



National Audit Office



REPORT

Environmental regulation

Department for Food, Environment & Rural Affairs,
Environment Agency and Natural England

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Key facts

**More
than 3,000**

pieces of legislation the Department for Environment, Food & Rural Affairs (Defra) and its arm's-length bodies are responsible for, leading to complexity for both regulators and regulated businesses

3

major government reviews in 2025 that substantially affect the way Defra and its arm's-length bodies will approach regulation in future, with no substantial reviews having happened before 2025

149

recommendations made by the three recent major reviews that affect Defra's environmental regulation

There has been mixed progress against the government's environmental goals, to which regulation makes an important contribution

3 out of 10 number of goals in the government's Environmental Improvement Plan that have largely improved in recent years, including cleaner air and reduced exposure to chemicals

9 out of 43 number of government's environmental targets and commitments that are likely to be achieved

Defra and its largest environmental regulators are working to improve the efficiency and effectiveness with which they regulate

£300 million planned investment by Defra between 2026-27 and 2028-29 to modernise its digital infrastructure including tackling legacy IT risks following the 2025 Spending Review

£23 million benefits the Environment Agency reported at the end of 2023-24 resulting from its programme to transform its regulatory services

4 number of 'critical reform' programmes Natural England is working on to improve how it operates and delivers its regulatory, advisory and other services

Summary

1 Environmental regulation aims to protect the environment and nature from pollution and harm, safeguard natural resources and contribute to the health and wellbeing of citizens. Environmental harm can be caused when, for example, by-products of industrial and agricultural processes enter the atmosphere or waterways. Habitats and biodiversity can be harmed by those processes, or by new developments such as housing and infrastructure. Effective and efficient regulation minimises these harms while keeping costs of compliance for regulated businesses proportionate. This requires regulators to target their work on sectors, businesses or regional areas where the greatest risks of harm lie.

2 In 2018, the then government set a long-term vision for the environment, and the 2021 Environment Act set legal targets to protect air and water quality and enhance biodiversity. This Act also created the Office for Environmental Protection (OEP) to hold government to account for its role in protecting and improving the environment. The government's 2023 Environmental Improvement Plan (EIP) then set more specific commitments, highlighting regulation as a tool used in delivering all ten EIP goals. The Department for Environment, Food & Rural Affairs (Defra) published an updated EIP in December 2025.

3 Defra has policy responsibility for most EIP commitments. Defra's two largest environmental regulators, the Environment Agency (EA) and Natural England (NE), monitor and enforce compliance with regulations that contribute to environmental protection and improvement. They do this by, for example, issuing permits to carry out certain activities and monitoring these, providing advice, consent or assent for proposed activities that may affect protected sites, and inspecting sites and businesses to ensure compliance with regulations. Both regulators also have responsibilities other than regulation, including maintaining flood defences (EA) and nature restoration (NE).

4 The government's progress with its environmental aims has so far been mixed. In January 2025, the OEP found the government was likely to achieve only nine of its 43 environmental targets and commitments, and three of the 13 Environment Act targets. In December 2025, alongside its updated EIP, Defra reported that three of the 10 goals have largely improved (including cleaner air and reduced exposure to chemicals), while six goals show a mix of improvements in some indicators and deterioration in others. It also set out delivery plans for how it intends to meet its environmental targets.

5 In 2025, Defra published an independent review of its regulatory landscape by the economist Dan Corry, which found that “our regulatory system is not working as well as it should to support either nature recovery or economic growth”. It highlighted a range of challenges such as the complexity of the regulatory system, which includes more than 3,000 separate pieces of legislation, most of which pre-date the 2021 Environment Act and EIP. Defra has accepted all the review’s recommendations and established a project to implement them. At the same time, it is responding to recommendations from an independent review of the water industry and an internal review of its management and leadership of its arm’s-length bodies.

Scope of this report

6 This report examines the extent to which EA and NE (‘the regulators’) are well placed to maximise the benefits to the environment of how they regulate, while ensuring costs to business are proportionate. Our study focuses on how Defra and the regulators carry out their regulatory duties in practice and sets out recommendations for them to consider as they embark on a period of potentially significant reform.

7 The report covers:

- the regulators’ current ability to target their work efficiently and effectively (Part Two);
- the extent to which Defra and the regulators are taking a strategic, joined-up approach (Part Three); and
- what Defra and the regulators are doing to improve how they regulate (Part Four).

8 The government’s Planning and Infrastructure Bill and its response to Sir Jon Cunliffe’s recommendations for the water sector will likely affect the regulators’ responsibilities. We did not examine or assess these but considered the potential impact of any resulting structural changes and how these relate to plans that Defra and the regulators are developing. We also did not look at EA’s or NE’s non-regulatory responsibilities. A more detailed explanation of our scope is in Appendix One.

Key findings

Targeting regulatory activity

9 The regulators seek to target their regulatory work based on risk but, in some areas, this is limited by how they collect and use data and information.

Regulators need reliable and up-to-date data and intelligence to identify risks that may require investigation or intervention, and to target activities and resources. Recent reviews by Defra and the OEP found a need to better understand where action is needed, and that regulatory activity in 2025 may be shaped more by resource constraints than risk-based decision making. We found several examples of data and intelligence gaps affecting the work of both regulators in recent years. This includes cases where there was a lack of inspection and environmental data that affected EA's ability to detect significant harm, or use of generic or out-of-date information by NE. The regulators told us their ability to access and use the data they need is constrained by outdated IT systems (paragraphs 2.4 to 2.7).

10 Defra and the regulators are working to improve the IT systems and digital technologies that support how they regulate, though progress has been slow and current systems are fragmented. Defra faces one of the most significant legacy IT challenges in government and published a data and digital strategy in 2023. It has been slow to modernise its systems and is only part-way through a programme to do so, for which it received a further £300 million in the 2025 Spending Review to invest between 2026-27 and 2028-29. EA has started making progress updating its own systems and reported a range of efficiency and productivity benefits totalling £23 million at the end of 2023-24, but it has further to go to meet the challenge of fully modernising its regulatory services. NE has received limited funding for digital transformation of its core regulatory services in recent years. These challenges have hampered regulatory delivery and reduced efficiencies for the regulators, who operate multiple systems that do not interact easily with each other. For example, Defra does not have a single database or dataset for farms that its various arm's-length bodies can use jointly to share insight on risks (paragraphs 2.19 to 2.23).

11 The regulators have started taking steps to apply a more consistent approach to monitoring, inspection and enforcement across their area teams.

Regulatory consistency can mean taking a similar approach to similar issues across different areas or businesses, for example in how to conduct inspections or respond when identifying non-compliance. While decisions need to be tailored to the specifics of each situation, a consistent approach can provide clarity and stability to help regulated bodies know what is expected of them and ensure a level playing field between businesses. Inconsistencies between area teams within the regulators have been affected by variable expertise at local level and challenges in providing training or supporting front-line officers. For example, NE no longer has a set operating model for local areas, with some but not all areas having dedicated local officers. In 2024, EA began developing a new framework to bring a more consistent approach within and across the sectors it regulates. This work remains in progress, and its effectiveness will depend on the extent to which the framework is used across its different teams (paragraphs 2.10 to 2.13).

12 Regulated businesses find it too difficult to access and apply advice, guidance and support from Defra and the regulators to make compliance more straightforward.

Enforcement is sometimes necessary, but it is also costly for regulators and should be needed less often when advice, guidance and support help businesses comply in the first place. Environmental regulation is complex, and regulated entities often do not understand what is required of them. In agriculture, for example, the Corry review noted that there are more than 150 pieces of historic regulation on farming alone, while Defra's data show that 69% of farmers are either not confident or only somewhat confident in understanding the regulations that apply to their farms. Stakeholders find that guidance can be difficult to locate and use, with Defra recognising that guidance on gov.uk needs streamlining. The regulators told us that gov.uk limits their ability to publicise specialist information. Regulated entities also feel they do not always get sufficient support to comply with environmental regulations, in part due to reductions in local expertise and knowledge within the regulators (paragraphs 2.14 to 2.18).

13 Defra and the regulators do not systematically evaluate the impact of environmental regulation to inform decisions on what regulatory approach to take.

Regulators need to understand what works and what impact their interventions have in order to decide best how to intervene. We previously found in 2023 that performance information from EA and NE did not enable them or Defra to evaluate their regulatory activities. Since then, Defra has made progress in reducing its backlog of post-implementation reviews, a useful step in assessing the impact of individual regulations. However, neither Defra nor the regulators have evaluated regulatory interventions across regulatory regimes in a more systematic way. EA began taking a more structured approach to assessing the effectiveness of its regulatory activities in April 2024 but did not prioritise this work within constrained resources, and so has made only partial progress. NE has not evaluated the impact of its regulatory work for several years (paragraphs 2.7 to 2.9).

Regulating in a strategic, joined-up way

14 An overly risk-averse culture in Defra and the regulators has restricted some efforts to innovate and embrace new approaches. Well-managed risk taking, including setting clear boundaries and monitoring outcomes, is vital to innovation and identifying efficiencies or new ways of working. The regulators have introduced some new or innovative approaches. For example, in some areas, NE has reformed how it deals with low-risk case work to allow the local team to focus on higher-risk work. EA has set out and regularly updates when it will not enforce the need for an environmental permit because – based on current evidence – environmental risk is low. The regulators have also started exercises to better understand and change their approach to risk. However, Defra and the regulators typically take a cautious and risk-averse approach, in part due to the potential for legal challenge through judicial reviews. The regulators also lack clarity from Defra on its risk appetite and the support it will give if risks materialise (paragraphs 3.7 to 3.11).

15 Defra’s approach to environmental regulation has largely been reactive, rather than based on a clear strategy and evidence of what is needed. Defra’s regulatory approach has tended to focus on short-term priorities or high-profile issues, including recent increases in farm and water company inspections and new powers for tackling waste crime. Previous decisions, such as reducing local officers in NE or cutting numbers of certain types of inspections in EA, did not always adequately consider the whole system and total costs of the changes, including for remedial clean-up activities (paragraphs 3.12, 3.14 and 3.15).

16 The lack of a clear strategic approach has led to Defra being slow to act when the regulators suggest regulatory changes or system improvements that would produce better outcomes or cut costs. The regulators told us Defra can sometimes be slow or unresponsive to proposals to improve the efficiency and effectiveness of environmental regulation. For example, the regulators have suggested specific regulatory reforms or expansions, digital portals and improved guidance. Consultations and commitments by Defra to implement reforms have not always resulted in timely, substantial actions to address the issues raised. Where helpful legislative changes have been introduced, these have also often been limited to the specific high-profile issue, missing opportunities to make similar improvements across sectors (paragraphs 3.12 and 3.14 to 3.18).

17 The regulators have introduced some joint-working projects and found benefits from doing so, but they have not managed to roll this approach out more widely.

EA and NE – and other regulatory bodies – have some similar areas of regulatory responsibility. For example, both have responsibilities related to water quality within sites of special scientific interest (SSSIs), where EA is responsible for regulation in relation to water, but NE provides advice on SSSI requirements. They have applied some joint-working arrangements effectively, including projects that reduced burdens or complexity both for regulators and the regulated. The regulators told us there are structural or systemic barriers to implementing coordinated approaches more widely, including legislative requirements, data protection issues and cultural differences between regulators. The Corry review recommended establishing a lead environmental regulator for major infrastructure projects, which Defra and the regulators are currently piloting, and which might provide a useful model for more joined-up working with smaller developments or other areas of regulation (paragraphs 3.2 to 3.6).

18 Defra's oversight and funding arrangements do not give the regulators flexibility to prioritise resources on activities that are likely to make the greatest contribution to environmental outcomes. Defra is working to define a strategic, prioritised framework of key outcomes that regulation should deliver and recognises this will be essential to optimising the impact of its work. However, it has not translated this into funding and performance arrangements. The regulators' performance metrics, endorsed by Defra, are primarily based on detailed inputs rather than broader environmental outcomes (paragraphs 3.12 and 3.13).

Improving regulation

19 In the past two years, both regulators have increased their focus on improving how they regulate, and have set up a series of reform programmes.

In December 2023, NE introduced an organisational change programme and associated team, aiming to shift its business model and culture towards one that meets current needs. As part of this, NE has begun four 'critical reform' programmes, including reviewing its workforce plan and operating structure, and developing a new corporate strategy. In April 2024, EA introduced a Chief Regulator's Group and new Chief Regulator role, aiming to standardise and inform regulatory delivery. It is developing a regulatory profession, and a range of other changes to how it regulates (paragraphs 4.2 to 4.7).

20 The regulators are taking steps to improve recruitment and retention of key skills and expertise, but these remain long-standing challenges. Both regulators have faced workforce challenges in key areas of skill and expertise, partly due to limited promotion opportunities and higher pay in the private sector. They have also faced disruptions to core regulatory delivery due to responding to emergency incidents and other reactive work. Workforce problems have been a long-running difficulty: in 2023 we found that both EA and NE had workforce issues affecting their ability to deliver current workloads, as well as uncertainty over what they would need in the future. The regulators have recently initiated programmes to address some of these issues, such as introducing career pathways and a regulatory profession (paragraphs 4.8 to 4.10).

21 Defra and the regulators face significant risks to delivering the volume of change needed to realise the opportunity for ambitious reform of environmental regulation. Three major reviews in 2025 give Defra and its regulators the impetus and opportunity to make substantial changes to how they regulate. In total, the three reviews make 149 recommendations to Defra or its arm's-length bodies. It needs to balance those that are easier to implement with more structural changes that may take longer but have potential for greater impact, particularly those that will require legislative change. Defra has prioritised 15 recommendations from the earlier two reviews, of which seven require a high level of resource. It needs to understand the resource and skill implications of such a large reform programme, and ensure the changes are well aligned with the other change programmes happening within the regulators to produce the most meaningful outcome (paragraphs 4.11 to 4.14).

Conclusion on value for money

22 Recent reviews have highlighted challenges for environmental regulation in both supporting the government's environmental goals and enabling economic growth. The ability of EA and NE to regulate in a consistent and well-targeted way has been constrained by limitations in their systems and how they collect and use data, and challenges addressing skills shortages, allocation of limited resources and a culture of risk aversion. They have also faced limitations of the regulatory and legislative framework they operate within, and Defra has not done enough to support a strategic, joined-up approach rather than reacting to short-term, high-profile issues.

23 In the past two years, the regulators have increased their focus on improving how they regulate, and the government's response to recent major reviews has added impetus for reform. Defra and the regulators have made a good start, but the scale of change required is substantial and comes with risks and challenges. Success will depend on taking a focused and integrated approach to the changes needed, proper consideration of the skills and capacity required, and speeding up progress with replacing outdated IT systems and embracing digital technologies. There are also opportunities to improve value for money in the short term, particularly in how the regulators use information and intelligence to target limited resources on the areas where there is greatest risk to the environment and nature and taking a more flexible approach to supporting compliance.

Recommendations

24 Defra and its regulators are embarking on a period of potentially significant reform of the regulatory system, taking several years. To help ensure a coherent, whole-system approach to maximise the benefits of these reforms, Defra should:

- a** work with the regulators to set a plan for how existing change programmes and new reforms – including digital change – will link together, so that they prioritise changes that can unlock the greatest gains and are planned and delivered in a coherent way. This should set out dependencies between actions, milestones for delivery, resource requirements and governance arrangements;
- b** determine how it will make the most of whatever Parliamentary time is available for legislative change, and what alternative methods it can use to make improvements;
- c** update funding and performance mechanisms to place greater emphasis on the extent to which the work of the regulators addresses environmental harm, rather than what activities they are doing;
- d** investigate new approaches to sharing data including, for example, using open data and licensing models or trialling projects for data sharing between regulators that cover the same sectors;
- e** pilot joint working for smaller projects or planning applications, based on learnings from the ‘lead environmental regulator’ approach currently being developed for major infrastructure projects; and
- f** define its risk appetite and the support it will provide to regulators if risks materialise, to support a culture of change and innovation.

25 Alongside developing their approach to major reforms, the regulators have opportunities to improve environmental regulation at an operational level. They should, over the next year:

- g** prioritise building their capability around information and data that supports regulatory decision making and making best use of all regulatory tools: this should include:
 - more robust and consistent ways to assess and triage intelligence and identify where risks are greatest, and whether issues are best dealt with by local officers or national teams;
 - a more systematic approach to evaluating the impact of different regulatory approaches; and
 - working with Defra to ensure key decisions on, for example, resourcing and regulatory priorities are based on an assessment of total costs across the whole system including, for example, future costs of remedial clean-up activities if pollution and non-compliance increase;

- h** work with Defra to make guidance easier to find and use, including developing real-world examples and scenarios alongside general guidance to support regulated entities to comply; and
- i** ensure they have systematic ways to incorporate the views of both front-line regulatory staff and regulated entities in the design of future operational processes and changes; they should also use these operational perspectives to support ongoing reform programmes.