



Llywodraeth Cymru
Welsh Government

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Welsh Government
**Consultation – summary of response with government
response**

Cleaner and healthier air:

Consultation on draft regulations to implement fine particulate matter (PM2.5) air quality targets.

August 2026

Mae'r ddogfen hon ar gael yn Gymraeg hefyd / This document is also available in Welsh
Rydym yn croesawu gohebiaeth a galwadau ffôn yn Gymraeg / We welcome correspondence and telephone calls in Welsh

Overview

This summary presents responses to the Welsh Government public consultation on the proposed first air quality targets for Wales under the Environment (Air Quality and Soundscapes) (Wales) Act 2024. It also sets out the Government's response.

From 17 November 2025 to 16 February 2026, the Welsh Government consulted on draft regulations ('The Air Quality (Fine Particulate Matter) (Wales) Regulations 2026') to implement stricter targets for fine particulate matter (PM_{2.5}). The targets mark an important milestone in the implementation of the Act and in Wales' approach to improving air quality and protecting public health.

The target proposals provide a twin-track approach to reducing PM_{2.5} pollution: an Annual Mean Concentration Target (AMCT) and a Population Exposure Reduction Target (PERT). Fine Particulate Matter is widely recognised as one of the pollutants with the greatest impact on human health. Reducing concentrations of, and exposure to, fine particulate matter is fundamental to improving public health, reducing health inequalities, and enhancing environmental quality across Wales.

Following careful consideration of the consultation responses, the majority of which supported the proposed targets, the Welsh Government has concluded that the targets remain appropriate and will therefore be implemented as consulted upon.

Action Required

This document is for information only.

Further information and related documents

Large print, Braille and alternative language versions of this document are available on request.

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Additional copies

This summary of response and copies of all the consultation documentation are published in electronic form only and can be accessed on the Welsh Government's website.

Link to the consultation documentation: [Consultation on draft regulations to implement stricter targets for PM_{2.5}](#).

Contents

Contents.....	4
Background	5
Introduction	6
Summary of responses with Government responses	7
Question 1a: To what extent do you agree with the level of ambition proposed for the Annual Mean Concentration Target (AMCT)?.....	7
Question 1 (b). Please explain your answer.	7
Question 2(a): To what extent do you agree with the level of ambition proposed for the Population Exposure Reduction Target (PERT)?	9
Question 2 (b): Please explain your answer	9
Question 3(a): To what extent do you agree with the proposed arrangements for assessing PM _{2.5} levels and achievement of the targets?	11
Question 3(b): Please explain your answer	11
Question 4(a): To what extent do you agree with the provision in the draft regulations to allow the subtraction of the 'natural contribution' to particulate matter where exceedances of a target are due in whole or in part to these natural contributions?	13
Question 4 (b) Please explain your answer	13
Question 5: We have asked some specific questions. If you have any other relevant thoughts or comments on our proposals, please provide them here....	15
Next steps.....	17

Background

The national air quality target setting framework is a cornerstone of the Environment (Air Quality and Soundscapes) (Wales) Act 2024 ('the Act'). The framework includes duties for Ministers to set a target for fine particulate matter, the pollutant of most harm to health, by February 2027

Fine particulate matter (PM_{2.5}) is described as a 'non-threshold pollutant.' There is no threshold below which exposure to PM_{2.5} is safe. PM_{2.5} arises from multiple anthropogenic sources: road transport, domestic combustion, industrial processes and power generation and agriculture. It also has natural sources, such as wildfires and wind-blown dust and secondary PM_{2.5} is formed through atmospheric reactions involving ammonia, nitrogen oxides and sulphur dioxide. It is linked to respiratory diseases such as asthma, bronchitis and chronic obstructive pulmonary disease (COPD); cardiovascular disease, including heart attacks and strokes; lung cancer and reduced lung function; increased hospital admissions and premature deaths; and there are greater health risks for children, older people, pregnant women, and those with existing health conditions.

PM_{2.5} is particularly harmful because it can penetrate deep into the lungs and enter the bloodstream. This pollutant also damages habitats and biodiversity with adverse impacts on wildlife and species distribution.

The burden of long-term air pollution exposure in Wales is estimated to be equivalent to between 1,000 to 1,400 deaths (at typical ages) each year¹. Given the impacts of this air pollutant, the Act introduced an air quality target setting framework which enables Welsh Ministers to tighten existing air quality targets and introduce long term targets for newly identified pollutant risks.

The Act requires Welsh Ministers to:

- Set a statutory PM_{2.5} target, which can either be long-term or short-term, by 14 February 2027.
- Obtain independent expert, scientific advice before setting the target.
- Have regard to the scientific knowledge on air pollution and the latest World Health Organization (WHO) air quality guidelines.
- Be satisfied that any target can be met.

The draft Air Quality (Fine Particulate Matter) (Wales) Regulations 2026 set two evidence-informed targets for PM_{2.5} and contain provisions relating to the assessment of compliance with the targets.

¹ The burden range does not reflect 'actual' deaths from air pollution exposure but is an estimate of the 'equivalent' reduced life expectancy, when summed, which everyone experiences because of air pollution exposure (6-8 months on average, but could range from days to years).

Introduction

From 17 November 2025 to 16 February 2026, we consulted on draft regulations to implement stricter targets for PM_{2.5}.

We sought views on:

- the extent to which people agreed with the proposed targets for an Annual Mean Concentration Target (AMCT) and a Population Exposure Reduction Target (PERT);
- the extent to which people agreed with the proposed arrangements for assessing PM_{2.5} levels and achievement of the targets; and
- the extent to which people agreed with the proposal to allow the subtraction of natural contributions to particulate matter where exceedances of a target are due wholly or in part to natural contributions.

We received a total of 42 responses from private citizens, academia, Non-Governmental Organisations, local government, public bodies, Senedd Members, environmental charities and organisations, health and medical bodies, community action groups, private industry and trade associations of the agricultural sector.

The consultation showed broad support for the proposed PM_{2.5} targets. Many respondents considered the proposed Annual Mean Concentration Target and Population Exposure Reduction Target to be ambitious but achievable and welcomed the potential public health and environmental benefits. Some respondents, however, considered that the targets should be met sooner or made more ambitious.

Respondents were also generally supportive of the proposed arrangements for assessing PM_{2.5} levels and determining whether the targets had been achieved. In particular, there was support for fixed-site monitoring, an expanded monitoring network and clear reporting arrangements. A number of respondents sought further assurance on monitoring coverage, transparency and implementation.

Most respondents supported the proposal to allow natural contributions to PM_{2.5} to be taken into account when assessing compliance with the targets with many of those who agreed commenting that subtraction must be based on robust, transparent methodology. Those who supported the proposal generally considered that policy action should focus on controllable pollution sources while others raised concerns that subtraction could understate actual exposure and should be applied only where supported by robust evidence and clear safeguards.

This document summarises the responses received and sets out the Welsh Government's response to the issues raised.

Summary of responses with Government responses

Question 1a: To what extent do you agree with the level of ambition proposed for the Annual Mean Concentration Target (AMCT)?

- Agree: 18
- Strongly agree: 6
- Neither agree nor disagree: 2
- Disagree: 4
- Strongly disagree: 7

Question 1 (b). Please explain your answer.

Improving environmental and public health: Balance between feasibility and ambition

The majority of respondents agreed with the proposed target considering it achievable, ambitious and realistic and favoured the proposed twin-track approach of an AMCT working alongside the PERT. They believed that the proposal would bring about increased public health benefits. However, some respondents also called for greater ambition. Suggestions included an accelerated timescale to achieve compliance and measures to achieve the latest WHO air quality guideline of 5 microgrammes per cubic metre. Some respondents advocated introducing the proposed target of 10 microgrammes per cubic metre immediately, alongside a clear roadmap towards the WHO guideline. Respondents also suggested the adoption of interim milestones and undertaking a review in 2029/2030 to determine whether the target date could be brought forward and the target made more ambitious. Some respondents further proposed a shorter overall timeline for compliance. Local authorities highlighted that success would require national interventions and adequate funding to deliver new monitoring, modelling and assessment duties.

A number of respondents disagreed. Some argued that the target is not ambitious enough and called for Wales to adopt a target of 10 microgrammes per cubic metre by 2030 and commit to achieving the WHO air quality guideline of 5 microgrammes per cubic metre at a future date (with one suggestion to aim to meet this by 2040). Others questioned whether the target was achievable. Respondents expressed different concerns: one respondent questioned the extent to which the target was achievable citing the high proportion of PM_{2.5} originating outside of Wales while another expressed difficulty in commenting on the level of ambition owing to the lack of specific proposals on how the target could be achieved. Concerns were also raised about the disproportionate impacts on businesses and the need for inter-governmental cooperation at UK level, including work with vulnerable communities, to achieve long-term air quality improvement.

Of those who neither agreed nor disagreed, a respondent felt the proposed target could be more ambitious given the health impacts of PM_{2.5}. A respondent stressed success will depend on a cross-sector, evidence-based approach which recognises multiple emissions sources and ensures disproportionate expectations aren't placed on the farming sector.

General themes

Impacts on Communities and equalities considerations

Respondents generally recognised the disproportionate impact of air pollution on vulnerable groups and supported the health benefits of the proposal, but some argued that a more ambitious target was needed to maximise health benefits and that equality and human rights obligations in law may be engaged where there are identified risks to life.

Need for Clearer Delivery, Monitoring and Resourcing Frameworks

Some local authorities commented on the importance of representative monitoring across Wales (urban, coastal, rural and northern Wales).

Government Response

There was clear, overall support for the proposed Annual Mean Concentration Target (AMCT) and the acknowledged benefits to the whole of society that a reduction in PM_{2.5} levels would bring.

Although some respondents called for greater target ambition, we are required to set targets that are achievable across Wales and which Welsh Ministers are satisfied can be met. The peer reviewed evidence underpinning the target proposals shows that the target proposal is set at the lowest level across Wales able to be achieved prior to 2040 (the latest year assessed) and the earliest date the lowest level is feasible to achieve (2035). As recognised by the World Health Organization (WHO), air quality standard-setting processes need to aim to achieve the lowest concentrations possible in the context of national and local constraints, capabilities and public health priorities. The assessment of target feasibility and cost in the context of Wales, balanced with associated benefits, are therefore important factors in determining proposed target levels and dates.

The AMCT sets a maximum concentration level to be reached by a future year. It will provide equity across Wales with a concentration limit, focusing attention on reducing concentrations where they are highest, thereby delivering a 'minimum' standard of air quality across the country. The proposed AMCT reduces the currently permitted annual mean concentration of PM_{2.5} in Wales by more than half, aligning more closely with the guidelines set by the WHO (equivalent to the more stringent WHO interim target level).

Question 2(a): To what extent do you agree with the level of ambition proposed for the Population Exposure Reduction Target (PERT)?

- Agree: 18
- Strongly agree: 6
- Neither agree nor disagree: 2
- Disagree: 6
- Strongly disagree: 5

Question 2 (b): Please explain your answer

Protecting environmental and public health: Balance between feasibility and ambition

Respondents who agreed regarded the PERT proposal as fair and realistic. There was support for the proportionate ambition of the target and for the twin-track approach of the AMCT working alongside the PERT. A sizeable number of respondents provided additional comments, calling for greater ambition such as setting an interim target of 20% by 2030 to ensure reductions in population exposure as early as possible; interim milestones and a review of the PERT before 2035; interim milestones and an earlier review point during 2029/2030 to determine the evidence for tightening the PERT; and a shorter timeline to compliance.

Respondents who disagreed called for further ambition (such as a PERT of at least 35-40% by 2035 with 25% being treated as a floor as opposed to a ceiling). Other concerns centred on the over-ambition of the proposal (given the levels of transboundary pollution in Wales); the view that health gains could be realised by other means and the fear of disproportionate impacts on businesses.

A respondent who neither agreed nor disagreed stated the proposal does not take account of population susceptibility to ill-health while another feared disproportionate impacts on businesses which contribute minimally to PM_{2.5} pollution.

General themes

Implementation of the PERT

Respondents broadly supported the PERT proposal although some respondents requested clarity on aspects of the proposal, such as how reductions in average population exposure would be geographically distributed including how high-risk vulnerable groups would be prioritised. A respondent stated that stakeholder understanding of the proposal would be greater if the modelling clarified that transboundary pollution was the reason for the fact that the Welsh and English PERTs were not the same. A few local authorities asked for information on their responsibilities in respect of implementing the PERT. A respondent representing local authorities asked for information/worked examples in relation to PERT methodology and calculations and also proposed that interventions should be prioritised in the most deprived communities. The same respondent proposed that Welsh Government should take account of sectoral sources of emissions (ammonia from agriculture) and provide clarity on the policy on domestic burning (given the high dependency in rural areas).

Government Response

There was clear overall support for the PERT proposal. In setting statutory targets we are required to set targets that are achievable across Wales and which Welsh Ministers are satisfied can be met. The peer reviewed evidence underpinning the target proposals shows that the target proposal is set at the lowest percentage reduction able to be achieved prior to 2040 (the latest year assessed) and the earliest date the lowest reduction is feasible to achieve (2035). The PERT proposal is also proportionate to the AMCT proposal to ensure they are complementary, stretching and achievable.

The PERT sets a reduction in average population exposure to be obtained by a future year compared to a base year. The PERT will drive continuous improvement in areas of public exposure across the country to encourage action to deliver air quality improvements, even if levels are below the 'minimum' standard of air quality set by the AMCT - addressing the fact that there is no threshold below which exposure to PM_{2.5} does not have an impact. This target will drive action that is the most beneficial for public health across the population.

The two targets are proposed to work in tandem to drive action across the country whilst ensuring improvements in the areas with the highest concentrations of PM_{2.5}.

Question 3(a): To what extent do you agree with the proposed arrangements for assessing PM_{2.5} levels and achievement of the targets?

- Agree: 16
- Strongly agree: 5
- Neither agree nor disagree: 7
- Disagree: 6
- Strongly disagree: 0

Question 3(b): Please explain your answer

Support for monitoring and assessment arrangements

Broadly, respondents supported the use of fixed-site monitoring, an expanded monitoring network across Wales, and clear annual reporting for the proposed targets. Respondents who agreed provided additional comments calling for an expanded and more representative monitoring network; further source apportionment research; the need for ongoing investment in monitoring; integration of air quality and health data; and public access to real-time data, including consultation on monitor siting with both local authorities and the public in areas where siting is proposed. Further comments called for the setting of interim reporting timescales prior to 2036 and one respondent stated that fixed monitoring may underestimate population exposure and recommended the use of modelling and population-weighted analysis to complement monitoring; including regular public reporting per local authority on population exposure. A respondent requested further clarity on whether the proposed monitoring would be sufficient for assessing population exposure; the definition of “PEI Monitoring Locations” including whether near source monitoring location measurements would be excluded from PERT calculations; and detail on the approach to near-source monitoring at regulated industrial sites. Another respondent highlighted the need for ensuring greater transparency in the methodology for determining compliance.

Respondents who disagreed raised concerns about potentially misleading sectoral emissions representation and called for stronger action across all pollution sources, including transparent modelling, clear uncertainty reporting, and robust monitoring design and siting (to accurately track PM_{2.5} trends and population exposure).

Respondents who neither agreed nor disagreed recommended an accelerated expansion of the monitoring network, a hybrid monitoring–modelling approach, greater transparency on natural contribution adjustments and clearer provisions on data quality and audit with one doubting whether the existing national air quality monitoring network would provide sufficient data granularity. Other views included the need for a clear distinction between primary and secondary particulates; robust modelling and source apportionment; explicit consideration of transboundary pollution; transparency regarding assumptions made about sectoral attribution; while one respondent sought further detail on the practicalities of assessment.

General themes

Monitoring Network Coverage

A respondent representing local authorities highlighted the importance of clear monitor siting criteria and the broadening of monitoring coverage to include urban-background, rural and coastal areas and the addressing of gaps in monitoring across North Wales. Other respondents stated that more monitoring was required in Wales and that additional monitoring should capture a balanced mix of dwelling location types (urban and rural) so that interventions match exposure.

Funding and Capacity Challenges for Local Authorities

While supportive of the proposals, many local authorities called for funding to ensure capacity to undertake monitoring responsibilities and to ensure maintenance of the monitoring network. A few local authorities asked for clarity in relation to their monitoring responsibilities under the proposals.

Government Response

Respondents were generally supportive of the proposed arrangements for assessing PM_{2.5} levels and determining whether the targets had been achieved. In particular, there was support for fixed-site monitoring, an expanded monitoring network and clear reporting arrangements. A number of respondents sought further assurance on monitoring coverage, transparency and implementation.

To ensure consistency and comparability with existing statutory air quality reporting in Wales, and across the wider UK, we propose to retain the same zones and agglomerations that have been used for air quality assessment under the Air Quality Standards (Wales) Regulations 2010. This will enable continuity in assessment and reporting, while providing a robust framework for monitoring progress towards the new PM_{2.5} targets.

Following consideration of the consultation responses, we do not propose to change the monitoring and assessment arrangements defined in the draft regulations.

Question 4(a): To what extent do you agree with the provision in the draft regulations to allow the subtraction of the 'natural contribution' to particulate matter where exceedances of a target are due in whole or in part to these natural contributions?

- Agree: 13
- Strongly agree: 4
- Neither agree nor disagree: 9
- Disagree: 3
- Strongly disagree: 5

Question 4 (b) Please explain your answer

Views on approaches to the subtraction of Natural Contributions

Respondents were generally supportive of the proposal to subtract the 'natural contribution' to PM_{2.5} where it can be determined with sufficient certainty that exceedances of a target were due, wholly or partly, to contributions from natural sources. This reflected recognition that, while contributions from natural sources can be assessed and quantified, they cannot be controlled.

However, many respondents who agreed provided additional comments and stressed that any subtraction approach must be based on a robust, transparent and clearly defined methodology. Key recommendations included publication of both original and subtracted data; ensuring subtraction is tightly defined and limited in scope; ensuring clear communication to maintain public understanding; the provision of independent oversight of subtraction and detailed guidance on the subtraction process; equal treatment of transboundary and secondary PM_{2.5}; and continued monitoring of natural-source PM_{2.5}. One respondent stated that natural-source PM_{2.5} still contributes to real-world exposure and that excessive use of subtraction could weaken incentives to act to protect public health.

Respondents who disagreed with allowing PM_{2.5} subtraction argued that it could understate real public exposure and the health impacts of particulate pollution. Concerns included the difficulty of distinguishing natural from man-made PM_{2.5}, the risk of masking harmful pollution, and the potential for residents to receive an inaccurate picture of local air quality. Several respondents stated that subtraction should be limited to exceptional natural events and not used routinely. Suggested safeguards included reporting both adjusted and unadjusted data, independent auditing, excluding subtraction from the PERT, and requiring action plans even where compliance is achieved through subtraction. Some respondents also noted that government has influence over certain natural sources and that climate change may increase natural PM_{2.5} contributions.

Those respondents who neither agreed nor disagreed felt that PM_{2.5}, irrespective of source, detrimentally impacts upon human health and that any subtraction must be based on a robust methodology.

General themes

Views on Wildfires/Wild-land fires

A few respondents questioned whether wildfires should be classified as natural sources in the draft regulations due to their links to climate change and that they can be started by human activity.

Government Response

Views on the proposed provision to allow the subtraction of the natural contribution to PM_{2.5} where an exceedance of a target is due, in whole or in part, to natural sources were varied, although broadly in agreement. While a majority of respondents supported the proposal, a number of respondents expressed concerns that subtracting natural contributions could understate actual public exposure and the health impacts of PM_{2.5} pollution and weaken incentives to protect public health.

We have carefully considered these views and remain of the view that the provision is appropriate. The purpose of the PM_{2.5} targets is to drive reductions in emissions from sources that can reasonably be influenced through policy and regulatory intervention in Wales. Natural sources of particulate matter, such as sea salt, wind-blown dust, or particulates arising from natural events, are largely outside the control of public authorities. Where contributions from natural sources which cannot be controlled can be determined with sufficient certainty, and where exceedances of a target result wholly or partly from such contributions, they will be able to be subtracted when assessing compliance. This enables natural contributions to be properly accounted for and prevent potential unintended or disproportionate consequences arising from non-compliance.

The provision is consistent with established approaches to air quality assessment and recognises that exceptional or naturally occurring sources can temporarily influence ambient PM_{2.5} concentrations without reflecting a deterioration in controllable emissions. It therefore supports a fair and proportionate assessment regime while maintaining the integrity and ambition of the targets.

Any application of the natural contribution provision will be subject to robust methodological and technical assessment and evidence requirements. The subtraction of natural contributions will not occur automatically and must be supported by appropriate analysis demonstrating the extent to which exceedances are attributable to natural sources. This will help ensure that the provision is applied transparently, consistently and only where justified by the available evidence.

We therefore intend to retain the provision within the regulations as consulted upon.

Question 5: We have asked some specific questions. If you have any other relevant thoughts or comments on our proposals, please provide them here.

Respondents provided a range of additional comments on the proposals. A few respondents sought clarification on implementation and enforcement arrangements, including how the targets would interact with existing Local Air Quality Management duties, how representative the number of monitoring sites would be, and whether future action would be taken to address particles of diameter 1 micrometre or smaller (PM₁).

A respondent highlighted concerns about local pollution hotspots, particularly around busy roads and quarries, and queried why the draft regulations do not place legal industry-specific obligations on businesses, including whether consideration was given to the provision of guidance for local authorities on assessment of suspected hotspot sites. The respondent also called for a clear pathway towards meeting the latest WHO air quality guidelines and further reductions beyond 2035.

Sector-specific responses emphasised the need to consider the impacts and costs of the targets on rural communities and businesses. Agricultural stakeholders highlighted the importance of alignment of proposals with wider Welsh Government policies, proportionate and evidence-based mitigation measures, financial support, and recognition that agricultural emissions were mainly secondary PM_{2.5}. Representatives from the solid fuel and coal-using sectors raised concerns about the attribution of emissions and the potential impact of future restrictions on their industries.

Third-sector respondents emphasised the wider public health benefits of measures such as increased green space, active travel and public transport to support improvements in air quality.

Government Response

We thank respondents for their comments and observations. We recognise the importance of ensuring that the implementation of the PM_{2.5} targets is supported by clear guidance and effective communication. Queries relating to monitoring, enforcement, target delivery and the relationship between the targets and other air quality frameworks will be considered as part of the development of implementation arrangements and supporting guidance.

We acknowledge the concerns raised regarding local pollution hotspots and the need for continued action to address areas of elevated exposure. The PM_{2.5} targets are intended to drive improvements in air quality across Wales while complementing existing regulatory regimes and local air quality management processes. We will continue to work with local authorities as important stakeholders and delivery agents to consider the role local authorities will play in helping achieve the targets. We also note the comments regarding PM₁ and longer-term ambitions beyond 2035, which will help inform future policy development and the periodic review of air quality evidence and targets.

We note the views expressed by stakeholders from the agricultural, solid fuel and industrial sectors regarding the potential impacts of the proposals. In developing

policies to support achievement of the targets, Welsh Government will continue to engage with stakeholders and seek to ensure that measures are proportionate, evidence-based and aligned with wider policy objectives, including those relating to rural communities, climate change, biodiversity and sustainable land management.

We also welcome comments highlighting the role that wider interventions, including green infrastructure, active travel and public transport, can play in improving air quality and public health. These issues will continue to be considered as part of a coordinated approach to reducing population exposure to air pollution in Wales.

Next steps

Statutory target implementation

The Welsh Government is grateful to all those who took the time to respond to this consultation. The views, evidence and insights provided by stakeholders have been carefully considered. Overall, the consultation responses were supportive of the proposals. We intend to proceed with the regulations (as originally drafted) establishing a statutory annual mean PM_{2.5} concentration target of 10 microgrammes per cubic metre by 2035, along with a Population Exposure Reduction Target of 25% by 2035 (compared with a baseline of 2019).

The Welsh Government remains committed to improving air quality and protecting public health across Wales. Alongside the introduction of the statutory targets, we will continue to work with local authorities, public bodies, businesses and communities to secure reductions in PM_{2.5} emissions at the earliest opportunity and to make the maximum possible progress towards achieving the AMCT by 2030, where feasible.

Non-statutory policy statement

The Welsh Government aspires to achieve an annual mean PM_{2.5} concentration of 10 microgrammes per cubic metre as early as practicable and, where feasible, by 2030. Current evidence indicates that 2035 is the earliest date by which this level can be achieved consistently across Wales. The Welsh Government will continue to monitor progress and keep the evidence under review. This statement is a non-statutory expression of policy ambition only. It does not create any legal rights or additional duties, alter the statutory target framework, or commit Welsh Ministers to achieving any particular outcome by a specified date.