'equivalent continuous noise level' which is an average of the total sound energy measured over a specified time period.

L_{Amax}

This is the maximum A-weighted noise level that was recorded during the monitoring period.

L_{A10}

Is the A-weighted noise level exceeded for 10% of the measurement duration (T).

L_{A90}

Is the A-weighted noise level exceeded for 90% of the measurement duration (T) and is generally used to define the background noise level.

SEL

This is the 'sound exposure level' of a single event (such as a passing train) and is the L_{Aeq} value of the whole event normalised to a 1 second period level of a sound.

APPENDIX II – RESULTS OF NOISE SURVEY(S)

Dates: Monday 2nd December 2019 – Thursday 5th December 2019
Equipment: Casella CEL-490 Type/Class 1 sound level meter (Serial No. 115840)
Weather: See Section 2.0
Measurement Location(s): Boundary Of ‘Quintons Orchard Farm’ Residential Occupancy Buildings

Table A1: Ambient Noise Levels (Free-Field)

Date	Time (Hours)	L _{Aeq}	L _{Amax}	L _{A10}	L _{A90}
02/12/19	12:00:00	42.0	63.1	44.5	38.0
02/12/19	12:15:00	44.1	55.6	48.5	37.0
02/12/19	12:30:00	42.0	55.7	45.0	36.5
02/12/19	12:45:00	40.3	52.2	43.0	35.5
02/12/19	13:00:00	41.7	54.9	45.0	35.5
02/12/19	13:15:00	40.8	53.7	43.0	36.0
02/12/19	13:30:00	41.1	58.4	44.0	36.0
02/12/19	13:45:00	48.3	68.7	52.0	35.5
02/12/19	14:00:00	48.9	65.6	52.0	36.5
02/12/19	14:15:00	45.7	61.8	50.0	37.5
02/12/19	14:30:00	41.5	58.2	44.5	37.0
02/12/19	14:45:00	45.8	61.1	47.5	37.5
02/12/19	15:00:00	42.4	54.8	45.0	37.5
02/12/19	15:15:00	44.7	59.3	46.5	37.5
02/12/19	15:30:00	42.8	56.6	45.5	38.5
02/12/19	15:45:00	38.9	48.4	40.5	36.5
02/12/19	16:00:00	43.5	61.6	46.5	37.5
02/12/19	16:15:00	45.6	67.8	48.0	38.5
02/12/19	16:30:00	39.6	52.5	41.5	36.5
02/12/19	16:45:00	42.3	59.7	44.5	37.0
02/12/19	17:00:00	39.5	52.3	41.5	37.0
02/12/19	17:15:00	40.8	55.2	43.0	36.0
02/12/19	17:30:00	42.1	53.5	45.5	36.5
02/12/19	17:45:00	40.3	64.2	41.5	35.0
02/12/19	18:00:00	38.3	51.3	40.5	35.5
02/12/19	18:15:00	36.9	51.5	38.5	34.0
02/12/19	18:30:00	38.1	50.8	41.0	33.5
02/12/19	18:45:00	38.3	54.4	41.5	33.0
02/12/19	19:00:00	36.8	50.9	40.0	32.0
02/12/19	19:15:00	38.6	53.4	41.0	33.5
02/12/19	19:30:00	37.6	52.4	40.0	32.5

02/12/19	19:45:00	43.0	60.9	44.0	33.5
02/12/19	20:00:00	39.1	50.5	43.0	31.5
02/12/19	20:15:00	37.9	48.6	40.5	32.0
02/12/19	20:30:00	35.2	45.1	37.5	31.0
02/12/19	20:45:00	37.1	62.4	40.0	30.0
02/12/19	21:00:00	36.6	49.7	39.5	31.5
02/12/19	21:15:00	39.2	60.7	42.0	30.5
02/12/19	21:30:00	33.2	58.0	34.0	29.5
02/12/19	21:45:00	33.3	46.1	35.5	29.5
02/12/19	22:00:00	36.7	49.5	39.5	30.0
02/12/19	22:15:00	35.6	52.8	38.5	31.0
02/12/19	22:30:00	35.3	49.1	38.5	30.5
02/12/19	22:45:00	38.5	48.2	42.0	33.0
02/12/19	23:00:00	33.3	44.5	35.0	30.5
02/12/19	23:15:00	32.8	46.0	34.0	30.0
02/12/19	23:30:00	32.6	45.9	34.0	30.0
02/12/19	23:45:00	31.6	45.8	32.5	30.0
03/12/19	00:00:00	37.5	54.7	40.5	31.0
03/12/19	00:15:00	31.0	37.3	32.0	30.0
03/12/19	00:30:00	35.1	48.5	38.0	30.0
03/12/19	00:45:00	32.6	42.2	33.5	30.5
03/12/19	01:00:00	35.5	47.7	37.5	32.5
03/12/19	01:15:00	36.7	47.9	38.5	33.5
03/12/19	01:30:00	34.9	47.4	36.5	32.5
03/12/19	01:45:00	35.0	47.9	37.5	32.0
03/12/19	02:00:00	34.9	46.5	37.0	32.5
03/12/19	02:15:00	33.1	40.4	33.5	32.0
03/12/19	02:30:00	36.3	50.2	37.5	32.5
03/12/19	02:45:00	33.3	39.0	34.0	32.0
03/12/19	03:00:00	37.3	52.7	40.5	27.5
03/12/19	03:15:00	28.1	38.8	29.5	26.5
03/12/19	03:30:00	33.1	46.4	37.0	27.5
03/12/19	03:45:00	34.9	47.1	38.0	28.0
03/12/19	04:00:00	30.1	40.0	32.5	27.5
03/12/19	04:15:00	34.2	47.6	38.0	29.0
03/12/19	04:30:00	34.4	46.0	37.5	30.5
03/12/19	04:45:00	33.8	44.1	37.0	29.5
03/12/19	05:00:00	31.2	41.2	32.5	29.5
03/12/19	05:15:00	31.5	41.5	32.5	30.0
03/12/19	05:30:00	36.5	51.9	39.5	30.5
03/12/19	05:45:00	34.2	45.7	37.0	30.5
03/12/19	06:00:00	35.2	45.2	37.0	32.5
03/12/19	06:15:00	39.4	53.8	41.5	34.0

03/12/19	06:30:00	36.2	55.5	37.5	33.5
03/12/19	06:45:00	37.6	45.4	39.5	35.0
03/12/19	07:00:00	41.6	65.2	44.0	36.5
03/12/19	07:15:00	42.4	58.9	44.5	36.0
03/12/19	07:30:00	38.3	50.7	40.5	35.5
03/12/19	07:45:00	42.0	58.4	44.0	38.5
03/12/19	08:00:00	43.6	58.5	45.0	39.5
03/12/19	08:15:00	50.0	66.8	49.5	40.0
03/12/19	08:30:00	41.2	56.5	42.5	39.5
03/12/19	08:45:00	47.1	64.4	49.5	39.5
03/12/19	09:00:00	45.8	62.4	47.0	39.5
03/12/19	09:15:00	43.3	58.4	45.0	39.0
03/12/19	09:30:00	42.5	56.3	44.5	39.0
03/12/19	09:45:00	41.3	55.3	43.5	37.5
03/12/19	10:00:00	42.5	55.5	46.0	37.5
03/12/19	10:15:00	40.1	58.3	42.5	37.0
03/12/19	10:30:00	43.4	57.3	45.5	36.5
03/12/19	10:45:00	40.9	57.9	41.5	36.0
03/12/19	11:00:00	42.4	62.0	45.5	35.5
03/12/19	11:15:00	56.7	88.1	43.0	35.5
03/12/19	11:30:00	47.1	84.0	41.0	34.5
03/12/19	11:45:00	38.9	61.0	41.5	34.5
03/12/19	12:00:00	35.5	49.6	38.0	32.5
03/12/19	12:15:00	39.6	64.4	40.5	33.5
03/12/19	12:30:00	40.9	55.7	43.5	33.0
03/12/19	12:45:00	37.4	59.3	39.5	32.5
03/12/19	13:00:00	34.4	51.4	36.5	31.0
03/12/19	13:15:00	36.7	58.3	38.5	31.0
03/12/19	13:30:00	37.5	59.1	40.0	31.0
03/12/19	13:45:00	52.3	70.4	49.5	32.5
03/12/19	14:00:00	48.2	63.9	52.5	35.5
03/12/19	14:15:00	47.5	75.2	50.0	34.0
03/12/19	14:30:00	47.3	76.9	45.5	33.5
03/12/19	14:45:00	39.0	56.5	40.0	33.5
03/12/19	15:00:00	39.0	55.0	40.0	33.0
03/12/19	15:15:00	49.8	77.3	45.5	36.0
03/12/19	15:30:00	40.9	54.2	44.0	35.5
03/12/19	15:45:00	39.8	57.9	41.0	36.0
03/12/19	16:00:00	39.1	51.4	41.0	36.5
03/12/19	16:15:00	48.1	63.9	52.0	37.5
03/12/19	16:30:00	43.8	63.0	45.0	37.0
03/12/19	16:45:00	38.4	52.8	39.5	36.5
03/12/19	17:00:00	41.0	50.5	42.5	38.5

03/12/19	17:15:00	40.6	52.6	43.5	36.5
03/12/19	17:30:00	42.7	58.9	46.5	37.0
03/12/19	17:45:00	40.9	52.7	43.5	37.0
03/12/19	18:00:00	41.0	58.5	42.5	36.0
03/12/19	18:15:00	42.7	54.9	46.5	35.0
03/12/19	18:30:00	39.2	50.5	41.5	34.0
03/12/19	18:45:00	45.5	73.4	44.0	34.0
03/12/19	19:00:00	41.8	72.3	40.5	34.5
03/12/19	19:15:00	38.8	53.9	42.0	34.5
03/12/19	19:30:00	39.6	53.4	43.5	33.5
03/12/19	19:45:00	40.2	61.2	44.0	35.5
03/12/19	20:00:00	44.2	62.8	47.0	33.0
03/12/19	20:15:00	39.5	51.6	41.5	34.5
03/12/19	20:30:00	39.5	52.0	42.0	34.0
03/12/19	20:45:00	39.3	51.3	42.5	34.5
03/12/19	21:00:00	41.1	60.0	44.0	35.5
03/12/19	21:15:00	38.6	54.6	41.5	35.0
03/12/19	21:30:00	36.6	51.9	38.5	34.5
03/12/19	21:45:00	37.6	49.6	40.5	33.5
03/12/19	22:00:00	39.1	59.7	40.5	33.0
03/12/19	22:15:00	38.5	51.3	41.0	34.0
03/12/19	22:30:00	38.5	52.5	40.5	33.0
03/12/19	22:45:00	42.0	54.8	47.0	34.5
03/12/19	23:00:00	34.6	48.3	36.0	32.0
03/12/19	23:15:00	34.6	44.3	35.5	33.0
03/12/19	23:30:00	34.6	46.9	35.5	32.0
03/12/19	23:45:00	36.7	51.9	39.5	31.5
04/12/19	00:00:00	33.6	46.0	35.5	31.0
04/12/19	00:15:00	32.8	41.2	34.5	31.0
04/12/19	00:30:00	35.2	46.4	37.0	32.5
04/12/19	00:45:00	35.2	46.9	38.0	31.5
04/12/19	01:00:00	36.6	50.2	38.5	32.0
04/12/19	01:15:00	37.5	50.5	40.5	30.5
04/12/19	01:30:00	36.1	47.2	39.0	32.0
04/12/19	01:45:00	36.0	48.6	38.0	32.5
04/12/19	02:00:00	37.8	57.5	40.0	31.0
04/12/19	02:15:00	33.3	47.4	34.0	32.5
04/12/19	02:30:00	32.5	40.5	33.5	31.5
04/12/19	02:45:00	37.5	50.1	40.0	33.0
04/12/19	03:00:00	37.9	47.9	41.5	33.5
04/12/19	03:15:00	36.1	50.6	37.0	27.0
04/12/19	03:30:00	35.4	50.3	37.5	27.0
04/12/19	03:45:00	41.7	54.5	45.5	28.5

04/12/19	04:00:00	30.8	37.8	32.0	29.5
04/12/19	04:15:00	39.6	65.4	37.0	28.0
04/12/19	04:30:00	30.9	38.2	32.5	29.5
04/12/19	04:45:00	37.2	49.1	41.5	29.5
04/12/19	05:00:00	31.8	40.4	33.5	30.0
04/12/19	05:15:00	33.8	47.2	35.5	31.5
04/12/19	05:30:00	39.5	59.8	39.5	31.5
04/12/19	05:45:00	37.5	51.9	40.0	33.0
04/12/19	06:00:00	35.3	44.5	36.5	33.5
04/12/19	06:15:00	40.1	57.1	42.0	34.5
04/12/19	06:30:00	37.9	49.2	40.5	35.5
04/12/19	06:45:00	39.6	59.2	42.5	35.5
04/12/19	07:00:00	39.4	51.8	42.0	36.5
04/12/19	07:15:00	41.3	59.7	44.0	36.5
04/12/19	07:30:00	46.5	70.9	43.5	36.5
04/12/19	07:45:00	41.0	57.6	43.5	37.5
04/12/19	08:00:00	47.7	66.1	49.0	39.0
04/12/19	08:15:00	48.2	67.6	48.0	39.5
04/12/19	08:30:00	42.8	57.1	44.0	40.5
04/12/19	08:45:00	43.3	59.8	45.0	40.5
04/12/19	09:00:00	44.8	55.3	49.0	40.0
04/12/19	09:15:00	41.5	54.7	43.5	38.0
04/12/19	09:30:00	40.5	57.3	42.5	38.0
04/12/19	09:45:00	43.6	61.5	47.0	38.0
04/12/19	10:00:00	42.8	56.2	45.5	39.0
04/12/19	10:15:00	41.0	52.2	43.5	38.0
04/12/19	10:30:00	43.3	62.8	44.5	39.0
04/12/19	10:45:00	42.8	58.6	45.0	38.5
04/12/19	11:00:00	42.9	66.0	43.5	38.0
04/12/19	11:15:00	47.8	63.6	50.5	37.5
04/12/19	11:30:00	43.6	56.6	47.5	37.5
04/12/19	11:45:00	40.2	51.9	42.5	36.5
04/12/19	12:00:00	40.4	54.1	42.5	35.5
04/12/19	12:15:00	41.0	58.8	44.0	35.0
04/12/19	12:30:00	37.4	56.0	39.5	32.5
04/12/19	12:45:00	36.6	52.8	39.5	32.0
04/12/19	13:00:00	36.8	62.2	38.0	33.0
04/12/19	13:15:00	43.4	62.1	43.5	32.0
04/12/19	13:30:00	43.4	70.8	41.0	32.0
04/12/19	13:45:00	36.2	52.1	38.5	32.5
04/12/19	14:00:00	39.2	63.4	39.0	33.0
04/12/19	14:15:00	43.7	62.1	46.0	34.0
04/12/19	14:30:00	37.1	56.6	39.0	34.0

04/12/19	14:45:00	44.6	62.3	48.0	35.0
04/12/19	15:00:00	40.0	59.0	42.5	35.0
04/12/19	15:15:00	43.1	66.4	45.0	36.5
04/12/19	15:30:00	42.0	57.2	44.0	36.5
04/12/19	15:45:00	40.7	55.8	43.0	38.0
04/12/19	16:00:00	47.0	65.3	48.0	38.0
04/12/19	16:15:00	42.1	62.7	44.5	38.0
04/12/19	16:30:00	41.5	56.8	43.5	38.0
04/12/19	16:45:00	50.1	69.0	50.0	39.0
04/12/19	17:00:00	41.7	54.4	43.5	39.5
04/12/19	17:15:00	42.6	55.1	45.5	39.5
04/12/19	17:30:00	41.4	52.6	43.5	38.5
04/12/19	17:45:00	41.0	51.8	44.5	37.5
04/12/19	18:00:00	39.4	48.7	41.5	37.0
04/12/19	18:15:00	43.1	56.8	46.0	36.5
04/12/19	18:30:00	39.1	47.1	41.5	36.5
04/12/19	18:45:00	38.9	47.1	40.5	36.5
04/12/19	19:00:00	39.7	52.0	42.5	35.0
04/12/19	19:15:00	40.1	49.0	43.0	36.0
04/12/19	19:30:00	39.4	51.8	42.5	34.5
04/12/19	19:45:00	38.2	60.9	40.5	34.0
04/12/19	20:00:00	39.8	63.3	42.5	33.5
04/12/19	20:15:00	39.9	52.4	43.0	34.0
04/12/19	20:30:00	35.7	46.6	37.5	33.5
04/12/19	20:45:00	40.4	58.8	42.0	34.0
04/12/19	21:00:00	40.1	54.8	43.5	33.5
04/12/19	21:15:00	34.6	46.0	36.5	32.5
04/12/19	21:30:00	34.0	42.6	36.0	31.5
04/12/19	21:45:00	38.8	60.3	42.0	32.5
04/12/19	22:00:00	35.3	47.4	37.5	33.0
04/12/19	22:15:00	37.7	47.3	40.5	34.0
04/12/19	22:30:00	36.9	53.3	37.5	32.0
04/12/19	22:45:00	39.8	50.3	44.0	33.0
04/12/19	23:00:00	33.4	50.4	35.0	30.0
04/12/19	23:15:00	34.3	47.9	36.0	30.5
04/12/19	23:30:00	36.7	51.6	39.0	31.0
04/12/19	23:45:00	33.7	44.9	36.0	30.0
05/12/19	00:00:00	34.4	47.6	37.0	28.0
05/12/19	00:15:00	28.1	36.1	29.5	26.5
05/12/19	00:30:00	31.7	46.7	33.0	26.0
05/12/19	00:45:00	35.5	49.5	39.0	27.0
05/12/19	01:00:00	34.0	49.6	36.5	27.0
05/12/19	01:15:00	28.0	36.1	29.0	27.0

05/12/19	01:30:00	38.3	52.4	40.5	26.5
05/12/19	01:45:00	35.3	49.1	38.5	26.5
05/12/19	02:00:00	31.3	46.8	34.5	25.5
05/12/19	02:15:00	38.3	52.5	41.5	26.0
05/12/19	02:30:00	37.4	51.6	40.0	26.0
05/12/19	02:45:00	32.7	47.2	36.5	26.5
05/12/19	03:00:00	33.4	45.7	37.0	26.0
05/12/19	03:15:00	28.4	40.5	30.5	26.0
05/12/19	03:30:00	28.1	41.2	30.0	26.0
05/12/19	03:45:00	34.2	49.1	37.0	26.0
05/12/19	04:00:00	39.2	61.3	42.5	29.0
05/12/19	04:15:00	31.0	49.6	32.5	28.5
05/12/19	04:30:00	34.1	44.9	38.5	28.5
05/12/19	04:45:00	33.6	46.4	36.5	29.0
05/12/19	05:00:00	31.3	42.3	33.0	29.0
05/12/19	05:15:00	33.1	45.3	34.5	30.5
05/12/19	05:30:00	32.6	40.8	34.0	31.0
05/12/19	05:45:00	34.1	43.3	35.5	32.5
05/12/19	06:00:00	38.6	51.3	42.5	33.0
05/12/19	06:15:00	39.4	52.7	43.0	35.0
05/12/19	06:30:00	39.1	49.4	41.5	35.5
05/12/19	06:45:00	43.7	63.8	44.5	36.0
05/12/19	07:00:00	40.3	54.1	43.0	36.5
05/12/19	07:15:00	41.4	54.0	44.5	37.5
05/12/19	07:30:00	40.0	57.9	42.0	37.5
05/12/19	07:45:00	43.5	63.6	46.0	39.5
05/12/19	08:00:00	43.7	58.8	46.5	39.5
05/12/19	08:15:00	49.4	67.0	48.5	40.0
05/12/19	08:30:00	41.8	61.3	43.5	40.0
05/12/19	08:45:00	44.9	61.2	47.5	40.0
05/12/19	09:00:00	44.1	60.6	47.5	39.5
05/12/19	09:15:00	41.2	54.1	43.0	39.0
05/12/19	09:30:00	43.5	61.5	44.0	40.0
05/12/19	09:45:00	41.8	59.3	43.5	39.5
05/12/19	10:00:00	42.7	54.0	45.0	40.0
05/12/19	10:15:00	42.1	56.1	44.0	39.5
05/12/19	10:30:00	41.2	51.9	43.0	39.0
05/12/19	10:45:00	41.7	56.2	43.0	39.0
05/12/19	11:00:00	45.0	62.3	44.5	38.5
05/12/19	11:15:00	42.0	56.6	44.0	39.5
05/12/19	11:30:00	40.2	50.7	42.0	38.5
05/12/19	11:45:00	41.0	54.2	42.5	38.0

Annex 8

Proposed security and monitoring required for fish farm – quotes

QUOTATION



Town & Country Fencing (Midlands) Ltd.
Sunnyside, Hooks Lane
Hinstock, Market Drayton
Shropshire, TF9 2TJ

Tel: 01952 550885
Mob: 07711 203010
E-mail: mark@tcf-fencing.com
Web-site: www.tcf-fencing.com

F.A.O. David Froggatt
Rugeley Fishing pool

TCF Job No.: 002761
Quotation Date: 07/09/2020

QUOTATION RE: 2.4m Vmex3

Item	Description NOTES:	Qty	Unit	Rate	Amount
	To supply and install 2.4m high rigid mesh panel fencing as attached specification. PPC Green Ral 6005.	1265	m	£49.57	£62,706.05
	To supply and install 2.4m high 3.0m wide double leaf gates (2 No 1.5m leaf's) to match above.	9	No	£1,622.00	£14,598.00
	Note; quotation given on condition ground is free from rock, rubble, tarmac, concrete etc. vehicle access to fence line is available and fence line is clear of vegetation & levelled suitably. Extra over for hand dig/hard dig/trial hole £14.40, if reinforced concrete £24.30. Post centres at 3.03m centres. Additional posts if required £32.60.				
				Total:	£77,304.05

Rugeley Aerials

Satellite Systems & CCTV Cameras

130 Chaseley Road,
Etching Hill,
Rugeley,
Staffordshire.
WS15 2LH
Tel: 01889 585481
Email: sales@rugeley-aerials.co.uk
V.A.T 536791415

ESTIMATE

DATE 9TH September 2020

Mr Sian Froggatt

Dear Sir,

Further to your instructions we detail our estimate as follows;

ESTIMATE ONLY

4 ip PTZ Cameras looking at 4 Fishing Pools
4 Fixed ip Cameras
4 16ft Towers
2 Wireless bridges to transmit Cameras
3 Days labour for Electrician
1 week labour for Cameras etc;
1 32 Channel HD NVR recorder 16 TB

BOTTOM POOL

1 16ft Tower
1 ip PTZ Camera
4 Fixed ip Cameras
1 Waterproof Housing
1 Days labour for Electrician
1 Days labour for Cameras etc;

	£33,698 56
VAT @20%	<u>6,739 71</u>
	<u>£40,438 27</u>

PLEASE NOTE

As this a very isolated location this reflects the cost

Yours faithfully

V Shaw



HS2 Construction

Potential impact on Quintons Orchard Fish Farm.

Report prepared by Ian Wellby

This report was prepared by:

Ian Wellby B.Sc. (Hons), M.Sc., FIFM, CEnv.
Blueroot Ltd.
92 Queensway
Old Dalby
Melton Mowbray
Leicestershire, LE14 3QH.

1. Introduction

Quintons Orchard Fish Farm, Blithbury, Staffordshire was established in 2006, producing coarse fish for the restocking of inland fisheries in the UK. Over the years the farm has developed and grown to be a closed fish farm system; predominately on-growing carp and tench from an early life stage, to a much larger size suitable for direct restocking into lakes. The farm is located in a quiet area of Staffordshire just to the North East of Rugeley. There is no through road access to the site and only two rights of way (footpaths) cross the land.

A significant construction site is proposed, close to Quintons Orchard Fish Farm. The owners are concerned at the possible impacts arising from the construction site, including associated vehicle and pedestrian movements so close to the fish farm, specifically whether the proposed activities might potentially have significant impacts on the fish farming operation.

The likely possible impacts can be separated into several different categories, but potentially the most important is potential for increased risk of fish theft and, separately, the threat to the biosecurity of the site. Noise, vibration and dust are also potentially damaging to the fish farm and its operation.

2. Fish theft and Biosecurity

2.1 Fish theft

Quintons Orchard has an established business, on-growing large carp and tench for the restocking market. These fish can be extremely valuable – a 22lb carp would retail at around £660, a 28 lb fish up to £1000 and a 30lb + fish can be priced at well over £3000 and are highly sought after. Furthermore carp are a popular foodstuff for many people, particularly Eastern Europeans, and poaching carp for food is an increasing problem in the UK.

The relative isolation and discrete advertising of Quintons Orchard has, so far limited the problem of fish theft on the site.

The proposed construction site will, obviously, significantly increase the number of visitors to the local area, thereby dramatically increasing knowledge of the location and access to the site. This will obviously increase the risk of fish theft.

The problem of fish theft is not only limited to the loss of fish actually stolen but there are also potential consequences that relate to the biosecurity of the site.

2.2 Biosecurity

Biosecurity is a set of precautions to prevent the introduction and spread of harmful organisms - pests, pathogens or invasive non-native species (INNS). On a closed fish farm such as Quintons Orchard, biosecurity is of vital importance. It is a legal requirement as part of the registration of an Aquaculture Production Business (APB) that the business has a Biosecurity Measures Plan in place.

Quintons Orchard is a registered APB (registration number EW038-W-060A) for the production of finfish. As such it has been declared specific pathogen free. These biosecurity measures are vital for the long time viability of any fish farm due to the potential consequences of significant fish disease such as Koi Herpes Virus and Spring Viraemia of Carp and invasive non-native plant species like water fern or water primrose.

One of the main features of Quinton Orchard's Biosecurity Measures Plan is the relative isolation of the farm, which significantly reduces, unauthorised visitors to the site. Unauthorised and or uninvited visitors represent a particularly large risk to any fish farm operation, not only in the direct loss of stock (through theft of damage) but also in the risk of compromising the biosecurity plan and bringing infections and INNS plants onto site. This is because the clothing and equipment that unauthorised / uninvited visitors use is unlikely to have been disinfected and may be contaminated.

Thus any risk of increased unauthorised attendance at the fish farm significantly increases the risk of compromising the Biosecurity Measures Plan and in turn significantly increasing the risk of a serious infection getting on site. The consequences of the fish being infected with a notifiable disease such as Koi Herpes Virus or Spring Viraemia of carp are catastrophic for a business like Quintons Orchard Fish Farm. In such circumstances the Fish Health Inspectorate (FHI) would supervise a stock cull, site clearance and disinfection, for which there is no compensation or practical insurance cover available.

3. Noise Pollution

As with any large scale construction site there is likely to be considerable noise and disturbance; from heavy plant movements, excavation works and piling. All these construction works will generate both sound and vibrations, which will subsequently enter adjacent water bodies, such as Quintons Orchard Fish Farm Ponds. These sounds and vibrations have the potential to change the behaviour of fish and, in some cases, even cause direct damage. Any changes in behaviour in fish kept on a fish farm will have a direct impact on their feeding and therefore growth rates and may affect their long term health and condition. Noise pollution will also decrease the ability for fish to be aware of and react to possible predation, thereby increasing the likelihood of predation, damage and or death. A certain level of noise pollution will continue after the railway is built.

4. Dust and airborne particles.

Site works and movement of large plant on a construction site will create a large amount of dust. The dust arising will be transmitted by the wind and will preferentially accumulate in local water bodies. Dust and airborne particles by their very nature tend to create suspended solids in water bodies - i.e. they are small and light and do not settle out quickly. Suspended solids in water can damage the gill tissue and make fish respiration more difficult.

5. Direct pollution and pollution of the aquifer.

Quintons Orchard Fish Farm is immediately surrounded by farmland under the control of the owners. As such there is complete control in respect of immediately adjoining land management to minimise pollution risk(s). This control will be less rigorous with the presence of the construction site and third party access over the farm land. There is a risk of pollutant leaching and disease transmission into the groundwater aquifer and therefore on into the fish farm ponds, which are fed directly from the local aquifer via springs and a borehole.

6. Ground water

The fish ponds on Quintons Orchard fish farm are filled largely with ground water from the local aquifer i.e. they fill naturally from underground springs and maintain their levels through the summer. Any works within that aquifer area, for example the construction of a balancing pond, has the potential to not only affect surface drainage but also to change the water levels within the aquifer. This may impact both the springs and the borehole which Quintons Orchard Fish farm uses to obtain additional water for the fish farm ponds and hatchery.

4.0 Conclusions

Although it is impossible to predict the consequences of the construction site such as that proposed might have on Quintons Orchard Fish Farm, from the information laid out above it is clear that there are a variety of potentially damaging consequences.

In my view the most significant of these threats is likely to be the increased risk of unauthorised visitors to the site and fish theft. Whilst there is an obvious risk from fish theft, in loss of stock, the consequence of increased risk to the business - through the potential introduction of a serious fish disease or non-native plant species - is difficult to manage for the long term survival of the farm. The risk of disease introduction is particularly serious and would almost certainly result in the closure of the farm.

The impact of the noise pollution, leading to increased direct predation and stress on the fish population, is a significant issue which is very difficult to quantify, particularly given the paucity of information around the actual construction process. However any increase in noise pollution is likely to lead to a higher level of direct mortality to the stock but also a significant reduction in the growth rates of the remaining stock.

These two factors, alongside the other threats, such as direct pollution, particularly through increased mobilisation of dust, will have a significant impact on Quintons Orchard Fish Farm as a business .

5.0 Mitigation

Given the information in this report it is my professional opinion that it would be prudent for steps to be taken in advance of construction commencing to try to minimise the risks of:

1. unauthorised access; and
2. theft; and
3. disease and or pollutant transmission.

It is my opinion that prevention would be better than cure, however it is clearly impossible to guarantee prevention, so there needs to be provision made for prevention and monitoring, with a backup of damage limitation and disaster recovery.

It would be eminently possible to provide security fencing, gates and CCTV to address the threat of unauthorised visitors.

I would recommend that a regular and frequent water quality, pollutant (including dust) and noise monitoring programme is established prior to construction so as to establish a baseline. Once a baseline is established limits could be thereby set for the construction phase.

A Disaster Recovery Plan should be produced in the event that the stock needs to be relocated or destroyed and an indemnity arrangement should be secured to protect the business and its owners from events outside their control.

HS2 has already provided generic assurances regarding dust management during construction. The specific nature of the operation at Quintons Orchard requires a far greater level of dust management and suppression – and associated monitoring.

5.0 Statement of Truth

- 5.1 I confirm that insofar as the facts stated in my report are within my own knowledge, I have made clear which they are and that I believe them to be true, and that opinions I have expressed represent my true and complete professional opinions.

6.0 Information on which I have relied

- 6.1 I have obtained information from a variety of sources to complete this report.

Girdler, Wellby and Welcomme (2010) **Fisheries Management - A Manual for Still-water Coarse Fisheries**. John Wiley and Sons.

Andy Turnpenny. (2013) **A Brief Review of Sound Reception in Fish**. From the proceedings of the IFM Conference **Impacts of Noise and Vibration on Fish**.

Malcolm Jobling (1995) **Environmental Biology of Fishes**. Chapman and Hall, Fish and Fisheries Series 16.

Carl B. Schreck Dr., Lluís Tort, Anthony P. Farrell, Colin J. Brauner (2016) **Biology of Stress in Fish (Fish Physiology)**. Academic Press.

Arthur N. Popper, and Anthony D. Hawkins (2018) **The importance of particle motion to fishes and invertebrates**: The Journal of the Acoustical Society of America 143.

Anthony Hawkins (2010) **Assessing and regulating the impact of sound and vibration upon fish**. The Journal of the Acoustical Society of America 127, 1755.

Anthony D. Hawkins, and Arthur N. Popper (2016). **A sound approach to assessing the impact of underwater noise on marine fishes and invertebrates**. ICES Journal of Marine Science (2017), 74(3), 635–651.

<http://www.acoustical-consultants.com/rail-noise-and-vibration-impact-on-aquarium-sea-life/>

This report was prepared by
Ian Wellby B.Sc. (Hons), M.Sc., FIFM, CEnv.
92 Queensway
Old Dalby
Melton Mowbray
Leicestershire, LE14 3QH

7.0 Qualifications and Experience

EDUCATION.

- | | | |
|-----------|-------------------------|--------------------------------------|
| 1983 - 86 | Plymouth Polytechnic, | BSc (hons.) 2ii Biological Sciences. |
| 1991 - 92 | University of Plymouth, | MSc Applied Fish Biology. |
| 2002 - 03 | Brooksby Melton College | Level 4 Certificate in FE Teaching, |
- 2004 – Awarded Chartered Environmentalist status - CEnv
 - 2007 – Elected Fellow of the Institute of Fisheries Management - FIFM
 - Member of the Institute for Learning – MifL
 - Chairman of IFM Training

EMPLOYMENT.

- | | | |
|-----------|----------------------------|---|
| 1987 - 88 | Ludbrook Trout Farm. | General assistant for all aspects of table trout. |
| 1988 - 89 | 8500 Portimão, Portugal. | Technical manager, sea bream hatchery. |
| 1989 - 91 | Ludbrook Trout Farm. | Assistant manager, trial sea cage site. |
| 1990 - 91 | Kingston Aquatics. | Manager, ornamental fish production unit. |
| 1991 - 92 | Self employed. | Fish Disease consultant. |
| 1992 - 93 | National Rivers Authority. | Laboratory Technician, Fish Health. |
| 1993 - 96 | Environment Agency. | Assistant Fish Health Scientist. |
| 1996 - 99 | Environment Agency. | Fisheries Scientist. |
| 1999 - 05 | Brooksby Melton College. | Lecturer and Course Tutor in Fishery Studies. |
| 2005 - | Blueroot Ltd. | Director of aquatic management consultancy. |

BOOK PUBLICATIONS.

Diseases of Carp and other Cyprinid Fish. Hoole, D., Bucke, D., Burgess, P. and Wellby, I. (2001) Blackwell Publishing, Fishing News Books. ISBN 0 85238 5239

Freshwater Fisheries Management. Girdler, A., Wellby, I. and Welcomme, R. (2010) Wiley Publishing. ISBN: 978-1-4051-3332-6

Appendix. Supporting Evidence

1. Fish Theft and Poaching

Fish Theft and Poaching has become an increasing problem in recent decades. Whilst the police deal with criminal matters, the Environment Agency is the statutory lead agency on fisheries matters such as poaching. In 2014 the police, EA, Angling Trust and others came together to launch Operation TRAVERSE, targeting poaching and fish theft. This operation was launched at Lincolnshire Police headquarters and was followed in June 2015, by Operation LEVIATHAN, launched at West Mercia Police headquarters. Most forces in the country now subscribe to one or other of these operations.

In Surrey in October 2019 a fish farmer was prosecuted for stealing fish from a Country Park Lake "David Champion, aged 31 from Conaught Crescent, Brookwood and Mark Champion, aged 61 from Fairview Road, Ash have pleaded guilty to ten charges each, for offences relating to poaching fish from the ponds at Brookwood Country Park in Woking in April 2019. David Champion has been fined £155 for the theft offences, £460 for the Salmon & Fresh Water Fisheries Act offences, £46 to Victim Services, £85 to Crown Prosecution Service and £250 compensation. Mark Champion has been fined £85 to Crown Prosecution Service, £30 to Victim services and £250 compensation.

Poaching can also have an impact on the environment, risking the spread of disease and pathogens as well as non-native invasive species between waterways.

We would like to thank the Goldsworth Park Angling Club, who were the victims of poaching crime, [Angling Trust](#), [Woking Council](#), [Thames Water](#) and [Environment Agency](#) for their support in holding the men to account for their actions. It is almost impossible to put a monetary value on the damage poaching does, but to a smaller Angling Club it can have a massive impact. They rely on the finances raised from their paying members to pay rents and to maintain, improve and protect fisheries. #RuralCrimeMatters #EnvironmentAgency #AnglingTrust #GoldsworthParkAnglingClub #WokingBoroughCouncil" Extract from Surrey Police Facebook - <https://www.facebook.com/SurreyPolice/posts/david-champion-aged-31-from-conaught-crescent-brookwood-and-mark-champion-aged-61/2504435612976024/>

These operations highlight the real dangers of fish theft and poaching.

2. Biosecurity

Biosecurity is a general term for a set of plans and procedures to prevent the introduction of specified organisms and infectious agents into an area. The production and maintenance of a Biosecurity Measures Plan (BMP) is a legal requirement as part of the registration of an Aquaculture Production Business (APB) under The Aquatic Animal Health (England and Wales) Regulations 2009. Quintons Orchard is a registered APB (registration number EW038-W-060A) for the production of finfish. As such it carries a BMP and has been declared specific pathogen free.

There are several reasons why Biosecurity is considered so important to a fish farm, however the main reason is the risks associated with exotic disease causing organisms. There are currently 8 fish diseases that are notifiable, 2 of which are specific to coarse fish farms – Spring Viraemia of Carp (SVC) and Koi Herpes Virus

(KHV). It is the legal duty of a fish farm to notify the authorities (CEFAS) if they suspect an outbreak of any notifiable disease and the farms are visited twice a year to monitor them for signs or symptoms of infections.

If the authorities suspects a notifiable disease then the following will happen:

- *An initial designation notice is issued to the site operator to prevent further spread of disease, while samples are collected and tests are carried out.*
- *If the disease isn't found the initial designation notice is lifted immediately.*
- *If notifiable disease is confirmed, the Fish Health Inspectorate issues a confirmed designation notice (a legal order restricting movements of aquatic animals into, out of and within the affected area).*
- *FHI supervises an immediate stock cull, site clearance and disinfection when required.*
- *Further controls may include restricting vehicle and equipment movement, restricting some site activities (like disposal of waste) and additional biosecurity measures (like using on-site disinfection facilities).*
- *The Confirmed Designation Notice can only be lifted when the FHI are satisfied that the disease is no longer present. This must involve one of the following:*
- *FHI supervise a stock cull, site clearance and disinfection (this is the preferred option and happens whenever possible)*
- *completion of a satisfactory monitoring and retest programme by FHI - this can be up to 4 years and any further disease means the programme has to be restarted*

KHV is the more significant of the two disease causing organisms mentioned above. This viral disease has caused significant mortalities in the UK since it was first identified in the UK in 1998. In 2019 there were 16 confirmed cases in England. The closest of these outbreaks was at Marley Pit, Lichfield Road, Branston, Burton-On-Trent, only 10 miles from Quintons Orchard Fish Farm.

As can be seen the implications of an infection of KHV on any fish farm site would be catastrophic. It would result in not only the destruction of all the stock held on site through the "clear and disinfect" rules laid out above but would also have significant reputational harm for any infected fish farm, so even if they could restock, sales would be impacted for the foreseeable future.

3. Hearing in fish - Mechanism

The hearing system is based on a single type of mechano-receptor cell called a hair cell. these hair cells are found in both the lateral line system and the inner ear. The lateral line system is a long gel-filled canal, with pores that open to the environment. The hair cells are able to detect particle displacement when it causes movement of the gel, and thus moves the hairs. The hairs are also directionally sensitive i.e.: they can determine where the sound originated.

Using this long lateral line along the trunk and especially its different orientations as it travels around the head, fish can not only detect particle displacement, but can also detect the directional source of these movements. This system will also detect movement in the water. It appears to be very useful in sensing the movement of nearby fish, so is functional for shoaling fish as well as for predator/prey detection.

Furthermore, when a fish is swimming it sets up movement in the water around it, similar to a bow wave on a boat; the lateral line system can detect this water movement and also any changes in the bow wave, for example if the fish swims close to an object.

The inner ear also allows fish to detect pressure waves, again using hair cells. Due to the difference between the density of the otoliths (ear bones) and of the fish tissue, the inner ear can also detect the particle displacement part of sound.

It is suggested, and backed up by considerable evidence, that fish use the swimbladder to convert sound pressure waves into particle displacement, which can be transmitted to the inner ear. The swimbladder does this by pulsating slightly in sympathy with any sound pressure waves. This pulsating creates particle displacement in the fish tissue which the fish can "hear". Cyprinid fish (the group of fish farmed at Quintons Orchard) have a special link of bones between their swim bladder and the inner ear called weberian ossicles. The pulsations of the swimbladder are transmitted directly to the inner ear along these bones and, as a result, cyprinid fish have amongst the best hearing of any fish species.

The inner ear also serves several other functions. It consists of a series of three semicircular canals and three sac-like organs, containing small bones. These small bones, or otoliths, are held in the sac-like organs by hair cells. Being denser than the rest of the fish they tend to 'lag behind' if the fish moves, thus giving the fish a sense of movement. They are also affected by gravity and so give fish a sense of up and down and of balance, (taken from Girdler et al 2010)

This information about the mechanism of hearing in fish shows the considerable complexity of the hearing systems developed in cyprinid fish, such as those farmed at Quintons Orchard.

In fact fish scientists classify cyprinids as 'hearing specialists' - species that have anatomical adaptations, the Weberian ossicles, that increase sensitivity and bandwidth, allowing them to hear at a wider range of sound wave frequencies.

3.2 Hearing in Fish - Function

Hearing is a very important sense in informing the fish of the nature of its surroundings and of what is happening there. This well-developed system of detecting particle displacements and pressure waves serves many important functions in the life of a fish. 'Sound has much to recommend it as a form of sensory stimulus in aquatic environments'. (Jobling 1995).

Two examples of the use of hearing in fish illustrate the importance of sound and hearing, particularly with reference to fish in a fish farm pond :

- Mating and con-specific (within species) communication - shoaling fish such as carp require a sensory apparatus that can confirm the location of any members of its shoal. Given the often turbid nature of water, sound is the obvious main sensory stimulus.

- Predator detection - predator detection for any animal is of vital importance. The small movements and sound waves transmitted by the presence of a predator will be a vital piece of information for a fish trying to avoid predation.

3.3 The impact of Anthropogenic noise on fish

It can clearly be seen that hearing is an important sense for fish. Carp, the main species farmed at Quintons Orchard Fish Farm, have even evolved the complex system utilising Weberian ossicles (mentioned above) to improve their ability to hear.

Any increase in noise level is almost certain to have some sort of effect. Noise pollution, and its possible affects on fish populations, is increasingly an area of interest and study, particularly in the marine environment.

There has been much academic work in this area and a lot of more mainstream press interest has also been shown in regard to this issue :

<https://theconversation.com/the-fishy-problem-of-underwater-noise-pollution-91547>

<http://www.bristol.ac.uk/news/2017/september/noise-pollution-disruptive-for-fish-.html>

http://news.bbc.co.uk/earth/hi/earth_news/newsid_8708000/8708318.stm

<https://www.thetimes.co.uk/article/fish-sex-lives-are-being-ruined-by-man-made-noise-6dthq2z7x>

The academic work carried out in this field has been summarised in several papers, notably :

Arthur N. Popper, and Anthony D. Hawkins (2018) **The importance of particle motion to fishes and invertebrates:** The Journal of the Acoustical Society of America 143.

Anthony Hawkins (2010) **Assessing and regulating the impact of sound and vibration upon fish.** The Journal of the Acoustical Society of America 127, 1755.

Anthony D. Hawkins, and Arthur N. Popper (2016). **A sound approach to assessing the impact of underwater noise on marine fishes and invertebrates.** ICES Journal of Marine Science (2017), 74(3), 635–651.

In their review article Hawkins and Popper (2010) developed a table of potential effects of man-made sound on animals, reproduced below :

Potential effects of man-made sound on animals - different distances from the source.

Effect	
Death	Either immediate mortality or tissue and/or physiological damage that is sufficiently severe that death occurs some time later due to decreased fitness. Mortality has a direct effect upon animal populations, especially if it affects individuals close to maturity.
Physical and/or Physiology Effects	Tissue and other physical damage or physiological effects, that are recoverable but which may place animals at lower levels of fitness, may render them more open to predation, impaired feeding and growth, or lack of breeding success, until recovery takes place.
Impaired Hearing	Short- or long-term changes in hearing sensitivity (temporary threshold shift - TTS or permanent threshold shift - PTS) may, or may not, reduce fitness and survival. Impairment of hearing may affect the ability of animals to capture prey and avoid predators, and also cause deterioration in communication between individuals; affecting growth, survival, and reproductive success.
Masking	The presence of man-made sounds may make it difficult to detect biologically significant sounds against the noise background. Masking of sounds made by prey organisms may result in reduced feeding with effects on growth. Masking of sounds from predators may result in reduced survival. Masking of spawning signals may reduce spawning success and affect recruitment. Masking of sounds used for orientation and navigation may affect the ability of fish to find preferred habitats including spawning areas, affecting recruitment, growth, survival and reproduction.
Behavioural Responses	Changes in behaviour may take place in a large proportion of the animals exposed to the sound, as such responses may occur at relatively low sound levels. Some of these behavioural responses may have adverse effects. Displacement from preferred habitats may affect feeding, growth, predation, survival and reproductive success. Changes in movement patterns may affect energy budgets, diverting energy away from egg production and other vital functions. Migrations to spawning or feeding grounds may be delayed or prevented, with detrimental effects upon growth, survival and reproductive success. Prevention of recruitment and settlement in preferred habitats may affect colonization and population size in any area exposed to high levels of noise.

Given the realities of this particular case it is the last two effects that are of particular concern - masking and behavioural responses.

3.3.1 Masking

In the situation at Quintons Orchard Fish Farm, masking is likely to be an important factor for the fish. Completely protecting stock from predators is very difficult on any fish farm and some level of predation is expected. However if the fish are more susceptible to predation, due to the masking effect of noise pollution, then it is likely that there will be a reduced survival rate for the stock. Of equal importance is the likely increase in the number of fish damaged (and therefore rendered un-saleable) by unsuccessful predation attempts. This increase in predation, and predation attempts, is likely to increase the levels of background stress on the fish, reducing growth and condition factors (2.3.3).

Masking may also affect the ability of the fish to find food. The disturbance of the artificial pellet food, as fed at Quintons Orchard, hitting the surface of the water is an obvious stimulus to feed for the fish. If this noise is masked it is likely to delay the initial feeding response and decrease the food available to individual fish.

3.3.2 Behavioural Changes

It should be obvious that any changes in behavioural response can be potentially harmful to the enterprise of fish farming. The table above lists some of the possible behavioural changes associated with noise pollution. Any, or all, of these changes will have a significant effect on the fish present in a fish farm pond. Although these changes may directly affect "feeding, growth, predation, survival and reproductive success" Hawkins and Popper (2010), they are also likely to have indirect effects in adding to the physiological stress experienced by the fish.

3.3.3 Stress in fish

Stress in fish has a particular meaning in biology : "physiological disturbance or damage caused to an organism by adverse circumstances". The stress response is initiated and controlled by two hormonal systems. Together these regulate the secondary stress responses that alter the distribution of necessary resources (e.g. blood supply and oxygen) to vital areas of the body, as well as compromising the immune system. If fish can resist death due to a stressor, they recover to a similar homeostatic norm. The long-term consequences of repeated, or prolonged, exposure to stressors are maladaptive by negatively affecting other necessary life functions (e.g. growth, disease resistance) in large part because of the energetic cost associated with mounting the stress response (Schreck et al 2016). Fish that are exposed to stress put so much energy into controlling the stress that it impacts other bodily functions such as disease resistance and growth.

Annex 10

Access requirements for bridge

Extract from email of 4th September 2020, to HS2 following meeting on 3rd September 2020

3. Accommodation Works

- a. The bridge proposed over the railway and to form part of North Drive – HS2 has provided assurances regarding this, but DSF maintain they do not go far enough. The bridge needs to be at least 6 metres wide to allow access for all usual agricultural, equestrian, fish farming, renewable energy, construction and residential traffic (and bear in mind the bridge will be used by HS2 traffic as well to maintain the balancing pond, electricity substation and maintenance track) and should be capable of carrying a 60t payload. Further, because HS2 propose the bridge also accommodates pedestrians (using the diverted footpath) it needs to be segregated for Health & Safety reasons to prevent pedestrians being injured by QO and or HS2 traffic. DSF confirmed that the traffic using the bridge would be roadworthy/ public highway permitted vehicles. DSF requested design details (drawings and specifications) which Daniel Collins (DC) agreed to relay, noting that the design was evolving. We look forward to receiving those soon. In the meantime I attach a specification of both a tractor and a combine harvester (details available <https://www.deere.co.uk/en/magazines/publication.html?id=285a43a2#14> and <https://www.deere.co.uk/en/magazines/publication.html?id=f84ae3bc#64> which demonstrates a minimum requirement for current machinery of 5m, to allow for clearances etc and without any allowance for continued increase in farm machinery size. **This point remains outstanding.**

A | WHEELBASE

3,807 mm [9420R – 9470R]
3,912 mm [9520R – 9620R]

B | OVERALL LENGTH

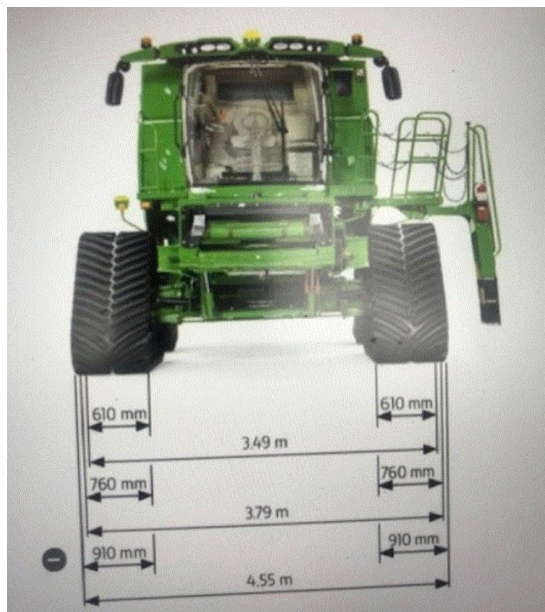
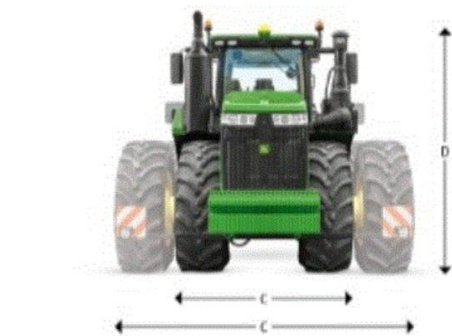
(with front weights, excluding hitch and coupler)
7,593 mm [9420R – 9470R]
7,697 mm [9520R – 9620R]

C | WIDTH

(minimum, depending on tyre settings)
3,050 mm with 800/70R38 single tyres
3,660 mm with 620/70R42 dual tyres
4,300 mm with 710/70R42 dual tyres

D | TOTAL HEIGHT

3,979 mm (top of cab)



Annex 11 – transcript of Oral evidence 11th July 2018

CH Froggatt & Sons

Quintons Orchard

Evidence of HS2 assurance to continue liaison with Froggatts – for bund – which hasn't happened.

MINUTES OF ORAL EVIDENCE
taken before the
HIGH SPEED RAIL BILL COMMITTEE
on the
HIGH SPEED RAIL (WEST MIDLANDS – CREWE) BILL
Wednesday 11 July 2018 (Afternoon)
In Committee Room 5
PRESENT:
James Duddridge (Chair)
Sandy Martin
Mrs Sheryll Murray
Martin Whitfield
Bill Wiggins
IN ATTENDANCE:
Timothy Mould QC, Lead Counsel, Department for Transport
Malcolm Gale, Petitioner Representative (CH Froggatt & Sons)
WITNESSES:
Sian Froggatt, Ian Welby and Martin Langdon (CH Froggatt & Sons)

558. MR MOULD QC (DfT): But I am able to tell you that work is going on to consider the case for putting in some form of noise bund on the western side for the benefit of Quinton's Orchard. And as I said to you yesterday, at the moment we predict we've got quite a lot of surplus material that we need to deal with and obviously if some of that material can be used to provide some further noise mitigation to people who are living in isolated dwellings along the railway where ordinarily the case for noise fences is not made out then that's obviously something that merits serious consideration.

559. I can't give you a guarantee on that today, but I can tell you that that is something that is being considered, and we'll obviously keep Mr Gale informed on progress with that.

Annex I2

PV panels and dust

Advice re dust impact



Sian Froggatt <sianfroggatt@gmail.com>

Impact on PV system

2 messages

Dave McIlwrack - DP Electrical <dave@dpelectricaltd.co.uk>
To: sianfroggatt@gmail.com

9 July 2018 at 22:58

Good afternoon Mrs Froggatt

Following on from our last phone conversation, I would like to express our concerns regarding the impact the new haul road will have on the performance of your solar array.

You mentioned that there could be an expected 900+ vehicle movements a day along this track and it will be around 60 yards from your array. Working on a 10 hour day, that gives you a haul truck or lorry passing every 40 seconds. Even with the most stringent controls on dust suppression, these movements will undoubtedly introduce a substantial amount of dust into the surrounding environment, which will naturally settle on your array.

It is obviously impossible to quantify at the moment the detrimental effect this will have on production and will need monitoring. It would be foolhardy to rely on rain fall to keep the system clean, as our current lack of it has proved! But even with a regularly scheduled cleaning regime, production could be severely impacted after just one day of dust!

If you would like to discuss this further, please feel free to contact me on the number below.

Regards
Dave

Tel: 07957 496614



Evidence of dust impact



[HOME](#)[WHY CLEAN?](#)[HOW TO CLEAN](#)[WHERE?](#)

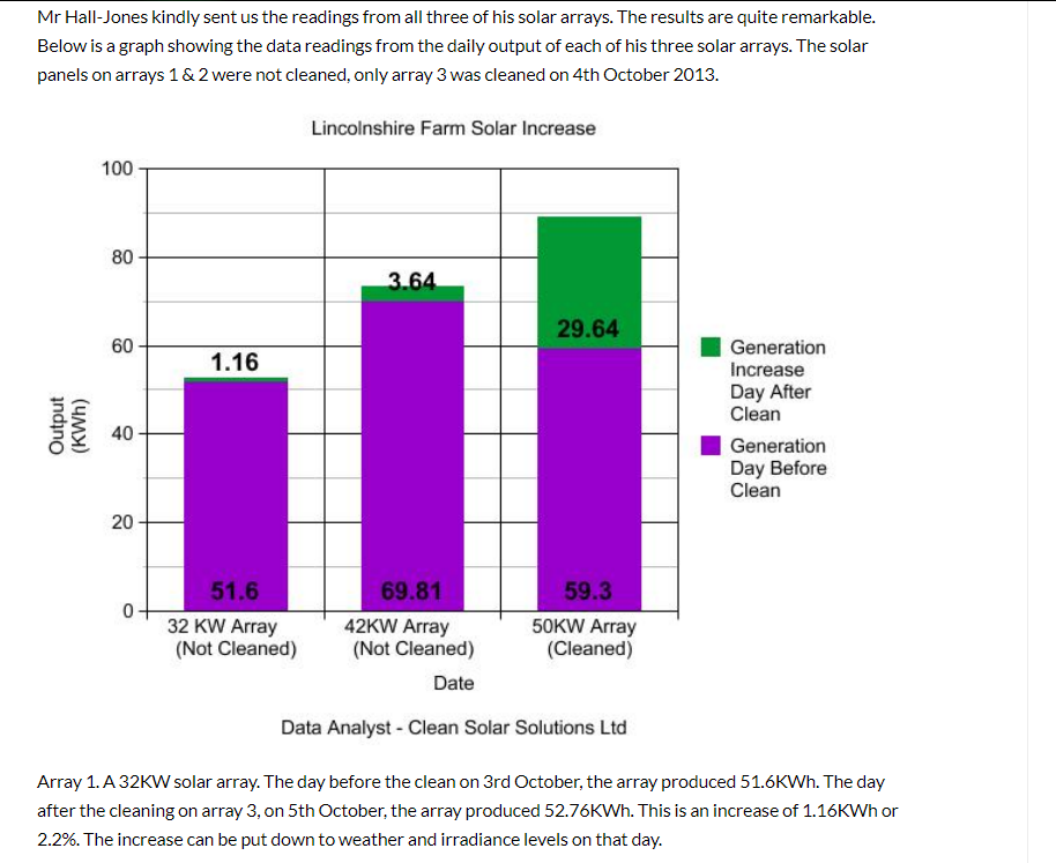
Home

Solar Panel Cleaning Gives Large Increase In Output On Lincolnshire Farm

Clean Solar Solutions Ltd have completed the solar panel cleaning on a 50KW solar array, mounted on top of a grain store on a Lincolnshire farm. The solar array on a farm at Spilsby, north of Boston consists of 204 Suntech 245W solar panels and SMA Sunny Tripower inverters. We were able to work alongside local company MN Solar Cleaning with this project.

The farm owner, Mr Hall-Jones, has three solar arrays and used the largest of his arrays as a test case. Our company was not aware Mr Hall-Jones owned three arrays, we thought it was only one. He wanted to have one array cleaned in order to determine if it was worthwhile having his other systems cleaned.

He had noticed that his solar panels quickly accumulated a build-up of dust during harvest time. Was he losing enough output so as to justify the cost of cleaning? Mr Hall-Jones said "Due to the proximity of the grain dryer to the solar panels it meant that the dirt quickly built up on the largest array during harvest at the end of August and early September."



Array 2. A 42KW solar array. The day before the clean on 3rd October, this array produced 69.81KWh. The day after the cleaning on array 3, on 5th October, the array produced 73.45KWh. This is an increase of 3.64KWh or 5.2%. This again can be put down to weather and irradiance levels.

Array 3. A 50KW solar array. The day before the clean on 3rd October, this array produced 59.3KWh. The day after the cleaning on 5th October, the array produced 88.94KWh. This is an increase of 29.64KWh or 50.23%. Even if we generously reduce this by 7% due to weather and irradiance levels, that still gives an increase of 43.23% which can only be attributed to our solar panel cleaning service. Solar panel cleaning is the only differing factor between the three arrays.

Mr Hall-Jones was amazed by the increase in output our solar panel cleaning service brought and that was part of the reason he was so happy to share his findings. He commented "You can see that before the clean the 42KW system was generating more than the 50KW which clearly shows how much the dirt was reducing the generation. Fortunately I had other systems to compare the performance and it was this that made me aware of the reduction. People with a single system should have at least an annual clean in order to maximise generation."

As a company, Clean Solar Solutions Ltd have compiled our own data from inverter readings before and after cleans. To have a client compile their own data independently and then forward this to us adds real credence to the benefits of our solar panel cleaning service.

Does the extra output from his solar array justify the cost of the solar panel cleaning? Would Mr Hall-Jones use Clean Solar Solutions Ltd for his solar panel cleaning in the future? He concludes "I believe the clean will pay for itself in approximately ten days which makes it worth every penny. We will definitely be looking to clean each system regularly in order to keep the performance of the system at it's best. Clean Solar Solutions were quick to respond to my enquiry and I was booked in for the clean the following week. Clean Solar Solutions provide a quick and efficient service that I would highly recommend to anybody with their own solar array."

The findings and comments of Mr Hall-Jones caught the eye of Clean Solar Solutions Ltd Managing Director, Steve Williams. He said "I would like to thank Mr Hall-Jones for his research and complimentary words about our company. He showed above average diligence when monitoring his solar array output and we appreciate him sharing his findings with us. Solar panel cleaning in the UK is still a relatively new industry. It still has sceptics who doubt the financial benefits that solar panel cleaning can bring. This is one of many cases where we have seen our service bring real financial benefit to solar panel owners. It is the testimonies of people such as Mr Hall-Jones that will build and drive consumer confidence in our industry. We look forward to carrying out future cleans for Mr Hall-Jones."

Clean Solar Solutions Ltd provide solar panel cleaning in Lincolnshire and across the whole of the UK. We provide our services on large scale solar farms owned by investment companies, local councils and to O&M departments of solar panel installers. Please feel free to contact us for more information.

Annex I3

Evidence of Miscanthus ground longer tenancy – were it not for HS2

Ann Owen
6 Manor Close, Great Haywood, Stafford ST18 0SA

2 July 2018

To Whom it May Concern,

I have currently been renting my land at Morton Grange to Mr & Mrs Froggatt since 2002 with an agreement in place from October 2011 expiring on 30 September 2016.

Due to the fact of HS2 arriving no further long term contract has been offered to Mr & Mrs Froggatt and the land is rented on a yearly basis.

If it wasn't for the arrival of HS2 a longer term agreement would have been sought.

Yours faithfully



pp Ann Owen

Annex I4 – evidence of engagement etc

Key to attendees:

DHF – David Froggatt

SF – Sian Froggatt

HMPR – Hugh Reynolds

CM – Connolly Meagher

SS – Sue Steer

MG – Malcolm Gale

JB – Julia Bradbury

JDM – James Del Mar

CH Froggatt & Son – chronology of HS2 engagement etc				
Date	Event	Attendees	HS2 Engagement	Outcome/ Comments
14/06/2010	NFU Members Briefing	SF		First became aware of HS2- Louise Staples (NFU) gave presentation. Signed up for regular NFU updates - strong likelihood of being affected by Northern phase.
Mid 2011	NFU Members visit to HS1	DHF, SF & MDF		NFU visit to HS1 sites. Presentation given by affected parties who detailed their HS1 experience - gave advice on preparing for HS2
17/08/2012	NFU HS2 Update			"The NFU pledge to produce regular updates for affected farmers"
01/09/2012	NFU HS2 Update			HS2 Timetable update from NFU
11/02/2013	NFU HS2 Phase 2 Meeting	DHF, SF & MDF		NFU Working Group announced, talks from NFU Planning Policy, RB, LS, & John Barnes

16/10/2013	NFU Phase 2 Consultation Meeting	DHF, SF & MDF		LS & RB. HS2 changing approach from speed to capacity & anticipated a lot more land take. Advised to look online for example of Draft Environmental Statement .
06/02/2014	Lichfield Mercury article			Patrick McLoughlin (transport minister) had banned the publication of "explosive and damming report on HS2 " using controversial "war veto"
14/03/2014	CLA Briefing event	SF		Explanation of bill/ compensation process
03/04/2014	Update Letter from agent			Lichfield/Crewe stretch of line to be brought forward. Expect 4 opportunities to make representations to HS2
03/04/2014 12/4/2014	Email from NFU group secretary (Lichfield)			Advised members to contact Michael Fabricant (MP) who had said "with his support individual cases would progress further up the chain." SF emailed. MF response -" he continued to fight for best outcome."
09/11/2014	The Mail newspaper article			Local resident Gill Stockdale - complained of bullying by HS2 to prevent petitioning.
01/12/2014	CLA Briefing re evidence to Select Committee			CLA faced time restraint in petitioning – The assurances do not go far enough. HS2 Ltd intend implementing an alternative dispute resolution process.
06/01/2015	Responded to Safeguarding Consultation		Responded to Safeguarding Consultation	NFU advised responding. Responded that the “proposed route would sever farm & concerns re amount of land take”
04/05/2015	Update from agent			HS2 announcement delayed (Purdah & General Election). Engagement with HS2 will start after safeguarding.
25/11/2015	HS2 presentation - Whittington	SF		HS2 presentation given by family solicitors (Anson’s)
30/11/2015	HS2 Safeguarding Letter		HS2 Safeguarding Letter	2 Letters from HS2 - <u>part of property is in safeguarded area</u>
12/01/2016	E from Richard Goodwin CLA 12.39 to SF			Advised us to check & respond to Property Consultation Document 2015.
14/01/2016	NFU briefing meeting re HS2 Consultation & Response	SF DHF, & TE		Presentation by LS (NFU) & RB (Hinson Parry). NFU & CLA responded requesting a duty of care - i.e. HS2 to act transparently / to minimise the impact on claimants & their immediate neighbours.

15/01/2016 Friday	1st HS2 Information Event	DHF, SF & Thomas Marshall (Cllr)	1st HS2 Information Event	FIRST HS2 EVENT - ATTENDED WITH TM (COUNCILLOR) & MADE THEM AWARE OF OUR SITUATION
12/02/2016	<u>Beswick's Legal Seminar & CLA</u> <u>Sigma House</u> <u>Stoke on Trent</u>	SF		Advised recording Farm Impact Assessment interview / check that both landowner & tenant survey elements claimed. Do not allow access before payment received. <u>Warned HS2 can make a guess - so better to engage - so they are informed.</u>
12/01/2016	HS2 Early Access Agreement for Surveys		HS2 Early Access Agreement for Surveys (1st)	Referred them to our agent Knight Frank
07/03/2016	Letter from Reading Agricultural - Request for Farm Impact Assessment			<u>Survey objective</u> - information obtained to be fed back to engineers to ensure accommodation works i.e. balancing ponds, be placed in the <u>best location for all parties.</u>
09/03/2016	Tel call to DHF from Mouchel Licence Agreements		Mouchell HS2 re Early Access Licence (2nd)	Telephone call received from Mouchel HS2 re HS2 Access Licence Surveys - referred them for 2nd time to our agent Knight Frank.
14/03/2016	Letter from HS2 to the "Occupier Quintons Orchard Farm"			HS2 to survey for baseline information re air quality, transport, traffic & ecology until 2017 - they will not access private land.
16&17/5/16	E from JDM to RAC cc DHF		Agenda, maps & questionnaire requested to prepare for FIA	HS2 responded - maps were not in the public domain & would be produced on the day.
19/05/2016	HS2 Phase2A Community Meeting	Group members & HS2	HS2 Phase2A Community Meeting	HS2 Attendees Richard Johnstone (HS2 chief engineer), Natalie Kirkwood & Lee Fisher. Richard johnston said HS2 objective was to "engage with everyone who is affected".
20/05/2016	HS2 Access Licence for Survey Purposes		Mouchell HS2 re Access Licence (3rd)	Referred them to agent Knight Frank for the 3rd time & letter given to JDM at FIA on 26/5/2016

<u>26/05/2016</u>	<u>FARM IMPACT ASSESSMENT COMPLETED Q/O</u>	DHF, SF, MDF, HMPR, JDM & DSD	<u>FARM IMPACT ASSESSMENT COMPLETED</u>	Alex Lawrence from RAC. FIA draft document was amended by JDM due to omission of a planning permission. AL acknowledged necessity of both drives & we "won the prize for being the most diverse farm" HS2 proposed balancing pond on best vegetable ground.
14/06/2016	Meeting of Joint action group (formed from local villages)			The Mainly discussed meeting with <u>HS2 on 19th May 2016</u> - & the site visits by HS2 - one of which to Woodhouse Farm.
30/06/2016	Cabinet Office Report			Major Projects Review (PAR) HS2 22/6/2012 - forwarded to SF by email. HS2 given a red/amber warning.
10/07/2016	Request from James Daw (Woodhouse Farm)	SF, DHF, JD, RS, TE		James Daw asked us to agree to Pipe Ridware diversion being a private road - declined (on advice). Told us MF (MP) had visited him 4 times
12/07/2016	JAG			Discussed agenda for proposed meeting with HS2 in July.
12/07/2016	Meeting with HS2 at Stockwell Heath		Mismanaged by HS2 - Meeting did not take place	Chairman advised that the agreed meeting with <u>HS2 was not going ahead because HS2 were not answering any emails or phone calls.</u>
19/07/2016	Information meeting with HS2 3.30	SF	Mismanaged by HS2	No maps or engineers as promised. New staff unprepared & unable to answer any questions. Chairman asked us to write to log complaint. Documents signed & returned for Pipewood Lane; Kings Bromley & Q/O. Copy retained. Signed by Simon Heath (HS2) on 27/1/17
27/08/2016	Early Access Documents returned		Early Access Docs returned to HS2	
04/08/2016- Cancelled by HS2 3/8/2016	HS2 JAG Meeting with engineers		Meeting Cancelled by HS2 on 3/8/2016	Meeting cancelled - both engineers & HS2 staff unable to attend.
30/08/2016	Email from TB 15.28to DHF		Mouchel (HS2) - Land Ownership Q	Mouchel requested details of land ownership. Confirmed land not ours by DHF (Tel) on 31/8/2016
05/09/2016	Email to DHF from JDM		HS2 Meeting Request	<u>Meeting with HS2 requested.</u> Heard that new changes would have a negative impact on Q/O
06/09/2016	HS2 Stakeholders Meeting	SF, DHF, group members & HS2	HS2 Stakeholders Meeting	<u>NEW PLAN RELEASED 5/9/16 SEEN</u> - Neil Hodgson (HS2 engineer) present & issues raised. No noise mitigation or bridge shown for Q/O & large balancing

	Plan CT-06-205 (Sept) seen	Neil Hodson (engineer)		pool on best vegetable ground. Appears to be an underbridge for Woodhouse to severed land.
08/09/2016	DHF contacted agent to request meeting with HS2		HS2 Meeting Request confirmed 7/11/2016 - months away	Assurances from AL at FIA re bridge - relocation of balancing pond not materialised. Earliest Meeting date with HS2 confirmed as 7/11/2016 - 2 months away
13/09/2016	<u>Draft consultations</u>		-	Announced 3 consultations closing 7/11/2016 - The Working Draft Environmental Impact Assessment, Working Draft Equality Impact Assessment and the Design Refinement Consultation.
13/09/2016	JAG HS2 Meeting		JAG complaint to HS2	Chairman informed floor that the meeting with HS2 on 19/7/16 was a shambles & that complaint had been logged.
05/10/2016	Letter to landlord's agent (Bagshaw's) re Moreton ground			Landlord's agent phoned - shocked to discover HS2 taking miscanthus ground & also told that HS2 intended using Q/O private drive as a haul road during construction.
05/10/2016	HS2 Consultation event Kings Bromley	DHF, SF & MDF	Draft Consultations - Docs & Response Forms	HS2 Phase 2a Consultations 2016 West Midlands to Crewe. Collected consultation books & response forms. Told that RJ (engineer) & AL (RAC) would be at Great Haywood 7/10/16.
07/10/2016	HS2 Consultation event Great Haywood	DHF, SF	Consultation Event - Spoke with Richard Johnson Chief Engineer & Alex Lawrence RAC -present	RJ warned noise impact @ Q/O would be huge as train at max speed. Having owned & ridden a stallion he said "the horses & train would not mix" AL said RAC recommended moving balancing pond & provision of overbridge for Q/O & imperative to respond to consultation
12/10/2016	Drop in event 12-8pm Yarnfield	SF	Consultation Event	Collected consultation & response documents for tenanted ground at Moreton
28/10/2016	NFU meeting with invited members & Michael Fabricant	SF, group & MF (MP)		Discussed Consultation response.

03/11/2016	Letter from CLA to Sir David Higgins Chairman HS2			CLA complained to Chairman of HS2 about lack of HS2 engagement & the significant stress this has created
07/11/2016			HS2 Meeting postponed	We were forced to postpone meeting because of pub sale complications which completed 10/11/2016
<u>07/11/2016</u>			<u>1 - Draft Environmental Impact Assessment Report - 2-Equality Impact Assessment 3-West Mid to Crewe Design Refinement SUBMITTED BY DEADLINE 07/11/2016</u>	"potential major impact" at Q/O as HS2 construction work causes <u>loss of a spring</u> . Env Impact ref 15.4.16 (pge 177 Balancing ponds sized on precautionary basis.
<u>22/11/2016</u>	JAG- Consultation submission		JAG submission responded to above	Pedestrian overbridge should be widened to accommodate farm access to Q/O
25/01/2017	JAG Meeting - minutes in file			"HS2 refuse to divulge any information until consultation responses processed" - Chief engineer (Richard Johnston) will continue weekly updates with JAG chairman (John Sadler).
08/02/2017	Community Engagement Meeting Kings Bromley		CANCELLED BY HS2 on 2/2/2017	Meeting cancelled " Due to the fact HS2 do not/will not discuss items on the agenda " Namely Borrow pits & maintenance loop Pipe Ridware
21/02/2017	21/02/2017			HS2 survey refused until payment received - as advised CLA
06/03/2017	Froggatt & HS2 Meeting Q/O	DHF, SF, TWB, HMPR JDM, Neil Hodson (HS2) (NF)	Meeting with HS2 & Engineer	<u>Plan seen</u> . - Alteration to shape/size of balancing pond requested. NH confirmed bridge purpose was -1- farm access 2- public right of way. Small sub-station shown next to align & Noise mitigation (QO) Likely. Requested

		Beckie Lewis -HS2 (BL) Alexander Lawrence RAC (AL)		proposed soil stockpile be moved to other side of railway. HS2 to look for fish consultant
22/03/2017	<u>Community Engagement Meeting Kings Bromley</u>		CANCELLED BY HS2 on 21/3/2017	Chairman asked us to write & ask why cancellation – to ask when HS2 will release information & to stress the impact of scheme.
20/04/2017	Meeting between Liz Davis & Richard Johnson engineer at Q/O	SF, DHF, MDF (HMPR?)	Courtesy Meeting in lieu of Cancelled Community Consultation	RJ said plans “still at design stage” but massive impact to Q/O – train (250 mph) & on concrete tracks (inc 3 dB) HS2 had no previous experience with fish – fish advisor requested . LD to look into survey issue.
<u>19/05/2017</u>	Email from Liz Davis HS2 Request for fish consultant			Liz Davis HS2 - fish consultant unlikely – attached summary does not correspond to ours. LD omits RJ admission that HS2 had no previous experience with fish/similar businesses.
02/08/2017	HS2 Public Consultation Event Kings Bromley Plan CT-06-205 (July 17) Seen	SF	HS2 Public Consultation Event	New Plans revealed. Consultation window closes 30/9/2020 – (Daughter’s wedding @ QO same day). Concerns raised - new plans more detrimental to Q/O. HS2 rep said HS2 calculations prove “no impact on the fish”
<u>06/09/2017</u>	CLA Information Meeting Whitmore Hall	DHF, SF & HMPR		Andrew Shirley (CLA) advised members to petition as HS2 were failing in their duty of care. HS2 are drip feeding information and resisting engagement with affected owners.
12/09/2017	JAG Meeting			Amongst agenda - Meetings with HS2, HS2 Lorry Blight Meeting (14/9/2017 Hill Ridware).
21/09/2017	Correspondence Feb17 - 21/9/2017		HS2 Survey Requests Refused due to refusal to adhere to bio security	Correspondence from 15/2/17 onwards. Due to confirmed cases of KHV at neighbouring fishery - HS2 were denied access because they refused to comply with bio security .

29/09/2017	Environmental Consultation Response		Document Submitted 29/9/2017	Document Submitted 29/9/2017
02/10/2017	Unauthorised survey visit		2 HS2 surveyors in yard	Ecologists were told that HS2 knew access was denied & why . Apologised - would not return until issues resolved.
03/10/2017			Trespass by same surveyors	Same ecologists caught in water course by main stock pool breaching our CEFAS bio security - Instructed Bagshaws to raise formal complaint/virus it will not show until next Spring. Photos taken prove ecologists attire breached bio security.
07/10/2017	Letter re HS2 Safeguarding Directions (land on the west side of Pipe Lane & footpaths)			Safeguarded area has changed. Letter advises on blight procedure.
1/10/2017	Meeting with HS2 - Trespass & Farm Engagement Matters Q/O		Meeting 18/10/2017 cancelled on 17/10/17	HS2 said they had double booked themselves. <u>Proposed 13.11.17</u>
13/11/2017	Meeting date with HS2		Changed by HS2 to 4/12/2017	No reason given
16/11/2017	NFU HS2 Briefing Meeting Great Bridgford	SF, DHF		NFU warned that "HS2 has not done enough to address adverse effect & the true impact is significantly underestimated. HS2 must engage in more one to one meeting to understand/ reduce impact"
27/11/2017	Gov UK leaflet Hill Ridware Village Hall		HS2 Phase 2a Community Information Event	Complaint made to HS2 staff re trespass & cancelled meetings - asked to relay this on. CM difficult - said trespass not his concern.
27/11/2017	NFU AGM			Group secretaries were concerned for members wellbeing because of HS2s complete lack of respect. Michael Fabricant cannot meet NFU on this until March 18.
1/1017 & 128/11/2017				<i>HS2 held meetings with Reindeer Lodge & made promises which would affect Q/O we have been provided with Reindeer Lodge File</i>

4/12/2017	HS2 Engagement Meeting Monday Q/O		HS2 cancelled on 29/11/2017	Replied seeking Urgent Information & meeting with HS2 - we had been warned that HS2 were planning changes to 40 acres + engaging with other parties who were objecting to HS2 traffic.
06/12/2017 & 19/12/2017	Emails 7 calls from JAH to LD & CM			Bagshaw's client file (obtained Aug 2019) JAH passed details of above to LD & CM by phone & email.
20/12/2017	Tel JAH to SF		Meeting dates requested from HS2	Agent said they were still trying to arrange meeting with HS2 re surveys & consultation discussions.
Jan 2018	Borrow Pit Document – Commissioned by NFU			
<u>08/01/2018</u> <u>& 9/1/2018</u>	Email from Liz Davis 13.32		HS2 Noise Survey & Meeting Request	LD offered to "broker" as HS2 wanted noise surveys. SF replied that we were still waiting for a meeting to address the trespass/survey issues on 3/10/17. LD said she would contact CM team & report back. HS2 notice was pinned on 40-acre field entrance.
16/01/2018	JAG Meeting			Richard Johnston (chief engineer) has left HS2 -. Bill set for second reading at end of the month. Michael Fabricant to meet people on 3/2/2018.
<u>Thursay 18/01/2018</u>	Tel from JAH to SF - HS2 requested meeting- refused to discuss trespass issue		Thursday 18/1/2018 - HS2 requested meeting Monday 22/1/2018- "not to include trespass issue"	HS2 gave < 1 working day notice & refused engineer or to discuss trespass. meeting <u>clashed</u> with meetings re boiler installers liquidation & Ofgem issues. Asked to reschedule with engineer present before 9/2/18 (NZ trip)
22/01/2018	<u>Info requested Haul road news broken</u>		HS2 broke news of haul road whilst agent was at another meeting.	Received tel call from JAH " HS2 are going to build a haul road coming across the 40 acre to the right of the reservoir to join Pipe Lane." Also, in agents file (30/1/2018) is a quote from <u>CM - "Haul road is going to come forward as an AP & they can make case against this".</u>

<u>10/2/2018 - 10/3/2018</u>	<u>DHF & SF were in New Zealand for a month</u>		<u>Petition lodged 26/2/2018</u>	Petitioning period opened/closed
20/02/2018	HS2 & JD HS2 traffic management meeting Pipe Lane			JD campaigning for HS2 traffic ban past Woodhouse. Claims he operates one way system - incorrect.
<u>23/03/2018</u>	<u>Deadline for submission of AP Petition</u>		<u>AP1 Petition lodged</u>	AP petition submitted.
	<u>Parish Council Petition – withdrawn 29/6/2018</u>		<u>Parish Council AP1 Petition</u>	The PC request included Noise mitigation for Q/O & fair treatment re haul road & land take/relocation of buildings. HS2 assured the PC that confidential negotiations were taking place with ourselves. (see page 5) Petition was later withdrawn when PC received an Assurance re haul road.
24/03/2018	Letter to MP re Additional Provision		<u>HS2 Supplementary Environment Statement and Additional Provision</u>	JAG chairman attached letter sent to MF (MP) re additional AP - HS2 require more land from us. Consultation closes 27/4/2018
24/03/2018 & 26/3/2018	SF emailed JAH to ask if further information. JAH forwarded letter from CM 26/3/2018			JAH said she had received AP documents & had little information other than a letter from HS2 "a few weeks ago" The letter was from CM addressed to JAH. It falsely implied that a <u>FARM ENGAGEMENT MEETING HAD TAKEN PLACE ON 22/1/2018.</u> HS2 aware we were not available & told to find alternative date
29/03/2018 - 6/4/18	Email from JAH to CM, LD & MG - Overdue Consultation Response Meeting cancelled by HS2 – (Bagshaws file)			We were advised the meeting was to discuss both HS2 Consultation & Survey issues but HS2 were struggling to get engineer. SF requested an agenda. JAH said unable to attend – MG instead. Notes in file show emails advising HS2 to "come prepared to discuss issues with ecologists".
09/04/2018	Overdue HS2 Consultation Meeting cancelled by HS2 17/10/2017	DHF, SF, HMPR, MG, HS2 CM, CE & another	<u>Rescheduled HS2 Meeting from 18/10/2017 -</u>	<u>Meeting went badly.</u> CM threatened to leave when given an agenda as he said MG was familiar with “ petition meeting format ” & we were no longer to contact LD Shocked - SF requested a copy of minutes being taken by HS2. CM said it would be typed up & forwarded (a week) MG was instructed to lodge complaint.

			<u>cancelled by HS2</u>	
10/04/2018	Trespass		HS2 - trespass	Lee caught representative from HS2 - told her she was not on the footpath.
Sunday 15/4/2018 @ 2.25 pm	HS2 changed Meeting Time on Sunday < less than 24 hrs Notice			CM (Friday pm) changed Mondays meeting from 11 am to 2 pm to accommodate traffic expert. We were notified by email Sunday afternoon < 24hrs notice. Impossible to contact HMPR (accountant) on Sunday.
<u>16/04/2018</u>		DHF, SF, HMPR, HS2 Bob Flynn (traffic/design), CM Ash Matharu & Carol Evans	<u>HS2 Meeting</u>	CM brought Bob Flynn who was not an engineer. Refused to answer how much traffic was on trace & said we would have no comeback if HS2 were later proved to be wrong. FOI was requested – 880-900 dump trucks a day . Reminded CM for minutes of 9/4/18 meeting (as agreed).
<u>16/04/2018</u>	Tel call to Sarah Mallen Staffs Highways due to HS2 refusal to provide information			HS2 not disclosed haul road traffic - <u>Anticipate 1 HGV every 2.5 mins.</u> CM wrong in telling us we can no longer contact LD (HS2 community engagement).
24/04/2018	JAG Meeting - Update on Select Committee Hearings			Select Committee were asking HS2 for verification of their consultations with petitioners . HS2 issuing info late - preventing petitioners making informed case . HS2 sent <u>land & property instead of engineers</u> .
25/04/2018	Email to Terry Stafford cc JAH & NFU – Trespass @ Q/O		Trespass by HS2	Fish manager caught 2 people(who said they were from HS2) on private drive and told them access was via footpath only. Asked HS2 to investigate.
27/04/2018			AP1 Petition lodged	AP1 Petition lodged.
26/04/2018	Information supplied from JAG			Q/O situated between 2 access points to the trace track - Cawarden & Pipe + also next to the largest borrow pit - warned construction effect enormous.
27/04/2018 To 10/5/2018 & 23/5/2018	"Survey into Treatment by HS2 Ltd" Group letter also signed 23/5/2018			Total response 111 - Results show how badly HS2 are treating people. Jonathon Loescher presented to Select Committee/asked for independent ombudsman/ MP also supported.
08/05/2018	HS2 Meeting Q/O	SF, DHF, JAH T Parrott, Chris Prior, Alex Hamilton	Licence team meeting	Issues re surveys addressed – see below. Hs2 surveyors broke our FHI bio security. They could have introduced KHV disease which would destroy fish farm. HS2 agreed that Q/O would be classed as sensitive & bio security

				followed. They refused to pay for Lee's escort time but said no one would come on site without prior agreement & bio security.
10/05/2018	Flyer to Hill Ridware Residents from LD HS2			HS2 letter to Hill Ridware residents - haul road over 40 acres is to reduce construction traffic through village.
22/05/2018 24/5/2018 & 1/6/2018	From HS2 RE Quintons Orchard Meeting Outcomes			HS2 want to do surveys on 17 ponds/ anticipate 2 days. Wanted fish manager FOC – but later decided it was too late in the year. Noise surveys to take place after carrots lifted.
24/05/2018	NFU deputy president visited			NFU Deputy President Stuart Roberts (infrastructure) visited - alarmed at farmers experience with HS2. Saw reservoir pool - said "got it"
25/05/2018	Assurance Letter offered pre-petition appearance			Assurance sent to agent re design, soils & notice of entry - too weak.
29/05/2018	NFU Press Release			Called for an independent ombudsman & warned of schemes impact on health
05/06/2018	Assurance Letter offered pre-petition appearance			Same as above sent to DHF & SF a week later.
12/06/2018	James Daw Petition		James Daw Petition Hearing	JD asked for reed bed on area of severed ground between QO & railway. This was an area engineers & RAC indicated would be used for mitigation planting for Q/O
14/06/2018	Tel call between SF and Sarah Mallen - Staffs Highways.			Discussed HS2 Assurances given to village. Staffs County Council were integrally involved with HS2 in (off record) haul road discussions – haul road would be "constructed as soon as possible"
19/06/2018	Reply from FOI request (24/5/18) re mitigation measures.		FOI18-2019 land take for mitigation	HS2 mitigation take is assessed on a case by case basis.
19/06/2018	FOI request re traffic - 24/5/18		FOI18-2019 Trace Vehicle Movements	77-89 HGVs along trace, 880-900 ADT per day - cars & LGV access compounds via local roadwork
24/06/2018	Email from SF to Gill Stockdale (Parish Council) for information			Reply - "The PC has conditionally withdrawn petition on the assurance of the haul road and the school has done the same." The PC exploited loophole because HS2 had done no noise assessments. PC petition requested extension of noise bund for Q/O.

26/06/2018	JAG Meeting			Petitioning discussed.
26/6/2018	Email from JAH			HS2 will contact agent with noise survey dates.
03/07/2018	Proposed new power lines from Newborough to Newlands			Heard from local councillor of HS2 plans to erect power lines affecting our land at Newlands Lane.
04/07/2018	Reply to reminder asking for minutes of 9/4/2018 meeting			CM emailed JAH (not present at meeting) & denied agreeing to forward minutes (Source Bagshaw's file).
06/07/2018	Agents & HS2 re location of haul road.			CM - said haul road could not move as it will merely raise further issues.
	Assurance dated 6/7/18			
09/07/2018	Tel from CM to JAH			CM said HS2 could move some grassland mitigation planting from Froggatt's land to Moreton providing there was no conflict of interest.
11/07/2018 Parliament	Assurances handed to MG before appearance		Petition Hearing	Assurances were handed to MG prior to appearance – refer to accommodation bridge verbally agreed – inadequate. Realignment of haul road – subject to consultation, mitigation planting & working party.
15/1/2019	SF requested meeting w/c 4/2/209 after first hospital appointment post operation			SF acknowledged need to engage – Bagshaws agreed to get back to us with dates once agreed with Sue Steer. On 15/1/2019 Bagshaws confirmed meeting date of 4/2/2019 for working party – just CM & SS to attend.
24/01/2019 - 01/02/2019	Bungalow information requests by phone, text & emails to LD & CM			Our neighbour at Applelawn told us he was having a meeting with CM the following day because Applelawn was affected by AP2 – he thought our property was too. After several calls, texts & emails Connolly Meagher replied 1/2/2019 to advise we will be affected by HS2 plans to "stop up" the Blithbury Road outside the bungalow.
05/02/2019	1st Working Party Meeting Q/O with Connolly Meagher & S Steer	1st Working Party Meeting @ Q/O		Meeting did not go well. Connolly Meagher said the meeting was not to discuss the Working Party – as agreed. He said they were only there to discuss the impact on fish business. CM said HS2 had not given consent to use John Uffold – Hugh advised we had moved as there was a potential conflict of interest. CM would not produce the minutes from 9/4/2019 & told us that Sue Steer would not be taking minutes as advised by Bagshaws (email 9/1/19). He said we could take our own minutes

	DHF, SF, MDF, HMPR & JU		– but it was only their minutes which would be accepted by HS2. SHOCKED
07/02/2019	Email from Connolly Meagher to Bagshaws & John Uffold “Please find attached a letter containing assurances addressed to P2A-000175 & AP1-000020-David & Sian Froggatt issued on 19 November 2018.		This letter was backdated by HS2 3 months!! Further to email of 4/2/19 I have arranged for the letter dated 19 th November 18 to be issued by the Undertakings & Assurances Team to Bagshaws & McCartneys who now act as the new land agents. It appears to change the terms of the recognised agreement.
08/02/2019	Prior notice for surveys letter	Access wanted for all our land - inc Q/O	HS2 past breaches of our CEFAS biosecurity were raised – & that no access would be given to Q/O until biosecurity measures agreed.
11/02/2019	Letter – HS2 introduced Additional Provision (2) to make changes to the scheme. Consultation period closes 29/3/2019	Additional Provision 2 Feb 2019	These new proposals amongst other changes, take more land from Q/ O & Newlands. Connolly told us on 15/10/2018 that the field adjacent our south drive was to be used raised 3 metres & used as a local placement site for excavated materials – but site is not listed in the HS2 published document. An NFU commissioned Borrow Pit report (Jan 2018) identified this material as a valuable resource because there is a shortage of infill material for existing mineral extraction sites. HS2 own guidance is to avoid land where placement could create local adverse visual effects.
20/02/2019	Meeting held between HS2 & John Uffold	HS2 Meeting held between HS2 & John Uffold	John Uffold telephoned DHF on 15/2/2019 to say that HS2 had requested a meeting with John without us present. We were clear in our response that we wanted to be present at all meetings with HS2.
27/02/20019	NFU Phase 2a AP Meeting Abbots Bromley		Louise Staples - spoke. The NFU were to petition for the Parkgate power lines run underground.
27/02/2019	JAG Meeting Blithbury		Discussed road impacts - HS2 had not responded to the Parish Council re Assurances clarification.
07/03/2019	HS2 Affected Party Meeting at Q/O	HS2 Affected Party Meeting	Showed CM & SS fish – in tanks outside building – would not go in. Walked around ménage – over stile into ground we had negotiated to buy from James Daw for bund & which was clearly marked off.

	D & SF, MDF, HMPR, JU - HS2 CM & SS		Refused our offer to go into stables, boiler room or trip round farm. Discussed bungalow – CM left the room & Sue Steer commented he was trying to help – she said it was unheard of for him to leave the room. Requested by John Uffold that HS2 purchase the ground as James Daw had told us to deal with agent & make an exciting offer. CM & SS promised to come back to us on this. CM told us that HS2 were not building a bund at neighbouring Bentley Hall Farm – however our neighbour emailed a copy of their bund assurance to us on 13/3/2019
07/03/2019	Prior Notice for Surveys letter dated 1/2/2019 was received 6/3/19 as it	Meeting with Balfour Beatty (HS2)	<u>Wrong postcode</u> – letter dated 1/2/19 was received 6/2/19 - John Uffold informed HS2 to correct records. The letter gave notice of borehole surveys commencing 27/2/2019 but the locations were in the middle of the farm drive & middle of carrot field. We arranged a meeting with Balfour Beatty– they agreed a delay until carrots lifted & move location to one side of drive.
<u>7/3/2019</u>	Summary of HOCSC report 11/7/2018 seen		John Uffold showed a summary of the HOCSC in which HS2 was instructed to look into moving the balancing pond, arrange a working party to report back to HOCSC before AP2, – to look into the case for a noise bund and to keep Bagshaws informed of progress.
<u>12/3/2019</u>	<i>Petition evidence James Daw</i>		<i>Petition evidence shows that James Daw withdrew his petition after meeting with HS2 representatives on 12/3/2019 to discuss issues including noise bund and reed bed.</i>
Mar-19	Research by SF		SF research uncovered that HS2 had given an assurance for 1- enhanced mitigation for Hamstall Ridware 2 - to provide noise mitigation for immediate neighbours at Bentley Hall Farm, Woodhouse Farm & at Moreton . 3 - HS2 to commission study on affected party's health. We would like to participate in the study – but have been unable to access any information on this.
15/03/2019	AP2 Petition Submitted	AP2 Petition Submitted	SF submitted petition documents. Petition exhibits were forwarded on 25/4/2019 by JAG chairman due to Western Power interruption to power supply at Q/O
02/04/2019	Assurance offer for David & Sian Froggatt Petition HS2, AP1 & AP2	Assurance Offer	We rejected this Assurance to try to reduce impact on travel between Q/O & L/A. because - it omitted our other land parcels. HS2 told the HOCSC on 30/4/2019 they were not aware the need to travel to other holdings
03/04/2019	HS2 requested a meeting in Birmingham at 11 am	This date clashed	2/4/2019 – John Uffold advised he could not attend Petition Hearing. We confirmed meeting not possible owing to prior engagements and DHF unwell and in bed
18/04/2019	HS2 requested a meeting in Birmingham at 11 am	Could not attend – Granddaughter's Christening – 12-4-2019 (Monmouth)	Requested that information requested be supplied in writing - never received from CM or SS – We asked for information re the access line to the track. We expressed concerns that negotiations and assurances given elsewhere had a detrimental effect upon ourselves. We also requested that future meetings include people that can answer our technical questions. Telephone conference offer later withdrawn by HS2

		We asked for information as no reason why we could not deal with in writing – almost preferable	as no one available. NO written response from HS2 as requested.
29/04/2019	Former engineer visited Q/O		He expressed doubt that fish would survive – because his past experience had shown the type of stone used for roadways was harmful to fish.
30/4/2019	Petition Hearing	Petition Hearing	Exchanged evidence prior to the hearing. Noticed that HS2 had included a different plan of the area between the train track and QO of which we had started negotiations to buy – but John Uffold had asked HS2 to purchase at meeting of 7/3/2019 - & which Connolly Meagher had not come back to us on. It showed an oblong area marked for a reed bed. We had no idea of its existence – This was an addition to the AP2 document – Petition hearing was scheduled for afternoon but were thrown as we became the first to be heard as everyone else pulled out. I EXPLAINED TO THE COMMITTEE THAT WE WERE IN THE EARLY STAGES OF NEGOTIATIONS PURCHASING A STRIP OF LAND FROM NEIGHBOUR WHEN HS2 PRODUCED LATE EVIDENCE - & TO WHICH I COULD NOT RESPOND.
14/06/2019	Email from Nigel Shepperson (PC) to Sarah Mallen cc SF re overbridge		Our Parish Council contacted Sarah Mallen (Staffs Highways) to advise that the overbridge specification for Q/O overbridge must be a mistake & asked for written confirmation when the assurance was correct. SM said she had forwarded the correspondence to HS2. We raised this again with CM at our meeting on 21/10/2019 as we had heard nothing.
25/06/2019	Correspondence	Additional Land Addition to Early Access Agreement	We refused HS2s request for additional land to be included in our survey agreement because HS2 had not engaged re bio security requests.
08/07/2019	Assurance Petition HoC AP2/0049 received	Assurance AP2/0049	Assurance offer was to give 3 months prior notice where practicable . This was insufficient for our vegetable land as we are required to enter into a much longer-term agreement with the grower.
16/8/2019	Petition Submitted to House of Lords	Provisional Hearing Date 29/10/2019	Petition Submitted
14/08/2019	Email from Tim Simmons Huntapac to DHF re		The House of Commons Select Committee questioned our evidence that 12 metre distance was required around poles - they felt this distance was excessive.. They later referred to it in their report. Huntapac confirmed to us on 14/8/2019 that 12 metres was indeed correct.

	Headland requirement		
1/ 10/2019 or 2/10/2019	Email received from S Steer Thursday 26/9/19	HS2 Requested a Meeting	"Dear Sian, I do hope all is well with you and David. I wonder if there would be any possibility of setting up a meeting with you next week at all. I understand you have petitioned to the House of Lords so I think it would be most helpful to have a catch up in the meantime. Connolly and I would attend, we can do Tuesday 1st or Wednesday 2nd October any time on those days to suit you. Do let me know. Best wishes Sue".
27/09/2019			Replied to Sue Steer advising that her request had been forwarded on & would be in touch.
Proposed teleconference call 3/10/2019			
2/10/2019	Questions from HS2 – forwarded to Rostons as discussed		1- Petition issue 1 request A - Please can you let us know where you are proposing to install electric gates by reference to CT05-205 and CT06-205 grid squares on the attached plans? 2- Petition issues 6-9 Please could you clarify the size & specification of vehicles that you use and where these vehicles are travelling from and to? 3- Petition Issue 14 & Request C: Please would it be possible identifying where the horses are kept are they mainly grazing or stabled or both? Would you be able to confirm and if grazed (which I expect they are) the paddocks/fields in which you normally graze the horses? 4- Petition issue 18 & Request A Would it be possible please to confirm why you want the working group to start before royal assent. I hope we can manage to speak tomorrow. Best Wishes Sue
03/10/2019	Our agent suggested meet at 10 am on Fri 11 th October and would contact Sue Steer and suggest a meeting the following week.		Meeting took place as agreed
21/10/2019	Us, our agent, Connolly meeting		Meeting went very badly. We answered the 4 questions HS2 had asked. 1 – location of electric gates

			2 – size & types of vehicles 3- How many & location of horses 4 – Our understanding was that the working group was to start before Royal Assent. We told CM that the overbridge was not wide enough and asked him to take measurements of the tractor and implements in the yare - but he refused. CM said HS2 are fully aware our family history & business and have undertaken a number of trips to the farm.
31/11/2019	Email from Rostons		Please see attached the email I have received from David Walker confirming that we will not be heard this month in the House of Lords. <u>Confirmation HoL hearing likely to be deferred.</u>
10/02/2020		<u>Announced on news HS2 was going ahead & email received from Connolly Meagher</u>	<u>Email was received from CM – referring to difficulty in arranging meeting on 21/10/2019 & that questions asked by HS2 had not been answered – copy of FIA attached.</u> This email refers to a letter sent to Rostons on 18/11/2019 during Purdah and the Oakerview Report had not announced its decision.
11/2/2020	Email from Connolly Meagher The questions referred to had been answered & viewed when they visited the farm on 7/3/2019. Connolly & Sue walked past the menage & would have been well aware of gate into the shed. Connolly refused our invitation to go into the shed where he would have seen the	<u>Meeting Request from Connolly Meagher HS2 House of Lords Select Committee Petition HS2-HOL-028</u>	This email refers to a correspondence sent to Rostons during Purdah and the Oakervee Report which did not announce that the scheme would go ahead until 10/2/2020 <u>Rostons Response 12/2/2020</u> <i>Connolly - I am surprised you are asking for this information again.</i> <i>“There are 4 large stables in the shed, a wash box and 2 x 20ft x 18ft pens for youngsters.</i> <i>I am aware that you went passed the shed last year when you were on sight & looked at the field to the rear</i> <i>I believe you have all the answers to your queries, we have not received any further assurances following our last meeting on 21st October 2019.</i>

	horses stabled, stables & loose housing.		
18/02/2020		Recorded Delivery letter from CM at 10.45 am.	HS2 had identified an area of interest at Kings Bromley for ecological purposes.
25/03/2020	Email from Rostons	Petition Hearing Date 25/3/2020	The Hearing was cancelled on 17/3/2020 because of Covid - 19
19/05/2020	Statutory Blight Notice Submitted	Statutory Blight Notice Submitted	Statutory Blight Notice received by HS2 on 19/5/2020
29/06/2020	Statutory Blight Notice Withdrawn by email and letter Email received from Connolly Meagher confirming withdrawal on 2/7/2020	Statutory Blight Notice Withdrawn Withdrawal confirmed 2/7/2020	"Dear Mr Muhammed RE Case Number 4694 Further to my email of 29/6/2020 I am writing to confirm that we wish to withdraw our Statutory Blight Notice in respect of Quintons Orchard, received by you on 19th May 2020. Please confirm receipt, acknowledge this withdrawal and return all paperwork to us by return." Withdrawal confirmed on 2/7/2020 by email from Connolly Meagher – who asked why we had decided to withdraw. CM later phoned & SF explained that we had reviewed our position after taking advice.
3/9/2020	Email received 26/8/2020 from Sue Steer requesting a teleconference call	Teams Meeting with HS2	Meeting was arranged 3/9/2020 - JDM forwarded an agenda – agreed by HS2 Unsatisfactory meeting with much refusal to discuss items. We suggested follow up meeting for 9.30am on 10/9/2020
4/9/2020	JDM sent minutes of meeting of 3/9/2020 to all attendees identifying action points arising		No response received from HS2
9/9/2020	Email sent to CM by JDM to confirm agenda		CM said the timing was difficult for him. He said he could make 12 noon available. We agreed that this was acceptable.

	for Follow up meeting as agreed 3/9/2020.		
10/9/2020	Meeting was requested for 9.30 am on 3/9/2020	Team Meeting with HS2 @ 1200 hrs	Time was altered by from 9.30 am to midday by Connolly on 9/9/2020 due to conflicting appointments

Annex 15

11th July 2018 (see paras 535 – 553 of the Select Committee Oral Evidence

MINUTES OF ORAL EVIDENCE
taken before the
HIGH SPEED RAIL BILL COMMITTEE
on the
HIGH SPEED RAIL (WEST MIDLANDS – CREWE) BILL

Wednesday 11 July 2018 (Afternoon)

In Committee Room 5

PRESENT:

James Duddridge (Chair)
Sandy Martin
Mrs Sheryll Murray
Martin Whitfield
Bill Wiggin

IN ATTENDANCE:

Timothy Mould QC, Lead Counsel, Department for Transport
Malcolm Gale, Petitioner Representative (CH Froggatt & Sons)

want is to put in a claim for the closure of that business, they want to be able to keep that business going.

535. It is therefore in the interests of both the petitioners, but also of HS2 as a project, to do all that they reasonably can, to coexist through construction and operation. Our assessment is that we can do so, but in order to give that reassurance to the petitioner, which is an important consideration, my proposal is that the project should look to develop, with the petitioner, an action plan, which provides for some monitoring and management arrangements for construction and operation of the railway, for potential noise and vibration effects, potential dust effects, for potential biosecurity effects, and for potential water contamination effects.

536. You've heard there's already a proposal that that balancing pond should be lined, which has been received positively by the witness. This is not rocket science. We have examples on Phase One, different businesses, but it's the same principle, where they were sensitive, we had a photographic studio in Camden, for example. We had a special school in Wendover where we –

537. THE CHAIR: We don't want more examples. Thank you. Sheryll Murray.

538. MRS MURRAY: Mr Mould, can I just ask, if the Fish Health Inspectorate require any specific work to be carried out in order to continue to licence this fish farm, would HS2 look to work with them to make sure that that could happen?

539. MR MOULD QC (DfT): Yes, yes. Obviously, there might come a point where those works were so prohibitively expensive that they were disproportionate, you would expect me to say that, but the answer to your question, in principle, is yes.

540. THE CHAIR: Ask the question, it's helpful. Reasonable endeavours.

541. MRS MURRAY: You would take reasonable endeavours, Mr Mould?

542. MR MOULD QC (DfT): Reasonable endeavours, indeed so. In a nutshell, that is my proposal and –

543. THE CHAIR: Can I just intervene on you? You've used the term 'management plan', all seems very sensible. In the past you've used the term 'working party'; should

I read anything into the fact you haven't used 'working party'?

544. MR MOULD QC (DfT): There would be a need for HS2 with appropriately qualified technical people and the fish farm owners and their advisors to work collaboratively to develop an appropriate plan. So that would be the working party, but the output of their work would be an action plan that would include a recognition of the potential risks, a –

545. THE CHAIR: That's fine, it's both, not different.

546. MR MOULD QC (DfT): A lot of this is already included in some of the assurances. My thinking is that it's a good idea to bring this together into a coordinated document because that can then sit on Mr and Mrs Froggatt's farmhouse table and they know they've got the script, and hopefully they can show it to their insurers and say, 'Does this make things a bit easier?'

547. THE CHAIR: Martin.

548. MR WHITFIELD: Could these discussions – and you know, Mr Mould, I've raised this before about HS2's interaction with people. I mean, this must have stood out from day 1 as a special case with regard to being a fish farm and I just wonder, and I fear I know the answer: these discussions couldn't have taken place earlier?

549. MR MOULD QC (DfT): Well, I've got a schedule here of the meetings which did and didn't happen; I wasn't going to go into that.

550. MR WHITFIELD: It can happen now.

551. MR MOULD QC (DfT): It can happen now, let's get on with it, and if we can get moving on this if you would like us to report back before you finish your work in the new year we can do so. That would be my proposal. I've got a couple of other things to say to you about the other matters obviously.

552. THE CHAIR: I noticed a bit of wincing from Mr Gale. I think when you said 'before the new year', so before AP2 comes out, that's the normal – is that what you're suggesting?

553. MR MOULD QC (DfT): Yes, it would be. AP2 is due to be published in the

early new year I think, so we can certainly set that as an ambitious target to move things forward and to try and ideally get a plan in place or certainly to have got a long way down the road. Of course, because the critical time for this – leaving aside your scrutiny, the critical time for this is that something should be in place which is acceptable and workable before the work starts.

554. THE CHAIR: That seems sensible. Sandy?

555. MR MARTIN: Mr Mould, can you just reassure me that as there is going to be a bund to the north of the railway? And as there will be possibly some changes involved in meeting the requirements for Quinton's Orchard Farm, if when it comes to AP2 the petitioners are not satisfied with where they've got to, will have the opportunity to re-petition in AP2?

556. MR MOULD QC (DfT): Well, the bund that I was talking about would be a bund which is designed to protect Woodhouse Farm, so I'm not sure –

557. MR MARTIN: You don't think that would make –

558. MR MOULD QC (DfT): But I am able to tell you that work is going on to consider the case for putting in some form of noise bund on the western side for the benefit of Quinton's Orchard. And as I said to you yesterday, at the moment we predict we've got quite a lot of surplus material that we need to deal with and obviously if some of that material can be used to provide some further noise mitigation to people who are living in isolated dwellings along the railway where ordinarily the case for noise fences is not made out then that's obviously something that merits serious consideration.

559. I can't give you a guarantee on that today, but I can tell you that that is something that is being considered, and we'll obviously keep Mr Gale informed on progress with that.

560. MR MARTIN: That is helpful; however, I'm sort of putting myself in the position of the petitioners here. What is really helpful in a negotiation is to know at the end of it that if you're not happy with the result you can have another go. Will they be able to have another go?

561. MR MOULD QC (DfT): Yes, they will, because the provision of a noise bund of

the kind that Mr Gale anticipated in his presentation to you would be within the Bill limits – it wouldn't involve the need to promote an additional provision because it could be dealt with as part of the detailed design of the railway within the powers of the Bill. So it would be something that he could raise if he was dissatisfied in the second half, yes.

562. MR MARTIN: Yes.

563. MR MOULD QC (DfT): So he has that. As indeed would the point about my suggestion for coordinating all the variances assurances into a management plan, he could also – he has that protection in relation to that as well.

564. MR MARTIN: Fantastic.

565. MR MOULD QC (DfT): So that's that. I need to deal with a couple of other things very quickly if I may just so you've got – the first was the haul road.

566. Mr Gale is quite right, the project is currently bringing forward a proposal to relocate the route of the haul road so that it moves further away from the petitioners' undertaking, albeit it remains on their land. It is to be a temporary facility so it will be removed if that is what they want us to do once the construction activities that it serve are –

567. THE CHAIR: Thank you.

568. MR MOULD QC (DfT): Construction vehicles on the trace, Mr Thornely-Taylor has told you before, I'll remind you, the direction of travel – forgive the pun – in relation to those in noise mitigation is that they are getting quieter because the design of those heavy vehicles, the tyres and so forth, means that best practical means, which is the standard, is enabling contractors, builders to lower the sound.

569. And the prediction for these petitioners in their farmhouse is that although there will be an increase in noise from time to time during construction – because they have the benefit at the moment of living in a very quiet environment – our prediction is that it's not going to be anything like above the level of impact that is deemed to qualify for sound insulation. So that gives you the measure of that.

570. On the question of Miscanthus, otters, we won't put in otter – yes. On the question of Miscanthus. If the petitioners are able to show when the time comes that they have been required to quit their tenancy or that they have been disturbed from pursuing what they would otherwise have pursued continuing with the business of growing their Miscanthus crop, and that disturbance results from HS2 and they have thereby suffered a loss, then in principle they will have the basis for a claim for compensation in relation to that disturbance.

571. They will have to show that they've taken reasonable efforts to find an alternative location to grow within their overall holdings, but you would expect them to have to do that anyway because the public purse is available for genuine losses rather than losses that could have been avoided with reasonable efforts made by the petitioners.

572. MR WIGGIN: Can I just stop you there? I mean, because a Miscanthus is a sort of corn that takes three years to reach the sort of 10-foot height where it's harvested for biomass – because they're on a one-year contract, will they be disqualified? It seems to me and from Mr Martin's helpful diagram that you're going to grub up this crop anyway because you want to put a soil pile on it, so they will be entitled to compensation just for that alone if not continuation.

573. MR MOULD QC (DfT): Well, that certainly seems a likely outcome, but obviously we'll have to see whether there are ways in which that can be mitigated before we get to that.

574. The short point on maintaining access: access will be maintained to the property throughout construction and operation, and there's a slide P1072(8), I don't need to show it, but that just gives you a timeline and indicates how that can be achieved.

575. THE CHAIR: Thank you.

576. MR MOULD QC (DfT): I think I've covered all the key points that were raised.

577. THE CHAIR: I think you have to the Committee's satisfaction. Thank you very much. Meeting closed.