

8<sup>th</sup> September 2025

Our ref: 446192

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## **Response to Comments on Air Quality Assessment/ Emission Mitigation Assessment for Proposed Residential Development at Land West of Shoreham Road, Small Dole From Horsham District Council**

RSK have received comments from Horsham District Council (dated 21<sup>st</sup> August 2025) via project Planning Team regarding the air quality assessment produced by RSK (ref: 446192-01(01), undertaken to assess road traffic and construction dust impacts from the proposed development at Land West of Shoreham Road, Small Dole.

<b>PROJECT DESCRIPTION:</b>	Outline planning application for up to 45 dwellings (including affordable homes) with all matters reserved apart from access.
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The Horsham District Council's comments are presented in *black italics* font. RSK's responses to the Horsham District Council comments are presented below in **blue**.

### **Horsham District Council Comment 1 dated 21<sup>st</sup> August 2025**

#### **Emission Mitigation Assessment**

Environmental Health have reviewed the above-mentioned report, and we have the following comments to make.

The EFT and damage cost calculations appear to be inaccurate. The EFT should generate results for each of the first five years of the site being operational, and these annual figures should then be entered into the Damage Cost Toolkit. We have noted that the years used for the EFT are different to those used in the damage cost. Using the information provided in the Air Quality Assessment, I carried out these calculations and arrived at a higher total cost. Please could you review your figures using the above methodology and submit a new damage-cost, including a breakdown of your workings on the Excel files as supporting evidence?

For clarity, these are the figures I used for the EFT and Damage Cost toolkit:

- Start year = 2027
- End year = 2031
- Price base year = 2025 (baseline year for the project appraisal)

Additionally, the EFT used should be the most current version (V13.1), which was released in March 2025.

The Mitigation measures for the proposed development should be in line with the Sussex Air (2021) Air Quality and Emissions Mitigation Guidance for Sussex. The Sussex Air guidance aims to avoid the duplication of measures that would normally be required through other regimes. For example, pedestrian crossings and public right of ways would only be considered acceptable if they exceed the minimum requirements set out other planning policies, such as the Horsham District Planning Framework.

RSK has undertaken the revised damage costs calculations using the latest Emissions Factor Toolkit (V 13.1) released in March 2025.

The damage cost calculation is considered to provide a basis for quantifying the financial commitment required for offsetting potential development-generated emissions. The revised calculated central damage cost value for 5 years (including both NOx and PM<sub>2.5</sub>) is £5,680, which will be used to fund on- and off-site mitigation measures.

We have attached the damage cost calculation results (snips of the excel spreadsheets) for your reference in Appendix A.

In the Air Quality Assessment report (446192-01(01) submitted for the project), following mitigation measures from the travel plan for the project were proposed and indicative costs were also given, where available and it is much greater than the value determined by the damage cost calculation (i.e. £5,680).

#### **The Proposed Mitigation Measures in the Travel Plan and the associated costs (provided by the transport consultants) are as follows:**

- Travel Plan –There are a number of costed initiatives as well as the need for a Travel Plan Coordinator to be appointed to implement measures with the Travel Plan (e.g. provision of information, initiatives, travel welcome pack etc). The cost of the mitigation is estimated to be c. £25,000.
- Travel Vouchers - £150 sustainable travel voucher are proposed to be provided to the initial occupants of each residential dwelling. This is the preferred amount by West Sussex County Council (WSCC). As a maximum, the total cost is estimated to be £6,750.
- Provision of a Car Club. The cost is estimated to be £36,000.
- Total estimated amount, as above is **£67,750**.

The indicative costs for the proposed mitigation measures as given above are much greater than the value determined by the damage cost calculation (i.e. £5,680) as presented in Appendix A.

## APPENDIX -A EMISSION MITIGATION ASSESSMENT

### SNIPS OF FIVE YEARS (2027-2031) EFTs

DUPLICATE STYLES This workbook has many duplicate styles which can slow performance. Remove Duplicates

E16

Primary Inputs		Pollutants		Standard Outputs		Additional Outputs		Advanced Options		Click the button to:	
Area	England (not London)	NO <sub>x</sub>	Y	Air Quality Modelling (g/km/s)	N	Breakdown by Vehicle		Bespoke Base Fleets		 Run EFT	
Year	2027	PM <sub>10</sub>	N	Emissions Rates (g/km)	N	Source Apportionment		Bespoke Euro Fleet		 Clear Input Data	
Traffic Format	Basic Split	PM <sub>2.5</sub>	Y	Annual Link Emissions	Y	PM by Source		Fleet Projection Tool			
All must be selected		CO <sub>2</sub>	N			Primary NO <sub>x</sub> Fraction					
						Export Outputs					
SourceID	Road Type	Traffic Flow	% HDV	Speed(kph)	No of Hours	Link Length (km)	% Gradient	Flow Direction	% Load		
1	Rural (not London)	262	0	50	24	10					

AutoSave                                              

A	B	C	D	E
Source Name	Pollutant Name	All Vehicles (Annual Emissions (kg/yr except CO2 tonnes/yr))	All LDVs (Annual Emissions (kg/yr except CO2 tonnes/yr))	All HDVs (Annual Emissions (kg/yr except CO2 tonnes/yr))
1	NOx	115.70266	115.70266	-
1	PM <sub>2.5</sub>	16.32332	16.32332	-

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Primary Inputs	Pollutants	Selected	Standard Outputs	Selected	Additional Outputs	Selected	Advanced Options	Selected	Click the button to:			M	N	O	P	Q
Area	England (not London)	NO <sub>x</sub>	Y	Air Quality Modelling (g/km/s)	N	Breakdown by Vehicle										
Year	2030	PM <sub>10</sub>	N	Emissions Rates (g/km)	N	Source Apportionment										
Traffic Format	Basic Split	PM <sub>2.5</sub>	Y	Annual Link Emissions	Y	PM by Source										
<i>All must be selected</i>		CO <sub>2</sub>	N				Primary NO <sub>x</sub> Fraction									
							Export Outputs									
SouceID	Road Type	Traffic Flow	% HDV	Speed(kph)	No of Hours	Link Length (km)	% Gradient	Flow Direction	% Load							
1	Rural (not London)	262	0	50	24	10										

A	B	C	D	E
Source Name	Pollutant Name	All Vehicles (Annual Emissions (kg/yr except CO2 tonnes/yr))	All LDVs (Annual Emissions (kg/yr except CO2 tonnes/yr))	All HDVs (Annual Emissions (kg/yr except CO2 tonnes/yr))
1	NOx	98,24848	98,24848	-
3	PM <sub>2.5</sub>	16.10655	16.10655	-

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Primary Inputs	Pollutants	Selected	Standard Outputs	Selected	Additional Outputs	Selected	Advanced Options	Selected	Click the button to:			M	N	O	P	Q
Area	England (not London)	NO <sub>x</sub>	Y	Air Quality Modelling (g/km/s)	N	Breakdown by Vehicle										
Year	2031	PM <sub>10</sub>	N	Emissions Rates (g/km)	N	Source Apportionment										
Traffic Format	Basic Split	PM <sub>2.5</sub>	Y	Annual Link Emissions	Y	PM by Source										
<i>All must be selected</i>		CO <sub>2</sub>	N				Primary NO <sub>x</sub> Fraction									
							Export Outputs									
SouceID	Road Type	Traffic Flow	% HDV	Speed(kph)	No of Hours	Link Length (km)	% Gradient	Flow Direction	% Load							
1	Rural (not London)	262	0	50	24	10										

A	B	C	D	E
Source Name	Pollutant Name	All Vehicles (Annual Emissions (kg/yr except CO2 tonnes/yr))	All LDVs (Annual Emissions (kg/yr except CO2 tonnes/yr))	All HDVs (Annual Emissions (kg/yr except CO2 tonnes/yr))
1	NOx	82.83961	82.83961	-
	PM <sub>2.5</sub>	15.93583	15.93583	-

EFT Outputs						
Pollutant_Name		2027	2028	2029	2030	2031
NOx(kg/yr)		155.06	134.79	115.70	98.25	82.84
PM <sub>2.5</sub> (kg/yr)		16.85	16.57	16.32	16.11	15.94
Tonnes per year		2027	2028	2029	2030	2031
NOx		0.1551	0.1348	0.1157	0.0982	0.0828
PM <sub>2.5</sub>		0.0169	0.0166	0.0163	0.0161	0.0159

The Defra Damage Cost Appraisal Toolkit (updated February 2023) was used with the following input:

- Start year: 2027
- End year: 2031
- Price Based Year: 2025
- Number of Pollutants: 2 (NO<sub>x</sub> and PM<sub>2.5</sub>)

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Start Year	2027	Please type the year at which the policy will start from, the start year is also the discount year
End Year	2031	Please type the year at which the appraisal will end
Appraisal Period	5	Autofills the number of years for which the policy is reviewed for
Price Base Year	2025	Please type the price base year for your appraisal
Number of pollutants	2	Please type the number of pollutants to be assessed

Note: if you are assessing PM10 impacts, please convert these to PM2.5 using conversion factors found in the Assumptions sheet

Key assumptions: Health discount rate 1.50% from appraisal year 0 to 30  
1.29% from appraisal year 31 to 75  
1.07% from appraisal year 76 to 125

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E36 : =SUM(E35:XFD35)

A B C D E F G H I J K L

4

5

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7 Note: If you are assessing PM10 impacts, please convert these to PM2.5 using conversion factors found in the Assumptions sheet

8

9 NOx Road Transport Rural

10 Year 2027 2028 2029 2030 2031

11 Reduction in emissions (tonnes) 0.155 0.135 0.116 0.098 0.083

12

13 Central Damage Costs (£) 5219 5219 5219 5219 5219

14 Central Benefit (£) 809 703 604 513 432

15 Discounted Central Benefit (£) 809 693 586 490 407

16 Central Present Value £2,986

17

18 Low Sensitivity Damage Costs (£) 1297 1297 1297 1297 1297

19 Low Sensitivity Benefit (£) 201 175 150 127 107

20 Discounted Low Sensitivity Benefit (£) 201 172 146 122 101

21 Low Sensitivity Present Value £742

22

23 High Sensitivity Damage Costs (£) 17932 17932 17932 17932 17932

24 High Sensitivity Benefit (£) 2781 2417 2075 1762 1485

25 Discounted High Sensitivity Benefit (£) 2781 2381 2014 1685 1400

26 High Sensitivity Present Value £10,260

27

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E36 =SUM(E35:XFD35)

A B C D E F G H I J K

27

28

29 PM2.5 Road Transport Rural

30 Year 2027 2028 2029 2030 2031

31 Reduction in emissions (tonnes) 0.01685 0.01657 0.01632 0.01611 0.01594

32

33 Central Damage Costs (£) 33908 33908 33908 33908 33908

34 Central Benefit (£) 572 562 553 546 540

35 Discounted Central Benefit (£) 572 554 537 522 509

36 Central Present Value £2,694

37

38 Low Sensitivity Damage Costs (£) 13451 13451 13451 13451 13451

39 Low Sensitivity Benefit (£) 227 223 220 217 214

40 Discounted Low Sensitivity Benefit (£) 227 220 213 207 202

41 Low Sensitivity Present Value £1,069

42

43 High Sensitivity Damage Costs (£) 97583 97583 97583 97583 97583

44 High Sensitivity Benefit (£) 1645 1617 1593 1572 1555

45 Discounted High Sensitivity Benefit (£) 1645 1593 1546 1503 1465

46 High Sensitivity Present Value £7,752

47

Output from damage cost appraisal toolkit

	<b>Central Present Value</b>
Central value NOx	£2,986
Central value PM <sub>2.5</sub>	£2,694
<b>TOTAL</b>	<b>£5,680</b>