

# Understanding the Environment Act – Air Quality



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outlines the new  
commitments aimed at  
improving air quality,  
potential implications  
of changing legislation,  
and how it will affect  
new developments.

## What is the Environment Act?

The Environment Act 2021 has now passed into law. Designed to protect and enhance the natural environment, it is the most groundbreaking piece of environmental legislation in many years.

For the first time this Act will set clear statutory targets for the recovery of the natural world in four priority areas:

- air quality
- waste
- water
- biodiversity

The Act is the first change in air quality legislation for five years and it aims to improve air quality, focusing on particulate matter – solid particles and liquid droplets from things like dust, dirt, soot or smoke.

It needs to be remembered, that particulate matter shouldn't be confused with global issues like climate change, but the Act is focused on local air quality and impacts on human health.

### Who does this affect?

Most new developments where there is an inclusion of traffic, will already need an Air Quality Assessment, but the Act raises the requirements considerably. Any developers or builders looking to create new housing schemes should pay attention to changes in the Act and act accordingly when planning developments and highways infrastructure.

# Air Quality

The Act will bring in a legally binding duty on the Government to reduce the amount of fine particulate matter in the ambient air. This will be done via a new long-term target which replaces existing air quality objectives – the current benchmark.

There will be a consultation process, beginning in February 2022 to determine what the new target will look like and if it is incremental. The long-term target will be based on the World Health Organisation’s Air Quality Guideline Value of 10 µg/m³.

This means we need to reduce to 10 µg/m³ by 2036.



## Air Quality Objectives (AQOs)

The table below shows Existing AQOs which were transposed into UK Law through The Air Quality Standards regulations in 2010. The Act primarily focuses on PM<sub>2.5</sub> – a smaller particulate matter. The new target of 10 µg/m³ will be a significant reduction from the current AQO, which a lot of the UK, particularly in cities or industrial areas, is currently a long way off achieving.

Pollutant	Air Quality Objective (µg/m³)				WHO Guideline Value	
	Long Term Annual Average	Short Term 24 Hours	Short Term Hourly	Anticipated Environment Act 2021 Long Term Annual Average	Long Term Annual Average	Short Term 24 Hours
NO <sub>2</sub>	40	N/A	200 <small>(not to be exceeded more than 18 times a year)</small>	N/A	10	25
PM <sub>10</sub>	40	50 <small>(not to be exceeded more than 35 times a year)</small>	N/A	N/A	15	45
PM <sub>2.5</sub>	25	N/A	N/A	10	5	15

## Implications of the Act on Air Quality Assessments

- Much more difficult to meet new long-term target of 10 µg/m<sup>3</sup> than the current one of 20.
- Significance of Impact results will produce more ‘moderate’ impacts rather than ‘negligible/slight’ based on current methodology. With too many ‘moderate’ impacts, the development is more likely to be viewed negatively in terms of effects on air quality.
- The expectation to work towards meeting the new target is already being raised by Local Authorities, so we need to start addressing the provisional target in assessments immediately.



### NO<sub>2</sub>

- By 2030 there will be no more sales of petrol or diesel cars, and this will have a big impact on air quality assessments, reducing NO<sub>2</sub> emissions. But particulate matter caused by traffic comes from tyre wear and brake dust, so electric cars won’t reduce PM<sub>2.5</sub> in the same way.
- Particulate matter comes from industrial, domestic and agricultural matters too though, and we can consider source apportionment as a tool to measure the direct impact of developments more accurately.
- There will be overall, a lot more pressure to improve technology in infrastructure that can benefit air quality from an NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> point of view.



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