EXPLANATORY MEMORANDUM TO

THE ENVIRONMENTAL TARGETS (FINE PARTICULATE MATTER) (ENGLAND) REGULATIONS 2022

2022 No. XXXX

1. Introduction

1.1 This explanatory memorandum has been prepared by the Department for Environment, Food and Rural Affairs and is laid before Parliament by Command of His Majesty.

1.2 This memorandum contains information for the Joint Committee on Statutory Instruments

2. Purpose of the instrument

2.1 The purpose of this instrument is to set two legally binding environmental targets for air quality relating to the reduction of levels of fine particulate matter ($PM_{2.5}$) in ambient air: one with the purpose of reducing $PM_{2.5}$ in locations where concentrations are highest, the annual mean concentration target ("AMCT"); and a second with the purpose of reducing average exposure across the country, the population exposure reduction target ("PERT"). This instrument establishes for each target the level to be achieved and the date for its achievement, as well as making provision about monitoring, measurement, and calculation to assess whether the targets are met.

2.2 This instrument satisfies the requirement in section 1(2) of the Environment Act 2021 ("the Environment Act") for government to set at least one target in the priority area of air quality and section 2 of the Environment Act to set a target in respect of the annual mean level of $PM_{2.5}$ in ambient air.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

3.1 This instrument, along with the other 5 environmental target instruments, sets legally binding targets on the Secretary of State. The instrument does not, in itself, set specific policies or new legislation that sectors must follow, nor does it directly impose or require immediate changes of behaviour by others. Given the importance of setting targets without delay, the instrument will come into force at the earliest date after approval (one day after the day it is made).

4. Extent and Territorial Application

4.1 The territorial extent of this instrument is England and Wales.

4.2 The territorial application of this instrument is England.

5. European Convention on Human Rights

5.1 Trudy Harrison, MP, Parliamentary Under Secretary of State at the Department for Environment, Food and Rural Affairs, has made the following statement regarding Human Rights:

"In my view the provisions of the Environmental Targets (Fine Particulate Matter) (England) Regulations 2022 are compatible with the Convention rights."

6. Legislative Context

6.1 Section 1 of the Environment Act requires the Secretary of State to set a long-term target in at least one matter with respect to each of four priority areas including air quality. The population exposure reduction target for $PM_{2.5}$ set by Part 3 of this instrument is to meet that duty as regards air quality.

6.2 Section 2 of the Environment Act requires the Secretary of State to set a further target in respect of the annual mean level of $PM_{2.5}$ in ambient air. The annual mean concentration target for $PM_{2.5}$ set by Part 2 of this instrument is to meet that duty.

6.3 This instrument will fulfil those duties and is part of a group of instruments that will set targets in air quality, water, resource efficiency and waste reduction, tree and woodland cover and biodiversity.

7. Policy background

What is being done and why?

7.1 Particulate matter (PM) is anything in the air which is not a gas. $PM_{2.5}$ is particulate matter with a diameter of 2.5 microns or less. The two new air quality targets are focused on reducing concentrations of $PM_{2.5}$ as the air pollutant which causes the most harm to human health.

7.2 The two $PM_{2.5}$ targets are the AMCT, which sets a maximum concentration of 10 $\mu g/m^3$ to be met across England by 31st December 2040, and the PERT, which sets a 35% reduction in average population exposure to be obtained by 31st December 2040 compared to the average level in a baseline period of 2016-2018. The two targets will work in tandem to drive improvements in the parts of England with the highest concentrations, as well as reducing average exposure across the country.

Monitoring Standards

7.3 Compliance with the AMCT and PERT will be assessed exclusively by monitors on the national network. Schedule 2 to this instrument places a duty on the Secretary of State to meet new minimum sampling requirements by 1st Jan 2028, such that there will be more monitors than are currently required under existing legislation. Schedule 3 places a duty on the Secretary of State to publish detail on the monitoring regime.

The Population Exposure Reduction Target Calculation

7.4 Average population exposure is calculated by averaging measurements made at locations throughout England that are each sited to be representative of the population's exposure to concentrations of $PM_{2.5}$ across a significant area. This does not include sites where $PM_{2.5}$ levels are significantly influenced by nearby local sources of pollution that only affects the immediate area.

7.5 The expansion of the monitoring network means that the population exposure measured at the end of the target period will be based on a different set of monitors to that used to measure population exposure at the beginning. Therefore, they cannot be directly compared. To address this issue, the PERT will be calculated as the sum of the population exposure changes between each year of the target period, rather than the direct comparison of the average of measurements in 2040 with that in 2018. Each

yearly change is calculated using all relevant monitors which satisfy the data capture requirements in the calculation of that annual change.

The Annual Mean Concentration Target Calculation

7.6 The AMCT will be met if all monitors on the national network, including those that are added over the course of the expansion, measure concentrations at or below 10 µg/m^3.

8. European Union Withdrawal and Future Relationship

8.1 This instrument does not relate to withdrawal from the European Union / trigger the statement requirements under the European Union (Withdrawal) Act.

9. Consolidation

9.1 This is new legislation and therefore consolidation of other existing legislation is not required.

10. Consultation outcome

10.1 A consultation was conducted on the level of ambition of the proposed air quality targets. This refers to both the compliance date and the level to be achieved for each target.

10.2 The consultation conducted covered the full Environment Act 2021 target suite. It ran from 16th March 2022 to 27th June 2022. The consultation with regards to air quality consisted of four questions relating to the level of ambition for the two proposed $PM_{2.5}$ targets.

10.3 In total, there were 49,810 responses to these questions. 46,386 responses were identified as campaigns (Asthma + Lung UK, Friends of the Earth, Greenpeace and the Woodland Trust). Overall, most (90-91%) disagreed with the proposed level of ambition for the targets. Amongst non-campaign responses, half (50%) disagreed with the ambition level of the proposed AMCT target whilst a large minority (31%) agreed. A large minority (45%) of non-campaign responses disagreed with the ambition level of the proposed PERT target and a large minority (33%) also agreed. Predominantly, campaign responses disagreed (93-94%) with the level of ambition for both targets. Where responses disagreed with target ambition, most called for greater ambition (91-94%), generally either in relation to the year of compliance or the degree of change required for compliance. A number of responses for instance requested that 10 µg/m^3 be achieved in 2030 for the AMCT.

10.4 A complete summary of how consultation feedback has been considered is available in the Government Response document here https://www.gov.uk/government/consultations/environment-act-2021-environmental-targets

11. Guidance

11.1 The revised Air Quality Strategy to be published under Part 4 of the Environment Act 1995 will include guidance on how the air quality targets are relevant to local authorities.

12. Impact

12.1 The impact on public sector, business, charities or voluntary bodies is dependent on policy pathways not prescribed by this instrument but illustrative pathways are set out in the Impact Assessment.

12.2 The impacts of the illustrative measures to meet the targets considered within the Impact Assessment are as follows. The total social cost for the appraisal period of 2023-2040 is estimated to be £27.1bn and the total social benefit is estimated at £135bn. Most (72%) of the benefits result from Greenhouse Gas (GhG) reductions, while the proportion of benefits resulting from air quality is 28%. The total net present value is approximately £108bn over the appraisal period.

12.3 An Impact Assessment is submitted with this memorandum and published alongside the Explanatory Memorandum on the legislation.gov.uk website.

13. Regulating small business

13.1 The legislation does not apply to activities that are undertaken by small businesses.

14. Monitoring & review

14.1 Progress towards meeting the air quality targets will be monitored through the statutory cycle of monitoring, planning and reporting set out in the Environmental Act 2021.

14.2 The instrument does not include a statutory review clause as the legal obligations in this regard under the Small Business, Enterprise and Employment Act 2015 do not apply.

15. Contact

15.1 Daniel Waterman at the Department for Environment, Food and Rural Affairs Telephone: or email: daniel.waterman@defra.gov.uk can be contacted with any queries regarding the instrument.

15.2 Bill Parish, Deputy Director for Air Quality, and Industrial Emissions, at the Department for Environment, Food and Rural Affairs can confirm that this Explanatory Memorandum meets the required standard.

15.3 Minister Trudy Harrison, MP, Parliamentary Under Secretary of State at the Department for Environment, Food and Rural Affairs, can confirm that this Explanatory Memorandum meets the required standard.