

November 2019

#### Air Quality and Dust Monitoring Monthly Report – November 2019

**London Borough of Camden** 



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# **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 Camden (LBC) during October 2019 and November 2019 respectively.
- 1.1.2 Figure 1 to Figure 3 in Appendix A indicate the current worksites 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 <a href="https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2">www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2</a>, 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 LBC during December 2017 and are expected to be completed by December 2019. The next phase of construction works commenced in November 2019 and is expected to be completed by 2025. The current, completed and planned worksites, include:

Current & Planned -

- Site office and welfare on the adjacent former Addison Lee compound on Granby Terrace, worksite ref. S001-WS01.
- Archaeological dig at St James' Gardens and deconstruction of an enclosure over the entire works site; worksite ref. S003-WS01.
- Demolition and groundworks at:
  - The IBIS Hotel, 3 Cardington Street, worksite ref. S003-WS05;
  - Thistle Hotel, Cardington Street, worksite ref. S003-WS04;
  - A number of sites in Euston Street, worksite ref. S003-WS07;
  - Regents Park Estate worksite ref. S001-WS07;
  - Walkden House, 67-75 & 77-79 Euston Street, worksite ref. S003-WS03; and
  - One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street, worksite ref. S003-WS09.
- National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road and community garden, worksite ref. S003-WS06.
- Thames Water Compound, worksite ref. S001-WS05.
- Vehicle Holding Area, worksite ref. S001-WS04 (yet to be established).
- Euston Approaches mobilisation and site set up and crushing and storage of spoil (on the former DB Cargo site), worksite ref. S001-WS01.

#### Complete -

- Demolition of former accommodation block and train maintenance shed, at the DB Cargo shed, worksite ref. S001-WS01.
- Demolition at:
  - National Temperance Hospital, Insull Wing, worksite ref. S003-WS02;
  - 1-3 Cobourg Street, worksite ref. S003-WS05; and
  - 132 140 Hampstead Road and Petrol Station, worksite ref. S001-WS02.
- Taxi rank in Euston Square Gardens, worksite ref. S003-WS08.
- 1.1.5 Twenty (20) dust monitors are installed around worksites, where demolition and predemolition 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 4. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.
- 1.1.7 The trigger level of 190 μg/m<sup>3</sup>, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites –* October 2018' has been applied.
- 1.1.8 There were four (4) dust trigger alerts recorded during the monitoring period (November 2019). Exceedances are presented in Appendix B, Table 3. All other results were in line with expected ranges.
- 1.1.9 Data capture for AQ006 was below 90% for the month of November 2019. This was because of a fault with the instrument. Due to utility works in the area immediately around the monitoring location it was not possible to repair the monitor until the 20/11/2019.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) was undertaken at sixty-five (65) locations in October 2019, around highways within the LBC as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.11 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.
- 1.1.12 NO<sub>2</sub> monitoring locations and results are presented in Appendix C, Table 4, together with the 2019 running mean.

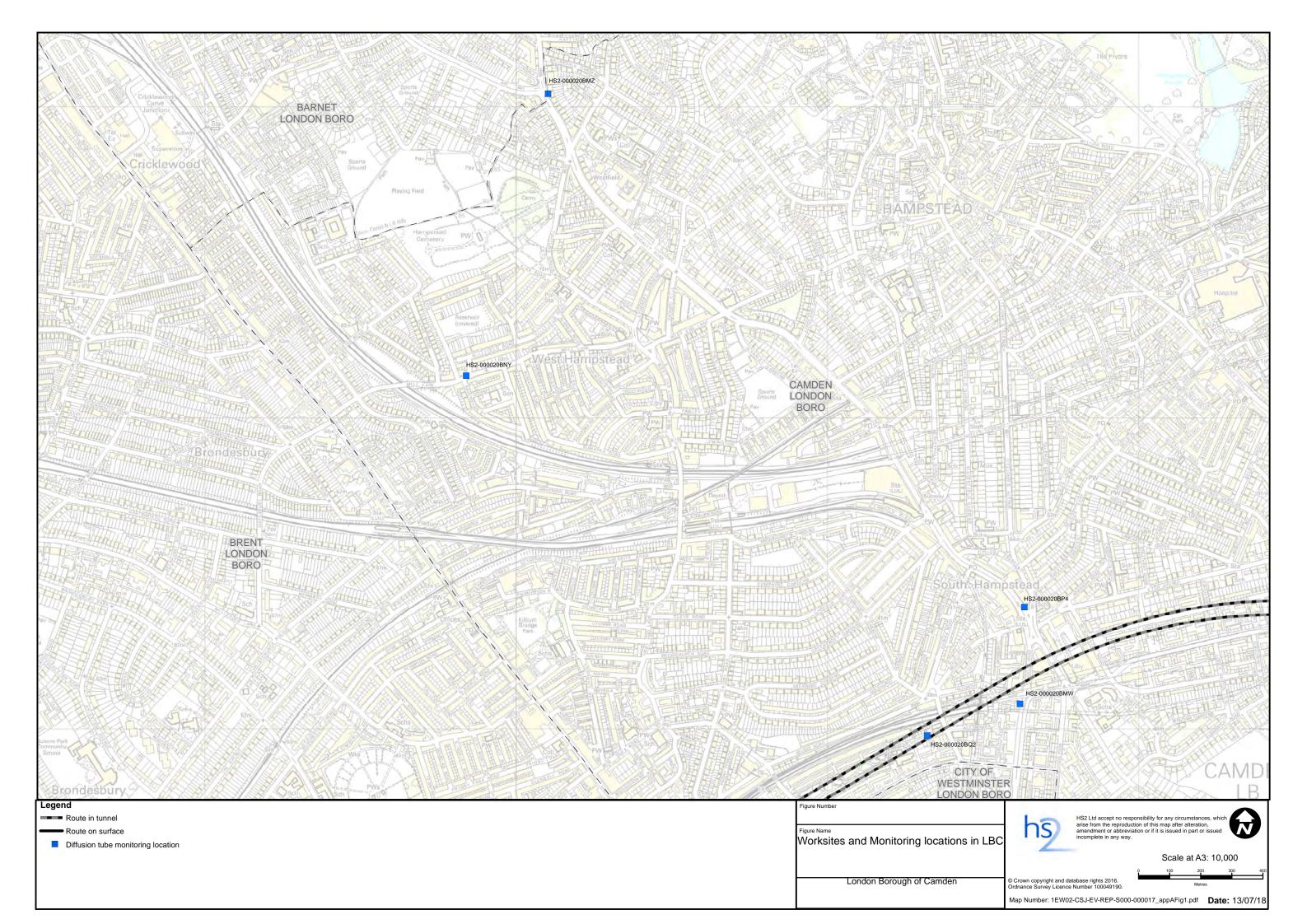
1.1.13 Table 1 provides a summary of the complaint information related to dust or air quality received during the reporting period, together with the findings of any related investigations.

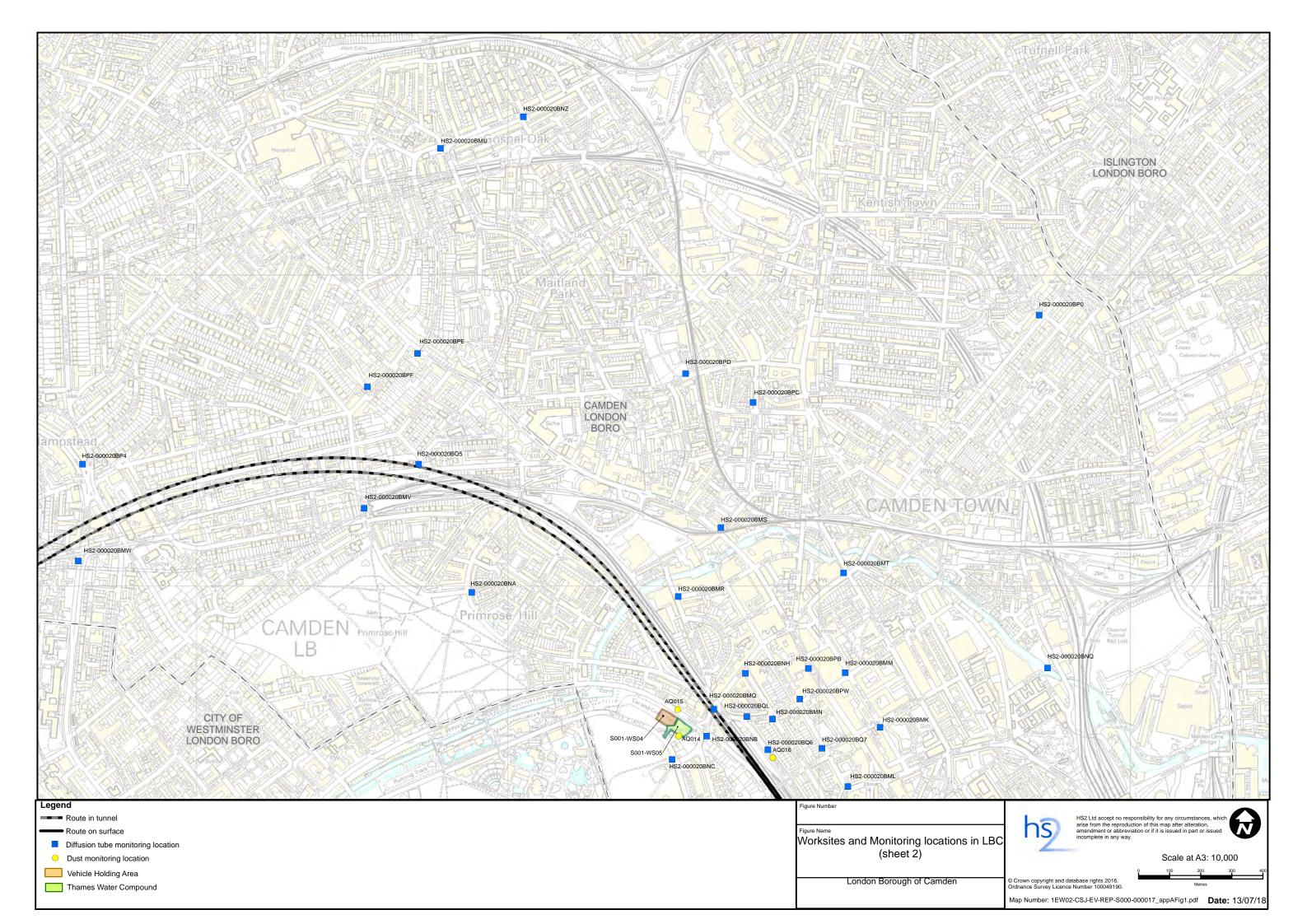
| Complaint<br>Reference No. | Worksite<br>Reference | Description of<br>complaint   | Results of investigation   |
|----------------------------|-----------------------|---|--|
| HS2-19-11309-C             | S001-WS07             | A complaint was<br>received in relation to<br>dust generated from<br>the demolition<br>activities.                | A response to the complainant has been provided,<br>detailing the measures and methods implemented by the<br>project to minimise potential impacts from generated<br>dust.   |
| HS2-19-11970-C             | S001-WS07             | A complaint was<br>received in relation to<br>dust, water and mud<br>generated from the<br>demolition activities. | A response email detailing the measures that the project<br>is implementing to minimise the impacts from dust<br>generated during demolition activities. The response<br>detailed the currently used combination of water<br>cannons, and water sprays on the long reach and<br>demolition curtain to control the dust emissions from the<br>demolition. |
| HS2-19-12217-C             | S001-WS01&WS07        | A complaint was<br>received in relation to<br>dust generated from<br>the demolition<br>activities.                | A response to the complainant has been provided,<br>detailing the measures and methods implemented by the<br>project to minimise potential impacts from generated<br>dust.   |

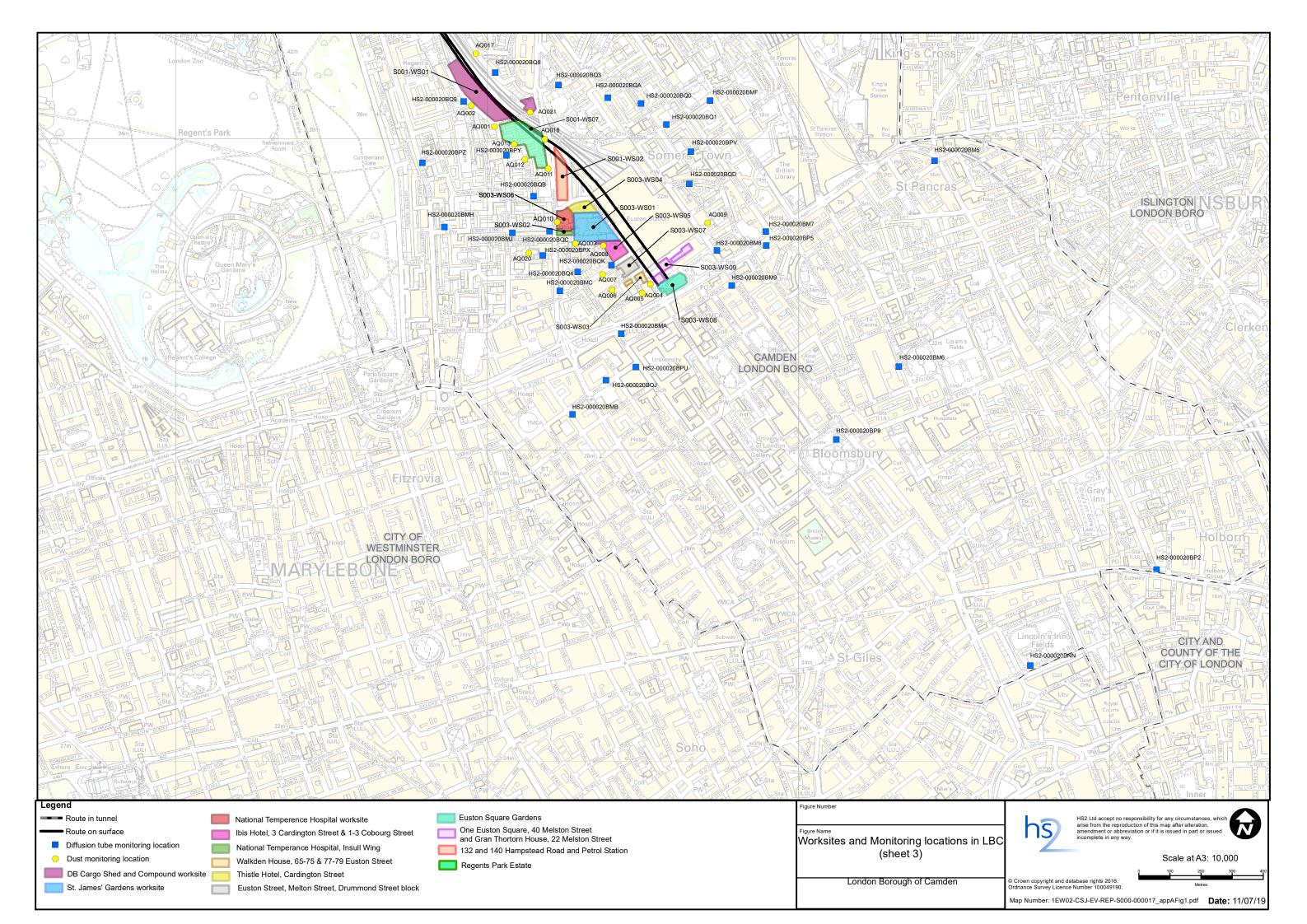
#### Table 1: Summary of complaints received during November 2019 in LBC

## **Appendix A – Worksites and Monitoring Locations**

Figure 1 to Figure 3: Worksites and monitoring locations within the LBC







### **Appendix B – Dust Monitoring Results**

Table 2: Dust monitoring locations and November 2019 Results

| Monitoring<br>site ID | Coordinates<br>(X,Y) | Location<br>description   | Dust<br>risk<br>rating<br>for<br>site | Monitoring<br>site active<br>during<br>period | Change to<br>site since<br>previous<br>period<br>report | Mean 1-hour PM <sub>10</sub><br>concentration<br>(µg/m <sup>3</sup> ) | Minimum 1-<br>hour PM10<br>concentration<br>(µg/m³) | Maximum 1-<br>hour PM <sub>10</sub><br>concentration<br>(µg/m <sup>3</sup> ) | Number of<br>1- hour<br>periods<br>exceeding<br>trigger level<br>of 190<br>µg/m <sup>3</sup> | Data capture<br>(%) |
|-----------------------|----------------------|---|---------------------------------------|---|---|---|---|--|--|---------------------|
| AQ001                 | 529022,<br>183040    | Junction of<br>Park Village<br>East, Stanhope<br>Street and<br>Granby Terrace | н                                     | Yes   | N   | 12.3  | 0.7   | 123.2  | 0  | 100.0               |
| AQ002                 | 528947,<br>183107    | Park Village<br>East  | н                                     | Yes   | N   | 9.8   | 0.7   | 55.5   | 0  | 100.0               |
| AQ003                 | 529282,<br>182663    | St James<br>Gardens   | М                                     | Yes   | N   | 12.0  | 1.0   | 44.1   | 0  | 100.0               |
| AQ004                 | 529523,<br>182533    | Melton Street   | н                                     | Yes   | N   | 12.5  | 0.9   | 163.5  | 0  | 100.0               |
| AQ005                 | 529496,<br>182505    | Stephenson<br>Way   | н                                     | Yes   | N   | 12.0  | 1.0   | 47.6   | 0  | 100.0               |
| AQ006                 | 529399,<br>182514    | Euston Street   | н                                     | Yes   | N   | 13.5  | 2.7   | 43.5   | 0  | 45.7                |
| AQ007                 | 529369,<br>182564    | Drummond<br>Street  | н                                     | Yes   | N   | 10.7  | 0.8   | 94.0   | 0  | 100.0               |
| AQ008                 | 529369,<br>182648    | Cobourg Street  | н                                     | Yes   | N   | 12.2  | 0.7   | 49.8   | 0  | 100.0               |
| AQ009                 | 529707,<br>182730    | Lancing Street  | н                                     | Yes   | N   | 13.2  | 1.2   | 44.3   | 0  | 100.0               |
| AQ010                 | 529223,<br>182732    | Hampstead<br>Road South   | н                                     | Yes   | N   | 10.6  | 1.2   | 66.2   | 0  | 100.0               |
| AQ011                 | 529195,<br>182904    | Hampstead<br>Road   | н                                     | Yes   | N   | 27.9  | 2.3   | 1988.2   | 2  | 100.0               |

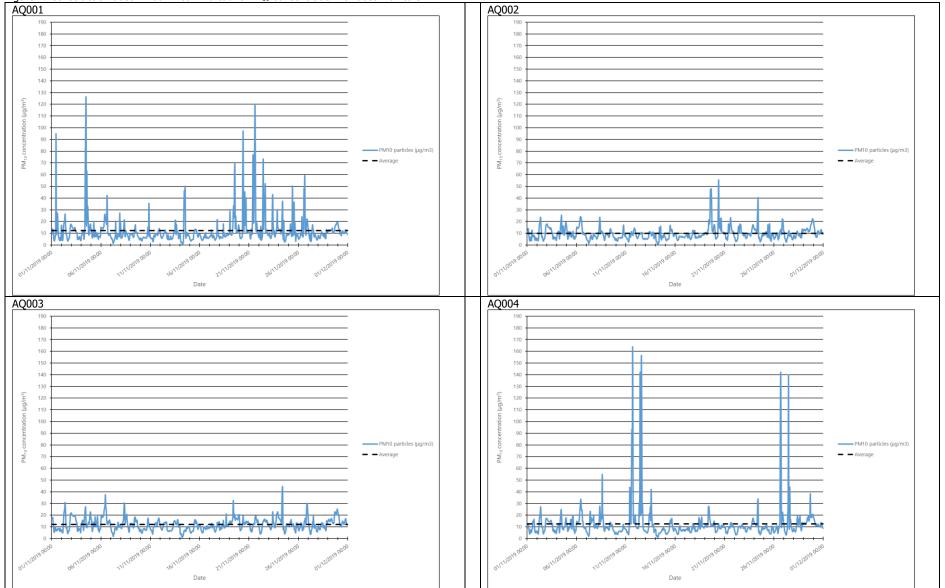
| Monitoring<br>site ID | Coordinates<br>(X,Y) | Location<br>description  | Dust<br>risk<br>rating<br>for<br>site | Monitoring<br>site active<br>during<br>period | Change to<br>site since<br>previous<br>period<br>report | Mean 1-hour PM <sub>10</sub><br>concentration<br>(µg/m <sup>3</sup> ) | Minimum 1-<br>hour PM10<br>concentration<br>(µg/m <sup>3</sup> ) | Maximum 1-<br>hour PM <sub>10</sub><br>concentration<br>(µg/m <sup>3</sup> ) | Number of<br>1- hour<br>periods<br>exceeding<br>trigger level<br>of 190<br>µg/m <sup>3</sup> | Data capture<br>(%) |
|-----------------------|----------------------|--|---------------------------------------|---|---|---|--|--|--|---------------------|
| AQ012                 | 529119,<br>182934    | Mackworth<br>Street  | н                                     | Yes   | Ν   | 10.3  | 0.6  | 55.7   | 0  | 100.0               |
| AQ013                 | 529066,<br>182990    | Regents Park<br>Estate   | н                                     | Yes   | N   | 19.0  | 0.9  | 433.3  | 2  | 100.0               |
| AQ014                 | 528550,<br>183518    | Thames Water<br>Compound   | L                                     | Yes   | N   | 7.9   | 0.8  | 48.7   | 0  | 100.0               |
| AQ015                 | 528546,<br>183604    | Prince Albert<br>Road  | L                                     | Yes   | N   | 9.0   | 0.9  | 45.4   | 0  | 100.0               |
| AQ016                 | 528851,<br>183448    | Mornington<br>Terrace North  | н                                     | Yes   | N   | 8.5   | 0.6  | 57.6   | 0  | 100.0               |
| AQ017                 | 528963,<br>183274    | Mornington<br>Terrace South  | н                                     | Yes   | N   | 9.3   | 0.7  | 40.1   | 0  | 100.0               |
| AQ018                 | 529184,<br>182999    | Hampstead<br>Road North  | н                                     | Yes   | N   | 13.4  | 1.5  | 107.7  | 0  | 100.0               |
| AQ020                 | 529132,<br>182633    | Netley School  | n/a                                   | Yes   | N   | 10.3  | 0.9  | 38.5   | 0  | 100.0               |
| AQ021                 | 529127,<br>183116    | Site compound<br>at the Junction<br>of Hampstead<br>Road & Granby<br>Terrace Bridge. | н                                     | Yes   | N   | 12.8  | 1.1  | 48.9   | 0  | 95.7                |

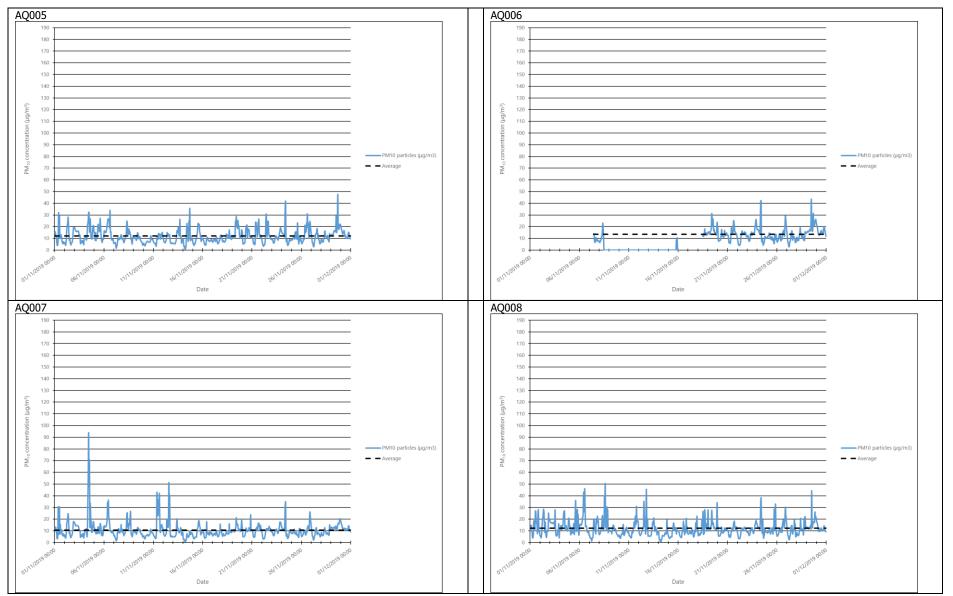
#### Table 3: Summary of exceedances of trigger level in November 2019

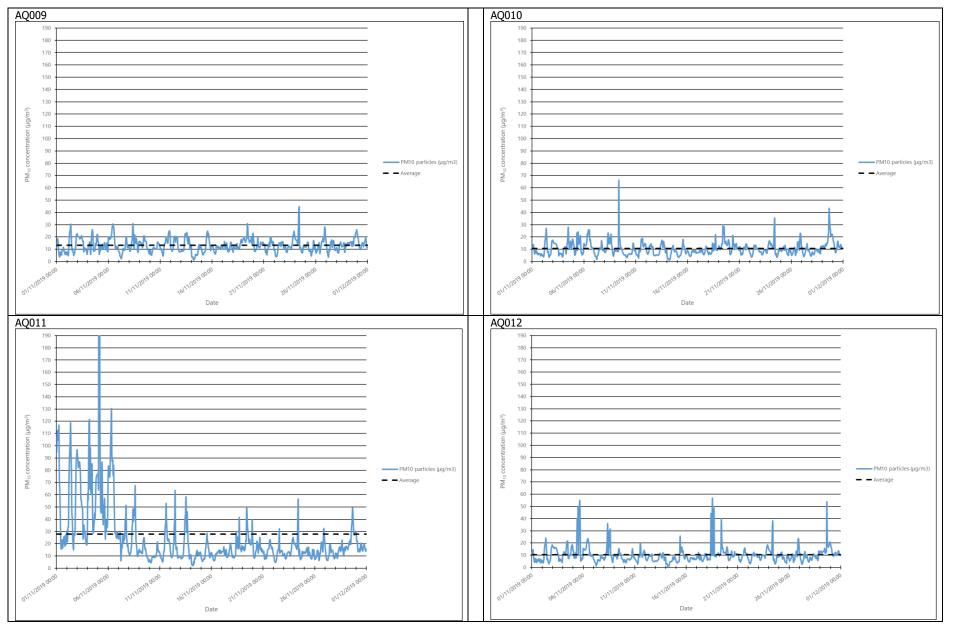
| Period exceeding trigger level          | Worksite reference | Monitoring<br>site ID | Complaint reference<br>number (if applicable) | Reason  | Resolution  |
|---|--------------------|-----------------------|---|---|---|
| 05/11/2019 02:01 – 04:00 (x2<br>alerts) | S001-WS02          | AQ011                 | n/a   | The alerts were triggered during the early hours<br>of the morning whilst the site was closed and<br>inactive. The CSJV site team were confident the<br>trigger was not associated with HS2 works.<br>Monitor AQ011 was found to have a faulty<br>heater following a service on the 17 <sup>th</sup> October<br>but it was not possible to fix it at the time. (see<br>October 2019 Report).<br>The triggers were considered to be associated<br>with high humidity level due to the persistent<br>inclement wet weather. | Monitor replaced on the 07/11/2019  |
| 05/11/2019 11:01 – 12:00                | S001-WS01          | AQ013                 | n/a   | Demolition of east wing Eskdale had been<br>underway all day with a dust canon and 3<br>motofogs in place to suppress the dust, which<br>appeared to be effective.<br>It was therefore surprising when the trigger was<br>received, however on receipt of the trigger<br>works were stopped and dust suppression<br>reviewed.   | The majority of the dust<br>suppression was facing<br>southwards towards the<br>north façade of the<br>building which is thought<br>to have aided the dust in<br>moving towards the<br>monitor on the southern<br>boundary of the site.<br>The dust suppression was<br>moved to capture the<br>dust escaping to the<br>south of the building more<br>effectively. |
| 25/11/2019 14:01 – 15:00                | S001-WS01 AQ0      |                       | n/a   | Demolition of Eskdale was underway during<br>afternoon. Dust canon and motofogs were<br>employed for this work.<br>It was however observed prior to 14:00 that the<br>wind had changed direction and increased in<br>strength – which was impacting on the<br>effectiveness of the dust suppression.<br>The dust canon was redeployed to address this<br>but there was still concern that the dust<br>suppression was being affected.   | Works were restarted the<br>next day when the wind<br>direction and strength<br>were considered to be<br>acceptable.  |

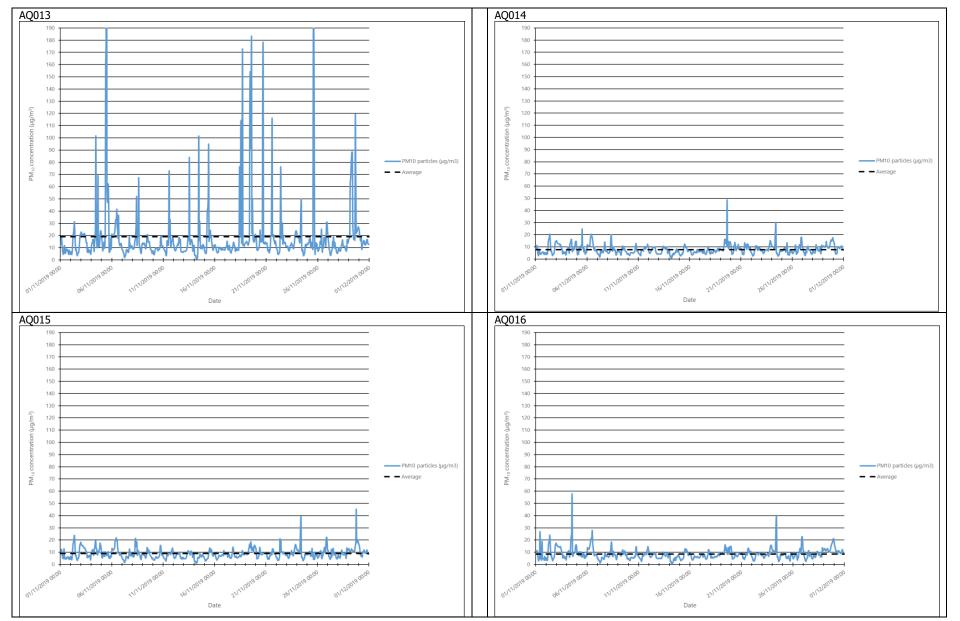
|  |  | Works on Eskdale were ceased and the      |  |
|--|--|---|--|
|  |  | demolition curtain lowered around 14:20.  |  |
|  |  | However, a trigger was received at 15:00. |  |

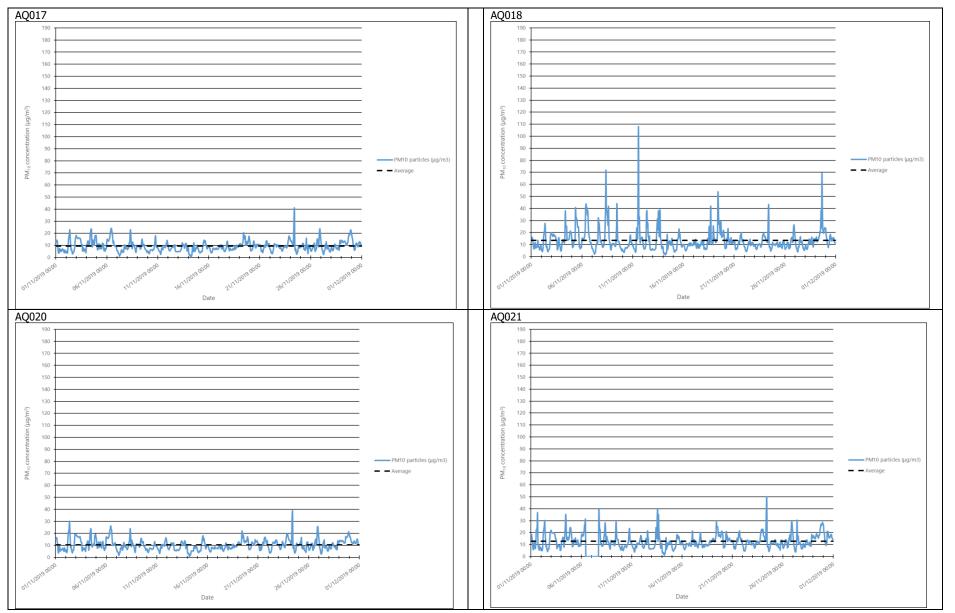
Figure 4: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for dust monitors











## **Appendix C – Air Quality Monitoring Results**

Table 4: NO<sub>2</sub> monitoring locations around highways, NO<sub>2</sub> concentrations and monthly monitoring results with running mean for 2019 (µg/m<sup>3</sup>)

| Monitoring Site<br>ID | Location description                                       | Coordinates<br>(X, Y) | Jan | Feb | Mar             | Apr | Мау | Jun    | Jul     | Aug             | Sep | Oct             | Nov | Dec | Mean <sup>1</sup> |
|-----------------------|--|-----------------------|-----|-----|-----------------|-----|-----|--------|---------|-----------------|-----|-----------------|-----|-----|-------------------|
| HS2-000020BM5         | Junction of St Chad's<br>Street and Grays Inn<br>Road      | 530436,<br>182929     | 58  | 64  | 46              | 53  | 49  | 43     | 46      | 39              | 46  | 44              |     |     | 49                |
| HS2-000020BM6         | Brunswick Square   | 530321,<br>182268     | 51  | 63  | 49              | 42  | 35  | 36     | 39      | 38              | 39  | 33              |     |     | 43                |
| HS2-000020BM7         | Chalton Street   | 529894,<br>182702     | 63  | 83  | 66              | 72  |     | Tube ı | missing |                 | 52  | Tube<br>missing |     |     | 67                |
| HS2-000020BM8         | Junction of Euston<br>Square and Grafton<br>Place          | 529737,<br>182641     | 63  | 72  | 66              | 75  | 61  | 53     | 52      | 59              | 60  | 45              |     |     | 61                |
| HS2-000020BM9         | Junction of Endsleigh<br>Gardens and Upper<br>Woburn Place | 529785,<br>182529     | 47  | 63  | 56              | 59  | 56  | 48     | 49      | 46              | 49  | 43              |     |     | 52                |
| HS2-000020BMA         | Junction of Euston<br>Road and Gower Street                | 529429,<br>182375     | 51  | 76  | 63              | 56  | 46  | 52     | 50      | Tube<br>missing | 54  | 45              |     |     | 55                |
| HS2-000020BMB         | Whitfield Street   | 529273,<br>182114     | 49  | 58  | 43              | 48  | 33  | 33     | 33      | 36              | 37  | 42              |     |     | 41                |
| HS2-000020BMC         | Hampstead Road   | 529232,<br>182511     | 53  | 84  | 71              | 74  | 62  | 61     | 61      | 70              | 65  | 61              |     |     | 66                |
| HS2-000020BMF         | Junction of Polygon<br>Road and Ossulston<br>Street        | 529715,<br>183123     | 39  | 47  | Tube<br>missing | 40  | 27  | 29     | 26      | 27              | 32  | 32              |     |     | 33                |
| HS2-000020BMH         | Nash Street  | 528861,<br>182717     | 43  | 51  | 35              | 37  | 30  | 28     | 29      | 33              | 35  | 34              |     |     | 36                |
| HS2-000020BMJ         | Junction on Robert<br>Street and Stanhope<br>Street        | 529080,<br>182698     | 39  | 43  | 37              | 30  | 28  | 31     | 27      | 31              | 38  | 37              |     |     | 34                |

<sup>&</sup>lt;sup>1</sup> 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.

| Monitoring Site<br>ID | Location description                                     | Coordinates<br>(X, Y) | Jan | Feb | Mar | Apr             | Мау | Jun             | Jul  | Aug     | Sep | Oct             | Nov | Dec | Mean <sup>1</sup> |
|-----------------------|--|-----------------------|-----|-----|-----|-----------------|-----|-----------------|------|---------|-----|-----------------|-----|-----|-------------------|
| HS2-000020BMK         | Junction of Plender<br>Street and Bayham<br>Street       | 529196,<br>183546     | 66  | 68  | 55  | 50              | 39  | 40              | 44   | 47      | 51  | 42              |     |     | 50                |
| HS2-000020BML         | Junction of Arlington<br>Road and Mornington<br>Crescent | 529093,<br>183356     | 47  | 44  | 38  | 41              | 26  | 27              | 29   | 30      | 36  | 32              |     |     | 35                |
| HS2-000020BMM         | Junction of Bayham<br>Street and Pratt Street            | 529084,<br>183722     | 52  | 75  | 62  | 47              | 49  | 47              | 52   | 57      | 56  | 53              |     |     | 55                |
| HS2-000020BMN         | Junction of Delancey<br>Street and Albert<br>Street      | 528850,<br>183573     | 43  | 53  | 43  | 40              | 36  | 33              | 34   | 37      | 37  | 32              |     |     | 39                |
| HS2-000020BMQ         | Junction of Parkway<br>and Delancey Street               | 528662,<br>183604     | 50  | 57  | 43  | 58              | 45  | 46              | 44   | 41      | 47  | 46              |     |     | 48                |
| HS2-000020BMR         | Junction of Oval Road<br>and Jamestown Road              | 528548,<br>183967     | 44  | 49  | 41  | 41              | 30  | Tube<br>missing | 28   | 30      | 35  | 27              |     |     | 36                |
| HS2-000020BMS         | Junction of Chalk Farm<br>Road and Castlehaven<br>Road   | 528685,<br>184188     | 59  | 52  | 50  | 52              | 47  | 45              | 50   | 45      | 47  | 49              |     |     | 50                |
| HS2-000020BMT         | Junction of Camden<br>Road and Camden<br>Street          | 529079,<br>184043     | 57  | 57  | 55  | 55              | 46  | 43              | 45   | 42      | 50  | 46              |     |     | 50                |
| HS2-000020BMU         | Junction of<br>Southampton Road<br>and Fleet Road        | 527783,<br>185407     | 47  | 51  | 39  | 43              | 28  | Tube<br>missing | 34   | 36      | 41  | 35              |     |     | 39                |
| HS2-000020BMV         | Primrose Hill Road                                       | 527538,<br>184250     | 46  | 45  | 38  | Tube<br>missing | 29  | 22              | 30   | 32      | 34  | 34              |     |     | 35                |
| HS2-000020BMW         | Junction of Finchley<br>Road and Hilgrove<br>Road        | 526619,<br>184081     | 61  | 59  | 55  | 60              | 47  | 50              | Tube | missing | 47  | Tube<br>missing |     |     | 54                |
| HS2-000020BMZ         | Junction of Finchley<br>Road and Hendon Way              | 525102,<br>186042     | 87  | 92  | 87  | 90              | 73  | 74              | 75   | 74      | 74  | 73              |     |     | 80                |
| HS2-000020BNA         | Junction of Regent's<br>Park Road and<br>Rothwell Street | 527884,<br>183980     | 45  | 48  | 30  | 27              | 25  | 28              | 27   | 30      | 33  | 28              |     |     | 32                |

| Monitoring Site<br>ID | Location description   | Coordinates<br>(X, Y) | Jan | Feb  | Mar     | Apr     | Мау             | Jun             | Jul  | Aug             | Sep | Oct | Nov | Dec | Mean <sup>1</sup> |
|-----------------------|--|-----------------------|-----|------|---------|---------|-----------------|-----------------|------|-----------------|-----|-----|-----|-----|-------------------|
| HS2-000020BNB         | Junction of Gloucester<br>Gate Bridge and Park<br>Village East | 528639,<br>183518     | 53  | 45   | 41      | 37      | Tube missing    |                 |      |                 |     |     |     |     | 44                |
| HS2-000020BNC         | Junction of Outer Circle<br>and Gloucester Gate                | 528528,<br>183443     | 35  | 36   | 24      | 33      | 21              | 25              | Tube | missing         | 31  | 30  |     |     | 29                |
| HS2-000020BNH         | Junction of Parkway<br>and Albert Street                       | 528763,<br>183720     | 43  | 53   | 37      | 41      | 30              | 34              | 33   | 34              | 39  | 42  |     |     | 39                |
| HS2-000020BNN         | Lincoln's Inn Fields   | 530744,<br>181308     | 50  | Tube | missing | 35      | 29              | Tube<br>missing | 27   | 34              | 37  | 37  |     |     | 36                |
| HS2-000020BNQ         | Camley Street  | 529735,<br>183737     | 50  | 49   | Tube    | missing | 19              | 29              | 27   | Tube<br>missing | 35  | 32  |     |     | 34                |
| HS2-000020BNY         | Junction of Mill Lane<br>and Hillfield Road                    | 524839,<br>185136     | 53  | 50   | 44      | 38      | 34              | 36              | 33   | 37              | 42  | 40  |     |     | 41                |
| HS2-000020BNZ         | Mansfield Road   | 528050,<br>185508     | 24  | 44   | 34      | 30      | Tube<br>missing | 29              | 27   | 32              | 34  | 34  |     |     | 32                |
| HS2-000020BP0         | Junction of Camden<br>Road and Torriano<br>Avenue              | 529708,<br>184871     | 52  | 70   | 56      | 54      | 46              | 54              | 45   | 47              | 63  | 45  |     |     | 53                |
| HS2-000020BP2         | Junction of Grays Inn<br>Road and Holborn                      | 531149,<br>181616     | 65  | 52   | 49      | 48      | 43              | 43              | 41   | 38              | 51  | 41  |     |     | 47                |
| HS2-000020BPB         | Camden High Street   | 528966,<br>183735     | 65  | 81   | 75      | 58      | 63              | 61              | 57   | 60              | 58  | 56  |     |     | 63                |
| HS2-000020BPC         | Castlehaven Road   | 528788,<br>184591     | 45  | 47   | 40      | 33      | 31              | 32              | 28   | 30              | 37  | 36  |     |     | 36                |
| HS2-000020BPD         | Prince of Wales Road   | 528571,<br>184683     | 35  | 43   | 37      | 28      | 28              | 25              | 23   | 24              | 30  | 32  |     |     | 30                |
| HS2-000020BPE         | Haverstock Hill  | 527710,<br>184749     | 54  | 62   | 53      | 37      | Tube<br>missing | 37              | 36   | 38              | 38  | 40  |     |     | 44                |
| HS2-000020BPF         | Junction of Primrose<br>Gardens and England's<br>Lane          | 527549,<br>184640     | 44  | 52   | 41      | 35      | 32              | 31              | 29   | 31              | 35  | 38  |     |     | 37                |
| HS2-000020BPU         | Junction of Gower<br>Street and Grafton<br>Way                 | 529476,<br>182267     | 54  | 60   | 56      | 50      | Tube<br>missing | 42              | 51   | 43              | 48  | 41  |     |     | 49                |

| Monitoring Site<br>ID | Location description                                      | Coordinates<br>(X, Y) | Jan | Feb             | Mar  | Apr     | Мау             | Jun             | Jul             | Aug | Sep             | Oct             | Nov | Dec | Mean <sup>1</sup> |
|-----------------------|---|-----------------------|-----|-----------------|------|---------|-----------------|-----------------|-----------------|-----|-----------------|-----------------|-----|-----|-------------------|
| HS2-000020BPW         | Junction of Delancey<br>Street and Arlington<br>Road      | 528939,<br>183637     | 48  | 51              | 44   | 44      | 40              | 39              | 38              | 36  | 42              | 40              |     |     | 42                |
| HS2-000020BPX         | Netley Street   | 529177,<br>182625     | 43  | 50              | 40   | 48      | 32              | 36              | 29              | 29  | 38              | 36              |     |     | 38                |
| HS2-000020BPY         | Stanhope Street   | 529060,<br>182947     | 34  | 46              | 32   | 36      | 24              | 24              | Tube<br>missing | 24  | 32              | 36              |     |     | 32                |
| HS2-000020BPZ         | Albany Street   | 528790,<br>182923     | 44  | 57              | 42   | 43      | 34              | 34              | 32              | 31  | 43              | 38              |     |     | 40                |
| HS2-000020BQ0         | Werrington Street   | 529493,<br>183113     | 43  | Tube<br>missing | 39   | 39      | 26              | 28              | 25              | 27  | 35              | 35              |     |     | 33                |
| HS2-000020BQ1         | Polygon Road  | 529574,<br>183045     | 41  | 46              | 37   | 34      | Tube<br>missing | 28              | Tube<br>missing | 28  | 33              | Tube<br>missing |     |     | 35                |
| HS2-000020BQ2         | Alexandra Place   | 526320,<br>183980     | 42  | Tube<br>missing | 30   | 39      | 25              | Tube<br>missing | 24              | 26  | 31              | 35              |     |     | 31                |
| HS2-000020BQ3         | Harrington Square   | 529228,<br>183172     | 46  | 60              | 45   | 48      | 40              | 42              | 40              | 38  | 45              | 48              |     |     | 45                |
| HS2-000020BQ4         | Junction of North<br>Gower Street and<br>Starcross Street | 529290,<br>182572     | 51  | 54              | 41   | 44      | 23              | 33              | 30              | 30  | 37              | 37              |     |     | 38                |
| HS2-000020BQ5         | Adelaide Road   | 527713,<br>184392     | 50  | 54              | 43   | 41      | 32              | 30              | 35              | 34  | 33              | 39              |     |     | 39                |
| HS2-000020BQ6         | Mornington Terrace  | 528836,<br>183474     | 45  | 46              | 35   | 34      | 28              | 27              | 25              | 27  | 31              | 34              |     |     | 33                |
| HS2-000020BQ7         | Arlington Road  | 529009,<br>183479     | 43  | 40              | 37   | 33      | 28              | 24              | 26              | 28  | Tube<br>missing | 28              |     |     | 32                |
| HS2-000020BQ8         | Clarkson Row  | 529024,<br>183213     | 42  | 45              | 34   | 36      | 26              | 27              | 24              | 27  | 32              | 36              |     |     | 33                |
| HS2-000020BQ9         | Park Village East   | 528923,<br>183121     | 40  | 44              | Tube | missing | 24              | 24              | 22              | 26  | 33              | 31              |     |     | 30                |
| HS2-000020BQA         | Eversholt Street  | 529386,<br>183132     | 57  | 67              | 56   | 49      | 46              | Tube<br>missing | 44              | 42  | 50              | 53              |     |     | 52                |
| HS2-000020BQB         | Junction of Harrington<br>Street and Varndell<br>Street   | 529147,<br>182816     | 42  | 43              | 32   | 40      | 26              | 26              | 24              | 25  | 33              | 37              |     |     | 33                |

| Monitoring Site<br>ID | Location description   | Coordinates<br>(X, Y) | Jan              | Feb | Mar         | Apr | Мау             | Jun             | Jul | Aug              | Sep             | Oct | Nov | Dec | Mean <sup>1</sup> |
|-----------------------|--|-----------------------|------------------|-----|-------------|-----|-----------------|-----------------|-----|------------------|-----------------|-----|-----|-----|-------------------|
| HS2-000020BQC         | Junction of Robert<br>Street and Hampstead<br>Road   | 529199,<br>182704     | 49               | 48  | 42          | 56  | 33              | 37              | 34  | 30               | 37              | 38  |     |     | 40                |
| HS2-000020BQD         | Drummond Crescent  | 529648,<br>182856     | 50               | 51  | 45          | 44  | 33              | 34              | 33  | 38               | 41              | 39  |     |     | 41                |
| HS2-000020BQJ         | Grafton Way  | 529380,<br>182225     | 64               | 70  | 59          | 56  | 51              | 62              | 57  | 53               | 64              | 58  |     |     | 59                |
| HS2-000020BQL         | Delancey Street  | 528768,<br>183581     | 58               | 57  | 47          | 51  | 45              | 39              | 43  | 35               | 50              | 46  |     |     | 47                |
| HS2-000020BQR         | Lamp post on Park<br>Village East  | 528682,<br>183505     | 46               | 42  | 36          | 34  | 26              | Tube<br>missing | 25  | 24               | 33              | 32  |     |     | 33                |
| HS2-000020BQS         | Opposite Maria fidelis<br>school on Pheonix<br>Road  | 529670,<br>182982     | 43               | 43  | 37          | 41  | Tube<br>missing | 34              | 26  | 27               | Tube<br>missing | 38  |     |     | 36                |
| HS2-000020BQT         | Drummond Street  | 529385,<br>182581     | 52               | 51  | 43          | 47  | 31              | 37              | 31  | 31               | 39              | 44  |     |     | 41                |
| HS2-000020BP4         | Triplicate site on<br>Finchley Road next to<br>Swiss Cottage kerbside<br>automatic monitoring<br>station       | 526633,<br>184392     | 64               | Т   | ubes missii | ng  | 46              | 53              | 45  | Tubes<br>missing | 56              | 49  |     |     | 52                |
| HS2-000020BP5         | Triplicate site next to<br>the Euston Road<br>roadside automatic<br>monitoring stations                        | 529895,<br>182657     | Tubes<br>missing | 81  | 69          | 78  | 63              | 77              | 61  | 66               | 78              | 69  |     |     | 71                |
| HS2-000020BP9         | Triplicate site in Russell<br>Square next to<br>Bloomsbury urban<br>background automatic<br>monitoring station | 530120,<br>182034     | 55               | 47  | 38          | 38  | 36              | 32              | 30  | 26               | 36              | 37  |     |     | 37                |