File Note

MICHAEL BULL & ASSOCIATES
Consultants in air quality & odour assessment

Project No : 264

Tilletts Lane, Wareham, West Sussex

Application DC/25/1155

1. Introduction

Michaael 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 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 website[1] (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 £100 cycle vouchers to per property (59 houses = £5,900) and a public transport subsidy of £4,976 to give a total value of £10,876.

Figures

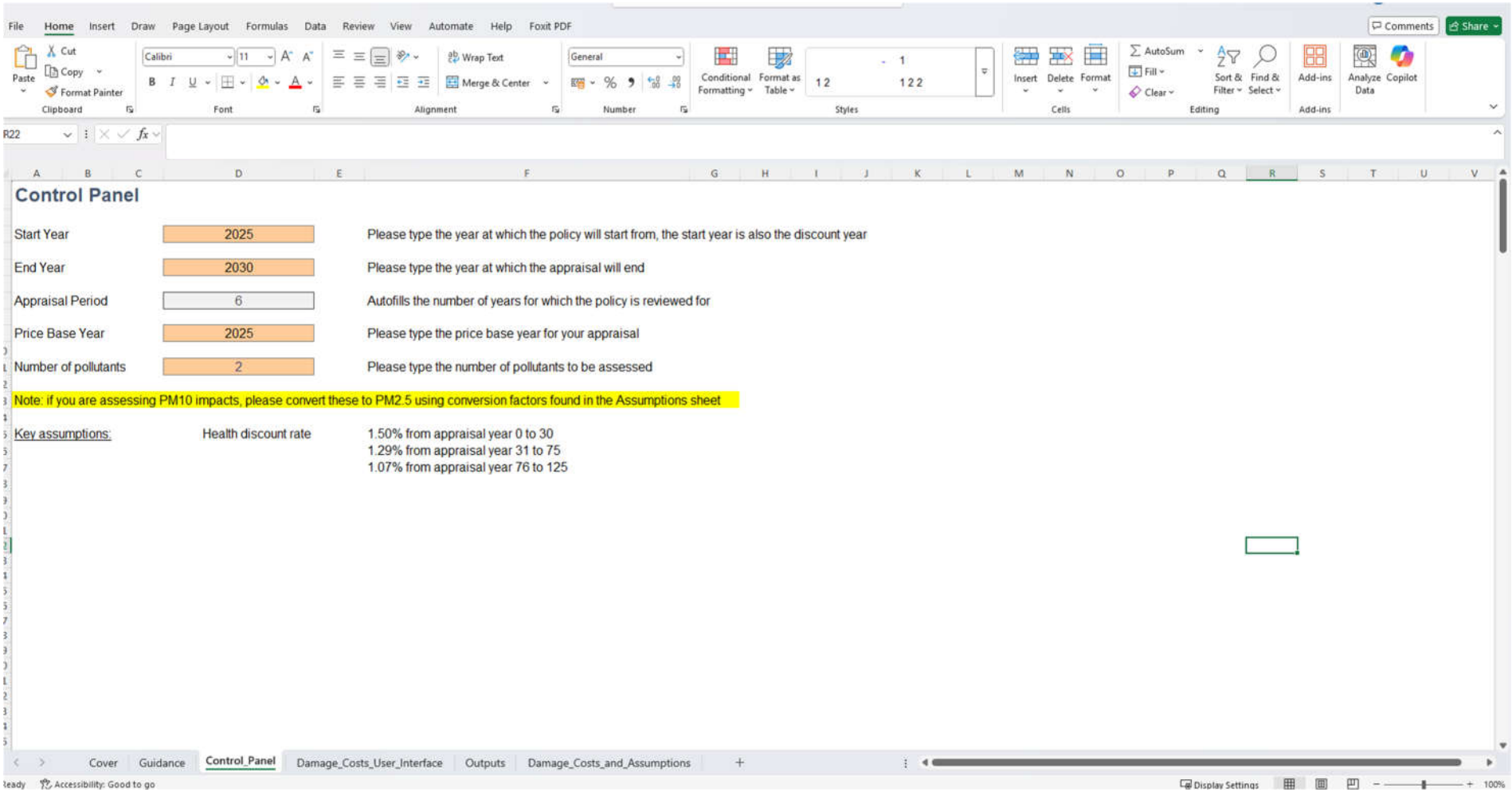

Figure 1 Main Control Panel Inputs

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

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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)

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

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