Cyswllt Amgylchedd Cymru | Wales Environment Link

A Clean Air Plan for Wales

March 2020

Summary

WEL welcomes many of the proposals in the Clean Air Plan for Wales and we support the need for a Clean Air Act for Wales. We have not answered every question, but have focused on responding to the questions of most concern to members of our network below. These are:

- the impacts of agricultural pollution on air quality, and how this affects biodiversity;
- the Local Air Quality Management System; and
- the need for a Clean Air Act for Wales and what this should include.

Local Air Quality Management (LAQM)

Q4. Are you satisfied the proposals for Local Air Quality Management will result in robust, effective air quality management arrangements?

WEL members believe that the assessment of air quality should not only focus on the impacts of air pollution on people, but also the impact on biodiversity, ecosystems and habitats which are vulnerable to atmospheric pollution. Local authorities make planning decisions that have air quality impacts on wildlife as well as people. Therefore, it is important to measure all those pollutants that are having an impact, including ammonia.

Decisions by local planning authorities continue to authorise new sources of pollution, including intensive agriculture units and new road building. We are concerned local authorities are not effectively managing the potential conflict between their responsibility to drive air quality management, and how they use their planning role to facilitate certain types of economic development.

We would like to understand who will assess the quality of local authority plans and risk assessments and hold them to account. We are concerned that there is an environmental governance gap in this respect, which is already apparent in the absence of performance monitoring on the compliance of planning decisions with Government policy and PPW10.

We would like the LAQM proposals to ensure that local authorities have sufficient skills and capacity to make comprehensive assessments and objective decisions on air pollution priorities, which are independently scrutinised. The New Local Government Network (NLGN) received replies from seven councils from Wales to their Leadership Index survey December 2019. Only 14% of respondents (i.e.

one out of the seven that replied) agreed that they have sufficient power and resources to improve air quality in their area. Respondents from Wales identified their biggest barriers to improving air quality as: competing priorities (43%); lack of resources (29%); and limited decision-making power (14%). Local Authorities do not always appreciate that NRW ammonia and nitrogen deposition guidance is limited in scope and does not extend to local or regional biodiversity interests.

We need an effective governance and enforcement system, accountable to citizens, and with clarity on the responsibilities of local authorities, NRW, Government and any new environmental governance body that is created to fill the post-EU governance gap.

Area-specific policies and the designation of air quality improvement areas/zones.

Q5. Are you satisfied with the proposed approach for Clean Air Zones/Low Emission Zones in Wales?

Air quality is both a rural and urban issue, affecting people and wildlife, and the integrated approach must reflect that. There are significant rural 'hotspots' where, for example, a cluster of intensive livestock units is developed close to areas of sensitive wildlife habitat. The integrated approach must include a suite of actions to reduce agricultural ammonia emissions and the impact of nitrogen deposition (from ammonia and NOx) on the natural environment. For example, this will enable local planning authorities to plan strategically for better air quality, and to assess local development plans and individual planning applications within an integrated and comprehensive framework. This will help prevent or manage some of the cumulative pollution impacts that we refer to in our response to question 25.

A Clean Air Act for Wales

Q10. Do you support the proposals for a Clean Air Act for Wales?

WEL supports the introduction of a Clean Air Act that tackles all the different sources of airborne pollution. We welcome the comprehensive nature of the consultation, tackling pollution from industry, transport, domestic fuel burning and agriculture. In particular, we see an Act as an opportunity to tackle the impacts of nitrogen (particularly ammonia) on ecosystems.

Q11. Are there additional issues a Clean Air Act should address?

The Clean Air Plan consultation document states that at present in Wales,

- 88% of the area of sensitive habitat exceeds critical loads for nitrogen deposition (eutrophication), a 10% improvement since 1996;
- acidification of soils and freshwaters continues, with 70% of acid-sensitive habitat area exceeding acidity critical loads, a 20% improvement since 1996; and
- acid deposition critical load exceedances are driven mainly by nitrogen deposition.

Plantlife Cymru's recent report, *We need to talk about Nitrogen*, states that around two third of Wales' wild flowers and many other plants and lichens cannot tolerate the high levels of nitrogen

deposition (ammonia) that they are exposed to. This is contributing to a reduction in plant diversity, which then impacts on species that rely on those plants, such as pollinators. Freshwater acidification continues to take a toll on our rivers, impacting upon freshwater invertebrates and fish.

The consultation identifies the dairy and beef sectors as being the largest emitters of ammonia. In addition to this, WEL members have noted with increasing concern the cumulative impacts of large poultry units which come just under the threshold requiring an environmental permit, but which are having a significant impact in areas such as Powys, where there are numerous units planned in close proximity to each other. These cumulative impacts have not, and are still not, being taken into consideration when planning permission is given. This is in spite of the letters to Heads of Planning from the Planning Directorate dated 12/6/18, addressing cumulative impact of intensive livestock units, and 23/10/19, addressing the need for development to achieve a net enhancement of biodiversity. NRW planning guidance on ammonia levels and nitrogen deposition loads covers intensive livestock rearing sheds but not the additional increases from manure and slurry disposal.

Of the trends in air pollutant emissions in the figure on page 12 of the consultation, ammonia stands out as almost no progress has been made since 1990. Given this, and the impact that we are seeing on biodiversity, WEL members are concerned that the Welsh Government consultation does not contain a firm commitment to regulate ammonia emissions from farming. We would like to see this regulated and integrated with action on water pollution and GHG emissions. Voluntary action / farm payment schemes and advice are not sufficient to tackle this problem and have failed to deliver any real progress in the last 30 years. We need to take the opportunity of a Clean Air Act to introduce legal requirements on the farming industry and create a level playing field.

We believe a Clean Air Act for Wales should introduce new powers to require action by the agricultural sector and other sources. These actions should include:

- a reduction in the proportion of critical load that a single source is allowed to emit;
- a reduction in the threshold for EIA and environmental permits for intensive pig and poultry units;
- a requirement for environmental permitting of beef and dairy herds;
- requirements for more efficient management, storage and application of manure, slurry and other fertilisers to drive best practice and support innovation in dealing with ammonia rich waste products;
- a responsibility for planning authorities to look at the cumulative effects of new applications on local air quality.

Q12. What other legislative or regulatory actions in relation to air quality should we consider to improve people's lives and community wellbeing in a sustainable way?

The consultation does not address the impact on rural quality of life, amenity and health, caused by air pollution from intensive livestock farming. Ammonia increases are combined with traffic increases and offensive odours from manure/slurry spreading too close to residential receptors, including communities, schools etc.

WEL also notes the increasing pressures on green space in cities, towns and villages, with the steady loss of village greens, common land and other green spaces, which are vital to the health and well-being of people and wildlife. The Technical Advice Note 16 (Sport, Recreation and Open Spaces 2009) is out of date and should be revised. WEL would welcome more robust protection of open space than is provided in PPW10, as such land is vulnerable to disposal and development when left to policy guidance alone.

WEL would support the introduction of a new statutory designation for the protection of open spaces to enable local people to nominate areas of land that are important to them. For instance, in England it is still possible to protect open space as a 'Local Green Space' under paragraph 100 of the National Planning Policy Framework 2019'.

Public awareness about airborne pollution

Q13.Citizen science projects to date have focused on work with young people. Are there other age groups or communities would you like to see us work with?
There are opportunities to engage with different groups, and the more people are engaged the more ecologically literate the public will become and the more data will be made available for sound environmental decision making. In particular, citizen science projects could be used to engage groups that traditionally engage less with environmental issues.

WEL also believes that it could be beneficial to engage landowners and land managers, such as farmers, in such projects. This could provide useful local data whilst building understanding about the sorts of activities that increase air pollution, which may help encourage different ways of managing land.

Q14. Which age groups do you think would benefit most from greater understanding of air quality, pollutants, evidence and interpretation, and developing personal awareness and responsibility?
For younger people, involvement in a citizen science project develops important skills and awareness for the future (including the opportunity to gain experience for potential roles within the environment sector). In terms of expanding involvement in citizen science, we would base this around engaging communities that traditionally don't engage with environmental issues, rather than basing it on age.

Q15. Are there other approaches or opportunities to develop greater understanding of air quality issues that you think we should explore?
WEL would welcome an increase in APIS ammonia monitoring sites in Wales as current provision is inadequate. We would also see benefit in the Welsh Government commissioning ongoing research based on actual measurements of ammonia at critical sites.

Q17. Are there features you would like as part of the Air Quality in Wales website?

The Air Quality in Wales website currently has almost no information about ammonia as a pollutant (and precursor to fine particulate matter) or about the environmental impacts of air pollution. We would like to see these issues properly integrated into the website with links to external sources of information, such as Air Pollution Information System (APIS). We would also like the website to promote actions that can be taken to reduce emissions by the agricultural sector and other sectors.

Q19. Are there age groups or communities who could contribute to developing citizen science projects?

Q20. Which age groups would benefit most from developing personal awareness, understanding and responsibility in terms of air quality and pollutants?

For both these, see answer to Q14.

Q21. Are there additional approaches or opportunities to develop greater understanding of air quality issues that should be explored?

The following three initiatives are or have been used to engage people in measuring atmospheric pollution through the monitoring of native species mainly lichens.

OPAL – The Open Air Laboratory is a network of organisations encouraging citizen science to find out more about our natural world and the factors affecting it. For many years they ran an Air Survey based on the identification of lichens.[1] The survey data is not currently being processed due to lack of funding but the resources are available bilingually online.

CENNAD – This was a three-year apprenticeship scheme run by Plantlife Cymru with the support of the Welsh Government and the British Lichen Society. It trained 21 novices in lichen identification based on lichens growing on trees and used the next methodology top report to NRW on the impacts of atmospheric pollution. Unfortunately, the cessation of core funding for eNGO's meant that the scheme could not continue.

APIS – Air Pollution Information System.[2] Using the 'Lichens on twigs' method allowed CENNAD apprentices, and others, to record the impact of nitrogen pollution in the atmosphere which was then fed in to NRW.

Improving air quality to support our natural environment, ecosystems and biodiversity

Q25. What sorts of nature based solutions could be promoted to help to reduce human exposure to air pollution?

This question is set within a section of the consultation that is supposed to be focused on improving air quality to support our natural environment, ecosystems and biodiversity human, so this question on human exposure to air pollution appears to be out of place. Well-planned nature-based solutions such as tree planting in urban areas, green roofs, maintenance of green spaces and other green infrastructure in towns and cities can be helpful in reducing human exposure to air pollution. However, they will not help to support existing wildlife habitats which have been, or are at risk of being, severely damaged by air pollution.

[1] https://www.opalexplorenature.org/airsurvey
[2] http://www.apis.ac.uk/

Urgent action is needed to protect and restore the unique biodiversity of Wales's wildflower meadows, ancient woodlands, sand dunes and other habitats – not only in designated areas but across the country. Emissions reductions from road transport, and new land management practices that minimise emissions of ammonia are critical to improving air quality in rural areas. WEL members welcomed the decision not to build the M4 Relief Road and to genuinely consider alternative ways of reducing road traffic and congestion. We hope that this decision heralds a new, more sustainable approach that includes improvements to public transport, active travel, flexible working approaches and improved digital connectivity to reduce the need for travel.

Intensive livestock production poses a problem for both human health and the environment. The costs of ammonia pollution are about £5bn a year for nitrogen and phosphorus pollution together, in damage to air and water quality[3]. In Wales, farming is the dominant source of ammonia emissions – 86% in 2015 – but only an estimated 5% of farm emissions come under direct regulation[4]; those from the largest pig and poultry units (40,000 birds, 2,000 pigs or 750 sows). Many livestock units, for the purpose of planning applications and permits, keep animal numbers just below the threshold for regulation, but may make multiple applications. However, cumulative livestock numbers per farm are not counted and the in-combination or cumulative environmental impacts are not adequately addressed per application.

The vast majority of ammonia comes from slurry, a mixture of faeces and urine. Slurry is produced when animals are kept indoors, either over winter or in intensive farming systems, and is then stored for use as a fertiliser. Intensive housed systems for cattle and pigs tend to produce more ammonia because the animals' urine and dung usually mix together in their sheds, producing slurry. This toxic cocktail emits ammonia at every stage of its use: when it is created, when it is stored in uncovered slurry "lagoons" and when it is sprayed onto fields as a fertiliser. In contrast, when animals graze outdoors, their urine is absorbed by the soil, producing lower emissions.

WEL members are also concerned that the significant increase in large poultry units, particualrly in mid-Wales. So far, only the non-airborne pollutions from poultry units have received attention. However, their expansion has become a major cause for concern due to the direct impact of emissions on wildlife sites. One of our members, the Campaign for the Protection of Rural Wales, has reported that there are now more than 7 million birds in Powys, up from 1.7 million in 2010, with over 3 million being free-range.

Enforcement is key to tackling the impacts of intensive agriculture on both air and water quality. We know that there is a lack of resources for monitoring the impacts; we know that there is an issue with planning applications that are just under the permitted threshold, and we know that new regulations that we need to tackle this issue will not have the desired impact if there isn't the necessary resourcing to effectively monitor impacts and enforce the law. As previously stated, a Clean Air Act could be an opportunity to reduce thresholds to more acceptable levels and address the issues identified above.

---

[3] https://www.theguardian.com/environment/2019/jun/13/ammonia-health-problem-rising-air-pollution

[4] Plantlife Cymru "Let's talk about nitrogen - A call to protect Wales' internationally important wild flora and fungi from air pollution" https://www.plantlife.org.uk/application/files/4715/2950/3384/Welsh_nitrogen_report_-_Plantlife.pdf

Q26. How can we speed up the recovery of our biodiversity and ecosystems alongside emission reduction?

WEL members support the approach identified in the Lawton Review (2010) that ecological networks should be 'more, bigger, better and joined'. Tackling the emissions that cause so much damage to our biodiversity and ecosystems, as well as damage to human health, will help our wildlife to recover. However, we also need to consider wider land management practices, habitat restoration programmes and ensure better protection for our existing biodiversity. For example, there continues to be a steady loss of the most effective and important component of green infrastructure - mature trees. This exacerbates air pollution and is to the detriment of public health and well-being.

Q27. What activities can we emphasise in our environmental growth plan to help tackle air pollution and its impact on ecosystems in Wales?

For WEL members the most important actions to tackle air pollution impacts on ecosystems would be:

- Strong and effective enforcement of measures to reduce ammonia's impact on ecosystems, including new regulation where there are gaps;
- Urgently amend planning legislation to account for the cumulative effects of multiple point sources of pollution;
- Air pollution to be tackled as part of a new sustainable land management scheme;
- Significant habitat restoration programmes across the country;
- Urban green infrastructure programmes, including better retention of mature trees; and
- A significant reduction in fossil fuel usage for transport, industry and domestic heating.

Q28. Do the proposed commitments and actions address the issues described in natural environment, ecosystems and biodiversity section of the Plan?

Q29. Do you agree the actions will help to reduce the impact of air pollution on natural environment, ecosystems and biodiversity in Wales?

Q30. What additional commitments or actions would you propose?

We answer questions 28 to 30 together.

Of the trends in air pollutant emissions in the figure on page 12 of the consultation, ammonia stands out as almost no progress has been made since 1990. Given this, and the impact that we are seeing on biodiversity, WEL members are concerned that the Welsh Government consultation does not contain a firm commitment to regulate ammonia emissions from farming. We would like to see this regulated and integrated with action on water pollution and GHG emissions. Voluntary action / farm payment schemes and advice are not sufficient to tackle this problem and have failed to deliver any real progress in the last 30 years. We need to take the opportunity of a Clean Air Act to introduce legal requirements on the farming industry and create a level playing field.

The actions and commitments detailed in the consultation, whilst important, are not strong enough. We are pleased to see the commitment to including air quality in the design of future farm support, and there are promising commitments relating to the reduction of emissions from slurry lagoons and

better nutrient management – but we would like to see more concrete proposals on how this will be achieved. For example, we would like to see

- a requirement for all slurry lagoons to be covered by a specific date before the end of 2021 (the Environment Agency has confirmed this will be the case in England by February 2021, unless a suitable alternative is in place);
- support available for farmers to upgrade their slurry storage facilities;
- herd size restrictions on those who cannot demonstrate sufficient slurry storage and management procedures;
- a reduction in the threshold for environmental permitting and a requirement for planners to fully consider cumulative impacts; and
- a commitment to strong enforcement measures and strict penalties for those who consistently breach pollution regulations.

The principles of the circular economy should be applied to agriculture and other land uses. The circular economy is mentioned in the Clean Air Plan under industrial sources but not in terms of land use and the natural environment. For example, excess fertiliser and pesticides represent a significant and damaging waste product and should be included as a priority across plans. This could further drive innovation in agricultural systems and land uses, as well as in nutrient management.

Q37. Should air quality issues be referenced in the remit of NICW?

Yes. When advising on future infrastructure needs the NICW already has to take the goals of the Well-being of Future Generations Act into account. If it is not required to consider the impacts of future infrastructure on air quality this will be a serious omission and limitation on the advice the Commission gives.

Wales Environment Link (WEL) is a network of environmental, countryside and heritage Non-Governmental Organisations in Wales, most of whom have an all-Wales remit. WEL is a respected intermediary body connecting the government and the environmental NGO sector in Wales. Our vision is a healthy, sustainably managed environment and countryside with safeguarded heritage in which the people of Wales and future generations can prosper.

This paper represents the consensus view of a group of WEL members working in this specialist area. Members may also produce information individually in order to raise more detailed issues that are important to their particular organisation.

Baltic House, Mount Stuart Square, Cardiff, CF10 5FH
Tŷ Baltic, Sgwâr Mount Stuart, Caerdydd, CF10 5FH

Tel: 02920 497 509 www.waleslink.org

Registered Charity Number / Rhif Elusen Gofrestredig: 1022675
Chair / Cadeirydd: Roger Thomas
Joint Directors / Cyf-Gyfarwyddwyr: Susan Evans & Karen Whitfield