

INQUIRY NOTE

Project:	Moneystone Park – Air Quality Response
Date:	September 2024

Introduction

- 1.1 In response to the submission of the ES Addendum (August 2024), a consultation response was received from the Principal Pollution Officer of Staffordshire Moorlands District Council (SMDC) and High Peak Borough Council. The response is dated 11th September 2024 but was forwarded to the Appellant on 23rd September 2024. The Appellant has reviewed the comments and have outlined a response below.

Assessment of Effects

- 1.2 The response from the Pollution Officer highlight a number of typographical errors in the model verification process table as contained in Appendix 14.3 of the ES Addendum. The comment states:

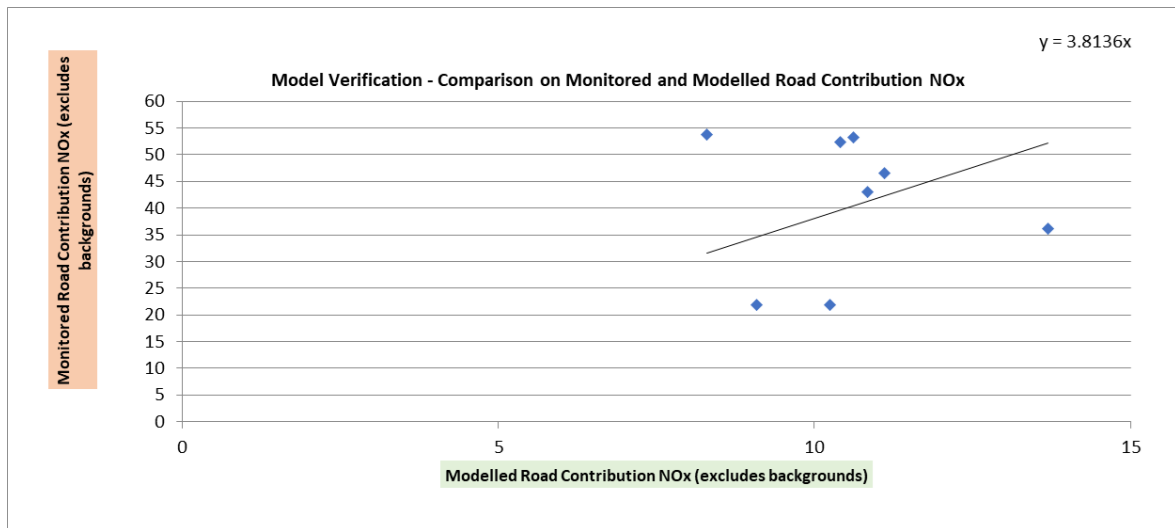
In Table 14.3.1 (Appendix 14) : NO_x Verification Process there appears to be an error/ typo for site 42 (A&B) as Monitored road contribution NO_x (µg.m-3) is given as 8.3. It is assumed that this is a typo as the ratio is consistent with the other results (and not based on 8.3). It would though have been beneficial to include the graphs of modelled versus monitored road contribution NO_x used to derive the correction factor to check this.

The % difference between modelled and monitored total NO₂ concentrations In Table 14.3.1 also appears to be incorrect but the calculated % RMSE (16.5%) is correct. This equates to an error in prediction (values) of approximately 6.6 (µg.m-3). This is above the recommended error (10%) but below the critical 25% error. (Defra / LAQM)

The above queries noted, it would appear that the even if one assumes an average underprediction error of 6.6 µg.m-3 and applies this to the worst case receptor (R23) , the calculated base year for 2025 levels would still be below 75% of the AQAL, so any increase due to the development would have to be > 2 µg.m-3 for the effect to be considered anything other than negligible (should a review of the model be undertaken). This appears to be unlikely, so the conclusions of the report are accepted.

1.3 An updated table and the 'modelled versus monitored road contribution NOx' graph has been updated and is presented below for reference. To confirm, the monitored road contribution NOx for Site 42A & 42B is 52.3 $\mu\text{g.m}^{-3}$. The % difference between modelled and monitored total NO₂ has also been updated. The incorrect values were just typos within the table and the verification process has been rechecked and is correct and does not change the reported values at receptor locations.

Model Verification Steps	38A& 38B	39A& 39B	42A& 42B	49	53	54	55	56
2022 monitored total NO ₂ ($\mu\text{g.m}^{-3}$)	35.3	35	34.6	20	32	20	27.1	30.4
2022 background NO ₂ concentration ($\mu\text{g.m}^{-3}$)	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Monitored road contribution NOx ($\mu\text{g.m}^{-3}$)	53.9	53.2	52.3	21.8	46.6	21.8	36.1	43.1
Modelled road contribution NOx ($\mu\text{g.m}^{-3}$)	8.3	10.6	10.4	10.3	11.1	9.1	13.7	10.8
Ratio of monitored road NOx to modelled road NOx	6.5	5.0	5.0	2.1	4.2	2.4	2.6	4.0
Adjustment factor for modelled road contribution NOx	3.8136							
Adjusted modelled road contribution NOx ($\mu\text{g.m}^{-3}$)	31.6	40.5	39.7	39.1	42.4	34.7	52.3	41.4
Modelled total NO ₂ concentration ($\mu\text{g.m}^{-3}$)	24.9	29.2	28.8	28.5	30.1	26.4	34.6	29.6
Monitored total NO ₂ concentration ($\mu\text{g.m}^{-3}$)	35.3	35	34.6	20	32	20	27.1	30.4
% difference between modelled and monitored total NO ₂ concentration	-29.4	-16.7	-16.7	42.6	-6.1	32.0	27.6	-2.7
RMSE % (should be less than 25% and ideally less than 10%)	16.5							



Mitigation

- 1.4 The Pollution Officer accepts the results of the air quality assessment. In addition, the Pollution Officer accepts the results of the assessment in regards to the assessment of effects on the Cellarhead Air Quality Management Area (AQMA), which are assessed as **negligible (not significant)**. The response states:

While it is noted that the air quality assessment has determined negligible impact on the air quality in the Cellarhead AQMA , and thus the need for any mitigation , as highlighted above, there are some uncertainties with this conclusion. Whilst it appears unlikely that the development will have any significant negative effect it is also does contribute to any AQ improvements or benefits within the AQMA.

- 1.5 Notwithstanding the conclusions of the air quality assessment, the Pollution Officer requests a financial contribution in respect of the Council's proposal for air quality monitoring within the AQMA:

As part of the draft air quality action plan for the area, SMDC are seeking to install real time monitoring in the AQMA (NO_x and PM₁₀) to better inform potential actions to improve AQ in the area. It is recommended that the applicant therefore, makes a financial contribution towards the ongoing costs of real time monitoring of air quality within the Cellarhead Air Quality Management area. We would therefore seek a contribution of £4500 to cover the ongoing (not purchase) costs of one sensor for three years, to cover the construction and implementation period of the development.

1.6 Given the results of the air quality assessment, which is agreed as being negligible and not significant, the Appellant would question the requirement for a financial contribution as this would not be required to make the development acceptable in planning terms. It is further noted that during the determination of the Reserved Matters application, no requirement for mitigation was identified as being required. The response is summarised at paragraph 9.63,9.64 and 9.65 of the Officer's Report to Committee (Core Document CD6.2). As demonstrated in the ES Addendum, there is no change to the assessment of effects as previously presented.

1.7 In addition, Staffordshire Moorlands Developer Contributions Supplementary Planning Document (SPD) (adopted on 18th October 2023) states that in circumstances where a financial contribution is required, a damage cost calculation should be undertaken in line with damage cost guidance issued by DEFRA to determine the value of a contribution. The SPD states (at paragraph 4.53):

"Larger developments may be required to submit an Air Quality Assessment, to determine impacts of the proposal and then by providing mitigation measures to offset any identified impacts or by making a financial contribution. If a financial or in-kind contribution is deemed necessary, a project sum will be identified and agreed on a case by case basis, based on the Air Quality appraisal: damage cost guidance issued by Defra."

1.8 The proposals include a number of measures which have the potential to result in an air quality benefit through emission reduction. This includes measures to be included within the Travel Plan (secured by S106) and proposed Energy Strategy (secured by condition). It is therefore likely that if a damage cost exercise were to be undertaken, that these measures would off-set the damage cost. Therefore, it is the Appellant's view that the requested financial contribution is not required.

1.9 However, if it is determined that it is required, it is proposed that this is secured via a Unilateral Undertaking with appropriate trigger mechanisms.