

Richard Williams
Principal Officer (Planning & Pollution
Control)

2022 Air Quality Update -BDC

Defra Annual Status Report 2022

Actions Update

Legislative Change – Environment Act 2021

Air Quality Standards - Discussion

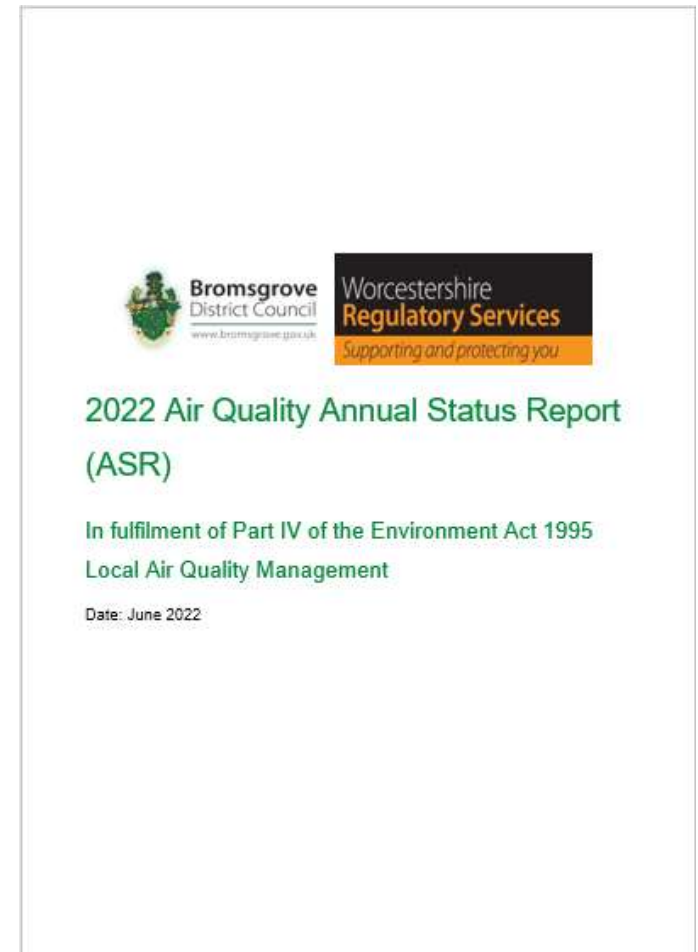
Trends in Monitoring – Discussion

Next Steps - Discussion

Annual Status Report 2022

- Reports the monitoring data collected within the District
- Reviews air quality trends for the last 5 years
- Reports on the status of declared AQMA's(4 in total)
- Details actions to improve air quality
- Reports on important developments

[Full report will be available from July 2022 onwards](#)



Air Quality Data and 5 year Trends

Same as 2020 Covid restrictions heavily influenced overall pollution levels. None of the 44 monitoring locations exceeded the Gov action threshold for NO₂(40µg/m³)

For the whole district the highest concentrations of NO₂ recorded across the monitoring network was in west Hagley (HAG5) with a value of 32.7µg/m³.

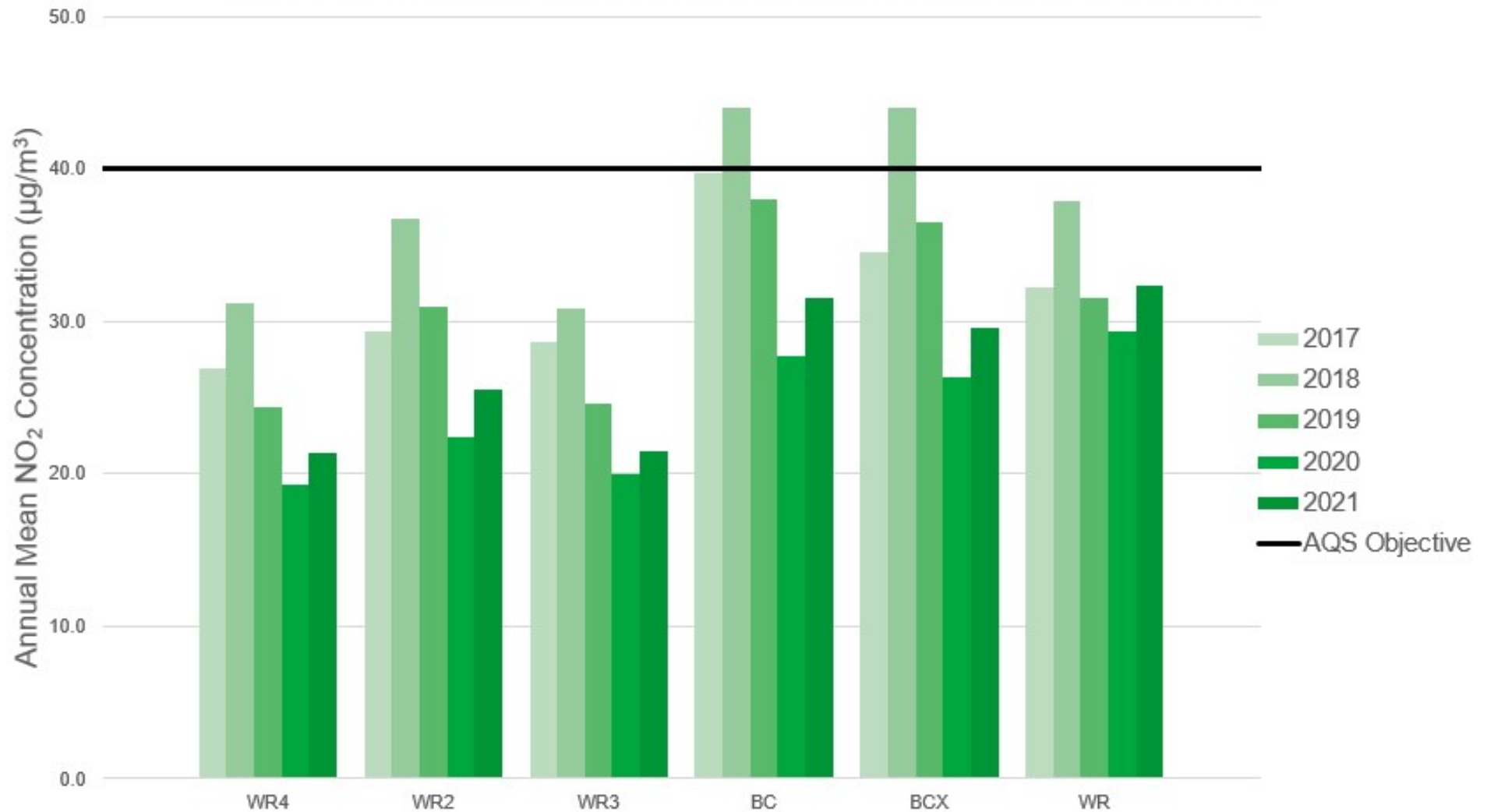
Concentrations within all AQMAs were below the objective -

32.3µg/m³ at the Worcester Road AQMA

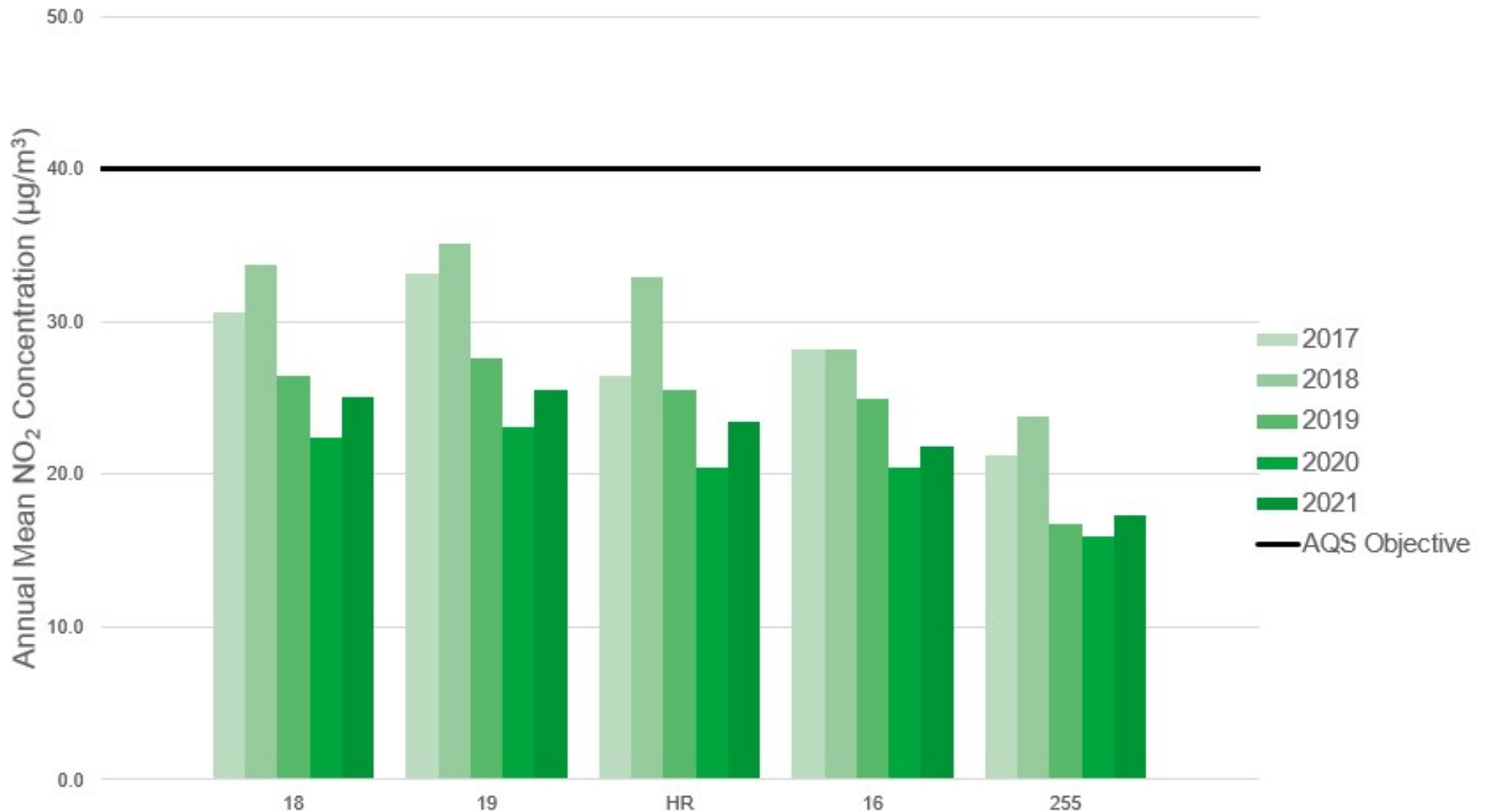
25.5µg/m³ within the Redditch Road AQMA

31.5µg/m³ within the Lickey End AQMA

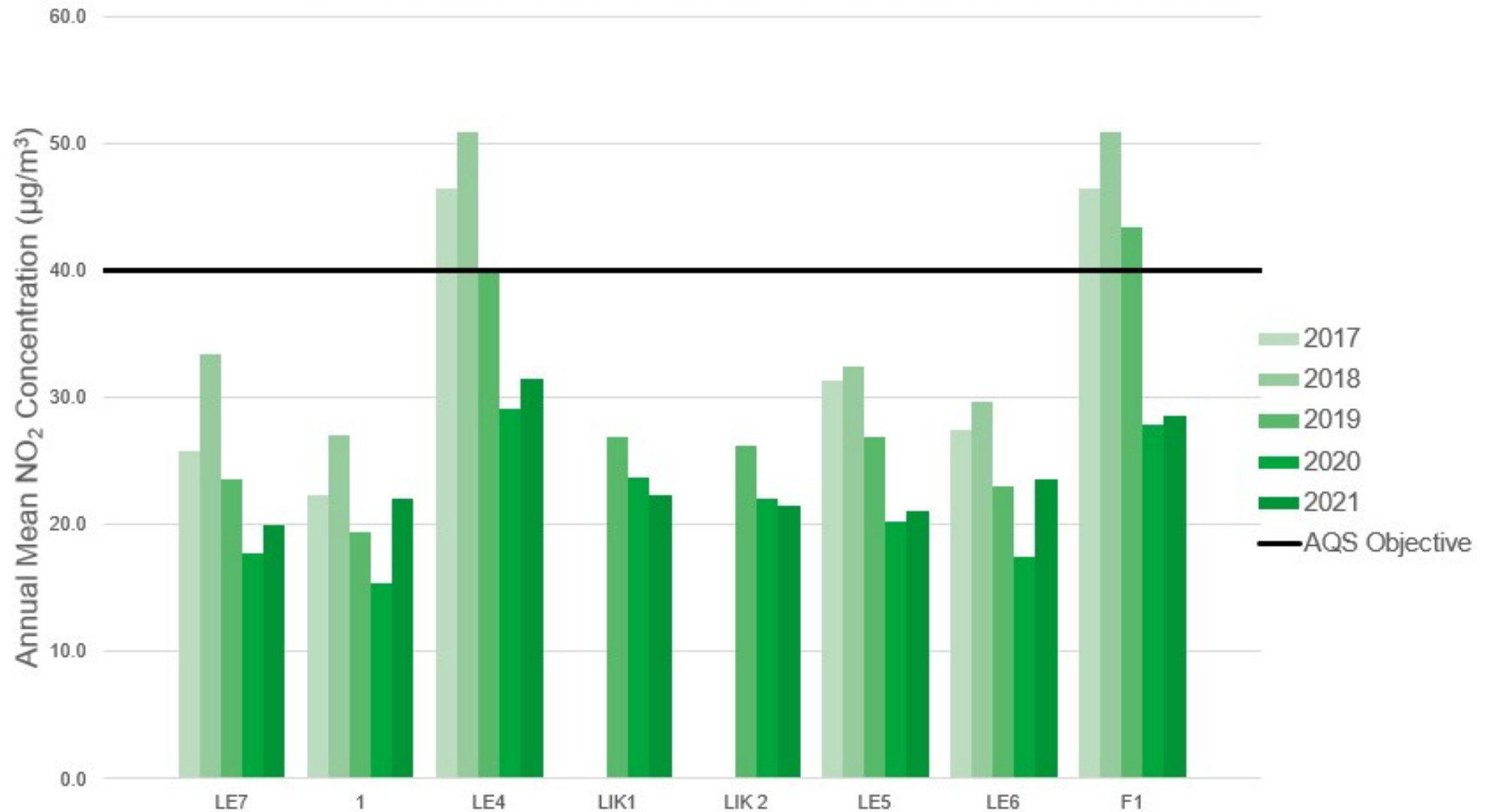
Worcester Road AQMA - Trends in Annual Mean NO₂ Concentrations (2017-2021)



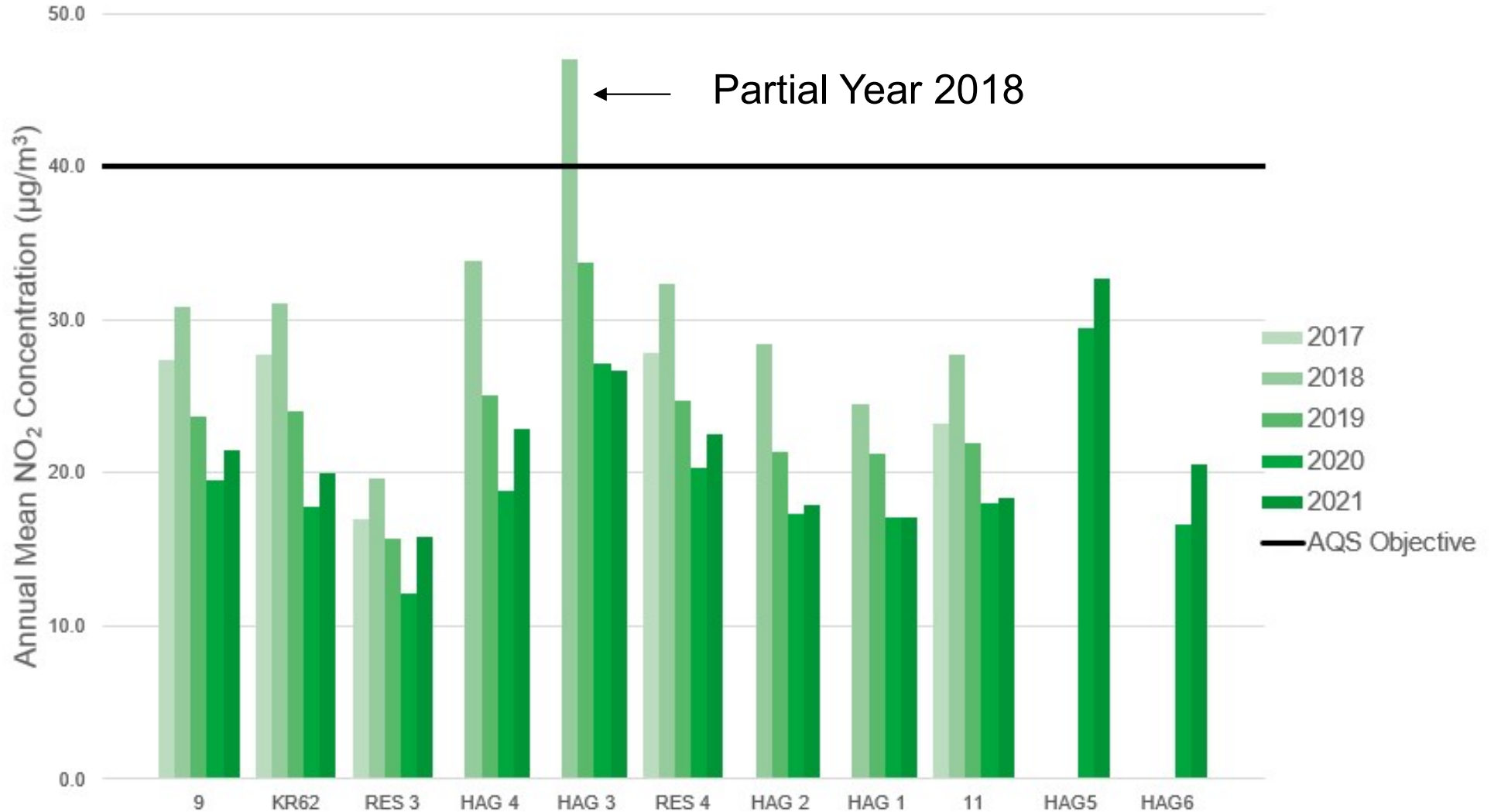
Redditch Road AQMA - Trends in Annual Mean NO₂ Concentrations (2017-2021)



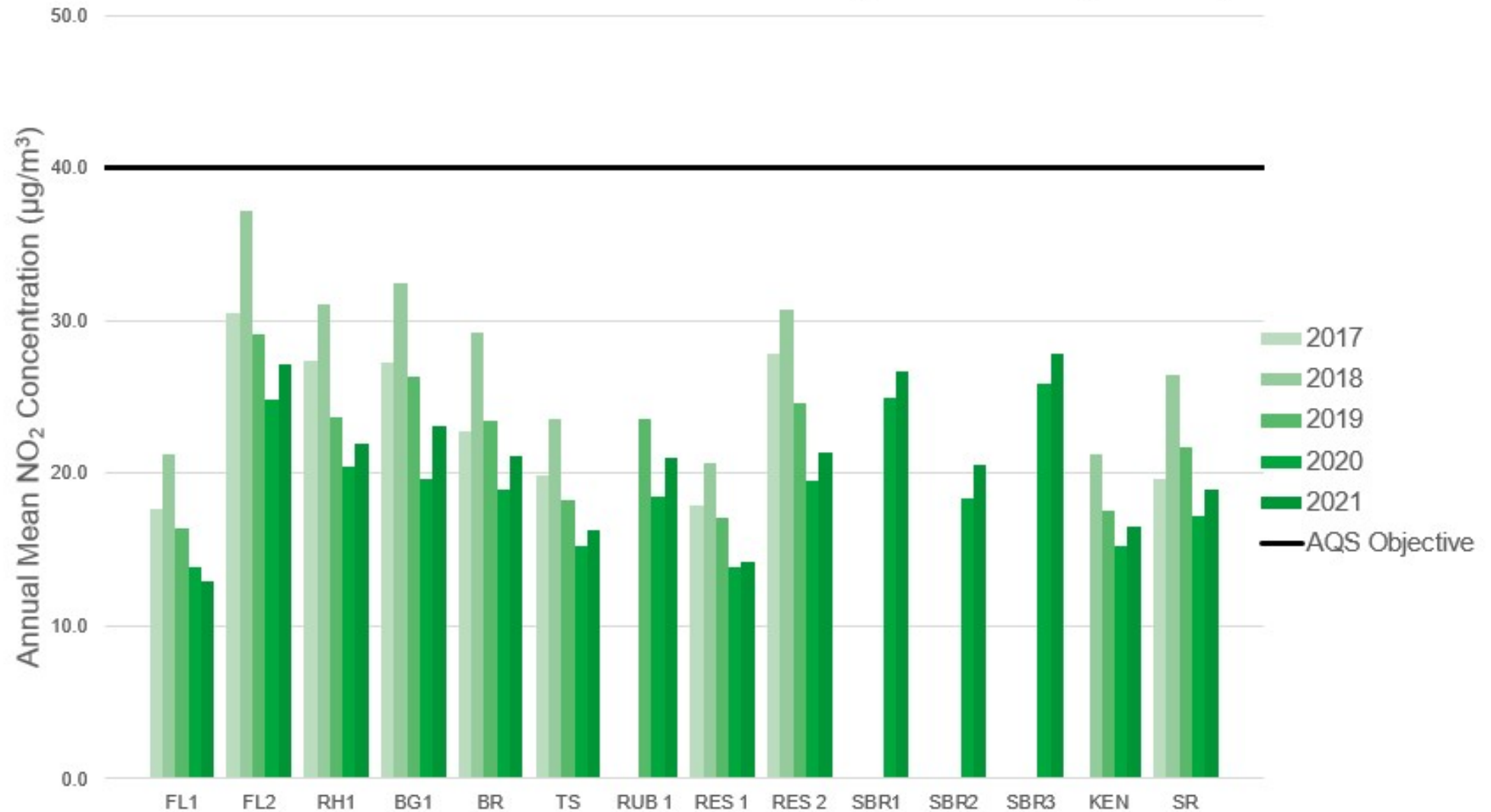
Lickey End AQMA - Trends in Annual Mean NO₂ Concentrations (2017-2021)



Hagley - Trends in Annual Mean NO₂ Concentrations (2017-2021)



Other Locations - Trends in Annual Mean NO₂ Concentrations (2017-2021)



Action Update

All AQAP improvements are Highways Department/transport related

Will be implemented as part of wider transport schemes and not on a case by case basis- Local Transport Plan 4

Primarily Junction improvements and enhancements

Action Update - LTP 4

Bromsgrove Route Enhancement Programme (BREP) Major Scheme

Lydiate Ash (M5 Junction 4) - Major Junction Enhancement Scheme


Lickey End (M42 Junction 1) - Major Junction Enhancement Scheme

Bromsgrove Transport Strategy (BTS)

All Electric Bus Town Scheme

Action Update - LTP 4

Hot off the press.....

 ZERO
CARBON
FUTURES

Jacobs Challenging today.
Reinventing tomorrow.

Worcestershire ULEV Infrastructure Issues and Options Study

June 2022

Legislative change Environment Act 2021



Office for
**Environmental
Protection**

government departments

government ministers

regulators

local authorities

water companies & other private

public organisations

[Office for Environmental Protection | Office for Environmental Protection
\(theoep.org.uk\)](https://theoep.org.uk)

Changes to Air Quality Duties & Obligations - Environment Act 2021

Two new air quality Standards for PM_{2.5} to be introduced by October 2022

- Annual Mean Concentration Target ('concentration target') - a maximum concentration of 10µg/m³ to be met across England by 2040
- Population Exposure Reduction Target ('exposure target') - a 35% reduction in population exposure by 2040 (compared to a base year of 2018)

Changes to Air Quality Duties & Obligations - Environment Act 2021

Amendments to Environment Act 1995

Broadens the statutory responsibility for delivering Air Quality improvement

The county Council will be obliged by law to co-operate with the Council in delivering improvements in air quality through joint action plans.

Powers through the SoS to compel 'Air quality partners' to co-operate

Changes to Air Quality Duties & Obligations - Environment Act 2021

Amendments to Environment Act 1995

Section 83A of the Act has been amended with regard to Air Quality Action Plans

- Action plans must have tangible actions for the delivery of compliance rather than ‘aspirational statements’
- Must have strategy to maintain those standards for future years
- Hard deadline of delivery must be identified in the action plan rather than ‘work towards’ change statements.
- Process of AQAP development must be a Collaboratory with AQ partners.
- WRS due to revise Bromsgrove AQAP

[Environment Act 2021 Frequently Asked Questions - Local Authorities - Ver1.pdf \(adeptnet.org.uk\)](#)

Advice on Air Quality Standards – LAQM & WHO

Pollutant (Annual Average)	LAQM	WHO 2005	WHO 2021
NO ₂	40	40	10
PM10	40	20	15
PM2.5	25	10	5

WHO

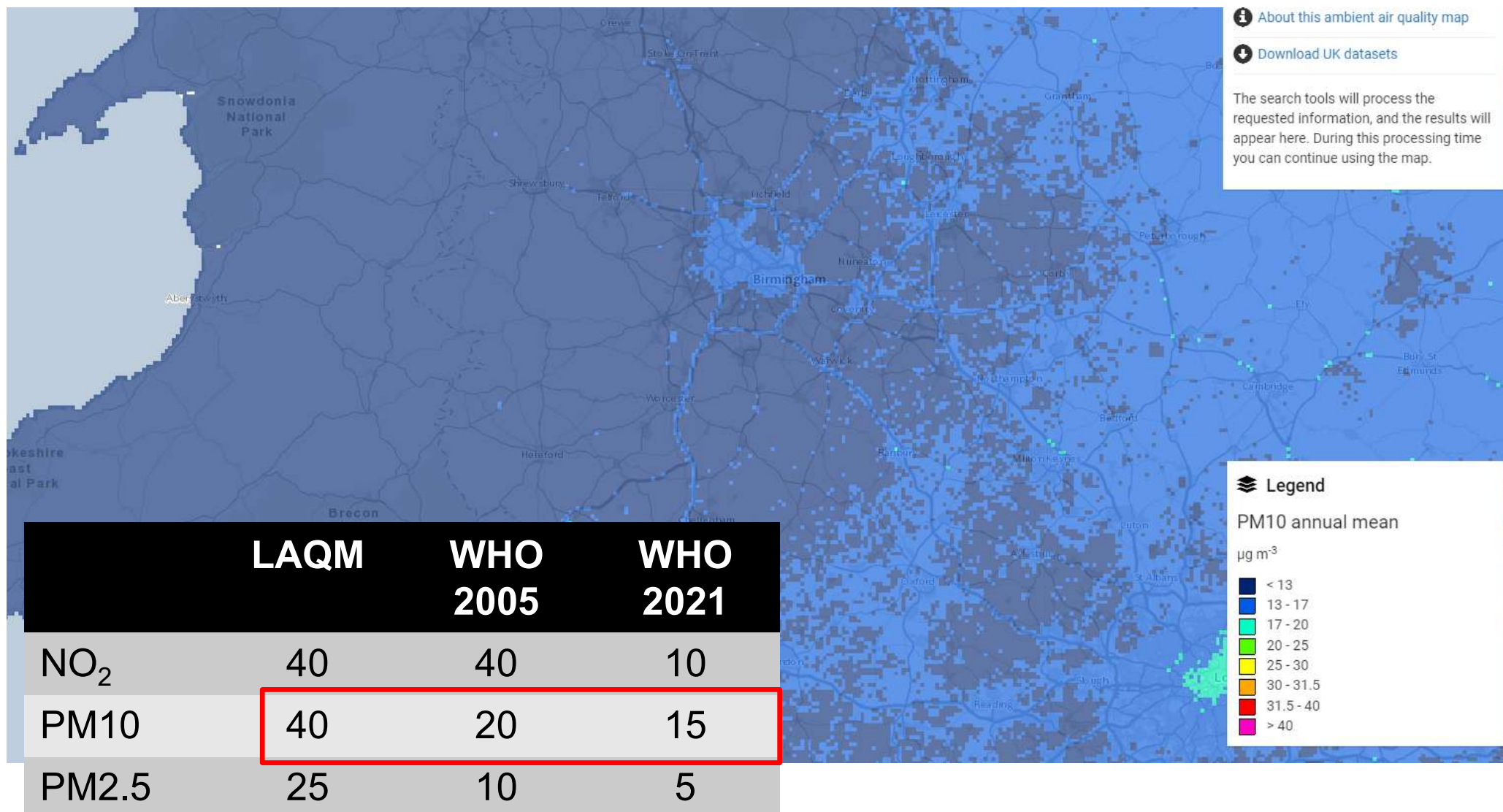
Changes to Air Quality Duties & Obligations - Environment Act 2021

LAQM

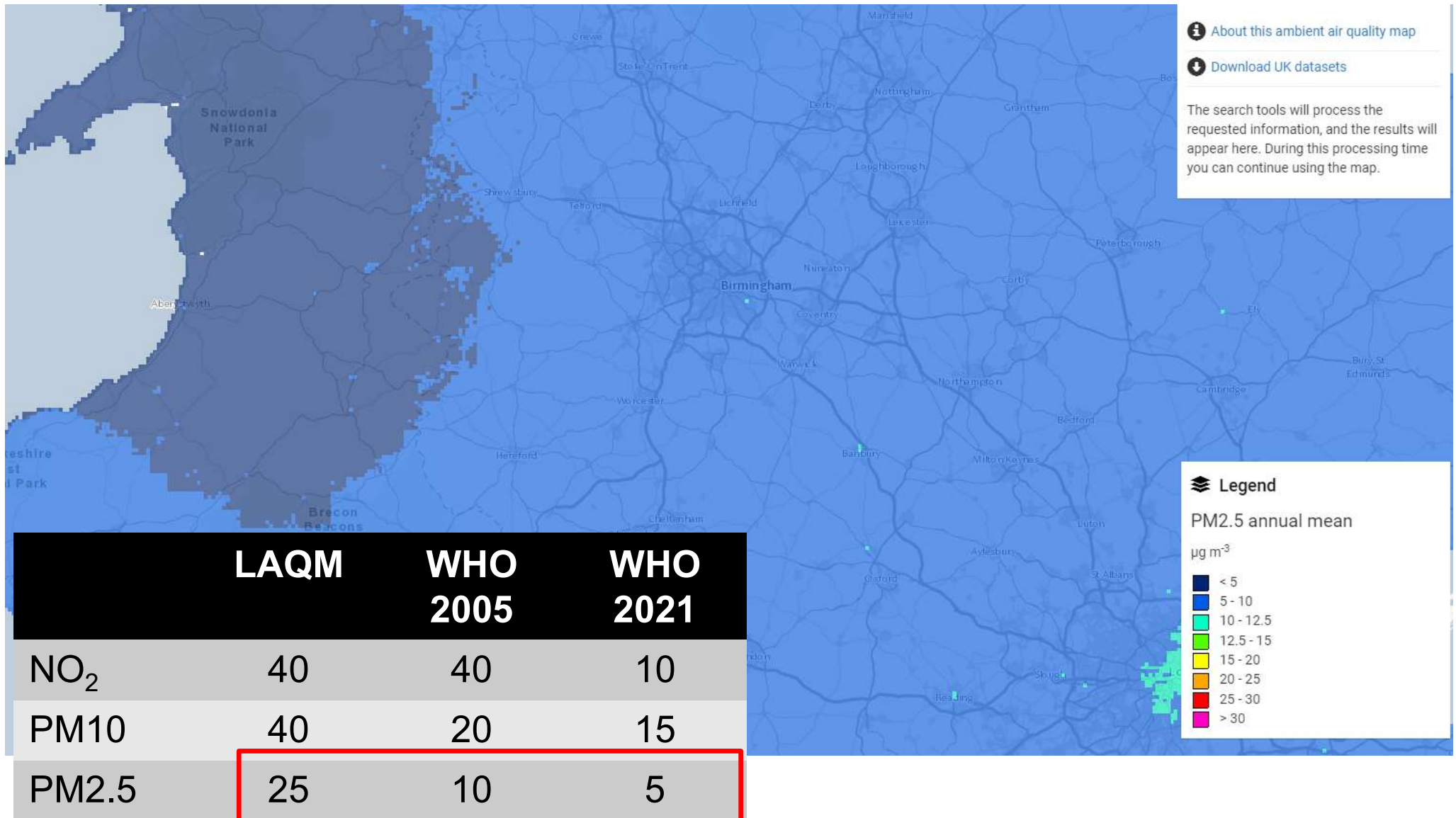
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Background PM10 for Bromsgrove District between 10 - 17 $\mu\text{g}/\text{m}^3$



2018 Background PM2.5 for Bromsgrove District between 5 - 10 $\mu\text{g}/\text{m}^3$ (2022 RICARDO calculated average 8.14 $\mu\text{g}/\text{m}^3$)



Sources of AQ information

- Many available
- Context is critical
- Use reliable Sources
- In doubt contact WRS



[Home - Defra, UK](#)

Members concern in 2021 : Air Quality & Schools

No active monitoring outside of schools

Worcester Road AQMA due to pinch point at the Black Cross, not issues around schools. However it did read the highest level of any AQMA in 2021 being **32.3µg/m³ Annual Average**.

No relevant exposure at schools for Annual Objectives this year.

Closest schools to AQMA

- St Peters Catholic First,
- Bromsgrove School and
- St John's CE Middle Academy

Lickey End AQMA as a number of nurseries near to it but this does not significantly impact the air quality same as last year's report.

Air Quality & Schools - Concern

Relevant exposure – Walking to and from school, Travel in Vehicles through Worcester Road AQMA

Short term exposure Standards

Pollutant (Annual Average)	LAQM(24 hour exposure)	LAQM(1 hour exposure)	WHO (24 hour exposure)	WHO (1 hour exposure)
NO ₂	-	200	25	200
PM10	50	-	45	-
PM2.5	-	-	25	-

DEFRA TG(16) “Previous research carried out on behalf of Defra and the Devolved Administrations identified that exceedances of the NO2 1-h mean are unlikely to occur where the annual mean is below 60 µg/m3 .”

Trends in Monitoring - Discussion

WRS monitor air quality for the purpose of fulfilling LAQM duties

Diffusion Tube Monitoring for NO₂ annual average only required

Desire for enhanced monitoring ?

1. For the purpose of accurate measurement when tubes do not have necessary precision for LAQM work
2. Verification work. Co-locating diffusion tubes to supply local adjustment factors
3. Provision of real-time public Information

Air Monitoring Developments

Diffusion tubes
£7 each per month
(44 tubes)



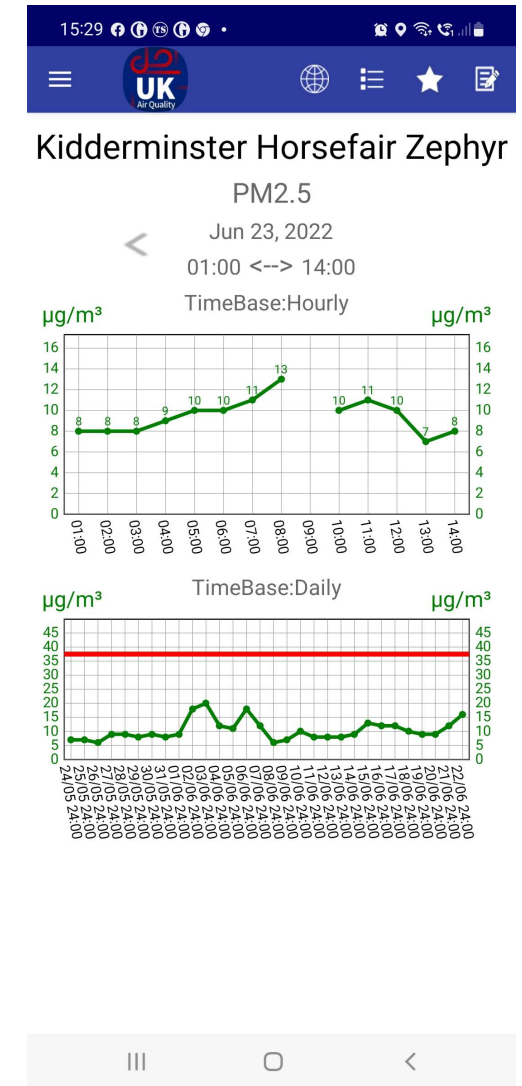
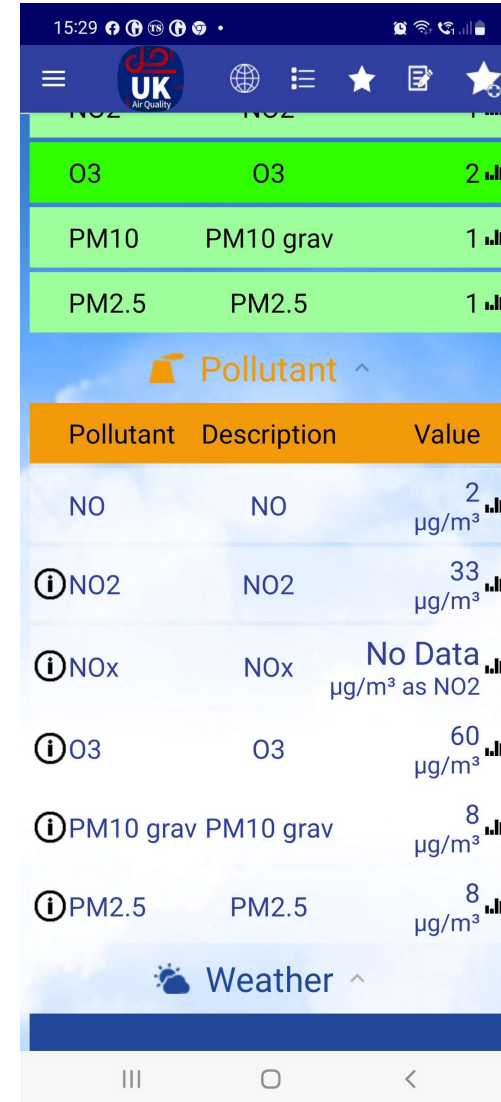
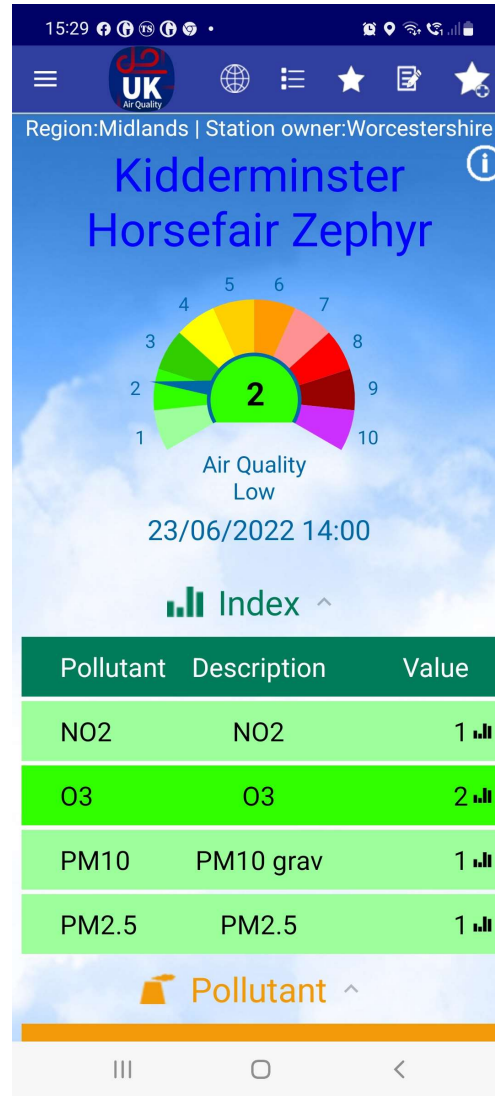
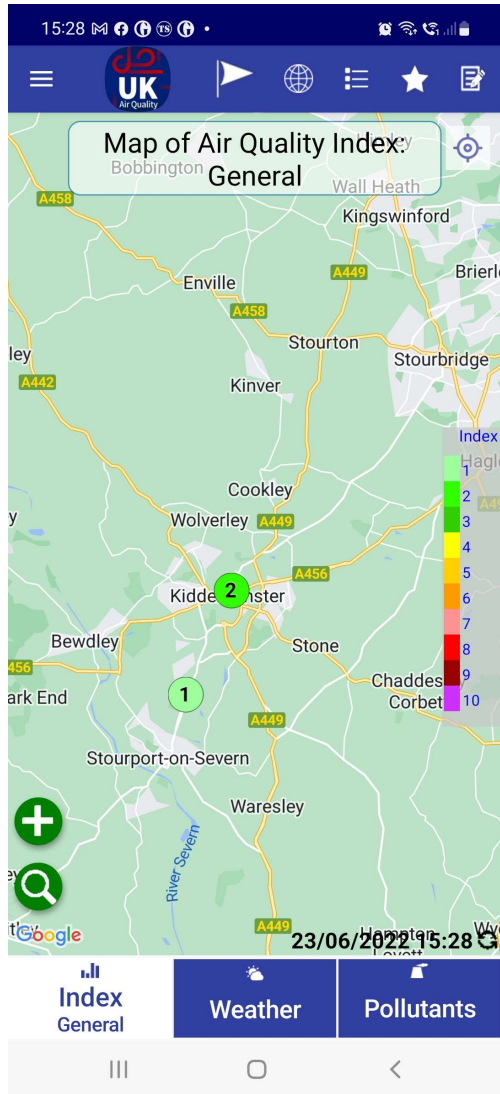
Lab analysers
£18K +K2.3K p/a



Electro chemical devices
£4K + £2kp/a



Enhanced monitoring – What does it look like ?



Next Steps...

Future Monitoring

Action Planning

Questions ?