

Local Air Quality Management Helpdesk

Please see table below providing list of LAQM Tools available for use by Local Authorities in the Review and Assessment Process.

Shortcuts to different sections are also provided below:

[Monitoring – Diffusion tubes](#)

[Monitoring – VCM Correction](#)

[Monitoring – Other tools](#)

[Background Concentrations](#)

[Emissions Tools](#)

[Air Quality Screening Tools](#)

[Road Traffic related tools](#)

Please ensure you read the background information before using the tools. Please check back to the LAQM Support website <http://laqm.defra.gov.uk/> for updates.

Local Air Quality Management tools available for use by Local Authorities in the Review and Assessment process.

Title	Author	Last updated	Content	Background information and Main Page	Tool location
Monitoring – diffusion tubes					
Local Bias Adjustment and Precision Calculator	Ricardo-AEA	04-02-11	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.	http://laqm.defra.gov.uk/bias-adjustment-factors/local-bias.html and: http://laqm.defra.gov.uk/diffusion-tubes/precision.html	http://laqm.defra.gov.uk/documents/AEA_DifTPAB_v04.xls
National bias adjustment factors	Air Quality Consultants. Maintained by Bureau Veritas/NPL	June 2014	A database of bias adjustment factors determined from Local Authority co-location studies throughout the UK.	http://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html	http://laqm.defra.gov.uk/documents/Database_Diffusion_Tube_Bias_Factors-v06_14-Final.xls
Monitoring – particulate matter					
Volatile correction model	Kings College	April 2013	Corrects TEOM concentrations to "gravimetric equivalent" values.	http://www.volatile-correction-model.info/	http://www.volatile-correction-model.info/Correction/SelectTEOM.aspx
Monitoring – other					
Year adjustment factors for CO, benzene and 1,3 butadiene	Ricardo-AEA	10-07-02	For use with carbon monoxide, benzene, and 1.3-butadiene monitoring results to project concentrations in future years.	http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#YAF	http://laqm.defra.gov.uk/documents/yearfactorslaqm2001.xls
NO ₂ fall off with distance	Air Quality Consultants	25-01-11	Estimates the annual mean nitrogen dioxide concentration at one distance from a road, using measurements made at a different distance from the same road.	http://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html	http://laqm.defra.gov.uk/documents/NO2withDistancefromRoadsCalculatorIssue4.xls

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NO _x to NO ₂ calculator	Ricardo-AEA	18-06-13	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.	http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxNO2calc	http://laqm.defra.gov.uk/documents/NOx-NO2-Calculator-v4.1.xls
Background concentrations					
Background maps (NO _x , NO ₂ , PM ₁₀ & PM _{2.5})	Ricardo-AEA	June 2014	2011-2030 Background maps (NO _x , NO ₂ , PM ₁₀ & PM _{2.5}).	http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html	http://uk-air.defra.gov.uk/data/laqm-background-maps?year=2011
NO ₂ Adjustment for NO _x Sector Removal	Bureau Veritas	June 2014	NO ₂ Adjustment for NO _x Sector Removal.	http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxsector	http://laqm.defra.gov.uk/documents/NO2-Adjustment-for-NOx-Sector-Removal-Tool-v4.0.xls.zip
Background maps (SO ₂ , CO, benzene & 1,3-butadiene)	Ricardo-AEA	2003	2001 Background maps (SO ₂ , CO, benzene & 1,3-butadiene).	http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html	http://uk-air.defra.gov.uk/data/laqm-background-maps?year=2001
Background maps for Northern Ireland (based on NIOS co-ordinates)	Ricardo-AEA	June 2014	Background maps for Northern Ireland (based on NIOS co-ordinates).	http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html	http://uk-air.defra.gov.uk/data/laqm-background-maps?year=2011
Background maps for Scotland	Ricardo-AEA	April 2014	Background maps for NO ₂ and PM ₁₀ for use in review and assessment.	http://www.scottishairquality.co.uk/data/mapping?view=data	http://www.scottishairquality.co.uk/data/mapping?view=data
Emissions					
Road Transport Emission factor toolkit	Bureau Veritas and Ricardo-AEA	November 2014	The toolkit allows the user to calculate 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.	http://laqm.defra.gov.uk/review-and-assessment/tools/emissions-factors-toolkit.html	http://laqm.defra.gov.uk/documents/EFT2014_v6.0.2.xls.zip
Exempt Model - dealing with cold start emissions	Ricardo-AEA	26-11-08	Calculates the excess emissions from vehicles with cold engines. There are 2 spreadsheets – basic and advanced	http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html	http://laqm.defra.gov.uk/documents/Cold_Start_v1.0.xls and http://laqm.defra.gov.uk/documents/Cold_Start_Advanced_v1.0.xls
Emission factor database	Ricardo-AEA	2013	This database contains the emissions factors used in the 2011 UK National Atmospheric Emissions Inventory (NAEI), as well as factors specially designed for local inventories	http://naei.defra.gov.uk/	http://naei.defra.gov.uk/data/

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1 * 1km emission estimates	Ricardo-AEA	2013	Provides high level emission estimates for 2011 for each 1 * 1km grid square in the UK	http://naei.defra.gov.uk/reports/reports?section_id=5	http://naei.defra.gov.uk/data/map-uk-das
Point source emission estimates	Ricardo-AEA	2014	Provides emissions by point source (i.e. for the large power generation and industrial sources)	http://prtr.defra.gov.uk/what_is_prtr.php	http://prtr.defra.gov.uk/
AQ screening tools					
DMRB	Highways Agency	07-07. Work is currently underway to update it.	A road transport screening tool for use by Local Authorities in USAs	http://www.dft.gov.uk/ha/standards/dmr/vol11/section3.htm and http://laqm.defra.gov.uk/documents/Latest_guidance_on_DMRB_model.pdf	http://www.dft.gov.uk/ha/standards/tech_info/files/DMRB_Screening_Method_V1.03c_(12-07-07)_locked.zip
Industrial emissions screening tool	Bureau Veritas /Ricardo-AEA	25-03-03	Industrial nomograms for use in screening assessments. The outcome determines whether the sources need to be further investigated in a detailed assessment.	http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html	http://laqm.defra.gov.uk/documents/IndustrialEmissionsScreeningToolsv2.xls
Stack height calculator for SO ₂ from small boilers	Bureau Veritas	Unknown	A chimney height calculation spreadsheet for sulphur dioxide emissions from small boilers	http://laqm.defra.gov.uk/review-and-assessment/tools/modelling.html and http://laqm.defra.gov.uk/documents/SupplementaryAssistanceonStackHeight.pdf	http://laqm.defra.gov.uk/documents/stackheightcalcs.xls
Biomass Calculator	Bureau Veritas, Ricardo-AEA, Air Quality Consultants	19-12-08	A screening tool for NO ₂ , PM ₁₀ and PM _{2.5} to assess whether the biomass plant of concern needs further assessment	http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html	http://laqm.defra.gov.uk/documents/biomass_calculator_tool6.xls
Derivation of Screening Criteria for Review and Assessment of Airports	Air Quality Consultants	20-09-08	This report is related to the air quality impacts of airport operations	http://laqm.defra.gov.uk/review-and-assessment/tools/modelling.html	http://uk-air.defra.gov.uk/reports/cat06/0810291343_Screening_Criteria_for_Airports_Final_27-10-08.pdf
Road Traffic Activity Data					
Annual Average Daily Traffic Flows	DfT	2013	Provides estimated traffic flows on every link of the 'A' road and motorway network in Great Britain. The data are for the years 2000 to 2012.		http://www.dft.gov.uk/traffic-counts/
Road Traffic and Speed	DfT	2014	Average daily motor vehicle flows by road	https://www.gov.uk/government/pu	Various tables available for download

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statistics			class, GOR and country	blications/road-traffic-speeds-and-congestion-statistics-guidance	
TEMPRO	DfT	2013	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/tempo	https://www.gov.uk/government/publications/tempo-downloads/tempo
Automatic traffic growth calculator for England and Wales	Air Quality Consultants	05-09	English regional plus Welsh traffic growth and speed forecasts: automated traffic growth calculator for England and Wales.		http://laqm.defra.gov.uk/documents/RTF-Automated-Traffic-Growth-Calculator-v3-1.xls