

## **Submissions from:**

- **Greener UK and Wildlife and Countryside Link**
- **Healthy Air Coalition**

## **And responses from Defra**

**Submission from Greener UK and Wildlife and Countryside Link on the Environmental Targets Regulations 2022. For this submission, Defra's responses are embedded in the text.**

1. The government is required by Sections 1–3 of the Environment Act 2021 to set legally binding environmental targets. The statutory instruments establishing the detail of these targets were required by Section 4 to be laid before Parliament on or before 31 October 2022. Following interventions from the [Office for Environmental Protection](#), [parliamentarians](#) and [environmental NGOs](#) they were eventually laid on 15 December 2022.

## **Engagement with stakeholders**

2. The targets set under the Environment Act framework are of very high public interest. Over 200,000 people responded to a [petition](#) calling for the 2030 biodiversity target. They are a core provision in the government's "flagship" environmental legislation. They form a centrepiece of domestic implementation of international obligations, including those recently agreed under the Convention on Biological Diversity. They are likely to have substantial influence on business planning and investment decisions across multiple sectors.
3. Defra [consulted](#) on the proposed package of targets from March to June 2022. The consultation was hampered by the delayed publication of evidence documents to support informed responses. The government's [response](#) to the consultation was published alongside the statutory instruments on 16 December 2022. Over 180,000 consultation responses were received.
4. Defra acknowledges that "the majority of views (in most cases with over 90% of responses) on biodiversity, Marine Protected Areas, water, waste, woodland cover and air quality targets were for higher levels of ambition". However, most of the targets have not been strengthened; none have been strengthened significantly; and some have been weakened, with key gaps remaining in some areas where there was strong public and expert support for additional targets.
5. Between the consultation and the publication of the final targets, Defra has not engaged with stakeholders on the details of drafting.

**Next stages:** Significant environmental improvement test & Environmental Improvement Plan

6. Under [Section 7](#) of the Environment Act, the targets must be reviewed under the "significant environmental improvement test" by 31 January 2023. Taken together with other relevant targets, meeting the targets set under Sections 1–3 must deliver a significant environmental improvement in England in the view of the Secretary of State.<sup>1</sup>

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<sup>1</sup> This is of particular interest in the light of uncertainty regarding the future of EU-derived targets and laws, such as the Water Framework Directive Regulations, which would be subject to review or repeal under proposals set out in the Retained EU Law (Revocation and Reform) Bill. Many existing targets are subject to repeal or reform, which could affect the outcome of the significant environmental improvement test.

7. Under [Section 10](#) of the Environment Act, the government must also review its Environmental Improvement Plan by 31 January 2023. An “environmental improvement plan” is a plan for significantly improving the natural environment in the period to which the plan relates. The first revised plan must include interim targets—non-binding five-yearly milestones for delivering the long-term targets which are set out in the statutory instruments currently before Parliament.

### Questions for clarification for the department

8. Greener UK and Wildlife and Countryside Link have been closely monitoring and seeking to engage with the development of legally binding targets since 2018 and throughout the passage of the Environment Bill. This briefing provides some context on the development of the targets, highlights issues arising from the statutory instruments and sets out several questions of clarification for the department.

- *Q1: Does the Secretary of State propose to complete the significant environmental improvement test and set interim targets on the basis of the draft statutory instruments, before they have been agreed by Parliament?*
- *A1: Work on interim targets and the Significant Improvement Test (SIT) review of statutory environmental targets has been carried out on the basis of the draft statutory instruments (SIs). The SIT review also includes broader statutory environmental targets which meet technical conditions set out in the Environment Act 2021.*
- *Q2: What advice has the Secretary of State sought and received from its expert advisers Natural England and the Environment Agency about the significant environmental improvement test and interim targets?*
- *A2: Our statutory advisors have been closely involved in the development of robust interim targets and their advice has informed recommendations made to the Secretary of State.*
- *Their input has also helped shape the approach taken for the SIT review, including through the department’s Evidence, Science and Analysis Committee.*
- *Q3: Is the department intending to undertake structured engagement with expert stakeholders on the significant environmental improvement test and interim targets?*
- *A3: Meeting interim targets will require action across government and all sectors of the economy, and we will be working closely with external partners and experts to achieve them.*
- *Our work to develop interim targets has built on the detailed engagement with statutory advisors and wider evidence partners to support the development of long-term targets.*
- *The approach used for the first SIT review may be built upon in future tests as our evidence base and analytical capability continues to improve. We will be interested to hear expert stakeholders’ views on the first SIT review and how it could be developed in the future.*

## The Environmental Targets (Biodiversity) (England) Regulations 2022

### Background

9. This statutory [instrument](#) was laid in draft under the affirmative procedure on 15 December 2022, pursuant to Sections 1 and 3 of the Environment Act 2021. Its purpose is to halt the decline in species abundance by 2030, reverse the decline in species abundance by 2042, reduce the risk of species extinction by 2042 and to restore or create in excess of 500,000 hectares of wildlife-rich habitat outside of current protected sites by 2042.

### Questions for clarification: Extinction Risk

10. The Extinction Risk target will be measured by comparing the 2042 Red List Indicator value to the 2022 value. If the 2042 value is above the 2022 value, the target will be met, without any accounting for uncertainty around this change.

- *Q4: Does the department consider that the target could theoretically be met by improving the status of a single species by one category, eg from Critically Endangered to Endangered? Or will it apply a more credible test, requiring a statistically significant increase in the indicator value?*
- *A4: Improving the status of a single species by one category would not be sufficient to change the overall value of the Red List Index for England, and therefore the target would not be considered met.*
- *As even small changes to the target indicator could reflect significant changes in extinction threat, we will consider the target met based on changes in the Index value.*

11. The statutory instrument includes the 2022 value of the Red List Indicator, stating that this is what the 2042 value will be compared to. However, normal scientific practice is that each time a Red List Indicator is calculated the previous values change due to improved knowledge, taxonomic changes and other factors. This is termed 'backcasting'. If backcasting is used, then the 2042 assessment should be compared to the updated 2022 value based on knowledge in 2042, not what is published in the statutory instrument. The government's own technical report on the indicator states, "without backcasting, redundancy would accumulate in the RLI which could eventually limit its effectiveness as an indicator".

- *Q5: Does the department consider it would be inappropriate to use the published RLI value for 2022 in assessing the target?*
- *A5: The 2022 Red List Index for England uses the best available evidence at the time of laying the SI to set out a baseline for 2022.*
- *To ensure that we are measuring the target as accurately as possible, we will consider new data and information as appropriate, in conjunction with NE and the relevant independent experts.*

### **Questions for clarification: Species Abundance**

12. The suggested method of assessing the 2030 target of halting decline in species abundance is to compare whether the 2030 value is greater than or equal to the 2029 value. This is not a meaningful comparison. Although the method for calculating the indicator to some extent smooths out short-term variation, for example due to weather, it does not omit it. Therefore the 2030 value could easily be above that for 2029 without the underlying trends on average being stable and conversely the 2030 value could easily be lower than that for 2029 but the underlying trends on average are stable.

- *Q6: Will the department also take into account the average five-year trend (say 2028 to 2032) to account for short-term variation?*
- *A6: The index value is a smoothed value, which takes into account fluctuations in data from year to year. The methodology applied to this indicator follows that used in the England Biodiversity Indicators and so we are confident that using this will enable us to report on the target accurately.*

13. The long-term target will be met if the 2042 value is above the 2022 value and at least 10% above the 2030 value. Like for the 2030 target there is no consideration that the increase should be statistically significant so the 2042 value could be greater than the 2022 value by an infinitesimally small amount and the target would be met. Also, comparing two individual points in the indicator does not account for interannual variation as discussed above.

- Q7: Will the department's assessment of the 2042 target require a statistically significant increase and take short-term variation into account?
- A7: The index value is a smoothed value, which takes into account fluctuations in data from year to year. The methodology applied to this indicator follows that used in the England Biodiversity Indicators and so we are confident that using this will enable us to report on the target accurately.
- The 2042 target will be assessed based on an increase in the smoothed index value.

### Questions for clarification: Habitat Condition

14. Many biodiversity consultation responses questioned the validity of a species abundance target without targets for habitat condition and extent. Although species abundance is a helpful indicator, targets could be achieved by targeted interventions while allowing the state of the wider environment to continue to decline.
- a. The 25 Year Environment Plan included a commitment for 75% of SSSIs to be in favourable condition. Currently around 40% are in favourable condition in England.
  - b. This is supported by [new scientific evidence](#) demonstrating that well-managed protected sites are crucial for the future of wildlife. Defra recognised in its consultation response on targets that “to halt nature’s decline by 2030...we will need to take action to restore our protected sites, which are vital wildlife havens”.
  - c. In December, the UK signed up to the [Convention on Biological Diversity post-2020 framework](#). This included targets to “ensure that by 2030 at least 30% of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration” and that by 2030 at least 30% of the land and sea is effectively protected for nature. The UK government supported these proposals.
15. Defra’s proposed target for creation and restoration of 500,000 hectares of priority habitat is a gross figure, which does not account for habitat losses. This opens the possibility that overall extent of priority habitat could continue to decline. Defra explained that data was not reliable enough to provide a net figure.<sup>2</sup>
- Q8: What plans does the Department have to improve monitoring and when does it expect a net target to be feasible?
  - A8: We are developing a system to report the actions that are being taken to restore and create wildlife-rich habitat, which will capture information on the location of the action, the size of the area intended to become wildlife-rich and the type of wildlife-rich habitat that is being restored or created.
  - We intend to focus as much as possible on net increase by using reporting from live agri-environment scheme agreements and not counting compensatory habitat to ensure as far as possible that new habitat is additional.
  - We are currently developing an indicator for quantity, quality and connectivity of habitats as part of the Outcome Indicator Framework under the 25 Year Environment Plan. The Natural Capital Ecosystem Assessment habitat mapping work is going to inform the creation of the DI indicator.

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<sup>2</sup> Reg 8(3) uses an interpretation of restoration that does not include restoration of existing priority habitats, such as unmanaged ancient woodlands, but applies to an increase in extent of habitat through restoration activities, compared to 2023 levels. This narrow restoration definition means there is no explicit statutory driver for improvement of existing priority habitat. It is not clear why the terms “relict or degraded” habitat in Reg 8(3) are not defined in the Reg 10 interpretation list.

16. Regulation 8 suggests that compliance with the habitat creation target will depend on whether action 'is being taken'. Previously, Natural England has counted all SSSI units with a management plan in place as 'recovering', regardless of whether the plan was funded, being implemented or even likely to result in recovery. This led to some misclassification of sites as recovering, where no real action had taken place.

- *Q9: What steps will the department put in place to ensure that only those areas where habitat creation/restoration is actually underway and proving effective are counted?*
- *A9: We are developing a system to report the actions that are being taken to restore and create wildlife-rich habitat, which will capture information on the location of the action, the size of the area intended to become wildlife-rich and the type of wildlife-rich habitat that is being restored or created.*
- *The habitats target is an action-based target rather than an outcome-based target. Using reporting from live agri-environment scheme agreements will help ensure that actions recorded are actually underway.*

17. Targets (in the 25 Year Environment Plan and the Convention on Biological Diversity post-2020 framework) are not replicated in the statutory instrument.

- *Q10: What was the department's rationale for omitting a target on the condition of terrestrial protected habitats in England?*
- *A10: To halt nature's decline by 2030 we know we will need to take action to restore our protected sites, which are vital wildlife havens. We are committed to delivering our 25 Year Environment Plan goal to restore 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition by 2042.*

## **The Environmental Targets (Water) (England) Regulations 2022**

### **Background**

18. This statutory [instrument](#) was laid in draft under the affirmative procedure on 15 December 2022 under Section 1 of the Environment Act 2021. Its purpose is to create four legally binding long-term targets in the priority area of water. The targets will address nutrient pollution from agriculture and wastewater, a target to reduce the concentration of metals in rivers from abandoned metal mines, and a target to reduce water demand.

### **Questions for clarification**

19. [Section 1\(5\)](#) of the Environment Act allows the Secretary of State to specify how targets will be measured. For nutrient pollution, the targets consultation proposed that "we will measure progress against this target using modelling". This raised concerns about the validity of measurement and real-world outcomes. An alternative approach would be to combine modelling with clearer reporting requirements and expansion of water quality monitoring in rivers.

- *Q11: Is the Department still planning to rely on modelling to assess compliance with the targets?*
- *A11: Yes, we will measure progress to achieve the agriculture target using modelling, which we will validate using water chemistry data from the Catchment Sensitive Farming Enhanced Water Quality Monitoring Programme. The data and models will be publicly available and transparent.*
- *We will measure our progress through a combination of modelling (using FARMSCOPER and tools such as the EA spatial land use change model), verified through strategic monitoring.*
- *Q12: Why is an approach to measurement not spelled out in the statutory instrument?*

- *A12: Regulations 6, 11, 16 and 21 of the statutory instrument set out the approach to measurement for each of the targets. Further detail on how measurement will be undertaken is set out in the Explanatory Memorandum.*

20. The water demand target is a relative target, based on water abstracted divided by population. This could result in overall water taken from the environment increasing, so that there is no environmental improvement. Over abstraction remains a significant cause of poor habitat quality, as well as exacerbating the effects of pollution.

- *Q13: What reassurance can the Department give that the water demand target will lead to environmental improvement?*
- *A13: The water demand target is intended to help build a secure and more drought resilient water supply. It will also deliver an estimated 12,556 million litres per day reduction in water taken from the environment for public water supply by 2037/38. We are retaining the metric for distribution input over population because it indicates level of water used per person in England per day, making it relatable to water users. It will help to measure and improve water efficiency trends over time. The target accounts for population growth as it is based on population forecasts to 2050. The 2050 supply demand gap in regional water resources planning, which the target will deliver against, is also driven by leaving more water in the environment and the impacts of climate change, addressing the risk outlined by external partners.*
- *Meeting the statutory water demand target will support sustainable levels of abstraction for public water supply. Distribution Input (DI) is the total amount of treated water supplied to customers through water companies' distribution network. This includes public water supply to households and non-households, as well as water lost through leakage. Public water supply represents the majority of consumptive water use across England and therefore we have retained the scope of the target rather than using total abstraction.*
- *The target draws together existing commitments, creating a statutory driver for delivering the level of ambition needed to meet the required reduction in water use by 2050. It will place an additional driver on the water industry which will need to be factored into their planning, targets and delivery. It will be monitored using annually reported data from water companies.*
- *It is based on a trajectory to address the 2050 supply demand deficit identified in regional water resources plans, which is being driven by climate change, population growth, increasing resilience to drought and protecting the environment. The statutory target will help to ensure that we leave more water in the environment to support biodiversity and for ecosystem recovery, alongside meeting public supply needs.*

21. Many consultation responses proposed an overall water quality target should be added. The consultation response said that "The Government already has legally binding targets for water health in the Water Environment (Water Framework Directive) Regulations 2017". However:

- a. WFD only commits to reaching Good Status in 75% of waterbodies, so there would be work for a post-WFD target to do still;
- b. The WFD target deadline is 2027 for most aspects of the water environment, so it does not constitute a long-term target under the terms of the Environment Act;
- c. The future legal status of the 2017 Water Environment Regulations (which brought across the Water Framework Directive into the UK statute book) is in doubt under proposals set out in the Retained EU Law (Revocation and Reform) Bill.

22. The concern is that a target focused on specific pressures on the water environment could be met without achieving an overall improvement in the water environment.
- *Q14: Does the department expect to extend the overarching WFD target beyond 2027? If not, how are the Environment Act targets expected to drive an increase in the overall health of the freshwater environment?*
  - *A14: The government continues to comply with existing legal requirements, including aiming to achieve the Water Framework Directive target by 2027 and the requirement to maintain non-deterioration of all water body health after 2027.*
  - *The Environment Act targets focus on key pressures and sectors to deliver the step change needed to improve the water environment and will contribute significantly to overall water quality ecosystem health targets.*
23. The targets are intended to be agnostic about policy approaches. However, the phosphorus target effectively precludes use of nature-based solutions and catchment management because it is focused on discharges from sewage works.
24. An integrated approach to water quality management would enable efficient, multi-benefit catchment measures. Siloed targets will likely lead to inefficient investment in traditional, high carbon solutions with no wider benefits to nature and society.
- *Q15: How will the department ensure that proposed phosphorus measurement methodologies which favour engineered solutions do not prejudice the delivery of nature-based solutions and integrated catchment management?*
  - *A15: The wastewater target allows for the use of nature-based solutions integrated within the wastewater treatment process for example where a wetlands is added to the end of a wastewater treatment works to remove pollutants before entering the river. In order to make the target conducive to the use of catchment-based solutions, we would have to abandon the specificity of our separate targets for wastewater and agriculture. We are deliberately creating two sector specific targets on nutrient pollution to set clear expectations from government of what the agriculture sector and water industry need to deliver.*

## **The Environmental Targets (Residual Waste) (England) Regulations 2022**

### **Background**

25. This statutory [instrument](#) was laid in draft under the affirmative procedure on 15 December 2022 under Section 1 of the Environment Act 2021. Its purpose is to create a legally binding target in the priority area of resource efficiency and waste reduction, which will ensure that by the end of 31 December 2042 the total mass of residual waste for the calendar year 2042 does not exceed 287 kilograms per head of population in England. This equates to a 50% reduction from 2019 levels and relates only to waste that is left over after recycling and reuse activities have been accounted for.

### **Questions for clarification**

26. The 50% reduction target excludes major mineral wastes created from construction, demolition and excavation (CD&E) activities. This is a significant oversight as these wastes, while easier to handle and less impactful than other waste streams, account for the majority of waste produced in England. This provides little incentive for change in the construction industry, which uses more resources than any other sector in the UK – and their extraction results in high carbon and environmental impacts. The government stated in its consultation document that reducing residual waste from CD&E activities is “a high priority and we are

not overlooking this”. While declining to address these wastes with a statutory target, it stated that its “strategic ambition” to double resource productivity by 2050 will drive a reduction in this largest source of waste.

- *Q16: Does the department expect to set legally binding targets that will address the largest source of waste in England?*
- *A16: We excluded major mineral wastes to focus on reducing more environmentally harmful waste at point of treatment. Despite high tonnages, major mineral waste’s environmental impact per tonne is low when treated as waste. We acknowledge the wider environmental impact of major mineral wastes may be high, but data is less robust for these wastes, which prevents us from being able to set a target that we could be sure was ambitious yet achievable without further evidence. Moreover, due to the high tonnages involved, including major mineral wastes in the target would have likely masked the importance of reducing the residual treatment of other materials, which are lighter in weight, but nonetheless have significant environmental impacts, for example landfilling of biodegradable wastes or incineration of plastic wastes. The target would have essentially become a major mineral waste target. It is therefore more appropriate to consider this waste type as a possible separate target. We are continuing to look at what is needed to be able to meet Environment Act requirements for the Secretary of State to be satisfied that a major mineral waste target can be achieved and to assess whether such a target should be set. We are collaborating with University College London (UCL) on advancing the evidence around major mineral wastes and how to reduce these.*

27. A target for residual waste alone does not account for the extractive effects of economic activity on the natural environment.

28. The Department sought views via the consultation to inform future work on developing a resource productivity target, alongside exploring proposals to measure resource productivity as a ratio of economic output (eg gross domestic product) in money value to raw material consumption (excluding fossil energy carriers) estimated by material weight. Taking a ratio approach could allow resource extraction and its associated impacts to increase even if the target were met, if economic productivity increased enough.

29. The Office for Environmental Protection recommended that the government adds a target which addresses resource use and the associated environmental impacts of consumption, including embodied carbon.

- *Q17: What process will the Department put in place to establish a target for reducing the effects of resource extraction and use on the natural environment?*
- *Q18: Will it explore options for targets to reduce overall resource use, rather than a relative figure?*
- *A17 & 18: Our research to date has not identified a clear policy pathway for significantly reducing the effects of resource extraction and use on the natural environment, which we assessed through the lens of resource productivity. The research indicates, along with advice from our group of independent experts, that setting a legally binding target at this stage is premature. The consultation helped to explore the most appropriate approach to measure resource productivity and what policies might be most effective in the future. We will consider consultation recommendations and continue to investigate this. We are taking forward further research on policies to improve resource efficiency in collaboration with BEIS. We are also collaborating with University College London (UCL) to improve our evidence around major mineral wastes (typically originating from the highly resource intensive construction sector) and approaches to reduce this. At this stage, it is undetermined what an appropriate resource use target may look like in terms*



*of scope, metric, and ambition level. We acknowledge the importance of quantifying the absolute environmental impacts of resource use, and nothing is off the table.*

## **The Environmental Targets (Marine Protected Areas) Regulations 2022**

### **Background**

30. This statutory instrument was laid in draft under the affirmative procedure on 15 December 2022. Its purpose is to create a legally binding target for the marine environment under section 1 of the Environment Act 2021. The target requires not less than 70% of protected features in marine protected areas (MPAs) to be in favourable condition before the end of 31 December 2042, with the remaining protected features to be in a recovering condition.

### **Questions for clarification:**

31. Following the consultation, Defra has removed the reference to “additional reporting on changes in individual feature condition” from the target. Instead, it proposes additional reporting on the extent to which pressures have been removed from MPAs, as part of assessments into those features in a recovering condition.

32. Monitoring the removal of pressures is welcome, but no substitute for checking the condition of features.

- *Q19: Can the department clarify its rationale for making this change?*
- *A19: We have removed the reference to ‘additional reporting on changes in individual feature condition’ from the target that we consulted on. We will instead be undertaking additional reporting on the extent to which pressures have been removed from MPAs, as part of our assessments into those features in a recovering condition.*

30. JNCC states that only 13% of UK MPAs have full monitoring plans in place.

- *Q20: What are the department’s plans for improving monitoring in the marine environment? Is it still government policy to monitor real world environmental outcomes, rather than pressures alone?*
- *A20: Monitoring the condition of protected species and habitats uses a combination of survey data and modelling based on assessments of how the species/habitats will be affected by human activities. Collection of ship-based survey data is expensive so unavoidably limited. Identifying where species/habitats are likely to be damaged by human activities is an essential tool in clarifying what remedial action is required.*

## **The Environmental Targets (Woodland and Trees Outside Woodland) (England) Regulations 2022**

### **Background**

33. This statutory [instrument](#) was laid in draft under the affirmative procedure on 15 December 2022 under Section 1 of the Environment Act 2021. Its purpose is to set a legally binding target relating to woodland cover and trees outside woodlands. This instrument establishes for this target the level to be achieved and the date for its achievement, as well as making provision about measurement to assess whether the target is met.

### **Questions for clarification**

34. The target consulted on was for 17.5% canopy cover for England by 2050. This figure was in line with the recommendation made in the Climate Change Committee's [Sixth Carbon Budget](#) (p170) for 18% canopy cover across the UK by 2050. As mentioned in the instrument, 92% of consultees who disagreed with the proposed target "supported a higher target for canopy cover by 2050". Despite this clear steer from consultation responses, the government has gone in the opposite direction and lowered the canopy cover target to 16.5%, a figure considerably lower than that recommended by the Climate Change Committee. Defra said a "review of our evidence" found 16.5% to be more "realistic".

- *Q21: Can the department clarify which bodies were consulted during this evidence review, what evidence did they provide and what criteria were used to conclude that 17.5% canopy cover by 2050 would be unrealistic?*
- *A21: This was a decision made by Defra on the basis of recent data on tree planting and the tree planting pipeline. Planting rates are rising at a steady rate under the Nature for Climate Fund Tree Programme, however the increase is not happening as quickly as originally projected. We therefore concluded that a canopy cover target of 16.5% is the most ambitious that can currently be set whilst still being realistically achievable, as required by the Environment Act 2021.*
- *The first review of environmental targets will be an opportunity to consider whether the level can be realistically increased, taking into account maturing tree planting programmes and impacts of policies implemented in the intervening years including for the expansion of agroforestry in England.*
- *Q22: What assessment has the department made of the impact of reducing the canopy target on the delivery of the sixth carbon budget?*
- *A22: Defra remains committed to achieving Net Zero and its carbon budgets. Our modelling suggests the target could remove 110.53 MT of CO<sub>2</sub> by 2100 (Please see our Impact Assessment for more information).<sup>3</sup> We anticipate the overall impact on the delivery of CB6 to be minimal and we are working to ensure any impact is mitigated.*
- *Q23: Regarding the exclusion of "energy forestry" from woodland cover targets, what assessment has been made of the potential for 'loophole' scenarios where trees are planted with non-energy production as the originally stated purpose but are subsequently harvested on shorter rotations for the bioenergy market?*
- *A23: Purposefully created energy forestry plantations which are not UKFS compliant are excluded from the target. This is made clear in the target SI and Explanatory Memorandum. A UKFS-compliant woodland that was felled for bioenergy would need to be restocked in line with the UK Forestry Standard.*
- *Q24: What mechanism will be in place to ensure this type of forestry is excluded from targets?*
- *A24: Administrative records, including EIA screening/consenting, ground truthing will be used. In the future, if the policy decision was made to give grants for energy forests we would also be able to exclude them on this basis.*

35. BEIS and Defra are conducting modelling for the forthcoming Biomass Strategy to identify the potential biomass resource available in the UK.

- *Q25: Will the woodland cover target be reviewed following publication of the Biomass Strategy*
- *A25: The publication of the Biomass Strategy will not initiate a review of the tree and woodland target. We committed in our consultation to review the tree and woodland target in the future, we intend to do so in 2028 during the first review of the environmental targets. The target will be*

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<sup>3</sup> Environmental Targets (Woodland and Trees Outside Woodland) (England) Regulations 2022, [Impact Assessment](#).

*reviewed in close consultation with the forestry sector and our Tree and Woodland Scientific Advisory Group.*

**4, 5, 11, 12, 13 January 2023**

## Submission from the Healthy Air Coalition on the Environmental Targets (Fine Particulate Matter) (England) Regulations 2022 and Defra's response

### Background

1. This [statutory instrument](#) (SI) seeks to put in place regulations to set targets for the maximum annual mean concentration and population exposure reduction for fine particulate matter (PM<sub>2.5</sub>).
2. The SI is enabled by the Environment Act 2021.
3. This SI relates to matters of high public interest. PM<sub>2.5</sub> is the name given to the tiny particles of dust and dirt in the air that, when breathed in, can get deep into the lungs and bloodstream. Exposure to PM<sub>2.5</sub> has been linked to worsening respiratory and cardiovascular diseases and has a likely link to cognitive decline and dementia. It also played a key part in the tragic death of nine-year-old Ella Adoo-Kissi-Debrah in 2013. Public Health England has estimated that the health and social care costs of conditions associated with air pollution (both PM<sub>2.5</sub> and nitrogen dioxide) could reach £18.6bn by 2035.
4. The annual mean concentration target (AMCT) proposed in the SI is 10 micrograms per cubic metre (µg/m<sup>3</sup>) by 2040.
5. The population exposure reduction target (PERT) proposed would reduce PM<sub>2.5</sub> levels across England by at least 35% by the end of 2040, when compared to the baseline year of 2018.
6. These targets only relate to England, as air quality is a devolved policy area.

### A failure to meet the policy ambition

7. The government set out in 2019 to put “world leading” and “ambitious” air quality targets in place, including for PM<sub>2.5</sub>. It also pledged a “Green Brexit” where “environmental standards are not only maintained but enhanced”.
8. However, achieving an AMCT of 10 µg/m<sup>3</sup> by 2040 can be considered neither world leading nor ambitious. The 10 µg/m<sup>3</sup> target level is based on the World Health Organization's (WHO) Air Quality Guidelines that were published as long ago as 2005 and was surpassed in 2021 by a new guideline level of 5 µg/m<sup>3</sup>. Since 2012, the USA has already had a stronger legal target for PM<sub>2.5</sub> than the UK set at 12 µg/m<sup>3</sup> and the US Environmental Protection Agency is currently considering recommendations from its Independent Particulate Matter Review Panel to lower this further to between 8 and 10 µg/m<sup>3</sup>. In 2016, the Scottish government set the target of reaching 10 µg/m<sup>3</sup> by 2020, a target which was achieved according to its [2020 annual report](#) (see page 31). The EU Commission has also shown a higher level of ambition than the UK when it proposed to reduce PM<sub>2.5</sub> levels to 10 µg/m<sup>3</sup> by 2030 in [October 2022](#).
9. Not only is the UK Government lagging behind others, a [study by Imperial College](#) shows that an annual mean concentration of 10 µg/m<sup>3</sup> can be achieved across 99% of the country by 2030, using policies already proposed by the government, coupled with those set out in the Sixth Carbon Budget of the Climate Change Committee. A similar conclusion was reached in Defra's own [Clean Air Strategy 2019](#).
10. In fact, the analysis that the government published during the public consultation in 2022 showed that reducing concentrations of PM<sub>2.5</sub> to 10 µg/m<sup>3</sup> is achievable long before 2040. Simply meeting legal emission reduction commitments that already exist under a separate

regulatory framework means that it would be ‘possible’ to reduce PM<sub>2.5</sub> concentrations to within 10 µg/m<sup>3</sup> by 2030. In other words, the policies necessary to meet existing legal commitments would do most of the work towards meeting the target much earlier than the UK Government is currently proposing. Despite this, the government’s analysis also suggests that the scenario it’s aiming for, in setting this new target, does not actually include compliance with existing legal commitments, such as the National Emission Ceilings Regulations 2018, which is extremely concerning.

11. **Question for the department - can the department confirm that their preferred scenario is based on the government not complying with existing legal commitments, such as the National Emission Ceilings Regulations 2018?**
12. In [Defra’s Air quality PM<sub>2.5</sub> targets detailed evidence report](#), the government notes that it has chosen a target based on a modelling scenario which strikes “the right balance” between ambition and achievability. Under this scenario, an annual mean concentration of 11 µg/m<sup>3</sup> is ‘likely’ to be achieved by 2030, suggesting that it could take an extra 10 years to reduce the annual mean concentration of PM<sub>2.5</sub> by an additional 1 µg/m<sup>3</sup>. The government did not give any explanation for this in the consultation documents or its response.
13. The Air Quality Expert Group (AQEG), who helped to inform the government’s process for setting these new target levels, noted that the government had generally taken a “pessimistic view” when interpreting how likely it was that different targets would be met under the different scenarios.
14. In addition, the government has failed to publish much of the evidence that they have based their proposals on. This includes analysis and modelling that Defra commissioned from Imperial College London to inform the development of the new AMCT, which was referred to in the consultation evidence pack but not published in full.
15. **Question for the department - can the department confirm if their preferred scenario suggests that meeting 11 µg/m<sup>3</sup> is ‘likely’ to be achieved by 2030? If so, can the department explain why it could take an extra 10 years to reduce the annual mean concentration of PM<sub>2.5</sub> by an additional 1 µg/m<sup>3</sup>?**
16. **Question for the department - can the department explain why it has not published the full evidence, in particular the analysis commissioned from Imperial College London, on which it has based its proposals?**
17. Furthermore, the SI fails to take account of the views expressed during the consultation period, which ran from March to June 2022. Of the [13,048 answers to the government’s question](#) on the ambition levels of the proposed AMCT, just 8% agreed with the level of ambition of the target and 90% disagreed. 94% of those that disagreed cited “a general lack of target ambition” as the reason, 33% mentioned that “the proposed ambition is too low to improve health outcomes”, and 33% also suggested “the target be achieved earlier.”
18. Similarly, the leaders of Britain’s leading Royal Colleges [wrote](#) to the former Air Pollution Minister, Jo Churchill, asking her to set the target date of 2030, as did a group of [21 Mayors and Local Authority Leaders](#) and the [editorial team](#) at the British Medical Journal. This suggests that the government chose not to amend the ambition level of the AMCT, despite substantial public and professional medical support for setting the target date at 2030.

19. When reviewing all of the environmental targets proposed by the government, the Office for Environmental Protection [recommended](#) that the PM<sub>2.5</sub> targets were amended, as they “lack[ed] sufficient urgency to reflect the scale of change needed.”
20. In addition, ensuring the targets are as ambitious as possible has been a major part of the campaign by Rosamund Adoo-Kissi-Debrah CBE, mother of Ella Adoo-Kissi-Debrah, to ensure that no one else dies from illegal and harmful levels of air pollution. The coroner overseeing the inquest into nine-year-old Ella’s death in 2020 concluded that legally binding targets for PM<sub>2.5</sub> should be set at the WHO Air Quality Guideline levels in order to protect public health. The SI does not achieve this objective.
21. The proposals in the SI therefore do not achieve the government’s original objectives of setting ambitious air quality targets. Nor do they meet the test set out in Section 7(3) of the Environment Act that the targets should “significantly improve the natural environment in England”.
22. **Question for the department – can the department explain why it disregarded the views of the general public and the expert advice of the Royal Colleges and/or the Office of Environmental Protection when drafting this SI?**

#### **AMCT compliance assessment**

23. A positive move by the government, in response to the consultation, has been to scrap its proposals to assess compliance with the AMCT if the target is met in three out of the four preceding years. This would have represented an unacceptable double counting of the possible effect of external factors such as the weather, which was already factored in by the application of a 1 µg/m<sup>3</sup> safety buffer in its assessment of achievability.

#### **The role of air quality modelling**

24. Page 28 of [Defra’s Air quality PM<sub>2.5</sub> targets Detailed evidence report](#) (which formed part of the 2022 consultation documents) proposed multiple appropriate applications for modelling PM<sub>2.5</sub> levels, including producing projections to support future policy development, providing estimations at locations that are not monitored, and supporting the assessment of where monitors should be located within zones and agglomerations.
25. However, the regulations as drafted do not contain any provisions relating to, or mentions of, the role of modelling, despite this featuring in Defra’s consultation proposals.
26. The absence of modelling suggests that assessment of compliance with the annual mean concentration and population exposure reduction targets will rely solely on monitoring, which has limitations (see monitoring section below).
27. Whilst we acknowledge the AQEG’s advice that modelling is currently less accurate for PM<sub>2.5</sub> compared to other pollutants, such as nitrogen dioxide, we are concerned that this represents a step backwards from the existing approach to assessing compliance with air quality limits under the Air Quality Standards Regulations 2010. Under the existing approach, the government supplements fixed measurements of pollutant levels with modelled estimates using its Pollution Climate Mapping (PCM) model. This provides a more granular picture of air quality levels across the country, especially across areas where there is poor coverage from the monitoring network.

28. We are concerned that the decision to exclude modelling from the assessment regime may therefore allow for a less representative and comprehensive assessment of the levels of pollution that people are experiencing across the country. Areas with  $PM_{2.5}$  exceedances that may have been captured by modelling may be missed if the monitoring network is not sufficiently expanded to increase its spatial representation. At the same time, modelling should not be used to override an exceedance identified through monitoring. We believe it is possible to use a combination of the two as the UK Government has been doing since 2021 with regards to the legal limits set under the Air Quality Standards Regulations 2010.
29. Even outside of the compliance assessment regime, there is a clear role to play for modelling in helping assess where monitors should be located and in relation to policy development, i.e., to estimate the air quality implications of policies.
30. **Question for the department – why has air quality modelling been omitted from the statutory instrument?**

### **PERT compliance assessment**

31. We have concerns regarding the proposals for the measurement of PERT compliance. The regulations stipulate that measurements will only be taken from urban or suburban background sites where  $PM_{2.5}$  is “not significantly influenced by a source or sources of pollution in close proximity to the site, and is therefore representative of the background level of  $PM_{2.5}$  to which the population is likely to be exposed across a wider area than the immediate vicinity of the site” (see paragraph 1, Schedule 2). This means that, due to the preclusion of close-to-source sites, the most polluted communities – such as those on or near busy roads or industrial sites – would not be included when assessing compliance.
32. This means that the PERT would not serve those most at risk from high levels of  $PM_{2.5}$ , such as people whose homes, workplaces and schools are located in high density, high traffic locations in inner cities.
33. **Question for the department – how does the government intend to protect people most at risk from exposure to high levels of  $PM_{2.5}$ , as well as those living in pollution hotspots?**

### **Monitoring station siting, minimum numbers, reporting, and maintenance**

34. We welcome the inclusion of a new requirement for a minimum number of monitoring stations on a zone-by-zone basis based on population numbers, which will come into effect from 1 January 2028 (paragraph 3, Schedule 2).
35. However, we would welcome further detail on why these standards cannot come into place sooner. The five-year delay for these standards to be introduced suggests again that a role for modelling in areas where the minimum number of monitoring stations is not yet met in this interim period. The delay would also make it more challenging for the government to accurately assess its compliance with interim targets, due to be set in the Environmental Improvement Plan later this month.
36. **Question for the department – why are these important standards being delayed by five years?**
37. It is not clear how much of an increase in total monitoring stations that the regulations would deliver. Based on the population data and information about monitoring zones set out in Table 1 and Figure 3 of [Defra’s Air quality  \$PM\_{2.5}\$  targets Detailed evidence report](#), we believe

that the regulations will only require a minimum of 166 monitors to be installed by 2028. This would see an increase of just 103 monitors over the next five years. These minimum standards are unlikely to be enough to truly understand levels of pollution in the most populated agglomerations. For example, under this analysis, the legal minimum requirement for PM<sub>2.5</sub> monitors across London would be just 15 monitors to measure compliance with the AMCT and, of this 15, 10 would be background monitors to measure compliance with the PERT.

38. We welcome the commitment to include stations that are sited to provide “data that are representative of locations where the highest PM<sub>2.5</sub> concentrations are likely to occur to which the population is exposed for significant periods” (paragraph 4, Schedule 2). However, “significant periods” is not defined and would benefit from more specificity.
39. **Question for the department – can a more precise definition of “significant periods” be provided?**
40. The regulations do not include a specific requirement for the government to publish an explanation of how the design of the monitoring network satisfies the siting requirements. This represents a step backwards in terms of transparency compared to the previous regime under the Air Quality Standards Regulations 2010.
41. There is no explicit duty placed on the government to review and revise the monitoring network to ensure it is kept up to date with the latest technological and scientific standards and that the placement and numbers of stations remains appropriate. This represents a loosening of regulations compared to the regime under the Air Quality Standards Regulations 2010, which requires a review of the network every five years.
42. There is no explicit duty placed on the government to maintain air quality monitors to ensure they satisfy the minimum data capture requirements set out in Regulation 14, Part 4. Unless the network is properly maintained, there is a risk to data reliability. We recommend including a duty to actively maintain the network and use all reasonable efforts to meet the minimum data capture requirements.

#### **Information required to be published**

43. We note and welcome the requirement for the Secretary of State to publish details of monitoring station placements and annual mean levels of PM<sub>2.5</sub> (Schedule 3). However, the regulations do not contain any requirement for real time pollution alerts, the lack of which deprives people of the information they need to make choices to protect their health.
44. Furthermore, there is no requirement to produce or publish national level modelling of PM<sub>2.5</sub> concentrations, so the published monitoring data will be of limited use to people who do not live near monitoring sites but may wish to use data to protect their own health from PM<sub>2.5</sub> pollution.
45. **We request that the committee brings the matters raised in this submission to the attention of the House in its report.**

**6 January 2023**



## Defra's response

This response is limited to answering the specific questions asked by the Committee, and Defra is not to be taken as accepting other assertions and criticisms contained in the submission.

Our dual target approach is important for tackling a “non-threshold” pollutant such as PM<sub>2.5</sub>. It assures a balanced approach, drives action in locations that meet the concentration target and avoids disproportionate focus on hotspot locations. This means actions to reduce PM<sub>2.5</sub> can be more readily linked to public health benefit. Stakeholder engagement and discussions with the expert groups before and after the publication of the Environmental Targets Policy Paper established that there was strong support for both targets to reduce PM<sub>2.5</sub> health harm, including reducing impacts on vulnerable people.

We have already published 800 pages of evidence and information regarding the development of our proposed targets to date, including consultations, calls for evidence, minutes from our expert groups, policy papers and detailed evidence reports. With regards to achieving the target by 2030, a key consideration in setting targets is that they are achievable across the whole of England and which the Secretary of State is satisfied can be met. Our modelling shows 10 µg/m<sup>3</sup> is not reasonably possible to achieve everywhere in 2030 and the likely measures required to meet 10 µg per m<sup>3</sup> by 2030, such as action on solid fuel burning and reduction of traffic, would have a disproportionate effect on individuals and small local businesses.

With respect to the existing PM<sub>2.5</sub> emissions targets under the National Emissions Ceilings Regulations, we would note that whilst achieving national emission reductions of PM<sub>2.5</sub> and its precursors will help to reduce concentrations, there is not a direct relationship between the two. This is because emission reductions achieved anywhere will contribute to meeting the NECR ceilings, whereas PM<sub>2.5</sub> concentrations have to be reduced at all locations in order to meet the annual mean concentration target and predominantly where people live to meet the population exposure target. Our updated Environmental Improvement Plan, which under section 10 of the Environment Act 2021 is to be published by 31st January 2023, will describe the government actions planned to meet all our legally binding air quality targets.

With respect to modelling in the statutory instrument, there was a strong view amongst experts from early in the target development process that assessment of legally binding targets for PM<sub>2.5</sub> should be based on data from fixed monitoring alone but modelling will remain a critical tool to help inform policy making as well as for health impact studies.

With respect to monitoring expansion, we have already made progress with 21 new PM<sub>2.5</sub> monitoring sites installed since March 2022 and the new minimum sampling within the SI requiring up to 100 new monitors in total. This is a large-scale expansion of the network that needs to be carried out with due consideration. We expect that the expansion of the monitoring network will be mostly completed within the next three years, but in order to accommodate any unavoidable slippage in building, networking and testing new infrastructure at a national scale, the legal requirement is set for 2028.

To pick up the last points raised in the submission, “significant periods” indicates that monitoring stations must be sited at locations where people are present nearby for long enough to be affected by PM<sub>2.5</sub> concentrations, so not, for example, unpopulated locations which people only pass through infrequently. We do not consider that this needs a more precise definition.

There is separate provision in regulation 29(1) of the Air Quality Standards Regulations 2010 requiring up-to-date information about concentrations of PM<sub>2.5</sub> and other pollutants to be made

available on at least a daily basis, and if possible, on an hourly basis. Those Regulations will remain in force. To comply with this duty data from PM<sub>2.5</sub> monitors is reported in near real time to the UK Air website and through other established channels, and this will continue to be the case.

The information that is published on the UK Air website in compliance with the Air Quality Standards Regulations 2010 includes both monitoring and modelling information.

**16 January 2023**