

Nitrate Pollution Prevention Regulations 2015

Lead department	Department for Environment, Food and Rural Affairs
Summary of measure	The Department is reviewing the 2015 regulations to secure greater protection of the water environment against nitrogen pollution from agricultural activities in England.
Submission type	Post-implementation review
Implementation date	2015
Department recommendation	Amend
RPC reference	RPC-DEFRA-25039-PIR(1)
Opinion type	Formal
Date of issue	9 April 2025

RPC opinion

Rating¹	RPC opinion
Fit for purpose	The RPC considers the post-implementation review to be fit for purpose. The recommendation to amend is supported by sufficient evidence demonstrating the limited improvements in water quality, as well as mixed compliance rates from farmers. The PIR would benefit from clearly identifying where the scope for improvement lies and explain what refinements will be made to the regulations.

¹ The RPC opinion rating is based on whether the evidence in the PIR is sufficiently robust, as set out in the better regulation framework, to support the departmental recommendation. RPC ratings are fit for purpose or not fit for purpose.

RPC summary

Category	Quality ²	RPC comments
Recommendation	Green	The PIR provides sufficient evidence to underpin the recommendation to amend the regulations. However, the recommendations in the PIR are high level and the Department could provide more detail on the specific improvements that will be considered as part of the amendments.
Monitoring and implementation	Good	The PIR has provided a substantial range of evidence and analysis, which is consistent with the RPC's proportionality guidance for a PIR for a high impact measure. The Department details some limitations with its data collection (such as gaps in reporting) but could benefit from expanding this discussion to consider causation.
Evaluation	Satisfactory	The review outlines that it has not been possible to conduct a quantitative assessment of the assumptions but could benefit from using any further available updated published data to quantitatively compare costs. The Department could also benefit from setting out more specific objectives in the PIR. The PIR considers international comparisons, but would be improved by providing a more thorough discussion on their success.

² The RPC quality ratings are used to indicate the quality and robustness of the evidence used to support different analytical areas. The definitions of the RPC quality ratings can be accessed [here](#).

Summary of proposal

The Nitrate Pollution Prevention Regulations 2015 (NPPR) came into force on 1 May 2015, consolidating the existing Nitrate Pollution Prevention Regulations 2008 (NPPR (2008)). The policy objectives of The Nitrate Pollution Prevention Regulations 2015 are to secure greater protection of the water environment against nitrogen pollution from agricultural activities in England. It does so by identifying land that drains into nitrate polluted waters and by requiring farmers on that land to adopt farming practices designed to reduce the risk of causing such pollution.

The primary objective was to reduce water pollution caused by nitrogen from agricultural sources through the introduction of Regulations which:

- Designate areas of England as Nitrate Vulnerable Zones (NVZs) (the directive also allows for a whole territory approach)
- Establish an action programme of specific measures within Nitrate Vulnerable Zones, and
- Establish transitional arrangements, enforcement powers, monitoring and review requirements, public participation obligations and appeals mechanisms necessary for implementation of the NPPR.

The NPPR 2015 consolidated several minor changes to the NPPR (2008) and other regulations with the purpose of making the legislation clearer and more accessible to promote greater understanding and compliance. As it is considered that the NPPR (2015) made no substantive policy changes to the NPPR (2008), the review has been conducted against the 2008 IA for the NPPR (2008) which has been considered an appropriate representation of the projected impacts of the NPPR.

The PIR notes that measure was originally estimated to have an average annual cost to business of between £44.3m and £65.2m in the 2008 IA. The Department recommends amending the regulations.

Recommendation

The PIR recommends amending the agricultural pollution regulatory framework, which includes the NPPR, to reduce the regulatory burden for farmers and improve the effectiveness of the regulations. The PIR provides evidence to underpin this recommendation, showing the limited improvements in water quality, as well as mixed compliance rates from farmers.

However, the recommendations in the PIR are high level and the Department could provide more detail on the specific improvements that will be considered as part of the amendments. The PIR could benefit from clearly identifying where the scope for improvement lies and explain what refinements will be made to the regulations. In particular, as reduced compliance appears to be key in reducing the success of the regulations, the PIR could benefit from identifying specific amendments to the regulations to increase compliance, such as changes to the enforcement mechanisms. In identifying specific amendments, the Department could consider the success of other similar policies and schemes such as the introduction of Nitrate

Sensitive Areas (a predecessor of Nitrate Vulnerable Zones) and CSF (catchment sensitive farming) advice, as well as the implementation of the Nitrates Directive in other EU countries, many of whom chose to designate their whole territory as nitrate vulnerable zones (NVZs) rather than only applying measures to nitrate sensitive areas.

The PIR would also benefit from clarifying how the recommendation will impact the other regulations in the same wider regulatory framework, confirming whether these regulations will also be changed as part of amending the agricultural pollution regulatory framework.

Monitoring and implementation

Proportionality

The measure was originally estimated to have an average annual cost to business of between £44.3m and £65.2m in the 2008 IA. The PIR could benefit from updating these costs to 2025 prices and considering whether these costs would be direct and counted in the more recent EANDCB metric. Alternatively, the Department should reference the EANDCB from the 2015 regulations. The PIR has provided a substantial range of evidence and analysis, which is consistent with the RPC's proportionality guidance for a PIR for a high impact measure. Furthermore, the PIR has been able to identify some of the shortfalls of the data available and evidence gaps.

Evidence to support the recommendations

The Department has developed a good range of qualitative and quantitative evidence to assess the effectiveness of the policy and support the recommendation to amend the regulations. Evidence has been sourced from Environment Agency (EA), which provides data on low compliance rates in the industry, as well as environmental analysis in water quality reports, which has not seen the expected improvements in relation to nitrogen. The PIR also makes use of several annual farm surveys providing information on farm practices inside and outside of NVZs, and a range of academic and expert literature. Finally, the PIR also considers stakeholder views from a variety of related industries, suggesting that the NPPR are overly prescriptive. The Department helpfully sets out the survey questions used in this engagement, as well as the number and type of stakeholders consulted. The PIR could be improved by providing more context on the respondents, outlining how representative they were of the industry and clarifying whether the responses include those from small micro businesses in order to assess their impact. The review would also benefit from providing more detail on the actual qualitative and quantitative data received during the consultation exercise.

The Department details some limitations with its data collection (such as gaps in reporting) but could benefit from expanding this discussion to consider causation. The PIR presents the historical long-term trends for some indicators and acknowledges that there are a range of other policies that could have contributed to

the outcomes presented in the review, the PIR would benefit from more clearly setting out a counterfactual scenario and providing more consideration of whether changes could be attributed to the regulation or other rivers and co-existing policies. The PIR would also be improved by discussing the baseline historical trends for all indicators presented. This would help the PIR to assess the impact that this policy specifically has had.

In addition, some of the evidence in the PIR is mixed and the PIR could be improved by presenting the headline conclusions of the evidence more clearly and ensuring it aligns with the recommendations made. For instance, whilst the Department states that the evidence suggests there is value in retaining restrictions on nitrogen application, it is not clear how this conclusion is specifically derived from the range of evidence indicating that NVZs include a greater area of productive arable land, have a higher application of mineral nitrogen fertilizer and a lower rate of manure dressing.

The PIR would also benefit from utilising any available evidence to justify why the recommendation is not to replace the regulations entirely. Given the water quality evidence from the EA indicates the regulation isn't working as intended, the PIR should further address this evidence. Furthermore, the Department could also provide some evidence on the original rationale for intervention, detailing the risk of nitrogen pollution for a lay reader and the damage it causes. This would help to show that the regulations in their current form are still relevant and the objectives still valid.

Evaluation

Consideration of policy objectives

The review references the original objectives of the policy, stating that the primary objective was to reduce water pollution caused by nitrogen. The PIR summarises the key mechanisms of the regulations by which this could be achieved (such as designating NVZs and establishing transitional arrangements), focusing the review on the success of these instruments. However, these are outputs of the regulations, rather than policy objectives and the Department could benefit from further setting out more specific objectives in the PIR. The policy objective to reduce water pollution is quite high level and the objectives could be made more 'SMART' (i.e. specific, measurable, achievable, realistic and timely).

Unintended consequences

The Department has considered a range of unintended consequences arising from the regulations. These potential effects have been raised through stakeholder engagement and include overlapping regulations, and the outsourcing of record keeping. The PIR could benefit from considering a wider range of unintended consequences; for example the PIR could go into more detail on the possibility of increased spreading outside the NVZs and consider whether the regulation could be a factor in any land use changes within the zones. The PIR could also consider

whether there could be an impact on consumers from farmers passing on compliance costs, even if this would be impossible to quantify.

Original assumptions

The review outlines that it has not been possible to conduct a quantitative assessment of the assumptions, as the original impact assessment (IA) did not set out the full assumptions made during the cost-benefit analysis. In light of this, the Department has provided a mostly qualitative review of the main costs associated with the implementation of the regulation using feedback from stakeholders. However, the PIR could be improved by breaking down this assessment to consider stakeholder's views on the individual input assumptions, rather than the overall cost.

The Department also provides updated estimates on the cost of slurry storage to compare with the original IA, concluding they appear to fall within the range estimated by the IA. The PIR could be improved by extending this exercise for other costs detailed in the IA, using any other available updated published data to quantitatively compare costs.

The PIR explains that due to data limitations (such as the original IA not fully setting out the assumptions and data used) it has not been possible to update benefit estimates. Whilst the PIR contains a detailed discussion on the reduction of nitrate pollution in NVZ areas, the PIR could benefit from listing the other expected benefits in the original IA, and assessing these.

SMBs

The PIR considers the impact of the regulations on SMBs through stakeholder evidence and the Department's survey responses, concluding that whilst SMBs make up a large proportion of the farming industry, the risk of increased costs to SMBs are mitigated by the fact most small livestock farms do not produce slurry as well as the slurry grants and derogation options available. The PIR identifies the main disproportionate cost to SMBs to be their barrier to accessing consultations and advisors to help with compliance. The PIR could consider designing the amendments for the regulations to address this possible disproportionate impact.

Improvements considered

As the recommendation in the PIR is to amend the regulations, the Department could have used the evaluation to identify potential improvements. For instance, whilst the Department considers international comparisons and outlines various policies and schemes implemented internationally, the PIR would be improved by providing a more thorough discussion on their success and how this might feed into the proposed amendments.

The PIR states that further evaluation and engagement with stakeholders will take place but would benefit from confirming when this is planned to take place and how it will feed into the PIR.

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