Everill Gate Properties Ltd

Everill Gate, Wombwell

Air Quality Mitigation Strategy

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1. Introduction

Everill Gate Properties Ltd commissioned WYG Environmental Planning and Transport (WYG) to prepare an air quality mitigation strategy to discharge condition 5 of the decision notice on the 2nd November 2018 for a proposed industrial development at Everill Gate Lane, Wombwell.

Condition 5 states

"Prior to commencement of development, details of proposals to mitigate the air quality impact of the development shall be submitted to and approved in writing by the Local Planning Authority. The development shall be undertaken in accordance with the approved details unless otherwise agreed in writing by the Local Planning Authority. Reason: In the interests of minimising the impact of the proposal on air quality and in accordance with Local Plan Policy Poll1"

1.1 Site Context

The approximate United Kingdom National Grid Reference (NGR) is approximately 441020, 462569. The site is bounded to the north Everill Gate Lane and industrial properties, open lane to the east, industrial properties to the south and residential properties and the A633 to the west.

The following assessment stages have been undertaken as part of this assessment:

- Damage Cost Emissions; and,
- Identification of mitigation measures.
- The results of the assessment are detailed in the following sections of this report.

2. Policy and Legislative Context

The following documents were consulted during the undertaking of this assessment:

Legislation and Best Practice Guidance

- National Planning Policy Framework, Ministry for Housing, Communities and Local Government, (Revised) February 2019; and,
- Planning Practice Guidance: Air Quality, Ministry for Housing, Communities and Local Government, March 2014.

Websites Consulted

- Google maps (maps.google.co.uk);
- The UK National Air Quality Archive (www.airquality.co.uk);
- Department for Transport Matrix (www.dft.go.uk/matrix);
- emapsite.com;
- Multi-Agency Geographic Information for the Countryside (http://magic.defra.gov.uk/);
- Planning Practice Guidance (http://planningguidance.planningportal.gov.uk/); and,
- Wakefield Council (https://www.wakefield.gov.uk/).

Site Specific Reference Documents

- 2017 Air Quality Annual Status Report for Wakefield Council;
- Barnsley Metropolitan Borough Council Local Plan, Adopted January 2019; and
- Barnsley Metropolitan Borough Council Air Quality Emissions Good Practice Planning Guidance, Adopted October 2018.

2.1 Planning and Policy Guidance

National Policy

The National Planning Policy Framework (NPPF), revised February 2019, principally brings together and summarises the suite of Planning Policy Statements (PPS) and Planning Policy Guidance (PPG) which previously guided planning policy making. The NPPF 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 or 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 or 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'

The Planning Practice Guidance (PPG) web-based resource was launched by the Ministry for Housing, Communities and Local Government (MHCLG) on 6 March 2014 to support the National Planning Policy Framework and make it more accessible. A review of PPG: Air Quality identified the following guidance:

'When deciding whether air quality is relevant to a planning application, local planning authorities should consider whether the development would:

Significantly affect traffic in the immediate vicinity of the proposed development site or further afield. This could be by generating or increasing traffic congestion; significantly changing traffic volumes, vehicle speed or both; or significantly altering the traffic composition on local roads. Other matters to consider include whether the proposal involves the development of a bus station, coach or lorry park; adds to turnover in a large car park; or result in construction sites that would generate large Heavy Goods Vehicle flows over a period of a year or more.

Introduce new point sources of air pollution. This could include furnaces which require prior notification to local authorities; or extraction systems (including chimneys) which require approval under pollution control legislation or biomass boilers or biomass-fuelled CHP plant; centralised boilers or CHP plant burning other fuels within or close to an air quality management area or introduce relevant combustion within a Smoke Control Area.

Expose people to existing sources of air pollutants. This could be by building new homes, workplaces or other development in places with poor air quality.

Give rise to potentially significant impact (such as dust) during construction for nearby sensitive locations.

Affect biodiversity. In particular, is it likely to result in deposition or concentration of pollutants that significantly affect a European-designated wildlife site and is not directly connected with or necessary to the management of the site, or does it otherwise affect biodiversity, particularly designated wildlife sites.'

Local Policy

The Barnsley Metropolitan Borough Council Local Plan (adopted January 2019) sets out the planning framework for guiding decisions on all developments within the area. Following a review of the Local Plan, the following policies were identified as relevant to air quality:

"Policy AQ1 Development in Air Quality Management Areas

Development which impacts on areas sensitive to air pollution in air quality management areas will be expected to demonstrate that it will not have a harmful effect on the health or living conditions of any future users of the development in terms of air quality (including residents, employees, visitors and customers), taking into account any suitable and proportionate mitigation required for the development.

We will only allow residential development which impacts on areas sensitive to air pollution, where the developer provides an assessment that shows living conditions will be acceptable for future residents, subject to any required mitigation.

We will only allow development which impacts on areas sensitive to air pollution which could cause more air pollution, where the developer provides an assessment that shows there will not be a significantly harmful effect on air quality, subject to any required mitigation.

Furthermore, development which impacts on areas sensitive to air pollution due to traffic emissions will be expected to demonstrate suitable and proportionate mitigation relative to the increased traffic emissions generated by the development."

3. Assessment Methodology

The pollutant emissions costs calculation identifies the environmental damage costs associated with the proposal and determine the amount (value) of mitigation that is expected to be spent on measures to mitigate the impacts. The calculation utilises the most recent Defra Emissions Factor Toolkit (Version 9.0) to estimate the additional pollutant emissions from a proposed development and the latest Defra Air Quality Damage Costs (published January 2019) for the specific pollutant of interest, to calculate the resultant damage cost.

The Emissions Assessment Calculator has been used in accordance with the methodology described with Barnsley Metropolitan Borough Council Air Quality Emissions Good Practice Planning Guidance, Adopted October 2018.

The aim of the Barnsley Air Quality Emissions Good Practice Planning Guidance is to provide a template for integrating air quality considerations into land-use planning and development malmanagement policies that can influence the reduction of road transport emissions. The guidance has been developed by the West Yorkshire Emissions Group.

4. Damage Costs Assessment

A 'damage costs' assessment has been completed. Damage costs are a simple way to value changes in air pollution. They estimate the cost of a change in emissions of different pollutants. Barnsley Metropolitan Borough Council use the damage costs methodology within their 'Air Quality and Emissions Good Practice Planning Guidance'. The Damage Costs Assessment has been undertaken using this guidance.

Additional trips	802 AADT (Assumption of 25% HGV)
Average distance travelled	10 km
Assumed average speed of	50 kph

Table 4.1 Damage Cost Calculation

Pollutant	Annual Link Emissions (kg/annum)	Annual Link Emissions (tonnes/annum)	National Damage Costs (£/tonne)	Valuation (£)	Valuation over 5 years (£)
NO_x	951.03	0.951	955	£908.21	£43,354.63
$PM_{2.5}$	159.77	0.160	48,517	£7,762.72	
Total				£8,670.93	

The mitigation measures have been approximately costed as below to determine whether the mitigation is commensurate to the damage costs presented above.

The total damage costs provide an indication as to the costs associated with the impact from the proposed development on the wider area. The calculated figure will be put towards various mitigation measures shown in Section 5 of the report; it does not represent a sum owed by the developer.

5. Emissions Mitigation Plan

Below are the mitigation measures for the proposed industrial development at Everill Gate Lane.

The itemised list of proposed mitigation measures to be implemented as a result of the proposed development is included in Table 2.1 below

Table 2.1 Itemised Mitigation Measures

Measure	Sum
Production and co-ordination of Travel Plan	£16,500
Cycle Parking provision	£2,350 (47 cycle parking spaces)
Provision for Electric Vehicle Charging	Approx £5,000 (£200 per point)
New footpath	Approx £20,000
Total	**£43,850**

Below is a summary of how each of the above aspects will help to control operational phase air quality.

5.1 Travel Plan

A travel plan is being produced for the proposed development at Everill Gate as part of Condition 10. This travel plan will be aimed at reducing air quality emissions. The travel plan will be in line with the Barnsley MBC Air Quality Action Plan to ensure that the development or any proposals within the travel plan do not negatively impact the measures within the air quality action plan.

Measures and objectives within the industrial plan will include;

- Pre-planned routes for both HGV's and staff movements associated with the proposed development take as to not worsen air quality and increase congestion in current areas of poor air quality. These are discussed within the Transport Assessment produced by ViaSolutions.

Measures within the travel plan should promote long-term sustainable travel measures to and from the proposed development site. This will help in reducing single occupancy car travels or promotion of alternative means of transport. The measures to be implemented which will reduce emissions are:

- Layout of the site to promote cycle and pedestrian routes;
- A dedicated Travel Plan Coordinator to ensure uptake and management of the Travel Plan;

5.1.1 Pedestrian and Cycle Measures in the Travel Plan

- Up to date maps of local walking and cycling routes;
- Clear signage and street lighting;
- Information on the health benefits of walking and cycling;

- Shelters and secure cycle parking to accord with standards; and,
- Promotional events to encourage behaviour e.g. National Bike Week and National Walking Month.

5.1.2 Public Transport Measures

- Promotion of public transport with provision of up to date information on public transport services, including timetables, route maps, ticket prices and nearest boarding points.

5.1.3 Personal Travel Planning

- The inclusion of sustainable travel information available at workspaces. Personal travel planning advice will be offered as part of an employee's welcome pack to encourage walking, cycling, public transport use and car sharing.

5.2 Bus Stops

The proposed development is served by eight services an hour Monday to Friday. The site has bus stops within a desirable walking distance. The additional improvements in public bridleways will potentially also increase the use of buses within the area and increase the use of sustainable transport and improving air quality.

5.3 Cycle Infrastructure

The proposed development has proposed infrastructure for a minimum of 16 cycling spaces for Phase 1 and 31 for Phase two. This infrastructure will allow staff to utilise the current existing cycle pathways surrounding the site and limit and provide a zero-emission mode of transport to the proposed development.

5.4 Improved Public Bridleway

Additional and improved footpaths will provide a direct investment to the improvement of local infrastructure. Footpaths enable zero emissions methods of travel. A footpath will be provided as a result of the proposed development on the south side of Everill Gate Lane, a pedestrian link from the proposed site to the A633 Valley Way and the roundabout.

5.5 Electric Vehicle Charging Points

The Barnsley MBC Air Quality and Emission Good Practice Guidance recommends the inclusion for industrial developments to include 10% of employment parking spaces to be provided with electric vehicle charging points. There are currently 254 proposed parking spaces so 25 EV parking spaces will be provided.

The minimum current rating recommended for standard EV charging infrastructure is 16 Amps. Three-pin 13 amp domestic sockets are not endorsed for EV charging because they are not designed for continuous full

power operation. The additional power capability of a 16Amp supply will ensure a full charge can be delivered in an approximate 6-hour overnight period of low background electricity demand.

5.6 Eco Stars Heavy Duty Vehicle Recognition Scheme

The Eco Stars fleet recognition scheme, within the Barnsley MBC Air Quality Action Plan, should be implemented. This scheme is aimed to help fleet operators improve efficiency and reduce fuel consumption. Vehicle fleets are assessed for their operational practice and age and where improvements can be made.

Improvements in vehicles emission fleet, particularly HGV's will result in improvements in air quality emission. Further information can be found at https://www.ecostars-uk.com/

6. Conclusions

As shown above, the proposed mitigation measures included as part of the scheme which are designed to reduce emissions, amount to more than the total Damage Cost sum associated with the development. Therefore, it is considered that there are sufficient mitigation measures in place to offset additional air emissions from the development.