

Defra's Modelled Air Quality Datasets

Defra runs a number of air quality models which produce many outputs. Information on modelling undertaken by Defra is available on the UK-AIR website.

Below is a list of modelled outputs which can be made available to interested parties. Some of the datasets are available for download but others due to their size will require you to contact Defra to arrange a suitable method for data delivery.

If you would like more information on Defra's modelled air quality data and to enquire about access to these datasets please email agevidence@defra.gsi.gov.uk.

Generated through the EMEP4UK modelling contract:

- Meteorology:
 - WRF 2.2 from 2002 to 2006
 - WRF 3.1.1 2007 (more years will be available later this year)
- Chemistry:
 - EMEP4UK (all the species included in the EMEP model) 2002-2007
 - Hourly, daily, monthly, annual for UK 5 km and Europe 50 km

Generated through the FRAME modelling contract:

- Deposition maps produced by FRAME can be downloaded from the FRAME website <http://www.uk-pollutantdeposition.ceh.ac.uk/image/tid/8>
- Data based on a resolution of 5 km² used to produce the UK deposition maps can be downloaded from <http://www.uk-pollutantdeposition.ceh.ac.uk/data>.
- 1 km data on concentrations and deposition of sulphur and nitrogen can be downloaded from www.apis.ac.uk
- Atmospheric concentrations (SO₂, NO_x, NH₃, ammonium, nitrate and ammonium aerosol) for 5 km and 1 km (not ammonia).

Generated through the OSRM modelling contract:

- 2008 UK maps of ozone concentrations calculated by the OSRM (10x10km gridded data)
- Modelled concentrations at each rural monitoring site (EU AQ Directive metrics DGT120 and AOT40)
- 2020 UK projection maps of ozone concentrations calculated by the OSRM (10x10km gridded data)
- Background oxidant maps from 2001-2009
- Defra has also provided funding to support the development of the Master Chemical Mechanism (MCM) which can be downloaded here <http://mcm.leeds.ac.uk/MCM/>

Generated through the Pollution Climate Mapping Model

- 1 x 1 km background maps of NO_x, NO₂, PM₁₀ and PM_{2.5} for the years 2008 – 2020 (projected from a base year of 2008) by local authority are available to download from the LAQM pages. Data modelled using older base years are also available, but should not be used for new projects.
- National background maps of various pollutants for various years are available from the UK-AIR Modelling Data page. Details can be found at <http://uk-air.defra.gov.uk/data/modelling-data>

Generated through the other contracts:

- Entec UK Shipping Emissions Gridded Data for 2007