

Project No : 264**Tilletts Lane, Wareham, West Sussex****Application DC/25/1155**

1. Introduction

Michael Bull and Associates Ltd (MBAL) prepared an air quality assessment to accompany the planning application above. This included an assessment of the potential air quality impacts during construction and operation and calculation of the damage costs as required by the Sussex Air (2021) Air Quality and Emissions Mitigation Guidance for Sussex document.

Comments were received following a review of this assessment by the EHO that noted that the calculation of emissions using the Emission Factor Toolkit was correct but that the calculated damage costs should be assessed using the toolkit available on the gov.uk website¹ (the original assessment has used the method outlined in the Sussex Air Guidance).

It was also requested that an additional emissions mitigation statement was provided detailing proposals for how the damage costs would be mitigated.

This file note provides the information requested.

2. Damage Cost Assessment

The pollutant emissions per year (kg/year) were reported in the original air quality assessment as:

Year	2026	2027	2028	2029	2030
NOx	309.31	272.25	236.66	203.14	172.5
PM _{2.5}	30.17	29.59	29.09	28.66	28.28

These emissions have been placed in the Damage Cost Toolkit spreadsheet, it was requested that full working be provided and therefore screenshots from each stage are given in Figure 1-4. The calculations were carried out for a start year of 2025 and end year of 2030 using a Price Base Year of 2025. Two pollutants were included, i.e. NOx and PM_{2.5} and road transport rural emissions were selected.

The total calculated damage costs were £10,876 (compared with £10,536 in the previous report).

¹ <https://www.gov.uk/government/publications/assess-the-impact-of-air-quality>

3. Emissions Mitigation Statement

The Sussex Air guidance provides the following suggested options for emissions mitigation:

RESIDENTIAL

- Invest in EV charging infrastructure within the development over and above the current recommended parking standards
- Provide vouchers for alternatives to private car use
- Provide public transport subsidy for residents
- Set up a car club within the development or contribute to the cost of a local car club
- Set up or join an existing car sharing scheme for residents
- Designate parking spaces for car club/car sharing vehicles
- Designate parking spaces for low emission vehicles
- Provide electric bikes
- Improve cycle paths to link to the existing local cycle network
- Provide secure cycle storage
- Invest in additional evergreen infrastructure to reduce particulates and other pollutants

COMMERCIAL/INDUSTRIAL (as above – plus)

- Set up differential parking charges to favour cleaner vehicles
- Provide public transport subsidy for employees
- Ensure all new commercial vehicles comply with the latest European Emission Standards
- Implement a fleet strategy that reduces emissions
- Use zero or ultra-low emission service vehicles
- Invest in local walking and cycling initiatives
- Contribute to the cost of on-street EV charging
- Contribute to unfunded measures identified in air quality action plans
- Implement a low emission strategy

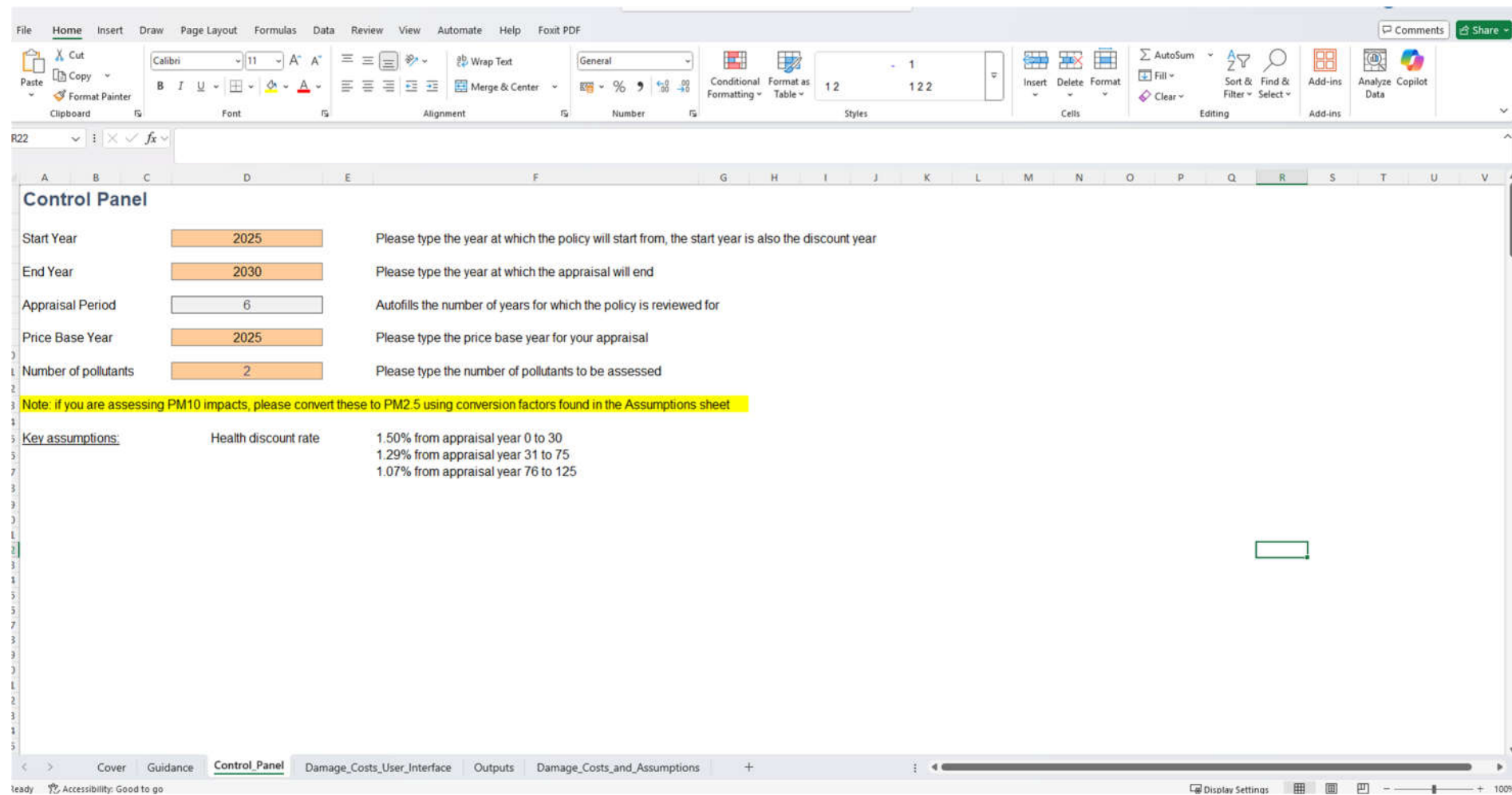
ADDITIONAL MITIGATION

- Contribute to local low or zero emission vehicle refuelling/recharging infrastructure
- Contribute to low emission bus service provision or waste collection services
- Contribute to local bike/e-bike hire schemes
- Contribute to renewable fuel and energy generation projects
- Fund incentives for the take-up of low emission technologies and fuels

The applicant is therefore proposing to provide cycle vouchers to new residents and a public transport subsidy of the total value of £10,876.

File Note

Figures



The screenshot shows an Excel spreadsheet with the following content:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
	Control Panel																						
1	Start Year		2025	Please type the year at which the policy will start from, the start year is also the discount year																			
2	End Year		2030	Please type the year at which the appraisal will end																			
3	Appraisal Period		6	Autofills the number of years for which the policy is reviewed for																			
4	Price Base Year		2025	Please type the price base year for your appraisal																			
5	Number of pollutants		2	Please type the number of pollutants to be assessed																			
6	Note: if you are assessing PM10 impacts, please convert these to PM2.5 using conversion factors found in the Assumptions sheet																						
7																							
8	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																			
9																							
10																							
11																							
12																							
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							
21																							
22																							

The spreadsheet has a ribbon at the top with tabs: File, Home, Insert, Draw, Page Layout, Formulas, Data, Review, View, Automate, Help, Foxit PDF. The Home tab is active, showing options for Clipboard, Font, Alignment, Number, Styles, Cells, Editing, and Add-ins. The bottom status bar shows 'Ready', 'Accessibility: Good to go', and 'Display Settings'.

Figure 1 Main Control Panel Inputs

NOx Road Transport Rural

Year	2026	2027	2028	2029	2030	
Reduction in emissions (tonnes)	0.30931	0.27225	0.23666	0.20314	0.1725	
Central Damage Costs (£)	5219	5219	5219	5219	5219	
Central Benefit (£)	1614	1421	1235	1060	900	
Discounted Central Benefit (£)	1614	1400	1199	1014	848	
Central Present Value	£6,075					
Low Sensitivity Damage Costs (£)	1297	1297	1297	1297	1297	
Low Sensitivity Benefit (£)	401	353	307	263	224	
Discounted Low Sensitivity Benefit (£)	401	348	298	252	211	
Low Sensitivity Present Value	£1,509					
High Sensitivity Damage Costs (£)	17932	17932	17932	17932	17932	
High Sensitivity Benefit (£)	5547	4882	4244	3643	3093	
Discounted High Sensitivity Benefit (£)	5547	4810	4119	3484	2914	
High Sensitivity Present Value	£20,874					

Figure 2 NOx Damage Costs Output

File Note

PM2.5 Road Transport Rural

Year	2026	2027	2028	2029	2030	
Reduction in emissions (tonnes)	0	0	0	0	0	
Central Damage Costs (£)	33908	33908	33908	33908	33908	
Central Benefit (£)	1023	1003	986	972	959	
Discounted Central Benefit (£)	1023	989	957	929	903	
Central Present Value	£4,802					
Low Sensitivity Damage Costs (£)	13451	13451	13451	13451	13451	
Low Sensitivity Benefit (£)	406	398	391	386	380	
Discounted Low Sensitivity Benefit (£)	406	392	380	369	358	
Low Sensitivity Present Value	£1,905					
High Sensitivity Damage Costs (£)	97583	97583	97583	97583	97583	
High Sensitivity Benefit (£)	2944	2887	2839	2797	2760	
Discounted High Sensitivity Benefit (£)	2944	2845	2755	2675	2600	
High Sensitivity Present Value	£13,819					

Figure 3PM2.5 Damage Costs Output (note that the emissions input are below 0.1 tonnes and round to zero)

File Note

Outputs

Pollutant	Low Sensitivity Present Value	Central Present Value	High Sensitivity Present Value
NOx Road Transport Rural	£1,509	£6,075	£20,874
PM2.5 Road Transport Rural	£1,905	£4,802	£13,819

Figure 4 Summary Damage Costs Output Screen

Dr Michael Bull – Michael Bull and Associates Ltd 07729 272715