11. Noise

11.1. Introduction

This chapter considers the assessment of impacts from noise and vibration expected from haulage movements associated with the construction of the Proposed Scheme. The addition of extra vehicles onto the local road network has the potential to increase the noise and vibration at receptors along the routes that are used. Impacts of noise and vibration on ecological receptors are discussed in Chapter 7.

11.2. Regulation and policy background

11.2.1. Noise Policy Statement for England (NPSE) (Defra, 2010)

The government's noise policy is set out in the NPSE. The policy came into force in March 2010. It contains the high-level vision of promoting good health and good quality of life (wellbeing) through the effective management of noise. It is supported by three aims and together they provide the necessary clarity and direction to enable decisions to be made in any particular situation, both nationally and locally, regarding what is an acceptable noise burden to place on society. These three aims are:

- To avoid significant adverse impacts on health and quality of life
- To mitigate and minimise adverse impacts on health and quality of life
- Where possible, contribute to the improvement of health and quality of life

These three aims will be considered when determining whether the construction of the Proposed Scheme will cause significant effects.

11.2.2. Control of Pollution Act (CoPA) 1974

The Control of Pollution Act 1974 grants powers to deal with noise nuisances. Much of CoPA has been replaced and extended by the Environmental Protection Act 1990. CoPA Sections 60 and 61 which relate to noise and vibration from construction sites and will include the transporting of material to site.

Section 60 (S60) of CoPA allows a local authority to serve a notice of its requirements for the control of site noise to the individual or entity carrying out or controlling the works. The notice may stipulate noise limits for work, particular plant or machinery that should be avoided, hours during which construction activities may be carried out and provide for any change in circumstances.

Section 61 (S61) of CoPA concerns the procedures adopted when a contractor or developer approaches the local authority prior to any construction activities taking place, with the intention of agreeing noise and vibration limits in advance of works.

If consent is granted under S61, then this will be considered a valid defence by the Magistrate's court if the local authority was to later reverse its position and pursue an action under S60.

11.2.3. Environmental Protection Act (EPA) 1990

The Environmental Protection Act 1990 Part III, Section 79, defines what activities may constitute a Statutory Nuisance, and what activities are specifically exempt. Section 79 imposes a duty on local authorities to periodically survey environmental noise levels and to investigate noise complaints. The Act requires local authorities to serve notice when noise nuisance exists. Under these statutory nuisance provisions, the operators of a site or facility could be required to adopt best practicable means to abate noise nuisance at any time once operations have commenced. It is essential that potential nuisance effects are properly considered, to ensure that the operators are seen to adopt best practice, and that any potential requirements for mitigation are considered.

11.3. Methodology

11.3.1. Scope

Potential noise and vibration impacts from the construction activities and from the operation of the Proposed Scheme were scoped out in the PEIR. This assessment considers only noise and vibration impacts associated with noise expected from road traffic movements associated with the construction of the Proposed Scheme as shown in Table 11.1. Some of the access routes to be used are unmade or not kept to the standard of a public highways. Any imperfections in the surface (e.g. pot holes) could generate additional noise and vibration. However, these locations are considered to be too far from receptors to cause additional impacts due to the uneven road surface and this factor is therefore not considered. This will include any works associated with any remedial work needed on these routes.

Table 11.1 Scope of assessment

Scoped in	Scoped out
Noise and vibration effects associated with transport of material via the road network during the construction phase	Noise and vibration effects associated with construction works on site
	Noise and vibration effects during operation

11.3.2. Study area

For a road scheme following the guidance published by the government (Highways England, 2020), the study area for examining the impacts from additional traffic during construction will normally be an area 50m either side of the affected route. Therefore, the study area for this assessment has considered the worst-case sensitive receptors directly along the routes that the construction traffic is likely to use when travelling from the stockpile location to the work areas in Upper and Lower Sowy. The haulage routes are indicated in Figure 11.1 in Appendix A.

11.3.3. Guidance

LA 111 Noise and Vibration (Highways England, 2020)

The construction, operation and maintenance of highway projects can lead to changes in noise and vibration levels in the surrounding environment. This document provides a framework for assessing and managing the noise and vibration effects

associated with construction, improvement, use and maintenance of motorways and all-purpose trunk roads. This document sets out the requirements for noise and vibration assessments from road projects, applying a proportionate and consistent approach using best practice and ensuring compliance with relevant legislation.

With regards to construction traffic the document provides guidance on the definition of an appropriate study area and also provides a scale of magnitude to define the impacts.

A guide to measurement and prediction of the Equivalent Continuous Sound Level, L_{eq} (Noise Advisory Council, 1978)

The Noise Advisory Council guide was primarily written to introduce the concept of using the Equivalent Continuous Sound Level, L_{eq}, for noise predictions.

Within the guide there is an equation to predict the noise level at 10m from the edge of the road for a given time period. This method requires:

- The number of vehicles per each type (i.e. light and heavy)
- The average speed of each vehicle category
- The noise level from the passage of an individual vehicle averaged over one second. This is called the Sound Exposure Level (SEL)[9]

Calculation of Road Traffic Noise (Department of Transport and Welsh Office, 1988)

The calculation methods for predicting road traffic noise in the UK are defined within the 'Calculation of Road Traffic Noise' (CRTN) a technical memorandum document produced by the Department of Transport in 1988.

The calculation method consists of an initial Basic Noise Level (BNL) calculation at a reference distance of 10m which depends on the flow, traffic composition and speed of a road segment. Subsequently the method calculates all the corrections related with sound propagation at a receptor location where this includes distance, ground absorption, barrier screening, reflections, angle of view and façade correction.

Given the information available for this assessment and the fact that it is not as such a road scheme, calculations of the BNL only have been considered sufficient to determine potential significant effects. However, the method contained within CRTN does not allow a separate speed for each vehicle category to be considered. Given that for this Proposed Scheme the potential impact will be from an increase in just one type of vehicle (i.e. HGVs or tractors and trailer), this is considered important and hence recourse is made to the method provided within the Noise Advisory Council document (described earlier) within the methodology established in section 11.3.5.

The noise index used within CRTN is the L_{A10} level and that used within the Noise Advisory Council method outlined on page 18 is the L_{Aeq} index (the 'A' is added to indicate A-weighing). An L_{A10} noise level will generally be about 2 to 3 dB(A) above that of an L_{Aeq}. Since this assessment is considering the change in noise from the

[9] Defined as the constant sound level which has the same amount of energy in one second as the original noise event, in this case the car passage.

existing situation and not the absolute level of noise, this difference is not considered to influence the conclusion of the assessment.

Guidelines for Environmental Noise Impact Assessment (Institute of Environmental Management and Assessment, 2014)

The guidelines from the Institute of Environmental Management and Assessment (IEMA) in 2014 provide an overview of the requirements for the assessment of noise impacts. They do not provide guidance for any specific circumstances, for example impacts from additional traffic. Within the guidance document is a generic scale showing the relationship between noise impact and the likely level of significance, which includes descriptors for each impact.

11.3.4. Establishing the baseline

The method described above within Noise Advisory Council guidance has been used to calculate the noise level along each haulage route (at 10m) where base traffic data is available. The construction traffic volumes for the Proposed Scheme has then been added to the base traffic data to calculate a noise level that includes that generated by the additional HGV and/or tractors and trailer movements required to transport material from the source of imported material located near Westonzoyland (see Figure 3.1, Appendix A) to the Upper and Lower Sowy. These two noise levels have then been compared to determine the potential impact from additional traffic during the construction phase of the Proposed Scheme.

11.3.5. Assessment of sensitivity, magnitude and significance

LA 111 does not provide a scale for the value or sensitivity of receptors and people living, working or visiting those receptors. Therefore, the scale described in Table 11.2 has been used for this assessment. The receptor types for each category have been determined based on a number of factors including the time that people are at these receptors and the activities undertaken at/within the receptor.

Table 11.2 Value / Sensitivity of receptors

Value / Sensitivity	Receptor type definition for noise
High	Residential, educational buildings, medical facilities
Medium	Hotel, community facilities and places of worship
Low	Commercial buildings (e.g. offices)
Negligible	Farmland, industrial premises

Although LA 111 is primarily designed for the assessment of impacts from large road projects, it also provides a magnitude of impact scale that can be used to determine the potential impact from the construction traffic. This scale can be used for the roads around Upper and Lower Sowy and is shown in Table 11.3.

Table 11.3 Magnitude of impact at receptors

Magnitude of impact	**Increase in BNL[1] of closest public road used for construction traffic (dB)**
Major	Greater than or equal to 5.0
Moderate	Greater than or equal to 3.0 and less than 5.0
Minor	Greater than or equal to 1.0 and less than 3.0
Negligible	Less than 1.0
[1] The Basic Noise Level (BNL) is explained under the Calculation of Road Traffic Noise.	

The descriptions of magnitude provided in Table 11.3 will relate directly to those being used for the Proposed Scheme (e.g. High = Major, Moderate = Medium and Minor = Low) as described in Chapter 5 Assessment Methodology.

LA 111 states that "Construction noise and construction traffic noise shall constitute a significant effect where it is determined that a major or moderate magnitude of impact will occur for a duration exceeding:

1) 10 or more days or nights in any 15 consecutive days or nights;

2) a total number of days exceeding 40 in any 6 consecutive months."

Between Aller and Church Drove it is not possible to use the method described above since the traffic flow data for that route is unavailable. It is therefore not possible to follow the scale of magnitude provided in Table 11.3, and subsequently the significance matrix in Figure 5.1 of Chapter 5 (p44). A different approach is therefore adopted to define the magnitude of impact and the significance of effect of noise changes upon these receptors. This is based on textural descriptors of the possible effect from different magnitudes of impact and is taken from the IEMA guidelines and shown in Table 11.4. This guidance uses slightly different terminology for magnitude that the Proposed Scheme descriptors presented in Table 11.3. Where different the Proposed Scheme descriptor is shown in brackets to indicate how these will align with the IEMA descriptors. The final column of Table 11.4 indicates the potential for a significant effect, and this varies depending upon the magnitude of impact and other factors. Given that the determination of whether a significant effect has occurred relies on judgement, it is considered that this approach aligns with that presented in Figure 5.1 of Chapter 5 (p44).

Table 11.4 Descriptors for generic noise impacts and significance

Magnitude	Description of effect	Significance
Negligible	No discernible effect on the receptor	Not significant
Slight (Minor)	Receptor perception = Non-intrusive Noise impact can be heard but does not cause any change in behaviour or attitude, e.g. turning up volume of television; speaking more loudly; closing windows. Can slightly affect the character of the area but not such that there is a perceived change in the quality of life.	Less likely to be significant

Magnitude	Description of effect	Significance
Moderate	Receptor perception = Intrusive Noise impact can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; closing windows. Potential for non-awakening sleep disturbance. Affects the character of the area such that there is a perceived change in the quality of life.	
Substantial (Major)	Receptor perception = Disruptive Causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in character of the area.	More likely to be significant
Severe (Major)	Receptor perception = Physically Harmful Significant changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Significant

For locations where a quantitative assessment of magnitude of impact is not possible using the method described above, this scale of descriptions has been used to determine the effect qualitatively. The locations where this has been used are those where no traffic data is available to determine the baseline. In determining whether there is a potential significant effect factors such as absolute noise level, duration of event, frequency, time of day and nature of the noise source will be considered. A magnitude of moderate or above will be considered as a significant effect.

11.3.6. Assumptions and limitations

This section describes the limitations encountered during this assessment and lists any assumptions that have been made.

Assumptions

By using the calculation methodology from the Noise Advisory Council document described in section 11.3.2, the noise levels from an example light and heavy vehicle contained in the guidance document are assumed.

The speed of each vehicle category has been taken from paragraph 14.2 contained in the Calculation of Road Traffic Noise (Department of Transport and Welsh Office, 1988) which provides data for certain roads types that can be used when measured / modelled data is not available. For the sections of the road where there is a 30mph speed limit, this has been assumed as the speed for light and heavy vehicles (including the tractor and trailers). For the sections of road where the national speed limit applies, the speed for light vehicles is assumed at 50mph. For heavy vehicles

and the tractor and trailer combination, this has remained at 30mph since many of the roads are narrow with frequent corners.

The existing traffic flow data has been taken from a Department for Transport website (DfT, 2020) where traffic flow data is available for certain sections of the road network. Data for 2018, which is the most recent available, has been obtained for a point on the A361 to the north of Othery (Id: 37042) and for a point on the A372 to the west of the stockpile location (Id: 27031). Although neither of these points are on the routes that the vehicles will take from the source of imported material located near Westonzoyland (see Figure 3.1, Appendix A) to the Upper and Lower Sowy, they are considered to be representative since there are no major junctions between them and the road links of interest. The data presented on the DfT website is the Annual Average Daily Flow (AADF), which is the average over a full year of the number of vehicles passing a point in the road network each day. This will clearly vary day by day, with Sundays probably having a lower flow or certainly a different distribution of vehicles (i.e. less HGVs). Using this data this variation cannot be taken into account.

This traffic data available from the DfT website is for either a 24-hour period or where manual counts have been undertaken during daytime hours. In order to determine what percentage of traffic is within the working hours for the Proposed Scheme (assumed to be 07:00 to 19:00. An 11-hour period as opposed to the 12-hour working day has been used since it is unlikely that there will be vehicle movements within the first or last 30 minutes of any day. The manual counts data has also been examined and this has shown that for the A361 there is 80% of the 24-hour traffic flow within the 11-hour working hour period. For the A372 this figure is 89%. The 24-hour traffic flow has been corrected accordingly to ensure that only traffic in that period is considered for the existing situation. If the 24-hour data has been used it will have diluted the extra traffic being added.

Limitations

This assessment was undertaken during the 2020 Covid-19 pandemic and therefore no baseline surveys have been undertaken. The baseline surveys will have been used to assist with describing the existing noise climate. Also, measurements of individual vehicle passages will have been used as input data for the noise calculations. The existing noise climate has therefore been described using professional judgement.

11.4. Existing environment

A desk-based review of the road network and access routes which comprise the haulage routes for the Proposed Scheme was undertaken using aerial photography from Google Earth. Along some parts of the haulage routes there are groups or individual sensitive receptors in the form of dwellings, with some close to the road. These will be the receptors likely to be impacted the most by the increase in traffic and can be seen in Figure 11.1 (Appendix A).

No baseline noise and vibration monitoring has been undertaken for this assessment. Although the traffic flows along the A361 and A372 will not represent continuous traffic, the road traffic is likely to dominate the noise climate. Further from these roads, and within the villages along the route, the noise climate is likely to be

made up from multiple sources rather than one single source. These will include farming activities, wildlife, construction activities and the movement of people.

On the smaller roads (e.g. Oliver's Road) and those parts of the haulage routes that form part of the actual access routes to the construction site (e.g. Sandy Lane) the noise climate will be quieter but may have other more dominant noise sources such as farming activities and wildlife. Along these routes there are only sensitive receptors on Church Path.

11.5. Likely significant effects

This section describes the potential impacts from the additional construction traffic on the local roads. This is divided into locations that may be affected by the different haulage routes, or more accurately the roads used to reach each access point to the construction site. For this assessment the only receptors considered are those of high value (i.e. dwellings) as if significant effects are identified at these then any mitigation measures will be applicable to receptors of other values.

Figures have been provided by the appointed contractor on the expected total number of deliveries to each work site over the entire construction period. These are shown in Table 11.5.

Table 11.5 Expected total number of deliveries to each work site for the entire construction period

Site	Access route	One-way movements by HGV	One-way movements by tractor and trailer
Lower Sowy	Bimpits		195
	A361	185	
	Sandy Lane		184
	Owery Farm Lane		363
	A372	168	
Upper Sowy	Church Drove		2

For this assessment the figures to be used correspond to the expected average journeys per day. These are provided as follows:

- Lower Sowy daily average HGV – 18 for 4 weeks
- Lower Sowy daily average tractor and trailer – 19 for 8 weeks
- Upper Sowy daily average tractor and trailer – 2 for 1 week

These figures are one-way journeys and have therefore been doubled to be total movements for the purpose of calculating the expected noise levels. It is assumed that the vehicles will use the same route to and from the work sites. Within the assessment of each location, presented in Section 11.5, a description will be given as to the assumed route from the source of imported material (soils reprocessing plant) location to the work site. The number of daily movements provided are an average and will be used for the assessment. In order to examine a worst-case

situation these will be doubled. The assumed additional daily movements for each access route in line with the data in the bullet points above and the assumptions made is presented in Table 11.6.

Table 11.6 Additional daily traffic from deliveries to each work site

Access route	Assumed additional vehicles[1]	Vehicle destination
Bimpits	37	18 HGV to Lower Sowy and 19 tractor and trailer to Lower Sowy
A361	37	18 HGV to Lower Sowy and 19 tractor and trailer to Lower Sowy
Sandy Lane	37	18 HGV to Lower Sowy and 19 tractor and trailer to Lower Sowy
Owery Farm Lane	19	19 tractor and trailer to Lower Sowy
A372	20	18 HGV to Lower Sowy and 2 tractor and trailer to Upper Sowy
Church Drove	2	2 tractor and trailer to Upper Sowy
[1] One-way journeys along the access route which are doubled for the calculations to account for two-way movements. These can include vehicles that will use part of the route to get to another access route.		

The haulage route for the site access point Bimpits is not considered as there are no sensitive receptors along the route from the source of imported material to the construction site access point off Bimpits.

11.5.1. A361 and Sandy Lane site access points

To reach these access points it is assumed the haulage vehicles leave the source of imported material and turn right on to the A372, then along Oliver's Road. At the end of Oliver's Road it is assumed they turn left and then onto the corresponding work site. This route is shown on Figure 11.1 (Appendix A).

For these haulage routes the receptors where potential impacts could occur are along the A361 around the eastern end of Oliver's Road and the A361. Although there are no sensitive receptors along Sandy Lane itself, in order to reach this access point the haulage vehicles pass sensitive receptors along the A361. There are around four sensitive receptors along this route. From the source of imported material to the western end of Oliver's Road it is noted that there are no sensitive receptors.

It is assumed that the HGVs and tractor and trailers could be travelling simultaneously to Lower Sowy and so a passage of 74 vehicles in the 11-hour period is assumed. The speed of the light vehicles is assumed to be 50mph, with HGVs and tractors and trailers assumed to be 30mph. At these speeds the SEL for a light vehicle is 76.0 dB(A) and that of an HGV / tractor and trailer is 78.1 dB(A).

Table 11.7 Impact of vehicles using the A361 and Sandy Lane access routes

	Existing traffic conditions	Traffic conditions during construction phase for Proposed Scheme[1]
Light vehicles	4,200	4,200
HGVs	129	203
%HGV	3.0	4.6
Calculated noise level, L_{Aeq}, dB	66.4	66.6
Difference (dB)		+0.2
[1] Additional construction traffic added to existing traffic using the figures presented in Table 11.6		

From Table 11.7 it can be seen that the predicted increase in noise is 0.2 dB(A). The magnitude of this increase for receptors of high value is negligible and will be Not Significant. This increase in noise could be for up to eight weeks.

The additional traffic shown in Table 11.6 uses the predicted average additional movements per day. A maximum number of additional movements per day are assumed as being double this value (approximately 148 movements per day). Considering 148 movements per day will give an increase of 0.3 dB(A) which will still be a negligible magnitude of change and will be Not Significant.

11.5.2. Owery Farm Lane site access point

To reach this access point it is assumed the vehicles leave the source of imported material and turn right on to the A372, then along Oliver's Road. At the end of Oliver's Road it is assumed they turn right and then shortly afterwards left onto Owery Farm Lane. This route is shown on Figure 11.1 (Appendix A).

For this access route the receptors where potential impacts could occur are along the A361 from the eastern end of Oliver's Road to the entrance to Owery Farm Lane (approximately 450m). Those receptors at the eastern end of Oliver's Road have been excluded from this assessment these have been considered within the assessment of potential impacts from vehicles travelling to Sandy Lane and the A361. Taking this into account, there are two sensitive receptors along this route.

It is assumed that only tractor and trailers will be travelling along this route and a passage of 38 vehicles in the 11-hour period is assumed. The speed of the light vehicles is assumed to be 50mph, with the tractors and trailers assumed to be 30mph. At these speeds the SEL for a light vehicle is 76.0 dB(A) and that of a tractor and trailer is 78.1 dB(A).

Table 11.8 Impact of vehicles using the Owery Farm Lane access route

	Existing traffic conditions	Traffic conditions during construction
Light vehicles	4,200	4,200
HGVs	129	167
%HGV	3.0	3.8

Calculated noise level, L_{Aeq}, dB	66.4	66.5
Difference (dB)		+0.1

From Table 11.8 it can be seen that the predicted increase in noise is 0.1 dB(A). The magnitude of this increase for receptors of high value is negligible and will be Not Significant. This increase in noise could be for up to eight weeks.

The additional traffic shown in Table 11.6 uses the predicted average movements per day. A maximum number of movements per day is assumed as being double this value (76). Considering 76 movements will give an increase of 0.2 dB(A) which will be a negligible magnitude of change for high value receptors and will be Not Significant.

11.5.3. A372 site access point

To reach this site access route it is assumed the vehicles leave the stockpile site and turn right on to the A372 and continue along this road to the construction site. This route is shown on Figure 11.1 (Appendix A).

For this haulage route the receptors where potential impacts could occur are to the north of Middlezoy and the north of Othery. There are also a few scattered receptors along the 4.5km route. It is estimated there are around a total of 20 sensitive receptors directly alongside this route.

It is assumed that HGVs and tractor and trailers will be travelling along this route and a passage of 40 vehicles in the 11-hour period is required. This comprises 36 movements to Lower Sowy and four movements to Upper Sowy, which are assumed to use the same route and could be operating simultaneously. The speed of the light vehicles is assumed to be 50mph, with the HGVs and tractors and trailers assumed to be 30mph. At these speeds the SEL for a light vehicle is 76.0 dB(A) and that of an HGV / tractor and trailer is 78.1 dB(A).

Table 11.9 Impact of vehicles using the A372 access route

	Existing traffic conditions	Traffic conditions during construction
Light vehicles	5,236	5,236
HGVs	195	235
%HGV	3.6	4.3
Calculated noise level, L_{Aeq}, dB	67.4	67.5
Difference (dB)		+0.1

From Table 11.9 it can be seen that the predicted increase in noise is 0.1 dB(A). The magnitude of this increase for receptors of high value is negligible and will be Not Significant. This increase in noise could be for up to four weeks.

The additional traffic shown in the table uses the predicted average movements per day. A maximum is assumed as being double this value at 80 movements per day. Considering 80 movements will give an increase of 0.2 dB(A) which will still be a negligible magnitude of change for high value receptors and will be Not Significant.

11.5.4. Church Drove site access point

To reach this site access point it is assumed the vehicles leave the source of imported material near Westonzoyland and turn right on to the A372, then proceed along the A372 to the village of Aller. From here they turn right onto Church Path and then proceed to the construction site via Church Drove. This route is shown on Figure 11.1 (Appendix A).

For this haulage route the receptors where potential impacts could occur are along the length of the A372 from the source of imported material to Aller. However, those receptors between the source of imported material and the A372 within the construction site have already been considered using a higher number of movements under section 11.5.3, and therefore that part of the route is excluded. Between the A372 access point to the construction site and Church Path in the village of Aller where the vehicles turn off the A372, there are around 20 sensitive receptors directly alongside the route. Once the vehicles turn into Church Path there are around another 20 sensitive receptors before the vehicles turn onto Church Drove. Once on Church Drove there are around five sensitive receptors along the route.

It is assumed that only tractor and trailers will be travelling along this haulage route and a passage of four vehicles in the 11-hour period is assumed. The speed of both types of vehicles (i.e. light and tractor and trailer) is assumed to be 30mph as they pass the majority of sensitive receptors. At these speeds the SEL for a light vehicle is 71.4 dB(A) and that of a tractor and trailer is 78.1 dB(A).

A372 to Aller

From Table 11.10 it can be noted that there is no predicted increase in noise. The magnitude of this increase for receptors along the route to Aller of high value is negligible and will be Not Significant. This increase in traffic will only be for one week.

Table 11.10 Impact of vehicles using the A372 to reach Aller

	Existing traffic conditions	Traffic conditions during construction
Light vehicles	5,236	5,236
HGV's	195	199
%HGV	3.6	3.7
Calculated noise level, L_{Aeq}, dB	63.3	63.3
Difference (dB)		0

The additional traffic shown in Table 11.5 uses the predicted average movements per day. A maximum is assumed as being double this value, at 8 movements per day. Considering 8 movements will give an increase of 0.1 dB(A) which will be a negligible magnitude of change for high value receptors and will be Not Significant.

Church Drove

There are approximately 20 receptors along Church Path and a further five along Church Drove. The traffic flow along these roads will be a lot lower than the A372 traffic and so the calculation methodology used for other areas cannot be used here.

Due to the unknown traffic data along this route and with no knowledge of the existing noise climate in these areas that are away from a dominant noise source such as a main road, a qualitative approach based on the descriptors presented in Table 11.3 has been utilised.
Along this route the noise climate will be quiet and so the passing of any vehicle is likely to be audible for perhaps 15 to 20 seconds. The sound will be gradual and not sudden, and unlikely to be a sound (i.e. the passing of a tractor and trailer) that residents will not have experienced before. With both routes leading to farms and parking for footpaths, these will not be devoid of existing traffic and so a passing vehicle will not be uncommon. Over the 11-hour day there will be an average of 4 such passages, so perhaps a maximum of two per hour although that will only occur for two hours. Given that the Proposed Scheme will be of benefit to those living in the area, the works associated with the construction programme is likely to be more tolerated than something that is not welcome. Taking these points into consideration it is considered that the magnitude will be minor and for receptors of high value this will be Not Significant.

Mitigation

Although no significant effects have been identified from the assessment, it is still considered that measures to control the noise from the vehicles on the road network should be included within the EAP (Appendix K). These include:

- Reducing any rapid braking or accelerating
- Avoiding the use of horns, unless required for safety reasons on some of the narrow tracks
- Briefing of the drivers into the nature (i.e. low background noise at present) of some of the routes

In addition, the residents of Church Drove should be informed of the works, including the nature of the vehicles passing, timescales and durations of the works.

11.6. Conclusions and summary of residual effects

The assessment of additional traffic on the local road network during the construction period has shown that there should be no significant noise effects. This is due to the low number of trips proposed between the source of imported material near Westonzoyland and the sites compared with the existing traffic on the local road network.

Since there are no significant effects the first aim of the NPSE is met. The potential impacts are minimised through the choice of routes and vehicles. Due to the works being temporary there is no opportunity to contribute to the improvement of health and quality of life in relation to noise.