

Healthy Air Cymru

Tackling roadside nitrogen dioxide concentrations in Wales

June 2018



1. Overview

- 1.1. Healthy Air Cymru welcomes the opportunity to respond to this consultation and support Welsh Government's commitment to tackling roadside nitrogen oxide concentrations in Wales.
- 1.2. Healthy Air Cymru supports Welsh Government's commitment to tackling areas where NO₂ is currently exceeding legal limits as soon as possible, but does not believe that the proposed measures will achieve a reduction in the shortest possible time.
- 1.3. The proposed timescales for the introduction of many of these measures, particularly those in Stage 3 of **Welsh transport appraisal guidance (WeITAG)**, do not reflect the immediacy of the issue. These plans and measures must be expedited by Welsh Government. We need quicker action from Government to ensure that the public health of Wales is not at risk.
- 1.4. Healthy Air Cymru understands that the NO_x plan will be led by Welsh Government under stage 1 and 2 of WeITAG but stage 3 will be led by local authorities. Where LA's are responsible Welsh Government needs to make available the revenue to deliver the most appropriate measures for their areas. Healthy Air Cymru's view is that Welsh Government must mandate councils to set up Clean Air Zones and other measures not other measures in place of Clean Air Zones.
- 1.5. Healthy Air Cymru is concerned that these measures are a plan for more plans, and more needs to be done to link this policy up with other relevant policy areas which are not met by the **WeITAG**, including but not limited to **The Active Travel Act (2013)**, and **The Well-being of Future Generations Act**.
- 1.6. The plan does not do enough to put measures in place to enable behaviour change, in particular, to switch to travelling by bike or foot instead of private vehicles for short journeys. Modal shift to cycling and walking also unlocks a vast amount of co-benefits in addition to improving air quality, such as tackling congestion and increasing physical activity. This is vital in at a time when we are facing a physical inactivity epidemic and an obesity crisis.
- 1.7. The plan focuses too heavily, in our view, on compliance, and fails to capture the same commitment the Minister for the Environment made to go further than compliance in ensuring that everyone in Wales can breathe clean air.

2. General Comments

- 2.1. Everyone should have the right to breathe clean air and the public want to see quicker and bolder action at national and local level to make this a reality.
- 2.2. Air pollution is killing tens of thousands of people prematurely across the UK every year. Both particulate matter (PM10 and PM 2.5) and Nitrogen Dioxide (NO₂ a part of Nitrogen Oxide [NO_x]) have detrimental effects on our health.¹
- 2.3. Road transport is responsible for 80% of NO_x pollution where legal limits are being broken. But it's not just burning fuel that causes the problem.²
- 2.4. In London, where there is good data, 45% of the particulate matter comes from tyre and brake wear – so even if we switched all the vehicles to electric, we'd still have a damaging amount of very fine dust as a result of all the traffic. In Wales, PM_{2.5} pollution contributes to more than 13,500 associated life-years lost.³
- 2.5. It is our view that particulate matter is not sufficiently recognised as a major cause of early deaths associated with air pollution, and whilst measures to slow speed limits, introduce new traffic management systems and controls are welcome, these do not address what should be the primary driver of this plan, which is public health.
- 2.6. Modal shift from motorised transport to cycling and walking can have a positive effect on air quality as well as reducing congestion and improving public health through increased physical activity.⁴
- 2.7. Research by the Royal College of Physicians notes that continued focus on controlling urban air pollution through technical measures to abate vehicle exhaust provides less benefit for public health than focusing on measures that increase sustainable transport - active travel and public transport (where active travel is often part of the journey).⁵
- 2.8. It is important to recognise that unless road space freed up by the shift to active travel is removed from use by car it is likely to be occupied by cars again due to release of suppressed demand for relocation.
- 2.9. Healthy Air Cymru thinks that there needs to be an overarching plan in place to ensure no other areas are at risk of exceeding legal limits.

¹ https://www.sustrans.org.uk/sites/default/files/file_content_type/role-of-walking-and-cycling-in-solving-uk-air-quality-crisis.pdf

² Ibid

³ Ibid

⁴ Ibid

⁵ Royal College of Physicians, 2016 Every breath you take. The lifelong impact of air pollution. London: RCP.7. Kubesch, N., de N

- 2.10. The court cases against UK and Welsh Government mean that goal posts keep changing as the Government brings through rapid policy changes to meet legal NO₂ requirements.
- 2.11. The current proposed measures focus solely on NO_x emissions as this is where legal limits are being broken, rather than including action on particulate matter (PM). Healthy Air Cymru finds this very worrying as PM affects more people than any other pollutant. Chronic exposure to particles contributes to the risk of developing cardiovascular and respiratory diseases, as well as of lung cancer.⁶
- 2.12. There is a close, quantitative relationship between exposure to high concentrations of small particulates (PM₁₀ and PM_{2.5}) and increased mortality or morbidity, both daily and over time, and there needs to be a plan in place to tackle not only NO_x but PM too.
- 2.13. The current plan appears to favour technological solutions and measures that rely on technological development when tackling air pollution. For example, the electrification of transport. Whilst the electrification of transport definitely has a role to play in tackling our air quality crisis, it will have limited impact on particulate matter levels. So investment in 'techno-fixes' should not be to the detriment of other measures such as modal shift to walking and cycling.
- 2.14. Modal shift would further improve air quality as it tackles 45% PM that comes from tyre and brake wear. In addition, as mentioned previously, proposals to slow traffic speeds and improve traffic flow do not contribute to achieving modal shift and contributing to improvements in public health and overall levels of ambient air pollution.
- 2.15. More needs to be done to link up this policy with other relevant policy. It seems as though Environment and Transport are working closely together is it just as important to involve Health, Finance, Infrastructure and Planning departments in tackling Air Pollution.
- 2.16. Healthy Air Cymru supports the transfer of greater policy levers to better tackle air quality, however we are aware that their budgets are already tight. We would like to see more information on how the £20 Million Clean Air Fund will be used and distributed, including an assessment of the spend needed to achieve healthy air in Wales. We would like to see a Clean Air Fund that reflects this research.
- 2.17. Greater consideration should also be given to future investment in the Clean Air Fund and other funding mechanisms to support Local Authorities and bus operators in upgrading their fleets and improving the take up of active travel.

⁶ [http://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](http://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)

- 2.18. These plans are to tackle air pollution where they are above the legal limit however we would welcome further plans for those areas with persistent elevated levels of air pollution.
- 2.19. To do this we need a behaviour change campaign that raises awareness of this invisible threat and to help communities understand how they can improve their neighbourhoods.
- 2.20. In order to get communities to fully support efforts to tackle air quality there must be investment in walking and cycling programmes so communities are engaged in the process of achieving modal shift. Local authorities need a full programme of community engagement, holding tailored engagement with different communities to build capacity and work with them in collaborative design so that communities are invested in the end result.
- 2.21. Local authorities and charities need to work closely with communities from the outset on community engagement programmes that help to increase the public's understanding of the benefits of walking and cycling on air quality.
- 2.22. Whilst we recognise that the WelTAG framework is the most appropriate for addressing questions of transport planning, we do not believe that the WelTAG framework alone is sufficient. The Framework fails to recognise the public health and air quality drivers behind this plan and subsequently, in our view, fail to meet the Government's own tests of improving air quality as a public health issue.
- 2.23. We would recommend that the Government utilise other Frameworks and criteria, in conjunction with the WelTAG Framework, in order to assess which measures would achieve the greatest improvements in public health. This would contribute to strengthening the Government's own narrative of going further than legal compliance.
- 2.24. The plan recognises that achieving compliance through those measures proposed as part of WelTAG Stage 2 is only a possibility, rather than likely, and therefore fail the tests set down by the High Court case in 2018.
- 2.25. Furthermore, the assessment of the percentage reduction in overall emissions and roadside emissions for Clean Air Zones or Low Emission Zones appear to be negatively weighted when compared with other European cities.
- 2.26. CAZ introduced in Berlin in 2008 and expanded in 2010 (inclusive of cars) led to PM and NO₂ emissions 50% and 20% lower than the predicted trend.⁷ The low emission zone which operated in Rome from 2001-2005, achieved a 4% reduction in total number of cars. NO₂ emissions decreased from 22.9 to 17.4

⁷ German Partnership for Sustainable Mobility (2014) *Clean Air – Made in Germany* p.26

$\mu\text{g}/\text{m}^3$ and PM_{10} emissions decreased from 7.8 to $6.2 \mu\text{g}/\text{m}^3$. As a result of the LEZ, 264,522 residents who lived alongside busy roads gained an average 3.4 days of life per person.⁸

2.27. In addition, Clean Air Zones or Low Emission Zones are only possible measures to be taken under WeITAG Stage 3 and, given the timescales under consideration, it may be late 2021 before any of the proposed measures will be implemented. For those people living in the most polluted parts of Wales, particularly those living with a health condition and therefore more susceptible to the harms of air pollution, this simply isn't quick enough.

3. Other Comments

3.1. The review of air quality monitoring at Hafod yr Ynys suggests that there should be a wider review of the volume and quality of air quality monitoring across Wales. We would question whether the current level and quality of monitoring across Wales is adequate enough to determine whether sufficient progress has been made and whether the appropriate measures are being taken.

3.2. Investment should be made in the level of air quality monitoring across Wales in order to have a better and more detailed understanding of the problem, particularly near sensitive receptors.

3.3. EU PM limits are laxer than **World Health Organisation's (WHO)** 'safe' levels – the EU's annual mean PM_{10} limit is twice the WHO's. In most cases, EU legislated limits are not 'safe' but instead represent those not posing a 'significant' health risk.⁹ We would therefore welcome a commitment from Welsh Government to bring WHO guidelines into law, to meet the Welsh Government's own commitment to going beyond legal compliance.¹⁰

Healthy Air Cymru

What we stand for

Healthy Air Cymru is a group of organisations working together to improve the quality of the air we all breathe. Air pollution in Wales harms our health and causes thousands of premature deaths every year. We are calling on the Welsh Government to take bold action on air pollution.

Healthy Air Cymru is British Lung Foundation, Living Streets, Sustrans Cymru, British Heart Foundation, Friends of the Earth Cymru, and the Royal College of Physicians.

⁸ Cesaroni G, Boogaard H, Jonkers S, et al, Health benefits of traffic-related air pollution reduction in different socioeconomic groups: the effect of low-emission zoning in Rome Occupational and Environmental Medicine 2012;69:133-139.

⁹ Royal College of Physicians (2016) *Every breath we take: the lifelong impact of air pollution* p.18

¹⁰http://apps.who.int/iris/bitstream/handle/10665/69477/WHO_SDE_PHE_OEH_06.02_eng.pdf;jsessionid=7679F37787FCC426844B8902FB01EDF4?sequence=1

Healthy Air Cymru Policy Asks of the Welsh Government

1. A comprehensive cross-governmental air quality strategy that includes:
 - a. Provision for an Independent Monitoring & Assessment Network;
 - b. A National Advisory Board on Air Quality, chaired by the Minister for the Environment which comprises of experts, academia and representatives from NGOs, local authorities and high polluting sectors (like transport and energy);
 - c. A charging Clean Air Zone for Cardiff, with Swansea and Newport councils mandated to undertake feasibility studies on introducing a charging CAZ in their areas;
 - d. A review of reporting processes so that every local authority (in conjunction with the LHB/PSB) is required to prepare a Clean Air Plan, based on data from the Independent Monitoring & Assessment Network, with adequate control measures identified and acted upon;
 - e. A commitment is given that Strategic Development Plans, Public Service Board Well-Being plans and regional transport authorities will consider air quality;
 - f. A requirement that every local authority develops a Walking and Cycling strategy with targets to decrease the percentage of journeys by private car.
2. A Clean Air Fund that provides targeted funding for those Local Authorities with consistent exceedances or elevated levels of air pollution. Welsh Government should investigate options to part-finance this Fund via measures like traffic charging and Mutual Investment Models.
3. Funding be given to councils to boost pollution monitoring outside schools and health centres/hospitals so the public have the information needed to protect their health.
4. Improve pollution monitoring, awareness campaigns and public health alerts so that people living in every part of Wales are aware of local pollution levels and how to minimise the impact on their health.
5. A Welsh Clean Air Act that would:
 - a. Enshrine in law WHO air quality guidelines;
 - b. Mandate Welsh Government to produce a statutory air quality strategy every 5 years;
 - c. Provide a statutory duty on local authorities to appropriately monitor and assess air pollution, and take action against it;
 - d. Introduce a 'right to breathe' whereby local authorities are obliged to inform vulnerable groups when certain levels are breached.

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