

Local Air Quality Management Helpdesk

Local Air Quality Management Tools available for use by Local Authorities in the Review and Assessment Process

The table below provides a list of LAQM Tools available for use by Local Authorities in the Review and Assessment process.

Shortcuts to different sections are provided below:

[Monitoring – Diffusion Tubes](#)

[Monitoring – Particulate Matter](#)

[Monitoring – Other Tools](#)

[Background Concentrations](#)

[Emissions Tools](#)

[Screening Tools](#)

[Road Traffic Related Tools](#)

Please ensure you read the background information before using the tools and regularly check back to the LAQM Support website for updates.

If you require further information or support in using any of the LAQM Tools listed below, then please contact the LAQM Support Helpdesk:

Web: <https://lagm.defra.gov.uk/>

Telephone: +44 (0)800 032 7953

Email: LAQMHelpdesk@bureauveritas.com

The LAQM Support Helpdesk is operated by Bureau Veritas UK on behalf of Defra, the Devolved Administrations and the GLA.

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Title	Author	Last Updated	Content	Background information and Main Page	Tool Location
Monitoring – Diffusion Tubes					
Local Bias Adjustment and Precision Calculator	Ricardo-E&E	February 2011	Assists diffusion tube users in calculating the precision and accuracy of their results, in co-location studies where diffusion tubes are compared with automatic analysers.	https://laqm.defra.gov.uk/bias-adjustment-factors/local-bias.html and https://laqm.defra.gov.uk/diffusion-tubes/precision.html	https://laqm.defra.gov.uk/documents/AEA_DifTPAB_v04.xls
National bias adjustment factors	Bureau Veritas / NPL	March 2021	A database of bias adjustment factors determined from Local Authority co-location studies throughout the UK.	https://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html	https://laqm.defra.gov.uk/documents/Database_Diffusion_Tube_Bias_Factors_v03_21.xlsx
Annualisation Tool	Bureau Veritas	June 2020	Assists diffusion tube users in annualising diffusion tube data, where monitoring has occurred for 3 months or more and less than 9 months, to obtain an estimate of the annual mean.	https://laqm.defra.gov.uk/tools-monitoring-data/annualisation.html	https://laqm.defra.gov.uk/assets/Annualisation_Tool_v1.0.xlsb
Diffusion Tube Data Processing Tool	Bureau Veritas	April 2021	Assists diffusion tube users in overall data processing by amalgamating the following individual LAQM processing tools: <ul style="list-style-type: none"> • Annualisation tool; • Precision and accuracy tool – calculation of local bias; and • NO₂ fall off with distance calculator. 	https://laqm.defra.gov.uk/tools-monitoring-data/DTDP.html	https://laqm.defra.gov.uk/assets/Diffusion_Tube_Data_Processing_Tool_v1.0.xlsb
Monitoring – Particulate Matter					
Volatile correction model	Kings College	April 2012	Corrects TEOM concentrations to "gravimetric equivalent" values.	http://www.volatile-correction-model.info/	http://www.volatile-correction-model.info/Correction/SelectTEOM.aspx
Monitoring – Other Tools					
Year adjustment factors for CO, benzene and 1,3 butadiene	Ricardo-E&E	July 2002	For use with carbon monoxide, benzene, and 1.3-butadiene monitoring results to project concentrations in future years.	https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#YAF	https://laqm.defra.gov.uk/documents/yearfactorslaqm2001.xls
NO ₂ fall off with	Bureau Veritas	March 2018	Estimates the annual mean nitrogen dioxide concentration at one distance	https://laqm.defra.gov.uk/tools-	https://laqm.defra.gov.uk/documents/NO2-Fall-Off-With-Distance-from-

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distance			from a road, using measurements made at a different distance from the same road.	monitoring-data/no2-falloff.html	Roads-Calculator-v4.2.xls
NO _x to NO ₂ calculator	Ricardo-E&E	August 2020	Derives NO ₂ from NO _x wherever NO _x is predicted by modelling emissions from roads. The calculator can also be used to calculate the road component of NO _x from roadside NO ₂ diffusion tube measurements.	https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxNO2calc	https://laqm.defra.gov.uk/documents/NO_x to NO₂ Calculator v8.1.xlsm
Background Concentrations					
Background maps (NO _x , NO ₂ , PM ₁₀ and PM _{2.5})	Ricardo-E&E	August 2020	2018-2030 Background maps (NO _x , NO ₂ , PM ₁₀ and PM _{2.5}).	https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html	https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018
NO ₂ Adjustment for NO _x Sector Removal	Bureau Veritas	August 2020	NO ₂ Adjustment for NO _x Sector Removal.	https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxsector	https://laqm.defra.gov.uk/documents/NO₂ Adjustment for NO_x Sector Removal Tool v8.0.xlsb
Background maps (SO ₂ , CO, benzene & 1,3-butadiene)	Ricardo-E&E	2003	2001 Background maps (SO ₂ , CO, benzene & 1,3-butadiene).	https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html	https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2001
Background maps for Northern Ireland (based on NIOS co-ordinates)	Ricardo-E&E	August 2020	Background maps for Northern Ireland (based on NIOS co-ordinates).	https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html	https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018
Background maps for Scotland (NO _x , NO ₂ and PM ₁₀)	Ricardo-E&E	September 2020	2018-2030 Background maps (NO _x , NO and PM ₁₀ for use in review and assessment.	http://www.scottishairquality.scot/data/mapping	http://www.scottishairquality.co.uk/data/mapping?view=data
NO ₂ Adjustment for NO _x Sector Removal (Scottish specific)	Ricardo-E&E	January 2020	NO ₂ Adjustment for NO _x Sector Removal for use with the background maps for Scotland	http://www.scottishairquality.scot/data/mapping	http://www.scottishairquality.co.uk/data/mapping?view=data
Emissions Tools					
Road Transport	Bureau Veritas	August 2020	The toolkit allows the user to calculate	https://www.laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html	https://www.laqm.defra.gov.uk/documents/road-transport-toolkit.xls

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Emission Factors Toolkit			vehicle emissions for multiple road links based on vehicle fleet composition, traffic speeds and road type. This version supersedes any previous road transport emission factors made available.	and-assessment/tools/emissions-factors-toolkit.html	EFT2020_v10.1.xlsb
Exempt Model - dealing with cold start emissions	Ricardo-E&E	December 2008	Calculates the excess emissions from vehicles with cold engines. There are 2 spreadsheets – basic and advanced.	https://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html#exempt	https://laqm.defra.gov.uk/documents/Cold_Start_v1.0.xls and https://laqm.defra.gov.uk/documents/Cold_Start_Advanced_v1.0.xls
Emission factors database	Ricardo-E&E	2021	This database contains the emissions factors used in the 2018 UK National Atmospheric Emissions Inventory (NAEI), as well as factors specially designed for local inventories.	https://naei.beis.gov.uk	https://naei.beis.gov.uk/data/
1 * 1km emission estimates	Ricardo-E&E	2020	Provides high level emission estimates for 2018 for each 1 * 1km grid square in the UK.	https://naei.beis.gov.uk/data/mapping	https://naei.beis.gov.uk/data/map-uk-das
Point source emission estimates	Ricardo-E&E	2019	Provides emissions by point source (i.e. for the large power generation and industrial sources).	https://www.gov.uk/guidance/uk-pollutant-release-and-transfer-register-prtr-data-sets	http://prtr.defra.gov.uk/full-dataset
Screening Tools					
DMRB	Highways Agency	July 2007	A road transport screening tool for use by Local Authorities to assess the impact of traffic generation on air quality.	https://www.gov.uk/guidance/standards-for-highways-online-resources	Contact the LAQM Helpdesk for more information.
Industrial Emissions Screening Tool	Bureau Veritas	April 2017	A screening tool for NO ₂ , PM ₁₀ , SO ₂ , Benzene and 1,3-Butadiene to assess whether the industrial plant of concern needs further assessment.	https://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html#industrial	https://laqm.defra.gov.uk/assets/industrial-emissions-screening-toolv3.xls
Stack height calculator for SO ₂ from small boilers	Bureau Veritas	January 2001	A chimney height calculation spreadsheet for sulphur dioxide emissions from small boilers.	https://laqm.defra.gov.uk/review-and-assessment/tools/modelling.html	https://laqm.defra.gov.uk/documents/stackheightcalcs.xls

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				and https://laqm.defra.gov.uk/documents/SupplementaryAssistanceonStackHeight.pdf	
Biomass Emissions Screening Tool	Bureau Veritas	April 2017	A screening tool for NO ₂ , PM ₁₀ and PM _{2.5} to assess whether the biomass plant of concern needs further assessment.	https://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html#biomass	https://laqm.defra.gov.uk/assets/biomassemissionscreeningtoolv7.xls
CHP Emissions Screening Tool	Bureau Veritas, EPUK, IAQM	March 2012	A screening tool for NO ₂ to assess whether the CHP plant of concern needs further assessment.	https://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html#CHP	http://www.iaqm.co.uk/text/guidance/e puk/chp_ag_tool.xls
Derivation of Screening Criteria for Review and Assessment of Airports	Air Quality Consultants	October 2008	This report is related to the air quality impacts of airport operations.	https://laqm.defra.gov.uk/review-and-assessment/tools/modelling.html	https://uk-air.defra.gov.uk/reports/cat06/0810291343_Screening_Criteria_for_Airports_Final_27-10-08.pdf
Road Traffic Related Tools					
Annual Average Daily Traffic Flows	DfT	2020	Provides estimated traffic flows on every link of the 'A' road and motorway network in Great Britain. The data are for the years 1993 to 2018.	http://www.dft.gov.uk/traffic-counts/	Various datasets available for download.
Road Traffic and Speed statistics	DfT	March 2021	Average daily motor vehicle flows by road class, GOR and country.	https://www.gov.uk/government/publications/road-traffic-speeds-and-congestion-statistics-guidance	Various tables available for download.
TEMPRO	DfT	February 2021	Trip End Model Presentation Program – can be used to provide summaries of traffic growth using data from the National Transport Model.	https://www.gov.uk/government/collections/transport-appraisal-and-modelling-tools	https://www.gov.uk/government/publications/tempo-downloads