

UK Eutrophying and Acidifying Atmospheric Pollutants (UKEAP) Data Use

This short "Opportunity to Comment" should only take 5-10 minutes of your time. Please return by 4th November 2013

The Defra rural air pollutant monitoring networks project, **UK Eutrophying and Acidifying Atmospheric Pollutants (UKEAP)** comprises of the **UK EMEP monitoring Supersites** (Harwell and Auchencorth), the **National Ammonia Monitoring Network (NAMN)**, **Acid Gases and Aerosol Network (AGA-Net)**, **Precipitation chemistry Network (Precip-Net)** and **rural NO₂ diffusion tube network (NO₂-Net)** The network operation is contracted jointly between Ricardo-AEA and the NERC Centre for Ecology and Hydrology.

Relevant websites:

<http://uk-air.defra.gov.uk>
<http://pollutantdeposition.defra.gov.uk/networks>
http://www.ceh.ac.uk/sci_programmes/ukeap-project.html

A review of the UKEAP component networks is being undertaken by Defra, Ricardo-AEA and CEH to clarify current uses and future requirements for monitoring in conjunction with a contract review process.

To this end, this document gives the opportunity for stakeholder organizations, scientists who contribute and use data from the monitoring network, and other interested parties to identify how data from the networks are being or have been used. We would be very grateful if you would spend a little time answering the questions below. The information you provide will be valuable in helping us consider the future scale of monitoring under UKEAP programme.

	Measurements	# sites	Chemical species
Precip-Net	<ul style="list-style-type: none"> Fortnightly bulk inorganic composition of precipitation 	39	Na ⁺ , NH ₄ ⁺ , K ⁺ , Mg ²⁺ , Ca ²⁺ , Cl ⁻ , NO ₃ ⁻ , SO ₄ ²⁻ , PO ₄ ³⁻
NO₂-Net	<ul style="list-style-type: none"> Four weekly 	24	NO ₂
AGANet	<ul style="list-style-type: none"> Monthly gases Monthly particulate 	30	SO ₂ , HNO ₃ , HCl
NAMN	<ul style="list-style-type: none"> Monthly gas 	30	Na ⁺ , NH ₄ ⁺ , Ca ²⁺ , Mg ²⁺ , SO ₄ ²⁻ , NO ₃ ⁻ , Cl ⁻
EMEP Supersites (measurements made under UKEAP contract)	<ul style="list-style-type: none"> Hourly gas composition Hourly aerosol composition (PM₁₀ and PM_{2.5}) ANNOX (chemiluminescence) Daily wet-only rain composition 	85	NH ₃
		2	NH ₃ , SO ₂ , HCl, HONO, HNO ₃ Na ⁺ , NH ₄ ⁺ , K ⁺ , Mg ²⁺ , Ca ²⁺ , Cl ⁻ , NO ₃ ⁻ , SO ₄ ²⁻ NO ₂ , NO
			Na ⁺ , NH ₄ ⁺ , K ⁺ , Mg ²⁺ , Ca ²⁺ , Cl ⁻ , NO ₃ ⁻ , SO ₄ ²⁻ , PO ₄ ³⁻ F ⁻

Please send any queries and replies to Christine Braban (chri2@ceh.ac.uk)

NERC is subject to the Freedom of Information Act 2000 and any reply you make may be disclosed by NERC unless it is exempt from release under the Act. Any material supplied to NERC may be stored in an electronic records management system for the purposes of this Review. If you do not wish your response to be stored, please indicate this when you send your input to Christine Braban.

Q1. UKEAP Networks: It is likely that there may need to be a significant reduction in the number of monitoring sites to achieve cost savings. Could you indicated if you use data from a specific UKEAP site or sites and comment on what you use the data for.

Natural Resources Wales is an operator of the Snowdon Environmental Change Network (ECN) site in partnership with the Welsh Government. As an adjunct to this activity sampling programmes are also run for Precip-Net, NO₂-Net, AGANet and NAMN. The resultant site data is used as supporting information for the data generated under the ECN sampling programme for this site.

In a wider context in the UK SNCBs rarely use data directly from these networks (apart from say links to ECN/ECBN reporting). However, we often commission research/evidence building via third parties that relies heavily on data generated by these networks. This helps us deliver our statutory responsibilities to protect and enhance biodiversity with regard to air pollution impacts. The spatial aspects of data collection also provide essential background information to support the APIS (apis@ceh.ac.uk) data base especially to support casework involving industry and third parties.

The data from the network is also vital to underpin UK deposition mapping this is not only fundamental to casework site assessments but will increasing be relied on as we develop Article 17 reporting and nitrogen deposition at a UK level. An increase in the uncertainty of the model caused by a decrease in deposition monitoring sites would potentially have serious significant consequences.

Q2. Auchencorth Moss and Harwell EMEP Supersites: It is likely that there may need to be a significant reduction in measurements, Have you or do you use data from these sites?

We do not directly use data from these sites.

Q3. Any further comments

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1. The co-location of variables recorded on a single site represents an added benefit to the value of the resultant data.

2. Natural Resources Wales is a newly formed organization combining the Countryside Council for Wales, Environment Agency (Wales) and Forestry Commission (Wales). Given the new organization it has proven difficult to determine if other staff within Natural Resources Wales also utilize the data generated from UK-EAP.

Thank you for your time!