

# Technical Review of the Evidence Submitted by Air Quality Consultants and Brook Cottage Consultants

Prepared by AECOM Ltd on behalf of Welwyn Hatfield  
Borough Council

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## Table of Contents

1.	Introduction.....	1
2.	Review of Evidence from Air Quality Consultants.....	2
	Key Findings.....	2
	Sources of Data.....	3
	Scope of the Study .....	3
	Methodology.....	3
	Results.....	4
	Conclusions/Recommendations .....	5
3.	Review of Evidence from Brook Cottage Consultants .....	7
	Overview .....	7
	General Monitoring .....	7
	PM2.5 Concentrations.....	7
	Monitoring in Northaw and Cuffley.....	8
	General Air Quality Policy.....	8
	Other Comments .....	9
	Conclusions/Recommendations .....	9
	Appendix A Documents Considered.....	10
	Documents Considered.....	11

## Tables

Table 1: Summary of Key Findings .....	2
Table 2: AQC NO <sub>2</sub> diffusion tube results.....	4
Table 3: Distance Correction of AQC results.....	5

# 1. Introduction

- 1.1 Evidence has been prepared by Air Quality Consultants (AQC) on behalf of Cuffley and Northaw Parish Council in the form of a monitoring report, detailing the results of three months of monitoring of NO<sub>2</sub> around Station Road, Cuffley and Coopers Lane, Potters Bar. Monitoring was undertaken following concerns from the Parish Council that air quality in the area could be exceeding UK air quality objectives at residential properties. The impact of cumulative development in the emerging WHBC Local Plan was also highlighted as a concern of Cuffley and Northaw residents, and the Parish Council.
- 1.2 Evidence has also been provided by Brook Cottage Consultants Ltd, instructed by Richard Buxton Solicitors on behalf of local residents, in the form of a review of the evidence regarding the air quality impacts of the emerging Welwyn Hatfield Local Plan 2013-2032 (WHLP).
- 1.3 Welwyn Hatfield Borough Council (WHBC) has commissioned AECOM Ltd to undertake a review of the Monitoring Report produced by AQC and results therein and to comment on the Brook Cottage Consultants review. AECOM has considered the methodologies undertaken and present key findings in this report. Uncertainties that may affect the results or conclusions of the AQC report have been identified. Comments provided will assist the Council in their response to the evidence submitted.
- 1.4 This report first presents a summary of the key findings of AECOM's review of the AQC Report, followed by more detailed comments pertaining to specific elements of the Monitoring Report, namely the sources of data, scope of the study, methodology, results, and finally any recommendations. Secondly, comments on the Brook Cottage Consultants review are presented.

## 2. Review of Evidence from Air Quality Consultants

### Key Findings

- 2.1 The Air Quality Consultants (AQC) monitoring report shows NO<sub>2</sub> concentrations to exceed the NO<sub>2</sub> air quality strategy objective of 40µg/m<sup>3</sup> at five monitoring locations along Station Road, Cuffley. The monitoring was undertaken between June 2017 and August 2017, with the report results published in September 2017.
- 2.2 The monitoring locations selected were lampposts situated close to the main road, none of which were considered to be of relevant exposure (i.e. no facades of nearby residential properties were included, which would be considered to be of relevant exposure for the NO<sub>2</sub> annual mean objective). In addition, AQC did not distance correct concentrations to the nearest receptors, which would be considered best practice in line with Defra's LAQM Technical Guidance (TG16)<sup>1</sup>. The locations of relevant exposure are further from the road than the diffusion tubes, and it is highly likely that concentrations would be lower at these locations than the concentrations reported at the monitoring locations.
- 2.3 Overall, the air quality evidence submitted by AQC is considered to follow appropriate guidance in the content submitted, but is limited by failing to take account of exposure at relevant locations. Updated information has subsequently been released that would likely lower concentrations reported by AQC, as shown in this report. A number of technical observations identified are summarised in Table 1 below.

**Table 1: Summary of Key Findings**

ID	Area	Comment
1	Sources of Data	Overall the data and information used in the AQC report come from suitable sources. Since the date of the AQC report, updated information has been released regarding bias adjustment factors and monitoring data used to annualise the AQC raw results. This is shown to alter (slightly lower) the concentrations reported at the monitoring locations.
2	Scope	The monitoring of only NO <sub>2</sub> and number of locations is considered reasonable based on the air quality concerns highlighted. Uncertainties include the absence of sites representing locations of relevant exposure, the lack of distance correction for results and the short period for which monitoring was undertaken.
3	Scope	As mentioned above, distance correction has not been undertaken by AQC. An estimation has been provided by AECOM in section 6 to provide an indication of concentrations at relevant nearby receptors, however there are high uncertainties associated with this approach due to AECOM not having access to accurate distance measurements of the monitoring locations relative to the road and relevant receptors.
4	Methodology	The processing of raw monitoring results has been carried out by AQC in accordance with best practice as per Defra's technical guidance LAQM.TG (16).
5	Methodology	No photographs of the diffusion tube monitoring locations are provided in the AQC report. This makes it difficult to establish whether appropriate siting of the tubes was carried out (i.e. not unreasonably influenced by vegetation or signage).
6	Results	Using an updated bias adjustment factor (and annualising to 2017) shows concentrations to be slightly lower than those reported in the AQC report. Concentrations are still above the UK Air Quality Objective of 40µg/m <sup>3</sup> for NO <sub>2</sub> at some of the roadside locations, however an estimation of distances shows that with distance correction, concentrations at the nearby relevant receptors are likely to be below the NO <sub>2</sub> annual mean objective.

<sup>1</sup> <https://laqm.defra.gov.uk/documents/LAQM-TG16-February-18-v1.pdf>

## Sources of Data

- 2.4 Generally, the data and information used by AQC comes from suitable sources. AQC set up their own monitoring, which is considered further in later sections of this report. Passive diffusion tubes were used to monitor NO<sub>2</sub>. A reputable laboratory was used for preparation and analysis of these tubes (Gradko Environmental, a UKAS accredited laboratory). Diffusion tubes are known to not be as accurate as automatic reference analysers. However, they are commonly used to provide an indication of NO<sub>2</sub> concentrations as an affordable alternative, with their low cost making it practical to deploy them in multiple locations.
- 2.5 AQC have followed Defra's technical guidance (LAQM.TG(16)) and used their online tools; including the National Bias Adjustment spreadsheet. As monitoring was only conducted for three months, annualisation to the most recent calendar year was considered appropriate. For this purpose, continuous monitoring data from four urban background stations in the Automatic, Urban and Rural Network (AURN)<sup>2</sup> was used. This data is available online and has been checked and verified by those operating the network.
- 2.6 More up to date versions of many of the information sources are now available and could impact the interpretation of the AQC results presented. For example, further studies have been added to the national bias adjustment factor spreadsheet for the year of monitoring, updating the factor recommended for bias adjustment of raw monitoring results for 2017. Consideration of updates to information used are presented in later sections of this report.

## Scope of the Study

- 2.7 The monitoring locations selected by AQC focus on two areas, Station Road, Cuffley and Coopers Lane, Potters Bar. The concern is that proposed new housing will contribute to increases in air pollution along Station Road, where there is already concern over air quality.
- 2.8 NO<sub>2</sub> was the only pollutant considered, which is considered reasonable as the concerns about air quality in this area are centred upon exceedances of the annual mean NO<sub>2</sub> UK objective.
- 2.9 Ten locations were selected, considerably more than WHBC tubes in these specific areas, but none of the locations were of relevant exposure.
- 2.10 Monitoring was conducted during 2017, however the period mean results were adjusted to 2016. It is assumed this was done as full data for the year 2017 would not have been available for annualisation at the time of writing of the AQC report (September 2017). However, as this information is now available, the results for 2017 are calculated (based on the raw monitoring data contained in the AQC report) and presented in Table 2 of this report.
- 2.11 The short monitoring period is noteworthy, with three months being the minimum Defra recommends when undertaking monitoring studies. Although the process of annualisation is carried out to reduce seasonal bias, a longer monitoring period would be more robust. The tubes run by WHBC in comparison have been providing results for at least two years. Results from the WHBC tubes are compared to the AQC results in the following sections.
- 2.12 Distance correction has not been undertaken by AQC. An estimation has been provided by AECOM to provide an indication of concentrations at relevant nearby receptors (Table 3), however there are high uncertainties associated with this approach due to AECOM not having access to accurate distance measurements of the monitoring locations relative to the road and relevant receptors.

## Methodology

- 2.13 Generally, the methodology follows best practice and guidance as per Defra technical guidance; LAQM.TG (16).
- 2.14 The AQC report provides little information on the siting of the tubes. Photographs of the locations would be beneficial to show correct siting procedures had been followed. For example, it is not known whether tubes were influenced by nearby signage, vegetation or obstructions.

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<sup>2</sup> <https://uk-air.defra.gov.uk/networks/network-info?view=aurm>

- 2.15 Site 5 has only two months of data available. Although AQC annualise this according to the same methodology (taking into consideration only the period mean from 6<sup>th</sup> July-31<sup>st</sup> August), best practice would be to disregard the results from this location. As TG16 highlights, the amount of data is insufficient.

## Results

- 2.16 The AQC report shows NO<sub>2</sub> concentrations to exceed the NO<sub>2</sub> air quality objective of 40µg/m<sup>3</sup> at five Station Road locations.
- 2.17 The results are annualised to 2016, using a period mean of 8th June- 31st August 2017. Using the same AURN sites, and Defra TG16 method, AECOM calculate a similar annualisation factor of 1.45, to that shown by AQC (1.46). Although the individual period mean results calculated by AECOM differ for individual AURN sites, this may be due to data being provisional at the time of AQC calculations, and fully ratified at a later date. As the annualisation factor is similar, no changes are recommended.
- 2.18 The tubes have been corrected for bias as directed by LAQM.TG16, "After annualisation, the tubes should be corrected for bias. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser". AQC use a national bias adjustment factor of 0.92 (based on 27 studies). This looks to be the bias adjustment factor for 2016 (which remains at 0.92 based on an updated number of 32 studies), which would likely have been the only factor available to AQC at the time of their report. Arguably, as the national bias adjustment factor for 2017 has subsequently been released, and AQC monitoring was carried out in 2017, using 2017 preparation, tubes and analysis, the results should be updated to apply the 2017 national bias adjustment factor. Should the national bias adjustment factor for 2017 be used, this is a lower factor of 0.87 based on 39 studies<sup>3</sup>. AECOM have applied this factor to show the effect on the AQC results (see Table 2). Results are also shown annualised to 2017 (using information released post publishing of the AQC report) and a comparison made to the council tubes for 2017 in the following text.

**Table 2: AQC NO<sub>2</sub> diffusion tube results**

Site	AQC Raw data (Period Mean) (µg/m <sup>3</sup> )	AQC Annual Mean Concentration (annualised to 2016 and bias adjusted using 2016 factor of 0.92), as reported by AQC (µg/m <sup>3</sup> )	Annual Mean Concentration as calculated by AECOM (AQC raw data annualised to 2017 and bias adjusted using 2017 factor of 0.87). (µg/m <sup>3</sup> )
1	27.6	37.0	33.1
2	22.8	30.7	27.4
3	29.5	39.7	35.4
4	27.0	36.3	32.4
6	32.1	43.1	38.5
7	32.3	43.4	38.8
8	33.4	44.9	40.1
9	32.0	43.0	38.4
10	35.6	47.8	42.7

Note: Due to insufficient data, site 5 has been omitted

- 2.19 WHBC tube WH5 (Cuffley High Street 1) is located approximately opposite AQC site 8. In 2017, the annual mean NO<sub>2</sub> concentration for this site was 33µg/m<sup>3</sup>. This is lower than the AQC result.
- 2.20 WHBC tube WH6 (Cuffley High Street 1) is located in a similar area to AQC site 7. In 2017, the annual mean NO<sub>2</sub> concentration at this site was 36µg/m<sup>3</sup>. This is slightly lower than the AQC result. Note that, similarly, neither of the WHBC tubes are at locations of relevant exposure.
- 2.21 Defra's technical guidance LAQM.TG16 advises "*Wherever possible, local authorities should ensure that monitoring locations are representative of exposure. However, where this is not possible, the NO<sub>2</sub>*

<sup>3</sup> National diffusion tube bias adjustment factor spreadsheet, version number 09/19, Defra

*concentration at the nearest location relevant for exposure should be estimated, using the NO<sub>2</sub> fall-off with distance calculator available on the LAQM Support website. In such circumstances it is recommended that as a minimum the distance correction should be applied to all monitoring locations that record an annual mean concentration that is above either the NO<sub>2</sub> annual objective of 40µg/m<sup>3</sup>. Consideration may also be given to applying the calculation to monitoring locations that record an annual mean concentration that is within 10% of the NO<sub>2</sub> annual objective of 40µg/m<sup>3</sup> (i.e. above 36µg/m<sup>3</sup>), to account for the inherent uncertainty in diffusion tube monitoring concentration data.”.* AQC have not undertaken distance correction as part of their study.

- 2.22 The findings indicate the NO<sub>2</sub> concentrations are below the AQS objectives at locations of relevant exposure. AECOM have distance corrected the AQC results for 2016 annualisation and bias adjustment results using the LAQM tool<sup>4</sup>. Only sites 6-10 were distance corrected as these were the sites recording concentrations above the NO<sub>2</sub> annual objective. Details of distances used and resulting concentrations are provided in Table 3. Note that due to a lack of coordinates in the AQC report, distances were estimated based on identification of the lamppost locations. Estimates were conservative (based on minimum estimated distance) but results should be treated with caution, due to the high level of uncertainty. They are provided simply as an indication of how concentrations may drop off from the AQC monitoring locations to locations of relevant exposure.

**Table 3: Distance Correction of AQC results**

Site	Distance		Annual Mean Concentration (µg/m <sup>3</sup> )		
	Monitoring Site to kerb (m)	Receptor to kerb (m)	Background	Monitored at Site	Predicted at Receptor
6	1.5	3.5	16.2	43.1	36.0
7	1.0	11.0	16.2	43.4	28.9
8	2.0	5.0	16.2	44.9	36.6
9	1.0	3.0	16.2	43.0	35.0
10	1.0	11.0	16.2	47.8	31.0

Note: Local NO<sub>2</sub> background is taken from Defra background maps, grid square (530500, 202500)

- 2.23 Distance correction was not carried out for results annualised and bias adjusted to 2017, as these results were lower than those reported by AQC for 2016, and hence predicted concentrations at the receptor would also be lower. As shown by Table 3, following distance correction, all of the AQC sites are likely to be below the air quality objective.
- 2.24 Monitoring was also carried out by AQC near to Wood Green Timber, Potters Bar, where high volumes of heavy goods vehicles (HGVs) were observed. The results for these locations showed NO<sub>2</sub> concentrations to be below the UK Air Quality Objective. This supports the conclusion that no exceedances of the annual mean NO<sub>2</sub> objective arose as a result of HGV movements from Wood Green Timber.
- 2.25 The AQC report concluded that exceedances may occur at locations of relevant exposure based on the AQC results at roadside locations. However, based on the updating of tools and data used to adjust raw results, arguably the concentrations may have been overstated. Whilst air quality is of concern for this area and will be continually monitored by the Council, in particular for Station Road and the residential properties there, caution must be exercised when basing interpretation of results on a short-term monitoring study at locations not relevant of exposure, as is the case within the reviewed content.

## Conclusions/Recommendations

- 2.26 Based on the AQC monitoring results and the latest (2019) WHBC Annual Status Report (ASR) it would be prudent for WHBC to continue monitoring in the areas of Cuffley and Northaw, particularly to represent residential receptors along Station Road. The findings from the 2019 ASR indicates the NO<sub>2</sub> concentrations do not exceed the AQS objectives in 2018 at locations of relevant exposure.

<sup>4</sup> <https://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html>

- 2.27 At the time of writing, WHBC currently undertakes monitoring at only two locations on Station Road, Cuffley. In the past two years the concentrations have dropped, however further years of monitoring are needed before a trend can be established. The number of NO<sub>2</sub> monitoring locations would ideally be increased, with some located at the facades of properties to represent relevant exposure. This would allow WHBC to demonstrate whether NO<sub>2</sub> concentrations at these locations were indeed below the UK Air Quality Objective.
- 2.28 Additional traffic movements through Cuffley as a result of the emerging Local Plan could increase concentrations of NO<sub>2</sub>, however as AQC also note in their report *“the progressive introduction of cleaner vehicles into the fleet should counteract this somewhat”*. Hence whilst the AQC monitoring results do support the conclusion that air quality in Cuffley village needs to be carefully monitored, it must be remembered that the 2017 study they conducted was for a brief period at roadside locations and is not a prediction of future air quality concentrations in this location.

## 3. Review of Evidence from Brook Cottage Consultants

### Overview

- 3.1 Brook Cottage Consultants, instructed by Richard Buxton Solicitors on behalf of local residents, have undertaken a review of the Welwyn Hatfield 2018 Annual Status Report, 2016 Sustainability Assessment (SA) and 2016 Habitats Regulation Assessment (HRA). The Brook Cottage Consultants review in particular highlights that:
1. No quantitative assessment of the impact of the emerging WHLP has been carried out to inform the plan including no quantitative assessment of cumulative impact.
  2. Information from 2016 is now outdated and needs to be updated to latest air quality information.
- 3.2 Specific to air quality in the areas of Cuffley and Northaw, Brook Cottage Consultants note differences between the AQC and WHBC monitoring and comment on the limited data available for the area.
- 3.3 The following sections of this report provide comments in response to the Brook Cottage Consultants review, focusing on paragraphs 32 – 56, which relate to air quality.

### General Monitoring

- 3.4 Brook Cottage Consultants use the information contained within the WHBC 2018 ASR to make a number of points on monitoring in the Welwyn Hatfield area. It is noted that this ASR was updated in November 2018 to amend data in Table A.3 and it is unknown which version of the 2018 ASR Brook Cottage Consultants may have had access to. More recent data is now available in the 2019 ASR, which was not available to Brook Cottage Consultants at the time of their review.
- 3.5 The Defra comments on the 2017 WHBC ASR (as reported in the 2018 ASR), stress that “*all appropriate correction factors, including distance corrections should be applied so results are representative of relevant exposure. Only fully corrected results should be used for comparison to air quality objectives*”. This recommendation is highlighted in the below discussion where relevant to data presented.
- 3.6 The 2019 ASR for WHBC provides further evidence of monitored concentrations in the Borough and highlights several key changes that were made (or are planned) to the Welwyn Hatfield monitoring network. These include the procurement of a roadside nitrogen dioxide analyser, which will be monitoring from 2020, and the relocation of some diffusion tubes to new monitoring locations. Where appropriate, the latest monitoring results (from the 2019 ASR) are discussed below in response to Brook Cottage Consultants comments.

### PM<sub>2.5</sub> Concentrations

- 3.7 Brook Cottage Consultants note new targets for fine particulate matter (PM<sub>2.5</sub>), as outlined in the Governments Clean Air Strategy. With regard to this, they make the comment “*PM<sub>2.5</sub> concentrations are not monitored in Northaw and Cuffley, nor indeed anywhere in Welwyn Hatfield Borough*”.
- 3.8 The latest (2019) ASR for Welwyn Hatfield highlights that WHBC does conduct automatic measurements of PM<sub>2.5</sub> using a BAM-1020, a beta attenuation mass monitor. Results are available from 2016 to present and show concentrations to have varied from 9 to 13µg/m<sup>3</sup> between 2016 and 2018. The 2018 ASR comments “*It is worth noting that in 2016 we only had 60% data capture due to the monitor only being located part way through the year. Therefore the rise in the result from 2016 to 2017 does not necessarily indicate that the increase is purely down to the level of pollution.*” The concentrations were noted to decrease in 2018 from 2017 concentrations.
- 3.9 Paragraph 45 of the Brook Cottage Consultants review comments on the fact that “*In Welwyn Hatfield Borough 5.9% of the mortality has been attributable to particulate air pollution by Public Health England.*” WHBC has clearly commented on this in their latest (2019) ASR, noting that “*the region of Welwyn Hatfield has a similar result when compared to the Eastern region as a whole*” and “*We are not aware of the specific attributable factors in relation to this mortality rate. It could be due to the fact that we have several main road networks that run through the borough. It is not clear whether the mortality rate takes into consideration where people live and work. For instance, Hertfordshire is a main commuter region into central London and*

*we are not aware if part of this mortality rate could be down to the time people spend in high pollution areas whilst travelling to work. We are keen to find out more information and we intend to research this fact to try and obtain further evidence".* WHBC acknowledges that *"any mortality linked to particulate pollution is too much"* and *"this does need to be monitored and addressed"*.

- 3.10 In paragraph 48 of the Brook Cottage Consultants review it is noted that the 2019 Clean Air Strategy mandates a cut in particulate matter. Although WHBC have not taken any specific measures to address PM<sub>2.5</sub>, a number of mitigation measures targeting all pollutants will have a direct effect on reducing PM<sub>2.5</sub>.

### Monitoring in Northaw and Cuffley

- 3.11 Paragraph 38 of Brook Cottage Consultants review notes that the WHBC monitoring data capture is insufficient to understand current air quality in Cuffley and Northaw. We note that this was based on the 2017 data, which did have low data capture rates at the Cuffley sites. Since then, WHBC has monitored throughout 2018. Sites WH5 and WH6 on Station Road recorded data capture rates of 91% and 83% respectively for 2018. Following bias adjustment neither site reported an exceedance and results were well below the air quality objective.
- 3.12 Paragraph 40 of the Brook Cottage Consultants review highlights differences between the AQC monitoring data and the WHBC monitoring data in this area. Whilst comparisons of the AQC and WHBC monitoring data do suggest differences in measured concentrations along Station Road (as discussed in Section 2 of this report), the differences in locations alone would result in varying concentrations. Uncertainties due to the short monitoring periods have also been highlighted. The stated exceedances are not at locations of relevant exposure. As part of its LAQM review process, Defra passes comment on Local Authority Annual Status Reports and in comments to WHBC on the 2018 ASR stated, *"including distance corrections...only fully corrected results should be used for comparison to air quality objectives"*. Therefore, as none of the monitoring was at locations of relevant exposure, the concentrations should not be directly compared to the air quality objectives without correction.
- 3.13 Paragraph 41 of the Brook Cottage Consultants review highlights the uncertainties associated with diffusion tubes and notes that both the Borough and Parish data is not as accurate as a reference analyser. Whilst uncertainties with diffusion tube monitoring are acknowledged, it is also noted that it is currently the most practical way for local authorities to measure NO<sub>2</sub> concentrations at multiple locations over an area. WHBC have reduced uncertainties as per Defra's technical guidance LAQM.TG16 by considering only annual average concentrations and processing data (including bias adjusting).
- 3.14 Paragraph 42 of the Brook Cottage Consultants review states *"no quantitative assessment has been undertaken of the cumulative impact on air quality of the proposed allocated developments in the WHLP"* and in paragraph 43 goes on to say *"A quantitative assessment is required to be confident that development in the local plan will not give rise to poor air quality in Northaw and Cuffley or elsewhere in the Borough."*
- 3.15 Paragraph 44 of the Brook Cottage Consultants review comments on the lack of particulate matter monitoring in Cuffley and Northaw. Whilst WHBC does have an automatic monitor elsewhere providing PM<sub>2.5</sub> measurements for the Borough, the Borough Council's statement that *"The ability of the Council to monitor air quality is restricted by resources and technical feasibility"* is considered reasonable. Whilst diffusion tubes are low cost and relatively easy to deploy across the Borough, the Council cannot be expected to monitor particulate matter at the same density within its resources. PM<sub>2.5</sub> is not currently included in the LAQM regime and there is no statutory duty for local authorities to assess PM<sub>2.5</sub>.

### General Air Quality Policy

- 3.16 Brook Cottage Consultants add emphasis to the NPPF 181 extract to highlight that opportunities to address air quality issues should be considered at the plan-making stage. Whilst it is acknowledged this would be beneficial, particularly for a strategic approach, in relation to this the NPPF does state this should be adopted *"as far as possible"*.
- 3.17 In the 2016 Sustainability Assessment (SA), SA objectives 4.2 and 4.3 relate to greenhouse gas emissions from transport and air quality and are grouped together throughout the document. Whilst it is acknowledged that the two are related through the impact traffic can have on air quality, Brook Cottage Consultants make the observation that the criteria used to assess Objective 4.3 is the same as Objective 4.2, which is considered too simplistic.

## Other Comments

- 3.18 Brook Cottage Consultants state, “*The SA largely dismisses air quality as an irrelevant issue*” and refer to Table 4.1. Table 4.1 simply acknowledges that air quality has not been a major issue in Welwyn Hatfield. It does not dismiss it as a potential future issue. The SA clearly states that air quality “*could become so if traffic continues to increase*”. Paragraphs 53 to 55 of the Brook Cottage Consultants comments relate to the simplistic approach to air quality that the 2016 SA takes. It is recommended that WHBC are clearer on how the potential impacts on air quality have been considered in the SA. There is a lack of evidence presented that the sites proximity to employment and services and public transport services will have a positive effect on air quality (as pointed out by Brook Cottage Consultants in paragraph 56 of their comments). No quantitative assessment has been undertaken of the cumulative impact on air quality of the proposed allocated developments in the Welwyn Hatfield Local Plan.

## Conclusions/Recommendations

- 3.19 The Brook Cottage Consultants review states “*It should be noted that given the length of the WHLP Examination some documents are now out of date and fail to recognise new national and local policies. Given that local development plans have very long-term impacts, it is important that the WHLP evidence base including the Sustainability Appraisal are robust and up to date*”. Sustainability Appraisal (SA) is an iterative process that is undertaken alongside each stage of plan making and updated versions are, and will continue to be published alongside each plan stage, and that a further iteration will be published at the Modifications stage of the plan. Whilst inevitable that changes will occur during the length of the examination process, it is encouraged that WHBC do update documents as appropriate.
- 3.20 Brook Cottage Consultants highlight uncertainties that Welwyn Hatfield currently meets the national standards (in particular paragraph 41 of their review), however, WHBC have taken a number of actions to address air quality concerns in the borough since the 2018 ASR was published, and further monitoring is now available to provide supporting evidence that concentrations do meet the national standards at locations of relevant exposure. WHBC have increased monitoring across the borough in recent years, including the addition of an automatic monitor which is anticipated to be operational during 2020. WHBC have reported according to LAQM procedures and followed Defra LAQM Technical Guidance (LAQM.TG.16) for distance corrections where relevant.
- 3.21 In comments specifically addressing the areas of Cuffley and Northaw, the Brook Cottage Consultants review notes that the Council has undertaken little historic air quality monitoring in Cuffley and Northaw. They suggest that the 2017 data produced by Cuffley and Northaw Parish Council shows there is “*doubt [in] the veracity of the statement in the non-technical summary of the 2016 SA that “measured air quality in Welwyn Hatfield currently meets the national standards.”*” As shown in Section 2 of this technical review, WHBC does support continued monitoring in this area, and monitoring data for 2018 has subsequently become available that supports that measured concentrations in this area currently meet the national standards. In undertaking analysis following Defra LAQM Technical Guidance, no exceedances are currently noted in this area at locations of relevant exposure.

# Appendix A Documents Considered

Technical Note Air Quality and Climate Change, Richard Buxton Solicitor, Nov 2019 and contained within:

- Air Quality Monitoring Report 2017: Northaw and Cuffley, Welwyn Hatfield, Air Quality Consultants, Sept 2017
- Local Plan Impacts on Air Quality and Climate Change, Brook Cottage Consultants Ltd, Nov 2019

Welwyn Hatfield Borough Council 2018 Annual Status Report (ASR)

Welwyn Hatfield Borough Council 2019 Annual Status Report (ASR)

