An Taisce
The National Trust for Ireland

Nitrates Consultation,

Water Advisory Unit,

Department of Housing, Local Government and Heritage,

Custom House,

Dublin,

D01 W6X0.

Sent by email to: wau@housing.gov.ie

26th January 2022

Re: Nitrates Action Programme

A Chara,

An Taisce welcomes the opportunity to comment on this Nitrates Action Programme (NAP) consultation. We have made two previous submissions on the Nitrates Action Programme, and any concerns expressed in those submissions remain outstanding, as do the recommendations.

In light of the length of this document, we have included a Table of Contents for reference.

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1. Current Situation

This review of the NAP comes in the midst of an ever-worsening water quality crisis, with the EPA increasingly highlighting the deteriorating situation. This is particularly the case as a result of elevated nitrogen levels in the south and south east of the country, with 85% of the pollution as a result of agriculture[1]. Clearly radical changes are necessary in the management of nitrogen inputs to agricultural land to comply with the Nitrates and Water Framework Directives.

We would draw the Department's attention to the situation in the Netherlands where, on foot of legal action, drastic cuts in the number of dairy cows was necessary, most recently to comply with both the National Emission Ceiling Directive (NECD) limits for ammonia, and prior to that to avoid losing the nitrates derogation on foot of elevated phosphorus runoff. Given the consistent breaches of the Nitrates and Water Framework Directive (WFD), and the NECD for ammonia 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. While nationally the Dutch have a higher average dairy intensity than Ireland, in the most dairy intensive areas in Ireland, such as in Cork, and on high grazing platforms, the average cattle number per hectare is comparable with dairy intensive areas of the Netherlands. Ireland is an outlier in regard to the rapid expansion in its dairy herd (Figure 1), and are clearly out of step with other similarly dairy intensive member states in latter years. The environmental breaches as a result of this policy choice will have legal ramifications.

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

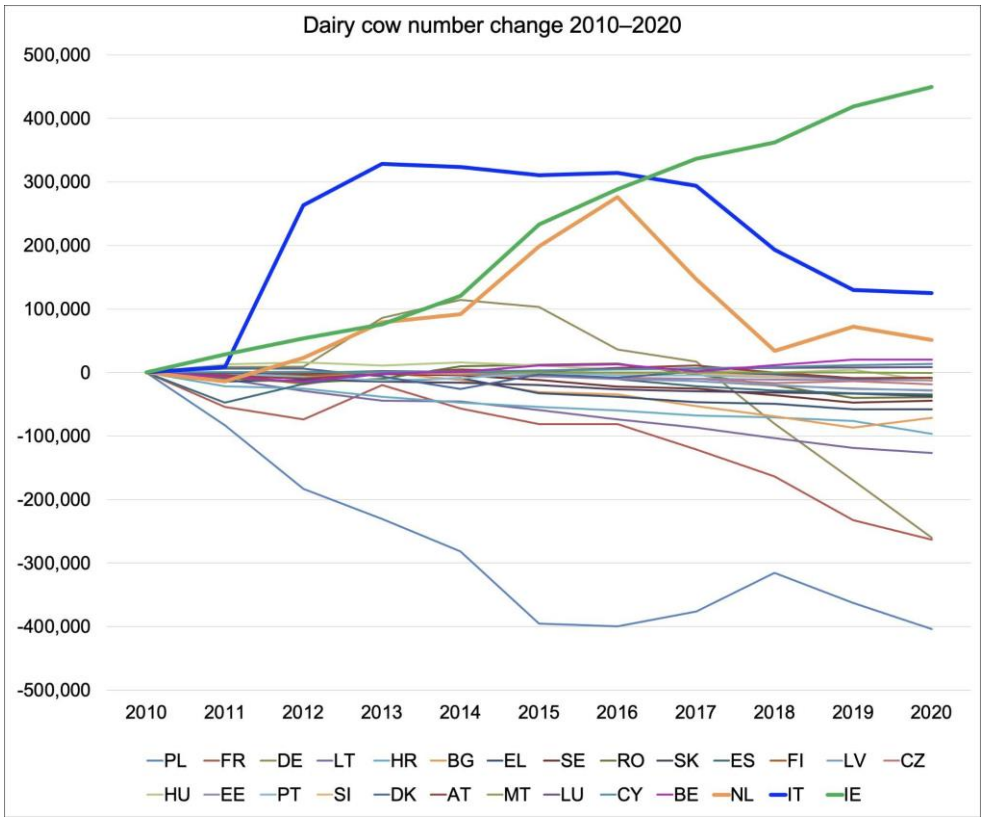


Figure 1: Total change in dairy cow numbers by EU nation 2010-2020
Source Eurostat[2]

We submit that Ireland's derogation from the Nitrates Directive is exacerbating this situation, and given that it was granted on the condition that it would not impact compliance with the Directive, we do not believe the derogation for Ireland should be renewed. We note that the exact relationship between derogation farms and the nutrient enrichment of water is not provided for this assessment, which is a major gap in the information provided to the public for the purposes of this consultation.

Additionally, intensive non-derogation farms should also be critically reviewed in light of water quality issues and Teagasc modelling. We submit that Ireland cannot stay within our likely sectoral limits with current cattle numbers, and proposed reductions in the suckler herd will not address the water quality impacts as a result of cattle density in the south and south-east of the country, which is predominantly dairy focused. Nor will it be sufficient to reduce the GHG or ammonia emissions, given that methane and ammonia emissions increase in lockstep with milk output. Replacing suckler cattle with dairy cows will result in increased nitrogen emissions to air and water.

[2] https://ec.europa.eu/eurostat/web/products-datasets/product?code=tag00014

2. Public Consultation and Transparency

At the outset, we would highlight that while this is a program level NIS, and not site specific, as the regulations are currently drafted there is no provision for site specific Appropriate Assessment or EIA assessments for individual farm expansion, for non-infrastructural intensification, or on foot of a derogation licence application. As such, the measures in the new GAP regulations which result from this consultation are the only mechanism for legal environmental checks and balances. Thus, any uncertainty cannot be leftover to be dealt with at a project level, as there is no such mechanism currently built into the regulations.

We would highlight that the NIS is assessing a range of measures in Table 6.5, which it states are contained within the NAP. These measures are not in the NAP, which only lists high level new measures. The measures in Table 6.5 appear to be an updated version of the GAP regulations, which are not available elsewhere as part of this public consultation. We were informed by a DHLGH official (pers. Comm.) that the consultant used a combination of the old, consolidated GAP regs with the new measures proposed in the NAP. However, we would observe that the language in Table 6.3 is very legalistic, and it seems unlikely that the drafting of a GAP regulation would have been left to non-legal environmental consultants. Additionally, Table 6.5 includes some provisions which we were told had been removed in the latest draft (see section 9 below). As such, the lack of transparency regarding where these measures have come from, who actually drafted them, and what their legal standing is provides for extremely poor transparency and public participation. Additionally, it is potentially legally problematic if the environmental assessments are not assessing the measures which are actually being proposed (see section 9 below)

Following on from that, we would observe that the assessment of these assumed GAP measures is presuming that they are new. For example, in relation to Article 17 (8) in Table 6.5 of the NIS the assessment of effects states:

> *"It is anticipated therefore that this measure will achieve significant benefits for any downstream European sites."*

However, the measure in question is not new, it is currently in place in the current NAP and is demonstrably not achieving significant benefits for European sites. As such, no anticipation is required, we know the outcome based on previous programmes based on empirical evidence. Many of the measures assessed in the NIS are existing measures, which have clearly failed to prevent a serious deterioration in water quality and subsequent impacts on Natura 2000 sites. For the draft NAP to reach the legal threshold of complete, precise and definitive findings to address past failures, a rigorous assessment of <u>new</u> measures must be undertaken, to determine if they can provide the necessary protection, where the existing measures have

clearly failed. We submit that it is impermissible to present the NIS assessment as such, and to carry out an assessment of existing (failing) measures and present it as if they are newly proposed.

Finally, we would observe that the quality of many of the graphs and figures in the SEA is very poor, rendering them illegible in many cases. This is not good scientific practice, and we submit that documents released for the purposes of public participation should be reviewed prior to publication to ensure they are fit for purpose.

3. Impact and Mitigation in NIS

An Taisce would observe that from Table 6.5 in the NIS there are numerous examples of a potential impact being identified, with inadequate, or no, mitigation provided in the NIS. We would remind the Department of the legal requirements for certainty in regard to the requirements for Appropriate Assessment. It is now very well established in law that approval can only be granted for plans and projects when it has been established beyond all reasonable scientific doubt that the subject proposal will not adversely impact any Natura 2000 sites. In Case C-258/11, Sweetman & Others v An Bord Pleanála & Others, it was held that:

> *"authorisation for a plan or project ....may therefore be given only on condition that the competent authorities ....are certain that the plan or project will not have lasting adverse effects on the integrity of the site. That is so where* ***no reasonable scientific doubt remains*** *as to the absence of such effects"* [emphasis added].

Additionally, there is a requirement for complete, precise and definitive findings. If they cannot be provided, this nullifies the Appropriate Assessment process, as per recent court rulings. In Kelly v An Bord Pleanála & Ors. [2013 No 802 J.R.], with reference to Commission v Spain c-404/09, the High Court held in para 36 that the competent authority must carry out an AA for a plan or project in light of the best scientific knowledge in the field, and that the final determination of the competent authority must include complete, precise and definitive findings. The case repeated the conclusion of CJEU at para. 44 in Case C-258/11, namely that an AA:

> "*cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt*."

Given the very large number of examples of unmitigated for impact, we collated them in the below Table 1 for clarity.

Table 1: Text taken directly from Table 6.5 in the NIS for the NAP, highlighting impacts.

Article number	**Regarding**	**Potential impact, direct quotes from NIS**	**Mitigation provided in NIS, and An Taisce comment**
14 (2)	Reduced storage in certain circumstances	'There is potential here for negative effect on water quality through the release of sediment'	Assertion they're addressed in article 14 (3), which itself is problematic [see below]
14 (3)	Reduced storage in certain circumstances	'Enforcement of these conditions remains a potential concern however, such as in the case of poaching which may present difficulties through inspection'	Claim partial mitigation could be provided through compliance. The quote indicates this is problematic, and no mitigation is provided for the highlighted instance
15 (1)	Quantity of fertiliser necessary for crop	'The word reasonable may give rise to subjectivity, which could result in a negative effect for water quality'	None apparent. An Taisce assume the author would rely on unquantifiable knowledge transfer
15 (5)	Nitrogen and phosphorus indices	'Incorrectly estimating the nutrient availability of the soil increases the risk for potential negative impacts to water quality through nutrient losses to receiving waters, where crop requirements are exceeded'	None apparent. NIS appears to highlight that environmental considerations are not prioritised: "The N and P limits prescribed in the NAP are predicated on the need to meet crop requirements and soil P replenishment and no more"
16 (1)	Occupier obligation to	"the extent of what would be considered reasonable remains	None apparent

	prevent excess fertiliser use	subjective in the absence of a precise description/threshold. There is potential for a negative effect on both water quality and soils while this measure is open to interpretation. In addition, the overuse of fertiliser should not be minimised, it should be prevented."	An Taisce assume the author would rely on unquantifiable knowledge transfer
16 (2)	Use of previous year's stocking rate	"There is potential for negative effect on water quality if the stocking rate is reduced but the allowance still corresponds to a higher rate from the previous year. Thus the holding may avail of a higher level of nutrient supplementation than would be required which has the potential for a negative effect on water quality through runoff of surplus nutrients to receiving waters."	None apparent
16 (3)(4)	Assumption of phosphorus index 3	"there remains a risk for water quality here in relation to the assumption of P index 3 soils where the soils are actually P index 4. Some of the farms with P index 4 soils have utilised soil testing either to avail of derogation or voluntarily, which will lower the risk. However in scenarios where additional P fertiliser is being applied, this could have a negative effect on water quality particularly in a sensitive catchment setting. "	Not fully mitigated for. Potential partial mitigation via soil testing for certain areas, but note comments on the limitations of soil testing under Article 15 (5) of Table 6.5 of the NIS
16 (5)	Phosphorus build-up	"However, this Article represents an increased potential negative effect on water quality on lands situated in sub-catchments where biogeophysical factors increase pollution risk through nutrient export to surface and ground waters. "	Suggest Nutrient Management Plans may provide some mitigation, but highlight they don't provide adequate risk mitigation. Note the potential for

			future better mitigation when coupled with EPA risk analysis, but it's not guaranteed, and the timeline for this is not provided
17 (1)	Setback distance from water	"Whilst a mandatory setback distance of 2m from any surface water … will have a positive effect on water quality … it is not considered to be a sufficient distance in certain circumstances, to adequately minimise contamination of surface waters. Consideration must be given to increasing this distance in line with recommendations from scientific research … Cognisance must be taken of the specific environmental characteristics in the determination of required buffer size, and a one size fits all approach is not sufficient."	None apparent. No proposal for tailored buffer zone widths.
17 (8)	Water course exclusion of bovines	"A study by Conroy et. al., (2016) … acknowledges that bovine access to watercourses can limit the potential of some sites to achieve at least good status as is required under WFD. It is anticipated therefore that this measure will achieve significant benefits for any downstream European sites. It is noted however that these requirements apply only to holdings with higher stocking rates and as such there is potential for smaller holdings to continue to give rise to adverse effects in this regard. "	None apparent for farms with stocking rates >170 kgs
17 (12)	Buffer distances and	"in practice compliance will be a potential issue. There is	None apparent.

	slope	potential for incorrect slope judgement resulting in nutrient loss to watercourses."	An Taisce assume the author would rely on unquantifiable knowledge transfer
17 (13)	Storage of manure	"there is potential for pollution as no mention is made of other high nutrient organic materials such as chicken litter etc. that are regularly stored in fields before use."	None apparent
17 (15)	Silage bale storage	"This specification could give rise to a potentially negative effect should the silage bales give rise to leakage and overland flow to water bodies which are downslope of the bales, or via subsurface pathways to groundwaters. "	None apparent
17 (18)	Water course exclusion of bovines [NOTE- this is a duplicate of Article 17 (8)	"It is noted however that these requirements apply only to holdings with higher stocking rates and as such there is potential for smaller holdings to continue to give rise to adverse effects in this regard."	None apparent
17 (19)	Supplementary drinking point buffer zone	"cognisance is required of the effect that could potentially be generated on non-derogation farms that are not required to comply with this measure. There is significant potential for negative effect to watercourses in areas with, inter alia, poorly drained soils and high rainfall. In such a scenario, the location of a drinking point near a watercourse could have a significant negative effect on water quality irrespective of the stocking rate. This would be of particular concern in a sensitive	None apparent

		catchment where there are water bodies at risk of not meeting WFD objectives."	
18 (2)	Application of fertiliser etc to waterlogged soil	"there is a level of ambiguity in the language used in some instances, for example 'heavy rain is forecast within 48 hours'. In this instance it should be specified as to what constitutes heavy rain thereby avoiding subjectivity in its interpretation."	None apparent
18 (3)	Reliance on Met Eireann information	"this is not always reliable therefore there will be potential for negative effect to water quality where weather is incorrectly predicted."	None apparent
20 (1)	Limit of 170 kg/N/ha	"It is also noted that there is no scientific evidence to support whether 170 kg of nitrogen per hectare allows for the maintenance of high-status water quality where it is required relative to environmental objectives set under the River Basin Management Plan or is an environmental target set as part of site-specific conservation objectives for SACs e.g. for the freshwater pearl mussel, or oligotrophic or hard water lakes. Further research is required in this regard"	None apparent
20 (3)	Eligible area of holding	"there is also potential for negative effect in some cases. For example farms with commonage. The whole farm approach will include the proportion of commonage associated with the farm. In most cases there will be no fertiliser applied to the commonage area therefore	None apparent

		there will be a greater amount of fertiliser allowance to be spread on the remaining areas. There are also variations in field fertility and yield potential inter alia. Overall, whilst the article appears to be positive, there is still potential for negative effects through over application in certain land parcels where no soil testing has been undertaken."	
33 (3)	Exemptions for research	"This allows for the potential for negative environmental impacts, however, is it considered that the benefits of the research will offset any negative impact long term."	None apparent
34	Transitional provisions	"This gives rise to a potentially significant negative effect on water quality due to nutrient loss to water courses, however such effects are at least partially mitigated through the prescribed timing restrictions"	Partial mitigation only
38	Reporting by agency	" It is clear that if Ireland is to achieve its WFD environmental objectives and by extension water related environmental supporting condition targets for SACs and SPAs, that certain water bodies across the country will require further management of N and P sources from agriculture."	No waterbody specific measures proposed.
Schedule 5 conditions	Conditions applied to derogation farms	"While the set 250kg N/ha limit may be sufficient to minimise potential nitrogen inputs into the hydrological environment, enforcement is likely to be an issue."	Inadequate- see section 4.2 on enforcement

Schedule 5 conditions	Conditions applied to derogation farms	"requires the tailoring of nitrogen inputs to the crop requirement to avoid excess application of fertilisers. Again enforcement may be an issue."	Inadequate- see section 4.2 on enforcement
	Compliance	"Enforcement of non-compliance with the NAP is likely to represent a significant issue in respect of potential effects upon European sites."	Inadequate- see section 4.2 on enforcement

In light of the legal requirement to have complete, precise and definitive findings for the purposes of AA we would particularly note the following comment in regard to the derogation:

> *"It is also noted that **there is no scientific evidence** to support whether 170 kg of nitrogen per hectare allows for the maintenance of high-status water quality where it is required relative to environmental objectives set under the River Basin Management Plan or is an environmental target set as part of site-specific conservation objectives for SACs e.g. for the freshwater pearl mussel, or oligotrophic or hard water lakes. Further research is required in this regard"* [our emphasis]

4. Comments Specific to the NIS

4.1 Reliance on other policies, plans and strategies

The general mitigation provided in Section 7 of the NIS is as follows:

> *"It is noted that the NAP is a strategic national policy which sets the framework for, and relies to a significant degree on, other policy, strategy and plan initiatives to achieve the objectives in a more coordinated approach to managing agricultural activities throughout the State. Many of these other policies have already undergone AA or are undergoing AA with development of specific measures which are, or will be, implemented. The measures committed to in these other plans will be essential to ensuring that the objectives of the NAP are met and that the NAP does not in itself result in adverse effects on the integrity any European Site."*

We would observe that the NAP, and subsequent GAP regulations give effect to the Nitrates Directive. They are a legal requirement under the Nitrates Directive. The Nitrates Directive has a very specific objective, as provided for in Article 1:

> *"This Directive has the objective of:*
> *— reducing water pollution caused or induced by nitrates from agricultural sources and*
> *— preventing further such pollution."*

Reliance on the environmental assessments and proposed measures in other plans and policies to achieve the objectives of the NAP for the purposes of Appropriate Assessment is not legally robust. The NIS and SEA for the NAP must be standalone and thorough. Furthermore, while this NIS seeks to rely on the measures adopted in other policy documents, strategies and plans to achieve the objectives of the NAP, those same documents simultaneously seek to rely on the NAP and GAP regulations, in perverse circularity. For instance, in the NIS for the draft RBMP, Table 4.2 lists one of the measures for addressing agricultural pollution as:

> "*High level measures will include the Nitrates Directive, the Nitrates Action Programme*".

And elsewhere it outlines:

> "*The Nitrates Directive also forms an integral part of the Directive and is one of the key instruments in the protection of waters against agricultural pressure*s".

It was likewise adopted from the RBMP as mitigation in the NIS for the CAP strategic plan. FoodVision 2030 provides no new mitigation beyond what is already in the current NAP and GAP regulations. The Code of Good Agricultural Practice[3] for ammonia also relies on measures in the NAP and CAP, stating:

> *"The practices within this Code are additional practices that can be adopted in conjunction with actions required under the Nitrates Directive."*

AgClimatise similarly relies on measures in the GAP regulations:

> *"This measure will complement other policy objectives in areas such as air and water quality and the role of the Good Agricultural Practices (GAP) regulations to control*

[3] file:///C:/Users/User/Downloads/118669_f7c87e4c-3153-412d-b196-0f9c936a1da9.pdf

nitrogen usage at farm level where approximately 55,000 farmers use an online nutrient management plan."

As such, a robust NAP and GAP regulations are the foundation of the success of many other plans and policies, but not vice versa.

4.2 Compliance and Enforcement

The consultation document clearly outlines the low levels of compliance with the GAP regulations, but does not outline any meaningful way to address this. Lack of compliance and enforcement renders the GAP regulations meaningless, and An Taisce would observe that any overhaul of the GAP regulations will not achieve the desired outcome if landowners are not rigorously implementing them. It's an exercise in futility.

From Table 7.1 in the NIS for the NAP, the risks as a result of poor compliance and enforcement are clearly laid out:

"This is an overall concern regarding inspection and enforcement of all aspects of the NAP, which given the widespread nature of agricultural activities across Ireland, remains a difficult issue for both the assessment of potential impacts arising as a result of the NAP and the effectiveness of the NAP itself. Given that the NAP has been in place in some form since 2017, and during this period water quality in Ireland and the condition of freshwater European sites has continued to decline significantly, 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 which are required for the identified range of European sites to achieve favourable conservation status."

The NIS then lists a number of mid to long term mitigation measures, including gap analysis, upskilling and additional funding for Local Authorities. The NIS then concludes:

"It is believed that this increased and targeted enforcement approach will lead to an improvement in compliance rates across all aspects of the NAP, thereby reducing the potential for adverse effects upon European sites."

We would observe that there is considerable uncertainty regarding the efficacy and delivery time for these measures, and as such this is not mitigation which can be relied upon due to the innate uncertainty as to whether it would actually be deployed due to many varying factors beyond the control of the relevant Minister. Furthermore, this NAP is for four years, the carrying out of gap analysis, a funding review and upskilling will likely take the majority of the lifespan of this plan, and as such will provide little or no mitigation over the lifetime of the plan.

As such, as indicated in the above extract from the NIS, the measures in the NAP are not effective enough in the face of non-compliance and enforcement, and it must be logically concluded, that in lieu of adequate and robust compliance and enforcement, water quality declines will continue, thereby undermining the objectives of the Nitrates Directive, the Water Framework Directive and failing to comply with the Habitats Directive.

4.3 NIS Conclusions

The NIS conclusion asserts the following:

> *"The NAP does not determine the precise location of any development project or designate or allocate specific land uses, nor does it preclude the consideration of alternatives. In light of this and where necessary, a precautionary approach has been adopted in the NIS to ensure that the measures proposed with respect to implementing the actions of the NAP are, where necessary, subject to Appropriate Assessment"*

It is unclear to An Taisce if the conclusion of the NIS is indicating that the measures will be subject to AA as part of this current process, or will be subject to AA at a later point. If the latter, we would observe that to our knowledge, there are no site level Appropriate Assessment or EIA assessments carried out for further intensification or expansion of agricultural activity, or indeed on foot of a derogation licence application. As such, any measures which are not assessed as part of this current process will fail to undergo the full rigour of environmental European legal assessment at a site/project level, with the exception of built infrastructure which falls under the ambit of the planning regulations.

The NIS then reaches the following conclusion:

> *"In light of the conclusions of the assessment contained in this NIS, the authors are of the view that the adoption of the draft NAP alone, or in combination with other plans and programmes, will not adversely affect the integrity of any European site."*

We submit that there is no plausible way for a decision maker to conclude beyond reasonable doubt that there will be no adverse impact on Natura 2000 sites, in light of the potential risks which are clearly highlighted in the NIS, and collated by us in Table 1. There is a significant paucity of mitigation provided, and as such the necessary threshold of certainty is not provided, nor is the requirement for complete, precise and definitive findings. Based on the inadequate information provided in the NIS, we are of the view that any decision by the

relevant authority to adopt this NAP will be non-compliant with the Habitats Directive, and subject to challenge.

5. Water Framework Directive

The SEA document makes it abundantly clear that agricultural activities are having a detrimental impact on water quality, drawing on a range of recent EPA reports:

> *"It is important to note that following the abolition of milk quotas in 2015, the dairy herd has been increasing … and the dairy sector is expanding through Food Harvest 2020 and Food Wise 2025 and the most recent strategy Food Vision 2030. These agri-food strategies are focussed on economic growth and output of the sector and while there are environmentally sustainable principles embedded in these strategies, the adverse impact caused by the sector over the past ten years in clearly evident. There is a clear correlation between agricultural outputs and poor water quality. Against this increasing pressure from agriculture, the NAP measures need a significant step change in ambition to halt the current trends in water quality from agricultural activities and the sector needs to decouple output from impact."*

and

> *"the current baseline is poor and deteriorating so this positive W* [water] *impact will only be realised if the combined NAP measures are successfully implemented at holding level and rigorously enforced by the local authorities. If the implementation is not successful then the potential for W* [water] *impact is more mixed. These impacts are particularly true for areas designated as nutrient sensitive waters under the WFD and within the catchments of concern for nitrates as identified by the EPA in the south and east of the country.* "

and finally:

> *"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."*

We would highlight that the NAP represents the authorisation of a programme or project and thus requires assessment as to whether it could affect the attainment of the Article 4 WFD Objectives. In that regard, we would observe that to our knowledge, there are no site level Article 4 WFD assessments carried out for further intensification or expansion of agricultural activity, or indeed on foot of a Nitrates derogation licence application. As such, any measures which are not assessed as part of this current process will fail to undergo the full rigour of

environmental European legal assessment at a site/project level, with the exception of built infrastructure which falls under the ambit of the planning regulations. Article 4 (1) of the WFD provides:

> *"In making operational the programmes of measures specified in the river basin management plans:*
>
> *(a) for surface waters*
> *(i) Member States shall implement the necessary measures to prevent deterioration of the status of all bodies of surface water*
> *(ii) Member States shall protect, enhance and restore all bodies of surface water … "*

The SEA clearly states that previous NAPs have failed to protect water quality, and this NAP overlaps with the majority of the next RBMP, which will lead us to the final deadline for achieving WFD compliance in 2027. The draft RBMP makes multiple references to the review of the NAP as being key to the delivery of the overall WFD obligations. Despite this, all the evidence is that there is significant evidence of impacts on water quality, resulting from failures in previous NAPS, as outlined in the NIS and the SEA. Given that this next NAP is a key measure in achieving our WFD obligations, it is imperative that the Department determine at this point if the measures proposed in the draft NAP will indeed not jeopardise the achievement of the legal obligations of Article 4 of the WFD. We would highlight that Article 5 of the Surface Water Regulations 2009 requires a public authority, in the performance of its functions, not to undertake those functions in a manner that knowingly causes or allows deterioration in the chemical or ecological status of a body of surface water. This includes DHLGH and DAFM, and is applicable to any implementation of the NAP, including a Nitrates derogation.

It does not appear that such an assessment as required under Article 4 of the Water Framework Directive has been carried out within the consultation material made available to determine whether the implementation of the NAP may cause a deterioration of the status of a body of surface water or where it may jeopardise the attainment of good surface water status or of good ecological potential and good surface water chemical status. The WFD is applied on a catchment basis, but it is our understanding that the new draft RBMP is applying a single national River Basin District, and thus it is appropriate that the Article 4 assessment be applied to national level plans such as the NAP.

The requirements in relation to an Article 4 assessment are without regard to mitigation (unlike the NIS). In Case C- 461/13 Weser the CJEU held:

> *"Article 4(1)(a)(i) to (iii) of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy must be interpreted as meaning that the Member States are required — unless a derogation is granted — to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological*

potential and good surface water chemical status by the date laid down by the directive."

Clearly on the evidence outlined the NAP may affect the achievement of the Article 4(1) environmental obligations. As far as we are aware there has been no assessment carried out as to those possible effects, nor has there been an application of a Derogation under Article 4(7) of the WFD as required.

In that regard, in Case C-529/15, the CJEU held as follows:

"It should be borne in mind that, when a project is liable to have adverse effects on water, consent may be given to it if the conditions set out in Article 4(7)(a) to (d) of that directive are satisfied (see, to that effect, judgment of 4 May 2016, Commission v Austria, C-346/14, EU:C:2016:322, paragraph 65).

In order to determine whether a project has been authorised without infringing Directive 2000/60, a court may review whether the authority which issued the authorisation complied with the conditions laid down in Article 4(7)(a) to (d) of that directive, by determining, first, whether all practicable steps were taken to mitigate the adverse impact of the activities on the status of the body of water concerned; second, whether the reasons behind those activities were specifically set out and explained; third, whether those activities serve an overriding general interest and/or the benefits to the environment and society linked to the achievement of the objectives set out in Article 4(1) are outweighed by the benefits to human health, the maintenance of human safety or the sustainable development resulting from those activities; and, fourth, whether the beneficial objectives pursued by that project cannot, for reasons of technical feasibility or disproportionate cost, be achieved by other means which are a significantly better environmental option (see, to that effect, judgment of 11 September 2012, Nomarchiaki Aftodioikisi Aitoloakarnanias and Others, C-43/10, EU:C:2012:560, paragraph 67)."

We would also highlight that there is also provision for the protection of water dependent Natura 2000 sites under Article 4(1)(c) of the WFD. It would appear that there has been no consideration as to whether the authorisation of the NAP has the potential to affect the achievement of compliance with the conservation objectives of the water dependent Natura 2000 sites and Irish RAMSAR sites listed as 'Protected areas' in the context of Article 4(1). It appears from the NIS that it is accepted that there is in fact such a potential. However, no assessment of this has been detailed in the documentation, and no application of the required derogations applied as highlighted by the CJEU in Case C-529/15 above.

Therefore, we submit that it is not possible for the authorisation of the NAP and the measures under it, having regard to Article 4 of the WFD and Article 5 of the Surface Water Regulations. There is no jurisdiction to approve the NAP without the required assessment, and thereafter the appropriate consideration of the economic and social criteria which may allow for non-compliance with Article 4 objectives as provided for under the Article 4(7) process.

6. SEA

6.1 Mitigation

The consultation document indicates that the NIS should be read in conjunction with the SEA and the NAP document:

> *"The NIS provides specific information and detail and should be read in tandem with the draft NAP and the SEA Environmental Report."*

At the outset, we would request the reader to cross reference Table 6.5 in the NIS, with Table 9.1 in the SEA. In Table 1 in Section 3 above we outlined the risks which were identified as part of the NIS, with no mitigation measures proposed. However, the SEA identifies many of these same risks, but in this case it does propose mitigation measures. We would observe that mitigation measures in an NIS are legally binding, compared with those in an SEA, which have a less clear legal standing. We submit that all of the mitigation measures proposed in the SEA should be incorporated into the final GAP regulations. As it stands, the NIS has highlighted a range of pressures but proposed no mitigation, which is non-compliant with the requirements of Article 6(3) of the Habitats Directive. Some of the necessary mitigation measures have already clearly been drafted as part of the SEA process, and to fail to include these in the NIS is a significant oversight. Without prejudice to this point, we would observe that the SEA mitigation alone will not be sufficient to address the risks, far more ambitious measures will be required.

6.2 Economic Hierarchy

The SEA vacillates between prioritising environmental protection versus economic concerns. In regard to closed periods, where the economic impacts of a measures are minimal it outlines:

> *"Alternative M2 is brought forward in the draft NAP as the enhanced protection for the natural environment far outweighs any negative impact to farm outputs* "

However, this stance quickly changes when the economic impacts are greater. Specifically in regard to stocking density, where one of the options (M4) was a reduced stocking rate. Despite a recognition by the authors of the protection offered by the option to lower stocking rates, this option was not taken forward purely due to economic concerns. The SEA outlines:

> *"Alternative M3 is brought forward in the draft NAP as the economic certainty and continuity offered by this alternative has a lower MA* [material asset] *impact than M4. Clearly the reduced stocking rates proposed by Alternative M4 offers greater levels of*

protection to the natural environment and ***is recommended following this analysis to reverse the baseline trends evident from agricultural activity.****"*

Similarly, in regard to the application for a derogation three different alternatives (c.f. section 7.4.2 of SEA), were considered. They are:

- Strategic Alternative 3 (S3): Ireland to seek a derogation for grassland farms.
- Strategic Alternative 4 (S4): Ireland to seek a derogation only for designated low risk catchments within the State.
- Strategic Alternative 5 (S5): Ireland not to seek a derogation from the EU under this NAP.

In regard to S5, not seeking a derogation, the SEA clearly concluded that this option was most aligned with the requirements of Article 1 of the Nitrates Directive:

'Alternative S5 offers the greatest levels of protection for the natural environment and is most aligned with Article 1 of the Nitrates Directive and the principle of water quality protection.'

However, the SEA clearly outlines that, despite the potential ecological impacts, the Irish Government will continue to apply for a standard derogation (Alternative S3) purely on economic grounds:

"From a purely environmental perspective Alternative S5 would be the preferred alternative but, notwithstanding this preference, Alternative S3 presents the lowest economic barrier for the agri-food sector and is the alternative brought forward in the draft NAP"

Alternative S4, where derogation only applies to low risk areas, was also identified in the SEA as having environmental merit, particularly in regard to the at risk catchments identified by the EPA in 2021[4]:

"Alternative S4 would require DAFM to prohibit any holding within the above areas (possibly all catchments but as a minimum the Slaney and Barrow catchments) from availing of any future derogation. Such an approach would help to reduce the N loading within these catchments of concern and potentially reverse the trends identified by the EPA."

[4] https://www.catchments.ie/assessment-of-the-catchments-that-need-reductions-in-nitrogen-concentrations-to-achieve-water-quality-objectives/

However, this alternative is also discounted on economic grounds:

> *"Alternative S4 offers a lower level of protection relative to Alternative S5 but retains some economic barriers so is not considered further."*

We would remind the Department of the objectives of the Nitrates Directive, Article 1 provides:

> *"This Directive has the objective of:*
>
> *— reducing water pollution caused or induced by nitrates from agricultural sources and*
>
> *— preventing further such pollution."*

It is our opinion that the elevation of economic interests above all else is fundamentally at odds with the obligations under the Nitrates Directive, and indeed for Habitats and WFD Directives compliance which will also be directly impacted as a result of the granting of these derogations. The Nitrates Directive clearly stipulates that a derogation can only be granted where it does not undermine the objectives of Article 1 of the Nitrates Directive. Annex III 2(b) of the Nitrates Directive provides:

> *"(b) during and after the first four-year action programme, Member States may fix different amounts from those referred to above. These amounts must be fixed so as* ***not to prejudice the achievement of the objectives specified in Article 1*** *and must be justified on the basis of objectives criteria …" [our emphasis]*

The SEA has clearly stated that the ideal solution, in terms of environmental protection and compliance with Article 1 of the Nitrates Directive, would be to not seek another derogation from the Commission. It clearly concluded that seeking an additional derogation will result in the lowest level of environmental protection compared with the other alternatives (S4 and S5), however this environmental risk would then appear to have been disregarded exclusively due to economic considerations. We are not aware of any provision in the Directive itself whereby economic concerns are given precedence over environmental protection. Economic concerns are not listed as 'objectives criteria' as listed in Annex III(2)(b) of the Directive and therefore cannot be considered pursuant to the process outlined in Article 9.

The failure for the NAP to provide the necessary environmental safeguards is clearly laid out in the SEA:

"In a number of cases there is a clear driver from the natural environment for change which is recommended for implementation but this change has not been adopted within the draft NAP for economic reasons."

and specifically in regard to derogations:

"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"

The SEA could not be any clearer in indicating that there is a clear environmental risk associated with the NAP at large, and with seeking an additional derogation. However, this is not explicit in the NIS, which is a considerable failure by the authors. The risks outlined in the SEA have serious implications for both Habitats Directive and Water Framework Directive compliance, but despite both documents being authored by RPS consultants, and indications that there was significant collaboration on these documents, the significant concerns expressed in the SEA did not make their way into the arguably more legally binding NIS. It is imperative that the relevant authority take into account the very strong statements issued in the SEA, and apply the same logic to the NIS. In the carrying out of an Appropriate Assessment the relevant authority must consider all the evidence before them, we submit that the SEA should be viewed as evidence of the risks, given the bizarre lack of these very relevant observations in the NIS document itself.

7. Site specific Derogation Assessments

We note that there are 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. Recent ECJ case law confirms that the Irish procedure in not in compliance with Article 6(3) of the Habitats Directive, the judgement on Cases C-293/17 and C-294/1720 held:

"Article 6(3) of Directive 92/43 must be interpreted as precluding national programmatic legislation, such as that at issue in the main proceedings, which allows a certain category of projects, in the present case the application of fertilisers on the surface of land or below its surface and the grazing of cattle, to be implemented without being subject to a permit requirement and, accordingly, to an individualised appropriate assessment of its implications for the sites concerned, unless the objective circumstances make it possible to rule out with certainty any possibility that those projects, individually or in combination with other projects, may significantly affect those sites, which it is for the referring court to ascertain."

We are advised that the legal framework and relevant jurisprudence requires that an authorisation procedure is necessary to allow for prior authorisation of an individual derogation licence in order to comply with Articles 6(3) and 6(4) of the Habitats Directive. In practice this should necessitate that there must be a screening decision in all cases to establish whether there is a likelihood of significant effects on a European Site, and in the cases where there is such a likelihood an appropriate assessment under Article 6(3). The screening determinations must be notified to the public, and the Appropriate Assessment procedure must include public participation in line with Article 6 of the Aarhus Convention, including the possibility of judicial review. As such, we would highlight that even if Ireland is granted a derogation by the European Commission in March 2022, this does not remove the legal requirement under the Habitats Directive to conduct individual Appropriate Assessment screenings on all applications at a national level. If granted a derogation, the national procedure for authorising derogations at individual farm level must be legally compliant, and is likely to come under increased legal scrutiny going forward.

We would draw the Department's attention to the Natura Impact Statement which accompanies Ireland's latest River Basin Management Plan[5], which is currently out for public consultation. It clearly outlines the requirement for a site specific assessment on foot of an application for a derogation in order to safeguard the objectives of the WFD:

> *"In the context of nitrates derogations, it is noted that where a farm has a derogation and has an eco-hydrological pathway to a European site, there is potential risk to the favourable conservation status objective of those European sites. The derogations will be decided as part of the NAP process. However, it is estimated that over 5,000 farms within the state would seek to avail of the derogation status, covering significant land areas. The list of farms and /or their location is not available. From a precautionary perspective it is assumed that some of these farms and their activities have ecohydrological pathways to European sites and that some of these European sites are within the landholding. Therefore,* ***there is significant potential for adverse effects on maintaining and achieving conservation objectives*** *and therefore integrity of European Sites with respect to these derogations both individually and in combination with other derogations, plans and projects. Given the scale of derogations under previous cycles of the NAP, the potential for in-combination effects is significant. It will therefore be* ***vital that any derogations which emerge from the NAP will be subject to AA****; which should include a robust assessment of in-combination adverse effects." [our emphasis]*

[5] Consultation documents available here: https://www.gov.ie/en/consultation/2bda0-public-consultationon-the-draft-river-basin-management-plan-for-ireland-2022-2027/

We are of the view that the Department has a responsibility to ensure that whatever authorisation procedure is in place nationally to allow for prior authorisation of an individual derogation must comply with Articles 6(3) and 6(4) of the Habitats Directive; in addition to Article 4 of the Water Framework Directive (c.f. Dutch Nitrates Case C-293/17). Failure to do so will jeopardise the aims not only of the Habitats Directive, but also the WFD and the Nitrates Directive.

We note the following in the SEA mitigation, which indicates the need for transparency and a logical decision-making framework around the granting of derogations. We would welcome this, but would highlight that it also needs to be put on a legal footing, and incorporate WFD/AA/EIA environmental assessments

> *"Article 36(2): It is recommended that DHLGH and DAFM establish and publish a clear decision making framework for granting of applications under the derogation that is based on the water quality evidence base available. This framework may include spatial elements whereby applications may be refused in catchments of concern or nutrient sensitive areas (refer Section 7.4.2) and/or other elements such as compliance history, operator performance, etc. but as a minimum the decision making framework should be published for transparency.*
>
> *Article 36(2): It is recommended that DHLGH and DAFM develops and implements an environmental assessment tool or model to allow for simulation of the impact from N loading from both the holding and cumulatively with other holdings within a catchment. Teagasc have developed such a tool for modelling that may be applied or adapted at catchment level to provide for a clear environmental evidence base that may be used to simulate the impacts of derogation applications at application stage and provide DAFM a clear water quality rationale for consenting/refusing applications"*

8. Ammonia

Ammonia is a significant problem in Ireland, with 99% of ammonia generated by agriculture, as recognised in both the NIS and the SEA. The SEA recognises the transboundary issues, which are substantial, and are a significant weakness in current planning law. There are a proliferation of pig and poultry farms along either side of the border which are giving rise to cumulatively large volumes of harmful ammonia, but the transboundary consultation required

for planning under the EIA directive is not currently happening either in Northern Ireland or in the ROI.

However, we would highlight that ammonia issues are not solely restricted to transboundary areas, as implied by this statement in the SEA:

> *"Air quality in Ireland is generally very good and consistently meets its EU limit values. In terms of transboundary emissions, Ireland is failing to meet EU targets on ammonia emissions under the National Emissions Ceiling (NEC) Directive, of which agriculture is the main source."*

Nor indeed is the impact not local, as suggested by this statement in the SEA:

> *"The NAP has limited impact on local and ambient air quality but has a significant role in national air quality."*

No sources are provided to back this statement up, and ammonia is known to be a significant health risk to humans, both at a local and a national scale, when it forms PM 2.5. Additionally, the air quality has significant local biodiversity impacts, as indicated by work done in UCD, where the detrimental impacts of ammonia deposition on local Natura 2000 sites as a result of air pollution was clearly identified[6]. In contrast to the SEA, Table 6.1 in the NIS recognises the impact potential of ammonia to local sites in a number of places, for example:

> *"All impacts identified associated with nutrient management measures would have potential to give rise to significant continued decline in the conservation status … other sensitive Annex I habitats within proximity to sources of airborne ammonia if the proposed programme of measures is insufficient or inadequately implemented or enforced."*

But as outlined above, no sufficient mitigation was offered for this either in the NIS or in the SEA. There is a reliance on LESS technology to address this concern. While LESS does indeed reduce ammonia emissions, it alone will not bring us into compliance with the NECD requirements. In addition to LESS, there is a reliance on the Code of Good Agricultural Practice, which is a voluntary list of measures to reduce ammonia, many of which will be too expensive for farmers to implement. We critiqued this Code as part of the public consultation[7].

[6] Kelleghan, David & Hayes, Enda & Everard, Mark & Curran, Thomas. (2021). Predicting atmospheric ammonia dispersion and potential ecological effects using monitored emission rates from an intensive laying hen facility in Ireland. Atmospheric Environment. 247

[7] https://www.antaisce.org/code-of-good-agricultural-practice-for-reducing-ammonia

The EPA[8] have indicated that every possible abatement measure must be implemented if Ireland is to comply with our ammonia limits for both 2020 and 2030:

> *"Limiting and reducing NH3 emissions into the future will require the ambitions within the AgClimatise Strategy[9] to be fully implemented at farm level to meet the 2030 target of a 5% reduction on 2005 emission levels as assigned by Directive 2016/2284."*

but this is unlikely to happen as the MACC modelling which underpins the Teagasc projections is based on a stable herd size, while Teagasc[10] are similarly projecting increases in the dairy herd.

It is of note that the quantum of mitigation provided by these measures to avoid adverse impacts on Natura 2000 sites was not assessed in the NIS, nor was there assessment of the ability of the mitigation measures proposed to avoid adverse impact on European sites. While the NAP is primarily concerned with water quality, ammonia deposition on Natura 2000 sites is a clear adverse impact resulting from the NAP measures, and must be rigorously assessed.

Furthermore, we note that the clause whereby new slurry pits would have to be covered by 2022, which is one of the necessary steps if Ireland is to achieve compliance with the NECD, with a further deadline for existing stores, has been removed in this latest draft, indicative of back-pedalling on the necessary mitigation. There is a similar delay in the mandatory use of LESS technology for farms over 100 kg/N/ha, with a deadline of 2025 to use LESS, which represents a two year delay from what was originally proposed for farmers operating between 100-130 kg/n/ha. This will be implemented at the end of the current NAP, and as such cannot be relied upon as mitigation for the current plan.

In summary, we submit that the risk of ammonia pollution for Natura 2000 sites was recognised in the NIS, and no sufficient mitigation measures were provided. Additionally, any progressive steps to address ammonia have been removed or delayed from the previous draft on foot of industry lobbying. As such, it is our considered opinion that this NAP will facilitate the ongoing non-compliance with both the NECD and the Habitats Directives.

9. 30 km radius

[8] https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-Irelands-Air-Pollutant-Emissions-report_2021Final.pdf
[9] this relies on the Code of Good Agricultural Practice
[10] https://www.teagasc.ie/media/website/publications/2020/Road-Map-2027-Dairy-201120.pdf

We would observe that the NAP document makes no reference to this 30 km radius, in contrast to the clause in the 2nd stage consultation draft. The text from the 2nd stage draft is as follows:

> *"In terms of short term grazing, only land within 30km allowed to be considered in stocking rate calculation. Currently for Nitrates Derogation Farms, Commonage and Rough Grazing are permitted for inclusion for 170kg N/ha allowance. In order to protect these areas further and the whole farm nutrient planning process, it is proposed to reduce these below the 170kg N/ha threshold"*

This contrasts with the provision in the latest draft NAP document itself, which provides:

> *"Currently for Stocking rate calculations, Commonage is permitted for inclusion for stocking rate purposes at 170kg N/ha. In order to protect these areas further and the whole farm nutrient planning process, the stocking rate allowance will not exceed 50 kg N/ha."*

However, the NIS and SEA are clearly assessing this 30 km clause as if it is extant. Article 15 (8) in Table 6.5 of the NIS outlines:

> *"(8) In terms of short term grazing, only land within 30km allowed to be considered in stocking rate calculation."*

An Taisce submits that the 30 km clause is a good safeguard against fraudulent claims of land spreading on geographically distant parcels of land, a behaviour which is widely acknowledged by the Department and the EPA as being a problem. While the 50 kg/N/ha provides some safeguards, it is widely acknowledged that compliance and enforcement is low, so in the worst case scenario this could result in this 50 kg/N/ha being spread in excess of the 170 kg/N/ha limit on the home farm. We believe that the 30 km radius would be easier to enforce and police, and far more effective as a mitigation measures.

We would also observe that from a legal standpoint, the fact that the 50 kg/N/ha clause was not recognised or assessed in the NIS or the SEA renders it potentially unlawful. The impact of this new measure has not undergone environmental assessment. As such, the logical step is that the Department would revert to their original wording regarding the adoption of the 30 km radius.

10. Comments on NAP Document

10.1 Fertiliser Reduction

We note that it is proposed in the consultation document that nitrogen allowances will be reduced up to 15% in some areas, and the previous draft NAP indicated that this would be based on the latest EPA analysis:

> *"the national nitrogen allowances as outlined in Table 12 of the regulations will be reduced by: 10% nationally from Jan 2022, and By a further 5% from 1st January 2024, pending interim review of the programme, scientific advice and water quality trends"*

An Taisce has calculated the percentage load reduction needed year on year per catchment to achieve the Environmental Water Quality Standard of 2.6 mg/l N in the downstream estuary. These figures are based on the Total Load figures given in Table 2 and Table 3 of the most recent EPA report[11], with the results given in Table 2, and a subset illustrated in Figure 1.

Table 2: Percentage load reduction necessary per catchment and year, based on EPA data

River Catchment	Area km^2	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19
Avoca	652	0	0	0	0	0	0	0	0	0	0	0
Bandon	608	6	0	8	16	10	5	17	7	20	22	25
Barrow	3067	44	57	36	37	33	37	35	36	52	68	52
Blackwater	3324	0	14	0	0	0	8	2	26	14	18	20
Boyne	2695	1	28	16	19	3	24	20	4	11	36	32

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

Corrib	3138	0	0	0	0	0	0	0	0	0	0	0
Deel	486	0	0	5	0	0	0	13	0	15	38	26
Dodder	113	0	0	0	0	0	0	0	0	23	0	0
Erne	4372	0	0	0	0	0	0	0	0	0	0	0
Fergus	1042	0	0	0	0	0	0	0	0	0	0	0
Lee	1253	0	0	0	0	0	0	0	0	0	0	4
Liffey	1256	0	0	0	0	3	2	12	0	0	31	10
Maigue	1052	0	0	0	0	0	0	0	0	0	10	20
Moy	2086	0	0	0	0	0	0	0	0	0	0	0
Nore	2530	11	8	21	10	12	21	18	14	19	35	39
Slaney	1762	57	46	44	38	45	40	35	43	45	61	52
Suir	3610	23	36	17	0	0	0	0	3	7	9	7
Tolka	146	0	0	0	0	0	6	0	0	0	14	19

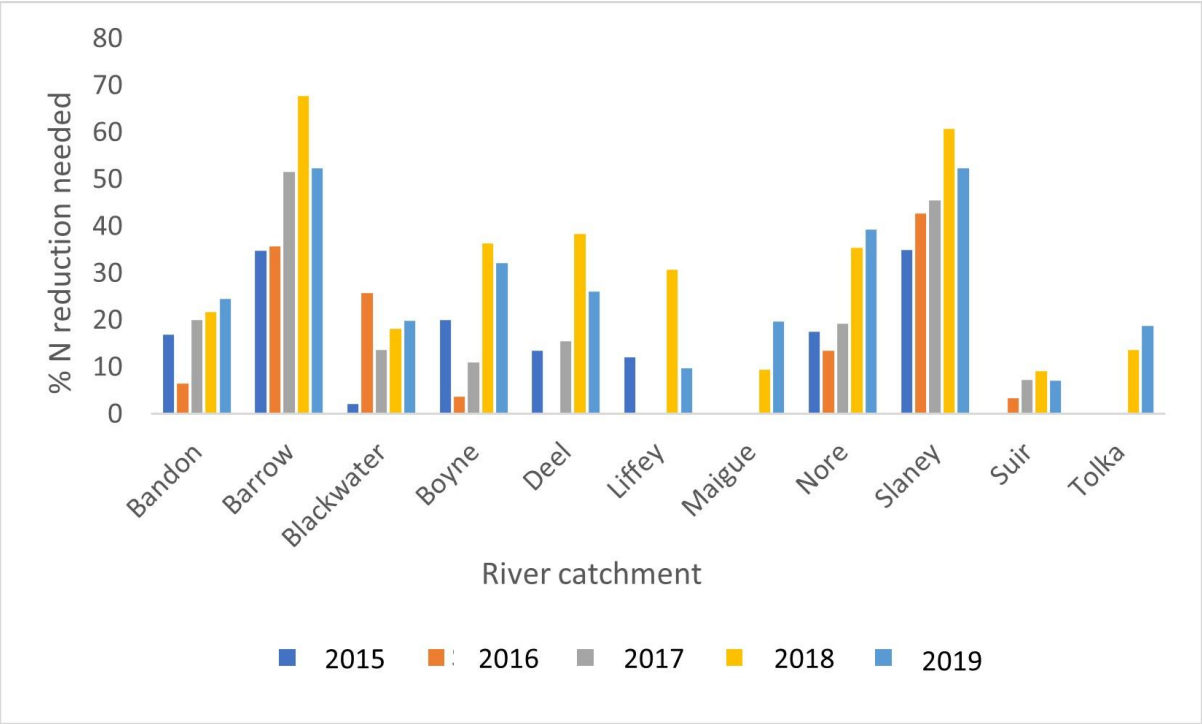


Figure 1: Percentage nitrogen (N) load reduction necessary per catchment and year, based on EPA data

The scale of the problem is apparent, with a number of catchments requiring drastic reductions of N load, far above the 15% reduction potentially proposed for some catchments.

An Taisce would question how the load reductions necessary will be achieved without significant caps on total fertiliser input or stock reductions. Teagasc were requested to model the impact of a number of farm nitrogen mitigation measures in order to inform policy to deliver the catchment based nitrate load reduction estimated by the EPA. This analysis[12] highlighted the linear relationship between N surplus and N leaching:

> *"In a review of the literature a significant linear relationship was found between N surplus per hectare and N leaching to groundwater on free draining soils, therefore suggesting that reducing surplus N is an effective method on reducing N leaching."*

and clearly indicated that this was as a result of chemical N and stocking density:

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

"There was strong agreement between the MoSt/PBHDM and the €riN/MDSM models on the influence of chemical N application rates and stocking rate on N leached to 1 m depth"

Among a range of policy measures modelled by Teagasc[13], stocking reduction and reductions in the load of chemical nitrogen were predicted to provide the highest N load reduction. Precision N spreading was confounded by high interannual variability in N uptake, and changes to the timing of fertiliser spreading did not provide large load reductions.

The modelled increases in N load as a result of high grazing platforms is also notable, and we will address this issue in Section 10.5.

One of the models in the report clearly indicated that urine deposits and chemical fertiliser are the main drivers of nitrate leaching, 63% resulted from urine, 29% from chemical fertiliser and 8% from slurry, atmospheric deposition and soiled water:

"Approximately 20% of surplus N (48 kg N/ha/year) in the baseline farm (Scenario 1) was leached in the form of nitrate (Table 3.3). Approximately, 30 kg of this N loss originated from urine deposited in paddocks, 14 kg came from the application of fertiliser N and 4 kg came from slurry, atmospheric deposition and soiled water"

The following finding is also very pertinent, in light of the proposals in this consultation:

"The €riN model calculated a nitrate loss rate of approximately 28% for urine N and used a 5.6% loss rate for fertiliser N. The model predicted that spreading 10% less chemical fertiliser N, in the baseline farm, mitigated the risk of nitrate loss by 3%, while reducing chemical N by 20% reduced potential nitrate loss by 7% (Table 3.4)."

Given that, according to the model, a 20% reduction in chemical N led to a modelled 7% decrease in nitrate loss, what percentage reduction will be necessary in the catchments requiring over 50% reduction in N load? The 10-15% reduction in nitrogen allowance posed by the consultation document will clearly not be enough, as evidenced in the commissioned research by Teagasc[14], for the very purpose of informing policy. It would appear that the proposed measures in this consultation are not rigorously based on the modelling commissioned for that very purpose.

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

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

It is clear from the report that chemical N input will have to be reduced and capped, in addition to a reduction in stocking density, and the EPA have indicated where these reductions need to happen. As such, it is evident what needs to happen and where it needs to happen, but this document fails to provide any evidence that the necessary significant changes will be implemented.

10.2 Morgan P Soil Testing and P build up

An Taisce has repeatedly highlighted the flaws of relying on Morgan P soil test as a proxy of environmental risk. This risk of miscalculating the nutrient availability of the soil is reflected in Table 6.5 of the NIS, which states:

> *"Incorrectly estimating the nutrient availability of the soil increases the risk for potential negative impacts to water quality through nutrient losses to receiving waters, where crop requirements are exceeded."*

However, despite this, the NAP proposes to continue to rely on the Morgan P test for the foreseeable future, with a potential review proposed, with no attendant timeline or guarantees. As outlined in Schedule 1 in Table 6.5 of the NIS:

> *"A review of the soil test methodology for phosphorus availability will be undertaken, however guidance is required on the best approach to ensure phosphorus availability is evaluated correctly. "*

We would observe that repeated scientific studies have highlighted the weaknesses in the use of Morgan P test for calculating run-off risk, and while we would welcome a review, the risks to water quality in the interim should not be underestimated. This is particularly pertinent in regard to the P build-up facility included in the NAP, and for any GAP measures which rely on soil nutrient indices. As outlined in the NIS itself, these indices are based purely on agronomic need, and not environmental risk:

> *"The N and P limits prescribed in the NAP are predicated on the need to meet crop requirements and soil P replenishment and no more "*

The specific risk of this is again highlighted in the NIS, in Table 6.5:

> *"The adequacy of Soil Index 3 as a threshold to be used for the protection of surface and groundwaters has also been questioned by Irvine et al. (2011)35, which presents findings from research to suggest that a threshold of less than 5mg/l Morgan's P is*

required for high and good status waters. Given that the upper boundary for Soil Index 3 is 8mg/l for grassland and 10 mg/l for other crops, this potentially represents a risk to water dependent protected habitats and species in particular, where good or high status conditions are required in order to achieve or maintain favourable conservation condition. "

The NIS clearly indicates the risks involved with providing a P build-up facility:

"this Article represents an increased potential negative effect on water quality on lands situated in sub-catchments where biogeophysical factors increase pollution risk through nutrient export to surface and ground waters."

The mitigation provided for this risk in the NIS is a potential review, the timeline of which is not provided, nor can the efficacy of this review be gauged. The P build-up clause as drafted also requires a nutrient management plan, but again it is widely recognised by the Department and the EPA that Nutrient Management Plans are often paper exercises, and are not properly implemented. Additionally, nutrient management plans are predicated on the use of Morgan-P, as such rendering them meaningless as currently constructed as mitigation for the flawed use of Morgan P soil testing. As such, this does not reach the threshold of certainty required under the Habitats Directive. Additionally, this clearly poses a risk to the objectives of the WFD and the Nitrates Directive.

10.3 Banding for excretion rates

An Taisce welcomes the proposal to introduce bands for livestock excretion rates. However, we note that the proposal in the Stage 2 consultation has been further delayed in this new consultation document. 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 N 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, leading to underestimates for intensive dairy farms, further facilitating water pollution. This has serious implications in regard to compliance with the Nitrates, WFD, NECD and Habitats Directives.

Legal compliance is not optional and needs to be achieved in the near-term without fail.

10.4 Nutrient Management Planning

We would note that nutrient management planning was raised as a significant issue in the Stage 1 consultation, and the importance of effective nutrient management was acknowledged by the Department in the Stage 2 consultation document:

> *"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. There is an acknowledgement in Table 6.5 that Teagasc NMP tools will soon be able to link with the risk-based assessment of the EPA, but while that would be welcome, there is no guarantee that that will happen, nor is there an indication of how that would be used, and if the high risk areas would be precluded from land-spreading. In the meantime, NMPs are not providing sufficient safeguards, as outlined in the NIS:

> *"However, NMPs as they are currently undertaken do not account for any factors, other than P and N indices, that might increase 'risk' of pollution"*

Adequate nutrient management plans, and their rigorous implementation, must be a key component of the updated regulations. There is a lot of focus on the right measure in the right place, and on the valuable work done by the EPA in identifying the critical source areas. While we would welcome the principle of targeted nutrient application away from critical source areas, the description of how this will work in practice is not provided, and implementing it would require careful spatial planning on behalf of the landowner. How specifically will these areas be avoided, particularly given the low levels of compliance with the GAP regulations and the lack of nutrient management plans?

We are aware of anecdotal reports that even when a nutrient management plan is in place they are frequently just a paper exercise with no implementation. While the PIP maps hold huge potential, a map is only as effective as its use. Compliance will require strict enforcement with stiff penalties for breaches. What rules, regulations and actions will be put in place for effective use of PIP maps to achieve legally compliant outcomes?

10.5 Grazing Platform and Urine Patches

The grazing platform is a key issue for the NAP. We are aware of anecdotal reports of excess slurry being spread on the home farm, with little or none being spread on other patches of farmland, or silage fields. As a result of this type of practice, the nutrient load on the home farm would not be compliant with the Nitrates Directive. While the implementation of a 30 km radius for land spreading would have been a key measure to address this, it is hugely problematic that the Department has now removed this clause on foot of industry lobbying (See Section 9).

It is vital that slurry and fertiliser are spread evenly across the whole land holding in order to abide by the kg/N/Ha threshold. Enforcement is required to address this, but 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. Again, anecdotal reports indicate that many of the additional land parcels are on steep ground which would be inaccessible to machinery. This land should be zoned ineligible for land spreading, and removed from the kg/N/Ha calculation.

Additionally, we note that in the Teagasc document[15], in section 3.3.3 the following is outlined:

> *"Approximately 20% of surplus N (48 kg N/ha/year) in the baseline farm (Scenario 1) was leached in the form of nitrate (Table 3.3). Approximately, 30 kg of this N loss originated from urine deposited in paddocks..."*

It is unclear to us how this urine deposition is to be handled in regard to nitrate loads in high grazing platform farms. While the slurry and fertiliser should, in theory, be spread over the entire landholding to bring the farm into compliance with the Nitrates Directive, the urine patches in the grazing paddock will clearly deposit a substantial nitrate load on a relatively small area. As outlined in the above excerpt, these urine patches can be responsible for as much as 62% of nitrate leached in the Teagasc[16] modelling scenario for a farm operating under the current regulations. There is no indication of how, or indeed if, this will be mitigated for under the new GAP regulations.

This would appear to contravene Annex III (2) of the Nitrates Directive which provides:

> "*These measures will ensure that, for each farm or livestock unit, the amount of livestock manure applied to the land each year,* ***including by the animals themselves****, shall not exceed a specified amount per hectare*." [our emphasis]

This issue must be addressed to prevent excess leaching.

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

11. Summary

An Taisce submit that based on the information provided in the consultation document, the NIS and the SEA, we do not believe that the declining trends in water quality will be comprehensively and urgently tackled and reversed in the next NAP. We have repeatedly highlighted significant weaknesses in the proposed new measures with the Department, based on evidence provided in EPA and Teagasc documentation, but these have not been addressed. As such, from the outset we submit that the measures proposed by the NAP are insufficient to address the water quality declines on foot of agricultural pollution.

Additionally, the NIS has significant weaknesses. The NIS identifies a range of potential risks, and provides no adequate mitigation. Despite this, it then reaches a conclusion that the NAP does not present an adverse risk to Natura 2000 sites. We strongly refute this conclusion, and question the logic leading to it.

While the SEA provides some potentially useful mitigation, for it to be legally binding it must be incorporated into the GAP regulations. SEA mitigation measures are frequently overlooked when it comes to implementation, and cannot be relied upon in the same way as regulations. The only way to address this is to adopt all of the SEA mitigation measures in full for the new GAP regulations.

While we acknowledge some of the new measures proposed 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. As such, we do not believe that Ireland should be seeking another derogation, as we manifestly do not have the safeguards in place.

Failure to implement the necessary measures will ultimately result in legal action, either via national courts or by the EU Court of Justice. This will have major and sudden implications for the agricultural sector. We are of the view that delaying the necessary steps, including removal of the derogation, is not just environmentally damaging, it is ultimately doing a disservice to the farming community.

We are of the view that the Department cannot lawfully adopt the NAP as drafted, with the attendant environmental assessments. To do so would be a breach of the Habitats Directive, the Nitrates Directive, and the WFD. Any such favourable decision by the Department may be subject to challenge.

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Elaine McGoff, PhD

Natural Environment Officer, An Taisce- The National Trust for Ireland.