

Nitrates Action Programme Consultation  
Water Quality Section  
Department of Housing, Planning & Local Govt  
Newtown Road  
Wexford

28<sup>th</sup> November 2017

Our Ref: SCP170901.2

## Re. Draft 4<sup>th</sup> Nitrates Action Programme and associated SEA Environmental Report

Dear Mr Grant,

The Environmental Protection Agency (EPA) acknowledges your notice, dated the 27<sup>th</sup> October 2017, in relation to the Draft 4<sup>th</sup> Nitrates Action Programme (the NAP) and associated Strategic Environmental Assessment (SEA) Environmental Report.

The importance of a clean, well-protected water environment for our health, our wellbeing, our economy and our quality of life is clear. Our most recent State of the Environment (SoE) Report *Ireland's Environment – An Assessment 2016* (EPA, 2016) identifies the need to *Restore and Protect Water Quality* as one of the key environmental actions for Ireland. The challenges facing Ireland's water environment are reported extensively in our most recent Water Quality Report 2010-2015 (EPA, 2017) and SoE Report (EPA, 2016). Agriculture is now recognised as the most significant pressure on our water environment, responsible for a significant proportion of our water bodies failing to achieve good status as required by the Water Framework Directive (WFD). This includes diffuse run-off of nutrients (phosphorus and nitrogen) and sediment from land and point source pollution from farmyards.

In this context, delivering the sustainable agricultural expansion envisaged by FoodWise 2025 while protecting our water environment presents a very significant challenge for Ireland. As we embark on the second cycle of river basin management planning, effective and robust mitigation measures to tackle agricultural pollution are needed if the necessary water quality improvements are to be achieved. As a key instrument for protecting waters from agricultural pressures, the Nitrates Directive and associated NAP, consisting of the Good Agricultural Practice for Protection of Waters Regulations (GAP Regulations), are central to addressing this challenge.

The main reasons for breaches of the GAP Regulations in 2014 are illustrated in Fig. 5.11 (p. 77) of our 2016 SoE Report. Reasons included poor collection of organic manures (37%), poor management of clean water (18%), storage structural defects (16%), poor storage of organic manures (15%) and stockpiling in a prohibited period (9%). In Chapter 13 of the SoE Report under the key action *Restore and Protect Water Quality*, the need for improvements in the management of manures and organic fertilisers on farms is again highlighted.

This submission is intended to support the preparation and delivery of an effective NAP for the country. Key Overall Comments are provided below and should be considered in finalising the NAP. In addition, specific comments on the NAP and the SEA Environmental Report are provided in Appendix I and II respectively.

Our previous submissions made during the initial public consultation phase on the NAP review (dated 8<sup>th</sup> May 2017) and at SEA scoping stage (dated 4<sup>th</sup> October 2017) are also attached. The relevant aspects should also be considered as part of this submission. We also attach for your information the EPA's submission on the Draft National River Basin Management Plan for Ireland (RBMP) (dated 31<sup>st</sup> August 2017), the relevant aspects of which should also be considered.

## **Key Overall Comments**

### ***Nitrates Action Programme***

In the interest of providing clarity on the status, contents and implementation of the NAP, we recommend the preparation of a separate free standing document, in effect the Nitrates Action Programme document, to accompany the final GAP Regulations.

This document should provide an overview of the revised GAP Regulations, including the proposed new measures, and clearly set out the Key Actions, Controls, Design Standards, Responsibilities, Monitoring and Reporting commitments which will ensure the delivery of the outcomes envisaged by the GAP Regulations.

Importantly the recommended NAP document should include a section on Governance, clarifying where the GAP Regulations fit within the WFD Tier 1/2/3 governance structure and the roles and responsibilities of different public authorities in relation to their supervision and oversight. For example, the EPA has a key role in many aspects of the Regulations (e.g. Article 29(1) report, Article 17 Assessments, Article 29(2) report, Article 29(6) etc. A section on 'who does what' would greatly improve governance, implementation and accountability.

The recommended NAP document should also detail the actions proposed, and responsibilities, with respect to Knowledge Transfer and training programmes and the role of farm advisors.

This document should also include a section outlining how the SEA and AA processes have informed and been integrated in the GAP Regulations and the NAP. This is in the interest of clarity and transparency and the provision of a strong Programme. This section should clearly set out responsibilities for the SEA and AA related monitoring and associated reporting. Where relevant, linkages should be made with the WFD implementation and the individual Regional and Catchment Assessments.

### ***Integration of the SEA and AA Processes into the NAP***

There appears to be a lack of linkage and integration between the SEA and AA processes and the Draft Regulations. For example, some 58 mitigation measures/recommendations are proposed in the SEA Environmental Report and Natura Impact Statement but these do not appear to have been integrated into the GAP Regulations. In finalising the NAP, we recommend that the mitigation measures and other recommendations in the SEA Environmental Report and Natura Impact Statement should be reviewed and integrated into the GAP Regulations/NAP as appropriate. We recommend the inclusion of a Table in both the SEA Environmental Report

and the recommended NAP document, with commentary outlining how the various mitigation measures/recommendations have been considered and, where appropriate, reflected in the GAP Regulations/NAP. A schematic should also be included in both documents, showing how the SEA and AA processes have informed the NAP/GAP Regulations.

### ***Proposed New Water Protection Measures***

We acknowledge and welcome the introduction of new water protection measures to address diffuse agriculture pollution under Article 17. We recognise that management of nutrient sources is not the only solution to loss of nutrients from farms and that interception of the nutrient transport pathways is likely to be more effective. In this context, we welcome the proposed new measures focused on intercepting the nutrient transport pathways. These include the new requirements applying to more intensive farms (grassland stocking rate >170 kg/ha) that bovine livestock are excluded from watercourses (Art. 17(18)) and supplementary drinking points are set back at least 20 m from watercourses (Art. 17(19), effective from 1<sup>st</sup> January 2021). We also welcome the proposed ban of direct runoff of soiled water from farm roadways to waters (effective from 1<sup>st</sup> January 2021) (Art. 17(20)) and the ban on direct runoff of soiled waters to waters resulting from poaching.

The EPA has called for early action to prevent any further deterioration in our waters and to make the improvements needed under the WFD. In this context, we urge that the above measures should come into effect from 1 January 2020, instead of 1 January 2021. This would still allow a two-year lead in time for farmers while improving the likelihood of the measures yielding water quality benefits during the current RMBP cycle (2018-2021).

We further recommend that consideration should be given to applying the proposed new water protection measure to all farms regardless of stocking rates. We urge that there is a particular need for the measures to apply in farms within high status catchments.

We recommend that greater clarity is provided on how the NAP and the proposed new measures will impact on WFD status. The potential effects of the NAP on water body status and progress towards achieving WFD objectives should be clearly outlined in the SEA Environmental Report and the recommended NAP document.

### ***Knowledge Transfer Programme***

We welcome and support the requirement that farmers wishing to avail of build up rates of P application will be required to take part in a Knowledge Transfer (KT) programme. This measure will involve farmers and their advisors developing farm landscape management plans that will look at the pathway losses of P on farms and we recognise that implementing these farm plans will be essential for offsetting the extra P source being applied. We recommend that additional information and specific details of the KT measure should be set out in the recommended NAP document.

### ***Reporting and Improved Access to Information***

Accelerating the provision of timely and tailored information to stakeholders is one of the EPA's strategic objectives. In preparing the SoE Report 2016, recent information on farm inspections was not readily accessible (the data presented in Fig. 5.11 referred to above was sourced from an Agricultural Inspections Working Group). We recommend the publication of an annual report on the findings of farm inspections, to improve access to this important information and help drive improvements in GAP compliance and water quality.

We recommend that all relevant information relating to the NAP and GAP Regulations should be made available on a single centralised information sharing platform/website location, to improve the provision of public information. This includes for example the latest Article 29(1) report, Article 29(2) report, DAFM inspection report, guidance and findings from farm inspections etc.

We recommend that the key issues identified during farm inspections should be highlighted and publicised in order to increase awareness of best practice among the farming community and the general public. Guidance and communications/awareness campaigns aimed at helping farmers improve in these areas should also be developed and implemented. There are clear links here with the RBMP and the work of LAWCO and EPA Catchments Unit and more collaboration in these areas should be promoted.

We further recommend that spatially mapping the findings of GAP inspections would be useful for public information and national work on improving water quality. This could include for example interactive sub-catchment/county maps showing farm inspection compliance rates, fertiliser application rates and areas where the nitrate derogations are exceeded. This information could potentially be hosted on the WFD Application and made publicly available via the Catchments.ie website.

#### ***Risk-based methodology for farm inspections***

On the issue of farm inspections by local authorities, we note that there has been a reduction in local authority inspections in 2014 and 2015 (Article 10 Nitrates Directive Report, 2012–2015 Table 6-1). While we recognise that inspection is only one mechanism for promoting compliance with the Regulation, we consider it important that these inspections would continue to be undertaken. We recommend that the current standardised risk based methodology for the GAP Regulations farm inspection programme should be reviewed in the context of the WFD characterisation work being led by the EPA. Linking the inspection regime with the WFD characterisation work would allow for better targeting of efforts at local authority level, with annual quotas of inspections allocated to each local authority (similar to that for domestic wastewater treatment systems). We further recommend that consideration should be given to broadening the scope of local authority farm inspections in ‘at risk’ catchments to cover nutrient management and diffuse nutrients from landspreading, in addition to the farmyard related aspects.

#### ***Farm Advisory Services***

We recognise that a pure regulatory approach to addressing the challenge of agricultural pollution will not be as effective on its own and that the successful implementation of the NAP will require thorough and meaningful engagement with farmers and farming organisations. In this context, consideration should be given to expanding on the role and responsibilities of farm advisors within the GAP Regulations. As previously outlined in our submission on the RBMP, we believe that a cohort of farm advisors with specialist environmental training is needed to transfer the learnings from research, characterisation and best practice to the farming community and to assist individual farmers in taking appropriate action. The EPA calls on the Lead Departments (DHPLG and DAFM) to support the provision of such an advisory service and will be available to provide support and assistance as required.

#### ***Climate Change considerations***

We recommend that the area of climate change merits further consideration in the NAP and SEA Environmental Report, particularly in terms of planning for future weather scenarios and

extreme weather events. This includes, for example, real time links to weather forecasting for application of fertiliser during the spreading period, the durability of storage structures for manure, impacts on water table/abstraction points and related issues.

### **Future Amendments to the NAP**

You are reminded that it is a matter for the Department of Housing, Planning and Local Government to determine whether or not any proposed amendments to the NAP which may arise following consultation would be likely to have significant effects on the environment. This assessment should take into account the criteria in Schedule 1 of the SEA Regulations (S.I. No. 435 of 2004).

### **SEA Statement**

Following adoption of the NAP, an SEA Statement should be prepared that summarise the following:

- How environmental considerations have been integrated into the NAP;
- How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the NAP;
- The reasons for choosing the NAP adopted in the light of other reasonable alternatives dealt with; and,
- The measures decided upon to monitor the significant environmental effects of implementation of the NAP.

A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

We welcome the opportunity to make a submission at this stage of the NAP and SEA process. The EPA will continue to collaborate the DHPLG and other relevant authorities on the implementation of the NAP.

Due to the restrictive consultation timeframe, some further comments may be provided in the coming days. We would be grateful if any further comments submitted by the Agency could also be considered as part of this submission.

Should you have any queries or require further information in relation to the above, please contact the undersigned.

I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: [sea@epa.ie](mailto:sea@epa.ie).

Yours sincerely



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Dr Tara Higgins  
SEA Section, Office of Evidence and Assessment

## Appendix I. Specific Comments on the NAP (GAP Regulations)

### ***Setback distances for protection of drinking water sources***

We welcome the proposed revisions to Article 17 relating to setback distances for protecting drinking water sources, which are intended to provide clarity and improve communication and coordination among Irish Water (IW), local authorities (LA) and EPA in designating setback distances.

We wish to make the following observations, which should be considered in finalising the Regulations:

- Art. 17(2)(d) and 17(13)(c) – clarify what is meant by ‘*a turlough likely to flood*’ and what exactly the *to 20 m setback distance* refers to (whether this is the turlough edge at the time of spreading or where the turlough normally extends to).
- Art. 17(4) – clarify who is responsible for the technical assessment. If the intention is that IW carries out the technical assessment on public sources, and the LA does it on private sources, then this should be clearly stated.
- 17(5) – consider whether this should provide for a scenario whereby IW requests the LA to apply these distances.
- Art. 17(6) - as with Art. 17(4)., it should be explicitly stated who should be doing the prior investigations. If the intention is that IW carries out the prior investigations on public sources, and the LA does it on private sources, then this should clearly stated.
- Art 17 (17) “*Supplementary feeding points shall not be located within 20m of waters and shall not be located on bare rock*” should be amended to also make reference to swallow holes and collapse features i.e. not located within 20m of such features.
- 17(7)(a) – the reference to the 2007 Drinking Water Regulations should refer to the 2014 Drinking Water Regulations.

### ***New measures to address diffuse pollution***

We welcome the proposed new measures to address diffuse pollution which focus on intercepting the nutrient transport pathways.

We wish to make the following observations, which should be considered in finalising the Regulations:

- Art. 17 (18) The proposed amendment “*Where bovine livestock have direct access to water from the holding, a fence shall be placed at least 1.5m from the top of the riverbank or water’s edge (as the case may be) by 1 January 2021*”, should also make reference to swallow holes and collapse features i.e. not located within 1.5m of such features.
- Art. 17 (19) The proposed amendment “*Supplementary drinking points may not be located within 20m of surface waters from 1 January 2021*” should also make reference to swallow holes and collapse features i.e. not located within 20m of such features.
- We recommend that consideration should be given to applying the proposed new water protection measure to all farms regardless of stocking rates. There is a particular need for the measures to be applied in farms within high status catchments.
- We recommend that the above measures should come into effect from 1 January 2020, instead of 1 January 2021. This would still allow a two-year lead in time for farmers while improving the likelihood of the measures yielding water quality benefits during the current RMBP cycle (2018-2021).

### ***Proposed change to soil analysis***

We acknowledge and welcome the proposed change to soil analysis, which should allow for better, more targeted nutrient management planning.

### ***New phosphorus build-up rates***

We note the proposed new phosphorus build-up rates (for farms > 130 kg N/ha stocking rate), which will allow increased application of P on Index 1 and Index 2 soils (extra 50 and 30 kg/ha/year respectively). We welcome the safeguards in Art. 16(5) designed to prevent P transfer to water. It will be essential that these safeguards are fully and effectively implemented to prevent P runoff to waters. The Knowledge Transfer (KT) programme will involve farmers and their advisors developing farm landscape management plans that will look at the pathway losses of P on farms and we recognise that implementing these farm plans will be essential for offsetting the extra P source being applied. We recommend that additional information and specific details of the KT measure should be set out in the recommended NAP document.

### ***Schedule 2: Criteria as to Storage Capacity and Nutrient Management***

We wish to make the following specific comments relate to Schedule 2:

- We note that the values in Tables 1, 2 and 3 are the same as those in previous GAP Regulations. It should be clarified whether the slurry storage capacity requirements have been reviewed and if they still fit for purpose.
- We recommend that consideration be given to whether the rainfall values in Table 4 are sufficient to cover weather extremes such as those that have occurred in the last number of years.
- It should be clarified whether the values in Table 6 have been reviewed taking into consideration, for example, increased milk production from dairy cows (which is likely to cause increased N excretion) or indeed efficiencies in terms of beef production (which may lead to reductions in nitrogen excretion for particular age groups). We also recommend that this table should clarify that the values presented are crop available nutrient (so for nitrogen this is total nitrogen excreted minus gaseous losses).
- We note that the values in Tables 7 and 8 are the same as those in previous GAP Regulations. It should be clarified if these values have been reviewed and whether they still fit for purpose.

## Appendix II. Specific Comments on the SEA Environmental Report

The following specific comments on the SEA Environmental Report should be taken into consideration.

### Non-Technical Summary - Relevant Aspects of the Current State of the Environment (Baseline)

- Page 7, 2<sup>nd</sup> paragraph: it should be clarified here (and elsewhere in the report as relevant) that eutrophication is caused by urban waste water and diffuse agricultural pollution.
- Transitional and Coastal Waters (p. 7): the statement that “downward trends in the marine environment were noted” is incorrect. There were, however, downward trends in various nutrients entering the marine environment. These decreases mainly occurred before 2010 and since then there has been no change.
- Table 5 – under water, groundwater directive (either previous or new) should be mentioned.
- Table 9 refers to the 2007-09 EPA WQ assessment as the WQ baseline. This is incorrect however, as the WFD environmental objectives are the actual baseline (the 07-09 assessment was merely the condition of waters at that time).

### Section 2. Contents and Main Objectives of the Framework

- Page 23: in relation to the proposed new water protection measures where stocking rates exceed 170 kg N/ha, the merits of applying these measures to all farms, or at least to farms within all high status catchments, could have been considered and assessed.
- Risk assessment capability for Teagasc’s Online NMP system (p. 24): it is recommended that the results of the EPA-led characterisation work should be taken into consideration when application rates are being determined.

### Section 3 SEA Methodology

- In *Table 3.1 SEA Environmental Assessment*, under climatic factors the reference to “carbon emissions” should instead refer to “greenhouse gas emissions”. Also, under air quality, air pollutants should be referred to.

### Section 4. Review of Relevant Plans, Policies and Programmes

- In Section 4.3 (and Appendix B), it should be clarified that the requirements to prepare maritime spatial plans stem from the Maritime Spatial Planning Directive and not the Marine Strategy Framework Directive.
- Section 4.3 should also refer to the proposed Land Use, Land Use Change and Forestry (LULUCF) Regulations [https://ec.europa.eu/clima/policies/forests/lulucf\\_en#tab-0-1](https://ec.europa.eu/clima/policies/forests/lulucf_en#tab-0-1) and LULUCF Directive in the context of the proposed Effort Sharing Regulation [https://ec.europa.eu/clima/policies/effort/proposal\\_en#tab-0-1](https://ec.europa.eu/clima/policies/effort/proposal_en#tab-0-1) which will replace the current effort sharing decision [https://ec.europa.eu/clima/policies/effort\\_en#tab-0-1](https://ec.europa.eu/clima/policies/effort_en#tab-0-1) for post 2020.

### Section 5. Relevant Aspects of the Current State of the Environment (Baseline)

- Overall this section would have benefitted from focusing more on aspects relevant to the scope and objectives of the NAP (e.g. the description of existing problems under the baseline environment could have been described better in the context of the NAP).
- In *Table 5.2 Summary of Current State of the Environment in Ireland (2016)* reference should be made to NH<sub>3</sub>.



- Section 5.2.3.3 Geology and Hydrogeology: in relation to hydrogeology, the report states “*The GSI borehole database indicates that there are over 33,283 groundwater wells and springs at a national level (those with the highest positional accuracy). Of these, approximately 860 are at the appropriate abstraction yield to provide for potable water supply*”. This is somewhat misleading and under represents the reality, as it does not define potable water supply, i.e. a single household well provides enough for a potable water supply, and there are many more than 860 with this potential.
- *Section 5.2.5.3 Transboundary Gases* should use the most up-to-date information (Informative Inventory Report, link above) and reference it accordingly.
- It should be noted that the EPA will be reporting NOx emissions from manure management and agricultural soils in its 2018 national air pollutant inventory submission (and all future submissions) under the Convention on Long Range Transboundary Air Pollution and the National Emissions Ceilings Directive. Furthermore it should be noted that emissions of NOx and NMVOC’s from manure management and agricultural soils will not be accounted for in terms of compliance with the National Emissions Ceilings Directive (Article 4 pagr 3(d) Directive 2016/2284 (EU)).

## **Section 6. Environmental Protection Objectives and SEA Framework**

- In *Table 6-1 SEA Objectives, Targets and Indicators*, it appears that the focus is on prevention of deterioration rather than improvement.

## **Section 7. Alternatives**

- It should be clearly outlined how the alternatives considered would impact on WFD status and progress towards meeting WFD objectives. For example, would the do-nothing approach cause a significant decrease in Good water bodies? The impact of the preferred alternative, the NAP, on WFD status should then be clearly outlined. For example, will the proposed measures reduce the number of moderate estuaries, or maintain the status quo?

## **Section 8. Assessment of Preferred Alternative**

- Page 134: Article 16(3): labelling all soils at P index 3, where no soil testing has been undertaken, increases the risk of P loss and water pollution. We recommend a move away from assumptions about soil P index to a more informed evidenced based approach, particularly in the catchments of waterbodies with water quality problems.
- Page 135: There is an error in the second table, which should read “Determining fertilizer use based on previous stocking rates”.
- Page 140: Point referring to article 17(18) and the potential impact on water quality of cattle entering water courses on farms with <170 kg N<sup>-1</sup>; we note that this is of particularly relevant to high status sites.

## **Section 9. Mitigation and Monitoring**

- In relation to the monitoring proposed for Objective 5 Air Quality in *Table 9.3 Environmental Monitoring Programme*, the EPA’s Informative Inventory Report should be used as a data source  
[www.ceip.at/ms/ceip\\_home1/ceip\\_home/status\\_reporting/2017\\_submissions/](http://www.ceip.at/ms/ceip_home1/ceip_home/status_reporting/2017_submissions/).  
 For Objective 6 Climatic Factors, the EPA’s National Inventory Report should be used as a data source:  
[http://unfccc.int/files/national\\_reports/annex\\_i\\_ghg\\_inventories/national\\_inventories\\_submissions/application/zip/irl-2017-nir-14apr17.zip](http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/irl-2017-nir-14apr17.zip)

- Table 6-1 should refer to the Informative Inventory Report (link above) as an indicator for air quality/air pollutants and should refer to the National Inventory Report (link above) for greenhouse gases/climatic factors.
- On page 153 there appears to be a misunderstanding in relation to the use of different radii for setback distances in Article 17(2) to (11) and the recommendation that a standardised distance be used. It should be noted that larger supplies draw water from larger areas underground and therefore the set back distances need to be larger to provide the same protection.

### **Integration of SEA and AA Recommendations in the NAP and the GAP Regulations**

As discussed earlier in this submission, it is currently unclear how the GAP Regulations and the NAP have been informed by the SEA and AA processes. The SEA process has proposed 22 mitigation measures / recommendations and a further 36 related mitigation measures are proposed in the Natura Impact Statement.

We recommend the inclusion of a Table with commentary in the SEA Environmental Report outlining how these 58 mitigation measures/recommendations have been considered and, where appropriate reflected in the GAP Regulations and the NAP. This Table should also be included in the recommended NAP document. Both the NAP document and the SEA Environmental Report should also include a schematic showing how the SEA and AA processes have informed the NAP and the GAP Regulations.