An Taisce
The National Trust for Ireland

Ireland's Nitrates Action Programme 2022 - 2025

What is the Nitrates Directive?

The Nitrates Directive came into force in 1991. Its objective is to protect water quality from agricultural pollution and to promote the use of good farming practices. All EU Member States are required to produce a Nitrates Action Programmes (NAP) every 4 years, which then set the rules and regulations for farm management, including the application of slurry and fertilisers. These rules are encapsulated in the Good Agricultural Practice (GAP) regulations, which are updated whenever the NAP is updated, to reflect any changes.

This is the 5th NAP, and it comes in the midst of an ever-worsening water quality crisis. Nearly half of our rivers (47%) and a third of lakes are failing to meet their environmental quality standards for nutrients, with serious consequences for the health of Irish waters. Rather than meeting our obligations under EU law to halt and reverse water pollution, it is actually on the rise: more than one third of river sites (38%) have increasing levels of nitrate pollution.

A number of rivers in the South and South East such as the Barrow, the Slaney and the Lee are of particular concern, with the majority (85%) of the nitrogen in these rural rivers coming from agriculture. Clearly radical changes are necessary in the management of nitrogen inputs to agricultural land to comply with the Nitrates and Water Framework Directives.

Why have past plans failed to date?

There are a number of reasons, but the most recent NAP consultation documents highlights one of the key reasons for this failure:

> *"In short, the NAP measures are currently failing to protect water quality from agriculture, as required under Article 1 of the Directive. This is in part as a result of the industry expansion but poor enforcement and compliance is also hindering progress in implementation. A significant change in future enforcement and greater*

compliance is a prerequisite before any further consideration of what additional measures are required to protect water quality."

Dairy cow numbers have increased significantly in recent years, to 1.6 million cows in 2020, an increase of 50% from 2010. Simultaneously, fertiliser imports have increased 35% in a similar time period.

An Taisce has repeatedly raised the issue of relying on a soil test, more suited to determining the requirements for plant growth, to estimate nutrient run off risk, when numerous studies indicated that it is not a good proxy for pollution risk. To date the regulations have also taken a 'one size fits all' approach, but again research has demonstrated that flow paths, the ways in which nutrients and slurry can get into water, change according to soil type, slope, weather and other factors.

Where does the nitrates derogation fit in?

The Nitrates Derogation is a licence to spread more nitrogen per hectare on your land than is routinely permitted. As a member state Ireland applies to Europe for this every 4 years, based on the argument that we have a long growing season, our fields can absorb it, and that it will not put water quality at risk. Once granted by the European Commission Irish farmers in turn apply annually to the Department of Agriculture, Food and the Marine for a derogation licence for their farms.

The Nitrates Directive allows for the granting of derogations, but only on the condition that it doesn't undermine the objective of the Nitrates Directive, which is to reduce and prevent water pollution as a result of agriculture. While each member state is obliged to produce a Nitrates Action Programme (NAP), the granting of derogations is a separate process to the drafting of the NAP. Currently only 5 member states have derogations: Ireland, the Netherlands, Belgium (Flanders only), Northern Ireland, and Denmark. In order to get a derogation Member States must make their case with the European Commission, and it goes to a vote by the Nitrates Expert Committee, made up of experts representing all Member States. Ireland got its first derogation in 2006. To date, none of these member states have been refused a renewal of their derogation.

Under normal circumstances, a landowner is not allowed to apply more than 170 kg/n/ha on their land, but if you are operating under a derogation licence you can lawfully spread up to

250 kg/n/ha on your land. This is to be spread evenly across the landholding. Landowners farming under a derogation are subject to stricter regulation, such as an obligation to use low emission slurry spreading and demonstrating sufficient capacity for slurry storage.

What's wrong with the draft NAP?

All of our environmental indicators highlight the need for a decrease in the input of slurry and fertiliser on intensively farmed free draining soils. Radical changes are necessary in the management of nitrogen inputs to agricultural land to comply with the Nitrates and Water Framework Directives, in addition to far more rigorous compliance and enforcement, but that's not what the draft NAP proposes. While we acknowledge some of the measures may address nutrient run-off to a certain extent, we are faced with a situation where a reduction of greater than 50% in nitrogen loading is required in some catchments. Nothing short of drastic action will deliver that, and no such action is proposed in the consultation document.

An Taisce propose a range of recommendations which we believe would strengthen the NAP.

1. Fertiliser reduction

The NAP proposes a 15% reduction in fertilser use. While this is welcome, it will not adequately address the issue in a number of catchments. The EPA data[1] indicates that in some catchments in the south and south east over a 50% reduction in N load will be necessary. Teagasc carried out some modelling[2] in the summer of 2021, with the express purpose of informing agricultural policy. That modelling looked at a limited range of scenarios, one of which was a 20% reduction in fertiliser, which according to their models would lead to only a 7% reduction in nitrogen runoff. This begs the question, what percentage reduction will be necessary in the catchments requiring over 50% reduction in N load to our waters?

Our recommendation to the Government is to commission modelling to determine how much runoff will be prevented by the measures proposed in the NAP, including the 15% reduction in fertiliser, in addition to the other proposed measures. Teagasc modelled various scenarios, but the measures proposed in the NAP do not directly correspond with those that were modelled. Teagasc clearly has the capacity to model load reductions as a result of various

[1] EPA (2021) Assessment of the catchments that need reductions in nitrogen concentrations to achieve water quality objectives

[2] Teagasc (2021) The Impact of Nitrogen Management Strategies within Grass Based Dairy Systems

theoretical measures, and the EPA have indicated how much reduction in the tonnage of N needs to occur in the problematic catchments. We recommend that the evidence base for the proposed measures be provided, so that there is reasonable certainty that what the landowners are being asked to do will result in the necessary reductions. This is important from both a landowners perspective and an environmental perspective. The dots need to be joined, and this data should be front and centre for the new NAP to have any credibility.

2. Nitrogen loads per hectare

There is a legal limit for the amount of nitrogen which can be spread per hectare on farmland. The thresholds for how much nitrogen can be spread on the land are calculated over the entire eligible landholdings belonging to a particular landowner. As such it is vital that slurry and fertiliser are spread evenly across this land holding in order to abide that per hectare threshold.

We are aware of anecdotal reports of excess slurry being spread on the land closest to the main operations, with little or none being spread on other patches of more remote farmland, or silage fields. In addition, we have been told of incidents where overly steep land was included for derogation farms which is unsuitable for the type of slurry spreading machinery which is now required on derogation farms (Low Emission Slurry Spreading- LESS), an obligation which is proposed to be phased in for other farms. As a result of this type of practice, the nutrient load on the home farm would not be compliant with the Nitrates Directive.

Another key issue is the nitrogen deposited on the fields by the animals themselves. Cattle urine contains a large quantity of nitrogen, and is one of the biggest drivers of nitrogen runoff, with Teagasc modelling identifying urine patches to be responsible for up to 62% of the nitrogen runoff. There are no measures proposed in the NAP to address this, despite the modelling clearly highlighting the potential environmental risk. The Nitrates Directive obliges Ireland to consider the amount of nitrogen which is going on a piece of land, including that deposited by the animals themselves.

Our recommendation to the government to address these issues are as follows. Enforcement is required to address the issue of where the slurry is being spread. At the very least, mapping exercises should be carried out to ensure that unsuitable land is clearly identified, as some will clearly be inaccessible to slurry spreading machinery, particularly the larger

LESS equipment. This land should be zoned ineligible for land spreading, and removed from landholding calculation. Additionally, land calculations should be based on land parcels within a given distance to the home farm. This was originally proposed in earlier drafts, with a 30km radius threshold applied, but was removed on foot of industry lobbying. This measure had huge potential to prevent misreporting of slurry spreading large distances from the home farm, and would have significantly improved compliance in that regard. This measure should be reinstated.

To address the nitrogen resulting from urine patches, modelling should be carried out to determine the volume of nitrogen deposited by the herd when they're at pasture. The length of the grazing window should then be limited by the nitrogen threshold. Once that is reached, the cattle should be moved to a different pasture or indoors.

3. Compliance

Compliance with the Good Agricultural Practice (GAP) regulations is recognised by all parties as being low, and there is a recognition that fixing that is a key part of addressing and reversing the water quality declines we have seen in the last decade. This is clearly stated in the consultation documentation:

> *"it is considered that compliance, which is recorded as being low, is a key issue which needs to be addressed to ensure that the draft NAP realises the required improvements to water and air quality"*

Despite this, no adequate measures were proposed in the NAP to improve compliance, beyond some gap analysis and further research into the requirements of Local Authorities to improve this. As stated in the draft NAP document:

> *"While it is not expected that there will be significant changes to the enforcement powers of authorised personnel within the GAP regulations, the Nitrates Expert Group will set out a series of recommendations for the Minister for Housing, Local Government and Heritage to provide for appropriate reform within the sector."*

As such, given the lack of tangible, immediate actions, it must be logically concluded that in lieu of adequate and robust compliance and enforcement, water quality declines will continue. Clearly a bottom up and top down approach is needed. We would strongly

recommend that the penalties for breaching the GAP regulations be substantial enough to act as a serious deterrent. Those landowners in breach of the GAP regulations, through actions such as spreading slurry in the closed season, something which a Department of Agriculture official admitted was commonplace, are undermining the efforts of other landowners.

In addition, an awareness raising campaign be launched, including highlighting new increased penalties, and consideration be given to the establishment of a confidential reporting mechanism for members of the public. There will never be enough inspectors to cover the whole country, but on the ground reporting by neighbouring landowners could prove invaluable in this case. Extra resources could then be allocated to following up on those reports, to ascertain the veracity of the claims.

4. Nutrient Management Planning

Nutrient management plans, and their rigorous implementation, must be a key component of the updated regulations. This was clearly stated in an earlier draft of the NAP:

> *"It is clear from a number of the submissions that nutrient management planning is not being implemented in many cases. This is further borne out in research undertaken by Teagasc. Mainstreaming the use of these tools and ensuring their regular use will be a key component of any successful NAP".*

Despite this, there are little concrete measures provided for this in the current draft NAP. We would recommend that the requirement for nutrient management planning should be applied to all farmers, starting with all landowners in the most highly nutrient enriched and at risk catchments. There is an increasing focus on having the right measure in the right place, and EPA has done really valuable mapping work in identifying the most high risk areas for nutrient runoff. These nutrient plans should be spatially based on the EPA sensitivity (Pollution Impact Potential-PIP) maps. Nutrient management plans should tie in with modelling work to determine how much nutrients can be safely applied in order to reach the EPA reduction targets. That allocation should then be spatially targeted in keeping with the nutrient management plan and the most nutrient sensitive areas.

5. Banding

The NAP proposes introducing 'banding' for livestock excretion rates. Under the current regulations all cattle are assumed to excrete the same amount of nitrogen, but cows producing higher volumes of milk are known to excrete higher volumes of nitrogen. The NAP proposes to reflect that, setting 3 different bands, depending on the volume of milk the animals are producing. This will lead to a more accurate calculation of nitrogen loading, and herd density can be set accordingly.

An Taisce welcomes this proposal, but note that the proposal has been delayed. The original proposal was to introduce this from January of 2022, and it has now been pushed back to January 2023. As highlighted by the EPA recalculations, the nitrogen excretion rates have been underestimated for years, and given the significant water quality issues it should be a priority to rectify that. Any delay in introducing these measures just extends the use of flawed methodology to calculate the nitrogen load to land, further facilitating water pollution.

We recommend that this is introduced as a matter of urgency.

6. Derogation Assessments

There are currently no site specific assessments for the granting of derogation licences at a national level. We believe this process to be non-compliant with the Habitats Directive, in line with recent European Court of Justice rulings on this issue.

In practice there should be an environmental screening decision for all derogation licence applications to establish whether there is a likelihood of significant effects on a European protected site. Any derogation licence applications must be rigorously assessed to ensure they won't damage the environment. At present there is no legal environmental assessment undertaken, so landowners are being granted licences to spread additional nitrogen on their land without adequate environmental checks and balances.

The granting of derogations has been recognised in the draft NAP environmental documentation as being an environmental risk, so much so the external environmental consultants recommended that the Government not seek another derogation from the EU.

"However, for the State to seek a mechanism to facilitate even greater nitrogen loading to the environment is environmentally unsustainable against the current baseline and it is recommended that the State does not seek this derogation"

As such, An Taisce recommends that Ireland should not seek another derogation from the EU, in light of the successive failure of the last four NAPs to fulfil the objectives of the Nitrates Directive. Derogations should only be sought when the necessary safeguards are in place. And should Ireland secure a derogation from the European Commission it must be implemented by means of a site specific environmental assessment for each and every licence.

What are the risks for Ireland of not having a strong NAP?

Ireland is on a similar trajectory to the Netherlands, where the highest Dutch administrative court found in 2019 that the government was breaking EU law by not doing enough to reduce excess nitrogen in vulnerable natural areas, due to farming and industrial activities.

This resulted in a sudden large reduction in the dairy herd, with a compensation plan recently announced which is expected to lead to a one-third reduction in the numbers of pigs, cows and chickens in the country[3].

Given the consistent breaches of European environmental law here as a result of agricultural pollution, it's only a matter of time before similar legal action is taken in Ireland. This will have drastic and sudden impacts on the farming sector in Ireland, and proactive action by the Government now could reduce the ensuing shock to the sector.

Recommendations

An Taisce is of the view that the measures put forward in the NAP are insufficient to address the continuing decline in water quality, and this is borne out by statements from the iterative consultation documentation, and research by Teagasc and the EPA. We have a number of recommendations, listed below, which could significantly strengthen the draft NAP.

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[3] https://www.theguardian.com/environment/2021/dec/15/netherlands-announces-25bn-plan-to-radically-reduce-livestock-numbers

1. We recommend that the evidence base for the proposed measures be provided, so that there is reasonable certainty that what the landowners are being asked to do will result in the necessary reductions. This is important from both a landowners perspective and an environmental perspective.
2. Mapping exercises should be carried out to ensure that unsuitable land for landspreading, particularly using Low Emission Slurry Spreading machinery (LESS), is clearly identified. This land should be zoned ineligible for land spreading, and removed from landholding calculation.
3. Land nutrient loading calculations should be based on land parcels within a given distance to the home farm, with the previously proposed 30km radius reinstated.
4. Modelling should be carried out to calculate how much nitrogen is deposited by the herd when they're at pasture. The length of the grazing window should then be limited by the nitrogen threshold. Once that is reached, the cattle should be moved to a different pasture or indoors.
5. Penalties for breaching the GAP regulations be substantial enough to act as a serious deterrent
6. An awareness raising campaign, including highlighting new increased penalties, and consideration be given to the establishment of a confidential reporting mechanism for members of the public.
7. The requirement for nutrient management planning should be applied to all farmers, starting with all landowners in the most highly nutrient enriched and at risk catchments. These nutrient plans should be spatially based on the EPA sensitivity (Pollution Impact Potential-PIP) maps.
8. We recommend that the proposed introduction of 'banding' for livestock excretion rate be implemented as a matter of urgency.
9. Until such a time as the necessary safeguards are in place to guarantee there will not be a decline in water quality, Ireland should not seek an additional derogation.
10. Proactive action must be taken by the Government now to prevent drastic and sudden impacts on the farming sector in Ireland on foot of potential future legal action.