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Mr Ultan Waldron,
CAP Rural Development Division,
4C Agriculture House,
Kildare St,
D02 WK12

13th April 2021 Our Ref: SCP210203.1

Re. SEA Scoping for the CAP Strategic Plan 2023-2027

Dear Mr Waldron,

We acknowledge your notice, dated 17th February 2021, in relation to the SEA Scoping for the CAP Strategic Plan 2023-2027 (the 'Plan').

The EPA is one of the statutory environmental authorities under the SEA Regulations. In our role as a SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as a SEA environmental authority do not include approving or enforcing SEAs or plans.

Where we provide specific comments on plans and programmes, our comments will focus on the EPA's remit and areas of expertise (in particular water, air, climate change, waste, resource efficiency, noise, radon and the inter-relationships between these and other relevant topics e.g. biodiversity), as relevant to the particular plan or programme.

There is unequivocal evidence from reports by EPA and others that agriculture in Ireland is causing pollution and damage to ecosystems and biodiversity. The sector is responsible for approximately a third of national greenhouse gas emissions and over 99 per cent of national ammonia emissions, and is the largest significant pressure on our water resources. It is clear from our published assessments of agriculture that change is now required in the sector to ensure – and 'assure' - its environmental sustainability. Chapter 13 *Environment and Agriculture* of the latest State of the Environment report is discussed later in this document. Systemic change is required across the sector to address the challenges and as such it is important that the objectives of the CAP strategic plan aim to implement such change and monitor its progress.

The CAP Strategic Plan needs to convey a strong message that the agriculture sector will demonstrate ownership and lead out on actions to achieve national and European targets, be they in the climate, water,

biodiversity or other environmental topics. This ownership and leadership can be done through the *facilitation* and *promotion* of actions that will ensure Ireland meets our relevant targets.

The Plan should recognise that there is a role applying the principle of the "*right measure in the right place*" during implementation. The environmental measures proposed in the CAP Strategic Plan should be targeted based on the needs in particular locations. While certain issues such as climate are considered national issues, the spatial element of addressing other issues including water quality or biodiversity should not be ignored. The strategy should look to introduce environmental measures that will have multiple benefits.

As the CAP Strategic Plan will be the overarching agricultural policy for the country, it will be important that the messages conveyed within it are consistent with the environmental objectives in other national agricultural plans, ensuring a balanced integrated approach to the management of agriculture into the future.

This submission highlights a number of key environmental issues to consider in preparing the Plan and SEA. Detailed comments on the scope of the SEA are provided in Appendix I and some suggested key high-level plans to consider are listed in Appendix II. We also attach additional EPA submissions for consideration, including the submission on the SWOT analysis for the CAP, the strategic priorities for AgriFood 2030 and the DAFM statement of strategy (Appendix III). These observations are in addition to those made at the CAP scoping workshop held on 11th March 2021.

Sustainable Development Goals & Key Actions for Ireland

Our State of Environment Report *Ireland's Environment - An Integrated Assessment 2020* (EPA, 2020) identifies thirteen Key Messages for Ireland. Delivering Ireland's long-term sustainable development and environmental protection goals will require a concerted effort by government departments to address these key actions:

1. *National Policy Position for Ireland's Environment* - Recognition of the need for an integrated policy position given the many interlinkages and dependencies.
2. *Full Implementation of existing environmental legislation and review of governance/coordination on environmental protection across public bodies*
3. Promote the benefits of a clean environment for health and wellbeing.
4. Systemic change is needed for Ireland to become climate neutral and a climate resilient society and economy.
5. World Health Organisation clean air quality guideline values to be adopted within the Clear Air Strategy as specific targets to achieve.
6. Safeguard nature and wild places as a national priority to preserve its legacy for future generations.
7. Improve the water environment and tackle water pollution locally at a water catchment level.
8. Reduce human induced pressures on the marine environment.
9. Move away rapidly from extensive use of fossil fuels to the use of clean energy systems.
10. An agriculture and food sector that demonstrates validated performance around producing food with a low environmental footprint.
11. Drinking water and wastewater infrastructure must meet the needs of our society.
12. Move to a less wasteful and circular economy where the priority is waste prevention, reuse, repair and recycle.

13. Promote integrated land mapping approaches to support decision making on sustainable land use.

These key messages are also linked to a number of the UN's Sustainable Development Goals, in particular Life on Land, Life below Water and Climate Action. Addressing and implementing these actions will be important in delivering environmental protection and promoting sustainable development in Ireland. In finalising the Plan and integrating the findings of the SEA into the Plan, the relevant recommendations, key issues and challenges described in Ireland's Environment report should be taken into account.

Chapter 13 *Environment and Agriculture* addresses the challenges facing the Irish environment as a result of agriculture. There is a need for more holistic farm management and the adoption of a water catchment-level management approach, encompassing all environmental pressures. This will be fundamental to making progress towards a more environmentally sustainable and carbon-neutral food production system.

The relevant environmental objectives and policy commitments of the National Planning Framework, National Climate Action Plan, National Biodiversity Action Plan and the National River Basin Management Plan should be aligned with and considered in the CAP Strategic Plan.

Scope of the SEA

The Plan should clearly set out the scope, remit and implementation related elements of the Plan. These will have implications for the SEA, in terms of guiding the level of assessment applicable at the appropriate level for the Plan. Where it is envisaged that measures proposed in the Plan will be implemented via other plans, which themselves have been or will be subject to SEA, this should be explained in the Environmental Report and taken into account in the assessment.

Where specific measures will be implemented directly via the Plan, further detail should be provided in the Environmental Report and Plan on the relevant environmental assessments to be carried out at the project stage and relevant mitigation measures to be applied, as appropriate. There may be merit in exploring this issue further with the relevant Environmental Authorities during the Plan preparation and SEA processes.

Integration of SEA and Plan

All recommendations from the SEA and AA processes, including mitigation measures and monitoring proposals, should be integrated in the Plan. We recommend that the Plan includes summary tables outlining the key findings of the SEA and linking the significant environmental effects identified to the proposed mitigation measures, monitoring programme and Plan policies/measures.

Monitoring, Review & Reporting

The Plan should include a commitment to implementing the proposed environmental monitoring programme and associated reporting. We recommend including a separate section on '*Monitoring, Review and Reporting*' in the Plan, setting out the provisions for monitoring and reporting on the implementation of the Plan and periodic reviews. There would be merits where possible in aligning the periodic reviews of the Plan with existing cyclical reporting e.g. *State of the Environment Report*, National Planning Framework, Water Framework Directive, Marine Strategy Framework Directive, etc.

In between review periods for the Plan, we recommend that Plan-related implementation reports are published annually, or biennially, as appropriate. We recommend aligning the Plan implementation

monitoring/reporting with the environmental monitoring required under the SEA legislation. Doing so would enable the environmental performance of the Plan to be evaluated and would also provide for increased transparency during implementation.

The SEA-related monitoring should address positive, negative and cumulative effects where they are likely to occur and should include provision for on-going review to facilitate an early response to any environmental issues that may arise. The Environmental Report should specify the monitoring frequency and responsibilities and include provisions for reporting on the monitoring. To avoid duplication in data collection, the same indicators should be used for the plan-related and SEA-related monitoring where possible.

Establishing an Implementation and Environmental Monitoring Working Group would provide for oversight of the implementation of the Plan, environmental monitoring and reporting. The arrangements in place for the implementation stages of plans such as the Offshore Renewable Energy Development Plan (OREDP) and the Wild Atlantic Way may be worth considering, as appropriate.

Integration with other key Plans and Programmes

We recommend including schematics in the Plan and SEA Environmental Report, showing the links and key inter-relationships with other relevant national, regional, sectoral and environmental plans.

Data & Knowledge Gaps

The Plan should identify any key relevant significant data and knowledge gaps, include commitments to address these on a priority basis during the implementation phase of the Plan. This is with a view to strengthening the evidence base for future reviews and iterations of the Plan.

Transition to a low carbon climate resilient economy and society

The Plan should also align with national commitments on climate change mitigation and adaptation, as well as any relevant sectoral climate adaptation plans. The Plan should take account of the current actions laid out in the Interim Climate Actions 2021 to meet Irelands climate ambition. The Climate Action Plan 2021 will lay out a roadmap for getting to net zero carbon emissions – the actions contained should be considered and incorporated into the objectives of the CAP Strategic Plan.

Available Guidance & Resources

Our website contains various SEA resources and guidance, including:

- SEA process guidance and checklists
- Inventory of spatial datasets relevant to SEA
- Specific SEA guidance (including *Good practice note on Cumulative Effects Assessment* (EPA, 2020), *Guidance on SEA Statements and Monitoring* (EPA, 2020), *Integrating climatic factors into SEA* (EPA, 2019), *Developing and Assessing Alternatives in SEA* (EPA, 2015) and *Integrated Biodiversity Impact Assessment* (EPA, 2012))

You can access these resources at: www.epa.ie/monitoringassessment/assessment/sea/

Environmental Sensitivity Mapping (ESM) Webtool

The ESM Webtool is a new decision support tool to assist SEA and planning processes in Ireland. The tool brings together over 100 datasets and allows users to explore environmental considerations within a

particular area and create plan-specific environmental sensitivity maps. These maps can assist in anticipating potential land-use conflicts and in identifying suitable development locations, while also protecting the environment. The ESM Webtool is available at www.enviromap.ie.

EPA SEA WebGIS Tool

Our SEA WebGIS Tool has been updated recently and is now publicly available at https://gis.epa.ie/EPAMaps/SEA. It allows public authorities to produce an indicative report on key aspects of the environment in a specific geographic area It is intended to assist public authorities in SEA screening and scoping exercises.

EPA WFD Application

Our WFD Application provides a single point of access to water quality and catchment data from the national WFD monitoring programme. Publicly available data can be accessed via www.Catchments.ie. This is particularly relevant to the adoption of a catchment based approach to developing the Plan.

EPA AA GeoTool

Our AA GeoTool application has been developed in partnership with the NPWS. It allows users to a select a location, specify a search area and gather available information for each European Site within the area. It is available at: https://gis.epa.ie/EPAMaps/AAGeoTool

Environmental Authorities

Under the SEA Regulations, you should consult with:

- Environmental Protection Agency;
- Minister for Housing, Local Government and Heritage;
- Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media;
- Minister for Environment, Climate and Communications; and,
- Minister for Agriculture, Food and the Marine.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours Sincerely,

Dr Jonathan Derham
Programme Manager
Office of Evidence and Assessment
Environmental Protection Agency

APPENDIX I – DETAILED COMMENTS ON THE SCOPE OF THE SEA

Scope of the SEA

We note that the scope of the SEA may evolve over time as the CAP negotiations continue and that any further amendments will be reflected in the environmental report. Furthermore, we note the list of information that the environmental will contain. The environmental report will also need to reference any legislative requirements from the CAP regulations.

Within both the SEA environmental report and the CAP Strategic Plan it would be useful to include a schematic showing the relevant plan hierarchy for agri-plans (e.g. CAP, Agri-Food, AgClimatise, Rural Development Plan, *etc*.).

In the context of legislation to be considered within the scope of the SEA, there is merit in giving more weight to the consideration of some legislation. For example, the Drinking Water Directive should have the same standing as the Water Framework Directive given the potential for agricultural activities to contaminate drinking water sources, whether single house or at larger scale. Likewise, the Industrial Emissions Directive, which is referenced in the scoping report, should have more prominence given its role in the regulation of larger intensive agriculture activities.

Temporal and Spatial scope of the SEA

The report refers to the proposals for the temporal and spatial approaches to the SEA. In relation to the temporal scope**,** the European Environment Agency have recently commissioned research into the development of horizon scanning tools that may be of use in relation to quantifying the effects of CAP implementation on a medium to long term basis. Once the report becomes available we will provide the relevant link.

Under the spatial analysis element for SEA there are opportunities to profile the trends in agricultural land use and the changes that have occurred in recent years (using LPIS). This will facilitate the prediction of long-term land use trends at regional and local scale, their implications and provide a necessary focus of the CAP Strategy.

The scoping report notes that there are data gaps in relation to landscape, air quality emissions and greenhouse gas emissions. Consideration could be given, as previously mentioned, to establishing an implementation group for the CAP Strategic Plan. The implementation group would be in a position to take account of any new information that becomes available and how best to utilise the data to meet the objectives of the plan.

We welcome the use of the Environmental Sensitivity Mapping Webtool in the scoping report. In addition to the datasets that have been used in Figure 6 *Preliminary environmental sensitivity map*, it may be useful to include the freshwater pearl mussel catchment areas. This would assist in the appropriate location of afforestation sites and assist with the proper management of those sites.

Content of the CAP Strategic Plan and its strategic objectives

We note the wording of the CAP objectives on page 4 of the SEA scoping report. The objectives relating to climate change and biodiversity should be reviewed and updated to provide a more definitive statement of ambition in terms of their commitment to action. It is worth considering stronger, more definitive wording

for both objectives, given that both topics are subject to crises, for example "*Monitor the progress towards….*".

Table 1 '*CAP Interventions in National Strategic Plans*' refers to direct payments and sustainability. It is unclear from the table if the reference to sustainability is meant to mean economic/financial sustainability or environmental sustainability. There is merit in further expanding the interventions to build on examples of good practice schemes that have been undertaken. Direct payments could be linked to land use / land management activities that focus on co-benefits / ecosystem services, in areas where intensive agriculture is not viable. Where lands are assessed as not suitable for specific purposes, certain land management practices or uses should be discouraged and more environmentally sustainable options promoted and valued to a greater extent. Direct farm payments could be linked to best land use rather than farming for derogations. This would protect incomes, provide for environmental protection and appropriate land uses.

In addition, Table 5 *Draft Strategic Environmental Objectives and subheadings* should make reference to ammonia deposition effects on Biodiversity, Flora and fauna, especially Natura sites **(**See https://www.ucd.ie/ammonian2k/**).**

The impact of agricultural activities at the granular level should be acknowledged and the right for quality of life in potentially affected communities – e.g. households, non-farming rural communities (table 5 for reference to "quality of life for farming communities"), village and small town urban dwellers, all of whom can be affected by local agricultural impacts such as odour (from the activity itself or indirectly from landspreading of residues), water pollution and drinking water contamination. It could be useful to explore the correlation of these aspects with intensification at the local level if the aggregated effect at national level is to be understood and used in the strategic environmental assessment that will inform Ireland's approach to implementation of the CAP.

Consultation

There may be merit considering carrying out further transboundary consultation beyond Northern Ireland to consider, in particular, farm hazardous waste disposal.

Research

The outputs from the various agricultural research programmes should inform the SEA, such as the outputs from the various projects funded under the Agricultural Catchments Programme.

The scoping report refers to investing in research. It will be important that the CAP Strategic Plan goes further than "invest" so that it ensures the research is not only funded but that the outputs are subsequently incorporated into best practice and used to inform policy as appropriate. Ideally the latest research would be put into best practice, e.g. soil and nutrient capture in riparian zones – managing drainage.

There is also merit in considering whether the impact of recent research on agriculture and the environment, funded or completed as part of the current CAP in the context of data gaps which the research filled, how it informed policy and best practice and what policy developments have been implemented as a result of the research.

Impacts of Ammonia Emissions on Irish Habitats

In relation to Ireland, the main long range transboundary air pollutants pollutant of concern in terms of impact on habitats is nitrogen (both NO_X and NH_3) with SO_2 emissions being relatively low and ozone damage to crops not as significant an issue as in other EU countries. Ireland is facing serious challenges in meeting the emissions ceilings set under the NECD for ammonia, with agricultural activities being responsible for practically all national ammonia emissions.

EPA research projects on 'critical loads' in Ireland have highlighted the ongoing impacts of pollutants on ecosystem quality. Different critical loads are applicable to different habitat types with certain Irish habitats such as raised bogs, blanket bogs and heathlands being particularly sensitive to nitrogen deposition. The impacts associated with both increased acidity and nutrient enrichment are summarised below:

Acidification	**Nutrient Enrichment**
Decreased forest growth	Nutrient imbalances
Increased susceptibility to disease	Elevated nitrogen leaching
Decreased soil nutrient status	Loss of sensitive plant species
Loss of soil structural integrity	Increase in invasive plants
Increased export of metals bound in the soil	Increased tree mortality

While acidifying effects are decreasing, the effects of nutrient nitrogen are increasing, as shown in Figure 1 below. Nutrient nitrogen deposition is dominated by national emissions and specifically by ammonia emissions from agricultural activities.

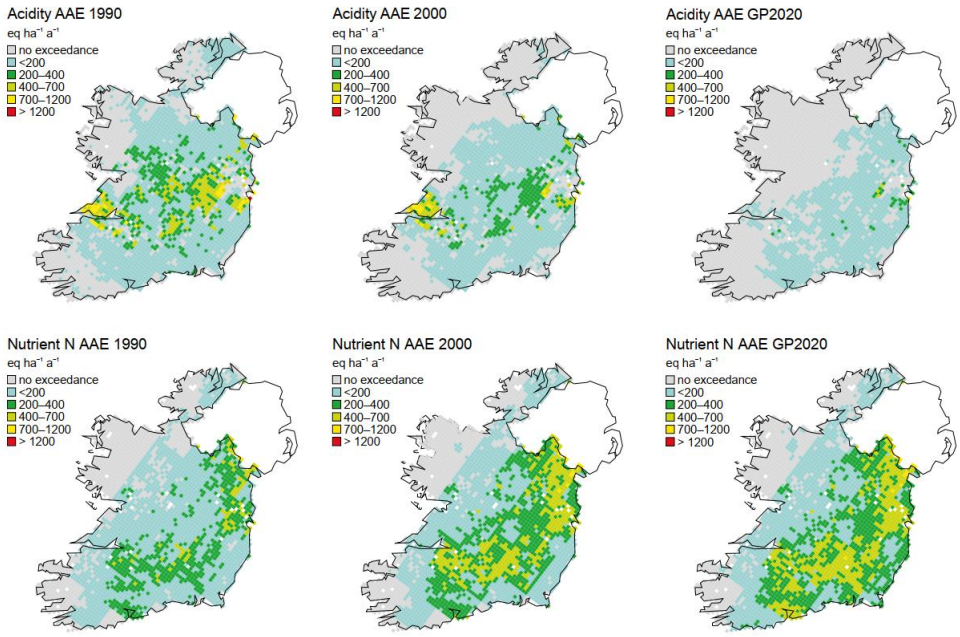

Figure 1: Maps illustrating exceedance of critical loads for acidity (top) and nutrient nitrogen (bottom) for 1990, 2000 and projected for 2020 (Aherne et al., 2017).

More recently there is also evidence that the critical loads of nitrogen deposition for some Irish habitats are lower than previously determined and that the exceedances of critical loads shown above may in fact be an underestimate of the actual levels of impact. EPA funded research (Aherne *et al.*, in press) examined the critical load values currently being applied to specific Irish habitats. This report found that plant species in blanket bogs and heathlands are the most sensitive to total nitrogen deposition and recommended empirical critical load for these habitats of 5 kg N ha−1 yr−1, which is lower (or at the lower end) of existing recommended ranges for European habitats. The study also includes a preliminary estimate of exceedance of critical loads and suggest that more than 9,000 km^2 of habitat receive nitrogen deposition in excess of their critical load, with more than 400 km^2 exceeded by more than 5 kg N ha−1 yr−1. An initial estimate of the impact on habitats specifically designated under Annex I of the EU Habitats Directive indicates that around 20 % or more of these habitats are receiving nitrogen deposition in excess of the critical loads. Further work is required to develop additional information on the impacts of ammonia deposition on designated Irish habitats, however current evidence suggests that the impacts are significant.

In addition to the impacts of nitrogen deposition on habitats as discussed above, previous EPA funded research has also examined the impacts of ammonia emissions from intensive agriculture activities on levels of ammonia in ambient air and the subsequent impact on sensitive habitats in Ireland. It is estimated that c.81% of Natura 2000 sites may exceed an atmospheric concentration of 1 µg/m^3 of ammonia, the level at which impacts are known to occur on lichen and moss species (Kelleghan *et al.*, 2020), while at least 6 % exceeded a level of 3 µg/m^3, at which levels impacts are likely to occur on higher order plants.

It is clear there is a need to reduce ammonia emissions to meet our emissions targets under the national emissions ceiling directive. However, it will be important, regardless of the targets, to look at the interrelationships between air and population and human health in the context of reflecting the underlying critical need to reduce ammonia emissions to protect human health (e.g. through reducing formation of secondary particulate matter) and also protect our native habitats from the adverse effects associated with ammonia exposure and nitrogen deposition. Reducing ammonia emissions presents an opportunity to enhance and preserve our native habitats, preventing further habitat damage and supporting recovery in sensitive Irish habitats such as bogs, grasslands and heathlands.

<u>Licensing of the Intensive Agriculture Sector under the Industrial Emissions Directive</u>

Ammonia emissions from the intensive pig and poultry sector, currently stand at about 11% nationally. This is significantly lower than from cattle and for the most part, these are addressed within current Industrial Emissions Directive (IED) licensing controls. It is worth noting however that there are large numbers of pigs and poultry activities operating below the IED threshold under Local Authority planning. Despite only contributing to 11% of national ammonia emissions, in the border region (County Cavan and County Monaghan) spatially, they are quite concentrated, with 138 licensed installations within the counties. In addition, there has been a significant increase in intensive agriculture IED applications to the EPA in recent times. In fact, 40% of all licence applications received in the past 15 months have been from the Cavan /Monaghan region. The EPA is also aware of a very large number of below EPA licensing threshold installations in this region in particular.

The cumulative impacts of ammonia from these and other installations/operations on nearby Natura 2000 sites needs to be better understood and considered and this is particularly important in the context of ensuring environmental sustainability. Ammonia has especially detrimental effects on species and habitats

that are sensitive to elevated levels of nitrogen input. The concentration of intensive agriculture sites (EPA-licensed and below licensing threshold), in-combination with other farming activities (e.g. dairy and beef), has the potential to impact on the critical level and critical loads for sensitive species at Natura 2000 sites in this region.

APPENDIX II – ADDITIONAL SUGGESTED PLANS, LEGISLATION AND DATA SETS TO CONSIDER

Legislation – The list of legislation in the scoping report should be given a thorough review to ensure no revoked legislation has been included e.g. IPPC Directive, Good Agricultural Practice Regulations, etc.

- Paris Agreement (replace reference to the Kyoto Protocol)
- Basel Convention
- Sustainable use of pesticides Directive
- Industrial Emissions Directive
- Marine Strategy Framework Directive
- Convention on Long Range Transboundary Air Pollution (CLRTAP)
- National Emissions Ceiling Directive
- Effort Sharing Regulation for 2030 (Regulation 2018/842)
- Climate and Energy Governance Regulation (2018/1999)
- LULUCF Regulation (Regulation 2018/841)
- Kyiv (SEA) Protocol

Plans and Programmes

- A Sustainable Bioeconomy for Europe
- National Policy Statement on the Bioeconomy
- Prioritised Action Framework 2021-2027 (NPWS)
- National Biodiversity Action Plan 2017-2021
- Management plans for Natura 2000 sites
- Draft National Hazardous Waste Management Plan
- Waste Action Plan for a Circular Economy
- National Waste Management Plan for the Circular Economy (replacing the regional waste management plans)
- Just Transition First Progress Report
- National Adaptation Framework
- National Air Pollution Control Plan 2021
- Implementation plan for FoodWise 2025 and the associated progress reports
- Draft Agri-Food 2030 Strategy (once published)
- National Action Plan for the Sustainable Use of Pesticides
- Fourth Nitrates Action Programme and information from the current review which is underway
- Relevant plans and programmes from Northern Ireland
- Interim Climate Actions 2021 and Climate Action Plan 2021 (once available)
- EU Climate Adaptation Strategy 2021
- Climate Action and Low Carbon Development (Amendment) Bill 2021

Data Sets

- National Land Cover maps will hopefully be available in Q3 2021
- Corine change dataset should also be considered as it gives change 5ha resolution compared to 25ha of Corine
- WFD Pressure datasets that are not on GeoPortal (PIP maps)
- WFD Pressure datasets
- Land use trends (analysis of LPIS as discussed above)
- LULUCF Inventory (if available in time)
- Land use management and intensity factors – the land use is one factor but then the intensity of use is another key factor that should be included. DAFM have lots of information on management / intensity.
- The role of weather data and how its relationship to soil and nutrient losses, can be integrated to minimise the environmental impact.
- The EPA Appropriate Assessment Geotool (on EPA Maps)
- Irish Soil Information System - http://gis.teagasc.ie/soils/
- Ireland's Provisional Greenhouse Gas emissions 1990-2019 (http://www.epa.ie/pubs/reports/air/airemissions/ghgprovemissions2019/EPA-Prov_GHG-Inventory-Report-1990-2019_final.pdf)
- Article 17 Habitats Directive Reports Ireland/NIreland https://www.npws.ie/publications/article-17-reports/article-17-reports-2019 https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019/
- Northern Ireland environmental datasets
- European Environmental Agency Report – Water and Agriculture: Towards sustainable solutions (https://www.eea.europa.eu/publications/water-and-agriculture-towards-sustainable-solutions)
- Spatial analysis of Ireland's greenhouse gas and ammonia emissions exist at https://projects.au.dk/mapeire/spatial-results/. We are currently updating this spatial information for submission under the Convention on Long Range Transboundary air pollution and National Emissions Ceilings Directive.
- EPA national air pollutant inventory submissions, available at http://www.epa.ie/pubs/reports/air/airemissions/airpollutantemissions/

References

- Aherne, J., Wilkins, K. and Cathcart, H., in press, Nitrogen-sulphur critical loads: assessment of the impacts of air pollution on habitats, EPA Research Project 2016-CCRP-MS.43. Expected publication in Q2 2021.

- Aherne, J., Henry, J. and Wolniewicz, M., 2017, Development of Critical Loads for Ireland: Simulating Impacts on Systems (SIOS), EPA Research Report 2008-CCRP-4.1a.

- Kelleghan, D.B., Hayes, E.T., Everard, M. and Curran, T.P., 2020. Assessment of the Impact of Ammonia Emissions from Intensive Agriculture Installations on Special Areas of Conservation and Special Protection Areas. EPA Research Report 2013-EH-MS-14.

APPENDIX III – ADDITIONAL DOCUMENTS

1) EPA Submission on CAP Strategic Plan SWOT analysis
2) EPA submission on strategic priorities for AgriFood 2030
3) EPA Submission on the DAFM Statement of Strategy 2020-2023
4) EPA Submission on the public consultation for Ag-Climatise

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CAP Rural Development Division
Department of Agriculture, Food and the Marine,
4 C, Agriculture House,
Kildare Street

October 2019

Re: Cap Strategic Plan SWOT analysis

Dear Sir/Madam,

The Environmental Protection Agency (EPA) welcomes the opportunity to comment on the strengths, weaknesses, opportunities and threats of the nine strategic objectives of the new Common Agricultural Policy (CAP). This submission builds on, and should be read in conjunction with, the EPA's recent submission on the Department's Statement of Strategy 2020-23, several recent reports and submissions that are listed therein, the Interim review of the Nitrates Derogation, and the annual Article 10 Nitrates report submitted to the Department in July this year. The key points from those submissions are provided in brief below, followed by some specific comments on the SWOT analysis.

EPA recommends:

1. That measures and supports for farmers should be targeted and aimed towards delivering multiple benefits for climate, air quality, biodiversity, water quality and flood protection where possible.
2. That a whole farm planning approach should be introduced so that farmers can be supported to achieve their business goals in the context of achieving multiple environmental targets.
3. That consideration should be given to rolling out farmer led, results based, supportive programmes such as the Smart Farming Programme and the Agricultural Advice and Support Programme (ASSAP) more widely, to deliver environmental outcomes.
4. That measurable, reportable and verifiable evidence that agriculture is playing its part in reversing these trends, by halting environmental deterioration and making measurable environmental improvements, will be essential.

General key points

Given the overall importance of agriculture and food production to the Irish economy and to rural communities, and the current period of change across the agricultural and climate policy landscapes, there is now a unique opportunity to position Ireland as the world leader in sustainable, low carbon and environmentally friendly land management supporting the production of safe, nutritious, high-quality foods, renewable energy, and valuable inputs to a growing bioeconomy.

Climate change, sustainability and environmental protection have emerged as much stronger factors influencing and shaping the future development of agriculture and land management in Ireland in recent years, in comparison to approaches of the previous decades. The review of the CAP, coinciding with the development of a new Statement of Strategy 2020-23 for DAFM, presents a timely opportunity to strengthen the agri-food sector's commitment to continued growth in an environmentally sustainable way.

A core principle of FoodWise 2025 was that 'environmental protection and economic competitiveness are equal and complimentary – one will not be achieved at the expense of the other'. The strategy also stated that 'future food production systems must be as focused on managing and sustaining our natural resources as they are on increasing production'. The evidence is now showing that these two objectives have not been met. FoodWise 2025 strategy has delivered the intensification and growth that it promised, but the natural environment has deteriorated, with trends in water quality, greenhouse gasses, ammonia and biodiversity all going in the wrong direction. It is also clear that agriculture and other land management practices are key drivers of these negative trends. The deteriorating trends present a significant threat to Ireland's environment which underpins our health and wellbeing and our economy, including the agricultural sector which depends on our reputation and marketing advantage as a food producing nation with strong environmental credentials. Ireland's commitments to sustainability and the environment are at risk of being viewed as of lesser importance to commitments to expansion and intensification. The agriculture and land management sectors need to become as strong advocates for a clean and well-protected environment as they have been for intensification and efficiency.

Currently, the principal model for generating sustainable incomes for farmers is intensification which has been driving the expansion of the dairy herd. This expansion is being subsidised by the environment in places, and is leading to a lack of diversity and resilience in the agri-food sector and the environmental assets on which it is based. Consideration needs to be given to whether land is suitable for intensification, and if not, what other farming systems are available to support sustainable incomes. The issue of perverse incentives to remove habitats under Pillar 1 so that land is eligible for the basic payment, and then reinstated under the Pillar 2 agri-environment schemes, needs to be addressed.

Many of the actions set out for farmers under current policies to help with tackling climate change and other environmental challenges are based on driving efficiencies, with an inherent assumption that if farms are efficient they will be environmentally sustainable, which is not the case. Efficiency must be a mandatory baseline so that best use of resources is made. Every catchment has a nutrient limit and inefficient nutrient management practices use up the available 'headroom', which takes from other farmers and the environment. The environment is effectively subsidising poor farming practices in some areas. Efficiencies, on their own, will not deliver adequate environmental outcomes, particularly where the efficiency savings are used for further intensification. Additional measures, beyond efficiencies, are required in some areas.

Measures and supports for farmers should be aimed towards delivering multiple benefits for climate, air quality, biodiversity, water quality and flood protection where possible. Regional variation around the country in soils, climate, environmental problems, and in the social and economic circumstances of farmers, mean that measures must therefore be farm-specific, tailored and targeted. The one-size fits all approach to managing all farms in a similar way through regulation, on its own, is not enough and should be considered only as the basic minimum. Specific measures will be needed in some areas that are appropriate for local farming practices, different farm settings, and local biodiversity, water quality and climate conditions.

Consideration should be given to adopting a whole farm plan approach that would place the farmers business goals within the context of farm-specific environmental targets for water quality, biodiversity, flood mitigation, and ammonia and greenhouse gas reduction. This would help ensure there was one set of consistent and complementary targets and goals.

Measurable, reportable and verifiable evidence that agriculture is playing its part in reversing adverse environmental trends, by halting environmental deterioration and making measurable environmental improvements, will be essential. Better ways of sharing data amongst public bodies need to be found, so that the evidence can be brought to communities on positive environmental outcomes that can be directly related to their actions, so that a sense of ownership and pride can be achieved to celebrate successes.

Ireland has strong national research structures in place, through Teagasc, the DAFM, the Universities and the EPA research programme, which are generating scientific advancements and innovations that underpin the Irish agricultural sector. Much of the research is multi-disciplinary and multi-Agency which provides a focus on addressing the key environmental challenges in an interdisciplinary way, and is to be encouraged.

Programmes such as the Smart Farming Programme, results-based payment schemes under the European Innovation Partnership programme, and the new ASSAP programme bring the science, along with environmental advice and support to farmers, in a tailored way that is specific to their farm. These programmes may serve as a useful model that can be leveraged to achieve targeted outcomes across all the environmental issues. Consideration should be given to rolling them out more widely, supported by a comprehensive training programme for the agricultural advisors. In the longer term, a greater emphasis should be placed on environmentally sustainable farming techniques in agricultural training colleges, so that the need to achieve a balance between agronomic and environmental outcomes is instilled in our young farmers.

Specific key points on the SWOT

EPA notes that objectives 4, 5 and 6 discuss the environmental aspects of CAP, and therefore this submission focuses mainly on those key objectives. In general, the analysis is comprehensive and appears to have considered the majority of the main issues. The key specific comments are as follows:

Under Objective 4, it could be acknowledged that there is potential for increases in the carbon footprint of Irish agricultural exports and imports under Brexit, as new markets are developed.

It is listed under Objective 5 that it is a strength that there is '*Low level of concentration of nitrates in freshwater in Ireland*'. As reported in the annual nitrates report, national scale reporting masks regional and local evidence that tells a different story. The evidence is clear that agriculture is

causing water quality problems in some areas, and in those areas, the problems are getting worse. The catchments to the south of the country in particular, have elevated nitrate concentrations that are too high to support Gocod Ecological Status in a number of our estuaries. Additional nitrate mitigation measures are therefore required in those catchments and this should be acknowledged. This will require a targeted approach to measures rather than a 'one-size fits all' approach. It should also be acknowledged that the potential loss of the Nitrates Derogation is a threat, as is the potential for the loss of Ireland's 'clean green' marketing advantage if our environmental credentials are perceived to be lacking. The Smart Farming Initiative could be noted as an opportunity under this objective, alongside the Agricultural Sustainability Support and Advice programme.

Under Objective 6, there is also a threat that ammonia emissions may impact on habitats, particularly from intensive farms. This has been the subject of additional controls in Northern Ireland.

Across all three environmental objectives, it could be acknowledged that there is a threat of increased national financial penalties for not meeting environmental commitments.

Two other threats that could be considered elsewhere are lack of diversification on Irish farms which is contributing to the environmental issues, and the resilience of the farming sector in periods of stress, due to for example, market pricing and climatic events. Consumers dietary preferences in the marketplace may also emerge as a challenge for the sector.

The EPA welcomes the Department's collaborative approach to developing the CAP strategic plan. The EPA looks forward to continuing to work with the Department and its Agencies to further its overall objective of developing and supporting thriving, sustainable and resilient agricultural sectors, built on a foundation of a clean, healthy and well-protected environment.

Yours sincerely

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20 July 2020

Re: Strategic priorities to 2030 for "*A Climate Smart, Environmentally Sustainable Agri-Food Sector*"

Dear Tom

The Environmental Protection Agency (EPA) has reviewed the draft chapter *A Climate Smart, Environmentally Sustainable Agri-Food Sector* of the proposed Agri-Food Strategy and welcomes the opportunity to submit its views on what the strategic priorities for future policy should include.

The draft chapter is a thorough, objective and well written assessment of the current environmental challenges associated with the agri-food sector in Ireland. As previously stated in the EPA submission on the Ag-Climatise roadmap, the period to 2030 will shape the future direction of agriculture and its response to environmental concerns and adaptation to climate change. It will also provide opportunities to realise the potential that exists to both produce goods and consume goods in an environmentally sustainable way. We recognise the need to achieve a balance between economic, social and environmental factors in developing a sustainable Agri-Food Strategy, and further recognise that the LULUCF sector is a key component in the national strategic long-term vision for a prosperous, modern, competitive and climate neutral economy by 2050.

In relation to international policy drivers for environmental protection in this sector, the national Agri-Food Strategy should detail in specific measurable terms how it will address the EU Farm to Fork strategy which sets targets to "transform the EU's food system", including: a 50% reduction in the use (and risk) of pesticides; a 20% reduction ("at least") in the use of fertilisers; a 50% reduction in sales of antimicrobials used for farm animals; and an ambition that 25% of agricultural land is to be "under organic farming" by 2030.

In addition, it is recognised that the national policy has to assure that Marine Protected Areas are expanded to meet the current international requirements of conservation of 10 percent of all coastal and marine areas, rising to 30 percent under the EU Biodiversity Strategy 2030.

Agricultural practices are identified in EPA reports as being one of the main pressures responsible for the decline in water quality nationally. Moreover, the sector is responsible for approximately one third of national greenhouse gas emissions, and over 99 percent of national ammonia emissions. It is recognised that on an individual farm, and farm-type, basis there can be evidence of exemplary and low impact practice, however taking the sector as a whole, the economic growth in recent years is happening at the expense of the environment as witnessed by the trends in water quality, emissions, and biodiversity all going in the wrong direction. It is clear from the evidence that agriculture and other land management practices are key drivers of these negative trends. Business as usual will not reverse these trends.

We recognise that there is a role for the 'right measure in the right place' including – as referenced above - appreciating exemplary practice where it exists, however these local variations must be underpinned by fundamental change across the food system to address the core challenges. The draft chapter rightly identifies the 'green' reputation Ireland holds in relation to food and this is leveraged by *Origin Green* and other labelling schemes. Such quality standards play a valuable role and do support efficiency ambitions, however it is clear from examination of the science that the environmental sustainability of the sector as a whole is largely not supported by the evidence. And the case is weakening year-on-year as polluting air emissions increase and water quality further deteriorates. In our view this is a serious reputational risk for the agri-food sector in Ireland. Pending evidence and implementation of effective solutions to ongoing unsustainable air and water emissions, any plans for further intensification/expansion of the dairy herd would be difficult to sustain.

Considering this framing and your request for input to the thematic priorities necessary to address the environmental challenges for the new strategy, we recommend consideration of the following:

Air & Water Quality

- Promote the use of protected urea in place of other less environmentally sustainable fertilisers. Teagasc research shows that protected urea nitrogen fertiliser offers the single largest emission reduction potential to Irish farmers as they seek to reduce greenhouse gas and ammonia emissions without impacting production.[1] Protected urea is reported by Teagasc as a cost effective option so it is a win-win for the industry. Its use is further supported by the Teagasc Marginal Abatement Cost Curve (MACC).

- Choose measures for nutrient management that have multiple environmental benefits. This will involve education and training in conjunction with the national Agricultural Sustainability Support and Advisory Programme (ASSAP). Soils at optimum fertility and soil pH status recycle nutrients more efficiently and should lead to a reduction in inputs for the same or increased levels of grass and crop production while also reducing nutrient loss. This has wide ranging positive outcomes for the environmental pressures identified and is a win-win solution from both an economic and environmental standpoint.

- In catchments with known nitrogen-pollution, it is essential that measures are implemented immediately, to halt, and reverse, the continuing increases in nitrogen emissions to water

(Figure 1). These measures must go beyond improving efficiencies and must be focussed on reducing the total emissions through breaking the link between animal numbers, fertiliser use and deteriorating water quality. The co-benefits to be gained from this including a reduction in greenhouse gases and ammonia (air quality) need to be promoted.

- Prevent the continuing losses of diffuse phosphorus in the catchments under known pressure (Figure 1). The focus should be on breaking the pathways between the critical source areas (or hot spots) and watercourses, e.g. through use of riparian zones, buffer strips, and attenuation solutions. The co-benefits that can be gained for biodiversity, reduced sediments in the water courses and pathogens such as VTEC need to be promoted.

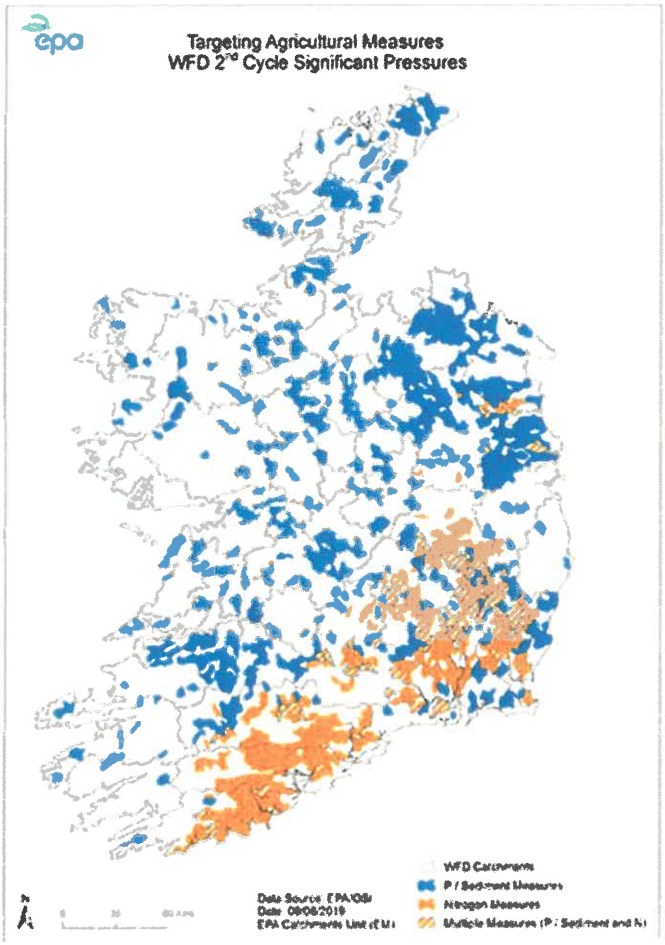

Figure 1: Targeting Agricultural Measures, WFD 2nd Cycle Significant Pressures

Climate & Sustainability

- Promote the use of 'high nature value' farming and the wealth of environmental benefits to be gained from the initiative, particularly in areas with high-status waterbodies, to support sustainable farming practices and local communities. Develop supporting agri-environmental schemes that provide payments for results-based, ecosystem services. The current model of 'payments for costs incurred or income foregone' promotes a concept that farming with the environment is a burden or results in negative outcomes for the farmer which is not accurate or effective.

- Further promote research and development into diversification of farming systems and practices with potential for environmental and economic sustainability for the agri-food sector. Such a programme of research should include methods for improving breeding, feed additives to reduce biogenic methane, agroforestry, paludiculture and nutrient management. A particular emphasis should be placed on developing economically sustainable farm systems for less intensive farms that focus on producing quality food for a premium price.

- Continued active engagement with, and support for, the OSI in progressing the completion of the detailed national land cover and land use maps that will be necessary to verify carbon emissions and offset opportunities (i.e. giving credit where it is due). These are needed in order to avail of the 26.8Mt land-use emissions removal allocation under the EU Effort Sharing Decision to 2030 in our national GHG inventory.

- To allow for accountability (measurement & demonstration) in land use practice there needs to be a move to including outcome focussed metrics, as well as activity metrics, and both need to be linked so there are opportunities for adaptive management.

- Develop and implement a food labelling system for national produce that provides consumers (national and international) with clear purchasing decision support information on carbon intensity (including the transport to market carbon intensity), and sustainability of the product.

- Research and assessment undertaken by CSO and ESRI (latter funded by EPA) identify that there exists within the national taxation and subsidy system a series of reliefs that are environmentally harmful, a number of which occur in the agri-food sector.[2] Such market failures need to be identified and removed from the taxation code and subsidy schema as they are incompatible with sustainability ambitions. For example, current land eligibility rules for the Basic Payment Scheme means that farmers receive no payment for land that is 'unworked', such as scrub and wetlands, which are naturally biodiverse habitats and often serve as buffer strips between the better farmland and watercourses. This incentivises the clearance of such habitats in direct opposition to the environmental incentives within CAP and GLAS.

<u>Marine</u>

- Emerging science suggests that natural marine kelp/macroalgae forests can play a vital role in climate mitigation and adaptation (e.g. carbon sequestration and sea level rise/storm surge wave energy dissipation) as well as in ecological stability.[3] There has been limited research in Ireland into these valuable ecosystem services and accordingly, there is reasonable grounds to adopt a precautionary approach in relation to commercial exploitation. The regulatory system and associated environmental assessment processes for industrial mechanical harvesting of kelp needs a fit-for-purpose evaluation as regards its effectiveness through the life-cycle of a project, i.e. through the application evaluation stage, the consent stage, as well as the operational compliance and enforcement stage (including environmental monitoring and reporting).

Forestry

- The carbon sequestration value of forestry is recognised and is vitally important to national climate action ambitions. However, sediment losses from forestry operations in upland catchments is the most significant pressure impacting on our high status waters. It is essential to ensure full implementation and enforcement of the environmental requirements for afforestation. Immediate action should be taken in the catchments where forestry is causing water quality problems and the level of Forestry Service oversight should be increased when operations are planned in high status catchments.

Food Waste

- Bring stakeholders together to do an all-of-value-chain National Food Waste Reduction Roadmap. This should be developed and implemented with clear national and sectoral targets for 2025 & 2030 to support the achievement of a clearly articulated national food waste prevention target. This will build on the work of the EPA through the National Waste Prevention Programme and the assets, expertise and existing structures of the consumer focused stopfoodwaste.ie and business focused National Food Waste Charter, Retail Action Group and Food Waste Forum. Activities within the roadmap should include behavioural change and educational initiatives for consumers and businesses, technical support interventions, data gathering research, monitoring and evaluation.

There are a range of associated supporting measures as identified in the chapter under review and ongoing initiatives (sward management, run-off management, integrated catchment / land use management planning, farm and nutrient management plans, etc.,) all of which would be expected as a matter of good practice. The farming community are custodians of our landscape, including much of its biodiversity, and have a core role in all solutions. We need to promote land uses that are sustainable and right for our environment and our people. This can be progressed by establishing and implementing a new approach to land cover, land use and land management to help coordinate and monitor Ireland's response to significant environmental issues such as climate change mitigation and the decline in nature across multiple sectors and in a coherent manner. Such a new approach will also deliver a more sustainable economic future for national food production enterprises.

Yours sincerely

Laura Burke
Director General

[1] https://www.teagasc.ie/publications/2020/protected-urea--why-now.php , and https://www.teagasc.ie/media/website/crops/soil-and-soil-fertility/Q--A-Protected-Urea-April-2019.pdf

[2] https://www.cso.ie/en/media/csoie/releasespublications/documents/rp/fossilfuelandsimilarsubsidies/Fossil_Fuel_and_Similar_Subsidies.pdf and, https://www.epa.ie/researchandeducation/research/researchpublications/researchreports/research295.html , and https://www.esri.ie/publications/the-environmental-impacts-of-fiscal-instruments

[3] for example: https://royalsocietypublishing.org/doi/full/10.1098/rsbl.2018.0236

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5th September, 2019

Submission on Statement of Strategy 2020-2023

Dear Sir/Madam

We welcome the opportunity to make a submission on your proposed Statement of Strategy for the period 2020-2023. This period will prove to be crucial for the future direction of agriculture and rural communities in Ireland and your new Statement of Strategy is an opportunity to shape that future in clear and measurable terms.

Given the overall importance of agriculture and food production to the Irish economy and to rural communities, there is now a unique opportunity, through this Strategy, to position Ireland as the world leader in sustainable, low carbon and environmentally friendly land management supporting the production of high-quality foods, renewable energy and valuable inputs to a growing bioeconomy.

The EPA has prepared several reports and submissions in recent years that we consider relevant to your work in preparing your new Statement of Strategy and to which you should have regard. These include:

- Ireland's Environment – An Assessment 2016, which included a special chapter on Agriculture;
- Opening Statement to the Joint Oireachtas Committee on Agriculture, Food and Marine, March 6th, 2018;
- Submission on FoodWise 2025;
- Submission on Nitrates Action Programme;
- Water Quality in 2016 – An Indicators Report;
- Annual Reports on Emissions and Projections of Greenhouse Gasses;
- Reports on Transboundary Gas Emissions.

Recurring themes throughout these reports and submissions are:

- Recognition of the relative importance of agriculture in Ireland for rural and national sustainable development;
- Identification and quantification of the pressures placed on Ireland's natural environment by agricultural and other land management practices which are causing significant problems for water quality, air quality, nature and climate change and risking the reputation of Ireland as a food producing nation with strong environmental credentials;
- Recognising the opportunities available for Ireland in getting it right and being able to prove its credentials as a world leader in sustainable, low carbon and environmentally friendly agriculture and land management.

Since the publication of your last Statement of Strategy for 2016-2019, climate change, sustainability and environmental protection have emerged as much stronger factors influencing and shaping the future development of agriculture and land management in Ireland. It is important that your new Strategy fully recognizes this and the associated challenges facing agriculture in balancing the conflicting demands of growth and intensification on the one hand and sustainability and environmental protection on the other.

The evidence is clear. FoodWise 2025 has delivered the intensification and growth that it promised but the natural environment has deteriorated with trends in water quality, greenhouse gasses, ammonia and biodiversity all going in the wrong direction. It is also clear that agriculture and other land management practices are key drivers of these negative trends. A key objective for the 2020-2023 period must therefore be to demonstrate in a manner that is measurable, reportable and verifiable that agriculture is playing its part in reversing these trends by halting environmental deterioration and making measurable environmental improvements in areas where agriculture is a significant pressure. The agriculture and land management sectors need to become strong advocates for a clean and well-protected environment as they have been for intensification and efficiency. This re-balancing of focus needs to be clearly stated in the new Statement of Strategy, otherwise commitments to sustainability and the environment risk being seen to be of lesser importance to commitments to expansion, intensification and efficiency.

In relation to the four questions posed by you, please see the following responses.

- How well do DAFM services meet the needs of the agri-food, forestry and marine sector and how could they be enhanced?

Overall, DAFM is a strong advocate for the agri-food, forestry and marine sectors. A mechanism through which this could be enhanced during the 2020-2023 period is by ensuring that there is a much greater focus on sustainability and environmental protection when considering existing and new policies and developments for these sectors. These sectors all have the potential to have either positive or negative consequences for the environment, so it is important that environmental and broader sustainable development factors have a significant weighting in policy and implementation decisions. A core objective of all policies should be to protect and improve the environment upon which the food production system and its reputation depend.

The relatively slow uptake of forestry and woodland is a particular problem that needs a focused response during the 2020-2023 period. Increased planting of trees if done in an

environmentally sustainable way can lead to multiple benefits for water, air quality, climate change, biodiversity and farm income.

Currently, the principal model for generating sustainable incomes for farmers is intensification which has been driving the expansion of the dairy herd. This expansion is being subsidised by the environment in places. The new Strategy provides an opportunity to identify and promote other ways of generating sustainable incomes, such as diversification, payments for ecosystems services, value adding premium products, 'green label marketing', etc.

Many of the actions set out for farmers under current policies to help with tackling climate change and other environmental challenges are based on driving efficiencies, with an inherent assumption that if farms are efficient they will be environmentally sustainable, which is not the case. Efficiency should be a mandatory baseline so that best use of resources is made. Every catchment has a nutrient limit and inefficient nutrient management practices use up the available 'headroom', which takes from other farmers and the environment. The environment is effectively subsidising poor farming practices in some areas. Efficiencies will not deliver adequate environmental outcomes on their own, particularly where the efficiency savings are used for further intensification. This new Strategy is an opportunity to develop policies and practices that compliment efficiency gains and that are directly targeting environmental protection and improvements and designed, where possible to deliver multiple benefits for water, air, biodiversity and climate and which will support the green credentials of Irish agriculture.

The new Strategy is also an opportunity to address land eligibility rule issues that can result in perverse consequences for the environment. For example, farmers are paid to remove habitats under Pillar 1 of the Common Agriculture Policy to make land eligible for payment and to restore them under Pillar 2 environmental schemes.

- What are the forthcoming market and other challenges that we need to address and is our current focus adequate to meet those challenges?

Key environmental challenges include deteriorating water quality, ammonia emissions, deteriorating biodiversity, growing greenhouse gas emissions and poor land management practices giving rise to carbon leakage. These trends demonstrate that the current focus is not adequate and put the reputation of Irish agriculture at risk. A major shift in focus will be needed for the 2020-2023 period which places a much higher priority on protecting and improving the environment as a core objective of the Strategy and one that supports the green credentials and reputation of Irish agriculture.

- Are there opportunities (e.g. new areas of work) which the Department should consider when developing the 2020 – 2023 Departmental strategy which would advance the achievement of our mission, vision and objectives across the agri-food, forestry and marine sectors?

It may be opportune to revisit the mission and vision to place a stronger emphasis on sustainability and environmental protection as key foundations for a thriving and agriculture sector. As things stand, the economic and social pillars appear to get greater weight than the environmental pillar when considering what is meant by a 'sustainable agri-food sector' in the Strategy. The evidence is now showing that the natural environment is deteriorating with agriculture a significantly contributing pressure on the environment. The Department could

therefore use this Strategy to show its commitment to reversing these trends and driving improvements in the quality of the environment in areas with a strong agricultural, forestry and marine presence. Evidence of sustained improvements in environmental quality in areas with a strong agricultural, forestry and marine presence would support the overall ambition of the Irish agri-food sector to be a world leader in sustainable, low carbon and environmentally friendly agriculture and food production.

It is also worth considering how Smart Farming and other exemplar programmes can be expanded through widespread and willing uptake so that the good practices being exhibited on these farms become the norm throughout the sector. It is also important that these programmes have the necessary metrics to be measurable, verifiable and reportable.

- What metrics should the Department use to measure our performance and monitor achievement of our strategic goals?

A new set of metrics to measure and track environmental and sustainability performance linked to agricultural and other land management activity would be worth considering. Metrics need to be developed that are suitable at farm level, catchment level and national level. These metrics would then show clearly how the sector is performing in relation to environmental sustainability. EPA data, assessments and research outputs such as Agri-Benchmark are available to assist with this work and the EPA is happy to work with the Department in developing such metrics.

Finally, the EPA welcomes the strategic focus of the Department of collaboration and working with others. There are many interactions between the EPA and the Department and its Agencies including on-going collaboration in areas such as research, catchment management, greenhouse gas emissions inventories, anti-microbial resistance, pesticides management and land-cover mapping. The EPA looks forward to continuing to work with the Department and its Agencies during the next Strategy period with the overall objective of developing and supporting thriving, sustainable and resilient agricultural, forestry and marine sectors built on a foundation of a clean, healthy and well-protected environment.

Yours Sincerely

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14th January 2020

Re: "Ag Climatise" A Draft National Climate & Air Roadmap for the Agriculture Sector to 2030 and Beyond

Dear Sir/Madam

The Environmental Protection Agency (EPA) welcomes the opportunity to make a submission on the proposed Climate and Air Roadmap for the Agriculture Sector to 2030 and Beyond. The period to 2030 will shape the future direction of agriculture and its response to environmental concerns and adaptation to climate change. It will also provide opportunities to realise the potential that exists to both produce goods and consume goods in an environmentally sustainable way. As you may be aware the EPA has recently prepared submissions to your Department with respect to public consultations

- Recognition of the **relative importance** of agriculture in Ireland for rural and national sustainable development;
- Identification and quantification of the **pressures** placed on Ireland's natural environment by agricultural and other land management practices which are **causing significant problems** for water quality, air quality, nature and climate change and **risking the reputation** of Ireland as a food producing nation with strong environmental credentials;
- The synergies and antagonistic effects of **one form of emission** to the environment (air and water) and/or reduction in one form of emission to the environment on **another form of emission** (air and water) need to be fully explored and considered.
- Recognising the **opportunities** available for Ireland in getting it right and being able to prove its credentials as a **world leader** in sustainable, low carbon and environmentally friendly agriculture and land management.

and strategic plans regarding the key environmental challenges facing the agricultural sector, namely water quality, air quality and greenhouse gas emission abatement. Recurring themes throughout these reports and submissions are:

The Agency's views and/or recommendations in this response to public consultation should be examined in conjunction with our responses to the DAFM Public Consultation on the Nitrates Derogation[1], the Proposed Strategy for the Irish Agri-Food Sector to 2030[2] and the CAP Strategic Plan SWOT analysis[3].

There are a number of key strategic points that we wish to make in relation to the Roadmap and we have also provided some additional commentary on specific sections of the roadmap.

Key Points

1. The EPA welcomes the overall structure of the roadmap, the nine high level objectives set out in Parts 1, 2 and 3 and the associated actions. Part 1 should also include a specific reference to the ammonia marginal abatement curve and associated targets for 2030.
2. The scale of the challenge ahead for the agriculture sector is very significant with the environmental sustainability trends for water quality, air quality, greenhouse gasses and biodiversity all going in the wrong direction at present. The overall success of this Roadmap will depend on the ability of the sector to **reverse these trends in a measurable, verifiable and reportable manner**. The sectors sustainability credentials and reputation rely heavily on this. Early, regular and publicly accessible reporting will also be needed to demonstrate progress and the Roadmap would benefit from a clear mechanism for how and when such measurement and reporting will happen.
3. A recurring theme of recent EPA submissions on national plans for agriculture is that any proposed changes in land management or farm practice under this Roadmap or other strategies or plans should seek to address **the multiple benefits** of improved water quality, reductions in greenhouse gas and air pollutant emissions and enhanced biodiversity.
4. The three-legged stool or three pillared model for sustainability applied to Foodwise 2025 did not achieve the necessary focus on environmental issues as evidenced by the continuing deterioration in water quality in agricultural catchments and the increases in both greenhouse gasses and ammonia from agricultural sources. The EPA suggests that a pyramid structure is now required, indicating that social and economic sustainability for the sector are not possible without an evidence-based environmentally sustainable foundation.
5. Whilst acknowledging the scale of the distance to target with respect to greenhouse emission levels at a national level, the document does not provide sufficient detail of the expected growth in emissions levels of greenhouse gas emissions and air pollutants from the sector in the absence of implementation of actions. This is an omission that should be addressed. It is important that stakeholders understand the level of ambition required against a scenario where no actions are implemented. This will result in a more focused discussion on policies targeted at driving down emissions to the environment.

[1] http://www.epa.ie/pubs/epasub/nitratesdirectiveconsultationsubmission.html
[2] http://www.epa.ie/pubs/epasub/subirishagrifoodsectorto2030.html
[3] http://www.epa.ie/pubs/epasub/subcapstrategicplanswotanalysis.html

<u>Additional Points</u>:

Introduction

1. The EPA notes that the main focus of the roadmap document is aimed at greenhouse gas emissions from the sector, however the effects of the sector on air pollution and air quality, water quality and biodiversity and their inter-connections do not appear to be adequately addressed. The synergies that exist and antagonistic effects of emission reduction measures of one form of emission to the environment (air and water) on another form of emissions (air and water) need to be fully explored and considered. This should be a recurring theme throughout the document. Additionally, the EPA notes that there is a need to also include the role of biodiversity in terms of its loss, improvement and the ongoing ecosystem monitoring required as part of Ireland's commitments under the National Emission Ceilings Directive[4] and Statutory Instrument No. 232 of 2018[5].

The Challenge & Our Obligations

1. The EPA identified in its submission on Food Wise 2025 the need to recognise that all parts of the country are not equal in the context of intensification and that some parts of the country are less able to intensify i.e. nutrients behave differently in the landscape depending on the soil type and setting and therefore measures needed to mitigate problems also need to vary depending on the physical context. Not only is this true of releases to water, it can also be applied to emissions of greenhouse gases and air pollutants and enhances the need for actions that have multiple benefits.

2. The EPA welcomes the recognition that "*the achievement of environmental targets may be possible whilst maintaining a stable cattle herd*" and also that "*if actions are not adopted quickly and effectively it will not be possible to deliver on commitments*". Furthermore, "*radical action may be needed for sectors experiencing growth*" as stated in the document. These are important statements which need to be front and centre of Roadmap development.

3. Recognising that competitor countries such as Denmark, The Netherlands, the United Kingdom and New Zealand have established ambitious climate actions for their agriculture and food sector. To be recognised as a leader, ambitions in this area need to be increased and clearly identified as early as possible. Additionally, a clear distinction is required with respect to the nuances associated with the terms "Climate Neutral" and "Net Zero" emissions in outlining ambitions for the agriculture and food sector.

Draft Climate and Air Roadmap for the Irish Agricultural Sector Part 1 – Implementing Changes Now

1. The EPA welcomes the inclusion of the Teagasc Marginal Abatement Cost Curve for greenhouse gas emission abatement. However, of no lesser importance is the Teagasc Marginal Abatement Cost Curve for ammonia emission abatement. The document would benefit from specific inclusion of the ammonia abatement cost curve given that the Roadmap is being presented for both climate and air. We recommend that the first objective in Part 1 be expanded out to include the 2030 targets for ammonia reductions. Of particular note, Actions 1, 2, 3 and 4 suggest a level

[4] National Emissions Ceilings Directive (2016/2284/EU)

[5] S.I. No. 232/2018 – European Union (National Emission Ceilings) Regulation 2018

of ambition above and beyond those presented in the Teagasc MACC for greenhouse gas emission reduction. This is to be welcomed. However, the EPA wishes to highlight the importance of Monitoring, Reporting and Verification of these actions "on the ground". This is extremely important in terms of the inclusion of policy actions in the estimation of emission inventories and projections of greenhouse gases and air pollutants which are submitted by the EPA to the EU and the United Nations Framework Convention on Climate Change on an annual basis.

2. Action 5 requires the review of the National Forestry programme with the aim of delivering 8,000 ha of afforestation per annum. This is an important national action that requires further additional incentivisation. Current afforestation rates are approximately 4,000 ha, which if continued at this level may place the delivery of 26.8 Mt CO_2 eq of land use credits under the Effort Sharing Regulation (Regulation (EU) 2018/842)[6] at risk. Every opportunity to increase environmentally sustainable forestry and woodland planting rates should be explored in this regard. Additionally, the identification of measures across all land uses that either reduce emissions or increase sequestration in a manner that is measurable, verifiable and reportable should be explored as a matter of urgency.

3. The targeting of 40,000 ha of peat based agricultural soils for reduced management intensity in Action 6 is an important action that requires implementation. However, the identification of the most appropriate areas and regions would be enhanced significantly with the development of spatially explicit land use mapping. The EPA would welcome the opportunity to discuss this matter further with DAFM in the near future so as to enhance reporting requirements under Regulation (EU) 2018/841[7].

Draft Climate and Air Roadmap for the Irish Agricultural Sector Part 2 – Acting In Partnership

1. It is clear that a greater role exists for enhanced knowledge transfer and agricultural knowledge and innovation systems. The EPA acknowledges the role of sustainability metrics in this regard as identified, however it wishes to highlight the Smart Farming Initiative[8] as an important conduit that could be scaled up to facilitate more rapid and widespread transfer of knowledge on the use of best practice to reduce environmental emissions at farm level.

2. The EPA welcomes recognition of the importance of utilising Nature Based Solutions (NbS) for climate resilience in water protection and biodiversity - however this should also consider the role of NbS in flood risk management and their deployment will require guidance and training as well as engagement with all stakeholders. The commitment to embedding climate adaptation planning within the Department's policies is welcome but should ensure that the resilience of the sector in a range of plausible scenarios is considered. Coherence with the climate adaptation plans and strategies of other sectors and local authorities is also required.

3. The EPA notes in Action 18 the development of a network of demonstration "sign post" farms which will provide on farm experience of the benefits of embracing climate action. The EPA suggests that taking a singular approach may not be the best course of action (see point number

[6] Regulation (EU) 2018/842 Binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013.

[7] Regulation (EU) 2018/841 Inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) 5225/2013 and Decision No 529/2013/EU

[8] https://smartfarming.ie

1 above) and that these demonstration farms should also include actions to control air pollutants such as NH_3 and the experience garnered in the Agricultural Catchments programme to date also be adopted with respect to reducing nutrient loss to water.

4. Action 19 states that methane emissions will be monitored with a view to stabilising emissions by 2020. No further information is provided on how this is to be achieved in such a short time frame. The EPA would welcome further information with regard to this action.

Significant challenges exist for the agri-food sector with respect to emissions to air (both greenhouse gases and air pollutants), water and impacts on biodiversity. These challenges have increased due to expansion in recent years (mainly in the dairy sector). An environmentally sustainable foundation must now be put in place to maintain the longstanding importance of agriculture and food production to the Irish economy and rural communities. The EPA will continue to work with the Department of Agriculture, Food and the Marine and its agencies with the objective of developing a clean, healthy and well protected environment, whilst also supporting agriculture and food production and rural communities.

Yours sincerely,

Director
Office of Environmental Sustainability