Air Quality Assessment

Eagle Quarter, Newbury

Prepared for
Lochailort Newbury Ltd

by

Stuart Michael Associates Limited

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ACRONYMS AND ABBREVIATIONS

ATC	Automated Traffic Count
DEV	Development generated traffic
DEFRA	Department for Environment Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges
ha	Hectares - a unit of measure equal to 2.471 acres or 10,000 square metres
gkm^{-1}	grams per kilometre
HGV	Heavy Goods Vehicle
MCC	Manual Classified Traffic Count
Monin-Obukhov length	describes the effects of buoyancy on turbulent flows, particularly in the lower tenth of the atmospheric boundary layer
NO_X	Oxides of Nitrogen
NO_2	Nitrogen Dioxide
NTM	National Transport Model
PM_{10}	Particulate matter with an aerodynamic diameter less than 10 microns
SMA	Stuart Michael Associates Limited
TEMPRO	Trip End Model Presentation PROgram
Track Out	The movement of dust and dirt from a construction/demolition site onto the public road network, where it may be deposited and then re-suspended by vehicles using the network
μgm^{-3}	Micrograms per cubic meter
WBC	West Berkshire Council

1.0 INTRODUCTION

1.1 Stuart Michael Associates (SMA), Consulting Engineers, has been appointed by Lochailort Newbury Ltd. (the Applicant) to prepare an Air Quality Assessment in support of an full planning application for the phased redevelopment of the Kennet Centre comprising the partial demolition of existing buildings, flexible-use commercial space, headquarters office building, 402 dwellings plus residents' ancillary facilities, access, car parking and cycle parking, landscaping & open space, sustainable energy installations, and associated works. Refer to **Figure 1.1** for the site location which is indicated by the blue line.

Figure 1.1: Site Location Plan

Development Site

1.2 The site is located in the centre of Newbury, on land currently occupied by the Kennet Centre. The site is bound by Cheap Street to the east, Market Street to the south and Bartholomew Street to the west..

1.3 Government policy seeks to encourage people to use more sustainable means of transport by locating new development in areas which are accessible by means other than the car. The site benefits from being in Newbury town centre and is

within walking/cycling distance of schools, local facilities and amenities. The proposed development will include a Travel Plan with its principle aim being to reduce single car occupancy trips to and from the site.

Pre-Application Consultation

1.4 A pre-application consultation meeting was held with West Berkshire Council on 27th July 2020 where as part of wide-ranging and overwhelmingly positive feedback from the Local Planning Authority, the need for the submission of an Air Quality Assessment was confirmed

Assessment Methodology

1.5 This report addresses the effects of air pollutant emissions from road traffic using the adjacent roads, and the emissions associated with the construction of the Proposed Development.

1.6 The report has been split into two parts; the first part assesses the impact of the development on surrounding sensitive receptors and the second part assesses the constraints on the development (i.e. how the existing environment will impact on the development).

1.7 Road traffic flows on the local highway network have been obtained from permanent automatic traffic counters (ATC), from the Transport Consultants and publicly available traffic data. Where necessary, the collected traffic flows have been growthed to the assessment years using TEMPRO and adjusted using NTM.

1.8 The dispersion modelling software ADMS Roads has been used to determine the concentrations of pollutants at the development site and assess the likely changes in the concentrations of pollutants. Background concentrations of pollutants have been obtained from the Department for Environment Food and Rural Affairs (DEFRA) website.

1.9 Construction dust impacts on local receptors have been assessed using the method detailed in the Institute of Air Quality Management (IAQM) publication "*Guidance on the assessment of dust from demolition and construction*" (2014).

1.10 The principles in the IAQM document Land Use Planning & Development Control: Planning for Air Quality January 2017 have also been considered.

Report Outline

1.11 This report assesses the overall levels of Oxides of Nitrogen (NO_X), Nitrogen Dioxide (NO_2) and Particulate Matter with an aerodynamic diameter of less than 10 microns (PM_{10}) and less than 2.5 microns ($PM_{2.5}$) in the vicinity of the development site. The base year for the development is 2021 and the future year of assessment is 2026. The assessment years are in line with the Transport Assessment for the proposed development. Verification has been undertaken for 2019.

2.0 LEGISLATION AND PLANNING POLICY CONTEXT

Introduction

2.1 Poor air quality is one of the largest environmental risks to public health. Over recent years, UK air quality has improved significantly as a result of concerted action. Total UK emissions of nitrogen oxides (NO_x) have fallen by 74% since 1970. There was a 5.4% reduction in 2018 when compared to 2017 emissions. Between 1990 and 2018 there was an annual reduction of 4.6% which demonstrates a downward trend in NO_X emissions in the UK[*](DEFRA National Statistics Release: Emissions of air pollutants in the UK, 1970 to 2018 – Statistical Release: 24th September 2020).

2.2 In the UK, emissions from road transport account for a substantial proportion of national air pollutant emissions. Road transport accounted for 25% of national carbon dioxide (CO_2) emissions in 2018 even though emissions fell by 3.1% between 2000 and 2018. Emissions from road transport of nitrogen dioxide (NO_2) and particulate matter smaller than 10µm in diameter (PM_{10}) also fell between 2000 and 2018[†]. Total pollutant emissions from cars peaked in 1990/91 and declined to 2009. "*Average CO_2 emissions from cars registered for the first time were steadily falling since 2003, but began to rise from mid-2016 through to 2019. This increase was broadly due to a shift towards registering larger cars (which have higher emissions) and increases in emissions for popular petrol car models. The introduction of WLTP in September 2018 caused a marked increase in average CO_2 emissions. However, changes from September 2018 are not directly comparable with previous periods" (*Department for Transport (DfT), Vehicle licensing Statistics: Annual 2019 – Published 30th April 2020).

2.3 Private car ownership has grown from 24.4 million in 2000 to 38.7 million at the end of 2019. Of the vehicles using the highway network, cars accounted for 82.4%, light goods vehicles (<3.5t) 10.7%, HGV's (>3.5t) 1.3%, motorcycles 3.2%, Bus's and Coaches 0.4%, and "other vehicles" 2.0% of all motor vehicle traffic at the end of 2019[‡]. In 2016, 83% of newly registered vehicles fell into one of the lowest five Vehicle Excise Duty (VED) Bands (A to E, up to 140 hkm^{-1}) with 57% in Band C or lower and 15% in Band A. By the end of 2016, 47% of cars fell

[*] DEFRA National Statistics Release: Emissions of air pollutants in the UK, 1970 to 2018 – Statistical Release: 24th September 2020
[†] Department for Transport Statistics: Road Traffic Estimates: Great Britain 2019 – Released 10th September 2020
[‡] DfT Statistics - Vehicle Licensing Statistics: Annual 2019

into Band E or lower. UK emissions of NO_X from road transport fell by over 19% between 2010 and 2015.

2.4 The percentage of different fuel type usage for private cars has significantly changed since the mid-1990s. At the end of 2017 there were 12.4 million diesel cars, accounting for 40% of the total, up from 11% in 1997. Alternative fuel vehicles which include gas, electricity, or a combination such as gas bi-fuel and hybrid electric were up to 492,000 at the end of 2017. Of the 492,000 vehicles, 95,879 were classed as Ultra-Low Emission Vehicles (ULEVs) where tailpipe emissions of CO_2 are less than 75 gkm^{-1} or fully electric powered.

2.5 It should be noted that during 2019, 80,578 new ULEVs were registered for the first time, which is a 26% increase when compared with the previous year. This amounted to 2.7% of all new vehicle registrations in 2019, up from 2.1% in 2018 (DfT Statistics - Vehicle Licensing Statistics: Annual 2019).

2.6 Most of this increase has been due to vehicles eligible for plug-in car and van grants. New registrations in 2018 included 47,422 cars and 1,248 LGVs of models that were eligible for these grants, which was 76% of all ULEVs registered for the first time.

National Air Quality Strategy

2.7 In 1997 the United Kingdom National Air Quality Strategy (NAQS) was published and for the first time. The document set out an analysis of the magnitude and potential health and environmental problems associated with, amongst other things, air pollutant emissions resulting from road traffic.

2.8 It proposed a schedule of air quality objectives which were to be met in the years up to 2005. In setting these objectives, health and socio-economic cost-benefit factors were taken into account, together with consideration of the practical and pragmatic aspects of whether targets would be achievable. Whilst it was identified in the NAQS that the objectives for benzene, 1,3-butadiene, lead (Pb) and carbon monoxide (CO) could be achieved as a result of improvement measures already put in place, complying with targets for NO_2 and PM_{10} would be more difficult.

2.9 Considering the additional measures that would have to be introduced to counter these apparent shortfalls, the Government confirmed its high level policy as being:

"*Changes in planning and transport policies (are needed) which would reduce the need to travel and reliance on the car*". With regard to the necessity for encouraging a shift away from private car usage, the Strategy commented, in terms of the new package approach to transport funding:

"As a general rule, traffic demand management and restraint measures should be included and this, together with proposals to promote and enhance other modes of transport, should aim to achieve modal shifts away from the private car.".

2.10 The Environment Act 1995 sections 82-84 requires that Local Authorities shall carry out reviews of air quality within their administrative areas and, where it is assessed that the air quality objectives may not be complied with in the future, an Air Quality Management Area (AQMA) must be declared. The Local Authority must then formulate an Action Plan, setting out the measures that will be employed to achieve compliance with the objectives.

2.11 A review of the UK Air Quality Strategy was undertaken in 1998 and a consultation document was published in January 1999 which outlined proposals for amending the Strategy. In August 1999, in response to the consultation, the Government then published a draft Air Quality Strategy for England, Scotland, Wales and Northern Ireland. The Air Quality Regulations (England) 2000 were enacted in April 2000, and the Air Quality (England) (Amendment) Regulations 2002 gives legal force to the air quality standards set out in the Strategy. A new strategy was released in July 2007 with various amendments to the air quality objectives. The proposals, in brief, consisted of recommendations to adopt the provisions of the EU Air Quality Daughter Directives. The National Air Quality Objectives (NAQO's) included in the Regulations are set out in **Appendix 1**.

2.12 Given the significant influence that motor vehicle exhausts exert on air quality in the UK and the apparent links between elevated levels of certain air pollutants and premature mortality, it is clear that current and emerging Government policy is geared towards several essential objectives, which are:

- Following the departure of the UK from the European Union, EU Directives that have been transposed into domestic UK legislation will remain relevant until such time as the domestic legislation has been reenacted or repealed;

- continued action to reduce pollutant emissions from vehicles across the EU, which can be exemplified by the plethora of Directives concerning limitation of motor vehicle emissions since the 1970's and specific targeted initiatives such as the Auto-Oil Study programme;
- concerted action at a National level to reduce private car trips in urban and inter-urban uses and encourage use of alternative forms of transportation;
- action at a local level to manage transportation and air quality in order to reduce the number of car trips in urban areas specifically and to aim for compliance with the NAQS by the appointed dates; and
- to ensure that Local Authorities in the execution of their development control responsibilities take account of the consequent air quality impacts.

2.13 Whilst Government Policy, the growth in electric and low emission vehicles and new technological improvements will extend the reduction in emissions, additional measures may be required to prevent re-growth of emissions, both to meet ambient air quality targets in urban areas and to offer an alternative to the car for urban journeys. Consequently, where new development can be located in relatively close proximity to public transport and local services, a contribution to the UK's target of reducing emissions will have been made.

2.14 Levels of lead (Pb) and sulphur dioxide (SO_2) are also controlled by the NAQO. Lead levels have reduced significantly since its reduced use as a fuel additive, and the abolition of four-star petrol in January 2000 means that the amount of Pb in petrol is reduced to a negligible level. SO_2 is predominantly associated with emissions from industrial processes and when assessing the effects of traffic, neither SO_2 nor Pb need be assessed.

National Planning Policy Framework

2.15 Paragraphs 181 to 183 of the NPPF (**Ref. 8.7**) is considered relevant to this assessment:

"181. 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.

182. Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

183. The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.".

Planning Practice Guidance (PPG)

2.16 West Berkshire Council have confirmed that the proposed redevelopment of the Kennet Centre is not considered to require an Environmental Impact Assessment. A copy of the Councils confirmation letter is provided at **Appendix 2**. However guidance provided by the Planning Practice Guidance (PPG) note (**Ref. 8.8**) regarding the policy governing Environmental Impact Assessment of air quality is useful. The PPG states:

2.17 "Action to manage and improve air quality is largely driven by EU legislation. The 2008 Ambient Air Quality Directive sets legally binding limits for concentrations in outdoor air of major air pollutants that impact public health....."

Additional Guidance

2.18 The Local Air Quality Management Technical Guidance LAQM.TG(16) is designed to support local authorities in carrying out their duties under the Environment Act 1995. These duties require local authorities to periodically review and assess air quality in their area.

2.19 The effects of dust generation from construction will be assessed in accordance with the methodology presented in the Institute of Air Quality Management (IAQM) publication "*Guidance on the assessment of dust from demolition and construction*" (2017).

Local Plan or Local Development Framework

West Berkshire Council

2.20 The relevant local policy document for West Berkshire is presented in the Local Plan, which is part of the Core Strategy Development Plan Document (DPD). The Core Strategy (adopted on 16 July 2012) forms part of the Local Plan for the district.

2.21 The Core Strategy is a development plan document which sets out WBC's overall planning strategy to 2026. It explains its vision for the area, and how it will be delivered. It also provides a framework for more detailed policies which will be contained in future development plan documents prepared as part of the Local Plan.

2.22 Local policy for air quality is part of the saved policies from the West Berkshire District Local Plan (1991-2006) - Environmental Nuisance and Pollution Control (OVS. 5). The Local Planning Authority needs to be satisfied that proposals for development will not have significant adverse environmental impacts.

- Saved Local Plan Policy LD3 states: "Development proposals will only be permitted where they do not give rise to an unacceptable impact on the environment, including serious harm to the character or appearance of an area, or the amenities of neighbouring land uses".

- Saved Local Plan Policy EN2 seeks protection from environmental nuisance. "Development should not give rise to unacceptable levels of noise, smell, dust, fumes, light or noxious emissions affecting areas beyond the site boundary, or to unacceptable levels of air or water

pollution. In addition, uses sensitive to disturbance such as new houses, schools or hospitals should not be located in areas already subject to unacceptable levels of environmental nuisance. In areas affected by high noise levels, developments should be designed to minimise the nuisance which may be caused to future occupiers."

3.0 METHODOLOGY AND ASSESSMENT CRITERIA

Assessment of the Prevailing Air Quality

3.1 This section summarises the methodology used to consider whether there are "Significant" air pollution impacts on sensitive receptors or constraints on development. In order to determine the extent to which air quality issues will affect the sensitive receptors, the study has considered the following:

- Air quality measurements carried out in West Berkshire Council, including the latest Annual Statius Report which was submitted to DEFRA in June 2020 (which are in the public domain);
- The Review and Assessment of air quality carried out by WBC for the area, as submitted to the Department for the Environment, Food and Rural Affairs (DEFRA);
- Predictions of air pollutant concentrations within and adjacent to the site;
- The predictions have been carried out utilising the ADMS Roads (version 4.1.1) dispersion modelling program.

Assessment Criteria

3.2 The NAQO levels are derived from air quality standards set to protect health. The objectives address social and economic factors as well as health standards.

3.3 For the purposes of this development proposal, the NAQO will form the basis of the air quality assessment. The NAQO levels are based on an assessment of the effects of each pollutant on public health. Therefore, they are a good indicator in assessing whether the air quality in the vicinity of a road is likely to be detrimental to human health.

3.4 The effects of dust generation from construction have been undertaken following the methodology presented in the Institute of Air Quality Management (IAQM) publication "Guidance on the assessment of dust from demolition and construction" (2014).

3.5 In determining whether air pollutant levels may constrain development, the results of the study have been compared against the acceptability criteria.

Impact Magnitude and Impact Descriptors (Significance) – Air Quality Assessments

Construction Phase

3.6 During the construction phase, there will be a number of activities undertaken that have the potential to generate and/or re-suspend dust and PM_{10}. At the time of assessment the exact activities to be undertaken during construction are unknown. However, in order to evaluate the magnitude and extent of potential adverse impacts likely to result from the proposed development, the following construction activities have therefore been assumed:

- site clearance and preparation;
- storage of materials;
- laying of hard surfaces;
- construction of proposed dwellings; and
- vehicle movements to and from the Site.

3.7 The magnitude of the potential impacts of a construction site on air quality is mainly determined by its size, the range of activities undertaken across the site, proximity to sensitive receptors, complexity of terrain and any barriers between sources and receptors.

3.8 A qualitative assessment of the potential impacts during construction has been undertaken using information in guidance documents produced by IAQM.

3.9 According to this guidance; a human receptor refers to any location where a person may experience the annoyance effects of airborne dust or dust soiling, or exposure to PM_{10} over a time period relevant to the air quality objectives. In terms of annoyance effects, this will most commonly relate to residential dwellings and schools.

3.10 Activities on construction sites can be divided into four types to reflect their different potential impacts, with the potential for dust emissions to be assessed only for each activity taking place:

- Demolition;
- Earthworks;
- Construction; and
- Trackout.

3.11 The assessment methodology considers three separate dust effects:

- annoyance due to soiling;
- harm to ecological receptors; and
- the risk of health effects due to a significant increase in exposure to PM_{10}.

3.12 Account is also to be taken of the distance of the receptors that may experience these effects. The assessment procedure assumes no mitigation measures are applied except those required by legislation.

3.13 The potential dust emission magnitude for the proposed Development Site is determined for the four construction activities using the criteria presented in IAQM guidelines. The magnitude is based on the scale of the anticipated works and classified as 'Small', 'Medium' or 'Large'.

3.14 The 'Sensitivity of an Area' to dust soiling effects on people and property is determined by using the criteria presented in **Table 3.1**. The 'Sensitivity of an Area' to human health impacts is presented in **Table 3.2** The 'Sensitivity of an Area' and to ecological impacts is presented in **Table 3.3**.

Table 3.1: Sensitivity of the area to dust soiling effects on people and property

Receptor Sensitivity	Number of Receptors	Distance from the Source (m)			
		<20	*<50*	*<100*	*<350*
High	*>100*	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	*>1*	Medium	Low	Low	Low
Low	*>1*	Low	Low	Low	Low

Table 3.2: Sensitivity of the area to human health impacts

Receptor Sensitivity	Annual Mean PM_{10} conc.	Number of Receptors	Distance from the Source (m)				
			<20	*<50*	*<100*	*<200*	*<350*
High	*>32 µgm^{-3} (>18 µgm^{-3} in Scotland)*	*>100*	High	High	High	Medium	Low
		10-100	High	High	Medium	Low	Low
		1-10	High	Medium	Low	Low	Low
	28-32 µgm^{-3} (16-18 µgm^{-3} in Scotland)	*>100*	High	High	Medium	Low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	High	Medium	Low	Low	Low
	24-28 µgm^{-3} (14-16 µgm^{-3} in Scotland)	*>100*	High	Medium	Low	Low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	Medium	Low	Low	Low	Low
	<24 µgm^{-3} (<14 µgm^{-3} in Scotland)	*>100*	Medium	Low	Low	Low	Low
		10-100	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
Medium	*>32 µgm^{-3} (>18 µgm^{-3} in Scotland)*	*>10*	High	Medium	Low	Low	Low
		1-10	Medium	Low	Low	Low	Low
	28-32 µgm^{-3} (16-18 µgm^{-3} in Scotland)	*>10*	Medium	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
	24-28 µgm^{-3} (14-16 µgm^{-3} in Scotland)	*>10*	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
	<24 µgm^{-3} (<14 µgm^{-3} in Scotland)	*>10*	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
Low	*-*	*>=1*	Low	Low	Low	Low	Low

Table 3.3: Sensitivity of the area to ecological impacts

Receptor Sensitivity	Distance from the Source (m)	
	<20	*<50*
High	High	Medium
Medium	Medium	Low
Low	Low	Low

3.15 **Figure 3.1** illustrates that there are Dust sensitive receptors within the vicinity of the site boundary, **Figure 3.2** illustrates that there are PM_{10} sensitive receptors within the vicinity of the site boundary.

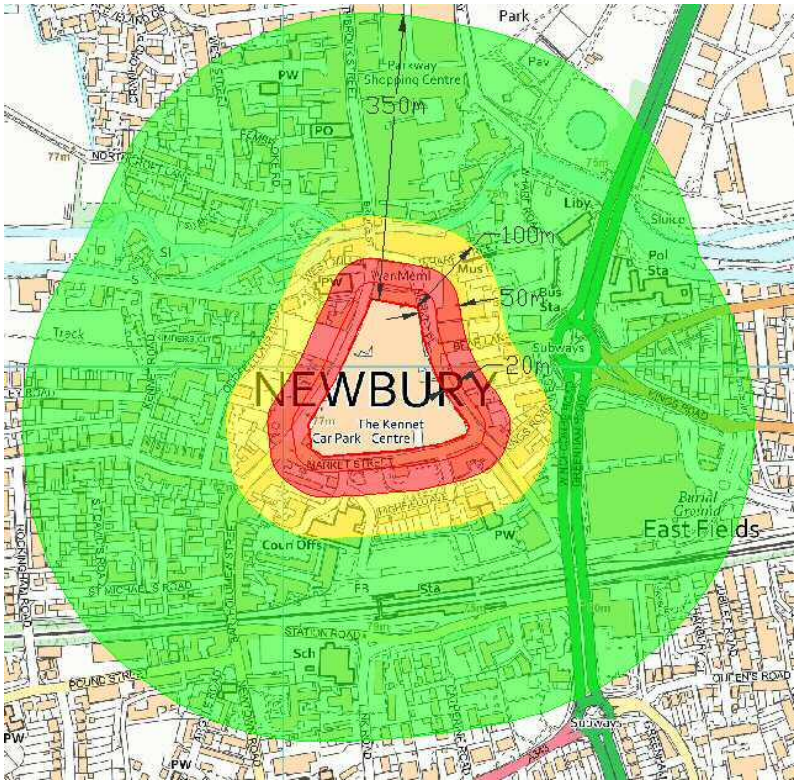

Figure 3.1: Sensitivity to Dust Soiling Effects on People and Property

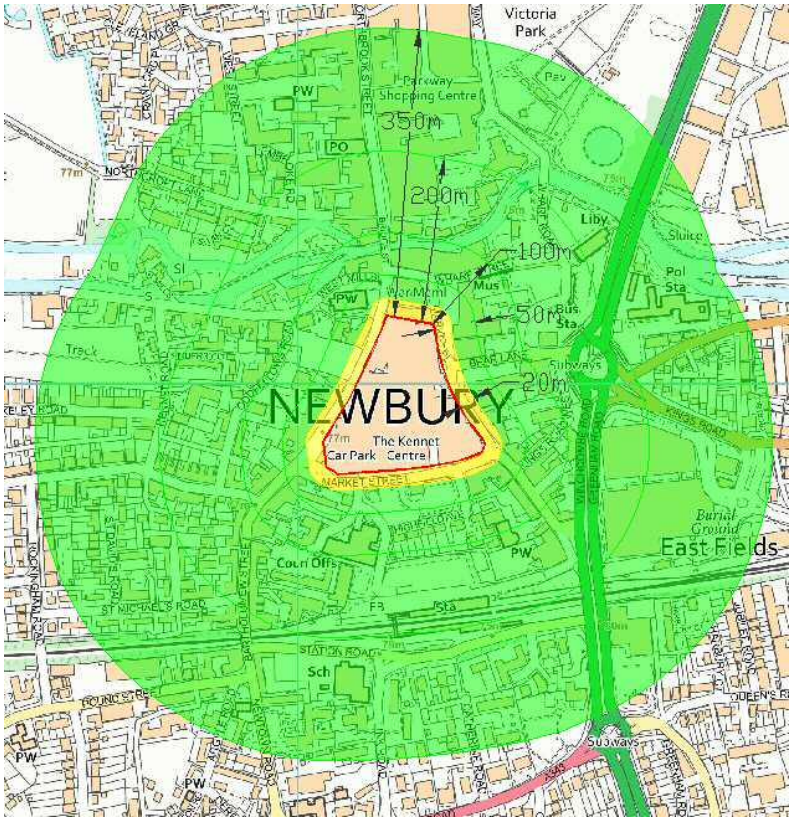

Figure 3.2: Sensitivity of the Area to Human Health Effects of PM_{10}

3.16 Once the potential dust emissions magnitude and the sensitivity of the area have been determined the results can be combined to define the risks of impact using the criteria in **Table 3.5**, **Table 3.6** and **Table 3.6**.

Table 3.4: Risk of Dust Impacts – Demolition

Sensitivity of Area	Dust Emission Magnitude		
	Large	***Medium***	***Small***
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Table 3.5: Risk of Dust Impacts – Earthworks and Construction

Sensitivity of Area	Dust Emission Magnitude		
	Large	***Medium***	***Small***
High	High Risk	Medium Risk	Medium Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Table 3.6: Risk of Dust Impacts – Trackout

Sensitivity of Area	Dust Emission Magnitude		
	Large	***Medium***	***Small***
High	High Risk	Medium Risk	Medium Risk
Medium	Medium Risk	Low Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

3.17 The proposed development's site-specific results and significance of these tables are discussed in Section 5 of this Report.

Operational Phase

3.18 The impact of local traffic growth, development generated traffic and other potential sources of air pollution have been assessed for the magnitude of change and for the extent to which change in air quality from existing to future levels would be significant.

3.19 Descriptors for the magnitude of change in annual mean concentrations of NO_2 and PM_{10} and the number of days with PM_{10} concentrations greater than 50 μgm^{-3} are presented in **Table 3.7**.

Table 3.7: Descriptors for the magnitude in changes in annual mean concentrations of NO_2 and PM_{10} and the number of days with PM_{10} concentrations greater than 50 μgm^{-3}

Magnitude of Change	Annual Mean NO_2/PM_{10}	Days PM_{10} >50 μgm^{-3}
Large	Increase/decrease >4 μgm^{-3}	Increase/decrease >4 days
Medium	Increase/decrease 2 - 4 μgm^{-3}	Increase/decrease 2 - 4 days
Small	Increase/decrease 0.4 - 2 μgm^{-3}	Increase/decrease 1 - 2 days
Imperceptible	Increase/decrease <0.4 μgm^{-3}	Increase/decrease <1 day

3.20 Following on from the determination of the magnitudes of the impact of change of NO_2 and PM_{10} levels, the assessment of the significance of the impact with reference to the NAQO Levels can be undertaken. Descriptors of the changes to annual mean concentrations of NO_2 and PM_{10} and the number of days with PM_{10} concentrations greater than 50 μgm^{-3} are presented in **Table 3.8**.

Table 3.8: Impact descriptors for changes to annual mean concentrations of NO_2 and PM_{10} and the number of days with PM_{10}

Absolute Concentration in Relation to Objective/Limit Value	**Change in Concentration /Number of Days**		
	Small	***Medium***	***Large***
Increase with Scheme			
Above Objective/Limit Value With Scheme (>40 μgm^{-3}/>35 days)	Slight Adverse	Moderate Adverse	Substantial Adverse
Just Below Objective/Limit Value With Scheme (36-40 μgm^{-3}/>32-35 days)	Slight Adverse	Moderate Adverse	Moderate Adverse
Below Objective/Limit Value With Scheme (30-36 μgm^{-3}/>26-32 days)	Negligible	Slight Adverse	Slight Adverse
Well Below Objective/Limit Value With Scheme (<30 μgm^{-3}/<26 days)	Negligible	Negligible	Slight Adverse
Decrease with Scheme			
Above Objective/Limit Value Without Scheme (>40 μgm^{-3}/>35 days)	Slight Beneficial	Moderate Beneficial	Substantial Beneficial
Just Below Objective/Limit Value Without Scheme (36-40 μgm^{-3}/>32-35 days)	Slight Beneficial	Moderate Beneficial	Moderate Beneficial
Below Objective/Limit Value Without Scheme (30-36 μgm^{-3}/>26-32 days)	Negligible	Slight Beneficial	Slight Beneficial
Well Below Objective/Limit Value Without Scheme (<30 μgm^{-3}/<26 days)	Negligible	Negligible	Slight Beneficial
Note – an “Imperceptible” change would be described as “Negligible”			

3.21 Table 3.7 and Table 3.8 detail the magnitude and "Significance" of changes in NO_2 and PM_{10} levels. The tables have been extracted from the Environmental Protection UK (formally NSCA) publication "*Development Control: Planning for Air Quality (2010 Update) – Table 5 and Appendix 3*".

Traffic Data

3.22 The future concentrations of NO_X, NO_2, PM_{10}, $PM_{2.5}$ at representative sensitive receptors in the vicinity of the existing highway network have been predicted using the ADMS - Roads (Version 4.1.1) dispersion model based on forecast traffic flows for the local road network.

3.23 Road traffic data for the local highway network has been collected using automatic traffic count (ATC), the Transport Consultants and from publicly available traffic data . Road traffic data has been growthed using growth factors derived from NTM and adjusted for local factors using TEMPRO.

3.24 One existing and two future scenarios have been assessed: "Base" (2021); "Future Base" (2026 - do nothing) and "Future with Development" (2026 - do something) scenarios.

3.25 A summary of the "Base" vehicle flows used on the local highway network are detailed in **Table 3.9**.

Table 3.9: AADT Traffic flow data (no development generated traffic) 2021

Link Ref.	Description	Lights (CAR+LGV)	Heavies (OGV1+OGV2+Bus)
1	A339 S (N of Cheap St)	43,820	1,776
2	A339 S (S of Cheap St)	39,732	1,769
3	Cheap St	6,798	140
4	Mill Ln	6,226	75
5	A339 N (N of Sainsbury Rdbt)	42,579	1,517
6	Kings Rd	18,203	393
7	Bear Lane (one way)	5,866	116
8	Cheap St E	4,972	139
9	Cheap St N	8,465	331
10	Market St E	10,544	454
11	Market St W	10,989	261
12	Bartholomew St N	6,626	95
13	Bartholomew St N (N of Site)	6,626	95
14	Bartholomew St S	14,378	348
15	Sainsburys Rdbt	23,335	775
16	A339 (S of Burger King Rdbt)	41,170	2,167
17	St John's Rd	13,798	278
18	Burger King Rdbt	31,564	1,405
19	Craven Rd	4,141	67
20	Bartholomew St (N of Pound St)	7,370	263
21	Pound St	4,430	133
22	Newtown Rd N	8,558	250
23	St John's Rd	13,798	278
24	Newtown Rd S	5,352	120
25	A343 Andover Rd	12,163	190
26	St John's Rdbt	9,964	209

3.26 The local highway network has been modelled as distinctive links where vehicle speeds change, width of roads change and at roundabout junctions. Also included are changes in vehicle speed due to pedestrian crossings and traffic lights.

Background Concentrations of Air Pollutants

3.27 Background concentrations of air pollutants for the dispersion modelling were obtained from the UK National Air Quality Information Archive (DEFRA website), in accordance with Local Air Quality Management Technical Guidance TG(16). Data sets for 2018 were published by DEFRA in August 2020 and the 2021 and 2026 background concentrations of NO_X, NO_2, PM_{10} and $PM_{2.5}$.are presented in **Table 3.10**.

3.28 The background concentrations of NO_x are source apportioned enabling removal of different sources of NO_x to avoid double counting. Road traffic sources for the "Primary 'A' Roads" and "Motorways" have been removed from the background concentrations of NO_x. Once removed, the resulting NO_2 concentrations need to be recalculated. This has been undertaken using the "NO_2 Background Sector Tool – for Source Apportioned Background NO_x".

Table 3.10: Background pollutant concentrations for 2021 and 2026

Grid Reference		2021				2026			
Easting	***Northing***	***NO_x***	***NO_2***	***PM_{10}***	***$PM_{2.5}$***	***NO_x***	***NO_2***	***PM_{10}***	***$PM_{2.5}$***
447500	167500	17.69	13.12	14.12	9.64	14.59	10.99	13.47	9.12
446500	166500	13.71	10.39	14.06	9.74	11.60	8.90	13.42	9.23
447500	166500	16.13	12.06	14.16	9.80	13.46	10.21	13.51	9.29

4.0 BASELINE CONDITIONS

Air Quality Review and Assessment

4.1 As previously indicated, Local Authorities have been required to carry out a review of local air quality within their boundaries to assess areas that may fail to comply with the NAQO. In areas where these objectives are unlikely to be achieved, local authorities must designate these areas as Air Quality Management Areas (AQMA's) and prepare a written Action Plan to achieve the NAQO.

4.2 The review of air quality takes on several prescribed stages, of which each stage is reported. The review and assessment of air quality is the responsibility of West Berkshire Council (WBC).

4.3 WBC have declared two AQMA within their administrative boundary for exceedances of one-hour and annual mean concentrations of NO_2. The two are: Newbury AQMA which covers an area encompassing a "very small" number of properties at the roundabout junction of the A339, A343 St John's Road and Greenham Road; and Thatcham AQMA which covers an area encompassing a "small" number of properties along the A4 Chapel Street from The Broadway to Harts Hill Road. Refer to **Figure 4.1** for the location of the Newbury AQMA.

4.4 The development site is not located in an AQMA. However, development generated traffic does have the potential to impact on the Newbury AQMA which is approximately 350m south of the site.

Air Quality Monitoring

4.5 WBC undertakes a combination of continuous and passive monitoring of NO_2 at a number of sites within its administrative boundary. No particulate matter (PM_{10}) monitoring is currently undertaken. Detailed below are the results of the continuous and passive monitoring of NO_2 up to the end of 2019.

Continuous Monitoring

4.6 WBC undertook continuous monitoring of NO_2 at one site within their administrative boundary (Site ID: CM1 – Newbury). The CM is a chemiluminescent type monitor recording NO_2 concentrations, located "Roadside". Refer to Figure 4.1 for the location of the automatic monitoring site in Newbury.

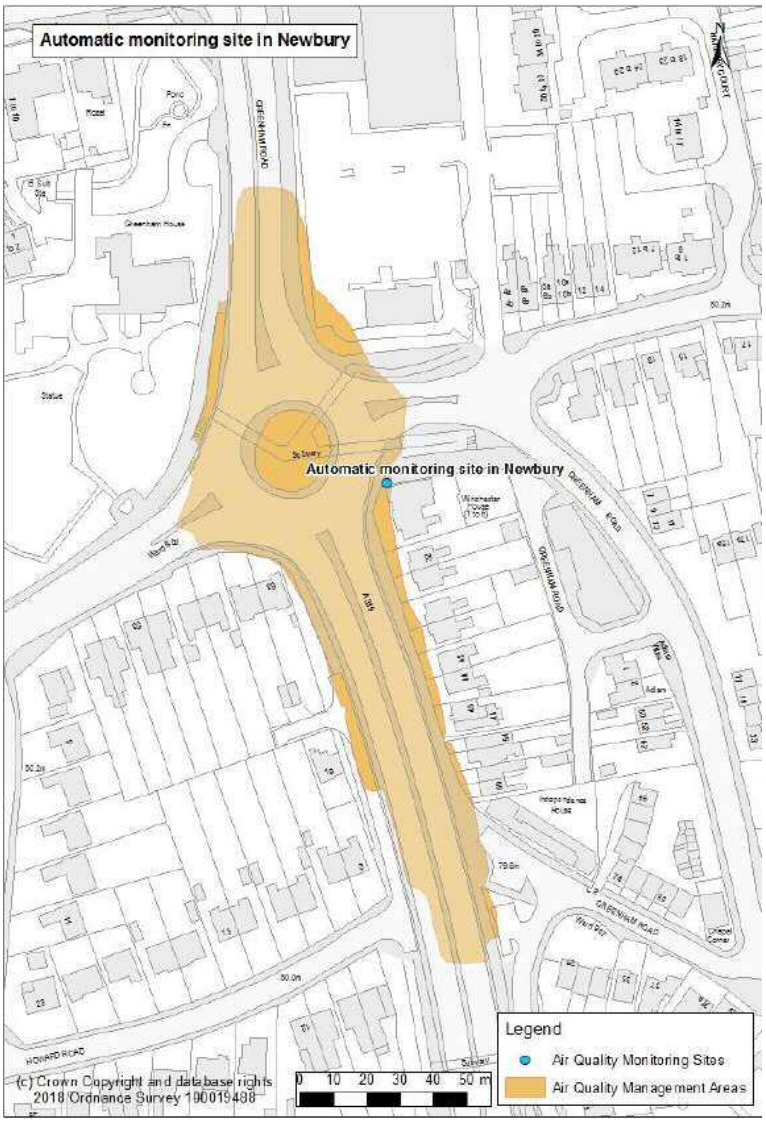

Figure 4.1: Newbury AQMA and Automatic (CM) Monitoring Site

4.7 Presented in **Table 4.1** are recorded concentrations of NO_2 available for 2015 to 2019 and where concentrations are at or above the NAQO level the cells have been shaded light grey.

Table 4.1: Measured Annual Mean NO_2 Concentrations (µg/m^3) – CM1

Site ID	Location	Within AQMA?	Annual mean concentrations (µg/m^3)				
			2015	*2016*	*2017*	*2018*	*2019*
CM1	Newbury	YES	34.8	41.7	40.3	36	35.9

4.8 From Table 4.2 it can be seen that annual mean concentrations of NO_2 were at or above the NAQO level of 40 µgm^{-3} in 2016 and 2017. However, since then the

annual mean concentrations of NO_2 were below the NAQO level of 40 μgm^{-3} up to the end of 2019.

4.9 Presented in **Figure 4.2** are the annual trends in NO_2 concentrations since 2015 within Newbury AQMA.

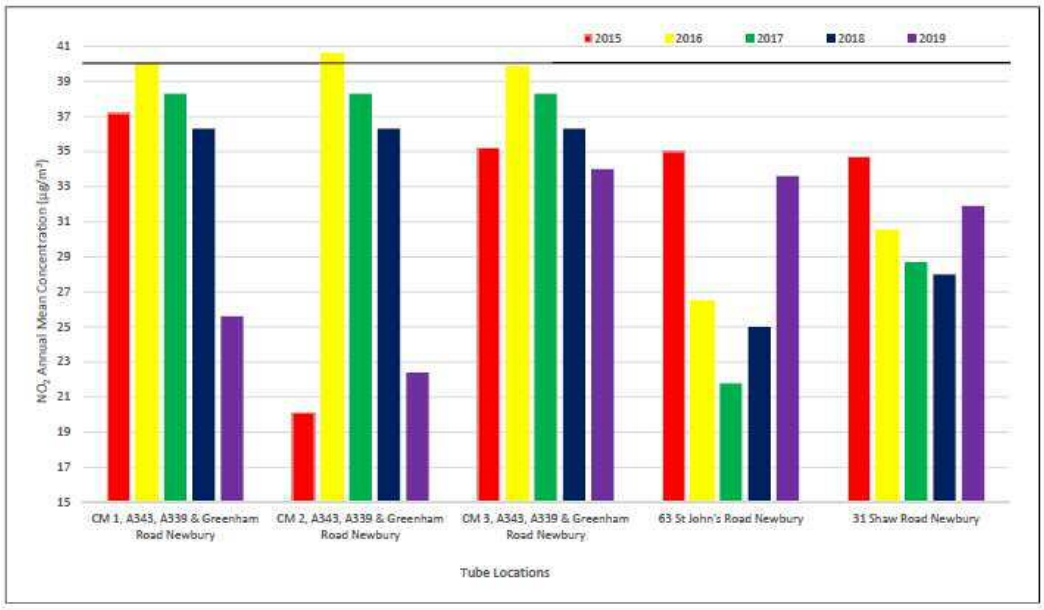

Figure 4.2: Annual Trends in NO_2 Concentrations Since 2015 within Newbury AQMA

4.10 From Figure 4.2 it can be seen that overall concentrations of NO_2 have been reducing over the past five years, up to the end of 2019.

Passive Monitoring - Diffusion Tubes

4.11 WBC also operates a network of non-automatic (passive) monitoring sites within its administrative boundary and at the end of 2019 there were 36 active sites monitoring NO_2 via diffusion tube (DT). Refer to **Figure 4.3** for the locations of the diffusion tubes closest to the development site.

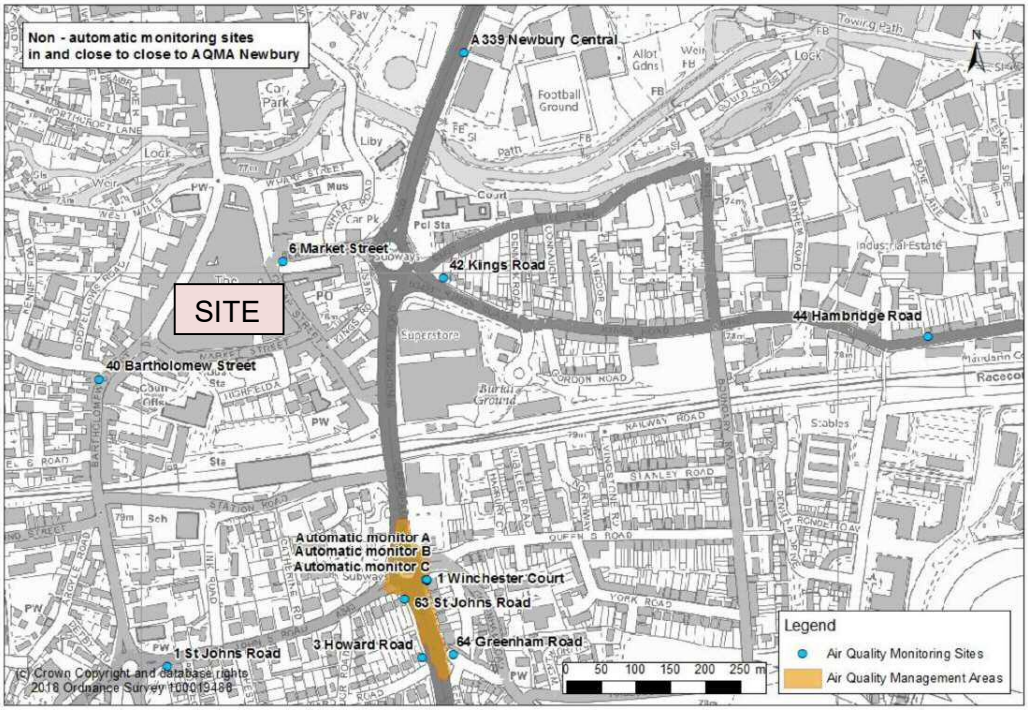

Figure 4.3: Non-Automatic (DT) Monitoring Sites close to the Development Site

4.12 The DT locations within WBC administrative area are a mixture of "Kerbside", "Roadside", "Suburban", "Urban Background", "Urban Centre" and "Building Façade" concentrations. The closest DTs to the development site are at 6 Market Street (Urban Centre) and 40 Bartholomew Street (Roadside).

4.13 Presented in **Table 4.2** are recorded concentrations of NO_2 available for 2015 to 2019 and where concentrations are at or above the NAQO level the cells have been shaded light grey.

Table 4.2: Measured Annual Mean NO_2 Concentrations (µg/m^3) – DT

Site ID	Location	Within AQMA?	Annual mean concentrations (µg/m^3)				
			2015	*2016*	*2017*	*2018*	*2019*
40 Bartholomew Street	Newbury	No	29.3	36	31.7	29	27.4
6 Market Street	Newbury	No	28.1	25.7	22.4	24.9	26

4.14 From Table 4.2 it can be seen that all annual mean concentrations of NO_2 were below the NAQO level of 40 µgm^{-3} up to the end of 2019.

4.15 Presented in **Figure 4.4** are the annual trends in NO_2 concentrations since 2015 at the non-automatic (passive) monitoring sites 6 Market Street (Urban Centre) and 40 Bartholomew Street (Roadside).

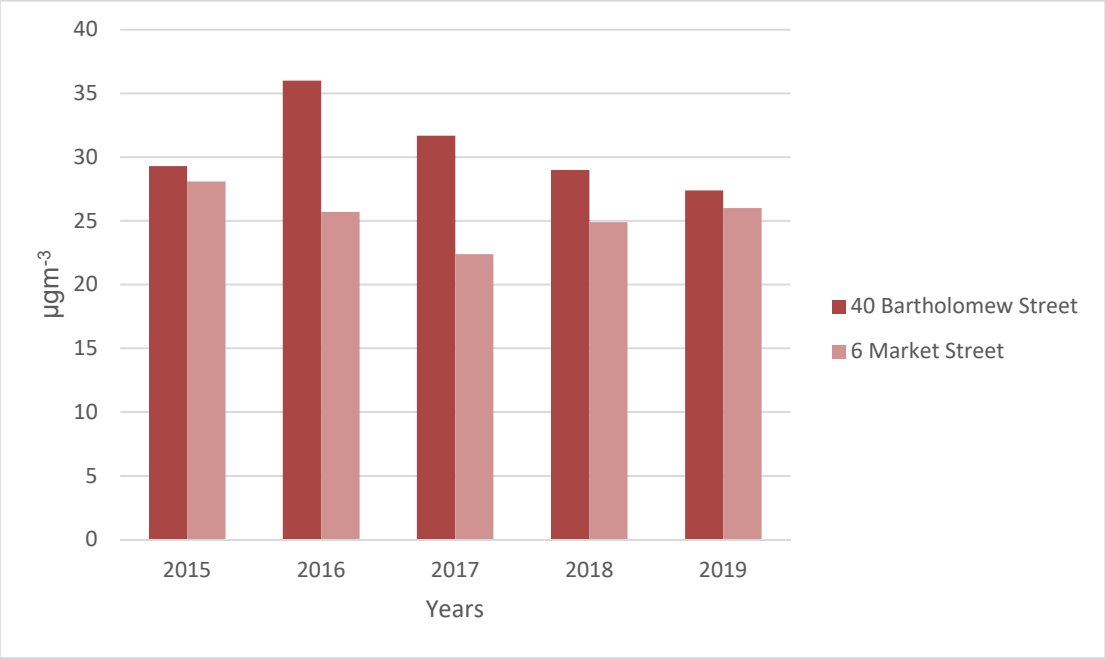

Figure 4.4: Annual Trends in NO_2 Concentrations Since 2015 at the Non-Automatic (Passive) Monitoring Sites 6 Market Street (Urban Centre) and 40 Bartholomew Street (Roadside)

4.16 From Figure 4.4 it can be seen that concentrations of NO_2 at 6 Market Street and 40 Bartholomew Street have been below the NAQO level of 40 µg/m^3. It can also be seen that the recorded levels of NO_2 at 40 Bartholomew Street have decreased steadily since 2016, however, there has been a slight increase at 6 Market Street since 2017.

4.17 West Berkshires 2020 ASR concluded that:

"*There was no exceedance of the monitored NO_2 Annual Mean Objective (40µg/m^3) in 2019, the level was 35.9µg/m^3 at the continuous monitor located in Newbury. The hourly objective (permitted level of 18 exceedances of 200µg/m^3 per year) was also met as there were only 2 occasions when it was exceeded.*

There were no exceedances of the Annual Air Quality Objective level of 40µg/m^3 from the ratified and bias adjusted diffusion tubes within the Newbury AQMA or the Thatcham AQMA. There were no locations greater than 60µg/m^3 which indicates no exceedance of the 1-hour Objective. A total of 9 sites showed an increase in levels compared to the 2018 results,

26 showed decreased levels, one remained the same and there was one new site.

Overall, the concentrations have been showing a trend of decreasing NO_2 since 2015.".

Dispersion Modelling – ADMS-Roads

4.18 The existing and future concentrations of pollutants within the assessment area for all scenarios have been modelled using the Atmospheric Dispersion Modelling System software ADMS-Roads (Version 4.1.1). The software is PC based and models the release of pollutants from road and industrial sources into the atmosphere.

4.19 ADMS-Roads is designed to allow the modelling of simple scenarios such as single carriageway roads up to complex scenarios such multiple lane roads and junctions. Allowance is made in the model for initial release of pollutants which are affected by vehicle wake, traffic induced turbulence and street canyons. Boundary layer structure based on the Monin-Obukhov length and the boundary layer height are incorporated in the model which allows for a realistic representation of the changing characteristics of dispersion with height.

4.20 Multiple road traffic sources were used in the model to represent the changing concentration of traffic, the different speeds of traffic and the changing road geometry.

4.21 Meteorological data for 2019 was obtained from the MET Office. The best representative observation station for the development site is a weather station located in Farnborough. The MET data has been used for the verification of the model, base modelling and future years and a wind rose for 2019 is presented in **Appendix 3**.

4.22 Background pollutant concentrations for the kilometre squares covering the assessment area were obtained from the DEFRA website and the concentrations for 2021 and 2026 are presented in Table 3.10.

4.23 Concentrations were modelled at the development site, the location of the DT closest to the Site, within the Newbury AQMA and specific receptors within Newbury. Modelling outputs are between 1.5 metres and 2 metres above ground height.

4.24 Copies of the model inputs are available on request.

Model Verification

4.25 Model verification has been undertaken using the guidance provided in LAQM.TG(16). The process requires the comparison of the monitored roadside contribution of NO_2 with the modelled roadside contribution of NO_2. TG(16) recommends that the greatest number of monitoring data should be used for verification.

4.26 To verify the model adjacent to the roads that would be affected by the proposed development traffic, predictions have been made at locations representative of the CM1 and DT for the base year 2019 using ADMS-Roads dispersion modelling. The locations of the CM and DTs are illustrated on **Figure 4.1** and the results of the predictions are presented in **Table 4.3**.

Table 4.3: Predicted air quality concentrations at the CM1 and DT for 2019

Site ID		NO_X	NO_2
		Annual mean μgm^{-3}	Annual mean μgm^{-3}
1	1 St John's Rd	29.03	13.90
2	1 Winchester Court	53.68	19.76
3	3 Howard Rd	28.09	13.54
4	40 Bartholomew St	30.66	14.15
5	6 Market St	28.89	13.78
6	63 St John's Rd	39.49	16.32
7	64 Greenham Rd	27.88	13.58
8	CM1 Newbury	64.68	22.47
9	Newbury Gardens Day Nursery	29.62	13.78
NAQO		-	40

4.27 If the pollutant concentrations in Table 4.3 are compared to the NAQO, it can be seen that concentrations of NO_2 are predicted to be well below the NAQO level of 40 μgm^{-3}.

4.28 ADMS-Roads has been used to calculate NO_X and NO_2, concentrations for 2019 which have been verified against the recorded NO_x and NO_2 levels at the CM and DTs. The results from the monitoring and the ADMS-Roads modelling are presented in **Table 4.4**.

Table 4.4: Comparison of the monitored (AMS and DT) and modelled (ADMS) concentrations of NO_2

Site ID	Monitor Type	Background NO_2	2019 Monitored NO_2	2019 Modelled NO_2	Difference [(monitored - modelled)/monitored] x100 (%)
1 St John's Rd	DT	13.15	26.8	13.90	-48.1
1 Winchester Court	DT	13.15	32.7	19.76	-39.6
3 Howard Rd	DT	13.15	18.6	13.54	-27.2
40 Bartholomew St	DT	13.15	27.4	14.15	-48.4
6 Market St	DT	13.15	26	13.78	-47.0
63 St John's Rd	DT	13.15	22.4	16.32	-27.2
64 Greenham Rd	DT	13.15	29.9	13.58	-54.6
CM1 Newbury	CM	13.15	35.9	22.47	-37.4
Newbury Gardens Day Nursery	DT	13.15	19.6	13.78	-29.7

4.29 Table 4.4 illustrates that the model is under predicting concentrations of NO_2 by between 27.2% and 54.6%.

4.30 Within TG(16) there is guidance on how to apply an adjustment factor to the road contribution NO_X to reduce the inaccuracy of the results from the modelling. Using the TG(16) 'Box 7.15' method, the modelled road contribution NO_X is not predicting an accurate contribution of NO_X to the overall contribution. Therefore a correction factor will need to be applied to the modelled road contribution NO_X to bring it to within comparable levels with the monitored data.

4.31 A Road-NO_X adjustment factor of 1.0405 was determined as the slope of the best fit between the 'measured' road contribution and 'modelled' road contribution NO_X, forced through zero. The comparison is presented in **Figure 4.5**.

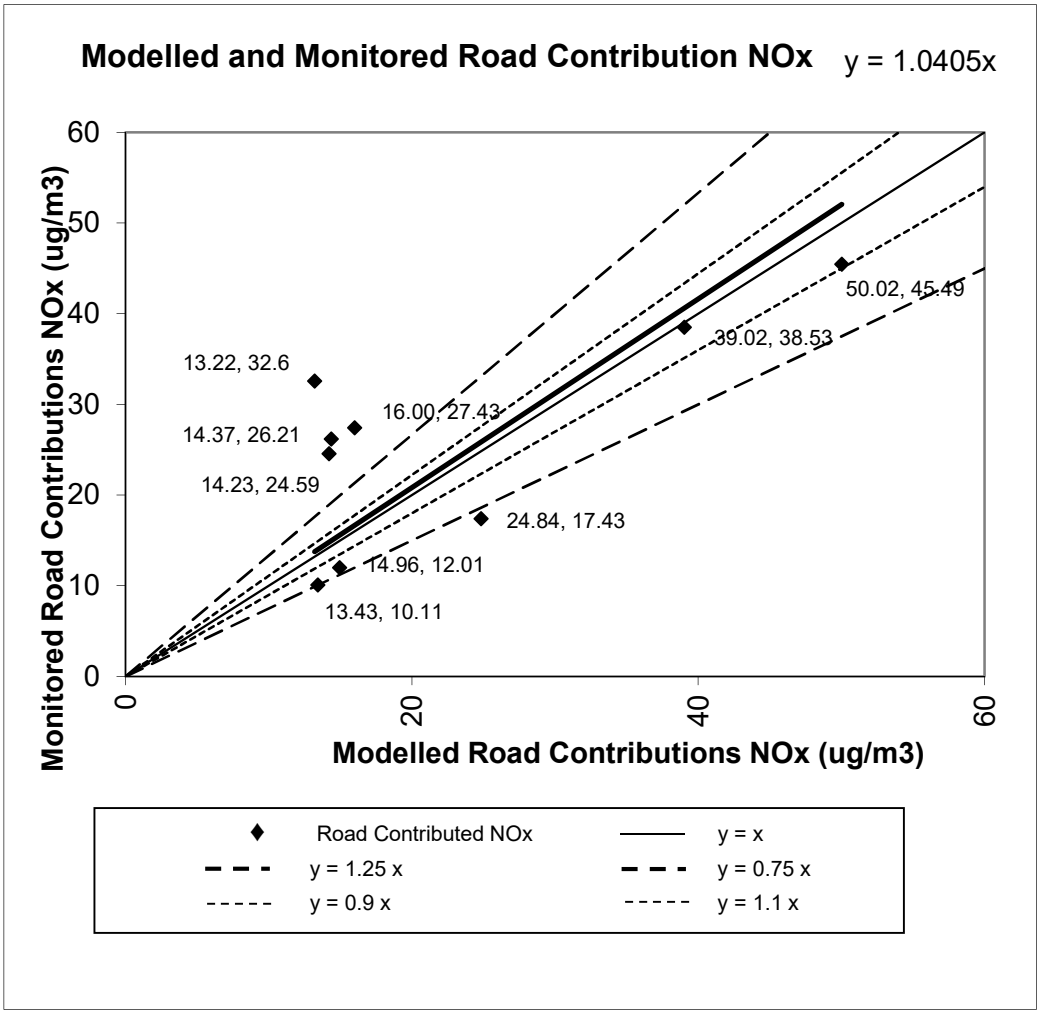

Figure 4.5: Comparison of Measured Road NO_X and Unadjusted Modelled Road NO_X

4.32 Presented in **Table 4.5** is the comparison of the monitored NO_2 concentrations and the adjusted ADMS-Roads modelled NO_2 concentrations.

Table 4.5: Comparison of the Monitored (DT) and the Adjusted Modelled (ADMS) Concentrations of NO_2

Site ID	Monitor Type	Background NO_2	2019 Monitored NO_2	2019 Adjusted Modelled NO_2	Difference [(monitored - modelled)/monitored] x100 (%)
1 St John's Rd	DT	13.15	26.8	18.77	-29.96
1 Winchester Court	DT	13.15	32.7	32.88	0.55
3 Howard Rd	DT	13.15	18.6	20.66	11.08
40 Bartholomew St	DT	13.15	27.4	19.09	-30.33
6 Market St	DT	13.15	26	19.75	-24.04
63 St John's Rd	DT	13.15	22.4	26.75	19.42
64 Greenham Rd	DT	13.15	29.9	20.5	-31.44
CM1 Newbury	CM	13.15	35.9	37.8	5.29
Newbury Gardens Day Nursery	DT	13.15	19.6	25.16	28.37

4.33 The comparison of the monitored NO_2 and the adjusted modelled NO_2 concentrations are illustrated on **Figure 4.6**.

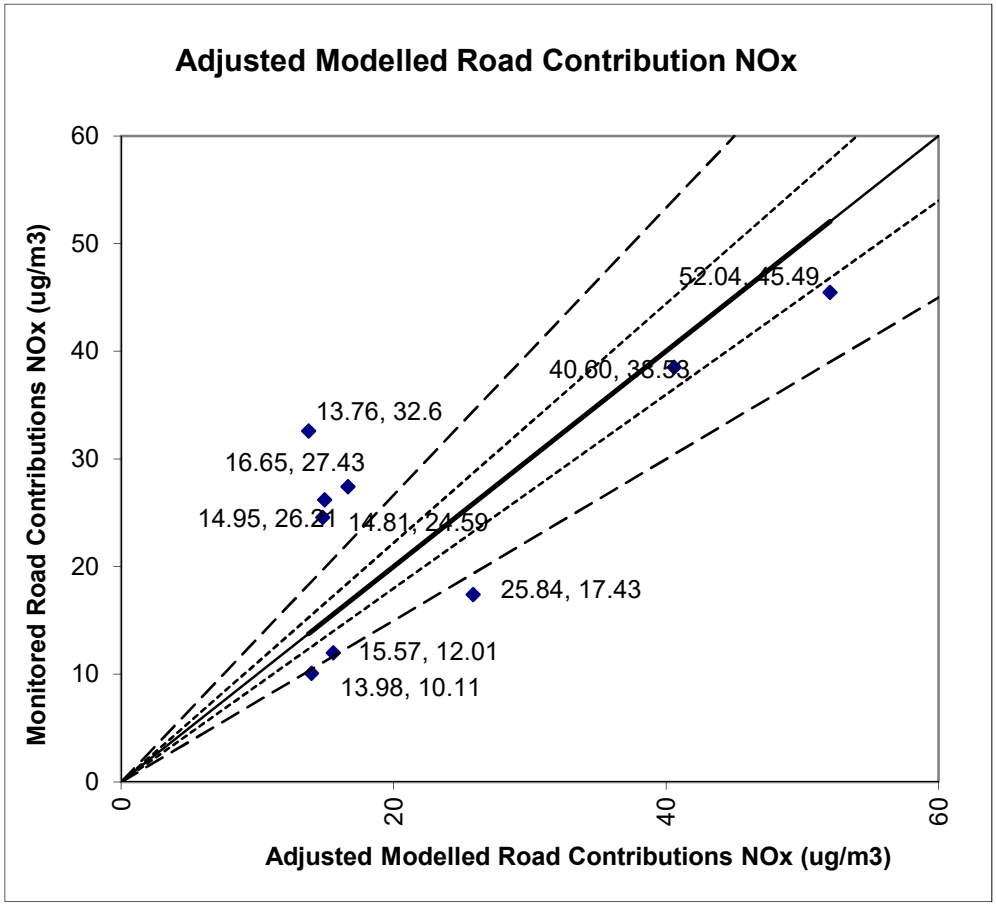

Figure 4.6: Comparison of Measured NO_2 and Adjusted Modelled NO_2

4.34 With reference to Figure 4.6, there is no systematic over or under-prediction of concentrations of NO_2 following adjustment of the road concentration NO_X.

Pollutant Concentrations

4.35 To characterise the air pollutant concentrations adjacent to the roads that would be affected by the proposed development traffic, predictions have been made at WBC DTs in close proximity to the site. This has been undertaken for the 'Base Year' 2021 using ADMS-Roads dispersion modelling. The locations of the DT receptors are illustrated on Figure 4.2.

4.36 Background concentrations for future assessments years have been kept the same as the Verification year 2019. The reason for using the base year background concentrations is due to recorded local concentrations of NO_2 not decreasing significantly as predicted over the past six years, and a worst case scenario has therefore been modelled.

4.37 The results of the predictions are presented in **Table 4.6**. Where concentrations are above the NAQO the cells have been shaded light grey.

Table 4.6: Predicted Air Quality Concentrations at Sensitive Receptors 2021

Receptor Number and Name		NO_X	NO_2	PM_{10}		$PM_{2.5}$
		Annual mean μgm^{-3}	Annual mean μgm^{-3}	Annual mean μgm^{-3}	Days >50 μgm^{-3}	Annual mean μgm^{-3}
1	1 St John's Rd	27.5	17.9	15.5	10.7	10.7
2	1 Winchester Court	48.3	28.4	17.3	0.9	11.7
3	3 Howard Rd	26.4	17.3	15.9	0.3	10.9
4	40 Bartholomew St	29.1	18.8	15.6	0.2	10.7
5	6 Market St	29.1	18.8	15.6	0.2	10.7
6	63 St John's Rd	36.1	22.4	16.5	0.5	11.2
7	64 Greenham Rd	26.2	17.2	15.9	0.3	10.9
8	CM1 Newbury	57.7	32.8	18.0	1.4	12.1
9	Newbury Gardens Day Nursery	27.7	18.0	15.7	0.2	10.8
NAQO		-	40	40	35	25

4.38 If the pollutant concentrations in Table 4.6 are compared to the NAQO, it can be seen that concentrations of NO_2 and PM_{10} are predicted to be well below the

NAQO level of 40 μgm^{-3}. The number of days when the concentration of PM_{10} is greater than 50 μgm^{-3} is well below the Air Quality Objective level of 35 days.

5.0 AIR QUALITY ASSESSMENT

5.1 The assessment has been split into two parts, the potential "Impacts" of development generated traffic and construction activities and the "Constraints" on the development.

5.2 The "Impact" section of the assessment assesses whether development generated traffic flows on the highway network are likely to result in a significant change in annual mean concentration of NO_2 and PM_{10} at sensitive off-site receptors. Also assessed are the potential dust impacts and PM_{10} changes on sensitive receptors.

5.3 The "Constraints" part of the assessment compares the predicted concentration of NO_2 and PM_{10} within the development site against NAQO levels and assesses whether predicted levels within the site are above the objective levels.

Impacts

Dust Assessment: Predicted Construction Impacts

5.4 The main sources of dust and PM_{10} during construction activities are:

- Haulage routes, vehicles and construction traffic;
- Materials handling, storage, stockpiling, potential spillage and disposal;
- Exhaust emissions from site plant;
- Site preparation;
- Construction and fabrication processes; and
- Internal and external finishing and refurbishment.

5.5 The majority of the releases are likely to occur during the typical "working-week". The construction impact assessment has been split into two sections. The first deals with the potential impacts from dust soiling and changes in PM_{10} concentrations due to on-site works and the second deals with the effect of emissions from construction traffic.

Dust soiling and changes in PM_{10} concentrations

5.6 The site will require earthworks, construction and trackout of vehicles associated with all phases of the Site. The resulting dust emission magnitudes are:

- Demolition – **Medium:** Total building volume 20,000 m3 – 50,000 m3, potentially dusty construction material, demolition activities

  10-20 m above ground level;
- Earthworks – **Medium -** Total site area between 2,500 m^2 and 10,000 m^2, moderately dusty soil type, 5-10 heavy earth moving vehicles active at any one time, total material moved 20,000 - 100,000 tonnes),
- Construction – **Large** (Total building volume is greater than 100,000 m^3, on site concrete batching),
- Trackout – **Medium** (10-50 HGV outward movements in any one day, moderately dusty surface material).

5.7 Using the information presented in Section 3 and the criteria presented in Table 3.1, Table 3.2 and Table 3.3, the sensitivity of the construction for the proposed development can be defined. The results of defining the sensitivity of the area are presented in **Table 5.1**.

Table 5.1: Outcome of Defining the Sensitivity of an Area

Potential Impact	Sensitivity of the Surrounding Area			
	Demolition	***Earthworks***	***Construction***	***Trackout***
Dust Soiling	High	High	High	High
Human Health	Medium	Medium	Medium	Medium
Ecological	Negligible	Negligible	Negligible	Negligible

5.8 From Table 5.1 it can be seen that the predicted sensitivity of the surrounding area to dust soiling is “High” during the demolition, construction, earthworks and trackout phases. The sensitivity of the surrounding area to changes in PM_{10} affecting human health is “Medium” during the demolition, construction, earthworks and trackout phases. As there are no ecological receptors within 50m of the development, the predicted sensitivity impact is “Negligible”.

5.9 The dust emission magnitude determined in paragraph 5.6 is combined with the sensitivity of the area summarised in Table 5.1 to determine the risk of impacts with no mitigation applied. The risk of impacts are summarised in **Table 5.2**.

Table 5.2: Summary Dust Risk Table to Define Site-Specific Mitigation

Potential Impact	Risk			
	Demolition	***Earthworks***	***Construction***	***Trackout***
Dust Soiling	Medium	Medium	High	Medium
Human Health	Medium	Medium	Medium	Low
Ecological	Negligible	Negligible	Negligible	Negligible

5.10 During the Demolition phase, there is a Medium Risk of annoyance caused by dust soiling and health effects and Negligible ecological impacts due to an increase exposure in PM_{10}.

5.11 During the Earthworks phase of development, there is a Medium Risk of annoyance caused by dust soiling and health effects due to increase exposure in PM_{10}.

5.12 During the Construction phase of development, it has been assessed that there is a High Risk of potential annoyance to people and property caused by dust soiling and a Medium Risk of health effects due to an increase exposure in PM_{10}. Therefore, mitigation may be required.

5.13 Throughout the Trackout processes, there is a Medium Risk of dust soiling and a Low Risk on human health effects due to an increase exposure in PM_{10}.

5.14 For those cases where the risk category is Negligible (i.e. ecological), no specific mitigation measures is required beyond specific legislation.

Predicted Operational Impacts

5.15 The air quality impact of the proposed development on the surrounding area has been assessed by considering the changes in traffic flows which will occur on the existing highway network with the development in place.

5.16 Potential impacts from the proposed development would occur following the completion of the proposed development in 2026. Therefore, the year of

assessment is 2026 “do nothing” and “do something”. For this development a Transport Assessment (TA) has been undertaken and part of the assessment was the collection and analysis of road traffic data from manual classified traffic counts (MCC), automated traffic counts (ATC), and the proposed development.

Traffic Generation –2026 with development

5.17 Road traffic data has been provided in part by the Transport Consultants SMA. The remaining traffic data was collected using permanent ATCs on the A339 and the A343 and publicly available traffic data for the local highway network. The “Base” traffic flows have been growthed using TEMPRO and NTM, which takes into account traffic from Committed Development projects. Worst-case flows arising from development generated traffic has then been added to the 2026 traffic flows and a summary is presented in **Table 5.3**.

Table 5.3: Changes in traffic flow "with" and "without" the development in 2026

Link Ref.	Description	2026 AADT			
		"do nothing"	"do something"	Change	% Change
1	A339 S (N of Cheap St)	46646	46770	125	0.3
2	A339 S (S of Cheap St)	42294	42329	35	0.1
3	Cheap St	7259	7418	159	2.2
4	Mill Ln	6649	6669	21	0.3
5	A339 N (N of Sainsbury Rdbt)	45325	45449	125	0.3
6	Kings Rd	19438	19479	42	0.2
7	Bear Lane (one way)	6263	6346	83	1.3
8	Cheap St E	5309	5468	159	3.0
9	Cheap St N	9040	9123	83	0.9
10	Market St E	11260	11502	243	2.2
11	Market St W	11735	11977	243	2.1
12	Bartholomew St N	7076	7519	443	6.3
13	Bartholomew St N (N of Site)	7076	7519	125	6.3
14	Bartholomew St S	15353	15478	201	1.3
15	Sainsburys Rdbt	24864	25065	69	0.3
16	A339 (S of Burger King Rdbt)	43520	43589	62	0.1
17	St John's Rd	14622	14685	28	0.2
18	Burger King Rdbt	33366	33393	49	0.1
19	Craven Rd	4389	4437	35	0.8
20	Bartholomew St (N of Pound St)	7811	7846	166	2.1
21	Pound St	4695	4861	35	0.7
22	Newtown Rd N	9070	9105	132	1.5
23	St John's Rd	14622	14754	28	0.2
24	Newtown Rd S	5672	5700	49	0.9
25	A343 Andover Rd	12857	12906	55	0.4
26	St John's Rdbt	10566	10621	69	0.7

5.18 From Table 5.3 it can be seen that, with the completion of the development, there is predicted to be an increase of between 0.1% and 6.3% in 24 hour traffic flows along the links within the assessment area. The greatest predicted change in traffic flows are on Bartholomew Street (6.3%).

Background Concentrations – 2026

5.19 From Table 4.2, it can be seen that there has been no significant change in measured concentrations of NO_2 in the past five years. Therefore, the background concentrations in NO_X, NO_2, PM_{10} and $PM_{2.5}$ for 2019 have been used for the future 2026 assessment.

Screening Assessment – 2026 with development

5.20 Sensitive receptors adjacent to the development site and where there is predicted to be an impact from the development have been assessed for the two scenarios, "do nothing" and "do something". The results from the assessment are presented in **Table 5.4** and **Table 5.5**.

Table 5.4: Predicted air quality concentrations at sensitive receptors in 2026 "do nothing"

Receptor Number and Name		NO_X	NO_2	PM_{10}		$PM_{2.5}$
		Annual mean μgm^{-3}	Annual mean μgm^{-3}	Annual mean μgm^{-3}	Days >50 μgm^{-3}	Annual mean μgm^{-3}
1	1 St John's Rd	23.39	15.70	15.54	0.20	10.66
2	1 Winchester Court	35.61	21.95	17.26	0.89	11.61
3	3 Howard Rd	22.26	15.10	15.97	0.30	10.88
4	40 Bartholomew St	24.48	16.27	15.59	0.21	10.69
5	6 Market St	22.72	15.34	15.64	0.22	10.71
6	63 St John's Rd	28.20	18.20	16.45	0.48	11.16
7	64 Greenham Rd	22.15	15.04	15.97	0.30	10.88
8	CM1 Newbury	41.41	24.80	17.92	1.34	11.98
9	Newbury Gardens Day Nursery	22.92	15.45	15.72	0.24	10.76
NAQO		-	40	40	40	25

Table 5.5: Predicted air quality concentrations at sensitive receptors in 2026 "do something"

Receptor Number and Name		NO_X	NO_2	PM_{10}		$PM_{2.5}$
		Annual mean μgm^{-3}	Annual mean μgm^{-3}	Annual mean μgm^{-3}	Days >50 μgm^{-3}	Annual mean μgm^{-3}
1	1 St John's Rd	23.43	15.72	15.54	0.20	10.66
2	1 Winchester Court	36.11	22.20	17.32	0.93	11.65
3	3 Howard Rd	22.30	15.12	15.98	0.31	10.89
4	40 Bartholomew St	24.59	16.33	15.61	0.21	10.70
5	6 Market St	22.78	15.38	15.65	0.22	10.72
6	63 St John's Rd	28.47	18.34	16.49	0.49	11.18
7	64 Greenham Rd	22.19	15.06	15.98	0.31	10.89
8	CM1 Newbury	42.09	25.13	18.00	1.40	12.02
9	Newbury Gardens Day Nursery	23.06	15.52	15.74	0.24	10.77
NAQO		-	40	40	40	25

5.21 Presented in **Table 5.6** are the predicted change in concentrations of NO_2 and PM_{10} and the change in the number of days where concentrations of PM_{10} are greater than 50 μgm^{-3}.

Table 5.6: Predicted change in air quality concentrations at sensitive receptors in 2026 "do something"

Receptor Number and Name		NO_2		PM_{10}			
		Change in annual mean μgm^{-3} (%)		Change in annual mean μgm^{-3} (%)		Change in days >50 μgm^{-3} (%)	
1	1 St John's Rd	0.02	(0.13)	0.00	(0.00)	0.00	(0.00)
2	1 Winchester Court	0.25	(1.14)	0.06	(0.35)	0.04	(4.48)
3	3 Howard Rd	0.02	(0.13)	0.01	(0.06)	0.00	(0.00)
4	40 Bartholomew St	0.06	(0.37)	0.01	(0.06)	0.00	(0.00)
5	6 Market St	0.04	(0.26)	0.01	(0.06)	0.00	(0.00)
6	63 St John's Rd	0.14	(0.77)	0.03	(0.18)	0.01	(2.09)
7	64 Greenham Rd	0.02	(0.13)	0.01	(0.06)	0.00	(0.00)
8	CM1 Newbury	0.33	(1.33)	0.08	(0.45)	0.06	(4.48)
9	Newbury Gardens Day Nursery	0.07	(0.45)	0.02	(0.13)	0.00	(0.00)

5.22 From Table 5.6 it can be seen that changes in concentration of NO_2 are predicted to be 0.33 μgm^{-3} or less and changes in concentration of PM_{10} are predicted to be 0.08 μgm^{-3} or less. It can also be seen that the change in the number of days where the concentration of PM_{10} is predicted to be more than 50 μgm^{-3} will be 0.06 days or less.

Magnitude of Change – 2026 with development

5.23 Comparing the results in Table 5.6 with the magnitude of change in Table 3.7 it can be seen that all the receptors are predicted to experience a change in annual mean NO_2 concentrations which is "Imperceptible" (<0.4 μgm^{-3}).

5.24 It can also be seen that the receptors are predicted to experience an increase in annual mean PM_{10} concentrations which is "Imperceptible" (<0.4 μgm^{-3}) or "No Change" and an "Imperceptible" (<1 day) increase or "No Change" in the number of days where PM_{10} levels are greater than 50 μgm^{-3}.

"Significance" of Change – 2026 with development

5.25 The "Significance" of the predicted changes in NO_2 and PM_{10} annual mean concentrations are presented in **Table 5.7**.

Table 5.7: NO_2 – Significance of change in annual mean concentrations following the completion of the proposed development in 2026

Receptor Number and Name		NO_2		
		Change in annual mean (μgm^{-3})	Magnitude of change	"Significance" of change
1	1 St John's Rd	0.02	Imperceptible	Negligible
2	1 Winchester Court	0.25	Imperceptible	Negligible
3	3 Howard Rd	0.02	Imperceptible	Negligible
4	40 Bartholomew St	0.06	Imperceptible	Negligible
5	6 Market St	0.04	Imperceptible	Negligible
6	63 St John's Rd	0.14	Imperceptible	Negligible
7	64 Greenham Rd	0.02	Imperceptible	Negligible
8	CM1 Newbury	0.33	Imperceptible	Negligible
9	Newbury Gardens Day Nursery	0.07	Imperceptible	Negligible

5.26 With reference to the overall concentration of NO_2 presented in Table 5.5 being close to the NAQO level of 40 μgm^{-3} and the magnitude of change being "Imperceptible" the "Significance" of change in NO_2 concentrations is considered "Negligible".

Table 5.8: PM_{10} – Significance of change in annual mean concentrations following the completion of the proposed development in 2026

Receptor Number and Name		PM_{10}		
		Change in annual mean (μgm^{-3})	Magnitude of change	"Significance" of change
1	1 St John's Rd	0.00	No Change	No Change
2	1 Winchester Court	0.06	Imperceptible	Negligible
3	3 Howard Rd	0.01	Imperceptible	Negligible
4	40 Bartholomew St	0.01	Imperceptible	Negligible
5	6 Market St	0.01	Imperceptible	Negligible
6	63 St John's Rd	0.03	Imperceptible	Negligible
7	64 Greenham Rd	0.01	Imperceptible	Negligible
8	CM1 Newbury	0.08	Imperceptible	Negligible
9	Newbury Gardens Day Nursery	0.02	Imperceptible	Negligible

5.27 With reference to the overall concentrations of PM_{10} presented in Table 5.5 being well below the objective level of 40 μgm^{-3} and the magnitude of change presented in Table 5.8 being "Imperceptible" or "No Change", the "Significance" of change in PM_{10} concentration is considered to be "Negligible" or "No Change".

Constraints

5.28 The concentrations of NO_2 and PM_{10} have been modelled within the development site using ADMS-Roads. Sources include Bartholomew Street, Market Street, Cheap Street, Bear Lane and the broader highway network.

5.29 The development site was modelled at 1.5 metres above ground level representing the modelled concentrations at head height.

5.30 At ground level the main contributing sources of air pollutants are from road traffic on the surrounding roads. Concentrations of NO_2 are approximately 12 to 14 μgm^{-3} across the site.

5.31 A prevailing south-westerly wind reduces the potential impacts arising from A339 traffic. Moreover, the proposed development site is situated at a minimum of 115 metres distance from the A339 so that it will not be adversely affected by air pollutants.

5.32 In summary, concentrations of NO_2 are predicted to be well below the NAQO of 40 μgm^{-3} at 1.5 metres above ground level within the development site.

6.0 MITIGATION

Construction Phase

6.1 Monitoring during the construction phase should be considered in the management of operations to ensure that the nuisance thresholds are not exceeded at nearby sensitive locations. However, it is important to note that such limits are subjective, e.g. as "nuisance" caused by dust does not currently have a statutory limit applied to it.

6.2 Monitoring of dust could be achieved using a variety of sampling techniques, for example deposit ("Frisbee") gauges, glass slides or high-volume air samplers located around the site perimeter and at the sensitive locations up to 400 metres from the site boundary.

6.3 In addition, a number of other mitigation measures should be implemented, as appropriate. These could include:

- surfaced and un-surfaced site access roads should be watered as necessary using a water bowser and surfaces kept in good order;
- all vehicles carrying loose aggregate and workings should be sheeted at all times;
- design controls for construction equipment and vehicles and use of appropriately designed vehicles for materials handling;
- dampening of exposed soil and material stockpiles, if necessary, using sprinklers and hoses, or re-vegetation if longer term exposure is proposed;
- observation of wind speed and direction prior to conducting dust-generating activities to determine the potential for dust nuisance to occur, avoiding potentially dust-generating activities during periods when wind direction may carry dust into sensitive areas and avoiding dust-generating operations during periods of high or gusty wind;
- stockpiles of soils and materials should be located as far as possible from sensitive properties, taking account of prevailing wind directions and seasonal variations in the prevailing wind;

- windbreak netting should be positioned around materials stockpiles and vehicle loading/unloading areas, as well as exposed excavation and material handling operations;
- screening earthworks such as perimeter landscaping etc. should be completed as a priority to provide a physical barrier between the site and the surroundings;
- completed earthworks should be covered or vegetated as soon as is practicable;
- regular inspection and, if necessary, cleaning of local highways and site boundaries to check for dust deposits (and removal if necessary);
- on-site cement and concrete batching (if required) should be undertaken in enclosed areas, with suitable water dowsing and wind shielding measures applied as appropriate;
- on-site aggregate handling should be carried out in enclosed areas and transfer should be completed in a way that minimizes the requirements to deposit materials from height;
- visual inspection of site perimeter to check for dust deposition (evident as soiling and marking) on vegetation, cars and other objects and taking remedial measures if necessary;
- minimize surface areas of stockpiles (subject to health and safety and visual constraints regarding slope gradients and visual intrusion) to reduce area of surfaces exposed to wind pick-up;
- use of dust-suppressed tools for all operations;
- ensuring that all construction plant and equipment is maintained in good working order;
- no unauthorized burning of any material anywhere on site.

6.4 It is recommended that liaison with West Berkshire Council Environmental Health Department be maintained throughout the construction process. In addition, the main contractor should nominate a representative (possibly the site manager) to act as a point of contact with the Council, the construction team and the local community to ensure that any air quality related issues that occur during the construction period can be dealt with effectively and promptly.

6.5 All other site sub-contractors should also nominate or appoint a suitable team member responsible for liaison with the lead contractor's representative and to ensure that sub-contractor construction activities are managed effectively.

6.6 Details of the proposed methodology for achieving this and procedures to follow should be set out in a Construction Environmental Management Plan (CEMP). This would be held on-site and would include relevant contact names, details, lines of communication and mitigation action plans. The document should be available to all site personnel who should be made aware of its existence and provide an undertaking that they will adhere to the guidance provided therein.

6.7 The mitigation of PM_{10} releases due to material disturbance will be achieved in the same manner as the control of dust releases. By achieving effective control of sources of dust release, PM_{10} releases can be minimized.

6.8 The most effective control of particulate releases from site plant will be achieved by ensuring that it is maintained in good working order, and is of the appropriate capacity and specification for the job being carried out. It should also be located away from the site perimeter, thereby maximizing the distance between source and receptor.

6.9 There may be occasions where breakdown of site plant could cause short-term releases of excess particulate matter (smoke) and odour. Short-term releases may also occur during start up (of diesel engines, etc). Regular visual checks and routine maintenance should be applied in accordance with the plant specification, to ensure that these releases are minimized. Faulty site plant should be decommissioned until repairs have been carried out and have been tested and found to be operating satisfactorily.

6.10 Detailed mitigation measures to control construction traffic should be discussed with officers from West Berkshire Council, in order to establish the most suitable access routes for the site traffic and service vehicles. The most effective mitigation will be achieved by ensuring that construction traffic vehicles are kept clean and sheeted when on public highways (through the use of wheel washers) and avoid using sensitive roads. Timing of large-scale vehicle movements to avoid peak hours on the local road network would also be beneficial. Clear

signposting to the site access for construction traffic should also be provided and direct traffic along routes agreed with the Council.

6.11 Early morning delivery vehicles, which may arrive prior to the site opening, should be prevented from waiting on the approach roads to the site. If site deliveries arrive prior to the site opening, they should wait away from the site entrance and residential properties, at more suitable locations.

6.12 With the implementation of the appropriate mitigation measures detailed above, but not restricted to the information detailed above, the residual effects will be "**Not Significant"**.

Operational Phase

6.13 The NO_2, PM_{10} and $PM_{2.5}$ concentrations presented in Table 5.5 (Do Something) demonstrate that pollution levels do not exceed any of the NAQO levels, nor will there be any significant impacts resulting from the development. Consequently, mitigation measures are neither necessary or proposed.

7.0 SUMMARY AND CONCLUSIONS

7.1 Stuart Michael Associates Limited (SMA), Consulting Engineers, has been appointed by Lochailort Newbury Ltd. (the Applicant) to prepare an Air Quality Assessment in support of a full planning application for the phased redevelopment of the Kennet Centre comprising the partial demolition of existing buildings, flexible-use commercial space, headquarters office building, 402 dwellings plus residents' ancillary facilities, access, car parking and cycle parking, landscaping & open space, sustainable energy installations, and associated works in Newbury, West Berkshire.

7.2 The site is considered to be in a highly accessible location with facilities within a 1km walk of the site. The proposed development will include a Green Travel Plan to reduce single car occupancy trips to and from the site.

7.3 Impacts from development generated traffic and the constraints on the development have been assessed using ADMS-Roads for 2021, the future base year 2026 (no development) and 2026 (with the proposed development).

7.4 The magnitude of change in annual mean NO_2, PM_{10}, and $PM_{2.5}$ concentrations due to development generated traffic is predicted to be "Imperceptible" (<0.4 μgm^{-3}) at the locations of all modelled sensitive receptors. Moreover, concentrations of air pollutants are well below their NAQO objective values. Therefore the significance of development is considered **Negligible**.

7.5 During the Demolition phase, there is a Medium Risk of annoyance caused by dust soiling and health effects and Negligible ecological impacts due to an increase exposure in PM_{10}.

7.6 During the Earthworks phase of development, there is a Medium Risk of annoyance caused by dust soiling and health effects due to increase exposure in PM_{10}.

7.7 During the Construction phase of development, it has been assessed that there is a High Risk of potential annoyance to people and property caused by dust soiling and a Medium Risk of health effects due to an increase exposure in PM_{10}. Therefore, mitigation may be required.

7.8 Throughout the Trackout processes, there is a Medium Risk of dust soiling and a Low Risk on human health effects due to an increase exposure in PM_{10}.

7.9 For those cases where the risk category is Negligible (i.e. ecological), no specific mitigation measures is required beyond specific legislation.

7.10 With the implementation of the appropriate mitigation measures the residual effects during the earthworks and construction of the Development will be "**Not Significant"**.

7.11 Therefore, taking into account the proposed development's negligible increase in air pollution during the operational stage, and the "not significant" impact arising from dust during the construction stage, it can be concluded that air quality should not be a determining factor in refusing planning consent.

8.0 APPENDICES

Appendix 1 National Air Quality Objectives (NAQO)

National air quality objectives and European Directive limit and target values for the protection of human health						
Pollutant	**Applies**	**Objective**	**Concentration measured as [10]**	**Date to be achieved by (and maintained thereafter)**	**European Obligations**	**Date to be achieved (by and maintained thereafter)**
Particles (PM_{10})	UK	50 µg/m³ not to be exceeded more than 35 times a year	24 hour mean	31 December 2004	50 µg/m³ not to be exceeded more than 35 times a year	1 January 2005
	UK	40 µg/m³	annual mean	31 December 2004	40 µg/m³	1 January 2005
	Indicative 2010 objectives for PM_{10} (from the 2000 strategy and Addendum) have been replaced by an exposure reduction approach for $PM_{2.5}$ (except in Scotland – see below)					
	Scotland	50 µg/m³ not to be exceeded more than 7 times a year	24 hour mean	31 December 2010	50 µg/m³ not to be exceeded more than 35 times a year	1 January 2005
	Scotland	18 µg/m³	annual mean	31 December 2010	40 µg/m³	1 January 2005
Particles ($PM_{2.5}$) Exposure Reduction	UK (except Scotland)	25 µg/m³	annual mean	2020	Target value - 25 µg/m³	2010
	Scotland	10 µg/m³		31 December 2020	Limit value - 25 µg/m³	1 January 2015
	UK urban areas	Target of 15% reduction in concentrations at urban background		Between 2010 and 2020	Target of 20% reduction in concentrations at urban background.	Between 2010 and 2020

National air quality objectives and European Directive limit and target values for the protection of human health						
Pollutant	**Applies**	**Objective**	**Concentration measured as [1]**	**Date to be achieved by (and maintained thereafter)**	**European Obligations**	**Date to be achieved by (and maintained thereafter)**
Nitrogen dioxide	UK	200 µg/m³ not to be exceeded more than 18 times a year	1 hour mean	31 December 2005	200 µg/m³ not to be exceeded more than 18 times a year	1 January 2010
	UK	40 µg/m³	annual mean	31 December 2005	40 µg/m³	1 January 2010
Ozone	UK	100 µg/m³ not to be exceeded more than 10 times a year	8 hour mean	31 December 2005	Target of 120 µg/m³ not to be exceeded by more than 25 times a year averaged over 3 years	31 December 2010
Sulphur dioxide	UK	266 µg/m³ not to be exceeded more than 35 times a year	15 minute mean	31 December 2005	-	-
	UK	350 µg/m³ not to be exceeded more than 24 times a year	1 hour mean	31 December 2004	350 µg/m³ not to be exceeded more than 24 times a year	1 January 2005
	UK	125 µg/m³ not to be exceeded more than 3 times a year	24 hour mean	31 December 2004	125 µg/m³ not to be exceeded more than 3 times a year	1 January 2005
Polycyclic Aromatic Hydrocarbons	UK	0.25 ng/m³ B[a]P	as annual average	31 December 2012	1.0 ng/m³	31 December 2012

National air quality objectives and European Directive limit and target values for the protection of human health						
Pollutant	**Applies**	**Objective**	**Concentration measured as[1]**	**Date to be achieved by (and maintained thereafter)**	**European Obligations**	**Date to be achieved by (and maintained thereafter)**
Benzene	UK	16.25 µg/m³	running annual mean	31 December 2003	-	-
	England and Wales	5 µg/m³	annual average	31 December 2010	5 µg/m³	1 January 2010
	Scotland, Northern Ireland	3.25 µg/m³	running annual mean	31 December 2010	-	-
1,3-butadiene	UK	2.25 µg/m³	running annual mean	31 December 2003	-	-
Carbon monoxide	UK	10 mg/m³	maximum daily running 8 hour mean/in Scotland as running 8 hour mean	31 December 2003	10 mg/m³	1 January 2005
Lead	UK	0.5 µg/m³	annual mean	31 December 2004	0.5 µg/m³	1 January 2005
		0.25 µg/m³	annual mean	31 December 2008	-	-

National air quality objectives and European Directive limit and target values for the protection of vegetation and ecosystems						
Pollutant	**Applies**	**Objective**	**Concentration measured as[1]**	**Date to be achieved by (and maintained thereafter)**	**European Obligations**	**Date to be achieved by (and maintained thereafter)**
Nitrogen oxides	UK	30 µg/m³	annual mean	31 December 2000	30 µg/m³	19 July 2001
Sulphur dioxide	UK	20 µg/m³	annual mean	31 December 2000	20 µg/m³	19 July 2001
	UK	20 µg/m³	winter average	31 December 2000	20 µg/m³	19 July 2001
Ozone: protection of vegetation and ecosystems	UK	Target value of 18,000 µg/m³ based on AOT40 to be calculated from 1 hour values from May to July, and to be achieved, so far as possible, by 2010	Average over 5 years	1 January 2010	Target value of 18,000 µg/m³ based on AOT40 to be calculated from 1 hour values from May to July, and to be achieved, so far as possible, by 2010	1 January 2010

Appendix 2 EIA Screening Opinion

01 December 2020

Mr James Croucher
Lochhailort Newbury

By email: james.croucher@lochailort-investments.com

Development & Planning
Council Offices
Market Street, Newbury
Berkshire, RG14 5LD

Our Ref: 20/02647/SCREEN
Your Ref:

Contact Centre: 01635 519111
Email: planapps@westberks.gov.uk

Dear Mr Croucher

Screening opinion under the Town and Country Planning (Environmental Impact Assessment) Regulation 2017

Reference:	20/02647/SCREEN
Site:	The Kennet Centre, Bartholomew Street, Newbury RG14 5EN
Proposal:	Demolition of existing covered shopping centre other than multi-storey car park and 2009 cinema/leisure wing. Erection of new mixed use development comprising (i) approximately 400 dwellings of mixed type and size to include ancillary residents' facilities (ii) up to 8,500sqm office building or, in the alternative, approximately 120 retirement living units to include ancillary residents' facilities (iii) approximately 30 flexible-use commercial units (iv) public realm works including pedestrian links and open spaces (v) landscaping (vi) car and cycle parking (vii) open-loop Ground Source Heat Pump system; and (viii) associated works

Thank you for your letter dated 11 November 2020. In accordance with Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, the Council is required to adopt a screening opinion as to whether the proposal constitutes 'EIA development', and therefore whether Environmental Impact Assessment (EIA) is required as part of the decision-making process. Information on EIA is available from the Planning Practice Guidance:
https://www.gov.uk/guidance/environmental-impact-assessment

The proposed development falls within the column 1 description at paragraph 10 (b) (Urban development projects) of Schedule 2. It is not located in a sensitive area. It does exceed the relevant threshold in column 2 in that it would exceed 150 dwellings. The proposal is therefore "Schedule 2 development" within the meaning of the Regulations.

However, taking into account the selection criteria in Schedule 3, it is not considered that the proposal is likely to have significant effects on the environment. Accordingly, the proposal is **NOT considered "EIA development"** within the meaning of the Regulations. An Environmental Statement is not required. Please see the written statement in Annex A to this letter, which gives the reasons for this screening opinion.

The judgements on the significance of the effects on the environment are made solely in relation to the EIA Regulations, and any conclusions that 'significant environmental effects' are unlikely in terms of the Regulations does not necessarily denote that such impacts would be regarded as acceptable when considering a planning application. Neither the screening opinion, nor any statement within this letter, should be construed as precluding the Council from concluding that the development would have environmental impacts, albeit not significant in terms of the Regulations.

According to the Planning Practice Guidance, there may, exceptionally, be cases where a screening opinion has been issued but it becomes evident that it needs to be changed, for example, because new evidence comes to light. This screening opinion is issued based on the evidence currently available, having taken reasonable steps to obtain relevant information. Given the overriding purpose of EIA, the Council is bound to review its position in light of any new evidence, for example, through consultation during any forthcoming application.

A copy of this screening opinion will be placed on the Planning Register. If you wish to discuss this screening opinion, please contact Simon Till on 01635 519427 or simon.till@westberks.gov.uk.

Yours sincerely

Gary Rayner
Development Control Manager

Enc. Annex: Screening Opinion Written Statement

ANNEX – SCREENING OPINION WRITTEN STATEMENT

Case Details:	
Reference:	20/02647/SCREEN
Stage/Type:	Pre-application screening
Relevant history:	20/02647/SCREEN
Has the applicant supplied an ES for the current or previous (if reserved matters or conditions) application?	No

Schedule 1	
Is the proposed development Schedule 1 development as described in Schedule 1 of the EIA Regulations?	No
If YES, under which description of development i.e. Nos. 1-24?	N/A

Schedule 2	
Is the proposed development Schedule 2 development as described in Column 1 of Schedule 2 of the EIA Regulations?	Yes
If YES, under which description of development in Column 1 i.e. Nos. 1- 13?	10(b) – Urban Development Project
Is the development within, partly within, or near a 'sensitive area' as defined by Regulation 2 of the EIA Regulations?	No
If YES, which area?	NA
Are the applicable thresholds/criteria in Column 2 exceeded/met?	Yes
If yes, which applicable threshold/criteria?	Development of over 150 dwellings
Is it necessary to issue a screening opinion?	Yes

Decision	
Is an ES required?	No
Reason	When screening Schedule 2 projects, the local planning authority must take account of the selection criteria in Schedule 3 of the Regulations. Not all of the criteria will be relevant in every case. According to the Planning Practice Guidance (PPG), only a very small proportion of Schedule 2 development will require an assessment. While the development would exceed the threshold of 150 dwellings the Schedule 3 criteria have been assessed as below: FULL ASSESSMENT 1. In terms of the characteristics of the development: (a) The development is on an existing fully developed site and is not considered to increase the quantum of development to a scale or intensity significantly beyond that of the existing development for the purposes of the meaning of the Regulations; (b) In terms of the cumulative impact with other developments, due to the existing developed nature of the site it is not considered that taken cumulatively with other approved development in the vicinity the proposed works would result in an increase in impact that would be significant within the meaning of the Regulations; (c) The proposed works are not considered to be such as to result in impacts on natural resources that would be significant within the meaning of the Regulations;

	(d) The proposed works are not considered to be such as to result in impacts in terms of the production of waste that would be significant within the meaning of the Regulations; (e) The proposed works are not considered to be such as to result in impacts in terms of the pollution or nuisances that would be significant within the meaning of the Regulations; (f) The proposed works are not considered to be such as to result in impacts in terms of the the risk of major accidents and/or disasters that would be significant within the meaning of the Regulations; (g) The proposed works are not considered to be such as to result in impacts in terms risks to human health that would be significant within the meaning of the Regulations. 2. In terms of the location of development: (a) The existing an approved land use are similar to that proposed and are therefore not considered to raise concerns in respect of significant impacts on terms of the environmental sensitivity of the geographical area within the meaning of the Regulations; (b) The proposed works are not considered to be such as to result in detrimental impacts on natural resources within the meaning of the Regulations; (c) The proposed works are not considered to be such as to result in detrimental impacts on the absorption capacity of the natural environment within the meaning of the Regulations. 3. In terms of the types and characteristics of the potential impact the proposed works are not considered to have a significant impact within the meaning of the Regulations that would stand to be assessed under the criteria of Schedule 3, part 3. Overall, the potential environmental effects of the development are considered insignificant in terms of the EIA Regulations.

Appendix 3 Benson Wind Rose – 2019