

Specialist Statement (Air Quality)
Sandown Park Racecourse

Client: Jockey Club Racecourses Limited

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1.0 INTRODUCTION

1.1 Background

1.1.1 Redmore Environmental Ltd was instructed by Jockey Club Racecourses Ltd to undertake an Air Quality Assessment in support of the proposed redevelopment of Sandown Park Racecourse in December 2018. The findings were summarised in an Environmental Impact Assessment (EIA) Chapter submitted as part of the overarching Environmental Statement produced by Rapleys and dated 19th February 2019¹ (Core Document CD5.43 and CD5.48). This was submitted in support of the planning application for the proposals.

1.1.2 The Environmental Services department of Elmbridge Borough Council (EBC) in their comments dated 25th April 2019, as well as the Planning Officers in their Report (Core Document CD7.3), considered the information submitted with the planning application and raised no technical or other objection on air quality grounds. The Planning Committee considered the planning application and associated information and refused planning permission on 3rd October 2019. Air quality was a matter included within reason 1 for refusal as causing harm. There was no basis in evidence for this conclusion by members of the Planning Committee.

1.1.3 Reason for Refusal 1 states:

"The proposed development represents inappropriate development in the Green Belt which would result in definitional harm and actual harm to the openness of the Green Belt and it is not considered that the very special circumstances required to clearly outweigh the harm to the Green Belt and any other harm, including impact on transport (highway and public transport capacity), air quality and insufficient affordable housing provision, have been demonstrated in this case. The proposed development by reason of its prominent location would be detrimental to the character and openness of the Green Belt contrary to the requirements of the NPPF, Policies CS21 and CS25 of the Elmbridge Core Strategy 2011 (Core Document CD1.1), Policies DM5, DM7 and DM17 of the Elmbridge Development Management Plan 2015 (Core Document CD1.2)."

¹ Environmental Statement for Jockey Club Racecourses Ltd - Sandown Park Racecourse, Portsmouth Road, Esher (reference srs/385/12/6), Rapleys, 2019.

- 1.1.4 A Statement of Case (Air Quality) was produced in March 2020 (reference: 2478-2) to set out the background to the project and associated Air Quality Assessment and provide information to indicate how the development is policy compliant. This was subsequently submitted in support of the planning appeal.
- 1.1.5 This Specialist Statement has been produced to address any further comments raised since the submission of the Statement of Case (Air Quality), as well as reconfirm the position in relation to air quality.

1.2 Author

- 1.2.1 My name is Jethro Redmore and I am a Director at Redmore Environmental Ltd. I hold a BEng in Energy Engineering from Leeds University and a MSc in Environmental Pollution Control, also from Leeds University. I am a Chartered Environmentalist (CEnv), a Member of the Institute of Air Quality Management (IAQM), a Member of the Institute of Environmental Sciences (MIEnvSc) and a Practitioner of the Institute of Environmental Management and Assessment (PIEMA). I have previously sat on the council of the IAQM and been involved in working groups for the production of technical guidance. In my role as Director at Redmore Environmental I am responsible for directing the air quality assessments undertaken by the company. I was previously employed as Associate Director by Resource and Environmental Consultants Ltd, Senior Air Quality Consultant by Hyder Consulting, Senior Air Quality Consultant by WYG and Air Quality Technician by RPS.
- 1.2.2 I have worked as a professional environmental scientist for approximately 15 years. I have been responsible for conducting environmental studies for major road improvement and construction schemes, power stations, oil refineries and other major industrial complexes. In addition, I have carried out numerous air quality assessments of mineral, commercial and retail proposals as well as providing specialist advice in the field of air quality and odour to Local Authorities and National Environmental Agencies.
- 1.2.3 I have undertaken air quality assessments for a wide variety of leisure and residential schemes, from sports stadia expansions to large scale 'eco-towns'. These studies have been carried out for Environmental Statements, planning applications and to investigate potential nuisance issues, and have often made reference to relevant industry guidance produced by the Department for Environment, Food and Rural Affairs (DEFRA) and the IAQM, amongst others.

2.0 AIR QUALITY ASSESSMENT

2.1.1 The submitted Air Quality Assessment (Core Document CD.5.43 and CD5.48) included assessment of the potential impacts as a result of the proposed development on existing pollution levels during construction and operation, as well as the exposure of future residents to poor air quality. This included consideration of the following:

- The legislative and planning context relating to air quality;
- Establishing baseline conditions, including review of existing air quality and identification of sensitive receptor positions;
- Assessing potential construction phase air quality impacts associated with fugitive dust and vehicle exhaust emissions;
- Assessing potential operational phase air quality impacts associated with vehicle exhaust emissions;
- Assessing the suitability of the application site for the proposed land uses, which includes the addition of potentially sensitive receptors (e.g. residential properties); and,
- Consideration of the significance of the predicted air quality impacts.

2.1.2 It is confirmed that there have not been any changes in circumstances, legislation, policy or guidance since the date of submission which would significantly affect the conclusions of the Air Quality Assessment (Core Document CD.5.43 and CD5.48).

2.1.3 In summary, as outlined in the Air Quality Assessment (Core Document CD.5.43 and CD5.48) and the Statement of Case (Air Quality), the residual effect from dust generating activities during construction following the implementation of the specified mitigation measures as part of the Construction Environmental Management Plan (CEMP) (Core Document CD5.46) was predicted to be **not significant**, in accordance with the methodology outlined within the Institute of Air Quality Management (IAQM) guidance² (Core Document CD3.28).

2.1.4 The residual air quality effect from road vehicle exhaust emissions during construction following the implementation of the specified mitigation measures was also predicted to be **not significant**. This is due to the low number of vehicle trips associated with the

² Guidance on the Assessment of Dust from Demolition and Construction V1.1, IAQM, 2016.

construction phase and proposed routing away from the relevant Air Quality Management Areas (AQMAs) as part of the CEMP (Core Document CD5.46).

- 2.1.5 Impacts on annual mean nitrogen dioxide (NO₂) and particulate matter with an aerodynamic diameter of less than 10µm (PM₁₀) concentrations as a result of vehicle exhaust emissions associated with the operational phase of the development were predicted to be **negligible** at all sensitive receptor locations, in accordance with the IAQM methodology³ (Core Document CD3.29). These predictions are at the lowest end of the spectrum between **negligible** and **substantial**. As a result, the overall significance of effect was determined as **not significant** in accordance with the IAQM methodology⁴ (Core Document CD3.29).
- 2.1.6 The results of the Air Quality Assessment also indicated that predicted annual mean NO₂ concentrations were below the relevant AQO at all locations across the development. As such, the site was considered suitable for residential use from an air quality perspective.

³ Land-Use Planning & Development Control: Planning for Air Quality, IAQM, 2017.

⁴ Land-Use Planning & Development Control: Planning for Air Quality, IAQM, 2017.

3.0 STATEMENT OF CASE OF THE LOCAL PLANNING AUTHORITY

3.1.1 Air quality matters are dealt with in paragraphs 6.36 to 6.38 of the Statement of Case of the Local Planning Authority. Paragraph 6.36 states:

"The site is adjacent to an area which has been declared an Air Quality Management Area (AQMA) and is in addition located close to the Hinchley Wood and Hampton Court AQMAs. The Council's most recent air quality monitoring data (for 2018) shows a significant increase in Nitrogen Dioxide levels across Esher, and indeed two of the monitoring locations have exceeded the annual mean limit of 40µg/m³."

3.1.2 It is accepted that the site is located adjacent to the Esher AQMA and within the vicinity of the Hinchley Wood and Hampton Court AQMAs. This is clearly stated within the Air Quality Assessment (Core Document CD.5.43 and CD5.48) and the designations were considered throughout the assessment. Given that AQMAs are only declared where Air Quality Objectives (AQOs) (referred to as a 'limit' above) are exceeded, levels above the annual mean AQO of 40µg/m³ would be anticipated within this area and the results are therefore to be expected. However, as outlined in the Air Quality Assessment (Core Document CD.5.43 and CD5.48), the proposed development is not predicted to significantly affect pollutant concentrations within the AQMA and to restrict development merely due to the presence of an AQMA would result in cessation of development throughout Greater London and the majority of urban areas throughout the UK.

3.1.3 Paragraph 103 of the National Planning Policy Framework (NPPF) (Core Document CD2.1) states:

"Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health."

3.1.4 As previously agreed with Surrey County Council (SCC), the site is located in a sustainable location close to urban centres and public transport links. Additionally, the development will include implementation of measures to reduce car journeys. The proposals are

therefore considered to align with the aims of the NPPF and have the potential to reduce air quality impacts when compared with less sustainable sites.

3.1.5 Paragraph 6.37 states:

"By Policy DM5 of the Development Management Plan development proposals must avoid the introduction of additional sources of air pollution. It goes on to say that "permission will not be granted for proposals where there is a significant adverse impact upon the status of the Air Quality Management Area...". The Council does not contend that this threshold (of a "significant adverse impact") set out in policy would be reached."

3.1.6 It is agreed that the threshold of a significant adverse impact is not reached. As such, the proposed development is considered to comply with Policy DM5 of the Elmbridge Development Management Plan (Core Document CD1.2).

3.1.7 Paragraph 6.38 states:

"The Council remains concerned that any increase in the number of visitors to the upgraded racecourse, as well as the planned increase in residents, would not "sustain and contribute towards compliance with relevant limit values" in accordance with paragraph 181 of the NPPF. That said, the Council acknowledges the mitigation measures proposed by the Appellant and does not intend to advance evidence from an air quality witness to defend this part of the first reason for refusal."

3.1.8 As outlined in the Air Quality Assessment (Core Document CD.5.43 and CD5.48) and the Statement of Case (Air Quality), predicted annual mean NO₂ and PM₁₀ concentrations were below the relevant limit values at all sensitive receptor locations both with and without the development in place. No evidence has been provided by EBC to contradict these results and it has been indicated that they do not intend to provide an expert witness to advance their case. Based on the undisputed findings of the Air Quality Assessment (Core Document CD.5.43 and CD5.48), pollutant concentrations following implementation of the development are therefore predicted to comply with the relevant limit values, as required by the NPPF (Core Document CD2.1).

4.0 INTERESTED PARTY REPRESENTATIONS

4.1.1 A number of comments have been received from Interested Parties. Those relating to air quality can be summarised as follows:

- Increased level of air pollution; and,
- The loss of trees will add pollution along Portsmouth Road.

4.1.2 As shown throughout the original Air Quality Assessment (Core Document CD.5.43 and CD5.48) and the Statement of Case (Air Quality), increases in air pollution as a result of the development were predicted to be **negligible** during both construction and operation. As such, impacts were classified as **not significant**, in accordance with the relevant IAQM guidance documents (Core Document CD3.28 and Core Document CD3.29).

4.1.3 The Esher AQMA has been declared due to exceedences of the annual mean AQO for NO₂. This pollutant is therefore considered of most concern in the vicinity of the site. The Air Quality Expert Group report 'Impacts of Vegetation on Urban Air Pollution'⁵ produced for the Department for Environment, Food and Rural Affairs (DEFRA) states the following in response to the question: 'Is there definitive observational evidence of the effectiveness of urban vegetation in mitigating air pollution?':

"For nitrogen dioxide (NO₂), vegetation is, generally speaking, of little benefit; it is not a very efficient sink. The deposition occurs in daytime, and primarily in the warmer months, when NO₂ is less of a problem. Vegetation is a very poor sink for nitric oxide (NO) and soil is a source of NO, at least partially offsetting any potential benefit of uptake by vegetation.

Locally (tens to hundreds of square metres) tree planting may enhance or reduce dispersion; this redistributes pollution but does not remove it."

4.1.4 The loss of trees is therefore not anticipated to add pollution along Portsmouth Road or significantly affect air quality conditions in the vicinity of the site.

⁵ Impacts of Vegetation on Urban Air Pollution, Air Quality Expert Group, 2018.

5.0 BENEFITS OF PROPOSAL

- 5.1.1 The benefits of the proposal in relation to air quality are outlined within Section 3.1 of the Statement of Case (Air Quality). The measures will encourage walking and public transport use, reducing the number of trips taken by the private car in the vicinity of the site. This would have an associated reduction in vehicle emissions and, although likely to be not significant, would be a beneficial impact on local pollution levels. It should be noted that these measures will encourage a modal shift by all users seeking to use these roads and not just those who would live in the proposed dwellings. As discussed previously, the sustainable location of the site, as agreed by SCC, will help achieve these aims in accordance with the principles of the NPPF.
- 5.1.2 The proposed measures are acknowledged in the Statement of Case of the Local Planning Authority and further actions have not been requested at any stage of the application or appeal.
- 5.1.3 As outlined within Section 3.2 of the Statement of Case (Air Quality), local air quality within the UK is predicted to improve in the future through the adoption of stricter vehicle emission standards, as well as wider policies on industrial emissions, promotion of electric vehicle uptake and renewable energy generation. These include the latest Government initiative to ban new sales of petrol and diesel cars from 2035.
- 5.1.4 On a local and regional scale, schemes such as the London Low Emission Zone (LEZ) and subsequent Ultra Low Emissions Zone (ULEZ), as well as Clean Air Zones (CAZs) in other cities, are also driving vehicle fleet change towards lower emission options. These measures will have beneficial air quality impacts and help reduce pollutant concentrations throughout the country.

6.0 **ABBREVIATIONS**

AQMA	Air Quality Management Area
AQO	Air Quality Objective
CEMP	Construction Environmental Management Plan
DEFRA	Department for Environment, Food and Rural Affairs
EBC	Elmbridge Borough Council
EIA	Environmental Impact Assessment
IAQM	Institute of Air Quality Management
NO	Nitric oxide
NO ₂	Nitrogen dioxide
NPPF	National Planning Policy Framework
PM ₁₀	Particulate matter with an aerodynamic diameter of less than 10µm
SCC	Surrey County Council