Monthly Summary

1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Ealing (LBE) during February 2019 and March 2019 respectively.

1.1.2 Figure 1 and Figure 2 in Appendix A indicate the current work sites together with air quality and dust monitoring locations.

1.1.3 This summary should be read in conjunction with the overview monitoring report available from [www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2](http://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2), which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.

1.1.4 The current phase of works commenced within the LBE during April 2018, and are expected to be completed by July 2019. The current worksites, as presented in Appendix A, Figure 1 and Figure 2, include:

- Demolition of buildings on Victoria Road, worksite ref. S002-WS01.
- Soft strip and demolition of buildings on Atlas Road, worksite ref. S001-WS05.
- Demolition works at Willesden Euro Terminal, worksite ref. S001-WS03.
- Demolition and groundworks at Old Oak Common Depot (located in the London Borough of Hammersmith and Fulham), worksite ref. S004-WS01.
- Securing of site at Mandeville Road Pumping Station, worksite ref. S002-WS02.

1.1.5 Nine (9) dust monitors were installed around worksites, where works are underway. These sites returned a medium or high dust risk rating.

1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 2, together with line charts of monthly data from each dust monitor in Figure 3.

1.1.7 There were two (2) exceedances of the dust trigger level recorded during the month of March 2019. Exceedances are presented in Appendix B, Table 3. All other results were in line with expected ranges.

1.1.8 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) was undertaken at six (6) locations in February 2019, around highways within the LBE as part of the management of air quality where significant effects may occur as a result the scheme.

1.1.9 Diffusion tube monitoring results are provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final
corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.

1.1.10 NO₂ monitoring locations and results are presented in Appendix C, Table 4, together with the 2019 running mean.

1.1.11 There were no complaints received, relating to air quality, during this monitoring period.
Appendix A – Worksites and Monitoring Locations

Figure 1 and 2: Worksites and monitoring locations within the LBE
Legend

- District/Borough boundary
- Route in tunnel
- Route on surface
- HS2 Chainage Markers
- Diffusion tube monitoring location
- Mandeville Road Pumping Station
- Dust monitoring location

Worksites and Monitoring locations in LBE (sheet 1)

London Borough of Ealing

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Scale at A3: 20,000

Date: 16/07/18


Figure Name: Worksites and Monitoring locations in LBE (sheet 1)

Map Number: 1EW02-CJ-EV-REP-0905-090517_appAFig1.pdf
## Appendix B – Dust Monitoring Results

Table 2. Dust monitoring locations and March 2019 Results

<table>
<thead>
<tr>
<th>Monitoring site ID</th>
<th>Coordinates (X,Y)</th>
<th>Location description</th>
<th>Dust risk rating for site</th>
<th>Monitoring site active during period</th>
<th>Change to site since previous period report</th>
<th>Mean 1-hour PM$_{10}$ concentration (µg/m$^3$)</th>
<th>Minimum 1-hour PM$_{10}$ concentration (µg/m$^3$)</th>
<th>Maximum 1-hour PM$_{10}$ concentration (µg/m$^3$)</th>
<th>Number of 1-hour periods exceeding trigger level of 190 µg/m$^3$</th>
<th>1-hour data capture (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ022</td>
<td>521072, 181985</td>
<td>Boden House</td>
<td>H</td>
<td>Yes</td>
<td>N</td>
<td>13.1</td>
<td>1.1</td>
<td>122.6</td>
<td>0</td>
<td>99.9</td>
</tr>
<tr>
<td>AQ023</td>
<td>520956, 182149</td>
<td>School Road</td>
<td>H</td>
<td>Yes</td>
<td>N</td>
<td>17.6</td>
<td>0.8</td>
<td>89.9</td>
<td>0</td>
<td>99.9</td>
</tr>
<tr>
<td>AQ024</td>
<td>521214, 182223</td>
<td>Braitrim House</td>
<td>H</td>
<td>Yes</td>
<td>Y</td>
<td>24.4</td>
<td>1.7</td>
<td>222.7</td>
<td>2</td>
<td>99.9</td>
</tr>
<tr>
<td>AQ025</td>
<td>521295, 182360</td>
<td>Victoria Road</td>
<td>H</td>
<td>Yes</td>
<td>N</td>
<td>12.3</td>
<td>1.7</td>
<td>56.6</td>
<td>0</td>
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</tr>
<tr>
<td>AQ026</td>
<td>521419, 182497</td>
<td>Old Oak Lane</td>
<td>H</td>
<td>Yes</td>
<td>N</td>
<td>14.2</td>
<td>1.3</td>
<td>67.3</td>
<td>0</td>
<td>99.9</td>
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<tr>
<td>AQ027</td>
<td>521515, 182706</td>
<td>Stephenson Street</td>
<td>H</td>
<td>Yes</td>
<td>N</td>
<td>15.3</td>
<td>1.6</td>
<td>152.7</td>
<td>0</td>
<td>99.9</td>
</tr>
<tr>
<td>AQ028</td>
<td>521302, 182067</td>
<td>Wells House Road</td>
<td>H</td>
<td>Yes</td>
<td>N</td>
<td>21.8</td>
<td>1.9</td>
<td>168.8</td>
<td>0</td>
<td>99.9</td>
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<tr>
<td>AQ032</td>
<td>513402, 184536</td>
<td>Badminton Close</td>
<td>M</td>
<td>Yes</td>
<td>N</td>
<td>11.1</td>
<td>1.4</td>
<td>48.4</td>
<td>0</td>
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</tr>
<tr>
<td>AQ037</td>
<td>521304, 182464</td>
<td>Atlas Road</td>
<td>H</td>
<td>Yes</td>
<td>N</td>
<td>11.8</td>
<td>1.2</td>
<td>65.5</td>
<td>0</td>
<td>98.3</td>
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<tr>
<td>Period exceeding trigger level</td>
<td>Worksite reference</td>
<td>Monitoring site ID</td>
<td>Complaint reference number (if applicable)</td>
<td>Reason</td>
<td>Resolution</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td>29/03/2019 09:01 - 29/03/2019 10:00</td>
<td>S002-WS01</td>
<td>AQ024</td>
<td>n/a</td>
<td>Trigger associated with dust from the demolition of buildings on the east side of Victoria Road.</td>
<td>Works paused, reviewed and additional dust suppression implemented. No further triggers were received.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30/03/2019 09:01 – 30/03/2019 10:00</td>
<td>S002-WS01</td>
<td>AQ024</td>
<td>n/a</td>
<td>No demolition works underway at the time of the trigger. Unclear as to the cause of but assumed potentially because of windblown dust from demolition materials.</td>
<td>Damping down of demolition materials to be considered when demolition works not being undertaken or when site is not operational, for example, at weekends.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 3: Construction dust 1-hour mean indicative PM$_{10}$ concentration for dust monitors

AQ022

AQ023

AQ024

AQ025
Air Quality and Dust Monitoring Summary Report, March 2019
London Borough of Ealing

AQ026

AQ027

AQ028

AQ032
Air Quality and Dust Monitoring Summary Report, March 2019
London Borough of Ealing

AQ037
# Appendix C – Air Quality Monitoring Results

Table 4. NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2019 (µg/m³)

<table>
<thead>
<tr>
<th>Monitoring Site ID</th>
<th>Location description</th>
<th>Coordinates (X, Y)</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Mean¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS2-000020BN5</td>
<td>Sign post on Victoria Road</td>
<td>521443, 182477</td>
<td>63</td>
<td>64</td>
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<td></td>
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<td></td>
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<td></td>
<td>64</td>
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<tr>
<td>HS2-000020BN7</td>
<td>The Approach street sign</td>
<td>520959, 181102</td>
<td>75</td>
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</tr>
<tr>
<td>HS2-000020BQF</td>
<td>Conway Drive sign post</td>
<td>520856, 181733</td>
<td>69</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td>69</td>
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<tr>
<td>HS2-000020BQG</td>
<td>Lamp post outside No 1. Wells House Road on Old Oak Common Lane</td>
<td>521312, 182033</td>
<td>69</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HS2-000020BP6</td>
<td>Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station</td>
<td>520430, 181950</td>
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<td>64</td>
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<td>HS2-000020BP7</td>
<td>Triplicate site next to the Ealing, Hangar Lane Gyratory roadside automatic monitoring station</td>
<td>518537, 182708</td>
<td>83</td>
<td>80</td>
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<td></td>
<td></td>
<td></td>
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<td>82</td>
</tr>
</tbody>
</table>

¹ Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.