

Supplementary written evidence submitted by the Environment Agency (SHO107)

Date: 07 July 2023

To: Sir Robert Goodwill, Select Committee Chair, Environment, Food and Rural Affairs Committee

Dear Sir Robert,

Soil Health Evidence Session - 13 June 2023

Thank you for providing an opportunity for the Environment Agency to attend the EFRA Committee Soil Health Inquiry Oral Evidence Session on 13 June 2023. Please find our responses to the EFRA Committee's questions. For each question we have shown the section that it links to in the [transcript from the evidence session](#)

1) Funding for soil monitoring (Q272 in the transcript):

The Government has committed to maintaining the farming budget for England at £2.4 billion per year in the current parliament. Details here:

<https://defrafarming.blog.gov.uk/2022/06/06/how-were-making-sure-all-farm-businesses-can-fairly-access-money-released-from-basic-payments/>

The Agriculture Act included a requirement for government to publish an [annual report about the budget](#). This was completed for 2021-2022, during which time Defra spent £2.294 billion.

<https://www.gov.uk/government/publications/future-farming-and-countryside-programme-annual-report-2021-to-2022/future-farming-and-countryside-programme-annual-report-2021-to-2022-html-version#what-we-spent-in-2021-to-2022>

2) Target in the current Environmental Improvement Plan:

2i) A definition for sustainable soil management (Q290 in the transcript):

Soil Health is defined as:

The ability of soil to perform its functions and to deliver ecosystem goods and services. The range of functions and ecosystem services provided should reflect the different capabilities of different soils – a 'healthy' soil is therefore one in which ecosystem services are provided at an acceptable level given inherent underlying constraints and the purpose of the land use."

Source: [JNCC report](#)

A definition for the sustainable management of soil has to take account of the need for ensuring practices that enables the soil to perform the functions that underpin the numerous ecosystem services. The FAO definition is:

"Soil management is sustainable if the supporting, provisioning, regulating, and cultural services provided by soil are maintained or enhanced without significantly impairing either the soil functions that enable those services or biodiversity. ..."

Source: [FAO](#)

2ii) Environment Agency enforcement data (Q319 in the transcript).

The Environment Agency does not have a statutory duty or funding for carrying out soil monitoring. We see a significant value in undertaking soil monitoring to help establish a baseline for soil health. Having this soil baseline knowledge together with effective and suitably funded legislation are central to our ability to effectively deliver on the importance of the soil health agenda.

Since their introduction the EA can and does refer potential breaches of soils-related Good Agricultural and Environmental Conditions (GAEC) to the Rural Payments Agency (RPA) for their consideration. Between 2007 and 2022 we have identified 32 referrals for GAEC 5 (minimising soil erosion).

However, this EA referral data cannot be considered as representative of the extent of non-compliance. Reasons include, soil erosion issues may not be evident to field inspection year-round (for example, concealed by crop cover, temporarily 'cultivated out' during seedbed preparation or only evident using intrusive survey methods). In addition, where a GAEC 5 breach corresponds to FRfW Rules 6, 7 and/or 8(part) the EA, since 2019, has been able to address the issue using legislation that it has responsibility for enforcing. Our data indicates that RPA referrals are not always made in these situations.

The following is information on the agricultural inspection and enforcement work of the Environment Agency:

- 93 additional agriculture inspector posts have been recruited since 2021.
- number of inspections increased from 300 in 2019-20 to 1800 in 2021-22 and 4137 in 2022-23. This exceeded our government target of 4000 in 2022-23.
- there were six prosecutions related to agricultural premises in 2021-22.
- Our farm inspections focus on, but are not limited to, checking compliance with Storing silage, slurry and agricultural fuel oil (SSAFO), Farming Rules for Water (FRfW) and Nitrate Vulnerable Zones rules (NVZ).

In the 2022-23 financial year:

- 1619 of the inspections recorded as non-compliant with regulations assessed during the visit
- 5477 actions issued to farmers to address non-compliances
- 2949 actions have been verified as complete; we work on an ongoing basis following up with farmers – some actions require major changes to their storage and buildings and take time to implement
- enforcement action started against 144 farms

The inspections can be face to face, a desk based assessment of records or a remote inspection using earth observation techniques such as satellite imagery or drone footage.

Our aim is to drive up compliance and protect the environment. We do not necessarily inspect every aspect of the regulations on each inspections but use a risk based approach.

Our regulatory advice usually results in farmers taking the action necessary to bring themselves into compliance. If our advice is not followed, we will pursue whatever sanctions are necessary, including Civil Sanctions or prosecutions.

The primary focus of the additional resource for agricultural inspections is farms that are at the highest risk of negatively impacting Special Areas of Conservation (SAC) and Special Protection Areas (SPA), Nutrient Neutrality catchments and other Protected Areas.

The initial focus of farm inspections is farmyard infrastructure, manure storage and application and nutrient management. If time allows, officers will aim to walk 10% of fields during an inspection.

If a report has been received of a land or soil management issue or it has been picked up during pre-inspection checks using remote technology, it will become a focus of our inspections.

Increased funding would allow us to focus more attention on soil and land management elements of the FRfW and attend more incidents, dealing with stopping pollution and addressing issues when they arise.

The EA's remote sensing team was set up in 2021 and uses earth observation techniques including satellite imagery and drone surveys to identify breaches of the FRfW particularly in relation to cattle poaching and erosion. This information is used either to contact farmers directly or for our area officers to target their inspections.

Remote sensing work in 2022/2023 includes:

- 13 catchments where drone surveys were undertaken and reviewed
- 29 catchments that were inspected remotely through a Virtual Catchment Walkover (VCW)
- 259 individual farm inspections, including remote soils inspections, completed on these VCW's
- 150 km length of river surveyed by drone
- 734 compliance issues raised to the Area Regulatory Teams found during drone surveys (these will include soils issues such as; poaching, bare ground, areas of ponding in arable fields).
- 321 Pre-Farm inspection reports produced for regulatory officers (these would highlight any visual soils issues identified by the officer producing the report).

River Wye remote sensing trial: the EA will be undertaking a bare field regulatory work trial on the River Wye in the autumn and winter 2023, this includes:

- Trialling using satellite imagery to identify fields left bare after October 15th to identify risk of erosion and run-off coming into winter. Computer software identifies the fields.

- Writing to landowners giving details of the FRfW guidance and what they need to do to be compliant for winter 2023/24.
- This will be repeated in winter 2024/25 and if repeat issues are found an officer will visit the farmer. If successful, we will look to roll out to other protected area catchments across England.

Since 2016, the EA has been undertaking a significant amount of regulatory activity using satellite technology to identify and target locations at high risk of contributing to nutrient and soil pollution. This has been backed up by an extensive programme of advisory and support work delivered by Catchment Sensitive Farming and catchment partners such as the Wye and Usk Foundation and Herefordshire Wildlife Trust to improve agricultural sources of pollution to the River Wye.

3) Question around how compliance will be monitored for those in ELM (Q323 in the transcript)

The Rural Payments Agency are the paying agency for SFI and Countryside Stewardship and have responsibility for compliance.

The Environment Agency currently have no role in the compliance of Environmental Land Management Schemes

Yours faithfully,



Kevin Austin
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Agriculture, Fisheries and the Natural Environment