Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty’s Ministers; and to report thereon to the House.

Current membership

Mary Creagh MP (Labour, Wakefield) (Chair)
Colin Clark MP (Conservative, Gordon)
Dr Thérèse Coffey MP (Conservative, Suffolk Coastal)
Geraint Davies MP (Labour (Co-op), Swansea West)
Mr Philip Dunne MP (Conservative, Ludlow)
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Mr Robert Goodwill MP (Conservative, Scarborough and Whitby)
James Gray MP (Conservative, North Wiltshire)
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Kerry McCarthy MP (Labour, Bristol East)
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John McNally MP (Scottish National Party, Falkirk)
Dr Matthew Offord MP (Conservative, Hendon)
Dr Dan Poulter MP (Conservative, Central Suffolk and North Ipswich)
Joan Ryan MP (Labour, Enfield North)
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Powers

The constitution and powers are set out in House of Commons Standing Orders, principally in SO No 152A. These are available on the internet via www.parliament.uk.

Publications

Committee reports are published on the Committee’s website at www.parliament.uk/eacom and in print by Order of the House.

Evidence relating to this report is published on the inquiry publications page of the Committee’s website.

Committee staff

The current staff of the Committee are Lloyd Owen (Clerk), Leoni Kurt (Second Clerk), Ruth Cahir (Committee Specialist), Laura Grant (Committee Specialist), Laura Scott (Committee Specialist), Jonathan Wright (Senior Committee Assistant), Baris Tufekci (Committee Assistant), Anne Peacock (Media Officer) and Simon Horswell (Media Officer).

Contacts

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Thirteenth Special Report

The Environmental Audit Committee published its Eleventh Report of Session 2017–19, UK Progress on Reducing Nitrate Pollution (HC 656) on 22 November 2018. The Government’s response was received on 18 January 2019 and is appended to this report.

Government Response

Introduction

The Government thanks the EAC for its report. The Government has made clear that we will deliver a Green Brexit, where environmental standards are maintained or enhanced.

Agricultural policy is changing. Leaving the EU gives us the opportunity to deliver on our environmental ambitions. The Agriculture Bill sets out how public money will be spent on public goods; rewarding farmers for the work they do to enhance the environment around us. The Environment Bill will further our commitment to protecting the environment. We will keep the committee informed of progress in these areas.

Our 25 Year Environment Plan uses the natural capital framework set out by the Natural Capital Committee to frame our goals for environmental improvement over the next 25 years around six primary goods and benefits offered by a healthy environment including clean and plentiful water. Defra’s Single Departmental Plan sets out immediate actions to ensure clean and plentiful water:

- Safeguard and improve the quality of surface and ground waters through an effective and modern framework of protection and tools
- Reach or exceed objectives in our river basin management plans for rivers, lakes coastal and ground waters that are specially protected
- Protect bathing waters, shellfisheries, protected sites for wildlife and marine water quality
- Ensure sustainable levels of abstraction through our regulation and action
- Ensure resilient, sustainable, affordable water and sewerage services to homes and businesses in England, through a strategic framework for water sector planning and investment, strengthened regulatory framework and development of further market reforms

The two principle sources of nitrate pollution to our waters are agriculture and sewage. The Government has long term strategies in place to address these sources of pollution. River Basin Management Plans (RBMP) implement our commitments to water quality under the Water Framework Directive (WFD). Water companies have set out ambitious investment programmes to improve environmental outcomes by 2025, as required by the Water Industry National Environment Programme (WINEP).
Response to recommendations Water Quality

1. The Government should continue to invest in new technologies and natural infrastructure approaches that can reduce phosphorous levels further. This should include encouraging water companies and landowners to trial such measures and rolling them out if they are cost-effective. (Paragraph 47)

Pollutant loads to rivers from water industry discharges have declined as regulatory measures to meet environmental legislation and objectives have been applied. Since 1995 the phosphorus load discharged has decreased by about 60%. To achieve good status is a challenge. To meet this challenge we are working with water companies and others to promote innovation in 3 areas:

1) **Catchment Management** – working with the companies and others to develop catchment based solutions involving land managers. Through Ofwat, water companies are encouraged to consider the role of partnerships, catchment management and other softer options in combination with fixed asset based solutions in developing their 2019 price review plans. For example, a water company could pay farmers to take action to go beyond the regulatory baseline and implement buffer strips, create wetland or change farming intensity, reducing pollution pressure on the catchment. Reducing nutrients in this way means that water companies do not always need to invest in expensive technologies and treatments to achieve the required nutrient reductions.

2) **Treatment technologies** – to achieve higher phosphorus standards there will still be a need for treatment of waters entering the environment from sewage treatment works. As part of the current investment round a treatment technology trial is being conducted. The £30 million trial involves all 10 water and sewerage companies operating in England and Wales. A phosphorus reduction programme is planned for the 2020–2025 period. This plans to use innovative treatment technologies (informed by current trials) to improve 900 sewage treatment works and 5,500kms of rivers.

3) **Regulation** – we are considering how we can enable innovation through our regulation. We are developing more innovative approaches to permitting. Their aim is to achieve more for the environment while reducing regulatory burden, promoting cost effectiveness and low carbon.

2. We believe that the Government should consider whether a longer-term approach to river catchment planning and funding would deliver better environmental outcomes. Investment should be used to support farmers and other stakeholders who go beyond regulations and best practice, but it should not break the polluter pays principle. Such investment must ensure that environmentally sensitive sites are protected. We also recommend that the Environment Agency examines whether the sharing of evidence, data and best practice between stakeholders can be improved along with better engagement of farmers by the Agency. (Paragraph 55)

The Government agrees that effective catchment planning must be the basis of delivering better environmental outcomes for water quality. A longer-term approach to catchment planning is already at the heart of the Government’s work on tackling pollution. River Basin Management Plans set the strategy for environmental improvements over a 6
year period, working with all stakeholders. Water companies have published their draft business plans and will soon announce their spending plans for 2020–2025, covering their commitments to investing in environmental improvements, both through capital spend and funding for innovative measures. They have proposed to invest up to £5 billion in the natural environment through 2020 to 2025, protecting and improving over 6,000 km of rivers, 24 bathing waters, 10 shellfish waters and 18,000 hectares of protected nature conversation sites.

The Government has also committed to support farmers during the agricultural transition period. The implementation of our 25 Year Environment Plan is being trialled through a series of ‘Pioneer Projects’ across England. Cumbria is hosting the ‘catchment pioneer pilot project. The main aim of this pilot is to test new tools and methods as part of applying catchment planning approaches in practice.

The Catchment Sensitive Farming (CSF) programme supports farmers with expert environmental advice to deliver Water Framework Directive outcomes. It works alongside Countryside Stewardship and water company catchment programmes, sharing data within catchments to drive positive action. We are building on the success of CSF in reducing pollutant loadings to our waterways by providing advice on reducing ammonia emissions and other sustainable water management objectives.

After EU Exit the Government will have greater flexibility in our approach. Whilst planning for our new Environmental Land Management System (ELMS) is at an early stage, it recognises the importance of locally tailored schemes at catchment and landscape level. It will also build on the principles of supporting collaborative actions amongst farmers to provide solutions, whilst fostering best practice. ELMS will create a system that will pay farmers public money for public goods.

We will make sure there is a gradual transition from the current world to the new, avoiding a cliffedge for businesses. We will test new approaches and pilot the new scheme in this period of transition to give farmers sufficient time to adapt and prepare for the new Environmental Land Management System.

We will maintain the same funding for the sector until the end of this Parliament. This includes all funding provided for farm support under both Pillars of the current Common Agriculture Policy.

Defra and the Environment Agency (EA) are committed to the principle of open data and see great opportunities to deliver better environmental outcomes if evidence and other data is shared with those who can take, or influence, positive action by farmers. We agree with the Committee’s view that data and evidence are central to productive catchment partnerships and are supporting projects to promote this. For example we are currently developing case studies with Business in the Community (BITC) and water companies to demonstrate the value of collating data around specific environmental impacts. The case studies centre on business critical issues which can best be solved through collaboration. The aim is to engage businesses in the agri-food supply chain by demonstrating risks to the resilience of their supply chains – because they rely on natural resources, such as good soil health.
3. **The Government should seek to ensure that various EU Directives and regulations are aligned and do not result in a siloed approach to individual pollutants but address them in their totality. The Government should also report on progress introducing mandatory water protection zones for vulnerable Natura 2000 sites, which it agreed to do in September 2015, and whether it is considering this approach more widely.**

(Paragraph 60)

We agree with the Committee’s view that leaving the EU offers an opportunity to further develop our joined up approach which aligns water, air and soil quality regulations. The 25 Year Environment Plan sets out proposals to move towards co-designed and co-delivered ‘local natural capital plans’. We are currently working with a range of partners to develop our policy on this, subject to our future negotiations with the European Union.

The approach taken in the Farming Rules for Water provides a good basis for tackling diffuse pollution in a holistic way. Water and agriculture regulations are being reviewed as part of work to improve and streamline the regulatory baseline for agriculture. This will include a statutory review (post implementation review) of the Nitrate Pollution and Prevention Regulations 2015. This will consider whether the regulations are fit for purpose in future. Findings, evidence and recommendations from the EAC’s report [UK progress on Reducing Nitrate Pollution], together with commitments in the Clean Air Strategy and evidence from the implementation of the Farming Rules for Water, will be considered by that review to enable a more integrated approach to reducing pollution from agriculture in future. The current Nitrate Vulnerable Zones (NVZ) for 2017 to 2020 are published on [Gov.uk](https://www.gov.uk). Where deficiencies in the post EU regulatory framework are identified we will introduce new regulation.

The Environmental Permitting Regulations 2016 (EPR) provide industry, regulators and others with a single extended permitting and compliance system, called the Environmental Permitting System. They integrate objectives of EU Directives and regulations through a single streamlined regulatory framework to prevent and control pollution to water, land and air.

In November 2015, a Consent Order was made, requiring the EA and Defra to assess the interventions necessary to achieve protected area objectives in each Natura 2000 site that is unfavourable due to diffuse water pollution. This involves assessing the 36 Natura 2000 protected areas and reporting what measures might be needed to meet water quality targets. Defra is working closely with all stakeholders to develop solutions to water pollution in these sites. These include looking into Water Protection Zones where appropriate.

The experience from this process will be used to inform our future approach to water quality policy.

**Air Quality**

4. **We recommend that the Government considers whether it can better align policies on water, air and soil and the interaction between nitrogen in its various forms so that actions in one area do not have a negative impact in another. For instance, it needs to ensure that greater use of anaerobic digestion to reduce nutrients leaching into water sources does not lead to greater ammonia emissions, which have increased over the last two years. Better alignment needs to ensure that regulations and regulators are**
fully joined up across agriculture, water and air quality and that this is fully reflected in future agricultural payments based on the provision of ‘public goods’. For such a joined-up approach to work effectively after the UK leaves the EU, it is imperative that an independent overarching body can oversee these overlapping areas and enforce compliance. This further strengthens our case for an Environmental Enforcement and Audit Office (EEAO). (Paragraph 80)

The Government recognises the need to adopt a joined up approach in reducing agricultural pollution of water, soil and air, including greenhouse gas emissions. The Clean Air Strategy published in January 2019 sets out comprehensive action to reduce 5 harmful air pollutants including ammonia emissions from farming. The approach set out includes regulation to reduce pollution from organic and inorganic fertiliser use which will be informed by advice from an expert group that would take into account multiple forms of pollution in making their recommendations. The Strategy also sets out that the Environmental Permitting regime, which controls pollution of air, land and water, will be extended to the dairy and intensive beef sectors.

Following the Health and Harmony consultation (27 February to 8 May 2018) the Government set out its vision for agriculture to 2027. The protection of water, air and soil resources were rightly identified by the respondents as being key issues and are central to our future agenda.

The new ELMS, underpinned by natural capital principles, will contribute to delivering against many of the key outcomes set out in the 25 Year Environment Plan and the Clean Growth Strategy. These include:

- Clean and plentiful water
- Clean air
- Thriving plants and wildlife
- Reduction in and protection from environmental hazards
- Adaptation to and mitigation of climate change
- Beauty, heritage and engagement with the environment

CSF’s approach is to integrate sustainable farming messages at the farm level to address priorities that work for the environment and farms. Core messages revolve around:

- The sustainable use of nutrients, including N, especially to reduce losses to water and air which also benefits farm finances.
- Improving soil health to reduce run-off, including increasing organic matter and improved farm practices.
- Water management including reducing losses of polluted water to rivers and lakes and improving water efficiency through clean water storage and use.
- From 2018, the CSF programme integrated technical air quality advice into its support to farmers which has mostly focussed on action to reduce diffuse pollution to water.
The draft Environment (Principles and Governance) Bill published in December 2018 sets out that the Government will establish a new body – the Office for Environmental Protection (OEP) – to champion and uphold environmental standards. The OEP will be an independent, statutory environmental body that will hold Government to account on environmental standards once we leave the EU, replacing the current oversight of the European Commission.

The Government welcomes the independent review of farm inspection and enforcement undertaken by Dame Glenys Stacey. We will consider the recommendations and respond to the report in the New Year.

**Agriculture and Nitrogen Pollution**

5. *We recommend that the Government explores solutions to the logistical problems of moving organic animal waste from livestock farms to arable farms. This could address the challenge of storing and managing animal waste and mitigating ammonia emissions whilst reducing the use of artificial fertiliser. The Government should also explore other incentives for reducing artificial fertiliser use, such as nitrogen and phosphorous budgets, and the concept of a nitrogen price.* (Paragraph 94)

The Government is engaging with, and scoping how it can support, new and innovative animal waste processing businesses. Such businesses are developing better methods and efficient processes for transforming animal wastes into finished fertiliser products that can be more easily transported to where they are needed. The aim is that they will provide valuable recycled nutrient sources for agricultural production.

In addition, the Government has proactively negotiated on the proposed EU Fertilising Products Regulation. This is a new framework for manufacturing and marketing fertilisers, and encouraging the re-use and recycling of nutrients across the EU. A key aspect of this Regulation is the inclusion of organic materials, and innovative new products such as biostimulants, as marketable fertilisers. This proposal is in its final stages and Government is planning how the principles can be embedded and implemented in a future UK fertiliser policy that minimises pollution.

The Clean Air Strategy explains that Government will task an expert group including agricultural policy experts, agronomists, scientists and economists to make recommendations on the optimal form of regulation to minimise pollution from organic and inorganic fertiliser use. The Strategy states that the group’s recommendations should prioritise the use of organic fertilisers, limiting ammonia emissions, GHG emissions and water pollution and protecting sensitive habitats at least in line with Government commitments.

6. *The Government should set out how it is monitoring anaerobic digestion and ensuring compliance and how this is supporting reductions in air, water and soil nitrate pollution.* (Paragraph 98)

Anaerobic Digestion (AD) is undertaken by different industry sectors and is still changing and growing as more food waste is processed to generate biogas. The environmental impacts resulting from AD are monitored by the EA as part of their compliance assessment. The
process of anaerobic digestion presents similar environmental risks regardless of the feedstock but currently the level of regulation differs between AD using sewage and AD using other feedstock.

Use of digestate on land (produced from any feedstock) is controlled by the Farming Rules for Water and Nitrate Pollution Prevention Regulations. For waste-derived digestate, including that derived from sludge, there is the additional Sludge (Use in Agriculture) Regulations and/or EPR.

EA undertakes an annual inspection of each water company sludge register. EA assesses compliance with regulations using its risk based targeting inspection framework. In some cases the protection is enhanced by industry-owned controls, such as the water industry nutrient management matrix.

We recognise that the regulatory framework needs to be updated to reflect the wider use of AD to generate biogas. EA is progressing work that will ensure all sewage sludge digesters are compliant with the requirements of the Industrial Emissions Directive and Waste Framework Directive. This will include developing a new strategy for managing digestates, sludge and biosolids produced and using this for agricultural benefit. This work will also inform proposals for improving the regulatory framework in future.

7. *The Government should conduct an assessment to understand how future pressures, such as population growth and climate change, might impact upon air, water and soil quality. This could include working with the Committee on Climate Change to develop models and scenarios to help guide the Government’s nitrogen reduction strategy, as it has for reducing greenhouse gas emissions. The Committee could also help the Government ensure that such a strategy was aligned with other objectives such as delivering the Government’s Carbon Budgets.* (Paragraph 99)

The UK Climate Change Risk Assessment (CCRA) assesses risks and opportunities of climate change to the UK (from domestic and global effects). The last CCRA was published in January 2017, based on an evidence review carried out by the Adaptation Sub Committee (ASC) of the Committee on Climate Change. This review considered evidence on nitrogen deposition on various habitats as well as nitrogen in soil and water. The CCRA is carried out every 5 years and laid before Parliament as required by the Climate Change Act. The next CCRA will be published in 2022 and is currently being developed with the ASC. It will use the latest scientific evidence including the recently launched UK Climate Change Projections 2018. It is expected to continue to look at water quality and soil erosion, and this is likely to include leaching of nitrates. Nitrous oxide (N2O) is already accounted for in the Governments greenhouse gas inventory.

The Climate Change Act also requires that a National Adaptation Programme must be put in place and reviewed every five years. This is to address the most pressing risks identified in the CCRA. This Programme sets out actions for the UK Government and other stakeholders to build up UK resilience to the impacts of climate change. In July 2018 Government published the second National Adaptation Programme, which sets out how we will address climate risks in the next 5 years. This is an iterative process where we will build on the work that had been started as part of the first National Adaptation Programme.
Monitoring, Enforcement and Resourcing Issues

8. *The Environment Agency should publish the results of its Strategic Monitoring Review as soon as possible and provide evidence that its monitoring is comprehensive in terms of: the range and number of sites; the frequency of testing; the amount of third party information it is using; the full range of pollutants and their combined impact upon water quality; the impact of farming practices and pollution mitigation strategies; the correct balance between modelling and data. This is important as it provides the evidence base for policies and future investment decisions and ensures that Government policies can be scrutinised and progress can be monitored.* (Paragraph 106)

The EA has maintained an extensive monitoring network for water quality. This comprises of over 12,000 sites across the country. Detailed information is published through the RBMP processes, and other data sets are released routinely. These 12,000 sites cover all surface waters and groundwaters and include water quality, biology, plants and fish.

The strategic monitoring review is the process by which the EA reviews its operational approach to monitoring. The process looks to realign significant monitoring resource to local area teams to strengthen place-based decision making around priorities for environmental improvements, including those linked to agricultural pressures. The strategic monitoring review will inform 2019–2020 monitoring programmes, which will commence in April 2019.

Through EA’s monitoring, primarily for WFD, we have a comprehensive assessment of water and ecological quality and the impact of agriculture. Nitrate, phosphorous and soil sediment are some of the pollutants being monitored. Each failing WFD Water Body is assigned Reasons for Not Achieving Good Status which is informed through a wide range of evidence sources including catchment walk-overs.

We also have a detailed Catchment Sensitive Farming and Countryside Stewardship water quality monitoring network of over 100 sites.

In addition to environmental monitoring, our evidence base is informed through a range of other evidence sources including surveys of farmer attitudes and awareness; records of farmer engagement and advice delivery; uptake of advice; and uptake of agri-environment schemes. For example we have recently carried out baseline assessments of awareness and uptake of the new Farming Rules for Water.

Environmental modelling is also an important evidence source given the wide range of influences on water quality and ecological quality monitoring datasets. The EA’s models are based on more than 20 years of observed data and support our monitoring-based assessments, including validating monitoring-based assessments of policy impact. They are also used to target advice and agri-environment investment where it is most needed and where it will deliver the greatest environmental benefits.

The EA work closely with third parties and share monitoring data with the agricultural industry, catchment partnerships (for example, the Catchment Based Approach (CaBA)) and research groups (for example, the Demonstration Test Catchment programme).
9. **The Government needs to bring forward plans and costings to indicate that it has sufficient resources to enable effective enforcement and oversight.** (Paragraph 114)

The EA has reviewed its fees and charges policy and made significant changes to its charges for water quality and water management licencing from April 2018.

In the Health and Harmony consultation the Government set out the intention to maintain strong regulatory standards and introduce a new approach to monitoring compliance and enforcement post EU Exit for agriculture. Defra also launched an independent review on farm inspection and enforcement, led by Dame Glenys Stacey. The report was published on 13 December 2018 and makes the case for independent regulation and for the creation of a single field force to undertake streamlined, “whole farm” inspections. The Government will respond to the review in the New Year.

The overall budget for regulating farming, including for inspections and enforcement will be considered in developing a business case for delivering the future agriculture policy, setting out costs and benefits and how funding can be achieved to develop an effective regulatory regime.

**Monitoring, Compliance and Enforcement after the UK Leaves the EU**

10. **The Government should ensure that its draft environmental bill includes a watchdog as we have recommended, with sufficient powers to enforce compliance with statutory water quality targets, fine Government departments and public authorities for non-compliance, and allow complaints for breaches to be raised and dealt with by the courts. The Government also needs to provide assurance that the post-EU regulatory system will be sufficiently resourced.** (Paragraph 121)

The draft Environment (Principles and Governance) Bill, published in December 2018, provides for the establishment of a new independent, statutory body – “the Office for Environmental Protection” – its functions, and how it will be funded.

The Government is clear that the establishment of the new environment body needs to provide an effective mechanism to monitor and where necessary take enforcement action to ensure the implementation of environmental law by the Government and public authorities. Following the EU (Withdrawal) Act 2018, the draft legislation on these measures makes provision to ensure the OEP can receive and investigate complaints about alleged failures by Government and public authorities to comply with environmental law, and take proportionate enforcement action (including legal proceedings if necessary) against them.

In terms of resourcing, the draft Bill places a statutory duty on the Secretary of State to provide the OEP with funding that is considered to be reasonably sufficient to enable the OEP to perform its functions. This represents a legal requirement for the body to be adequately funded to fulfil its functions.

The draft Bill also places a statutory duty on the OEP to produce an annual statement of accounts which must include an assessment of whether the OEP has been provided with sufficient funds to carry out its functions for each financial year.
11. The Government should, as part of its upcoming environmental legislation, and as we argued in our report on its 25 Year Environment Plan, produce robust targets and milestones to underpin legally binding targets on water quality. If there is any weakening of long-term and interim national, EU or international water quality targets, the Government needs to provide an explanation of where they are weaker and why. We look forward to seeing the metrics for nitrate and water pollution by the end of the year, which we hope will underpin clear targets in line with or exceeding those set out in the Water Framework Directive. (Paragraph 131)

The 25 Year Environment Plan sets out an ambitious vision for the environment and we have been consistently clear that we will not weaken our environmental protections in leaving the EU. Longer term, leaving the EU means we have the opportunity to identify ways of strengthening environmental policy and tailoring it more to domestic needs, priorities and our ambition for an improved environment as set out in the 25 Year Environment Plan. The draft Environment Bill proposes to make a statutory commitment to maintain a long term plan for the environment, a framework for indicators was published with the draft bill.

The Government already has extensive targets in statute for the environment ranging from water quality to air quality to waste management. These targets exist in domestic law and will continue to have effect after the UK leaves the EU. The Government recognises the role of targets and the 25 Year Environment Plan includes 200 measurable actions. We have committed to report on policy targets and on environmental outcomes overall.

12. The Government should produce a strategy for dealing with future divergence for both water and air quality. This should include proposals for sharing river basins that span the Irish border according to catchment management principles. (Paragraph 135)

Ireland and Northern Ireland are required under the Water Framework Directive (WFD) to co-ordinate their efforts in relation to international river basin districts. Each jurisdiction carries full responsibility for ensuring implementation of all aspects of the Directive in their national territory, including any part of an International River Basin District that lies within their national territory.

The Northern Ireland Environment Agency will continue to work closely with the Environmental Protection Agency in Ireland on transboundary river basin issues to ensure no reduction in water quality standards before and after EU Exit.