



# Workshop note: Atmospheric nitrogen and Natura 2000

## Improvement Programme for England's Natura 2000 Sites Theme Workshop Note

### Introduction

Organised by the Improvement Programme for England's Natura 2000 Sites (IPENS) project, a workshop was held in Peterborough 22-23 September 2014 on the topic of atmospheric nitrogen deposition and Natura 2000. The workshop brought together national experts and stakeholders to:

- Share the outcomes of recent research initiatives.
- Discuss the development of measures and mechanisms to reduce atmospheric nitrogen impacts on Natura 2000 sites.
- Discuss the potential development of Site Nitrogen Action Plans (SNAPs).

Representatives from different sectors (agriculture, energy industry, transport) and from government bodies as well as NGOs participated in the workshop and provided recommendations for the development of an IPENS Theme Action Plan on this subject.

Copies of presentations given at the workshop are [available](#).

The Improvement Programme for England's Natura 2000 Sites (IPENS) has hosted a series of workshops with key stakeholders in order to gather views and ideas on how to resolve some of the issues affecting Natura 2000 sites. The views in this note are those of the workshop participants and do not necessarily represent those of Natural England or the Environment Agency.



# Key messages from the workshop

## **There is a clear need to take further steps to address the impacts of nitrogen deposition on protected sites, in particular Natura 2000 sites**

Up until now the approach has largely relied on regulation of major sources and national generic measures. Significant reductions have been achieved and generic measures to achieve future National Emissions Ceiling Directive (NECD) limits will contribute to a reduction of background deposition. However, they are not expected to bring a significant number of sites below critical loads. In addition, only a small part of the total deposition on Natura 2000 comes from regulated sources. Experience in other countries has shown that the lack of a comprehensive approach for Natura 2000 sites may be a risk to future economic developments in the area. Site based action plans, which encompass a more integrated or programmed approach were recommended at the International Biogeographic Workshop on this topic (December 2013, see <http://jncc.defra.gov.uk/page-5954>).

## **There is scope for local targeted action in the proximity of Natura 2000 sites**

A wider set of tools is now emerging to reduce agricultural ammonia emissions through proposed incentives under the Rural Development Programme for England (RDPE), in particular land management schemes (NELMS) and the Farming and Forestry productivity scheme (FFPS) to promote the uptake of low emission technologies. Tree planting around emission sources or sensitive conservation sites is another potential measure to reduce impacts but it would need thorough consideration locally of benefits and risks. The likely funding constraints for these schemes mean that their deployment would need to be strictly targeted and is likely to be limited in scale at least initially. Expectations of uptake and pace at which these measures could be implemented needs to be realistic in light of the investment cycles in the different emission sectors and other potential barriers to implementation.

Evidence shows that taking measures close to protected sites can be seven times more cost effective than non targeted, when taking account of the spatial variability of concentrations and deposition of ammonia. Similarly, for road transport, mitigation measures should be locally targeted, as the largest effects have been shown to occur in the immediate vicinity of the roads. Reducing the background deposition is important, but it is recognised that addressing the drivers in the nitrogen cycle (such as consumer behaviour) is extremely difficult. The workshop concluded that while policy gaps remain, significant progress can and should be made at a local level.

## **Site Nitrogen Action Plans (SNAPs) were agreed as a useful way forward**

The concept of a Site Nitrogen Action Plan is to combine the result of national measures with locally targeted deposition reduction measures in one plan, with appropriate mitigating habitat restoration measures for a particular site. This was seen as a tool with good potential to drive local action. Also, at sites where it may not be immediately possible to implement measures due to lack of resources and delivery mechanisms, the initial steps of identifying local issues and potential solutions would deliver valuable information and context for various activities and future initiatives, including assessment of plans and proposals. The desk-based approach taken for the case-study examples shown at the workshop was seen as useful for initial screening, but due to data uncertainties careful interpretation and further local ground truthing of the results are essential to allow effective targeting of potential measures.

**SNAPs should be tested on a limited number of pilot sites and complemented with wider reaching communication activities.**

The workshop recommended that SNAPs are further developed and tested on a limited number of pilot sites. This would fit with the context of available measures under current proposals for NELMS and FFPS, which could otherwise have a fairly limited impact, if efforts are spread across England rather than focused on a limited number of sites. The selection of initial pilot sites is best built on existing advice or delivery initiatives and (landowner) relationships that have already developed locally, such as through Catchment Sensitive Farming. There is also scope to achieve synergies with water quality objectives and measures.

SNAPs would need to be complemented with a comprehensive communications strategy across all sectors and stakeholders in the local area, as well as clarification of their status and the links with other plans and initiatives, both nationally and locally. A national steering group should oversee the development of the pilot SNAPs, while the process of developing them is best agreed at a local level, with early stakeholder engagement.

**In addition to locally targeted action, there is scope to achieve further improvements through national-level steps**

The need was expressed for more awareness raising of the issue of atmospheric nitrogen among conservation practitioners and sector stakeholders, as well as for improved communication of technical solutions through existing guidance. Activities driven by other objectives (e.g. reducing diffuse water pollution, nutrient efficiency, human health) will already contribute to reductions and these achievements need to be recognised in local and national assessments. There is potential to further promote measures through a range of initiatives, such as:

- Engagement and capacity building with the agricultural livestock housing supplier industry on low-emission housing solutions.
- Exploration of the potential role of/ links with Environment Agency sector action plans.
- Adaptation of standard rules in environmental permitting for atmospheric nitrogen.
- Inclusion of mitigation measures in the Highways Agency investment strategy.
- Facilitation of early consideration of air pollution in new developments through guidance (e.g. environment plan for dairy farming).
- Update of the Design Manual for Roads and Bridges.
- Improvement of the knowledge base of site managers to recognise atmospheric nitrogen impacts.
- Making use of the system of Air Quality Management Areas.
- Revision of the Codes of Good Agricultural Practice, RB209 fertiliser manual, and Inventory of mitigation measures.

It was recommended to establish a Task and Finish Group with sector partners (transport, agriculture, energy) to harness the potential of such initiatives.

## Envisaged next steps

- Develop IPENS Atmospheric Nitrogen theme plan, taking account of these key messages.
- Circulate theme plan to workshop invitees for comments and input.
- Secure the implementation of the theme plan and actions with relevant delivery bodies.
- Identify pilot sites for SNAPs and secure resources to develop them.
- Establish a Task & Finish Group to harness the potential of national initiatives.

## Workshop participants

The following organisations participated in the workshop:

National Farmers Union  
Agricultural & Horticultural Development Board  
Energy UK  
RSPB  
Defra  
JNCC  
Environment Agency  
Highways Agency  
Natural England  
Forestry Commission  
Natural Resources Wales  
Scottish Natural Heritage  
Scottish Environmental Protection Agency  
Centre for Ecology & Hydrology  
Rothemsted Research

Image: Hare's-tail cotton grass on Hatfield Moor SAC/Thorne and Hatfield Moors SPA  
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[www.naturalengland.org.uk/ipens2000](http://www.naturalengland.org.uk/ipens2000)

