Scope of this consultation	
Topic of this informal consultation:	Streamlining statistical releases on i) emissions of air pollutants in the UK, and ii) air quality statistics in the UK to provide a more coherent release service to users.
Scope of this informal consultation:	There are no legislative or regulatory issues attached to the proposals in this document and therefore an informal consultation is appropriate.
Geographical scope:	The releases on air quality statistics and emissions of air pollutants are for the UK Government.
Impact Assessment:	The streamlining of these statistical releases does not require an Impact Assessment.

Basic information	
To:	Anyone with an interest in air quality indicators and/or emissions of air pollutants and how progress should be reported to the public.
Body/bodies responsible for the consultation:	The Department for Environment, Food and Rural Affairs
Duration:	From the 8th November 2012 to the 23rd November 2012
Enquiries:	Defra's atmosphere and local environment (ALE) programme at aqevidence@defra.gsi.gov.uk Telephone enquiries: 020 7 238 4693
How to respond:	Via email or in hard copy to: Defra – atmosphere and local environment (ALE) programme, Air Quality Evidence Team, Area 5F, Ergon House, 17 Smith Square, London SW1P 3JR

After the consultation:	A response to the consultation will be published in early December 2012 and the responses to this consultation will inform a decision on the publication of the streamlined releases on emissions of air pollutants in the UK and releases on air quality statistics in the UK.

Introduction

1.   The Defra National Statistics Release on Emissions of Air Pollutants in the UK presents figures from the National Atmospheric Emissions Inventory (NAEI) on total emissions for the whole of the UK for nitrogen oxides, sulphur dioxide, ammonia and non-methane volatile organic compounds. The relationship between emissions and the concentrations of air pollutants in the UK (air quality) is complex and can be affected by many things including weather and the emissions of pollutants from outside the UK.

2.   In order to monitor our air quality and help assess the risks to people's health and to the environment, the Defra National Statistics Release on Air Quality Statistics in the UK presents estimates of the concentrations of key pollutants measured via a national network of monitoring sites, the Automatic Urban and Rural Network (AURN), which continuously captures ambient concentrations of selected pollutants throughout the UK.

3.   Throughout the consultation document presented here "air quality" will refer to concentrations of key pollutants and "emissions of pollutants" will refer to total air pollutant emissions.

4.   The air quality statistics and statistics on emissions of air pollutants provide Ministers across Government, Parliament and the public with information on current levels of and trends in air quality and information on emissions of the selected pollutants in the UK. The air quality statistics and emissions of air pollutants also support our evidence base for policy development across Government.

5.   The purpose of this informal consultation is to set out the rationale and detail of proposed changes to national statistical releases on air quality and emissions of air pollutants in the UK and to invite comments on the proposal.

Department for Environment, Food and Rural Affairs
Nobel House, 17 Smith Square, London, SW1P 3JR
Public enquiries & user feedback: aqevidence@defra.gsi.gov.uk
Website: www.defra.gov.uk/statistics/environment/

6.   By streamlining current publications we intend to merge current provisional and final air quality statistics to ensure that these statistics are produced in a way that meets users' needs. We also intend to rationalise the existing publications on emissions of air pollutants in order to focus on the key pollutants of public interest and improve accessibility as highlighted in the Code of Practice for Official Statistics, published by the UK Statistics Authority in January 2009.

7.   There is a national and international stakeholder interest in UK air quality (there were 3,851 visits to the Defra air quality website between April 2012 and September 2012), and the publication of these revised statistics would help those with an interest focus on the final results rather than provisional results and what in our view is the most important information.

Streamlining emissions of air pollutants in the UK

8.   The key pollutant emissions driving health and environmental impacts and of the largest public and policy interest are NO_X, SO_2, NH_3, VOCs and PM.

9.   This Defra National Statistics Release covers UK emissions of:

  i.   sulphur dioxide (SO_2);

  ii.   nitrogen oxides (NO_X);

  iii.   non-methane volatile organic compounds (NMVOCs); and

  iv.   ammonia (NH_3).

10.   These four pollutants are primarily responsible for:

  1.   acidification (caused by SO_2, NO_X and NH_3) where air pollutants create acidic compounds (acid rain) which can cause harm to vegetation and buildings;

  2.   eutrophication (NO_X and NH_3) where the nitrogen compounds can be deposited to soils or in rivers and lakes and affects the nutrient levels and diversity of species in sensitive environments, for example encouraging algae growth in lakes and water courses;

3. ground-level ozone (caused by NO_X and NMVOCs) where chemical reactions create the toxic gas ozone (O_3) which can affect people's health and can damage wild plants, crops, forests and some materials.

11. All four pollutants can also react in the atmosphere to form secondary particulate matter (PM). PM can adversely impact human health, with chronic exposure contributing to the risk of developing cardiovascular and respiratory diseases.

12. There are two main international agreements on air pollution emissions, both of which have 2010 as the target year:

   i. the National Emission Ceilings Directive (NECD) - sets ceilings for each EU Member State for emissions of sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds (NMVOCs), and ammonia.

   ii. the Gothenburg Protocol under the Convention on Long Range Transboundary Air Pollution (CLRTAP) - sets similar or identical UK emissions ceilings for the same pollutants. In May 2012 further emission reduction commitments for the same four pollutants and emissions of fine particulate matter ($PM_{2.5}$) were agreed, to be achieved by 2020.

13. Currently the obligatory annual reports on these pollutants are split across two separate national statistics releases and therefore the analysis and communication of information on trends is fragmented. The messages on the key pollutants are also diluted by publication of information on a large number of other pollutants which have a much lower public interest.

14. In order to add focus and clarify messages it is proposed to reduce the number of pollutants included in the national statistics releases to focus on those of greatest public and policy interest and at the same time bring forward the timing of the release of information on emissions of PM. A single national statistic would provide clearer more focused information to the public and government on emissions of air pollutants.

15. All of the data formerly included in the two statistical releases will still be made publicly available on the NAEI website to the same original timescales.

Streamlining air quality statistics in the UK

16.   In the UK, actions taken on air quality are informed by the statistics derived from air quality monitoring and objectives set out in the 2007 Air Quality Strategy and EU legislation (see below).

17.   EU legislation, in the form of the EU Ambient Air Quality Directives (2008/50/EC) and 2004/107/EC requires assessment of air quality and compliance with limit and target values for various pollutants in ambient air.

18.   See Defra's air quality website for more information on air quality policies and the UK Air Information Resource (UK-AIR) for current data on air quality, air quality forecasts and access to the historical data archive.

19.   The five pollutants currently used in the ambient air quality statistical releases are those for which continuous hourly data are available, these are:

    i.   carbon monoxide (CO)

    ii.   nitrogen dioxide (NO_2)

    iii.   ozone (O_3)

    iv.   particulates (PM_{10})

    v.   sulphur dioxide (SO_2)

20.   The statistical release covers annual average concentrations in the UK of particulates (PM_{10}); and ozone which are the two pollutants thought to have the greatest health impacts through long-term exposure.

21.   The statistical release also covers the number of days when air pollution was 'moderate or higher' for any one of five pollutants listed above. This index is based on the banding system recommended by the Committee on Medical Effects of Air Pollutants (COMEAP). It should be noted that changes to the index were made on 1st January 2012 including the bandings and pollutants used. It is envisaged that statistical releases from 2013 onwards will reflect these changes.

22.   The finalised data is normally published within two months after the provisional data and does not change significantly. Two separate releases of very similar data risk confusion and does not add value. A single publication will make accessibility to official statistics as straightforward as possible and enables users to identify and access information relevant to their needs, as highlighted in the Code of Practice for Official Statistics, principle 8, published by the UK Statistics Authority in January 2009. There is no overriding need to provide the air quality statistics on data that has not been fully quality controlled and assured and in line with good statistical practice (protocol 2 of the Code of Practice for Official Statistics) it is better to wait until all the data have been fully validated and then publish as a national statistic at the earliest opportunity. A single national statistic will provide clearer more focused information to the public and government on ambient air quality.

Implications of streamlining

23.   Going from four sets of national statistics to two, one focusing on emissions and one on ambient concentrations would provide more coherent information to the public, allowing them to better engage as highlighted in protocol 1 of the Code of Practice for Official Statistics.

24.   The revised sets of national statistics will still provide the data to the same original timescales, with the exception of provisional data on air quality which will cease to exist in favour of the finalised data to assure compliance with the Code of Practice for Official Statistics.

 25.   The data formerly included in the emissions of air pollutants statistics will still be made publicly available on the NAEI website, again to the same original timescales.

Question

26.   Taking all the above into consideration, we would be interested to know if you have any concerns about our proposals to streamlining statistical releases on i) emissions of air pollutants in the UK, and ii) air quality statistics in the UK?

27.   We invite your feedback via email or in hard copy to:

    Defra – atmosphere and local environment (ALE),
    Air Quality Evidence Team, Area 5F,
    Ergon House, 17 Smith Square,
    London SW1P 3JR

Please provide response by the 23rd November 2012. A response to the consultation will be published in early December 2012 and the responses to this consultation will inform a decision on the publication of the streamlined releases on emissions of air pollutants in the UK and releases on air quality statistics in the UK. Subject to views of stakeholders it is our intention to put the new arrangements in place as early as possible in 2013.

ANNEX I

The Defra National Statistics Release "Emissions of Air Pollutants in the UK – Supplementary" includes emissions of air pollutants that are covered by the UK Air Quality Strategy:
- Benzene
- 1,3-butadiene
- carbon monoxide
- lead
- nitrogen oxides
- ozone
- particulates (PM_{10} and $PM_{2.5}$)
- ammonia
- polycyclic aromatic hydrocarbons; and
- sulphur dioxide

It also covers 16 other air pollutants including metals and persistent organic pollutants:
- Arsenic
- Cadmium
- Chrominum
- Copper
- Mercury
- Nickel
- Selenium
- Zinc
- Lindane (Gamma HCH)
- Pentachlorophenol (PCP)
- Hexachlorobenzene (HCB)
- Polychlorinated Biphenyl (PCB)
- Dioxins and furans
- Non-methane volatile organic compounds (NMVOCs)
- Hydrogen chloride
- Hydrogen fluoride

ANNEX II

Air quality statistics
(provisional)
Published : February 2013

Air quality statistics (Final
UK results)
Published : April 2013

Air quality statistics
streamlined
Published : April 2013

Emissions of air quality
pollutants
Published : December 2012

Emissions of air quality
pollutants (supplementary)
Published : February 2013

Emissions of air quality
pollutants (streamlined)
Published : December 2012