

Habitat Regulations Assessment

Site Specific Process Note Regarding Air Pollution

7 Brooklyn Avenue, Loughton

TenTenTen

14th July 2021



7 Brooklyn Avenue, Loughton

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Report Details:

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This report has been prepared by Hawkins Environmental Limited for the sole purpose of assisting in gaining planning consent for the proposed development described in the introduction of this report.

This report has been prepared by Hawkins Environmental Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This assessment takes into account the prevailing conditions at the time of the report and assesses the impact of the development (if applicable) using data provided to Hawkins Environmental Limited by third parties. The report is designed to assist the developer in refining the designs for the proposed development and to demonstrate to agents of the Local Planning Authority that the proposed development is suited to its location. This should be viewed as a risk assessment and does not infer any guarantee that the site will remain suitable in future, nor that there will not be any complaints either from users of the development or from impacts emanating from the development site itself.

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1. INTRODUCTION

1.1. Overview

Hawkins Environmental Limited has been instructed by TenTenTen to undertake a Habitats Regulation Assessment site specific process note in relation to the effects of development on atmospheric pollution for the proposed redevelopment of 7 Brooklyn Avenue, situated in the town of Loughton within the Epping Forest District of Essex.

During the planning process, it has been identified that the site may require a Habitats Regulation Assessment in relation to air quality to determine whether the proposed development would have an adverse impact on the surrounding environment. Consequently, this assessment has been completed in order to determine whether the proposed development achieves compliance with national, regional and local planning policy.

This assessment has been undertaken in accordance with Natural England's "Approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations" (2018) and The Institute of Air Quality Management's (IAQM) "Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites" (2019).

The assessment addresses the effects of air pollutant emissions from traffic using the adjacent roads and emissions associated with the development of the site. This report assesses the overall levels of nitrogen dioxide (NO₂) and particulates (PM₁₀ and PM_{2.5}) in the vicinity of the site.

1.2. Site Description

The proposed development site is situated on Brooklyn Avenue, a residential street off of the A121 High Road in Loughton. The site is currently occupied by a single dwelling. The proposed development is to erect a second residential dwelling on the garden space associated with the existing dwelling. A location plan of the proposed site can be seen in **Figure 1.1**.



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Figure 1.1: Site Location Plan



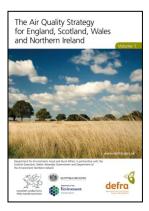


2. LEGISLATION, PLANNING POLICY & GUIDANCE

2.1. National Legislation

Part IV of the Environment Act (1995), requires the UK government to produce a national Air Quality Strategy which contains standards, objectives and measures for improving ambient air quality. The National Air Quality Strategy sets out National Air Quality Objectives (NAQOs) that are maximum ambient pollutant concentrations that are not to be exceeded either without exception or with a permitted number of exceedances over a specified timescale.

The Clean Air for Europe (CA FE) programme revisited the management of Air Quality within the EU and replaced the EU Framework Directive 96/62/EC, its associated Daughter Directives 1999/30/EC, 2000/69/EC, 2002/3/EC, and the Council Decision 97/101/EC, with a single legal act, the Ambient Air Quality and Cleaner Air for Europe Directive 2008/50/EC.



Directive 2008/50/EC is currently transcribed into UK legislation by the Air Quality Standards Regulations 2010, which came into force on 11th June 2010. These limit values are binding on the UK and have been set with the aim of avoiding, preventing or reducing harmful effects on human health and on the environment as a whole. These limit values are the basis of the NAQOs.

The National Air Quality Objectives (NAQOs) and their Limit Values will form the basis of this air quality assessment of the proposed development. The NAQOs are based on an assessment of the effects of each pollutant on public health. Therefore, they are a good indicator in assessing whether, under normal circumstances, the air quality in the vicinity of a development is likely to be detrimental to human health. In determining whether air pollutant levels may constrain development, the results of studies are compared against the acceptability criteria. The Air Quality Standards are displayed in **Table 2.1**.

Table 2.1: Air Quality Standards

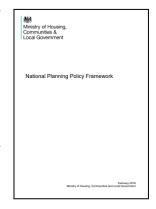
Pollutant	Average Period	NAQO Limit Value
Sulphur Dioxide	One Hour	350 μg/m³
		Not to be exceeded more than 24 times per calendar year
	One Day	150 μg/m³
		Not to be exceeded more than 3 times per calendar year
Nitrogen Dioxide	One Hour	200 μg/m³
		Not to be exceeded more than 18 times per calendar year
	Calendar Year	40 μg/m³
Benzene	Calendar Year	5 μg/m³



Pollutant	Average Period	NAQO Limit Value
Lead	Calendar Year	0.5 μg/m³
PM ₁₀	One Day	50 μg/m³
		Not to be exceeded more than 35 times per calendar year
	Calendar Year	40 μg/m³
PM _{2.5}	Calendar Year	25 μg/m³
Carbon Monoxide	Maximum daily running 8-hour mean	10 mg/m ³

2.2. National Planning Policy Framework (2019)

The National Planning Policy Framework (NPPF) was first published on the 27th of March 2012 and revised July 2018 and again on the 20th of February 2019. The NPPF outlines the Government's environmental, economic and social policies for England. The NPPF sets out a presumption in favour of sustainable development which should be delivered with three main dimensions: economic; social and environmental (Paragraphs 7, 8 10 and 11). The NPPF aims to enable local people and their councils to produce their own distinctive local and neighbourhood plans, which should be interpreted and applied in order to meet the needs and priorities of their communities.



The NPPF states that in the planning system "Planning policies and decisions

should contribute to and enhance the natural and local environment by... e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans" (Paragraph 170).

The NPPF also states that "Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan" (Paragraph 181).



2.3. Approach to Advising Competent Authorities on the Assessment of Road Traffic Emissions under the Habitats Regulations (2018)

Published in 2018, Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations provides guidance on preparing air quality assessments with regards to the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). The document covers primarily the screening stage which determines the need for a more detailed "appropriate assessment" that forms the second stage of the process, based on road traffic emissions that may affect European sites (Special Areas of Conservation (SACs), candidate SACs, Special Protection Areas (SPAs), Sites of Community Importance (SCIs), potential SPAs, possible SACs, listed or proposed Ramsar sites and sites identified, or required, as compensatory measures for adverse effects on these European sites.



2.4. A Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites (2019)

The Institute of Air Quality Management's (IAQM) *Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites*, published in June 2019, provides more detailed guidance on the assessment of the ecological impacts of air pollution.

The guide compliments Natural England's guidance, which mainly covers the screening stage of the process and provides more details on how to conduct a more detailed assessment of the impacts, if the effects cannot be screened out.



2.5. Epping Forest District Local Plan (2017)

Epping Forest's Local Plan (submission version 2017) states:

"Policy DM 2 Epping Forest SAC and the Lee Valley SPA

- A. The Council will expect all relevant development proposals to assist in the conservation and enhancement of the biodiversity, character, appearance and landscape setting of the Epping Forest Special Area of Conservation (SAC) and the Lee Valley Special Protection Area (SPA).
- B. New residential development likely to have a significant effect, either alone or in combination with other development in these areas, will be required to demonstrate that adequate measures are put in place to avoid or mitigate any potential adverse effects.







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E. Planning applications on sites within 400m of the Epping Forest SAC will be required to submit a site level Habitats Regulations Assessment setting out how any urbanisation effects (including from fly tipping, the introduction of non-native plant species and incidental arson) will be mitigated against".

In addition, in specific relation to air quality, it notes:

"DM 22 Air Quality

- A. The Council will seek to ensure that the District is protected from the impacts of air pollution. Potential air pollution risks will need to be properly considered and adequate mitigation included in the design of new development to ensure neither future, nor existing residents, workers, visitors, or environmental receptors including the Epping Forest SAC are adversely impacted as a result of the development.
- B. Mitigation measures required will be determined by the scale of development, its location, the potential to cause air pollution, and the presence of sensitive receptors in the locality.
- C. Larger proposals or those that have potential to produce air pollution, will be required to undertake an air quality assessment that identifies the potential impact of the development, together with, where appropriate, contributions towards air quality monitoring. Assessments shall identify mitigation that will address any deterioration in air quality as a result of the development, having taken into account other permitted developments, and these measures shall be incorporated into the development proposals. This will include an assessment of emissions (including from traffic generation) and calculation of the cost of the development to the environment. All assessments for air quality shall be undertaken by competent persons".

2.6. Epping Forest Interim Air Pollution Mitigation Strategy (2020)

Epping Forest District Council commissioned a Habitat Regulations Assessment of the Epping Forest Local Plan and determined that the Local Plan would not have an adverse impact on the Epping Forest Special Area of Conservation (SAC).

However, Natural England maintained an objection to the Local Plan, citing concerns over the Habitat Regulations Assessment. The Local Plan Inspector therefore advised that it was not possible to conclude that the Local Plan would not adversely impact the Epping Forest SAC.

Consequently, in light of the Local Plan Inspector's advice, Epping Forest District Council was not lawfully able to grant planning permission for any development within the District likely to have an air pollution impact on the Epping Forest SAC,



however small. Therefore, it is necessary for any development that could affect the Epping Forest SAC to have either a neutral impact, or a betterment, of air quality.

Consequently, in December 2020, Epping Forest District Council developed a strategy to provide a strategic approach to mitigating the effects of development on the integrity of the Epping Forest SAC in relation to atmospheric pollution. It has been developed to support the implementation of policies contained within the emerging Local Plan and specifically policies DM2 and DM22.

In doing so it reflects the evidence base developed to support the HRA process undertaken regarding the Local Plan. The Strategy will therefore support the conclusion of the Local Plan HRA process and facilitate the





determination of individual planning applications which have the potential to have an adverse effect on the integrity of the Epping Forest SAC in relation to atmospheric pollution without mitigation.

This Strategy has been developed in response to the findings of the evidence base by setting out a suite of mitigation measures that are needed to address the effects of atmospheric pollution arising primarily from new development proposed to be brought forward within the District.

The Strategy therefore effectively acts as a mitigation strategy to allow the progression of Local Plan development by drawing a conclusion of no adverse effect on the SAC if The Strategy is followed. The Strategy therefore requires a site specific HRA for individual developments that do not form part of the Emerging Local Plan, which is a validation requirement for all cases submitted after March 29th, 2021.

2.7. Interim Approach to Managing Recreational Pressures on the Epping Forest Special Area of Conservation (2018)

This guidance, published as an Appendix to the Epping Forest Interim Air Pollution Mitigation Strategy (see **Section 2.6**) by Epping Forest District Council, addresses the "considerable challenge to balance the needs of the high (and growing) numbers of visitors with the natural aspect of the Forest and the nature conservation interest". It acknowledges "Growing numbers of visitors can result in conflict for space among users and demand for more facilities, such as parking, refreshments and toilets.



There are also a number of potential ways recreation could have an impact on the nature conservation interest of the site. These include:

- Eutrophication from dog fouling;
- Trampling/wear, leading to soil compaction, vegetation wear, erosion and damage to veteran tree roots;
- Increased fire risk (and potentially difficulties in access for emergency vehicles if gates etc. are blocked);
- Difficulties in establishing the best grazing management due to interactions between visitors and livestock;
- Direct damage to veteran trees, for example from climbing on them;
- Harvesting, for example fungi, deadwood;
- Disturbance to invertebrates and other wildlife;
- Spread of disease;
- Spread of alien plants;
- Staff time taken away from necessary management due to the need to deal with vandalism, breaches
 of byelaws etc.; and
- Direct damage and vandalism of infrastructure."





As such, a fully costed mitigation strategy has been provided in regard to these issues, with the financial obligations of the three authorities deemed most impactful in term of recreational pressure provided. The guidance determines that it is the responsibility of these local authorities to secure the mitigation costs from developers, typically through Section 106 agreements.

2.8. Epping Forest District Council Habitats Regulations: Site-specific assessment processes in relation to the effects of development on atmospheric pollution (2020)

This guidance, published as an Appendix to the Epping Forest Interim Air Pollution Mitigation Strategy (see **Section 2.6**) by Epping Forest District Council, lays out the methodology to be used when assessing the effects of a development on atmospheric pollution.





3. ASSESSMENT METHODOLOGY

3.1. Methodology Overview

Epping Forest District Council provide a list of Planning Application Validation Requirements which includes an HRA Site Specific Assessment Process Note, which lays out the methodology to be used when assessing the effects of a development on atmospheric pollution.

The Epping Forest District Council Habitats Regulations guidance (see **Section 2.7**) provides two triggers for whether a development proposal needs to be assessed in relation to its effects on the Epping Forest SAC, which are:

- If the development is not specifically proposed for allocation within the emerging Local Plan.
- If the development proposal represents a variation (which results to an increase in the quantum of development or changes the proposed use) from the site's land use allocation as set out in the emerging Local Plan.

In these instances, applicants will be required to provide evidence to support an assessment against the traffic and air quality modelling used to support the development of the adopted APMS. This assessment will be undertaken by the Council and, if necessary, its consultant team.

3.2. HRA Assessment Process

For development sites that meet either of the triggers set out above, there will be a need to review the traffic generating characteristics of the site in further detail and assess any potential adverse effects on the EFSAC over and above that accounted for in the Council's adopted APMS. This will enable the Council and Natural England to be satisfied that any adverse effects in connection with each site application will either not arise, or if they do, will be either appropriately mitigated through the APMS or identify where further mitigation measures are required.

The assessment process follows four steps, set out as follows:

"Step 1:

As part of pre-application and transport scoping discussions with the Council, applicants will be required to provide the following information relating to each development site:

- (a) The land use and quantum of the authorised existing use of the subject land as was correct at February 20171, or confirmation that the site was vacant or not generating traffic at that time (in which case proceed to [c]);
- (b) Calculation of the number of vehicle trips in Annual Average Daily Traffic (AADT) generated by the site under its existing use, including:
 - i. Total AADT generated by the site, including heavy duty vehicles as a proportion of total AADT (HDV%).



ii. Proportion of site generated AADT on roads within 200 metres of the EFSAC, including HDV%.

These calculations must be supported by evidence such as traffic surveys or other appropriate data source, e.g. TRICS, journey to work data, etc2. If it can be clearly demonstrated that a site which was vacant prior to February 2017 could be brought back into use for the purposes for which it was authorised (without the need for any planning permission) the Council may be in a position to consider taking this into account in calculating (b) above.

- (c) A schedule of the land use and quantum proposed at the site (as is best known at the time).
- (d) Calculation of the forecast number of vehicle trips (AADT) generated by the site under its proposed use to the end of the plan period in 2033:
 - i. Total AADT forecast to be generated by the site, including HDV%.
 - ii. Proportion of site generated AADT on roads within 200 metres of the EFSAC, including HDV%.

These calculations must be supported by evidence such as traffic surveys or other appropriate data source, e.g. TRICS, journey to work data3, etc

- (e) A calculation of the net AADT figure (proposed (d) minus existing (b)) both in total and for roads within the EFSAC or within 200 metres of the EFSAC.
- (f) Details of any mitigation measures proposed to be secured through recognised planning mechanisms in support of the application, and if the proposed mitigation is expected to impact on trip generation and/or distribution. Forecasts under (d) and (e) should be provided for both 'with' and 'without' the proposed mitigation.

Step 2:

Council officers will undertake an initial appraisal of the existing (if applicable) and proposed AADT forecasts and liaise with the applicant to ensure the required information has been supplied and is fit for purpose. Where applicable, the proposed methodology will also be reviewed against any pre-application scoping discussions and advice from ECC/HE.

Step 3:

The relevant site information and AADT will be provided to the Council's appointed transport consultant to check against the site-specific land use and trip data previously forecast in the Council's evidence base.

A short technical note will be prepared setting out any difference in AADT between the site allocation assumptions used in the Council's evidence base and the applicant's forecasts, including any reasoning for this (e.g. difference in land use assumptions, application of a different trip rate and/or trip distribution, mitigation impacts, etc).

The assessment will indicate either:

(a) There is no forecast increase in AADT at any location that would alter the outputs of the evidence base; or



- (b) There is likely to be an increase in AADT of any number at any location that may alter the outputs of the evidence base.
- (b1) Whether there is an overall increase in the distance travelled by vehicles or HDVs associated with the development on roads within the EFSAC or within 200 metres of the EFSAC as this would result in an increase in pollution within the EFSAC.

Where outcome (a) is reached, no further site-specific assessment of HRA impacts will be required. Where outcome (b) is reached and/or (b1) is also true, the assessment will move to Step 4.

Step 4:

The relevant transport data will be provided to the Council's appointed air pollution modelling consultant, who will undertake a revised assessment to determine the effects against those presented within the Council's evidence base and subsequently addressed through the adopted APMS.

Specifically, the revised assessment outcomes will be reviewed to determine if the mitigation measures identified within the APMS will be capable of satisfactorily addressing any further impact, or if additional measures need to be secured. Such measures will need to be considered on a site-by-site basis and may require additional assessment(s)."

If a proposed development does not involve any of the above triggers, no additional assessment by EFDC's consultant team will be required. In either case a project-level HRA will still be required, and a TS or TA may be necessary for highway/transport assessment purposes to support a development proposal, the need for which should be determined and agreed at the pre-application phase.

3.3. Scoping of the Proposed Development

The Epping Forest District Council Habitats Regulations: Site-specific assessment processes in relation to the effects of development on atmospheric pollution (2020) guidance (See **Section 2.8**) notes that if the development is not specifically proposed for allocation within the emerging Local Plan then the HRA Assessment Process above would typically be followed; however it goes on to state that "in relation to residential developments this will apply to proposals for six or more dwellings", which is in recognition of the fact that a small windfall allowance has been made for such small sites in the evidence work supporting the HRA for the emerging Local Plan.

As the proposed development consists only of an increase of one additional dwelling, it is therefore considered that no additional assessment by EFDC's consultant team will be required, and that only a project-level HRA will be required, as presented in **Section 4** below.



4. HABITAT REGULATIONS ASSESSMENT

4.1. Overview

Natural England provides guidelines that advise on the assessment of the impacts of road traffic emissions of proposed developments (referred to as "plans and projects") on protected European habitat sites in its guidance Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations.

The guidance covers primarily the screening stage that initially identifies the risk of the possibility of significant adverse effects on a European site which could undermine the achievement of its conservation objectives and which therefore would require further detailed examination through an "appropriate assessment". If risks which might undermine a site's conservation objectives can clearly be ruled out (based on the consideration of objective information), a proposal will have no likely significant effect and no appropriate assessment will be needed.

The amount of traffic generated by the proposed development has been taken from the AADT figures prepared by TPP (Transport Planning Practice), which can be seen in **Appendix 1**.

4.2. Advice on Screening

The advice on screening the need for an appropriate assessment is set out in 4 steps, as described below. If the proposal does not meet the criteria of one of the steps, there is no need to progress to the next step:

- Step 1: Does the proposal give rise to emissions which are likely to reach a European Site?
 - Any emissions from road traffic associated with a specific proposal and the proximity to European sites should be considered.
- Step 2: Are the qualifying features of the sites within 200m of a road sensitive to air pollution?
 - Distance-based criteria have been established for several sectors to identify consultations requiring consideration for potential effects from air pollution.
 - With regard to potential risks from road traffic emissions, Natural England and Highways England are in agreement that protected sites falling within 200 meters of the edge of a road affected by a plan or project need to be considered further.
- Step 3: Could the sensitive qualifying features of the site be exposed to emissions?
 - "Qualifying features" of a site can be identified by reference to Natural England's formal advice on their conservation objectives, which include a definitive list of legally-qualifying features.
 - There are several ways to establish whether qualifying feature is sensitive to the type of air emissions expected from a proposal, ranging from broad, internationally agreed pollution benchmarks (critical loads and levels) to site specific information such as survey data.



- Step 4: Application of screening thresholds: (a) alone; (b) in-combination with emissions from other road traffic plans and projects; and (c) in-combination with emissions from other non-road plans and projects.
 - Established guideline thresholds that determine whether a change is likely to be significant are used and applied to the development.
 - The parameters used as thresholds are a change in AADT of 1,000 or more (or 200 of more AADT HGV) or 1% of the critical load or critical level for emissions.
 - These thresholds do not themselves imply any intrinsic environmental effects and are used solely as a trigger for further investigation.

4.3. Site Specific Screening (Steps 1-4a)

As noted above, for all new residential developments within Epping Forest District, an assessment of the potential impact of road traffic emissions associated with the proposed development on Epping Forest SAC is required. To facilitate this, a site-specific screening assessment has been carried out to determine whether an Appropriate Assessment is required. **Table 4.1** summarizes this screening assessment.

Table 4.1: Site Specific Screening Steps for a Road Traffic Assessment under the Habitats Regulations

Step	Outcome	Justification	
Step 1: Does the proposal give rise to emissions which are likely to reach a European Site?	Yes	AADT Assessment (by Capital Transport Planning) indicates a net trip generation of ~2.294 AADT over extant site use (See Appendix 1). Site is located ~475 m from SAC (straight-line).	
Step 2: Are the qualifying features of the sites within 200m of a road sensitive to air pollution?	Yes	It is known that qualifying sensitive features of the Epping Forest SAC can be found within 200 m of roads through the SAC.	
Step 3: Could the sensitive qualifying features of the site be exposed to emissions?	Yes	Assuming that traffic generated by the proposed development could potentially travel down any of the roads within the SAC, it can be said that they could be exposed to emissions resulting from the proposed development.	
Step 4a: Do the emissions from this proposal alone exceed screening thresholds?	No	Does not meet 1000 AADT threshold (net increase of ~2.294 AADT) – effects can be deemed insignificant, no further analysis required.	

Traffic generated by this development will be very small and falls considerably below the screening threshold for a detailed assessment (~2.294 AADT c.f. 1000 AADT). Not only has a windfall allowance for developments





of this size been made in the Epping Forest Interim Air Pollution Mitigation Strategy; but this project-level HRA has shown that any increase in emissions resulting from the proposed development will be "insignificant" under current guidance.

4.4. In-Combination Effects (Steps 4b and 4c)

Steps 4b and 4c of the guidance are to apply the threshold value not only to the traffic flows generated by the site alone (as in step 4a) but also to those of the site in combination with those from other projects and proposals that have the potential to affect the site of interest. Step 4b guides for the application of the threshold to emissions in combination with those from other road traffic plans and projects; while Step 4c guides for the application of the thresholds to emissions in combination with those from other non-road plans and projects, for example ammonia emissions from a farm source.

These steps have been explicitly included in the updated guidance since June 2018 to reflect the requirements of the Habitats Regulations in response to recent clarification provided by the Wealden Judgement (February 2017). This ruled in favour of Wealden District Council that a neighbouring Local Authority had failed to take into account in-combination effects from developments in the protection of the Ashdown Forest Special Area of Conservation in the development of its Local Plan.

It can be noted that in-combination effects in this scenario can be scoped out as any developments accounted for in the emerging Local Plan are deemed to have any effects mitigated by nature of the Epping Forest Interim Air Pollution Mitigation Strategy. Additionally, developments not accounted for in the emerging Local Plan will have to go through the HRA Assessment Process outlined above in order to show that any adverse effects in connection with each application will either not arise, or if they do, will be either appropriately mitigated through the APMS or identify where further mitigation measures are required.



5. MITIGATION

5.1. Habitats Regulation Assessment

In accordance with the Epping Forest Interim Air Pollution Mitigation Strategy (2020) and the subsequent site-specific Habitats Regulation Assessment, as a consequence of the proposed development, there will not be a significant increase in pollutant concentrations and therefore mitigation is not seen to be necessary. Not only has a windfall allowance for developments of this size been made in the Epping Forest Interim Air Pollution Mitigation Strategy; but this project-level HRA has shown that the proposal will not give rise to emissions which are likely to reach the Epping Forest SAC.

5.2. Other Mitigation Costs & Requirements

The above notwithstanding, all new residential developments within Epping Forest District are subject to certain mitigation costs and measures. It should be noted that the following are general requirements of all such developments and do not pertain specifically to the outcomes of this report, for which it has been determined that no additional mitigation in addition to the below is necessary.

- £335 financial contribution (for smaller sites including windfall sites) under the Epping Forest Interim Air Pollution Mitigation Strategy (2020) (See **Section 2.6**).
- £352 financial contribution under the Interim Approach to Managing Recreational Pressures on the Epping Forest Special Area of Conservation (2020) (see **Section 2.7**).
- Provision of cycle storage and electric vehicle charging capacity.



6. CONCLUSIONS

An air quality assessment has been undertaken in accordance with *Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations,* The Institute of Air Quality Management's *Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites* and Epping Forest's *Interim Air Pollution Mitigation Strategy.*

Traffic generated by this development will be very small and falls considerably below the screening threshold for a detailed assessment (~2.294 AADT c.f. 1000 AADT). Not only has a windfall allowance for developments of this size been made in the Epping Forest Interim Air Pollution Mitigation Strategy; but this project-level HRA has shown that any increase in emissions resulting from the proposed development will be "insignificant" under current guidance.

Since it has been shown that in terms of air quality, the proposals adhere to local and national planning policy, it is considered that the air pollution should not be a constraint on the proposed residential development.





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Appendix 1 AADT Assessment (Transport Planning Practice)





7 Brooklyn Avenue AADT Note

Introduction

- Transport Planning Practice (TPP) have been commissioned by 101010 to provide Annual Average Daily Traffic (AADT) data to assist in the preparation of an air quality Habitat Regulations Assessment (HRA). The HRA has been requested by the local planning authority to support the 7 Brooklyn Avenue planning application.
- The development proposals comprise a new 3-bedroom dwelling within the garden of the existing residential property of 7 Brooklyn Avenue, therefore increasing the number of residential dwellings on the site from one to two.

AADT calculation methodology and results

- The TRICS database has been interrogated to find suitable comparator sites to the existing and proposed residential development. Using the TRICS selection process and professional judgement, one site was deemed to provide a suitable comparison to the existing and proposed residential development. The TRICS site code is: WF-03-A-02.
- The TRICS survey data provided trip rates per dwelling for a weekday between 07:00 21:00. This results in the following daily (07:00 – 21:00) total vehicle trips for the proposed development site.

Table 1: Daily (07:00 - 21:00) vehicle trips

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	Scenario	П	Total Vehicles (two-way)
	Existing (1-dwelling)	П	1.998
	Proposed (2-dwellings)	П	3,996

- In order to derive AADT data, the vehicle trip generation in Table 1 has been projected up using 7-day Automatic Traffic Counter (ATC) surveys undertaken at a residential development with a similar location and accommodation type to the proposed development site.
- 6. Using the ATC survey data, an AADT factor was calculated from weekday (5-days) traffic generated between 07:00 21:00 and seven day traffic generated between 00:00 00:00. This provided an AADT factor of 1.14848 which was multiplied by the vehicle trip generation set out in Table 1 to provide the AADT data set out in Table 2.

Table 2: AADT data

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Scenario	Total Vehicles (two-way)	
Existing	2.294	
Proposed	4.588	
Net Change	2.294	

 As can be seen from Table 2, the proposed 3-bedroom dwelling results in an annual average daily traffic increase of 2.294 total (two-way) vehicle trips per day. This increase in traffic would be indiscernible when considered against existing background traffic.

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