

Air and Environment Quality
Klondyke Building
Gasworks Business Park
Cromac Avenue
Belfast, BT7 2JA

15 February 2021

Dear Sir / Madam

RE: Discussion Document on Clean Air Strategy for Northern Ireland

Sustainable Northern Ireland is a charity that works with Northern Ireland's public sector to inspire, influence and inform action on sustainability and climate change. Through our network, we support and empower public sector collaboration to accelerate action on climate change and deliver a sustainable future for all.

Sustainable Northern Ireland welcomes the opportunity to engage with DAERA on a Clean Air Strategy for Northern Ireland and we are supportive of the direction of travel set out in the discussion document.

Previous government efforts to address air pollution have concentrated on transport and industrial emissions. It is vital that the Department uses this Strategy as an opportunity to set out the key role that ammonia plays in the cycle of air pollution and promise urgent action to address ammonia pollution in Northern Ireland.

Whilst the emphasis must be on reducing emissions at source, we recommend the use of nature-based solutions in dealing with residual air quality issues. Evidence shows that trees help to reduce noise pollution and air pollution, as well as providing essential shade, oxygen and carbon sequestration. It is for this reason that environmental strategies to address air quality, noise pollution, climate change and ammonia must be aligned.

Our comments to the consultation questions are enclosed. Should you require further comments, we would be happy to assist.

Sincerely,



Nichola Hughes

Executive Director

Consultation questions

Chapter 1 - Sources and Effects of Air Pollution

1. Should there be legally binding targets for particulate matter, which are based on WHO guidelines?

Yes, as a minimum SNI would like to see NI adopt legally binding targets for particulate matter based on WHO guidelines for both PM₁₀ and PM_{2.5}. Research is showing that there is 'no safe level' of air pollution, and that exposure to incremental levels of PM_{2.5} even below current target levels has an associated impact on mortality. For this reason, NI should aim for the lowest levels of PM_{2.5} and PM₁₀ possible, and as a minimum match WHO Air Quality Guideline (AQG) levels of 10 µg/m³ annual mean for PM_{2.5} and 20 µg/m³ annual mean for PM₁₀.

2. Should all automatic monitoring sites measure at least NO_x and PM?

As a minimum, all automatic monitoring sites should measure NO_x, PM_{2.5} and PM₁₀. If possible, more pollutants should be measured (e.g. ammonia) to give as full a picture as possible of pollution levels across NI.

3. Should the current urban air quality monitoring network be expanded?

Yes, SNI would support the expansion of the air quality monitoring network.

4. Should a targeted approach to exposure, based on population, be used to expand the current monitoring network.

Yes, SNI would support the idea of a targeted approach based on a population threshold proposed so that for example, air quality monitoring is required to be carried out in any settlement with a population of 10,000 people or more.

5. What are your views on using a population figure of 10,000 as a threshold that triggers the requirement to monitor air quality?

If a population threshold is to be used to determine where air quality monitoring will be required, then a threshold of 10,000 appears reasonable.

6. Should biomass heating be discouraged in urban areas or in areas with poor air quality?

Although biomass produces less carbon dioxide than other fossil fuels, it produces more Particulate Matter (PM) than other heating systems. All sources of air pollution must be addressed; however, it should be acknowledged that the vast majority of urban particulate emissions originate from transport, with "other fuels", including wood heating, making up a small fraction of remaining PM/NO_x emissions.

As fuel poverty is prolific across Northern Ireland, until clean affordable heating solutions are readily available to enable households to move away from biomass heating, a hierarchy of mitigation measures should be adopted to tackle air pollution. This means addressing emissions from transport and industrial sources first, followed by the introduction of restrictions on biomass heating in urban areas. That said, modern wood-burning stoves have become increasingly fashionable and new installations should be discouraged in urban areas in instances where cleaner forms of heating are already available.

7. Should the connectivity between air quality and noise issues be improved through requiring consideration of each in Noise and Air Quality Action Plans?

Yes, given that air pollution and noise often share the same sources e.g. HGVs and industrial processes, we believe it sensible to align these considerations.

We strongly advocate the role of nature-based solutions in dealing with residual air quality issues. For example, evidence shows trees help to reduce noise pollution and air pollution, as well as providing essential shade and oxygen¹.

Whilst the emphasis must be on reducing emissions at source, increased tree cover will help mitigate residual air pollutants and provide multiple co-benefits such as improved levels of health and well-being, urban cooling, flood alleviation, carbon sequestration and habitats for wildlife.

There is a need for both small, local green spaces close to where people live and work (e.g. living walls, green streets, microparks) and large green spaces for formal recreational purposes.

8: Given that air pollution, carbon emissions, and noise often share the same sources, what are your views on including noise and carbon emissions as a consideration in Low Emissions Zones?

Yes, holistic systems thinking will help ensure that these issues are not treated separately, but that strategies are developed to resolve pollution issues in tandem. It is a more efficient form of public policy design and decision making.

Chapter 2 - Transport Emissions

9: Are there any potential measures not included here that you believe could help encourage a shift away from private car use to walking, cycling, and public transport?

There needs to be a transformational shift in public infrastructure spending such that active and public travel infrastructure investment is prioritised over roads. Investment is needed to improve and extend walking and cycling networks in cities. Routes must be safe, accessible and fully integrated with public transport networks, for example, through

¹ https://uk.air.defra.gov.uk/assets/documents/reports/cat09/1807251306_180509_Effects_of_vegetation_on_urban_air_pollution_v12_final.pdf

multi-modal transport hubs with provision for bicycle parking and public changing facilities.

Other priorities should include investment in rapid urban transit, expansion of interurban freight and passenger travel and shifting to ultra-low emission heavy duty vehicles and fuels.

There should be an emphasis on low-cost policy measures to disincentivise car-based travel. Public sector organisations can decrease essential car user allowances for staff, towns and cities can put restrictions on city centre parking using variable parking rates, Low and Ultra-Low Emission Zones can be introduced in congested areas, and employers can introduce incentives for bicycle commuting through cycle2work salary sacrifice schemes and increased mileage allowances for those traveling to work by bicycle. There could also be shared pool bike schemes (bicycles and e-bicycles) for corporate and public use. Greater levels of investment in broadband would also help reduce work-based travel.

10: What would encourage you to consider buying an electric vehicle as your next car?

I already own one.

11: Do you think that DAERA should develop a Low Emissions Zone Framework for dealing specifically with transport emissions in Northern Ireland? Or would you be in favour of Low Emissions Zones for urban areas also covering other sources of pollution, for example those from household heating?

We broadly support the development of a Low Emission Zone Framework and the use of Low Emission Zones (LEZs) for transport emissions in urban areas initially, which could be extended to other sources of air pollution e.g. industrial processes and household heating over time.

12: What are your views on vehicle charging cordons for entry to the most polluted parts of urban areas in Northern Ireland?

Vehicle charging is one means of potentially reducing the levels of traffic and air pollution in city centre areas. We would support the introduction of a congestion charge or levy on the basis that the income is ring fenced for reinvestment into the provision of low or zero carbon travel options, including active travel.

Transport for London (TfL) reported that the Ultra-Low Emission Zone, brought in during 2019, has cut air pollution in the city by one third. In addition to city-scale interventions, the UK government has proposed a national ban on the sale of new diesel and petrol cars by 2030². This means that by 2050 at the latest, there should be no petrol or diesel cars on the roads in Northern Ireland, by which time the UK will also be at or close to net zero carbon. Considering these factors, we believe that while policy options like vehicle

² <https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030>

charging could have a transformative impact on pollution and congestion in urban areas, our long-term goal remains the elimination of vehicles powered by the internal combustion engine and a shift towards active and public transport instead of private car use. While some particulates are generated by brake and tyre wear, only green public transport should be allowed in urban areas after 2030.

Chapter 3 - Household Emissions

13: Should urban areas, in their entirety, be designated as Smoke Control Areas?

Yes, in conjunction with incentives to help fuel poor households switch to cleaner forms of home heating. Given that fossil fuels should be eliminated by 2050, designating Smoke Control Areas should also help accelerate the elimination of fossil fuels.

14: Should the law be changed so that non-smokeless fuels may not under any circumstances be sold in Smoke Control Areas?

Yes, although the law should be that non-smokeless fuels may not under any circumstances be sold or used in Smoke Control Areas.

15: Should government ban the sale to the general public of smoky/bituminous/household coal in Northern Ireland?

Yes, we support a ban on the sale, importation and exploration of all forms of coal and peat. The sale of coal and peat must be banned as soon as possible.

16: Should government ban the import, into Northern Ireland, of high-sulphur coal?

Yes, as outlined in response to Q15.

17: Should government ban the sale to the general public of unseasoned wood in Northern Ireland at retail outlets?

Yes, although that may not completely eliminate the burning of unseasoned wood as anyone could burn unseasoned wood that has not been purchased.

18: Are there any further things you think that central and local government could be doing to address air pollution from burning solid fuels?

Yes, we believe an urgent focus should be placed on the use of peat briquettes for home heating, and that restrictions should be placed on the extraction and sale of peat for home heating and gardening, given the vital role that our peatlands play in carbon sequestration, alleviating flooding and providing essential habitats.

Central and local government policies should be geared towards the complete elimination of fossil fuel combustion in NI by 2050. SNI understands that the Department of the Economy will produce a new Strategic Energy Framework in 2021 and this must plan for

a net zero carbon economy as a contribution to the reduction of air pollution levels in NI. Similarly, integration and collaboration between DAERA and other government departments and strategies such as the Department for Infrastructure who manage transport policy, will be essential component for the long-term improvement in air quality.

Chapter 4 - Agricultural Emissions

19: Do you think that the process in place to address ammonia emissions in Northern Ireland is appropriate?

No. There is an acute problem with ammonia emissions in NI, 96% of which come from agricultural sources. Government must develop a plan to address this crisis, either as part of the Air Quality Strategy or through a separate Ammonia Strategy and Action Plan.

The dangerously high levels of ammonia emissions in NI are indicative of a systemic failure in public policy to prevent ammonia pollution for decades. NI is the only part of the UK that has seen a sustained rise in ammonia emissions levels since 2005. It has been estimated that the cost of ammonia emissions on health and biodiversity in the UK will reach over £700m p.a. by 2020³. While a conservative estimated has placed the figure for Northern Ireland at around £107m p.a. by 2020⁴. As such, any future ammonia / clean air strategy should focus on the level of ammonia to which emissions are to be reduced and then devise polices to achieve this, rather than making arguments as to why NI should be allowed higher levels of ammonia pollution because NI 'is different'.

Furthermore, Government Expert Working Groups on Ammonia are not viewed as not representative as they do not engage with environmental NGOs or public health groups and consequently the run the risk of reflecting only the views of the agri-business sector, rather than capturing a broad representation of public interest groups.

There are a number of aspects to the ammonia challenge, most notably the way in which ammonia emissions are defined and regulated. Defining ammonia emission by agricultural sector would suggest that dairy farming is the primary problem. However, the rapid expansion of pig and poultry farms and anaerobic digestion (AD) plants have not been properly accounted for in the figures to date. The majority of pig and poultry farms operate below the thresholds of animal numbers that require permitting, despite having high levels of ammonia outputs, leaving their ammonia emissions unregulated.

The derogation which resulted in reared pigs not being accounted for in the animal number threshold of a pig breeding unit requiring a Pollution Prevention & Control Permit was a recommendation of the Going for Growth Strategy and its implementation by DAERA circumvents the regulations designed to control ammonia emissions. This derogation for a Slurry Controller Agreement for Contract Rearing of pigs needs to be rescinded with immediate effect.

³ <https://www.rand.org/randeuropa/research/projects/impact-of-ammonia-emissions-on-biodiversity.html>

⁴ <https://www.nienvironmentlink.org/cmsfiles/SNI-AMMONIA-Impacts-Workshop-Proceedings--Recommendations-Final.pdf>

The DAERA Anaerobic Digester Quality Protocol exempts AD operators from waste regulations, permits self-regulation and thereby risks incomplete assessment of ammonia and other polluting emissions. AD plants should not be exempted from waste regulations, as they accounted for 22% of the increase in NI ammonia emissions from 2010 to 2017.

The lack of enforcement in relation to exceedance of ammonia emissions is also a major issue and we believe this stems from the lack of an independent body for environmental enforcement. Current regulations and enforcement measures are weak and is compromising environmental quality and human health.

An independent Environmental Protection Agency must be established as a matter of urgency, and the Polluter Pays and Precautionary principles must be applied to all agricultural policy decisions and regulations, in order to tackle the ammonia crisis once and for all.

Chapter 5 - Industrial Emissions

20: Are there any industrial sectors or air pollutants that require new or further investigation?

Municipal and agricultural waste management

Strategies for waste reduction, waste separation, recycling and reuse or waste reprocessing; as well as improved methods of biological waste management such as anaerobic waste digestion to produce biogas, are feasible, as are low-cost alternatives to the open incineration of solid waste. Where incineration is unavoidable, then combustion technologies with strict emission controls and carbon capture and storage ready facilities are critical.

Power generation

Increased use of renewable combustion-free power sources (like solar, wind, hydropower or geothermal); co-generation of heat and power; and distributed energy generation (e.g. mini-grids and rooftop solar power generation) are all strategies that should be pursued through the national Energy Strategy.

Chapter 6 - Local Air Quality Management

21: Should councils more widely adopt low-cost air quality monitoring systems, for screening purposes?

Yes, it would enable councils to undertake screening assessments for air quality to better understand and manage air quality at a local level. Screening assessments could help councils decide whether or not more detailed assessments of air quality are needed and whether certified automatic monitoring equipment should be installed.

22: Should AQMAs be discontinued and replaced instead with Low Emissions Zones, which cover all aspects of air quality, including Smoke Control?

On the basis that unlike AQMAs, the impetus would not be to revoke a LEZ, but rather to keep it in place to continue to safeguard air quality then SNI would be prepared to support replacing AQMAs with LEZs.

23: Where applicable, should the entirety of urban districts should be declared as AQMAs (or Low Emissions Zones)?

Yes, potentially alongside zoning e.g. Ultra-Low Emission Zones (ULEZ) which specifically target transport emissions in city centres and busy roads

24: What are your views on having a traffic-light system for councils to report on?

The traffic light system of reporting on air pollution seems like a clear and simple option which should be readily understood and such we would be supportive of this approach.

25: What are your views on the proposals to change the LAQM process, in particular to grant funding for outcome-based measures as opposed to monitoring?

SNI supports an outcomes-based approach whereby funding is allocated to projects that demonstrate potential for measurable improvements in air quality. However, when coming up with actions to reduce air pollution, it is essential to have the best available data to hand and as such, financial support to improve the air quality monitoring should continue to be made available.

26: Are there any further measures you would suggest to help achieve a significant reduction or revocation of all AQMAs by 2021?

No.

Chapter 7 – Communication

27: Do you have any suggestions for the membership of the Air Quality Forum?

SNI welcomes the suggestion to establish an Air Quality Forum. Any such Forum must also include stakeholders from outside of Government and the public sector who have skills and experience in air quality issues, and who represent the public interest. For example, representatives from the third sector, in particular those organisations with a health focus such as Asthma UK, Chest, Heart and Stroke, or the British Heart Foundation. Also those with a human rights and justice focus, those with a focus on transport such as Sustrans and Translink, as well as those stakeholders with an appropriate environmental, scientific and/or medical background.

The role of the forum needs to be clear and the independence of its members is of fundamental importance to its success and reputation. The forum and its members must be free to comment on air quality issues and scrutinise government policy, without any interference from government.

28: Is increasing awareness of air quality impacts at a local level the best way of promoting behaviour change by individuals to reduce air pollution?

We would broadly support efforts by the Department to increase awareness of air quality impacts however we believe direct policy intervention by the state to be more important in the short term.

Behavioural change will play a role in facilitating modal shifts in transport and home fuel choices for example, but behaviour change can be directly influenced by government policies and infrastructure availability. Government interventions should seek to ensure that clean, green solutions are cheap, efficient and accessible. At the same time, polluting activities should be penalised.

More often than not, non-environmentally friendly choices are made because of a lack of choice and / or financial incentive. At the moment in Northern Ireland, travel by car is typically the fastest and cheapest option available. Public policies must ensure that active and/or clean public transport become the safer, faster and cheaper option.

29: Do you have any further comments or suggestions on how the impacts of policy interventions can be tracked in Northern Ireland.

Mortality and morbidity rates linked to air quality could be considered alongside direct air quality metrics.