Permitting Reform: Reducing Environmental Damage from Intensive Livestock Farms

June 2024

This briefing is on behalf of the Intensive Livestock Farming Working Group, led by nature and animal welfare coalition Wildlife and Countryside Link (Link), for reform of the permitting system to mitigate the impacts of intensive farming.

**Executive summary**

Intensive livestock farming is causing harm to the environment, public health and animal welfare, and creating unfair competition for smaller, more traditional livestock farms. The processes intended to regulate intensive livestock farming are not fit for purpose, and are failing to prevent mounting harm.

Permitting regulations are demonstrated to have a positive impact on mitigating farm emissions and diffuse pollution and can also play a significant role in improving animal welfare.

Link is recommending an ‘enhanced environmental permitting system’ to bring intensive livestock farming regulations up to scratch, to be established through new primary legislation and administered by the Environment Agency.

The new system, featuring both lower permitting thresholds and more rigorous operating standards, will deliver on multiple cross-departmental priorities and provide an effective policy solution for a resilient, just transition to nature-friendly farming by facilitating nature recovery, climate mitigation, animal welfare advances, improved public health and a fairer deal for farmers.

**Introduction**

Intensive livestock farms are agricultural holdings that concentrate large groups of livestock together indoors, or on small plots, in high densities for the whole or vast majority of the year to maximise profits and productivity through economies of scale. Intensive livestock farms rely on substantial harmful artificial inputs and compromise animal welfare.
Environmental permitting regulations are a crucial policy lever that can be pulled to mitigate the reliance on these inputs, reduce farm emissions and diffuse pollution and improve the welfare of farm animals.

This briefing addresses the rationale for reforming environmental permitting to address harms from intensive livestock farming and outlines several recommendations for reforming the environmental permitting regulations. These recommendations will close regulatory gaps, raise ambition and deliver on multiple cross-departmental priorities, from nature recovery to climate mitigation to farmer livelihoods and public health.

<table>
<thead>
<tr>
<th>Summary of recommended reforms – an ‘enhanced environmental permitting system’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Reformed Permitting Thresholds</strong>: Lowering the threshold for application of the environmental permitting regime for poultry and pig farming, and setting explicit thresholds for cattle and other forms of livestock to bring these facilities within the permitting system.</td>
</tr>
<tr>
<td>2. <strong>Operating Standards &amp; Ecological Conditions</strong>: Setting additional standards as criteria for being granted a permit:</td>
</tr>
<tr>
<td>(i) <strong>Stocking Density Operating Standards</strong> to ensure that animals are not kept over a certain density per hectare.</td>
</tr>
<tr>
<td>(ii) <strong>Ecological Context Conditions</strong> to mitigate the wider environmental impact of intensive livestock farming.</td>
</tr>
<tr>
<td>(iii) <strong>Additional Evidential Requirements</strong> for environmental management, waste management and animal welfare.</td>
</tr>
</tbody>
</table>

**The Policy Context**

Applications for new intensive livestock farms (and extensions to them) are managed through two separate approval processes: environmental permitting and planning. Whereas planning approves the use of the land, permitting regulates the activity. Both a permit and planning permission are required before a new intensive farm development covered by the Environmental Permitting Regulations begins operating.¹

The Environment Agency is responsible for granting permits to farmers and land managers undertaking intensive agricultural livestock operations. Permitting is designed to control the activities of the farming systems with the highest pollution risk, and establishes a set of operating rules that apply to larger intensive livestock farms only to avoid placing unnecessary burdens on smaller, more extensive systems. Farms seeking to operate with
more than the below number of animals currently require a bespoke permit under the Environmental Permitting Regulations:

- 40,000 poultry
- 2,000 production pigs (over 30kg)
- 750 sows

The permitting regulations refer to the number of animals per ‘installation’, or operating facility.

**Harms from Intensive Livestock Farms**

Figures compiled by the Bureau of Investigative Journalism, using the US ‘concentrated animal feeding operation’ (CAFO) definition, revealed 1,674 intensive farms in operation in the UK in 2017, an increase of 26% since 2011 when there were 1,332 facilities requiring a permit. Analysis by Compassion in World Farming demonstrates that permitted pig and poultry CAFOs in England increased from 1,203 in 2017 to 1,349 in 2023, while intensive livestock farms requiring permits for pigs and poultry also increased by 12% between 2016 and 2023 across the UK. Despite agriculture in the UK accounting for 71% of all nitrous oxide emissions and 49% of methane emissions, the Government appears to have no current plans to manage this growth in intensive livestock farming, with a 2021 parliamentary question on the topic eliciting the response that ‘farms of all sizes’ had a role to play in UK agriculture.

Although standards vary widely, intensive livestock farms can be hothouses of diffuse pollution and poor animal welfare. They produce significant amounts of urine and dung waste, and are major sources of phosphorus and reactive nitrogen, ammonia/ammonium, nitrate and the potent greenhouse gas (GHG) nitrous oxide, as well as livestock directly releasing the GHG methane. The businesses currently regulated under the Environmental Permitting Regulations contribute roughly 8% of all ammonia emissions in England. Cattle farming alone accounted for 46% of total UK agricultural greenhouse gas emissions in 2020, yet it is currently unregulated through permitting. According to a study affiliated with Public Health England (now UKHSA), bioaerosols from intensive livestock farming have been reported to cause adverse health impacts in people who live near intensive livestock farms, including respiratory health problems in children.

In terms of animal welfare, intensive livestock farming results in poor conditions for the animals involved in this system, including (but not limited to):

- Animals being bred and housed in ways that push the limits of what they can cope with, leading to a very unnatural and unhappy life – such as barren crates or cages that prevent or restrict normal animal behaviours.
• Beak trimming, tail docking and teeth clipping to mitigate animals injuring each other due to their housing conditions.\textsuperscript{xxx}
• Wider negative impacts for wildlife due to disease, habitat loss and genetic mixing.\textsuperscript{xxi}

The inherent demands of intensive livestock food production systems also cause significant harm, such as the large feed requirement, whether it is imported soya driving deforestation in Brazil, or grains and silage from the UK.\textsuperscript{xvi} As well as the use of fertilisers and pesticides on animal feed crops (with a majority of the total phosphate load coming from agriculture and the expansion of the poultry industry\textsuperscript{xxiii}), livestock wastes are also often contaminated with chemicals found in feed and from the use of veterinary medicines\textsuperscript{xxiv} and antibiotics,\textsuperscript{xxv} which are used to minimise the risk of infections from inappropriate housing standards. Together, these contaminants enter waterways, damaging fragile ecosystems, or enter the soil through the use of livestock slurry and manure as fertiliser, ending up in our food products. Transport emissions and energy demands in small geographic areas from large, intensive farming operations also risk local environmental impacts.

There are economic harms to the farming sector through the rise of intensive farming. Intensive operations skew competition in the farming industry,\textsuperscript{xxv} allowing the conglomerates that typically operate intensive farms to drive down prices at the expense of individual farmers, farm workers, and other rural business sectors.

Problematically, the harms of intensive livestock farming are often invisible. Animal welfare issues may occur behind closed doors away from the public eye, and many environmental issues are diffuse air and water pollution incrementally impacting wide areas. These impacts become visible in the most severe cases, a well-known example being the Wye catchment area,\textsuperscript{xxvii} and only after chronic pollution and animal welfare issues over the years stack up. Often by then, it is too late.

Reforming the permitting system will support more nature-friendly, high-welfare and fairer food supply chain practices, improve public health and benefit individual farmers and their livelihoods, farmed animals and the environment.

\textbf{Why reform?}

The system of intensive livestock farming, often run and controlled by large agribusinesses and international corporations, needs to change to reduce harm to the environment, public health and animal welfare. In comparison, more extensive, pasture-based farming systems, such as those with an Organic certification, deliver a range of demonstrated benefits,\textsuperscript{xxviii,xxx} including improved animal welfare, ecosystem services and lower chemical inputs while safeguarding soil and water quality. For example, a shift to 10% organic farming systems in
England has the potential to increase farmland birds by 35%, arable non-cash crop plants by 95%, pollinators by 23% and earthworms by 78%. Pasture-fed livestock systems are also indicated to deliver high levels of participation in agri-environment schemes that lead to public goods (such as species-rich grasslands) and farm resilience (including animal welfare) in an economically viable way, with economic outcomes typically on par with non-pasture-fed livestock farmers. Incentivising a transition to these systems by ratcheting up the regulatory baseline over time will deliver benefits for the environment, for livestock, and for people’s health and well-being.

With over 80% of poultry birds raised on farms that require an environmental permit, permitting rules have a major role to play in phasing out highly intensive farming operations with poor welfare standards and stopping intensive units from becoming too widespread in polluted catchments. Since the introduction of environmental permit conditions for pig and poultry farms, emissions from these farms have decreased by approximately 30%.

By establishing standards for intensive farming operations, permitting rules are also vital for ensuring that unnecessary burdens are not placed on smaller, more extensive systems. As well as new intensive units, a major environmental risk factor is also the size and operating conditions of existing permitted units. The current permitting system (as well as the planning system) has failed to constrain diffuse water and air pollution (such as ammonia emissions) from intensive operations, as well as other equally important environmental externalities arising from intensive farming including poor animal welfare and overgrazing. Accordingly, reforming the permitting system will help deliver on multiple cross-departmental priorities, from nature recovery to climate mitigation to farmer livelihoods and public health.

For the above reasons, the current environmental permitting rules for large, intensive farms are very weak and narrow. Thresholds for the rules to apply are high and only cover pig and poultry operations and ultimately fail to prevent pollution from these operations. However, compliance in the current environmental permitting regime may be easier to enforce (with 934 permitted farms inspected in 2023, 97% of which were in the highest compliance bands) than other rules that apply to non-permitted farms such as the Farming Rules for Water, making it a suitable policy lever to pull to help make livestock farming more sustainable and therefore better for long-term food security and economic stability.

In its Environmental Improvement Plan, published in January 2023, the Government committed to considering expanding environmental permitting conditions to dairy and intensive beef farms. These proposals have not yet been progressed further.

In April 2024, the Government published the ‘River Wye Action Plan’ including proposals to consult on minor amendments to the permitting regulations. This acknowledgement that the current system has inherent problems that need to be addressed should be
followed by more widespread reform, including expanding the Action Plan to consider all environmental outcomes (including climate and air) to avoid unintended consequences, like air pollution from poultry manure burners.

*The farm permitting system needs to be overhauled, with new criteria for the permitted activities on intensive livestock farms and phased steps to ratchet down intensive livestock permitting and reduce the most damaging practices.*

### What should reform look like?

Ultimately, a new regulatory framework is required to flexibly deal with the full impacts of intensive farming and to capture all of the environmental externalities that come from these systems, from the cumulative impact of numerous farms in a catchment to diffuse pollution to animal welfare. The regulatory baseline on permitting must be ratcheted up so that the standards can rise over time to meet the scale of ambition that is required to address these complex issues.

A new, ‘enhanced environmental permitting system’ should be introduced through new primary legislation and administered by the Environment Agency, applying to all intensive livestock systems, including poultry, pigs and all forms of cattle. Accompanying this, the Government should complete an assessment of the rules required for other forms of livestock, such as sheep, to prevent a broader range of livestock from being reared and housed in a way that may lead to further intensification, overgrazing and poor animal welfare.

This enhanced system must be compatible and complementary with other agricultural regulations and encompass both reformed permitting thresholds and enhanced operating standards and ecological context conditions.

(1) **Reformed permitting thresholds**

We recommend the Government carry out an analysis of the scale of the problem of non-compliance with other environmental regulations on unpermitted farms like the Farming Rules for Water, as well as a feasibility study to assess the impacts of different permitting thresholds on the environment and public health, accounting for integrated pollution factors and animal welfare to inform Government policies. The analysis should also address the question of whether different permitting thresholds affect the level of compliance with relevant environmental rules. To date, we have not seen evidence that such an assessment
has recently been completed, and Defra did not disclose information to a Link FOI requesting this information.

Once the scale of the problem is mapped, the Government should then respond with targeted reforms to the permitting system.

One option for reform would be to lower the threshold for application of the environmental permitting regime for poultry and pig farming. Explicit thresholds should also be established for cattle and other forms of livestock to bring these facilities within the permitting system.

More stringent thresholds may be established to capture high-density smaller farms that do not fall under the current permitting regime but which have a large number of livestock across multiple units and are therefore contributing to cumulative pollution problems. A spatial element may be integrated into new permitting rules to capture these farms. For example, an enhanced environmental permitting threshold may apply to high-density farms that occupy five hectares or less, which would capture free-range egg farms in permitting that do not fall within the current system, given that to qualify for free range under RSPCA standards, a farm cannot have more than 2,000 chickens (laying hens) per hectare.

(2) Operating standards and ecological conditions

Within a new reformed permitting system, additional standards should be established as criteria for being granted a permit. Stronger conditions on permits should include stocking density operating standards, ecological context conditions, and demonstrating additional evidential requirements on environmental management (and waste management) and animal welfare.

(i) Stocking Density:

A limit on stocking density should apply to ensure that animals are not kept over a certain density per hectare. Limits should be lower for indoor systems to prevent inappropriate numbers of animals from being taken or housed indoors. Any limits should be developed to avoid the simple transfer of animals to larger shed sizes, given the recent relaxation of permitted development rights.

Existing assurance schemes such as the RSPCA Assured standards and Soil Association organic standard set out requirements on stocking densities and should be used as a point of reference to establish a minimum legal requirement on densities, and can also be used to inform other standards such as space and housing.
requirements (e.g., enriched housing). For example, the baseline can be ratcheted up so that the RSPCA Assured standards becomes the industry standard in 5 years.

Stocking densities should be established to ensure better animal welfare in alignment with the ‘five domains’ model.\textsuperscript{xiii}

(ii) Ecological Context Conditions

Criteria based on the local ecological context should apply to mitigate the wider environmental impact of intensive farming operations in a relevant area. These criteria would not operate as blanket regulations for all farms, but would only be triggered and imposed where the environmental outcomes of an area require it.

One example of such a criterion is a requirement for nutrient budgeting and nutrient management plans (for all farms, starting with big indoor units), which would reduce nutrient loading from intensive livestock farming in catchments where the capacity is exceeded or watercourses are in unfavourable condition.\textsuperscript{xlv}

\textit{Figure 1: Reducing farm intensity through nutrient budgeting and catchment-wide assessments}

Reforming the permitting thresholds and operating standards may also be accompanied by a blanket, baseline permitting system that effectively captures high-density smaller farms where required. The blanket system may be triggered where a catchment is deemed overloaded (e.g., the Wye) to capture a broader range of intensive farming operations that are causing environmental damage or harm to public health.

The Government must dedicate resources to the Environment Agency to assess the cumulative eutrophication impacts of livestock units/livestock per hectare. Such an assessment would support a wider, necessary presumption that permitting and planning applications for larger farms or additional units in an overloaded catchment should be rejected on the basis that the catchment has reached its nutrient budget.

All farms should be required to have nutrient budgets to monitor the levels of materials being applied to the land on all farms in the catchment. The Farming Rules for Water already require this, and nutrient management plans should be fed into a programme or database where catchment nutrient loading may be calculated.
(iii) **Additional evidential requirements** - *Granted permits (for operations classed as intensive) should be contingent on the delivery of:*

**Manure and/or Slurry management plan.**

The requirements for specific management plans may differ based on the type of farm. Where straw is used for bedding, there is manure instead of (or as well as) slurry. A manure and/or slurry management plan should be required based on the operation in question.

For example, a slurry management plan should be required to account for slurry use and processing across the farm lifecycle: from animal to end-use. The plans should set out farm slurry usage and storage, amounts of slurry being applied across the farm and sale and transport agreements with other farmers. These plans would require slurry managers to set out their plans for how they intend to use and process the slurry and keep spreading records (see end-use recommendations below).

At minimum, these plans should be accompanied by explicit requirements for how slurry is stored on the farm and for coverage of non-permeable stores. For example, all farms that do not keep livestock on permanent pasture, and in particular beef and dairy farms requiring permits, should have sufficient space for 6 months of slurry storage for the number of livestock.

**Waste (slurry and manure) impact assessment and end-use management strategy.**

Existing Nitrate Vulnerable Zone rules should be appropriately enforced to ensure that all applications of slurry and manure are recorded and monitored and that over-applications are appropriately penalised. The enforcement of existing rules on all farms must be accompanied by strong requirements to prevent farm wastes from being moved off the farm without a license and to ensure that anaerobic digestors and incinerators aren’t relied on to dispose of waste for large-scale systems (as they can still give rise to water, air and nitrous oxide pollution).

There should be an obligation to set out a detailed and robust waste management strategy for the whole lifecycle of larger permitted units. For example, conditions could be set by introducing:
• A prohibition on buying or renting land to spread slurry to deal with excess waste.
• New requirements to treat waste from intensive units as hazardous waste to create an obligation for the producer to ensure it does not cause pollution when transported to other farms.

**Emissions assessment and reduction strategy.**

All new and existing permitted pig and poultry farms must complete a climate change risk assessment, which requires farms to propose potential strategies to mitigate the impacts of climate change.\(^{\text{xlvi,lvli}}\) These requirements should be extended to beef and dairy farms, and stronger mitigation requirements should be set to limit and reduce farm-level greenhouse gas emissions and to incorporate an integrated approach to diffuse pollution and odours.

**Animal Welfare strategy and further rules on animal welfare, such as the incorporation of RSPCA Assured standards in the new permitting rules.**

Reducing farming intensity requires more consideration than just places per installation or stocking density. An animal welfare strategy, accompanied by animal welfare standards, would require farmers to account for and improve or eliminate harmful practices such as zero-grazing, high yield/growth breeding, antibiotic overuse, and round-the-clock milking. Other issues that may be addressed by a strategy are staff/animal ratio and personnel qualifications to address health issues. The Government may also wish to introduce legislation that makes animal welfare a material consideration in the planning process (which will be expanded on in future Link agricultural planning outputs).

Evidence documentation must be shared with the Environment Agency, local authorities and other relevant actors during the permitting and planning processes to improve transparency and monitoring so agencies may check that the right amounts of nutrients are in each catchment (and used to inform the ecological context conditions, see above).
Improving intensive livestock farming is not exclusively about reducing numbers. Different numbers of livestock will be appropriate in different environmental contexts and in different farming systems.

Varying permitting thresholds could be set to reflect the impacts of the type of farm and farming system it utilizes, as well as its operating standards and relevant planning conditions. Alternatively, these variations could be reflected through clearer guidance to apply more stringent operating standards for more intensive farm types through permit conditions.

Thresholds should be supported by additional operating and ecological standards to avoid catching larger farms that may be less intensive and doing the right thing for their livestock and the environment. For example, the new rules should avoid categorising large herds of “free-range” cows based strictly on numbers, and particularly where lower-impact forms of farming can be guaranteed. The Highgrove Estate farm in Gloucestershire farms 200+ free-range dairy cows in a way that is much less intensive than a similar number of animals in a more intensive, indoor system. However, there are cases where a lowered threshold would reduce the intensity of the farm in a large agribusiness that has not adopted practices such as organic or free-range grazing. These rules will need to be developed to prevent larger farms with intensive units from slipping below stocking density thresholds by only focusing on a section of the farm (i.e., a barn or shed) rather than the whole farm.

In granting permits, the environmental context should also be considered alongside the farm type. The River Wye Catchment area, Herefordshire and Shropshire, and the Powys area are saturated with intensive poultry sheds of varying sizes. A significant majority of these sheds are up to 40,000 places, though numerous farms also have consented sheds from 40,000-200,000 birds or even more than 200,000 birds – with some farms possessing half a million birds in, or near to, Areas of Natural Beauty. Recently, people living in Powys, Herefordshire and Monmouthshire have brought legal action against Avara Foods Plans for three new poultry units covering 140,000 broiler chickens on a chicken farm that, if successful would have housed up to 260,000 chickens. Applications in Herefordshire to meet demand from Avara have previously been rejected on environmental grounds. Avara is also estimated to export 2,000 tonnes of chicken manure a week to undisclosed locations outside of the River Wye catchment, spreading the problem beyond the Wye.

It is time to improve the permitting system so that it can adequately account for both animal welfare and ecological impact. Lowering thresholds and making the permitting processes more stringent will capture a wider range of farms before further damage occurs.
Effectively implementing an ‘Enhanced Environmental Permitting System’

Reformed permitting thresholds and new standards for being granted a permit like stocking density can unite to constitute an enhanced environmental permitting system, which will better reduce the environmental and welfare harms emanating from intensive livestock farming.

Public funding for de-intensification. The Government must assess the funding arrangements and mechanisms required to support farmers and effectively implement the recommended reforms. Intensification was originally grant-funded, and the Government may wish to determine whether the funding for de-intensifying livestock farming could equally be provided through publicly funded grants.

Permits should be issued on a rolling basis. Existing intensive farms already in the permitting system should be required to apply for new permits upon their present expiry date, with evidence that they will meet the new operating standards. Under the current system, permits already get reviewed if standards are raised, require regular renewal and can be withdrawn. Some farms may be denied a new permit if they fail to meet the new operating standards upon reapplication but should be supported to meet new standards.

To function effectively, a new permitting system must be more than the sum of its parts. The enhanced environment permitting regulations need to be supported by enhanced monitoring and enforcement systems, which must be established for enforcing permitting regulations and delivering robust sanctions where breaches occur, particularly for farms near nutrient neutrality zones or catchments overloaded with pollution. Revenue from sanctions may be directed back into the Environment Agency budget to help recoup resourcing costs.

Alongside the new permitting regime, there must be parallel interventions through regulations for specific issues like spreading. The recommendations in this briefing are not intended to cover every regulated area of farming. For example, spreading requires its own regulations alongside an enhanced environmental permitting system.

Lower thresholds will ensure that more intensive farms are covered by the permitting system designed to manage them. Reformed operating standards within the permitting system will ensure that that system better achieves its management aims. This bolstered permitting system is essential to reducing freshwater pollution, upholding high animal welfare standards, reducing public health risks and protecting traditional farmers from unfair competition.
The organisations signed onto this briefing are united in calling for these environmental permitting reforms to be swiftly implemented in the next Parliament.

Further proposals covering the planning system, the other management control mechanism which applies to intensive farming, will be published soon.

Wildlife and Countryside Link (Link) is the largest nature coalition in England, bringing together 83 organisations to use their joint voice for the protection of the natural world and animals. Wildlife and Countryside Link is a registered charity number 1107460 and a company limited by guarantee registered in England and Wales number 3889519.

For questions or further information please contact:

Hannah Blitzer, Senior Policy Officer, Wildlife and Countryside Link E: hannah.blitzer@wcl.org.uk

Matt Browne, Head of Policy and Advocacy, Wildlife and Countryside Link E: matt@wcl.org.uk

Wildlife & Countryside Link, Vox Studios, 1 – 45 Durham Street, Vauxhall, London, SE11 5JH

www.wcl.org.uk

The following Link members have inputted into this briefing and support reforms to the environmental permitting system:

Compassion in World Farming
Four Paws UK
Humane Society International
RSPB
RSPCA
River Action
Soil Association
The Wildlife Trusts
The Woodland Trust

The following Link partners have inputted into this briefing and support reforms to the environmental permitting system:

Eating Better Alliance
Sustain: the alliance for better food and farming
Sustainable Food Trust
There is a new requirement for livestock farmers in England to submit data to a pollution inventory. This is to help compliance with environmental permitting rules and is already required for intensive livestock farms. These farms are required to submit data to assess their environmental impact. Further examples and guidance can be found in the River Action UK report on pollution and wildlife, available at https://www.endsreport.com/article/1863509/half-farms-outside-ea-permit-regime-found-non-compliant.

Intensive livestock farms are already required to submit data to the pollution inventory. These evidential requirements expand on those obligations. https://www.gov.uk/government/publications/pollution-inventory-reporting-guidance-notes/intensive-farming-pollution-inventory-reporting#part-2-releases-to-air

https://www.foodfortheplanet.org.uk/stinks#Recommendations

43.4% of pig & poultry farms and 15.5% of general livestock grazing farms fall under 5 hectares, this would capture the most intensive of these – see page 14 & 15 of https://researchbriefings.files.parliament.uk/documents/CBP-9851/CBP-9851.pdf

https://www.soilassociation.org/media/23378/gb-farming-growing.pdf
