[Insert Local Authority Logo Here]

|  |
| --- |
| **INSTRUCTIONS**  This is the Updating and Screening Assessment (USA) for submission to Daera by **30th June** of each calendar year.  Blue boxes provide instructions and/or further information to help local authorities complete the report. These boxes should be deleted before submitting the report.  Where a conglomerate of authorities work together on air quality control, it is permissible to submit a single USA on behalf of all the authorities.  Red text indicates where the local authority needs to fill in information.  You can insert your own cover page design of your choice, this may include a title, subtitle, picture, Local Authority’s own logo and consultant logo (if applicable)  **Delete this box when the document is finished.** |

2021 Updating Screening Assessment for <LA Name>

In fulfilment of Environment (Northern Ireland) Order 2002

Local Air Quality Management

Date: (Month, Year)

|  |
| --- |
| **ACCESSIBILTY INSTRUCTIONS**  This 2021 reporting template has been developed to comply with the [Accessibility Regulations (2018)](https://www.legislation.gov.uk/uksi/2018/952/made). Instructions are provided throughout the template as a steer to ensuring that the completed USA remains compliant with Accessibility Regulations, with the key points to adhere to summarised as follows:   * Make hyperlinks accessible - the text used for hyperlinks should describe where people will go if they click that link * Follow the template heading styles - important to define the content hierarchy and use the correct heading style at the right time * Avoid using ‘tab’ or ‘enter’ to create spaces between text/sections, utilise page/section breaks * Use the tables within the template. If any additional tables are required, ensure these are formatted correctly and a summary of the table is provided within the accompanying text (N.B. alt text added to tables does not save if the document is converted to a pdf):   + Ensure the top row is selected as the ‘header row’   + Avoid the use of merged or split cells   + The table should read logically from left to right and top to bottom * When inserting trend graphs/charts ensure that colour combinations relevant to colour blindness are avoided * Add alt text to charts or pictures inserted within the report that do not have a corresponding summary written directly above or below the chart * Text should be aligned to the left and not justified   If saving the document as a PDF it is recommended that the ‘Create bookmarks using’ option with the sub-option of ‘Headings’ is selected. Although not an explicit requirement in terms of accessibility, this will ensure your document is easy to read and navigate.  Further guidance in terms of publishing accessible documents can be found through the [nidirect.gov website](https://www.nidirect.gov.uk/articles/accessibility-statement-nidirect). If the USA is to be published on your authority website, it is recommended that the USA is checked by your content team to ensure compliance.  **Delete this box when the document is finished** |

|  |  |
| --- | --- |
| Information | <Local Authority Name> Details |
| **Local Authority Officer** | Enter Name(s) Here |
| **Department** | Enter Department Name |
| **Address** | Enter Address |
| **Telephone** | Enter Telephone |
| **E-mail** | Enter Email Address |
| **Report Reference Number** | Enter Report Reference |
| **Date** | Enter Date of Report |

|  |
| --- |
| Please update the header information on this page.  The following list is provided to assist local authorities in understanding the most frequent issues noted by Defra during the USA appraisal process:   * Outdated national bias adjustment factor used – if a national factor is to be used please ensure the relevant factor from the most up to date version of the national spreadsheet is adopted. This will be available from <https://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html> * Incorrect methodology used to complete annualisation – the new [Diffusion Tube Data Processing Tool](https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html) can be used to complete annualisation to minimise the likelihood of processing errors and can export files suitable for upload to the [LAQM Portal](https://laqm.defra.gov.uk/review-and-assessment/LAQMPortal.html). The [Annualisation Tool](https://laqm.defra.gov.uk/tools-monitoring-data/annualisation.html) is also still available. * Erroneous monthly diffusion tube data included within annual mean calculations - data should be removed as per Chapter 7: NOx and NO2 Monitoring, NO2 by Diffusion Tubes of [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html) * Distance correction - should only be completed for monitoring sites where the concentration is greater than 36µg/m3 and the receptor is not located at a point of relevant exposure * Insufficient detail provided regarding the progress of action plan measures * Monitoring and AQMA maps - these should be clear and accurate   Adequately addressing the above points will minimise the likelihood of your report being rejected at the appraisal stage.  **Delete this box when the document is finished** |

# Executive Summary

|  |
| --- |
| Please summarise the main findings and conclusions of the report here.  Is a Detailed Assessment required for any pollutants?  **Delete this box when the document is finished** |

Start writing here

Table of Contents

|  |
| --- |
| Update Table on Completion of Report  Select some text below> right click > update field>Update Entire Table  **Delete this box when the document is finished** |

[Executive Summary i](#_Toc68611938)

[1 Introduction 1](#_Toc68611939)

[1.1 Description of Local Authority Area 1](#_Toc68611940)

[1.2 Purpose of Report 1](#_Toc68611941)

[1.3 Air Quality Objectives 2](#_Toc68611942)

[1.4 Summary of Previous Review and Assessments 3](#_Toc68611943)

[2 New Monitoring Data 4](#_Toc68611944)

[2.1 Summary of Monitoring Undertaken 4](#_Toc68611945)

[2.1.1 Automatic Monitoring Sites 4](#_Toc68611946)

[2.1.2 Non-Automatic Monitoring Sites 7](#_Toc68611947)

[2.2 Comparison of Monitoring Results with Air Quality Objectives 10](#_Toc68611948)

[2.2.1 Nitrogen Dioxide 11](#_Toc68611949)

[2.2.2 Particulate Matter (PM10) 21](#_Toc68611950)

[2.2.3 Sulphur Dioxide 25](#_Toc68611951)

[2.2.4 Benzene 28](#_Toc68611952)

[2.2.5 Other pollutants monitored 28](#_Toc68611953)

[2.2.6 Summary of Compliance with AQS Objectives 28](#_Toc68611954)

[3 Road Traffic Sources 30](#_Toc68611955)

[3.1 Narrow Congested Streets with Residential Properties Close to the Kerb 30](#_Toc68611956)

[3.2 Busy Streets Where People May Spend 1 hour or More Close to Traffic 31](#_Toc68611957)

[3.3 Roads with a High Flow of Buses and/or HGVs. 32](#_Toc68611958)

[3.4 Junctions 33](#_Toc68611959)

[3.5 New Roads Constructed or Proposed Since the Last Round of Review and Assessment 33](#_Toc68611960)

[3.6 Roads with Significantly Changed Traffic Flows 34](#_Toc68611961)

[3.7 Bus and Coach Stations 35](#_Toc68611962)

[4 Other Transport Sources 37](#_Toc68611963)

[4.1 Airports 37](#_Toc68611964)

[4.2 Railways (Diesel and Stream Trains) 37](#_Toc68611965)

[4.2.1 Stationary Trains 38](#_Toc68611966)

[4.2.2 Moving Trains 38](#_Toc68611967)

[4.3 Ports 39](#_Toc68611968)

[5 Industrial Sources 40](#_Toc68611969)

[5.1 Industrial Installations 40](#_Toc68611970)

[5.1.1 New or Proposed Installations for which an Air Quality Assessment has been Carried Out 40](#_Toc68611971)

[5.1.2 Existing Installations where Emissions have Increased Substantially or New Relevant Exposure has been Introduced 41](#_Toc68611972)

[5.1.3 New or Significantly Changed Installations with No Previous Air Quality Assessment 42](#_Toc68611973)

[5.2 Major Fuel Depots 42](#_Toc68611974)

[5.3 Petrol Stations 43](#_Toc68611975)

[5.4 Poultry Farms 44](#_Toc68611976)

[6 Commercial and Domestic Sources 45](#_Toc68611977)

[6.1 Biomass Combustion – Individual Installations 45](#_Toc68611978)

[6.2 Biomass Combustion – Combined Impacts 45](#_Toc68611979)

[6.3 Domestic Solid Fuel Burning 46](#_Toc68611980)

[7 Fugitive or Uncontrolled Sources 48](#_Toc68611981)

[8 Conclusions and Proposed Actions 49](#_Toc68611982)

[8.1 Conclusions from New Monitoring Data 49](#_Toc68611983)

[8.2 Conclusions from Assessment of Sources 49](#_Toc68611984)

[8.3 Proposed Actions 50](#_Toc68611985)

[9 References 51](#_Toc68611986)

[Appendices 52](#_Toc68611987)

[Appendix A: Quality Assurance / Quality Control (QA/QC) Data 53](#_Toc68611988)

[QA/QC of Diffusion Tube Monitoring 53](#_Toc68611989)

[Diffusion Tube Annualisation 54](#_Toc68611990)

[Diffusion Tube Bias Adjustment Factors 54](#_Toc68611991)

[NO2 Fall-off with Distance from the Road 55](#_Toc68611992)

[QA/QC of Automatic Monitoring 56](#_Toc68611993)

[PM10 and PM2.5 Monitoring Adjustment 56](#_Toc68611994)

[Automatic Monitoring Annualisation 56](#_Toc68611995)

[NO2 Fall-off with Distance from the Road 57](#_Toc68611996)

[Appendix B: Impact of COVID-19 upon LAQM 62](#_Toc68611997)

[Impacts of COVID-19 on Air Quality within <Local Authority Area> 64](#_Toc68611998)

[Opportunities Presented by COVID-19 upon LAQM within <Local Authority Area> 65](#_Toc68611999)

[Challenges and Constraints Imposed by COVID-19 upon LAQM within <Local Authority Area> 65](#_Toc68612000)

[Appendix C: DMRB Calculations 68](#_Toc68612001)

Tables

It is recommended that you insert a list of Tables here.

|  |
| --- |
| Insert list on Completion of Report  Select References tab 🡪 Insert Table of Figures 🡪 Select ‘….’ Tab leader 🡪 Select ‘Table’ Caption Label  Delete this box after you have inserted the list |

Figures

It is recommended that you insert a list of Figures/charts here.

|  |
| --- |
| Insert list on Completion of Report  Select References tab 🡪 Insert Table of Figures 🡪 Select ‘….’ Tab leader 🡪 Select ‘Figure’ Caption Label  Delete this box after you have inserted the list |

# Introduction

## Description of Local Authority Area

|  |
| --- |
| Please include a short paragraph describing geography, major sources etc.  These blue instruction boxes are used throughout this template, to provide guidance on completing the USA. Please delete them before submitting the report.  Each box is a single-cell table, so to delete them, simply highlight the box from the left margin, then Delete Table or ‘Ctrl’+‘X’.  **Delete this box when the document is finished** |

Start writing here….

## Purpose of Report

This report fulfils the requirements of the Local Air Quality Management process as set out in the Environment (Northern Ireland) Order 2002, the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedances are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.

The objective of this Updating and Screening Assessment is to identify any matters that have changed which may lead to risk of an air quality objective being exceeded. A checklist approach and screening tools are used to identify significant new sources or changes and whether there is a need for a Detailed Assessment. The USA report should provide an update of any outstanding information requested previously in Review and Assessment reports.

## Air Quality Objectives

The air quality objectives applicable to LAQM in Northern Ireland are set out in the Air Quality Regulations (Northern Ireland) 2003, Statutory Rules of Northern Ireland 2003, no. 342, and are shown in Table 1.1. This table shows the objectives in units of microgrammes per cubic metre µg/m3 (milligrammes per cubic metre, mg/m3 for carbon monoxide) with the number of exceedances in each year that are permitted (where applicable).

Table 1.1 Air Quality Objectives included in Regulations for the purpose of LAQM in Northern Ireland

|  |  |  |  |
| --- | --- | --- | --- |
| Pollutant | Air Quality Objective Concentration | Air Quality Objective Measured as | Date to be achieved by |
| Benzene | 16.25µg/m3 | Running annual mean | 31.12.2003 |
| Benzene | 3.25µg/m3 | Running annual mean | 31.12.2010 |
| 1,3-Butadiene | 2.25µg/m3 | Running annual mean | 31.12.2003 |
| Carbon monoxide | 10.0mg/m3 | Running 8-hour mean | 31.12.2003 |
| Lead | 0.5µg/m3 | Annual mean | 31.12.2004 |
| Lead | 0.25µg/m3 | Annual mean | 31.12.2008 |
| Nitrogen dioxide | 200µg/m3 not to be exceeded more than 18 times a year | 1-hour mean | 31.12.2005 |
| Nitrogen dioxide | 40µg/m3 | Annual mean | 31.12.2005 |
| Particles (PM10) (gravimetric) | 50µg/m3, not to be exceeded more than 35 times a year | 24-hour mean | 31.12.2004 |
| Particles (PM10) (gravimetric) | 40µg/m3 | Annual mean | 31.12.2004 |
| Sulphur dioxide | 350µg/m3, not to be exceeded more than 24 times a year | 1-hour mean | 31.12.2004 |
| Sulphur dioxide | 125µg/m3, not to be exceeded more than 3 times a year | 24-hour mean | 31.12.2004 |
| Sulphur dioxide | 266µg/m3, not to be exceeded more than 35 times a year | 15-minute mean | 31.12.2005 |

## Summary of Previous Review and Assessments

|  |
| --- |
| Please outline the conclusions of previous rounds of R&A.  To include –   * All stages completed. * Exceedances identified/predicted. * Areas affected. * AQMA’s declared (together with maps) or amended * Any locations where exceedances of objective concentrations have previously been identified but reports have judged that no AQMA is necessary * AQMAs that have been revoked. * Any on-going assessments that have not yet been reported   It may be helpful to include a table of previous reports, dates they were produced, and brief outcomes e.g. “Detailed Assessment Required for NO2”  **Delete this box when the document is finished** |

Start writing here….

Figure 1.1 Map(s) of AQMA Boundaries (if applicable)

|  |
| --- |
| Please include here one or more clear map(s) that show the location of any AQMA(s) and, if appropriate, the local authority boundary.  As for all charts within the annual report alt text should be added to comply with accessibility regulations.  **Delete this box when the document is finished** |

# New Monitoring Data

## Summary of Monitoring Undertaken

### Automatic Monitoring Sites

|  |
| --- |
| Please provide details of automatic monitoring carried out in the year covered by this report. Table 2.1 below provides the recommended format for a table of site details. Include in this section   * A map showing the location of your monitoring sites. **If applicable, AQMAs should also be included.** * Details of any sites that started up, or closed down, since the previous report, with reasons.   Please provide, for each monitoring site, a unique identifier (Site ID), which should be used in all relevant tables and maps. For example, CM1, CM2… could be used for continuous monitoring sites, and DT1, DT2… for diffusion tube sites. Alternatively, the following IDs could also be used:   * AN1, AN2… for Automatic NO2 * PN1, PN2… for Passive NO2 * APM1, APM2… for Automatic PM10 * AS1, AS2… for Automatic SO2 * …   Descriptions of monitoring site classifications can be found in Table 7.7 of LAQM.TG16. The term ‘worst-case’ exposure is used to define those places where concentrations are expected to be the highest, and where the public may be exposed over the relevant averaging period of the objectives.  Also include in this section or as a separate appendix, details of QA/QC:   * Frequency of routine calibrations and periodic site audits. * Who carries these out? (LA or contractor). * Data validation and ratification procedures. * Monitoring period, if not full calendar year. * Clearly labelled maps of all monitoring locations (monitoring site labels should match those in tables where possible).   In the case of PM10 monitoring, provide the equipment type and details of any adjustments applied to the data, e.g. correction factors applied to BAM data or use of VCM to correct TEOM data. You can find out more about the [VCM model here](https://laqm.defra.gov.uk/review-and-assessment/tools/volatile-correction-model.html).  **Delete this box when the document is finished** |

Start writing any text here…

Figure 2.1 Map(s) of Automatic Monitoring Sites (if applicable)

Table 2.1 Details of Automatic Monitoring Sites

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Name | Site Type | X OS Grid Ref | Y OS Grid Ref | Inlet Height (m) | Pollutants Monitored | In AQMA? Which AQMA? | Monitoring Technique | Relevant  Exposure? *(Y/N with distance (m) to relevant exposure)* | Distance to kerb of nearest road (m)  *(N/A if not applicable)* | Does this location represent worst-case exposure? |
| CM1 | Site Name 1 | Urban background | 332395 | 433175 | 2.0 | NO2 | Y | Chemiluminescence | Y (1m) | 3 | Y |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

### Non-Automatic Monitoring Sites

|  |
| --- |
| Please provide details of non-automatic monitoring. This will most commonly be NO2 diffusion tubes but could also include benzene diffusion tubes.  Table 2.2 below provides the recommended format for a table of site details.  Maps showing locations of monitoring sites (if applicable) should be included (see Figure 2.2) **with the site ID clearly identified**. In case the maps show many monitoring sites, it may be useful to provide several maps at various zoom levels to allow for clear identification of each monitoring site. If there are AQMAs in place for the relevant pollutants, these should also be included on any maps.  Details of QA/QC for diffusion tubes should be included within [Appendix](#_Appendix_A:_Quality) A, this should include:   * Lab supplying and analysing the tubes. * Preparation method used. * Confirmation that the lab follows the procedures set out in the Practical Guidance. * Results of laboratory precision and AIR-PT proficiency testing scheme referenced in Chapter 7 of LAQM.TG16. * Whether the Local Authority has compared the diffusion tubes with the reference method in a co-location study (details of this can be included as a sub-section or appendix). * The bias adjustment factor being applied to the annual means from the diffusion tubes. * Where this came from – i.e. local co-location, LAQM Support website.   The national bias adjustment factors are available at on the [LAQM website](https://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html). The questionnaire for adding your own co-location study to the database is at <https://laqm.defra.gov.uk/bias-adjustment-factors/co-location-data.html>.  Local authorities are encouraged to share co-location information with other authorities. Please complete and return the co-location questionnaire to ensure your co-locations are considered for inclusion in the database of bias adjustment factors provided by the LAQM Helpdesk. **This should be done as soon as possible to ensure the database is updated in advance of report submission.**  *Information on QA/QC for diffusion tubes can be found on the LAQM website at* https://laqm.defra.gov.uk/diffusion-tubes/qa-qc-framework.html.  With respect to ‘worst case exposure’, the term is used to represent those places where concentrations are expected to be the highest, and where the public may be exposed over the relevant averaging period of the objectives.  **Delete this box when the document is finished** |

Start writing any text here…

Figure 2.2 Map(s) of Non-Automatic Monitoring Sites (if applicable)

Table 2.2 Details of Non-Automatic Monitoring Sites

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Name | Site Type | X OS Grid Ref | Y OS Grid Ref | Site Height (m) | Pollutants Monitored | In AQMA? Which AQMA? | Is monitoring co-located with a Continuous Analyser (Y/N) | Relevant  Exposure? *(Y/N with distance (m) to relevant exposure)* | Distance to kerb of nearest road (m) *(N/A if not applicable)* | Does this location represent worst-case exposure? |
| DT1 | Site Name 1 | Urban background | 332395 | 433175 | 2.5 | NO2 | Y | N | Y (1m) | 3 | Y |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

## Comparison of Monitoring Results with Air Quality Objectives

|  |
| --- |
| This section can be divided by pollutant. Please include a table of key statistics for each pollutant monitored.  Separate tables should be used for automatic and non-automatic (e.g. diffusion tube) results.  For each monitoring site the key statistics should include –   * Data capture as a % of the calendar year. * Data capture as a % of the monitoring period, if monitoring was not carried out for the full year. If monitoring was carried out for less than the full calendar year, the monitoring period should be clearly stated. * Key statistics, e.g. annual mean. * All statistics relevant to Air Quality (AQ) objectives, e.g. number of 1-hour mean NO2 concentrations >200 µg/m3, annual mean PM10, etc. * Where the period of valid data is less than 85% of a full year, include relevant percentile alternatives (e.g. the 99.8th percentile of hourly means rather than the number of hours >200 µg/m3).   Identify any sites where monitoring was not carried out for a full calendar year. In these cases, please state -  What part of the year was it carried out for?  What was the data capture for the monitoring period?  What was the data capture for the calendar year? (e.g. if full data capture was achieved, but monitoring was only carried out for six months, the data capture for the year would be 50%).  Where data capture is less than 75% of a full calendar year (i.e. less than 9 months for NO2 diffusion tubes), the mean should be **“annualised”** – i.e. adjusted using the methodology demonstrated within Chapter 7 of LAQM.TG16 - before being compared to annual mean objectives. **Please make it clear where this has been done and provide further details in Appendix A if necessary.**  Text should highlight which sites have exceeded the relevant AQS Objective, and which have not. Mention any cases that are borderline (For example, sites above 36µg/m3 for NO2 and PM10 annual mean).  If any exceedances are identified, are they within an existing AQMA or not? And do they represent relevant exposure?  The Local Authority may wish to include any trend data from previous years, showing any increasing or decreasing trends (five years data is usually considered the minimum necessary to identify a significant trend). Any apparent trends in this data should be discussed.  **Delete this box when the document is finished** |

Start writing any text here…

### Nitrogen Dioxide

|  |
| --- |
| Recommended formats for results tables, for both automatic and non-automatic sites are given below. These should answer the following questions:   * **Is the measured annual mean concentration at any site greater than 40µg/m3?** Exceedances of the 40µg/m3 annual mean NO2 objective should be highlighted in bold. * **Have any sites recorded more than 18 1-hour means above 200µg/m3, or (if the period of valid data is less than 85% of a full year) does the 99.8th percentile of 1-hour mean concentrations exceed 200µg/m3?** Cases where there are more than the permitted 18 exceedances of the 200μg/m3 1-hour mean NO2 objective, or where the 99.8th percentile exceeds 200µg/m3 should be highlighted in **bold**.   Automatic Monitoring:   * Where the period of valid data is less than 85% of a full year, please include the 99.8th percentile in brackets after the number of exceedances.   Diffusion Tube Data:   * For diffusion tubes, the annual means should be bias-adjusted, with the bias adjustment factors used for each year included e.g. as a footnote. * Please indicate where a result is the mean of multiple tube exposure (e.g. triplicate tubes). * Please include the full dataset (monthly mean values) as an appendix. * Exceedances of 60 µg/m3 should be highlighted, as these indicate a risk that the 1-hour objective may also be exceeded.   In both cases, discuss whether the monitoring site locations are representative of relevant public exposure. If a concentration is above or within 10% of the annual mean air quality objective for NO2 but was measured at a monitoring site which is not representative of public exposure, please use the procedure specified in Chapter 7: Fall-off in NO2 Concentrations with Distance from the Road of the [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html)LAQM.TG16 to estimate the concentration at the nearest receptor, and discuss these results.  To help with consistency of approach to processing diffusion tube monitoring data a specific [Diffusion Tube Data Processing Tool](https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html) has been developed which should be used to process all diffusion tube data. The tool has been developed to calculate annual mean concentrations for the diffusion tube monthly data entered and amalgamates the following individual LAQM processing tools:   * Annualisation tool; * Precision and accuracy tool – calculation of local bias; and * NO2 fall off with distance calculator.   Where possible, previous year’s statistics should be included for comparison, although this is not a requirement. If you have at least 5 years’ valid data, you may wish to include a **graph** to illustrate trends.  **Delete this box when the document is finished** |

Start writing any text here…

**Automatic Monitoring Data**

Start writing any text here…

Table 2.3 Results of Automatic Monitoring for Nitrogen Dioxide: Annual Mean NO2 Monitoring Results (µg/m3) for Comparison with the Annual Mean Objective

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Type | Within AQMA? Which AQMA? | Valid Data Capture for period of monitoring %a | Valid Data Capture 2020 % b | 2016\* c | 2017\* c | 2018\* c | 2019\* c | 2020 c |
| CM1 | Roadside | Y | 95 | 95 | **40.1** | 26.3 | 25.4 | 26.0 | 25.6 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

In **bold**, exceedance of the NO2 annual mean AQS objective of 40µg/m3.

a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

c Means should be “annualised” as per LAQM.TG16, if monitoring was not carried out for the full year.

\*Annual mean concentrations for previous years are optional.

Figure 2.3 Trends in Annual Mean Nitrogen Dioxide Concentrations measured at Automatic Monitoring Sites

A trend chart providing NO2 annual mean results over the past 5 years (or more if available) may be inserted here. Please discuss any trends shown.

Table 2.4 Results of Automatic Monitoring for Nitrogen Dioxide: Number of Exceedances of 1-hour mean Objective (200µg/m3)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Type | Within AQMA? Which AQMA? | Valid Data Capture for period of monitoring %a | Valid Data Capture 2020 % b | 2016\* c | 2017\* c | 2018\* c | 2019\* c | 2020 c |
| CM1 | Roadside | Y | 95 | 95 | **19** | 11 | 18 | **19** | **30** |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

In **bold**, exceedance of the NO2 hourly mean AQS objective (200µg/m3 – not to be exceeded more than 18 times per year

a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

c If the period of valid data is less than 85%, include the 99.8th percentile of hourly means in brackets

\* Number of exceedances for previous years are optional.

**Diffusion Tube Monitoring Data**

|  |
| --- |
| Table 2.5 below gives a suggested format for reporting a summary of nitrogen dioxide diffusion tube data. The results should be bias adjusted (as detailed in section 2.2.1)  Please include the full dataset (monthly mean values) as an appendix.  Annual means in excess of the 40μg/m3 annual mean NO2 objective should be highlighted in **bold**.  NO2 annual means in excess of 60μg/m3, indicating a potential exceedance of the NO2 hourly mean AQS objective, should be highlighted in **bold and underlined**.  The following should also be indicated:   * Bias adjustment factor used * Results which are based on the mean of multiple tube exposure (e.g. triplicate tubes) * Data capture * Results that have been annualised (as per LAQM.TG16) * Results that have been distance adjusted for relevant exposure   Where data capture is less than 75% of a full calendar year (less than nine months), the mean should be **“annualised”** – i.e. adjusted using the methodology demonstrated in Chapter 7 of LAQM.TG16 - before being compared to annual mean objectives.  Details of annualisation and/or distance adjustment should be detailed in this section and further details provided in Appendix A if necessary.  If a concentration is above or within 10% of the annual mean air quality objective for NO2 but was measured at a monitoring site which is not representative of public exposure, please use the procedure specified in Chapter 7: Fall-off in NO2 Concentrations with Distance from the Road of the [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html)LAQM.TG16 to estimate the concentration at the nearest receptor, and discuss these results.  To help with consistency of approach to processing diffusion tube monitoring data a specific [Diffusion Tube Data Processing Tool](https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html) has been developed which should be used to process all diffusion tube data. The tool has been developed to calculate annual mean concentrations for the diffusion tube monthly data entered and amalgamates the following individual LAQM processing tools:   * Annualisation tool; * Precision and accuracy tool – calculation of local bias; and * NO2 fall off with distance calculator.   **Longer term datasets:**  If there are previous years’ data from the diffusion tube survey, these can be reported as in Table 2.6 below, although this is not a requirement. Additional tables and charts may also be used to illustrate trends over the last five years.  Exceedances of the 40μg/m3 annual mean NO2 objective should be highlighted in **bold**.  NO2 annual means in excess of 60μg/m3, indicating a potential exceedance of the NO2 hourly mean AQS objective, should be highlighted in **bold and underlined**.  All results should be bias-adjusted, with the bias adjustment factors used for each year included.  **Delete this box when the document is finished** |

Start writing any text here…

Table 2.5 Results of Nitrogen Dioxide Diffusion Tubes in 2020

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Site ID | Location | Site Type | Within AQMA? Which AQMA? | Triplicate or Co-located Tube | Full Calendar Year Data Capture 2020 (Number of Months or %) a | 2020 Annual Mean Concentration (µg/m3) - Bias Adjustment factor = XX b |
| DT1 | DT1 Location | Roadside | N | Triplicate and Co-located | 11 months | 34.6 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

In **bold**, exceedance of the NO2 annual mean AQS objective of 40µg/m3.

Underlined, annual mean > 60µg/m3, indicating a potential exceedance of the NO2 hourly mean AQS objective.

a Means should be “annualised” as per LAQM.TG16, if full calendar year data capture is less than 75%.

b If an exceedance is measured at a monitoring site not representative of public exposure, NO2 concentration at the nearest relevant exposure should be estimated based on the NO2 fall-off with distance calculator, and results should be discussed in a specific section.

Table 2.6 Results of Nitrogen Dioxide Diffusion Tubes, adjusted for bias (µg/m3): 2016 to 2020

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Type | Within AQMA? Which AQMA? | 2016a  (Bias Adjustment Factor = XX) | 2017 a  (Bias Adjustment Factor = XX) | 2018 a  (Bias Adjustment Factor = XX) | 2019 a  (Bias Adjustment Factor = XX) | 2020 a  (Bias Adjustment Factor = XX) |
| DT1 | Roadside | N | 32.6 | 34.7 | 37.8 | 36.9 | 35.0 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

In **bold**, exceedance of the NO2 annual mean AQS objective of 40µg/m3.

Underlined, annual mean > 60µg/m3, indicating a potential exceedance of the NO2 hourly mean AQS objective.

a Means should be “annualised” as per LAQM.TG16, if full calendar year data capture is less than 75%.

Figure 2.4 Trends in Annual Mean Nitrogen Dioxide Concentrations measured at Diffusion Tube Monitoring Sites

A trend chart providing NO2 annual mean results over the past five years (or more if available) may be inserted here. Please discuss any trends shown.

### Particulate Matter (PM10)

|  |
| --- |
| Recommended formats for results tables are given below. These should answer the following questions:   * Is the annual mean concentration greater than 40 µg/m3, or * Are there more than 35, 24-hour exceedances of 50 µg/m3, or does the 90.4th percentile of 24-hour concentrations exceed 50 µg/m3?   Comment on whether there are exceedances of the air quality objectives for PM10 and whether they occur within or outside AQMAs.  Confirm whether the monitoring site locations are representative of relevant public exposure. Also flag if there are concentrations above the air quality objectives for PM10 measured at monitoring sites which are not representative of public exposure.  Results can be presented in a table, as in Table 2.7 and Table 2.8 below.  Ensure that data have been adjusted to gravimetric equivalent (TEOM data should be corrected using the VCM [here](https://laqm.defra.gov.uk/review-and-assessment/tools/volatile-correction-model.html)) and are presented as a calendar year mean. Ensure that details of these calculations are presented in the text or in an appendix.  Exceedances of the 40μg/m3 annual mean PM10 objective should be highlighted in **bold**.  Cases where there are more than the permitted 35 exceedances of the 50μg/m3 daily mean PM10 objective, or where the 90.4th percentile exceeds 50µg/m3 should be highlighted in **bold**. Where the period of valid data is less than 85% of a full year, please include the 90.4th percentile in brackets after the number of exceedance.  Where possible, previous years’ statistics should be included for comparison but this is not a requirement.  **Delete this box when the document is finished** |

Start writing any text here…

Table 2.7 Annual Mean PM10 Monitoring Results (µg/m3) for Comparison with the Annual Mean Objective

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Type | Within AQMA? Which AQMA? | Valid Data Capture for monitoring Period %a | Valid Data Capture 2020 %b | Confirm Gravimetric Equivalent  (Y or N/A) | 2016\* c | 2017\* c | 2018\* c | 2019\* c | 2020 c |
| CM1 | Roadside | Y | 95 | 95 | Y | **40.1** | 26.2 | 28.7 | 26.3 | 27.0 |
|  |  |  |  |  |  |  |  |  |  |  |

In **bold,** exceedance of the PM10 annual mean AQS objective of 40µg/m3.

a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

c Means should be “annualised” as per LAQM.TG16, if monitoring was not carried out for the full year.

\* Optional.

Table 2.8 Results of Automatic Monitoring for PM10: Number of Exceedances of 24-hour mean Objective (50µg/m3)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Type | Within AQMA? Which AQMA? | Valid Data Capture for monitoring Period %a | Valid Data Capture 2020 %b | Confirm Gravimetric Equivalent | 2016\* c | 2017\* c | 2018\* c | 2019\* c | 2020 c |
| CM1 | Roadside | Y | 95 | 92 | Y | 3 | 4 | 8 | 6 | 1 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

In **bold**, exceedance of the PM10 daily mean AQS objective (50µg/m3 – not to be exceeded more than 35 times per year).

a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

c if data capture is less than 85%, include the 90.4th percentile of 24-hour means in brackets.

\* Optional.

Figure 2.5 Trends in Annual Mean PM10 Concentrations

A trend chart providing PM10 annual mean results over the past five years (or more if available) may be inserted here. Please discuss any trends shown.

### Sulphur Dioxide

|  |
| --- |
| If SO2 monitoring is available then provide a table of results. A recommended format for the table of results is given below. This should answer the following questions:   * Are there more than 35 15-minute means greater than 266µg/m3? (Or if the period of valid data is less than 85% of a full year, is the 99.9th percentile of 15-minute means greater than this value?) * Are there more than 24 1-hour means greater than 350µg/m3? (Or if the period of valid data is less than 85% of a full year, is the 99.7th percentile of 1-hour means greater than this value?) * Are there more than 3 24-hour means greater than 125µg/m3? (Or if the period of valid data is less than 85% of a full year, is the 99.2th percentile of 24-hour means greater than this value?)   Comment on whether there are exceedances of the air quality objectives for SO2 and whether they occur within or outside AQMAs.  Ensure that the monitoring site locations are representative of relevant public exposure. Also flag if there are concentrations above the air quality objectives for SO2 measured at monitoring sites which are not representative of public exposure.  Exceedances of the relevant SO2 AQS objectives (or relevant percentiles if data capture is less than 85% for a full year) should be highlighted in **bold**.  Where possible, previous years’ statistics should be included for comparison but this is not a requirement.  **Delete this box when the document is finished** |

Start writing any text here…

Table 2.9 Results of Automatic Monitoring of SO2: Number of Exceedances of Objectives (percentile in bracket)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Site Type | Within AQMA? Which AQMA? | Valid Data Capture for monitoring Period %a | Valid Data Capture 2020 %b | 15-minute Means >  266µg/m3 | 1-hour Means >  350µg/m3 | 24-hour Means >  125µg/m3 |
| CM1 | Roadside | N | 98 | 94 | 33 **(275.3)** | 26 **(365.1)** | 0 (99.0) |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

In **bold**, exceedance of the relevant AQS objective (15-min mean = 35 allowed/year; 1-hour mean = 24 allowed/year; 24-hour mean = 3 allowed/year).

a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

c if data capture is less than 85%, include the relevant percentile in brackets (in µg/m3): 15-min mean = 99.9th ; 1-hour mean = 99.7th ; 24-hour mean = 99.2th percentile.

Figure 2.6 Trends in Annual Mean SO2 Concentrations

A trend chart providing SO2 annual mean results over the past five years (or more if available) may be inserted here. Please discuss any trends shown.

### Benzene

|  |
| --- |
| If benzene monitoring is available then provide a table of results.  Describe if:   * Are any running annual means greater than 16.25 µg/m3? * Are any running annual means greater than 3.25 µg/m3?   Comment on whether there are exceedances of the air quality objectives for benzene and whether they occur within or outside AQMAs.  Ensure that the monitoring site locations are representative of relevant public exposure. Flag if there are concentrations above the air quality objectives for benzene measured at monitoring sites which are not representative of public exposure.  Exceedances of the objectives for benzene should be highlighted in **bold**.  **Delete this box when the document is finished** |

Start writing any text here…

### Other pollutants monitored

|  |
| --- |
| Add as many sub-sections as required. Delete if no other pollutants are monitored.  If you carry out monitoring for pollutants not covered by the LAQM regulations (for example ozone, PAH, PM2.5) you may also wish to report it here.  Local authorities may wish to include information on dust deposition, radiation monitoring, and odour complaints (especially where these are relevant to sources identified in this report).  **Delete this box when the document is finished** |

Start writing any text here…

### Summary of Compliance with AQS Objectives

|  |
| --- |
| **The sentences below summarise the Local Authority area’s compliance (or otherwise) with the Air Quality Strategy (AQS) Objectives.**  Please select one of the sentences below and complete it.  **Delete this box when the document is finished** |

<LA Name> has examined the results from monitoring in the <borough> <district>. Concentrations are all below the objectives, therefore there is no need to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME, AMEND THE TEXT AS APPROPRIATE AND LEAVE IN THE REPORT.***

<LA Name> has examined the results from monitoring in the <borough> <district>. Concentrations outside of the AQMA are all below the objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME, AMEND THE TEXT AS APPROPRIATE AND LEAVE IN THE REPORT.***

<LA Name> has measured concentrations of <pollutant> above the <annual mean> <1-hour>, <24-hour>, <15-minute> objective at relevant locations <outside of the AQMA >, and **will need to proceed to a Detailed Assessment**, for <description of area(s) to be assessed>.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME, AMEND THE TEXT AS APPROPRIATE AND LEAVE IN THE REPORT.***

# Road Traffic Sources

|  |
| --- |
| This section should deal with any changes in the Local Authority area that may affect air quality. It is only necessary to consider locations which:   * have not been assessed during the earlier rounds, * have experienced a significant change in traffic flows, * have a new development, or * have new exposure that has not been assessed previously.   If an air quality assessment has been carried out as part of an Environmental Statement or to support a planning application for a new development, please summarise the outcome and provide a reference to the assessment.  In each case, if there are no such areas, then there is no need to proceed further with this part.  *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

## Narrow Congested Streets with Residential Properties Close to the Kerb

|  |
| --- |
| **Follow the procedure set out in Table 7.1 of Chapter 7 of LAQM.TG16.** The assessment need only consider nitrogen dioxide.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no areas meeting the specified criteria, then there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new/newly identified congested streets with a flow above 5,000 vehicles per day and residential properties close to the kerb, that have not been adequately considered in previous rounds of Review and Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN THE REPORT.***

<LA Name> has identified congested streets with a flow above 5,000 vehicles per day and residential properties close to the kerb, new or not adequately considered in previous rounds of Review and Assessment, and **will need to proceed to a Detailed Assessment.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN THE REPORT.***

## Busy Streets Where People May Spend 1 hour or More Close to Traffic

|  |
| --- |
| **Follow the procedure set out in Table 7.1 of Chapter 7 of LAQM.TG16.** The assessment need only consider nitrogen dioxide.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no areas meeting the specified criteria, then there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new/newly identified busy streets where people may spend 1 hour or more close to traffic.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN THE REPORT.***

<LA Name> has assessed new/newly identified busy streets where people may spend 1 hour or more close to traffic, that were not assessed in previous rounds of Review and Assessment, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN THE REPORT.***

<LA Name> has assessed new/newly identified busy streets where people may spend 1 hour or more close to traffic, that were not assessed in previous rounds of Review and Assessment, and concluded that **it will be necessary to proceed to a Detailed Assessment for nitrogen dioxide.**

**DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN THE REPORT.**

## Roads with a High Flow of Buses and/or HGVs.

|  |
| --- |
| **Follow the procedure set out in Table 7.1 of Chapter 7 of LAQM.TG16.** This assessment needs to consider both nitrogen dioxide and PM10.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no new or newly identified roads meeting the specified criteria, then there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new/newly identified roads with high flows of buses/HDVs.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed newly identified road(s) with high flows of buses or HDVs in a busy street where people may spend one hour or more close to traffic that it has not previously been assessed, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed newly identified road(s) with high flows of buses or HDVs in a busy street where people may spend one hour or more close to traffic that has not previously been assessed, and concluded that **it will be necessary to proceed to a Detailed Assessment for <pollutant>.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Junctions

|  |
| --- |
| **Follow the procedure set out in Table 7.1 of Chapter 7 of LAQM.TG16.** The assessment needs to consider both nitrogen dioxide and PM10.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no new or newly identified junctions meeting the specified criteria, then there is no need to proceed further with this part. *Please complete the relevant sentence to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new/newly identified busy junctions/busy roads.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/newly identified junctions meeting the criteria in Table 7.1 of Chapter 7 of LAQM.TG16 and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/newly identified junctions meeting the criteria in Table 7.1 of Chapter 7 of LAQM.TG16 and concluded that **it will be necessary to proceed to a Detailed Assessment for <pollutant>.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## New Roads Constructed or Proposed Since the Last Round of Review and Assessment

|  |
| --- |
| **Follow the procedure set out in Table 7.1 of Chapter 7 of LAQM.TG16.** The assessment needs to consider both nitrogen dioxide and PM10.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no new or proposed roads meeting the specified criteria, then there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  If an air quality assessment has been carried out as part of an Environmental Statement or to support a planning application for a new development, please summarise the outcome and provide a reference to the assessment. It will be important to confirm that the assessment is sufficient for review and assessment purposes.  Only consider proposed roads for which planning approval has been granted.  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new/proposed roads.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/proposed roads meeting the criteria in Table 7.1 of Chapter 7 of LAQM.TG16 and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/proposed roads meeting the criteria in Table 7.1 of Chapter 7 of LAQM.TG16, and concluded that **it will be necessary to proceed to a Detailed Assessment for <pollutant>.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Roads with Significantly Changed Traffic Flows

|  |
| --- |
| **Follow the procedure set out in Table 7.1 of Chapter 7 of LAQM.TG16.** The assessment needs to consider both nitrogen dioxide and PM10.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no roads with significantly changed traffic flows, then there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new/newly identified roads with significantly changed traffic flows.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/newly identified roads with significantly changed traffic flows, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/newly identified roads with significantly changed traffic flows, and concluded that **it will be necessary to proceed to a Detailed Assessment for <pollutant>.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Bus and Coach Stations

|  |
| --- |
| **Follow the methodology set out in Table 7.1 of Chapter 7 of LAQM.TG16.** The assessment needs to consider both nitrogen dioxide and PM10.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no bus or coach stations in the Local Authority area, there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no relevant bus stations in the Local Authority area.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/newly identified bus stations, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/newly identified bus stations, and concluded that **it will be necessary to proceed to a Detailed Assessment for <pollutant>.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

# Other Transport Sources

## Airports

|  |
| --- |
| **Follow the procedure set out in Chapter 7, Section 1, Airports of LAQM.TG(16).** In the light of new information, the assessment for airports only needs to consider nitrogen dioxide.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no airports in the Local Authority area, there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no airports in the Local Authority area.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has identified an airport that has not been previously assessed that meets the specified criteria, and **will need to proceed to a Detailed Assessment for nitrogen dioxide.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Railways (Diesel and Stream Trains)

|  |
| --- |
| **Follow the procedure set out in Chapter 7, Section 1, Railway of LAQM.TG16.** The assessment for stationary trains needs to consider sulphur dioxide, while the assessment for moving diesel trains needs to consider nitrogen dioxide.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no railways carrying diesel or steam trains in the Local Authority area, there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

### Stationary Trains

Start writing supporting text here…

<LA Name> confirms that there are no locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has identified locations not previously assessed where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m, and **will need to proceed to a Detailed Assessment for sulphur dioxide.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

### Moving Trains

Start writing supporting text here…

<LA Name> confirms that there are no locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has identified locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m, and **will need to proceed to a Detailed Assessment for nitrogen dioxide.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Ports

|  |
| --- |
| **Follow the procedure set out in Chapter 7, Section 1, Ports of LAQM.TG16**. The assessment for shipping needs to consider sulphur dioxide only.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no ports or shipping, there is no need to proceed further with this part. *Please complete the relevant* sentence *below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no ports or shipping that meet the specified criteria within the Local Authority area.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has identified a port meeting the criteria specified in LAQM.TG16 that has not been previously assessed, and **will need to proceed to a Detailed Assessment for sulphur dioxide.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

# Industrial Sources

## Industrial Installations

|  |
| --- |
| **Follow the procedure set out in Table 7.3 of Chapter 7 of LAQM.TG16.** The assessment should consider all of the regulated pollutants, although those most at risk of requiring further work are sulphur dioxide, NO2, PM10 and benzene.  Only consider proposed sources for which planning approval has been granted.  **Delete this box when the document is finished** |

### New or Proposed Installations for which an Air Quality Assessment has been Carried Out

|  |
| --- |
| **Follow the procedure set out in Table 7.3 of Chapter 7 of LAQM.TG16.**  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no new/proposed industrial installations, there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/proposed industrial installations, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/proposed industrial installations, and concluded that **it will be necessary to proceed to a Detailed Assessment.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

### Existing Installations where Emissions have Increased Substantially or New Relevant Exposure has been Introduced

|  |
| --- |
| **Follow the procedure set out in Table 7.3 of Chapter 7 of LAQM.TG16.**  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no existing industrial installations that have increased substantially or have new relevant exposure, there is no need to proceed further with this part. *Please complete the relevant sentence* *below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no industrial installations with substantially increased emissions or new relevant exposure in their vicinity within its area or nearby in a neighbouring authority.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed industrial installations with <substantially increased emissions> <new relevant exposure in their vicinity>, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed industrial installations with <substantially increased emissions> <new relevant exposure in their vicinity>, and concluded that **it will be necessary to proceed to a Detailed Assessment.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

### New or Significantly Changed Installations with No Previous Air Quality Assessment

|  |
| --- |
| **Follow the procedure set out in Table 7.3 of Chapter 7 of LAQM.TG16.** Provide details in this report of the process details, including the type of process, size, location etc.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no new/proposed industrial installations, there is no need to proceed further with this part. *Please complete the relevant sentence below to state this explicitly in the report.*  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/proposed industrial installations, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed new/proposed industrial installations, and concluded that it will be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Major Fuel Depots

|  |
| --- |
| **Follow the procedure set out in paragraph 7.37 of LAQM.TG16.** The assessment needs to consider only benzene, with respect to the 2010 objective.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no major petrol storage depots that have not been previously considered, please complete the first sentence below and leave this sentence in the finished report.  **Delete this box when the document is finished** |

Start writing supporting text here…

***Delete whichever is not applicable:***

There are no major fuel (petrol) storage depots within the Local Authority area.

There are major fuel (petrol) storage depots within the Local Authority area, but these have been considered in previous reports.

***DELETE BOTH SENTENCES IF NOT APPLICABLE. OTHERWISE LEAVE IN APPLICABLE SENTENCE.***

<LA Name> has assessed a major petrol storage depot, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed a major petrol storage depot, and concluded that **it will be necessary to proceed to a Detailed Assessment for benzene.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Petrol Stations

|  |
| --- |
| **Follow the procedure set out in Table 7.3 of Chapter 7 of LAQM.TG16.** The assessment needs to consider only benzene, with respect to the 2010 objective.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no petrol stations meeting these criteria, complete the first sentence below, and leave this sentence in the finished report.  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no petrol stations meeting the specified criteria.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has identified petrol stations meeting the specified criteria, and **will need to proceed to a Detailed Assessment for benzene.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Poultry Farms

|  |
| --- |
| **Follow the procedure set out in Table 7.3 of LAQM.TG16.** The assessment needs to consider only PM10.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. *If there are no poultry farms, or none that require further consideration, please* complete the first sentence below, and leave this sentence in the finished report.  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no poultry farms meeting the specified criteria.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has identified <a poultry farm> <poultry farms> meeting the specified criteria, and **will need to proceed to a Detailed Assessment for PM10.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

# Commercial and Domestic Sources

## Biomass Combustion – Individual Installations

|  |
| --- |
| **Follow the procedure set out in Chapter 7, Section 1, Biomass Combustion – Individual Installations of LAQM.TG16.** The assessment needs to consider PM10 and nitrogen dioxide.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no biomass combustion plant, please complete the first sentence below, and leave this sentence in the finished report.  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no biomass combustion plant in the Local Authority area.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed the biomass combustion plant, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed biomass combustion plant, and concluded that **it will be necessary to proceed to a Detailed Assessment for <pollutant>.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Biomass Combustion – Combined Impacts

|  |
| --- |
| **Follow the procedure set out in Chapter 7, Section 1, Biomass Combustion – Combined Installations of LAQM.TG16.** The assessment needs to consider PM10.  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no biomass combustion plant in the Local Authority area.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed the biomass combustion plant, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed biomass combustion plant, and concluded that **it will be necessary to proceed to a Detailed Assessment for PM10.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## Domestic Solid Fuel Burning

|  |
| --- |
| **Follow the procedure set out in Chapter 7, Section 1, Domestic other Solid-Fuel Combustion of LAQM.TG16.** The assessment needs to consider sulphur dioxide. PM10 from domestic solid fuel burning is covered under the Biomass combustion – combined impacts section above.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no areas of significant domestic solid fuel use, please complete the first sentence below, and leave this sentence in the finished report.  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no areas of significant domestic fuel use in the Local Authority area.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed areas of significant domestic solid fuel use, and concluded that it will not be necessary to proceed to a Detailed Assessment.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has assessed areas of significant domestic solid fuel use, and concluded that **it will be necessary to proceed to a Detailed Assessment for sulphur dioxide.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

# Fugitive or Uncontrolled Sources

|  |
| --- |
| **Follow the procedure set out in Table 7.5 of Chapter 7 of LAQM.TG16.** The assessment needs to consider PM10. Only locations not covered by previous rounds of review and assessment (including any with substantial changes), or where there is new relevant exposure, should be covered in this section. In the case of proposed new sources, only consider them if planning approval has been granted.  Please write your assessment below this box, and select one of the sentences to highlight the outcome. If there are no sources that may need consideration, please complete the first sentence below, and leave this sentence in the finished report.  **Delete this box when the document is finished** |

Start writing supporting text here…

<LA Name> confirms that there are no potential sources of fugitive particulate matter emissions in the Local Authority area.

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

<LA Name> has identified potential sources of fugitive particulate matter that meet specified criteria, and **will need to proceed to a Detailed Assessment for PM10.**

***DELETE SENTENCE IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

# Conclusions and Proposed Actions

## Conclusions from New Monitoring Data

|  |
| --- |
| For example:   * exceedances identified, within and outside of existing AQMAs; * Cases where exceedance was previously suspected but monitoring has confirmed that the AQ Objective is met; * Significant trends.   Has monitoring identified any potential or actual exceedences at relevant locations outside existing AQMAs?  Are all monitoring results within AQMAs below the air quality objective, such that it may be appropriate to revoke the AQMA?  In both of these cases a Detailed Assessment would be required.  **Delete this box when the document is finished** |

Start writing here…

## Conclusions from Assessment of Sources

|  |
| --- |
| Summary of likely impacts of local developments: road transport, other transport, industrial installations, commercial/domestic, fugitive emissions, residential and commercial etc.  Has the assessment of new or significantly changed sources identified any potential exceedences outside existing AQMAs?  **Delete this box when the document is finished** |

Start writing here…

## Proposed Actions

|  |
| --- |
| Has the Updating and Screening Assessment identified the need to proceed to a Detailed Assessment for any pollutant? If so, which pollutant(s) and objectives, and where?  If not, state explicitly that this is the case.  Has the Updating and Screening Assessment identified any need for additional monitoring, or changes to the existing monitoring programme (e.g. re-location of sites)?  Are changes required to any existing AQMAs – for example should their boundaries be changed or can they be revoked? If so it will be necessary to proceed to a Detailed Assessment.  What is your next course of action?   * Submit 2022 Progress Report * And (if necessary) progress to Detailed Assessment (for which locations, pollutants and objectives)   **Delete this box when the document is finished** |

Start writing here…

# References

|  |
| --- |
| Please provide a list of all documents referred to in the report.  **Delete this box when the document is finished** |

Start writing here…

# Appendices

Appendix A: Quality Assurance / Quality Control (QA/QC) Data

Appendix B: Impact of COVID-19 upon LAQM

Appendix C: DMRB Calculations

|  |
| --- |
| Appendices may include maps, tables, lists of processes etc. Include as many as necessary.  **Delete this box when the document is finished** |

# Appendix A: Quality Assurance / Quality Control (QA/QC) Data

|  |
| --- |
| **INSTRUCTIONS**  Please include information relating to the QA/QC on monitoring data, including bias adjustments, annualisation and fall-off with distance correction, as appropriate:   * Discussion and justification on the choice of bias adjustment factor applied for diffusion tubes (i.e. local vs national), with reference to previous years’ choices of bias factors, giving due consideration to the discussion in Chapter 7 of [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html). * Discussion on the annualisation process, which is provided in Chapter 7 of [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html). * Details of distance correction using the diffusion tube data processing/ NO2 fall off with distance calculator as discussed in Chapter 7 of [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html). **Distance correction is an important point to consider if your monitoring sites are not representative of public exposure, e.g. if located at roadside or kerbside, but with façades of nearest properties set back further from the road.** * Please include calculations within the tables provided as found within the relevant LAQM tools; particularly regarding bias adjustments, annualisation and fall-off with distance correction, where appropriate.   **Failure to provide clear and auditable details is likely to result in the rejection of the report.**  **Delete this box when the document is finished** |

## QA/QC of Diffusion Tube Monitoring

Within this section provide details relating to the following aspects of non-automatic (i.e. passive) monitoring using diffusion tubes:

* The supplier used for diffusion tubes within 2020 and the method of preparation, e.g. 20% TEA in water;
* Information on the diffusion tube supplier; any accreditation held, analysis procedure followed, participation in analysis schemes (e.g. AIR-PT) and most recent results, inclusion in the annual field inter-comparison exercise and associated result;
* If the diffusion tube supplier has been changed part way through the year (if so provide the previous two points for both suppliers);
* State whether or not the monitoring has been completed in adherence with the 2020 Diffusion Tube Monitoring Calendar, providing commentary of any divergences as necessary.

The additional subsections should be used to provide QA/QC details of the data processing methodologies applied to diffusion tube monitoring data, specifically in relation to annualisation, bias adjustment and fall-off-with-distance calculations.

If you do not undertake diffusion tube monitoring, please delete this section.

### Diffusion Tube Annualisation

If annualisation was required for any non-automatic monitoring sites, the sites requiring annualisation should be clearly defined along with details of the calculation method undertaken provided in Table A.2. Annualisation is required for any site with data capture less than 75% but greater than 25%.

Or:

All diffusion tube monitoring locations within <Local Authority Name> recorded data capture of 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

### Diffusion Tube Bias Adjustment Factors

<Local Authority Name> have applied a <national/local> bias adjustment factor of <insert factor> to the <Year> monitoring data. A summary of bias adjustment factors used by <Local Authority Name> over the past five years is presented in Table A.1.

Provide discussion in relation to the bias adjustment factor chosen; a national factor or a local factor.

* If a national factor has been used, please state as per Table A.1 which version of the national spreadsheet the factor has been taken from and also the number of studies applicable to the factor.
* If a local factor has been used, please advise at which site(s) the co-location study has been completed at and present the details in Table A.2.
* If more than one co-location study has been utilised to derive a local factor, please provide the calculations that have been completed within the body of text. These should be completed in line with guidance provided within LAQM.TG16 Chapter 7: NOx and NO2 Monitoring, NO2 by Diffusion Tubes.

Table A.1 Bias Adjustment Factor

|  |
| --- |
| **INSTRUCTIONS**  Please complete the following table detailing the bias adjustment factors used to adjust the diffusion tube monitoring data. If a national factor has been used, please detail the Spreadsheet Version that has been used (detailed in the top-right corner of each revision of the spreadsheet). If a local factor has been derived, please leave this column blank or insert a dash (-).  The national adjustment spreadsheet is available from <https://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html>  **Delete this box when the document is finished** |

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Local or National | If National, Version of National Spreadsheet | Adjustment Factor |
| 2020 | Local | - | 0.88 |
| 2019 | National | 09/20 | 1.01 |
| 2018 | National | 06/19 | 1.05 |
| 2017 | National | 09/18 | 1.07 |
| 2016 | National | 06/17 | 1.08 |

### NO2 Fall-off with Distance from the Road

If fall-off-with-distance calculations were required for any non-automatic monitoring sites, a summary of the sites should be provided here and the output data from the LAQM NO2 fall-off with distance calculator, or output from the Diffusion Tube Data Processing Tool should be presented in Table A.4. Distance correction should be considered at any monitoring site where the annual mean concentration is greater than 36µg/m3 and the monitoring site is not located at a point of relevant exposure (taking the limitations of the calculator into account).

Or:

No diffusion tube NO2 monitoring locations within <Local Authority Name> required distance correction during <Year>.

## QA/QC of Automatic Monitoring

Within this section details relating to the following should be included:

* Who completes the data management and Local Site Operator (LSO) duties for any automatic monitoring sites within the authority;
* Details on the frequency of calibrations, audit/servicing;
* Ratification process, and if the monitoring data presented within the USA is provisional or ratified;
* If live/historic data is available through a website.

### PM10 and PM2.5 Monitoring Adjustment

If PM10/PM2.5 monitoring is completed within your authority, where applicable please detail any correction factors applied to the data before it is published (e.g. using the Volatile Correction Model (VCM) or a specific correction factor). Correction factors as detailed within LAQM.TG16 Chapter 7: Particulate Matter Monitoring.

Or:

The type of <PM10/PM2.5> monitor(s) utilised within <Local Authority Name> do not required the application of a correction factor.

Please delete this section if no PM10/PM2.5 monitoring is not completed within your authority.

### Automatic Monitoring Annualisation

If annualisation was required for any automatic monitoring sites a summary of the sites should be provided here and the annualisation data should be presented in Table A.2. Annualisation is required for any site with data capture less than 75% but greater than 25%.

Or:

All automatic monitoring locations within <Local Authority Name> recorded data capture of greater than 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

Please delete this section if no automatic monitoring is completed within your authority.

### NO2 Fall-off with Distance from the Road

If fall-off-with-distance calculations were required for automatic monitoring sites, a summary of the sites should be provided here and the output data from the LAQM NO2 fall-off with distance calculator should be presented in Table A.4. Distance correction should be considered at any monitoring site where the annual mean concentration is greater than 36µg/m3 and the monitoring site is not located at a point of relevant exposure (taking the limitations of the calculator into account).

Or:

No automatic NO2 monitoring locations within <Local Authority Name> required distance correction during <Year>.

|  |
| --- |
| **INSTRUCTIONS**  The structure of the following QA/QC tables are consistent with those output by the new [Diffusion Tube Data Processing Tool](https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html). It is therefore recommended that this tool is used to aid transparency of calculations and associated QA/QC pertaining to the processing of diffusion tube data.  However, it is acknowledged that not all local authorities will initially use the new processing tool due to having many years of experience in processing the data within their authority using existing LAQM tools and methods. This also includes automatic monitoring data, for which the Diffusion Tube Data Processing Tool does not currently support. Therefore, in these instances please align these tables to present equivalent details, text and/or tabulated data, to support any calculations completed.  If you have any queries relating to the data that you should present, please contact the LAQM Helpdesk.  **Delete this box when the document is finished** |

Table A.2 Annualisation Summary (concentrations presented in µg/m3)

|  |
| --- |
| **INSTRUCTIONS**  Both automatic and non-automatic annualisation results should be included within Table A.2.  For diffusion tube annualisation the [Annualisation Tool](https://laqm.defra.gov.uk/tools-monitoring-data/annualisation.html) or the [Diffusion Tube Data Processing Tool](https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html) can be used to complete annualisation. Either tool should be used to ensure the correct methodology for annualisation is utilised. Table A.2 has the same structure as the **Annualisation Summary** tab within both tools, therefore the required data can easily be copied.  If a LAQM tool has not been used for diffusion tube annualisation, please enter the relevant data into the table below or replace this table with one presenting the relevant details for annualisation.  Currently there is no LAQM tool to process annualisation for automatic monitoring, therefore guidance as per Chapter 7: NOx and NO2 Monitoring of the [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html) should be followed and the results presented within Table A.2.  If less than four background sites have been used to annualise, the relevant boxes can be left blank or a dash added (-). Any relevant comments should be added within the Comments column.  This table should be deleted if annualisation has not been required at any site.  **Delete this box when the document is finished** |

| Site ID | Annualisation Factor Site 1 Name | Annualisation Factor Site 2 Name | Annualisation Factor Site 3 Name | Annualisation Factor Site 4 Name | Average Annualisation Factor | Raw Data Annual Mean | Annualised Annual Mean | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DT1 |  |  |  |  |  |  |  |  |
| DT2 |  |  |  |  |  |  |  |  |

Table A.3 Local Bias Adjustment Calculations

|  |
| --- |
| **INSTRUCTIONS**  Please complete Table A.3 if a local bias adjustment factor has been calculated.  For the calculation of a local bias adjustment factor the [AEA\_DifTPAN\_c04.xls](https://laqm.defra.gov.uk/bias-adjustment-factors/local-bias.html) or the [Diffusion Tube Data Processing Tool](https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html) can be used to complete the calculations. Either tool should be used to ensure the correct methodology for bias calculation is utilised. Table A.3 has the same structure as the **Local Bias Adjustment Outputs** tab within the LAQM Diffusion Tube Data Processing Tool, therefore the required data can be easily copied. If the [AEA\_DifTPAN\_c04.xls](https://laqm.defra.gov.uk/bias-adjustment-factors/local-bias.html) has been utilised, please enter the relevant data into Table A.3. Alternatively, replace this table with one presenting the equivalent data of the local bias calculation and consider adding a screenshot of the completed **Prevision & Accuracy** tab for clarity.  If a local factor from more than one local co-location study has been calculated without utilising the Diffusion Tube Data Processing Tool, guidance to average the bias B values as per Chapter 7: NOx and NO2 Monitoring of the [Technical Guidance LAQM.TG16](https://laqm.defra.gov.uk/technical-guidance/index.html) should be followed.  The table has been set up to take account of a maximum of five local co-location studies. If less than five sites have been utilised the relevant boxes can be left blank or a dash added (-). If more than five sites have been utilised, please add any additional columns to the table.  This table should be deleted if a local bias adjustment factor has not been calculated.  **Delete this box when the document is finished** |

|  | Local Bias Adjustment Input 1 | Local Bias Adjustment Input 2 | Local Bias Adjustment Input 3 | Local Bias Adjustment Input 4 | Local Bias Adjustment Input 5 |
| --- | --- | --- | --- | --- | --- |
| **Periods used to calculate bias** | 12 |  |  |  |  |
| **Bias Factor A** | 1.13 (1.06 – 1.21) |  |  |  |  |
| **Bias Factor B** | -12% (-17% - -6%) |  |  |  |  |
| **Diffusion Tube Mean (µg/m3)** | 30.9 |  |  |  |  |
| **Mean CV (Precision)** | 0.0% |  |  |  |  |
| **Automatic Mean (µg/m3)** | 35.0 |  |  |  |  |
| **Data Capture** | 100% |  |  |  |  |
| **Adjusted Tube Mean (µg/m3)** | 35 (33 – 37) |  |  |  |  |

Notes:

A single local bias adjustment factor has been used to bias adjust the 2020 diffusion tube results.

Or:

A combined local bias adjustment factor of <enter combined factor> has been used to bias adjust the 2020 diffusion tube results.

Table A.4 NO2 Fall off With Distance Calculations (concentrations presented in µg/m3)

|  |
| --- |
| **INSTRUCTIONS**  Both automatic and non-automatic distance corrected results can be included within Table A.4.  For distance correction of NO2 monitoring the [NO2 Fall-Off with Distance Calculator](https://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html) or the [Diffusion Tube Data Processing Tool](https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html) can be used to complete the calculations. Either tool should be used to ensure the correct methodology for NO2 concentration fall off is utilised. Table A.4 has the same structure as the output tabs as follows, therefore the required data can easily be copied:   * NO2 Fall-Off with Distance Calculator – **Calculator - Multiple Tubes** * Diffusion Tube Data Processing Tool – **Step 4 - Fall off with Distance**   The Limitations / Important Notes tab within the calculator should be referred to in order to ensure only relevant sites are included within the calculator. Please ensure the correct distances are utilised within the calculator:  Any comments output from the calculator should be added within the Comments column.  This table should be deleted if distance correction has not been completed at any site.  **Delete this box when the document is finished** |

| Site ID | Distance (m): Monitoring Site to Kerb | Distance (m): Receptor to Kerb | Monitored Concentration (Annualised and Bias Adjusted) | Background Concentration | Concentration Predicted at Receptor | Comments |
| --- | --- | --- | --- | --- | --- | --- |
| DT1 |  |  |  |  |  |  |
| DT2 |  |  |  |  |  |  |

# Appendix B: Impact of COVID-19 upon LAQM

|  |
| --- |
| **INSTRUCTIONS**  Completion of this Appendix is encouraged.  This Section should be used to highlight and discuss the impacts of COVID-19 upon LAQM and air quality during 2020. Eight questions are listed below that where applicable should be answered to help formulate a response:   1. Did your local authority maintain diffusion tube monitoring networks as normal (exposure and analysis in line with diffusion tube calendar) during 2020, including over the lockdown period?    1. If no, over what time period(s) and in what way was diffusion tube monitoring impacted? 2. Did your local authority maintain automatic air quality monitoring sites as normal (LSO visits, etc.) during 2020, including over the lockdown period?    1. If no, how and over what time period(s) was automatic monitoring impacted?    2. What is your assessment of how this may impact data reliability? 3. What challenges/constraints, that can be attributed to the pandemic, did you face when complying with the LAQM regime during 2020?   3.1 How could any possible challenges/constraints be eliminated/minimised in the future?   1. Did your local authority carry out any additional monitoring during 2020, in response to the COVID-19 pandemic?    1. If yes, please outline what types of monitoring were carried out and what the findings were. 2. Are there any ongoing issues with your local air quality monitoring network related to the COVID-19 response?    1. If yes, please provide details as to nature of issues and how these will impact air quality monitoring. 3. Has the local authority undertaken any analysis of the impact of the COVID-19 pandemic in air quality within its district?   6.1 If yes, please summarise key findings and indicate if/when a more detailed report will be made available.   1. Did COVID-19 provide any opportunities for LAQM within the local authority area in respect of improving local air quality, such as through promotion of walking and cycling, additional cycle infrastructure etc 2. Please provide any additional information relating to current or planned local air quality monitoring which may be relevant.   The inclusion of this Section is not intended to unduly add to the reporting burden of local authorities at a time when resources are already stretched, therefore please only complete to the level of detail readily available. As a guide, it is suggested that the maximum length of Appendix B should be no more than two/three pages.  **Delete this box when the document is finished** |

COVID-19 has had a significant impact on society. Inevitably, COVID-19 has also had an impact on the environment, with implications to air quality at local, regional and national scales. COVID-19 has presented various challenges for Local Authorities with respect to undertaking their statutory LAQM duties in the 2021 reporting year.

Despite the challenges that the pandemic has given rise to, the events of 2020 have also provided Local Authorities and other organisations with an opportunity to quantify the air quality impacts associated with wide-scale and extreme intervention and changes in behaviour such as reduced road traffic and working from home.

Start writing here…

# Appendix C: DMRB Calculations

|  |
| --- |
| Suggested table layouts are provided below, for presenting the input data used in your DMRB calculations.  **Delete this box when the document is finished** |

Table C.2 Input Data – Background Concentrations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Location/  Receptor | Grid Ref | Year | NOx | NO2 | PM10 |
| A |  | 2018 |  |  |  |
| B |  | 2018 |  |  |  |
| C |  | 2018 |  |  |  |

Table C.3 Input Data – Traffic Flow, Speed and Composition

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Location / Receptor | Link number | Distance from link centre to receptor (m) | AADT (combined, veh/day) | Annual average speed (km/h) | Road type (A,B,C,D) | Total % LDV  (<3.5t GVW) | Total % HDV  (>3.5t GVW) |
| A | 1 |  |  |  |  |  |  |
| A | 2 |  |  |  |  |  |  |
| A | 3 |  |  |  |  |  |  |
| A | 4 |  |  |  |  |  |  |
| B | 1 |  |  |  |  |  |  |
| B | 2 |  |  |  |  |  |  |
| B | 3 |  |  |  |  |  |  |
| B | 4 |  |  |  |  |  |  |

**Verification**

|  |
| --- |
| Provide full details of model verification, including measured and modelled results, and verification factors applied. Information about model verification is available in LAQM.TG16 Chapter 7, Section 4, Model Validation, Verification, Adjustment and Uncertainty.  Currently the verification should focus on the road contribution to nitrogen oxides.  **Delete this box when the document is finished** |

**Results**

|  |
| --- |
| A suggested table layout for presenting your DMRB results is provided below.  **Delete this box when the document is finished** |

Table C.4 DMRB Results

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Location/  Receptor | Name | Year | Rd NOx 1 (Annual mean g/m3) | Verification Factor | Adj Rd NOx 2 (Annual mean g/m3) | Adj Total NOx 3 (Annual mean g/m3) | Total NO2 4 (Annual mean g/m3) | PM10 (Annual mean g/m3) | PM10 (Days >50g/m3) |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

1 Rd NOx = Road NOx direct from DMRB local output sheet

2 Adj Rd NOx = Rd NOx x verification factor (state verification factor used)

3 Adj Total NOx = Adj Rd NOx + Background NOx

4 Total NO2 = from NOx to NO2 calculator (available at from LAQM Support website)

**Maps of Locations**

|  |
| --- |
| For locations where results are close to any objective, please provide maps of the area indicating modelled road links and receptor location.  **Delete this box when the document is finished** |

**Add as many appendices as required.**