North Yorkshire Council

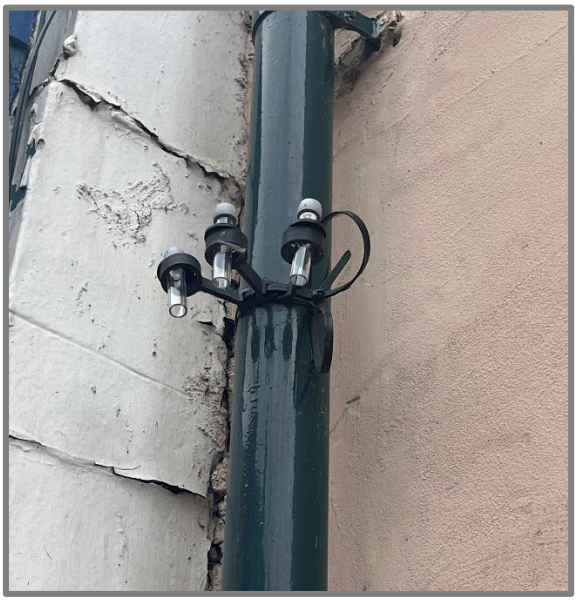
Air Quality Action Plan

(2024 – 2029)

Supersedes Previous Borough and District Specific Action Plans 2018 – 2023

In fulfilment of Part IV of the Environment Act 1995

Local Air Quality Management



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Executive Summary

This Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management framework. It outlines the action we will take to improve air quality (AQ) in the North Yorkshire Council area between 2024 and 2029, with specific emphasis on addressing air quality concerns in Air Quality Management Areas (AQMAs) to achieve compliance with AQ objectives.

On 1st April 2023, the new unitary authority of North Yorkshire Council (NYC) was formed by the amalgamation of the seven former Borough and District Councils of Craven, Hambleton, Harrogate, Richmondshire, Ryedale, Selby, and Scarborough with North Yorkshire County Council.

This report represents the first combined Air Quality Action Plan (AQAP) for the County of North Yorkshire. This action plan supersedes all previous action plans from the former district Councils incorporated into NYC, which ran initially between 2012 and 2018 and in some areas up to 2023. The measures detailed within this updated action plan are largely localised measures relevant to the AQMAs listed in Table 2.1, with some initiatives aimed at improving air quality across the whole County of North Yorkshire.

Projects delivered through the past action plans include:

- Harrogate – Engineering scheme at Bond End, Knaresborough (2018)
- Hambleton - The new A684 Bedale bypass to relieve traffic congestion and pollution levels (2016) – AQMA 5 now being revoked
- Ryedale – Malton junction improvement and reduction in traffic flow schemes (2012) – AQMA 7 now being revoked
- Selby – New Street Area Traffic Management improvements to address congestion issues (2017) – AQMA 6 being retained for further monitoring
- Local school travel plans – Clean Air Day Campaigns and '*Leave your car at home days.'*

- Air Quality Education at Primary Schools
    - A more recent '*Poster Competition*' in Richmond School was undertaken by the age group 6-10 years to raise awareness of air quality issues in the community; here is one of the stand-out posters, more can be found in appendix H:

- Anti-idling campaigns outside schools and at Traffic light junctions.
- Taxi licence initiatives
- Cycle to work schemes

Additions for the 2024 to 2029 AQAP include:

- Further to NYC's passive diffusion tube monitoring network at 212 stations for NO_2, we will shortly be undertaking additional monitoring for NO_2 and Particulate Matter (PM) (both PM_{10} and $PM_{2.5}$) using six recently purchased Aeroqual AQS1 monitors, and three existing Zephyr monitors. As the pollutants of concern are mainly traffic related, this will help NYC measure particulate levels and provide more up to date and real-time information, especially in AQMA localities. This project and the associated data will help inform on projects we are to undertake alongside Public Health and Transport colleagues and provide further impetus to join up action between various authority departments; as well as provide more detail and accuracy of the effectiveness of measures and interventions put in place to tackle air quality issues in AQMA areas. In addition, this will provide the basis for this authority to report on our commitment to take action, to achieve interim and longer-term

government target concentrations for particulates ($PM_{2.5}$), which are outlined below:

- The Environment Act 2021[1] (Part1) sets out the long-term goals for achieving cleaner air and reduce the environmental impacts of air pollution. In addition, the Clean Air Strategy 2019[2] has outlined a comprehensive set of actions required across all parts of government to improve air quality and maximise public health benefits. The Environment Act sets out the following environmental targets for $PM_{2.5}$:
    - Annual Mean Concentration Target ('concentration target') − a target of 10 micrograms per cubic metre (μg m^3) to be met across England by 2040
    - Population exposure Reduction Target (‘exposure reduction target’) – a 35% reduction in population exposure by 2040 (compared to a base year of 2018).
- Promoting Low Emission Transport including procuring alternative refuelling infrastructure to promote Low Emission Vehicles, with recharging points,
- Replacing conventional NYC fleet vehicles with EV alternatives, where feasible to do so between 2019 and 2040. Mandatory consideration of alternative ‘Company Vehicle Procurement’ with the first phase having included replacement of front-line service vehicles and pool cars.

Air pollution is associated with several adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with

[1] Environment Act 2021 (legislation.gov.uk)

[2] Clean Air Strategy 2019 - GOV.UK (www.gov.uk)

inequality issues because areas with poor air quality are also often the less affluent areas[3,4] .

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion[5]. North Yorkshire Council is committed to reducing the exposure of people in North Yorkshire to poor air quality to improve overall health.

North Yorkshire Council have developed actions that can be considered under the following themes and 9 broad topics, which are discussed throughout the report:

Theme 1: Public Health and Wellbeing

Theme 2: Policy Guidance and Development Control

Theme 3: Promoting Low Emission Transport and Charging Infrastructure

Theme 4: Promoting Travel Alternatives to Private Vehicles, Public Transport

Theme 5: Public Information and Education on Air Quality

Theme 6: Transport Planning, Infrastructure and Traffic Management

Theme 7: Local Planning, Policy, and Development Management

Theme 8: Vehicle Fleet Efficiency

Theme 9: Environmental Permit Management Regime

Our priorities are to continue with the existing monitoring programmes throughout North Yorkshire, to review monitoring locations and seek further opportunities to improve air quality across the localities.
In this AQAP we outline how we plan to effectively tackle air quality issues within our control, however, we recognise that there are a large number of air quality policy areas that are outside of our influence (such as vehicle emissions standards agreed in Europe), but for which we may have useful evidence, and so we will continue to

[3] Environmental equity, air quality, socioeconomic status and respiratory health, 2010

[4] Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

[5] Defra. Air quality appraisal: damage cost guidance, 2023

work with regional and central government on policies and issues beyond North Yorkshire Council's direct influence.

This action plan takes a collaborative approach across our now much larger Council area, with the establishment of a new *Council Steering Group* with members that include the Climate Team, Public Health, Highways and other transportation department sections, to ensure that the measures detailed within the action plan provide a holistic approach to tackling the sources of poor air quality in North Yorkshire.

Responsibilities and Commitment

This AQAP was prepared by the Scientific Team in Regulatory Services at North Yorkshire Council with the support and agreement of the following officers and departments:

- NYC Public Health
- NYC Highways and Traffic management, Transport Planning
- NYC Planning policy, Sustainability and Economic Development
- NYC Climate Action Officers

This AQAP has been compiled by, **Amanda Fuller, Emily Revill and Sophie Nicholson** and checked by **Dr Kevin Carr, Divisional Officer, Scientific.**

It has been approved by:

Karl Battersby, Corporate Director – Environment
Louise Wallace, Director of Public Health

This AQAP will be subject to an annual appraisal of progress and will be reported in the Annual Status Reports (ASRs) produced by North Yorkshire Council as part of our statutory Local Air Quality Management duties. Next report due June 2025.

If you have any comments on this AQAP, please send them to **Amanda Fuller** at:

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1 Introduction

This report outlines the actions that North Yorkshire Council will deliver between 2024 – 2029 to achieve compliance within AQMAs through the reduction of concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents of, and visitors to, the North Yorkshire Council area.

It has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

This Plan will be reviewed every five years at the latest and progress on measures set out within this Plan will be reported on annually within North Yorkshire Council's Annual Status Report (ASR).

The North Yorkshire Council AQAP (2024-2029) will include:

1. A clear vision and direction for the North Yorkshire Air Quality Action plan (AQAP).
2. Strategic and focussed measures across the County to continue to improve air quality with particular emphasis in declared Air Quality Management Areas (AQMAs).
3. This AQAP brings together all air quality management areas across former borough and district areas and incorporates a consolidated and consistent plan of action towards achieving the air quality objective (AQO) standards.
4. Consultation and engagement process with all stakeholders and delivery partners on key actions and measures within the new unitary authority.
5. Wider consultation beyond the North Yorkshire unitary authority area.

2 Summary of Current Air Quality in North Yorkshire Council

2.1 Location and Context

From the 1 April 2023 all District and Borough Councils in North Yorkshire were combined to create a new unitary authority, North Yorkshire Council. This report represents the first North Yorkshire Air Quality Action Plan, incorporating all Air Quality Management Areas (AQMAs) across North Yorkshire.

North Yorkshire is a large non-metropolitan county, a geographical area incorporating the historic towns of Harrogate, Richmond, Scarborough, Malton, Skipton, and Selby with the County Town of Northallerton. There are also large stretches of deep rurality from the Yorkshire Dales in the west, to the North Yorkshire Moors and unique coastline of the East. It has a county population of over 600,000 people (Census 2021). The rurality of the North Yorkshire area is reflected by the fact that large areas of two National Parks lie within its boundary.

The major source of pollution within North Yorkshire is from road transport, both NO_2 and PM_{10}. The major road systems that run the length and breadth of the county include the A1, A66, the A19 and A59, plus various highway schemes and bypasses that encompass the rural and urban areas. The East Coast main line Railway also intersects the county, connecting people with the North and the South of the UK.

Whilst the longer-term trend is showing a reduction in pollution concentrations, and four AQMAs are planned for revocation in the North Yorkshire area in 2024, there are some elevated results in remaining AQMA's that necessitate further monitoring, analysis, and tightening of measures to bring the annual air quality standard consistently well below the required objective of **40µg/m^3**.

2.2 Overview of Air Quality Management Areas and Associated Monitoring Network

North Yorkshire Council's monitoring network extends to 212 passive sample stations across the wider district area. In this first year of unitary authority management, we

have been adapting to the changes whilst maintaining our statutory responsibilities to reduce the risk of harm from environmental hazards to air through our monitoring network and associated actions and measures contained within the AQAP, and to bring together all air quality duties previously held across the seven former borough and district areas.

Whilst there have been very few changes to the sample stations or the declared AQMAs during 2023, consistent monitoring levels and a consistent downward trend of NOx results have been observed across the wider NY area. Some minor elevated results have been observed in two declared AQMAs, which are discussed later in the report, but overall, the AQMA results are demonstrating the effectiveness of action plan measures to reduce NOx concentrations, such as better traffic management, more public knowledge gained on AQ issues and alternative fuel transportation options.

Monitored areas that have exceeded the UK's National Air Quality Objective (AQO), required an Air Quality Management Area (AQMA) to be declared. North Yorkshire inherited *eight declared AQMAs*, seven for NO_2 and one for PM_{10}. The following table represents all previously declared *eight AQMAs*; *four AQMAs* that will be retained for further monitoring, and *four AQMA's* planned for revocation during 2024, within the North Yorkshire Council area.

Table 2.1 AQMA Location, Year of Declaration, Level of Exceedance of AQO and those planned for revocation or further monitoring.

AQMAs	Location	Source of exceedances	Year Declared	Exceedance level in 2023 measured against AQO of 40µg/m^3	Retained/ Revocation
AQMA 1 Knaresborough AQMA No. 1 Bond End, Knaresborough	The Royal Oak, 1-23 Bond End and 104-138 High Street, Knaresborough	Road Transport related	November 2010	Annual Mean exceedance of NO_2 Not exceeded 33.9	Retained
AQMA 2 Harrogate AQM No. 1 Order 2017 Wetherby Rd, Harrogate	The Flat above 110 Wetherby Road	Road Transport related	October 2017	Annual Mean exceedance of NO_2 Not exceeded 27.9	Retained
AQMA 3 Ripon AQMA No.1 Low and High Skellgate, Ripon	1-6 & 29-36 Low Skellgate, 8A Heaths Court, all properties High Skellgate, and 1-4 & 28-34 Westgate, Ripon	Road Transport related	November 2010	Annual Mean exceedance of NO_2 Not exceeded 28.4	Planned for Revocation
AQMA 4 Knaresborough AQM No. 2 Order 2017 York Place, Knaresborough	2-26 York Place, 1-6 Casson Place and 1-6 Tannery Court, Knaresborough	Road Transport related	October 2017	Annual Mean exceedance of NO_2 Not exceeded 25.9	Planned for Revocation

AQMAs	Location	Source of exceedances	Year Declared	2023 measured against AQO of 40µg/m^3	Remain/ Revoked
AQMA 5 The Hambleton District Council (Bedale) AQM Order 2017	Bridge Street and Marketplace, Bedale	Road Transport related	November 2017	Annual Mean exceedance of NO_2 Not exceeded 17.1	Planned for Revocation
AQMA 6 AQMA No. 1 New Street, Selby	New Street, Selby	Road Transport related	February 2016	Annual Mean exceedance of NO_2 Not exceeded 39.8	Retained
AQMA 7 Malton Air Quality Management Area	An area in the centre of Malton encompassing several properties along the B1248 (Castlegate and Yorkersgate, between Sheepfoot Hill and Market Street) and the B1257 (Wheelgate and Old Maltongate, between Finkle Street and 20m east of the junction with East Mount). Including parts of Church Hill.	Road Transport related	December 2009	Annual Mean exceedance of NO_2 Not exceeded 25.8	Planned for Revocation
AQMA 8 Scarborough AQMA	Most of the village of Staithes	Domestic Heating	August 2018 (Amended)	Exceedance of PM_{10} No current monitoring undertaken	Retained

It is a requirement that if pollutant levels fall below the UK national air quality objective levels for a period of 5 consecutive years, an AQMA must be revoked.

Therefore, North Yorkshire Council have proposed that the following four AQMAs be revoked that were previously declared for exceedances of the nitrogen dioxide (NO_2) annual mean objective of 40µg/m^3 but have now been compliant for the last 5 years. Further information regarding the location data can be found in Appendix F:

- Low and High Skellgate, Ripon (AQMA 3 - Ripon AQMA No.1 Low and High Skellgate, Ripon)
- York Place, Knaresborough (AQMA 4 – AQM No. 2 Order 2017 York Place, Knaresborough)
- Castlegate, Malton (AQMA 7 - Malton Air Quality Management Area)
- Bridge Street Marketplace, Bedale (AQMA 5 - The Hambleton District Council (Bedale) AQMA Order 2017)

The following two AQMAs have achieved an annual mean concentration 10% below 40µg/m^3 of the Air Quality Standard (AQS) objective during 2023 and it is expected that a continued downward trend in air quality concerns in both these areas will be achieved during 2024. Should further monitoring reflect this prediction and be consistently below the AQS objective for 5 consecutive years then NYC will seek to revoke these AQMAs also. This will be reported on in the 2025 ASR:

- AQMA 1 (Bond End, Knaresborough) - The AQMA at Bond End, Knaresborough was declared in November 2010 for exceedances of the nitrogen dioxide annual mean objective. Concentrations between 2010 and 2018 remained static and non-compliant. At the end of 2018, a North Yorkshire County Council scheme was completed, involving the removal of traffic lights at two junctions, and replacement with two mini roundabouts.

  The first year following the completion of the scheme (2019), the monitoring results showed a large decrease of 11.8µg/m^3, at the monitoring location with the highest concentration in 2018. Following the first year there has continued to be a steady decrease, with the highest concentration in 2023 being 33.9 µg/m^3. See Table 2.2.

- AQMA 2 (Wetherby Road, Harrogate) - The AQMA was declared in 2017 for exceedances of the nitrogen dioxide annual mean objective. In 2018 the annual mean objective was breached, with concentrations decreasing or remaining constant from that time, with a concentration of 27.9 µg/m^3 being recorded in 2023.

The AQMA in Selby did *not* consistently achieve below the 10% of the AQS objective during 2023 with a recording of 39.8µg/m^3 at one location site (S7 at 21 New Street), this being a higher concentration than in the previous year of 2022 (see Table 2.2). The highest change in this AQMA was also seen at location S5 (3 New Street) with an increase of 2.7µg/m^3. Monitoring and further scrutiny of the appropriate measures and actions to reduce NO_2 concentrations will continue within this AQMA.

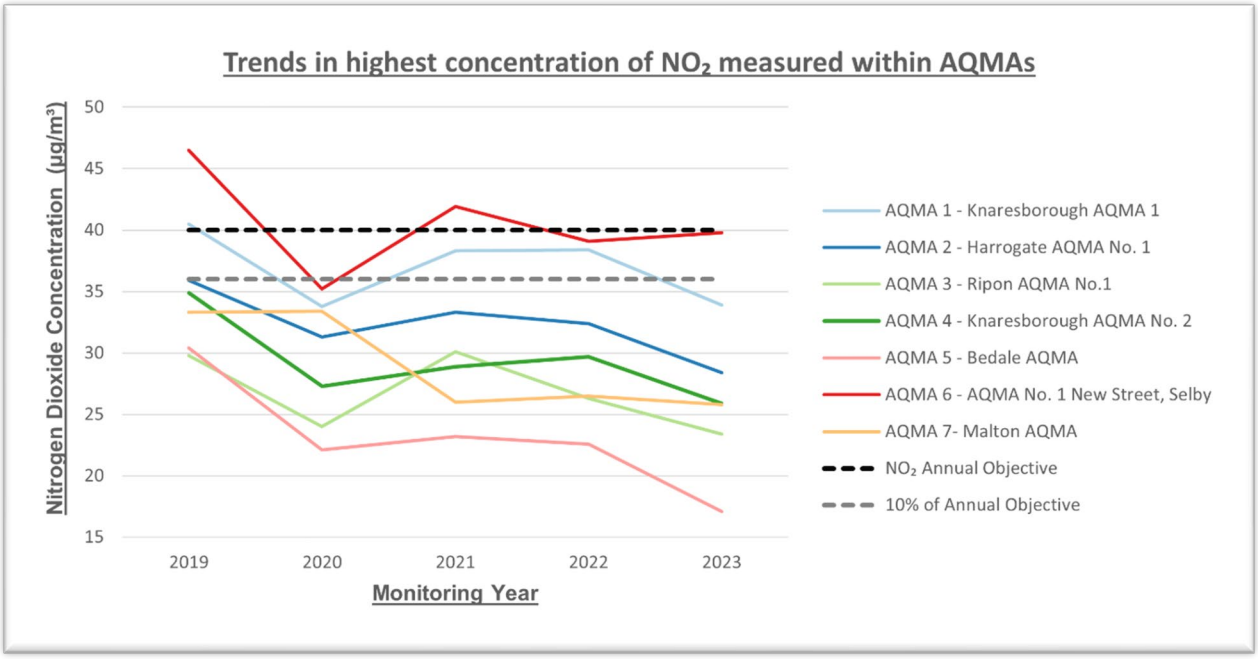
- AQMA 6 (AQMA no.1 New Street, Selby) - The AQMA was declared in 2016 for exceedances of the nitrogen dioxide annual mean objective. In 2017, three monitored locations breached the objective, since 2020 only one location has breached the annual mean objective, however currently concentrations appear to have plateaued.
- This picture illustrates the congested and narrow aspect to the AQMA in Selby:

Table 2.2: Annual Bias Adjusted Mean NO_2 Concentrations Within AQMAs 1, 2 and 6.

AQMA	Diffusion Tube ID	Diffusion Tube location	Annual Bias-adjusted Mean NO_2 Monitoring Results ($\mu g/m^3$)				
			2019	2020	2021	2022	2023
AQMA 1 Knaresborough AQMA No. 1 Bond End, Knaresborough	H13	21 Bond End, Knaresborough	40.5	30.7	38.5	38.4	31.2
	H14	9 Bond End, Knaresborough	38.6	33.8	36.8	38.3	33.9
	H16	10 Bond End, Knaresborough	31.2	25.6	29.5	27.3	23
	H17	16-18 Bond End, Knaresborough	24.3	18.7	21.3	19.9	18.3
	H18	10 York Place, Knaresborough	26.7	21.4	24.7	23.6	21.7
	H51	The Royal Oak, Knaresborough	33.9	32.8	34.7	32.7	28.8
	H52	High Street, Knaresborough	37	30.9	33.7	33.1	30.5
	H15, H59, H60	117 High Street, Knaresborough	35.2	29.8	31.6	32.2	27
AQMA 2 Harrogate AQM No. 1 Order 2017 Wetherby Rd, Harrogate	H24	Woodlands Pub, Hookstone Drive	25.4	20.8	22.7	23.1	19.3
	H26	Woodlands Pub, Wetherby Road	35.9	31.3	31.7	31.8	27.9
	H34	Woodlands Pub, Lamppost, Wetherby Road	26.8	22.1	24	23.5	19
AQMA 6 AQMA No. 1 New Street, Selby	S6	Preston Baker / Hairdresser, New Street	26.4	20.6	24.6	22.7	22.5
	S26	Skin & Furs, New Street		4	30.3	27.2	27.6
	S5a, S5b, S5c	Roko Furniture, New Street	39.2	29.6	33.3	30.1	32.8

	S7a, S7b, S7c	21 New Street	**46.5**	35.2	**41.9**	39.1	39.8
	S8	30 New Street	29.2	21.1	24.7	23.5	22.3
	S4	Eye of Bri, New Street	43.6	32.2	39.2	37.1	36.8
	S3a, S3b, S3c	Tutti's, New Street	36	25.8	33	30.6	30.8
	S1	Fringe Hair, New Street	32.1	24.2	28.3	26.8	26.4

Figure 1: Highest Bias Adjusted Mean Concentration of NO_2 Measured in the North Yorkshire AQMAs for the Monitoring Period 2019- 2023



An AQMA was previously declared in the coastal village of Staithes, within the former Scarborough district in 2004 for the exceedance of the following pollutants in connection with the burning of solid fuel for domestic heating:

- 01/08/2024 Sulphur dioxide SO_2 – 15-minute and 1-Hour and 24-Hour Mean
- 01/08/2024 Particulate Matter PM_{10} – Annual and 24-Hour Mean

Following a monitoring investigation in 2010-11 the AQMA was amended in 2018 as levels of SO_2 were found to be within the compliant objective levels. PM_{10} levels

however, continued to be exceeded therefore the AQMA was retained for the following:

- 29/08/2018 Particulate Matter PM_{10} – Annual and 24-Hour Mean.

Chemical speciation analysis of the measured particulates showed that an estimated 36% of the PM_{10} concentration was made up of sodium chloride, the most likely source to be sea salts. If natural sources could be discounted when considering air quality objectives, the PM_{10} objective would be met in Staithes. The European Air Quality Directive gives member states the option to discount natural sources of PM_{10}, but this option has not been exercised by the UK government in the current UK Air Quality Regulations[6]. Confirmation of this has been given by the LAQM helpdesk operated by Bureau Veritas, who have advised that the regulations do not differentiate between various source components, and because of exceedance of the PM_{10} objective, the AQMA will have to remain in place.

- Staithes, Scarborough (PM_{10}) (AQMA 8 – Scarborough).

Since this investigation in 2010-11 no further monitoring has taken place, therefore, it is unclear as to what the current situation is with PM_{10}. Although the sea salt component of PM_{10} cannot be taken into account, potential changes which may have reduced the PM_{10} levels since the previous report are:

- Housing associations to install mains gas (or electrical alternatives) in southern part of Staithes
- Introduction of the Air Quality Domestic Solid Fuels standards (England) Regulations 2020.

NYC are currently investigating any actions that may have recently progressed regarding domestic heating and the potential impact of the above measures in this AQMA. Additionally, NYC will be installing a Zephyr air quality monitor to determine current PM_{10} levels.

[6] The Air Quality Standards Regulations 2010 (legislation.gov.uk)

The following table shows the estimated population numbers affected in the remaining AQMAs - data taken from the ONS[7] on population numbers. Air pollution is the greatest environmental risk to public health and whilst these areas are not considered areas of social deprivation, according to the Ministry of Housing Communities and Local Government [8](DCLG) Indices of Deprivation, actions to reduce pollution levels in these areas is vital to reducing potential poor health outcomes.

The estimated population for each AQMA is shown in Table 2.3. This data has been estimated by multiplying the number of properties by 2.4. According to the Office for National Statistics (ONS), “The average household size in England and Wales in 2021 was 2.4 people per household”. 2021 census data was not used as it is provided at a postcode level which is too broad to pick out each individual address.

Table 2.3: Properties and Estimated Population within retained AQMAs 1, 2, 6 and 8

AQMA	Number of Properties affected	Population (estimated)
AQMA 1 Knaresborough AQMA No. 1 Bond End, Knaresborough	38	91
AQMA 2 Harrogate AQM No. 1 Order 2017 Wetherby Rd, Harrogate	1	2.4
AQMA 6 AQMA No. 1 New Street, Selby	35	84
AQMA 8 Scarborough AQMA (PM10)	327	785

[7] Population estimates for England and Wales - Office for National Statistics (ons.gov.uk)

[8] Indices of Deprivation 2015 and 2019 (communities.gov.uk)

The comprehensive network of monitoring within the wider NYC areas helps with reviewing and reporting on the effectiveness of the Action Plan and the measures in place to reduce NO_2, PM_{10} and $PM_{2.5}$ concentrations.

- Further information regarding the monitoring locations and background information in 2023 can be found in the latest ASR here: https://www.northyorks.gov.uk/environment-and-neighbourhoods/pollution/air-quality
- A map showing the locations of the AQMA's and diffusion tube monitoring locations can be found here: Diffusion Tubes and Air Quality Management Areas Web App (arcgis.com)

2.3 General Air Quality Trends in the North Yorkshire Council (NYC) Area

Overall, North Yorkshire has *very few areas of major concern* in relation to air quality, with the main source of pollution being from road transport emissions, i.e., nitrogen oxides/ nitrogen dioxide (NOx/NO_2). The NYC Annual Status Report (ASR) contains results of passive monitoring at 212 sample stations, with all sites reporting compliance against the annual mean Air Quality Standard (AQS) objective ($40\mu g/m^3$) during the 2023 monitoring year.

Most sites have shown a general downward trend over the last 5 years. This may partly have been due to improvements in traffic flow combined with the increasing numbers of electric vehicles on the roads and the start-stop technology on modern vehicles, combined with the impact of the Covid lockdown(s) and changing social and working practices, such as more people working from home and reducing the number of vehicle journeys.

The majority of monitoring sites for 2023 will continue for 2024.The number and locations of monitoring sites across the whole area will be reviewed in 2024/25 and diffusion tube suppliers will be reviewed by the new Scientific Team to enable a consistent approach and management in future years (as and when current contracts expire). There are no new significant areas of concern within our council areas, but we continue to be diligent, continue monitoring, looking for any new developments, changes in commercial activity and potential traffic hot spots that may impact on air

quality. In addition to diffusion tube monitoring, we will be supporting the delivery of national $PM_{2.5}$ targets through other project initiatives discussed later in the report.

Particulate matter is everything in the air that is not a gas, and the size of airborne particles governs their behaviour. The 2.5 or 10 annotation relates to the size of the particulate matter (PM), so, for example, $PM_{2.5}$ is PM with an aerodynamic diameter of 2.5 micrometres or less. Particulate matter is either emitted directly from sources, known as primary $PM_{2.5}$, or formed in the air from chemical reactions between other pollutants, known as secondary $PM_{2.5}$. Primary $PM_{2.5}$ is emitted from human activities, like burning fuels, braking and various industrial processes, as well as from natural sources like sea spray and dust. Domestic combustion contributed 29% of emissions in 2022 and industrial combustion of biomass fuels accounted for 6% in 2022[9] [10].

No monitoring of Particulate matter (either PM_{10} or $PM_{2.5}$) is currently undertaken in North Yorkshire. This will be undertaken when the Aeroqual AQS1 are installed. A scoping exercise is currently underway to assess suitable site locations for the monitors, with the intention of installing a Zephyr to monitor PM_{10} in Staithes.

Table 2.4 shows the background particulate matter concentrations for both $PM_{2.5}$ and PM_{10} taken from the DEFRA 2018 reference year background maps[11]. This has allowed an estimate to be derived for particulate matter within North Yorkshire based on the data for 2023.

Based on the background reference maps North Yorkshire is already below the 2040 10µg/m³ annual mean concentration target with an average mean concentration of 6.2µg/m³ for $PM_{2.5}$. It also meets the national air quality objective for PM_{10} at 10.4µg/m³ with the limit being either a 24 hour mean of 50µg/m³ not to be exceeded more than 35 times a year or an annual mean concentration of 40µg/m³.

[9] Emissions of air pollutants in the UK – Particulate matter (PM10 and PM2.5) GOV.UK (www.gov.uk)

[10] Air quality strategy: framework for local authority delivery - GOV.UK (www.gov.uk)

[11] https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018

Table 2.4 Background Particulate Matter Concentrations for $PM_{2.5}$ and PM_{10}

Former District Area	Background $PM_{2.5}$ concentration (µg/m³)	Background PM_{10} concentration (µg/m³)
Craven	5.2	7.7
Hambleton	6.5	11.4
Harrogate	6	9.8
Richmond	5.3	8.2
Ryedale	6.5	11.5
Scarborough	6.2	10.4
Selby	7.5	13.5
North Yorkshire average	6.2	10.4

Tables 2.5 and 2.6 show the estimated % contribution of sources of PM to affect local air quality for the former district areas of North Yorkshire for both $PM_{2.5}$ and PM_{10}. This is taken from the DEFRA background maps for the 2023 year.

The data shows that secondary PM and residual salt are the predominant sources of particulate matter in North Yorkshire. With domestic, and industry and road having a minor contribution for both $PM_{2.5}$ and PM_{10}.

Table 2.5 % Contribution by Source for PM10

Former District Area	% Contribution by source for PM_{10}									
	Road	Brake & Tyre	Road abrasion	Industry	Domestic	Rail	Other	Secondary PM	Residual salt	Point sources
Craven	0.05	0.1	0.1	2.3	0.8	0.01	0.2	52.7	44.2	0.2
Hambleton	0.1	0.6	0.1	2.6	0.5	0.1	0.1	40.1	55.5	0.3
Harrogate	0.06	0.3	0.2	2.6	1	0.01	0.2	44.4	51.1	0.3
Richmond	0.06	0.1	0.1	2.1	0.3	0	0.1	50.3	47.1	0.1
Ryedale	0.02	0.1	0.1	2.3	0.4	0.01	0.1	41.6	54.9	0.1
Scarborough	0.02	0.1	0.1	1.4	0.5	0.02	0.1	45.2	52.6	0.1
Selby	0.1	0.4	0.2	3.5	0.9	0.1	0.3	35.1	58.1	1.3

Table 2.6 % Contribution by Source for PM2.5

Former District Area	% Contribution by source for $PM_{2.5}$									
	Road	Brake & Tyre	Road abrasion	Industry	Domestic	Rail	Other	Secondary PM	Residual salt	Point sources
Craven	0.03	0.1	0.1	1.1	1.1	0.01	0.3	68.5	28.7	0.1
Hambleton	0.3	0.2	0.1	1.6	0.8	0.1	0.2	61.4	34.8	0.4
Harrogate	0.1	0.3	0.3	1.7	1.6	0.02	0.3	63.4	32.7	0.4
Richmond	0.04	0.1	0.1	1.3	0.5	0.03	0.1	68.7	29.7	0.1
Ryedale	0.03	0.1	0.1	1.5	0.6	0.02	0.2	63.8	33.7	0.2
Scarborough	0.03	0.1	0.1	1	0.9	0.01	0.2	65.7	31.4	0.1
Selby	0.1	0.4	0.2	2.8	1.7	0.1	0.6	54.8	36.7	2.1

2.3.1 Smoke Control Areas

The Environment Act 2021[12], which amended the Clean Air Act 1993, gives local authorities greater powers to enforce smoke control areas. It is hoped that this will help to improve air quality as domestic burning of wood and coal in domestic open fires and solid fuel stoves contributes 38% to Particulate Matter emissions in the UK, with industrial combustion (non-domestic burning) also contributing 16%[13].

Based on the Defra Background map data, as shown in tables 2.4, 2.5 and 2.6, North Yorkshire is below the limits for $PM_{2.5}$ and PM_{10}, with domestic burning and industrial sources having a minor contribution to the PM in North Yorkshire. However, recent studies clearly indicate that there is no safe level of air pollution, with evidence demonstrating that particulate matter has a significant impact on human health.

There are currently 10 smoke control areas within North Yorkshire which are outlined in table 2.7 below. North Yorkshire Council will review the current smoke control areas and utilise the new Aeroqual S1 monitors, which will monitor PM once they are installed. This may identify where smoke control areas need to be reviewed to reflect current air quality and possible additional measures which need to be taken.

[12] Environment Act 2021 (legislation.gov.uk)

[13] Defra. Air quality: explaining air pollution – at a glance (2019)

Table 2.7 Smoke Control Areas in North Yorkshire Council Area

Name	Former District	Location affected	Within AQMA
South Craven Smoke Control Area	Craven	Crosshills, Sutton-in-Craven, Glusburn, Glusburn Green	No
Skipton Smoke Control Area	Craven	Skipton	No
Harrogate Smoke Control Area	Harrogate	Harrogate	No
Tockwith Smoke Control Area	Harrogate	Tockwith	No
Selby Smoke Control Area no.1	Selby	Selby	Yes – AQMA no.6 New Street, Selby
Selby Smoke Control Area no. 2	Selby	Selby	No
Selby Smoke Control Area no.3	Selby	Selby	No
Brayton Smoke Control Area	Selby	Brayton	No
Sherburn-in-Elmet Smoke Control Area	Selby	Sherburn-in-Elmet	No
South Milford Smoke Control Area	Selby	South Milford	No
Thorpe Willoughby Smoke Control Area	Selby	Thorpe Willoughby	No

3 North Yorkshire Council's Air Quality Priorities

This section presents the main priorities and the approach to be taken by North Yorkshire Council to continue to improve air quality within its administrative area.

The main factor affecting air quality in the council's area is related to transport emissions.

Priorities will focus on the following:

- An overarching AQAP tailored to encompass all former 7 boroughs and districts within North Yorkshire Council in collaboration with the Transport, Planning, Public Health, and Sustainability colleagues to reduce emissions, to link in with strategies and policy and to improve awareness of air quality.
- Revocation of 4 existing AQMAs for previous exceedance of NO_2 which is mandatory after achieving below the annual mean objective for 5 consecutive years in all areas.
- Further monitoring of 3 retained AQMAs for previous exceedance of NO_2.
- Further monitoring of 1 existing AQMA for the previous exceedance of PM_{10}, to understand current levels of PM_{10}. Once sufficient data has been collected and it is known what changes in domestic heating have taken place in this area, we anticipate recommending revocation of this AQMA. This will be followed up in next year's ASR 2025.
- Continue to review and assess local air quality across North Yorkshire and to fulfil our legal obligations.
- To continue to concentrate on those measures presented in this report that will target the predominant sources of emissions in all areas of NYC.
- Reviewing development schemes and improvement works.
- Conduct further assessment of the Selby AQMA and work with partners to implement additional pollution reducing measures. Discussions are already underway around the Selby Places and Movement Study, which is currently being developed. This considers how we can achieve targeted regeneration in Selby town centre by potentially reallocating some road space to public realm and active travel modes (walking and cycling). This includes, but isn't limited to, potential

network management changes, including a possible one-way on New Street, bus rerouting, reconfiguration of traffic signals, and walking and cycling infrastructure improvements, which should assist in reducing the exceedances of AQ objectives in this AQMA. Working with other departments to help understand and resolve the issues will be required. The study was commissioned from WSP (a planning and development consultancy).

In addition, the Transforming Cities Fund projects are also aiming to improve access to transport hubs and make it easier and more pleasant for people to travel via sustainable modes. These schemes are already well through the process of being prepared for delivery, but colleagues have indicated that schemes making changes to the highway network can be difficult to deliver and are often met with public resistance.

3.1 Public Health Context

Air pollution is associated with several adverse health impacts. Local authorities are expected to work towards reducing emissions and/or concentrations of $PM_{2.5}$ (particulate matter with an aerodynamic diameter of 2.5 µm or less).

The $PM_{2.5}$ indicator in the Public Health Outcomes Framework (PHOF) (England) provide further impetus to join up action between the various local authority departments which impact on the delivery of air quality improvements.

Poor air quality is a significant public health issue. Public Health England (2022) estimates between 26,000 and 38,000 deaths each year are attributed to human-caused air pollution and in addition many people suffer avoidable chronic ill health because of air pollution[14].

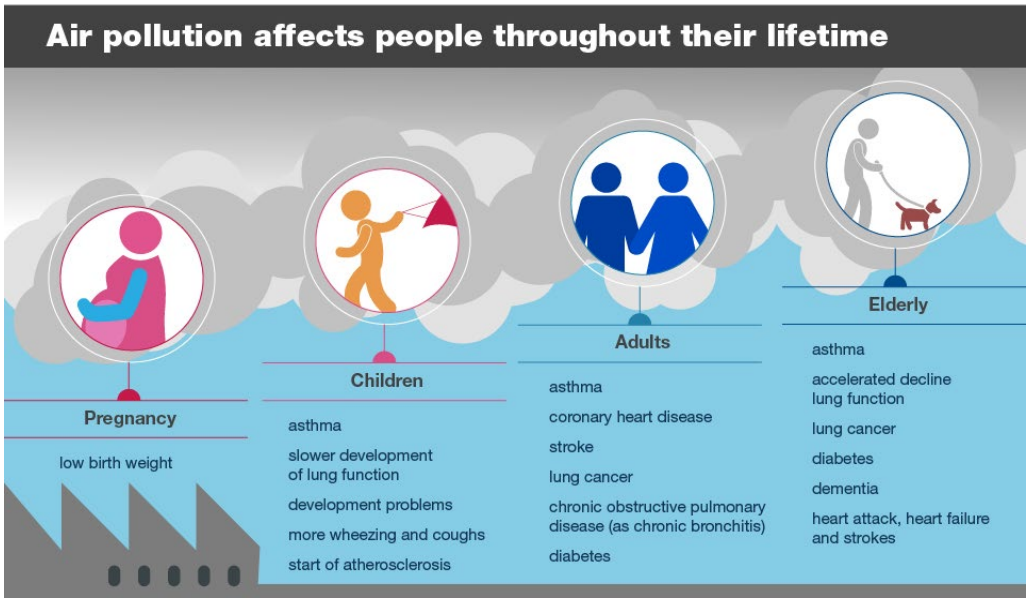
In April 2021, following an inquest into the death of Ella Kissi-Debrah; a 9-year-old girl from Lewisham, the Coroner Philip Barlow concluded that Ella died of asthma, contributed to by excessive air pollution exposure. The first case of its kind in the UK

[14] Chief Medical Officer's Annual Report 2022 (publishing.service.gov.uk)

to rule exposure to air pollution as a contributing factor in a death. The prevention of future deaths report produced by the coroner highlighted the public's low awareness of national and local pollution levels including the health impacts. It calls local authorities and healthcare professions to better communicate these risks and what people can do about them[15].

The health effects of pollutants will depend on many factors as to the level of harm an individual is exposed to. This includes the dose, duration, how an individual comes into contact with the pollutant, in addition to factors such as age, sex, diet, family traits, lifestyle and state of health.

Figure 2 – The Air Pollution Effects on People Throughout Their Lifetime[16]



Air pollution can affect the eyes, nose and throat, the heart and associated blood vessels and the lungs and respiratory system. Short-term exposure (over hours or days) can lead to a range of health impacts including lung function, coughing, wheezing and shortness of breath, exacerbation of asthma, increases in respiratory and cardiovascular hospital admissions and mortality. Over long timescales (years or

[15] https://www.judiciary.uk/wp-content/uploads/2021/04/Ella-Kissi-Debrah-2021-0113-1.pdf

[16] Public Health England – Health Matters

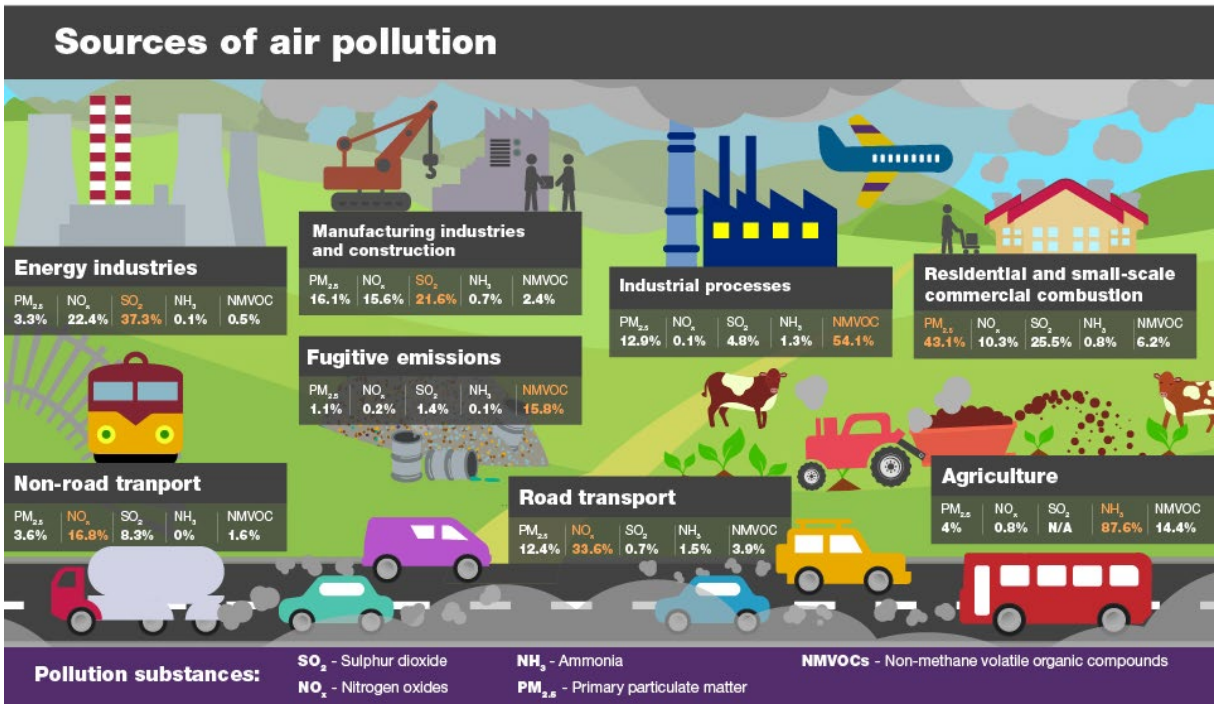
lifetimes) exposure can lead to reduced life expectancy, due to cardiovascular diseases, respiratory diseases, and lung cancer. More recent research has associated air pollution with affecting the brain causing dementia and cognitive decline; diabetes and affecting early life leading to various birth outcomes, for example, low birth weight and developmental problems.

Air pollution can affect anyone's health; nevertheless, some individuals can be more susceptible than others. These include:

- children
- the elderly
- individuals with existing cardiovascular or respiratory diseases
- pregnant women
- communities in areas of higher pollution, such as close to busy roads
- low-income communities

The Public Health Outcome Framework (PHOF) is a set of indicators compiled by the Department of Health and Social Care (DHSC) to measure how effectively the activities of each local authority are addressing the determinants of health. Within the PHOF there is one indicator which specifically measures air pollution, D01 fraction of mortality attributable to particulate air pollution. Estimates of mortality in England (2022 data) range from 2.7% (Isles of Scilly) to 8.3% (City of London). For the North Yorkshire Unitary Authority, the indicator value is 4.3%, which is the lowest in the Yorkshire and Humber region, alongside North Lincolnshire. The average for England is 5.8%.

Figure 3 – Sources of Air Pollution and Associated Percentage Contributions[17]



To help facilitate this, Defra commissioned research to develop a toolkit to help local authorities and public health professionals tackle air pollution in their area with a particular focus on $PM_{2.5}$. The toolkit provides a one-stop guide to the latest evidence on air pollution, guiding local authorities to use existing tools to appraise the scale of the air pollution issue in its area. It also advises local authorities how to appropriately prioritise air quality alongside other public health priorities to ensure it is on the local agenda.

The York and North Yorkshire Combined Authority was created in 2024 by City of York Council and North Yorkshire Council. It is headed by an elected mayor and it is anticipated that closer work between both authorities on air quality issues will result.

[17] Public Health England – Health Matters

3.2 Planning and Policy Context

Land use planning and decisions play a significant role in managing and improving air quality by setting out the broad locations for development, supported through a robust localised planning application regime, to ensure that air quality is adequately considered. North Yorkshire Council has several localised development frameworks, core strategies and policies that are still in use and applicable across the former borough and districts, which will remain in place, pending a more detailed review of the planning framework.

A new steering group has been established with the objective of reviewing the existing policies and strategies and to consolidate the strategic objectives relevant to air quality. Land-use is key in improving air quality and as part of this review, this will ensure that all development and planning change is fully considerate of encouraging the use of sustainable forms of transport such as public transport, walking, and cycling and reducing the adverse impact of society on the environment (e.g., reducing pollution) and responding to the implications of climate change.

Policies that promote higher quality building standards, reduce energy use and are inclusive of low emissions strategies and processes, will also bring opportunities for cleaner technologies (such as Air Source Heat Pumps (ASHPs)) and policies that promote sustainability. Specifically, planning policies should sustain compliance with, and contribute towards, meeting UK limit values or national objectives for air pollutants[18], taking into account the presence of Air Quality Management Areas (AQMAs) and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in, or likely to have an impact on, an Air Quality Management Area is consistent with the local air quality action plan.

[18] Land Use Planning & Development Control: Planning for Air Quality January 2017

3.2.1 The National Planning Policy Framework

The National Planning Policy Framework, revised in December 2023, sets out that transport issues should be considered from the earliest stages of plan-making and development proposals so that the environmental impacts of traffic and transport infrastructure can be identified, assessed, and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.

Paragraph 192 of the NPPF states:

'Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. As far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.'

3.2.2 North Yorkshire Councils Local Plans

This version of the AQAP reflects those current plans, policies, and guidance in place across the wider North Yorkshire area. Until a North Yorkshire Local Plan is adopted, the local plans for the former borough and district council areas remain in effect. The overarching North Yorkshire Local Plan is currently being developed and is anticipated to come into effect from 2028 onwards.

All local plans identify the need to ensure new developments are assessed for air quality and must not have a detrimental effect on air quality within AQMAs and are also consistent with the local AQAPs (Air Quality Action plans). In addition, the plans recommend innovative measures that may be required to address any potential impacts on air quality across the Council's area, including:

- Craven 2012 - 2032 Local Plan – Development growth must avoid severe residual cumulative impacts of traffic congestion, design and layout must promote reductions in use.
- Hambleton 2019 – 2035 Local Plan - requiring Air Quality assessments as part of an environmental impact assessment and indicating any potential for adverse AQ effects.
- Harrogate 2014 – 2035 Local Plan - development applicants must submit an AQ assessment and/or dust assessment report and associated mitigation measures where this may affect existing AQMAs. Where construction proposals demonstrate a negative impact on air quality, mitigation measures are sometimes supported by damage costs. This has been particularly effective at one major development in Harrogate, where, under a section 106 agreement, developer contributions (a community levy) will fund future air quality projects. Support will be given for sustainable developments consistent with the AQAP.
- Ryedale 2012 – 2027 Local Plan – Reducing air quality emissions from buildings through renewable energy provision and sustainable building standards in line with policy.
- Scarborough 2023 – 2040 – Local Plan - monitoring and seeking to maintain good ambient air quality standards.

The former district local plan policies that relate to air quality listed above are further detailed in Appendix C.

3.2.3 Transport Strategy and Objectives

The NYC local transport plan document sets out the council's priorities, plans, and strategies for managing, maintaining, and improving all aspects of the local transport system for the next 30 years. Transport was a North Yorkshire County Council (NYCC) function before the local government review (LGR) so the local transport plan was approved by the County Council in February 2016 and will run until 2045.

The Objectives adopted for LTP4 are:

- Economic Growth - Contributing to economic growth by delivering reliable and efficient transport networks and services.
- Road Safety-Improving Road and transport safety.
- Access to Services - Improving equality of opportunity by facilitating access to services.
- Environment and Climate Change - Managing the adverse impact of transport on the environment.
- Healthier Travel - Promoting healthier travel opportunities.

The LTP4 is important to maintaining and improving air quality within North Yorkshire as all the declared AQMAs within the county are resultant of traffic emissions along principal road routes except for the Staithes AQMA which is (in part) related to solid fuel burning.

In conjunction with the LTP4, there is also a bus service improvement plan (BSIP). This was published in October 2021, after the Department for Transport published the National Bus Strategy which required all Local Transport Authorities to develop a Bus Service Improvement Plan. North Yorkshire Council and bus operators came together to form an Enhanced Partnership in Spring 2022. The role of the Enhanced Partnership, which comprises a decision-making Board and a stakeholder Forum, is to deliver bus service improvements developed from the Bus Service Improvement Plan.

The key objectives of the North Yorkshire BSIP are:

- To meet the needs of local communities.
- Enable people to be active and independent and businesses to flourish.
- Provide excellent customer service.
- Is easy to use and offers simple payment and fares.

The bus services will enable sustainable, greener, and healthier travel choices. It is expected that this will result in fewer car journeys, reduce carbon emissions, and improve air quality in North Yorkshire.

3.2.4 National Highways to work with Local Authorities to Improve Air Quality

In 2022, the Department for Transport (DfT) announced that they expected all local transport authorities to have in place a fit-for-purpose, and up-to-date Local Transport Plan (LTP), which sets out a strategic vision and case for investment in transport in their area. The DfT reported that the previously relaxed requirements for 5 yearly updates to LTPs (Local Transport Plan) had led to a reduced understanding of the strategic requirements for transport both nationally and locally, and therefore, all local transport authorities should ensure they had a suitable LTP in place by the end of the current parliamentary period (late 2024).

Following the appointment of the new Mayor in the York and North Yorkshire Combined Authority Mayoral Elections in 2024, it is expected that a joint LTP for York and North Yorkshire will be produced in due course.

3.3 Source Apportionment

This action plan includes data from three separate air quality studies commissioned for the former district areas of Selby, Harrogate, and Knaresborough. The source apportionment studies focus on the main sources of emissions in relation to Nitrogen Dioxide NO_2. A source apportionment exercise was carried out by North Yorkshire Council in 2024, using monitoring data from 2022 to develop appropriate and more targeted measures to improve air quality within the AQMAs and inform the action plan, it is useful to identify the different source categories that contribute to the overall concentrations of a certain pollutant within the area of exceedance.

It was not possible to undertake a source apportionment exercise for the AQMA in Staithes, Scarborough as there was no available data regarding the previous exceedance of the AQO, and it is not possible to distinguish between domestic heating and natural sea salts.

Source apportioned NOx emissions have been calculated taking account of the different proportions of emissions emitted by different vehicle types alongside the background concentrations. Background concentrations were taken from the Defra Background Mapping for the grid references in which the AQMAs are located. Using the process set out in the air quality technical guidance (TG22) the backgrounds have been split into regional and local backgrounds.

The different ratios have been calculated using the Emission Factor Toolkit (EFT) version 10.1 available at (https://laqm.defra.gov.uk/review-and-assessment/tools/emissions-factors-toolkit.html). The air quality technical guidance (TG22) identifies that by using the EFT the information will be limited to emissions outputs for the road link by the point for which source apportionment is being completed in comparison to detailed modelling.

Traffic data was provided by the Highways Department at North Yorkshire Council for the AQMAs in Knaresborough and Selby and the traffic data for the Harrogate AQMA was taken from the Department for Transports, Road Traffic Statistics. The data was from the 2022 manual count for site number 92219.

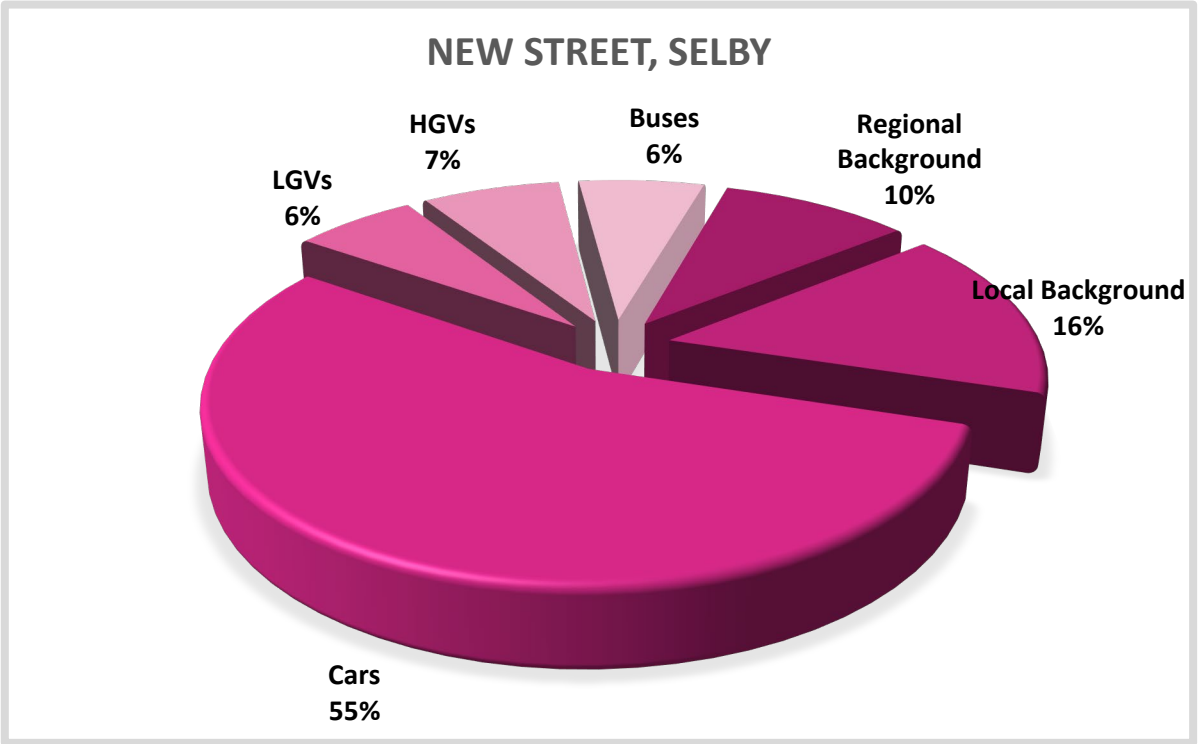
In the Harrogate and Selby analysis, cars were identified to be the main source of emissions, whereas the source apportionment for Knaresborough has identified Light Goods Vehicles (LGVs) as the main source of emissions.

This identified, within the AQMAs, the percentage source contributions which were as follows:

3.3.1 New Street, Selby – AQMA 6

Figure 4. NO_2 Source Apportionment - Selby

	Regional Background	Local Background	Cars	LGVs	HGVs	Buses
Concentration µg/m^3	3.80	6.11	21.46	2.45	2.76	2.52
% contribution	9.73	15.63	54.86	6.27	7.06	6.45



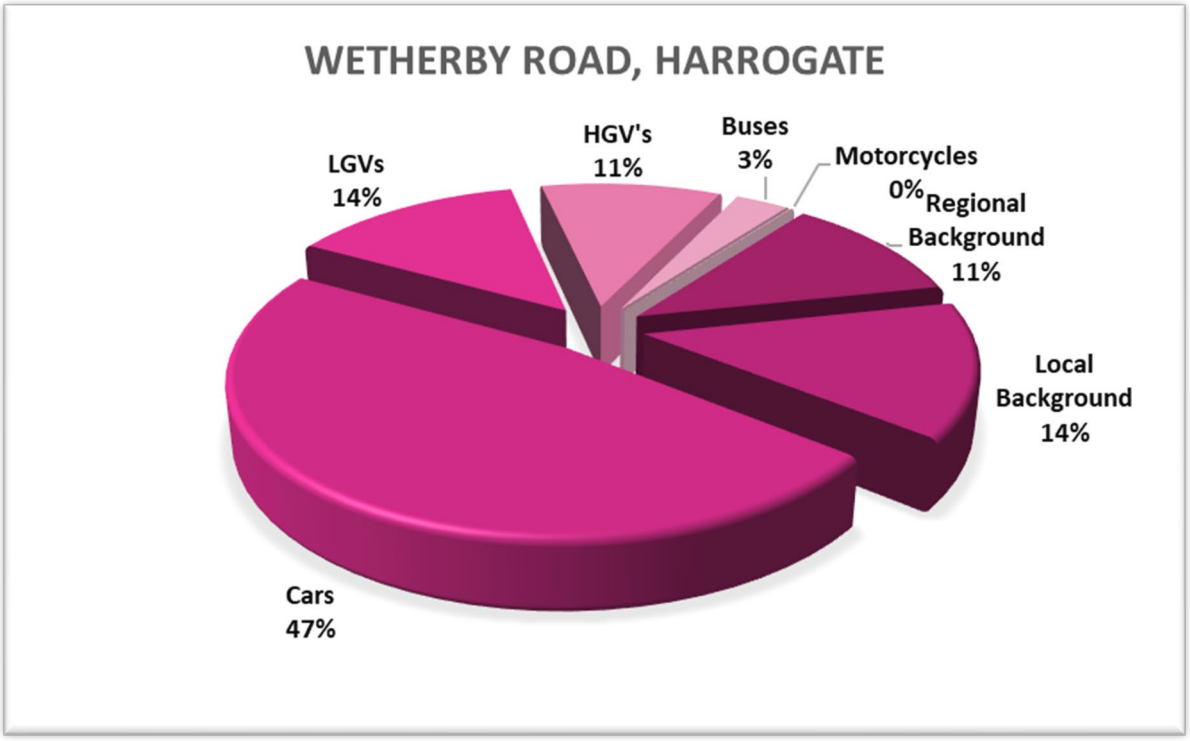
The predominant sources of emissions, as illustrated in the above data, are from road transportation. The source apportionment exercise taken from 2022 data, shows the different source categories that contribute to overall concentrations of nitrogen dioxide (NO_2); with cars representing 55% of vehicles and LGVs, HGVs and buses

together making up 19%. The required reduction in NO_2 concentrations to comply with the annual mean objective in this AQMA are discussed in Table 3.2.

3.3.2 Wetherby Road, Harrogate (AQMA 2)

Figure 5. NO_2 Source Apportionment – Harrogate

	Regional Background	Local Background	Cars	LGVs	HGVs	Buses	Motorcycle
Concentration µg/m³	3.61	4.46	15.06	4.29	3.35	0.99	0.02
% contribution	11.36	14.04	47.39	13.49	10.54	3.11	0.06

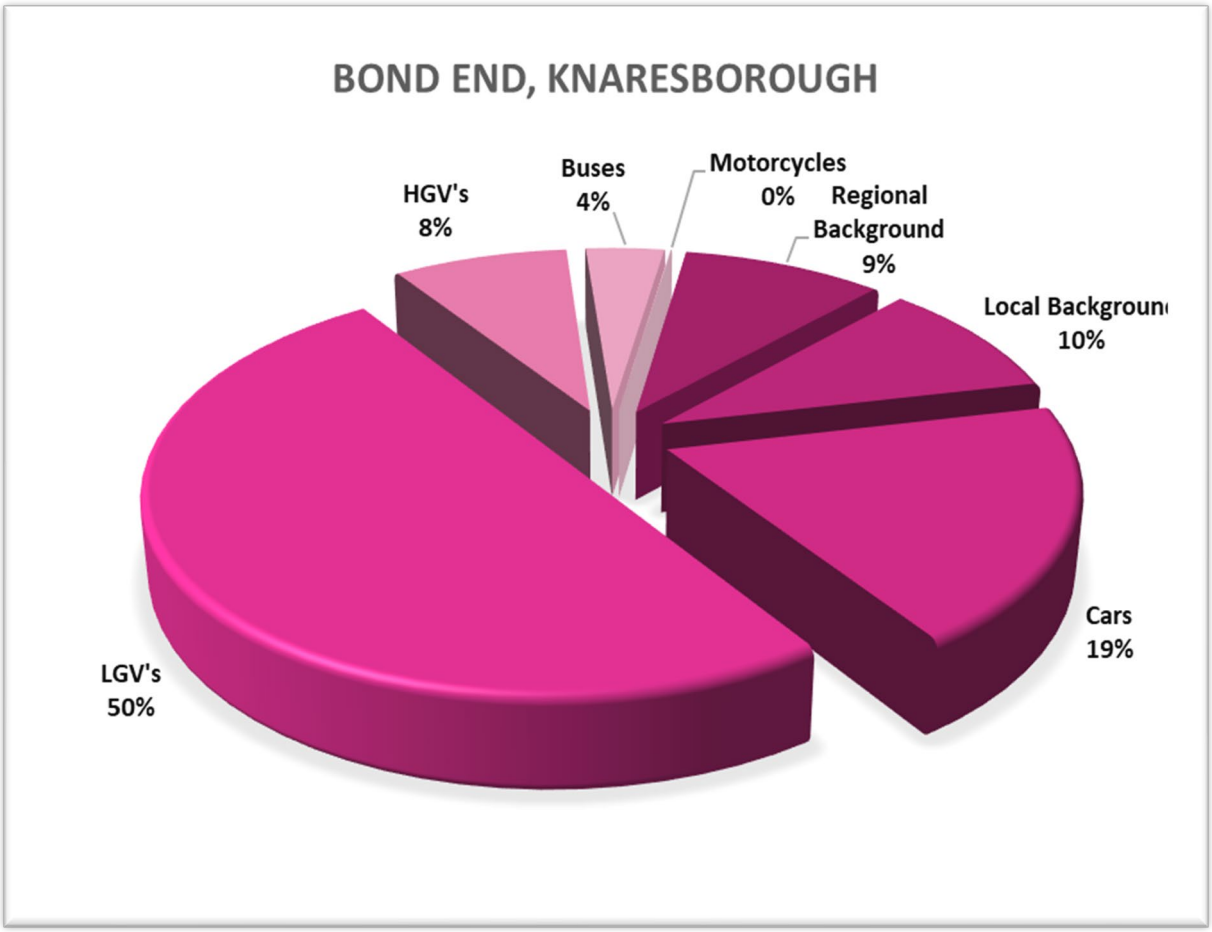


The predominant sources of emissions, as illustrated in the above data, are from road transportation. The source apportionment exercise taken from 2022 data, shows the different source categories that contribute to overall concentrations of nitrogen dioxide (NO_2); with cars representing 47% of vehicles and LGVs, HGVs and buses together making up 28%.

3.3.3 Bond End, Knaresborough (AQMA 1)

Figure 6. NO_2 Source Apportionment – Bond End, Knaresborough

	Regional Background	Local Background	Cars	LGV's	HGV's	Buses	Motorcycle
Concentration µg/m³	3.62	3.66	7.32	19.14	3.14	1.41	0.01
% contribution	9.44	9.54	19.11	49.98	8.20	3.69	0.04



The traffic counts illustrated above for Bond End, Knaresborough, do not match with previously undertaken traffic counts in the area. There is a higher percentage of LGVs, now almost 50%, where previous traffic counts have reported cars being the majority of the vehicles on the roads.

We have made enquiries with the Highways department regarding classification of vehicles, which reported that the vehicle classification adheres to the Department for Transport (DfT) UK classification scheme.

This is being highlighted as it affects the Source Apportionment exercise for Bond End, Knaresborough. The current source apportionment identifies LGVs as being responsible for 50% of emissions. The source apportionment still holds merit as it identifies that HGVs and Buses are not the main contributors in this area, and together account for only 12% of emissions.

3.4 Required Reduction in Emissions

The required reduction in emissions calculations has not been carried out for Bond End, Knaresborough, or Wetherby Road, in Harrogate due to the concentrations in these areas being less than 36 µg/m^3 (10% less than the annual mean objective). The highest concentrations recorded in 2023 are shown in table 3.1 below, illustrating compliance with the AQO; alongside these is the highest recorded concentration at New Street, Selby, which does *not* achieve the required 10% below the annual mean air quality objective.

Table 3.1 Highest Recorded Annual Mean Concentration of NO_2 in Each Retained AQMA

AQMA	Highest Recorded Annual Mean NO_2 Concentration in 2023 (µg/m^3)
AQMA 1 - Bond End, Knaresborough	33.9
AQMA 2 - Wetherby Road, Harrogate	30.9
AQMA 6 - New Street, Selby	39.8

Table 3.2 below shows the reduction in NO_2 concentrations and road NO_x emissions required at the AQMA at New Street, Selby based on 2023 measured values above. The required reduction in emissions has been calculated in accordance with Chapter 7 (Box 7.6) of the LAQM Technical Guidance 2022 (LAQM TG.22) using DEFRA's latest NOx to NO_2 Calculator Tool v10.1. The target value used in these calculations is to achieve 36 µg/m^3 and be consistently 10% below the 40µg/m^3 objective for consideration of future revocation of the Selby AQMA, based on monitoring data alone.

Table 3.2 The Reduction in NO_2 Concentrations and Road NOx Emissions Required at the AQMA at New Street, Selby

Location	NO_2 Concentrations (µg/m^3)		Road NOx Emissions (%)
	2023 Measured Concentration	Reduction Required	Reduction Required
New Street, Selby	39.8	-3.8	14.2

With the aim of reducing the emissions in the Selby AQMA we have used the emissions factor toolkit (V8.1) to calculate the reduction required by removing the HGV traffic travelling through this AQMA. This was done using 2024 traffic data and assuming no further HGV traffic was added to the calculated figures. This has resulted in a potential reduction in NOx of 4.24ug/m^3 (6.8%). Whilst this goes a good way to reducing the pollution within this AQMA a reduction of 7.2% from other targeted measures would also be needed to meet the 14.2% reduction desirable (and therefore achieving 10% below (36 ug/m^3) the annual mean objective of 40ug/mg^3).

Past AQAPs for Selby have reported on a Traffic Regulation Order being in place since 2005. This states the prohibition of heavy commercial vehicles (<7.5t) for the area of New Street and part of The Crescent (unless being used for a specific purpose) which is the key congestion spot of the AQMA. There have been suggestions that this is being regularly breached so we will be speaking with Highways and Trading Standards regarding enforcement procedures in this area.

Other reasoning for this AQMA not achieving compliance relates to the characterisation of the road network, its proximity to York and a consistently high number of local traffic journeys in this area as previously identified. This is a four-way junction with a swing bridge access point crossing the River Ouse, at the opposite side of the junction exit. The canyon style building configuration at this junction, creates an unfortunate capture point for emissions when prolonged vehicle numbers and waiting times increase at the traffic lights, or when the swing bridge is in operation.

Other suggestions at this stage include, reworking the traffic signals and an anti-idling campaign with signage to encourage drivers to turn off their engine when idle.

As previously mentioned, the new Scientific Team have purchased several real-time monitoring air quality sensors, one of which is planned for installation within the Selby AQMA. We are currently working with the transport and highways department to find a suitable and effective column (lamppost) location for installation. But with precise air quality monitoring data, this will provide more clarity on the issues with pollution in this AQMA and enable more targeted measures to be put in place to deal with the sources and timings of the problem.

3.5 Key Priorities

North Yorkshire Council's main priorities in line with our priority themes to address air quality involve:

- Selby AQMA – Continue to work on a plan of action with highways and traffic management departments to formulate a proactive plan with the aim of reducing emissions and bringing this AQMA into compliance.
- Continue to monitor all remaining AQMAs to assess whether the predicted reduction in concentrations will continue to be achieved.
- Transport and Planning - Work with strategic partners, traffic management and planning to mitigate any potential areas of concern and to seek opportunities for alternatives and improvement areas.
- Continue to monitor at other locations across the district to highlight any potential exceedances of air quality objectives and where traffic congestion is perceived to be a problem.
- Continue to encourage the uptake of alternative forms of transport to the car, through our active travel plan, improving cycling and walking opportunities, and expanding our network of EV charging points across the districts for both residents and visitors to the area.
- Raise awareness of the importance of good air quality, inform on the health impacts of poor air quality and provide guidance and information to our residents on how they can protect themselves and be part of the solution.
- To identify and reduce levels of $PM_{2.5}$ in accordance with the requirements of the Environment Act 2021[19] which sets out the long-term targets in respect of the annual mean level of $PM_{2.5}$ in ambient air (meaning outside air), being equal to or less than 10 micrograms per cubic metre by 31st December 2040.

[19] Environment Act 2021 (legislation.gov.uk)

Regulation 5 makes provision about how this is to be measured. Part 3 makes provision in relation to the population exposure reduction target.

As part of our role to understand potential levels of pollutants and to deliver clean air to our communities, NYC have purchased 6 x Aeroqual AQS1 Air Quality Stations which will be configured to measure NO_2, CO (carbon monoxide), PM (PM_{10}, $PM_{2.5}$, PM_1 and TSP (total suspended particulate)). This will go towards fulfilling the statutory requirement of the Environment Act 1995 as amended by the Environment Act 2021 and as part of NYC's Air Quality Strategy and measures for improving ambient air quality every 5 years, a duty which has recently been expanded to include National Highways.

The purchase of this equipment was funded directly by North Yorkshire Council and progress updates will be provided in future ASRs and/or in future reviews of the AQAP.

4 Development and Implementation of North Yorkshire Council's AQAP

4.1 Consultation and Stakeholder Engagement

In developing and updating this AQAP, we have worked with other local authorities, agencies, businesses, and the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in Table 4.1. In addition, we have undertaken the following stakeholder engagement:

- Sharing of the Draft Air Quality Action Plan (AQAP) amongst major stakeholders and partners within NYC
- Public consultation through NYC website

The response to our consultation stakeholder engagement is given in Appendix A: Response to Consultation.

Table 4.1 – Consultation Undertaken

Consultee	Consultation Undertaken
The Secretary of State	YES
The Environment Agency	YES
The Highways Authority	YES
All neighbouring local authorities	YES
Other public authorities as appropriate, such as Public Health officials	YES
Bodies representing local business interests and other organisations as appropriate	YES

4.2 Steering Group

A combined Steering Group has been formed that is composed of NYC officers from key service and delivery areas that can influence and have an impact on air quality improvements. This should be led by senior officers within NYC to ensure engagement at political and senior management levels across the Council and with external agencies and partners has impact and momentum. The Steering Group will include representatives from:

- NYC Environmental Health and/or Scientific Team
- NYC Trading Standards
- NYC Planning Policy and Development
- NYC Climate Action officers
- NYC Highways and Traffic Management
- NYC Public Health Officer.
- NYC Economic Development

The objectives of the AQAP Steering Group will be to provide oversight of the overall direction of the measures and actions associated with the AQAP. The members are made up of a multi-disciplinary group of stakeholders responsible for reporting on air quality, public health, transportation, and traffic management. Views will also be sought from community groups and the general public.

The Steering Group will be responsible for the implementation and monitoring of the delivery of the AQAP to ensure measures are on track and report progress back to Defra.

The steering group will outline relevant timescales, monitor progress, assess risks, and report on those measures put in place to target the reduction of AQ issues in the wider district area as well as in AQMAs. This also includes reporting on budgetary considerations and identifying any challenges faced.

The new Steering Group first met in February 2024 and will continue to meet quarterly. There will also be a ‘working group’ that will be established (as required), to address specific issues in specific areas, with particular attention to measures within

AQMAs. The main agenda items covered and any outcomes and progress from the Steering Group meetings will be recorded, and salient points covered in future ASR's.

Other authority departments (and potentially other neighbouring authorities) may be engaged, including local businesses and community groups as required to ensure stakeholder consensus and consideration of those relevant issues affecting communities are included.

Representation from the Regulatory Services Scientific Team will be made at the local Transport Board meetings to feed in Air Quality considerations at the preliminary stages. These meetings are scheduled monthly.

Following the 'bringing together' of all the former district authorities and now the combined authority body of York City Council and North Yorkshire Council, with one elected authority Mayor, comes further decision-making powers and potential funding to shape policies and projects at a regional and local level. This will facilitate a more cohesive approach to tackling air quality, helping to make North Yorkshire a better and healthier place to live, work and do business.

5 AQAP Measures

Table 5.1 shows the North Yorkshire Council AQAP measures. It contains:

- a list of the actions that form part of the plan
- the responsible individual and departments/organisations who will deliver these actions
- estimated cost of implementing each action (overall cost and cost to the local authority) where it is quantifiable
- expected benefit in terms of pollutant emission and/or concentration reduction
- the timescale for implementation
- how progress will be monitored
- and barriers to success such as combined authority set up delays, NYC transformation and re-organisation

NB: Please see future ASRs for regular annual updates on implementation of these measures

Table 5.1 – Air Quality Action Plan Measures

Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Potential Barriers to Implementation
1	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2019	2040	North Yorkshire Council	NYC/ Gov funding	NO	Partially Funded	£100k - £500k	Implementation	TBA	3161 public charge points by 2030, with NYC providing half this number.	Ongoing program to provide EV charging points across NYC's estate and car parks. Ongoing program to provide EV charging points across NYC's estate and car parks.	A countywide Electric Vehicle (EV) Infrastructure Rollout Strategy is in place. The strategy builds upon the previous Electric Vehicle Charge Point (EVCP) Deployment Study (2020) and work undertaken by NYC concerning the climate change agenda. Potential Funding and available infrastructure barriers.
2	Provision of Air Quality Information - Air Quality Campaigns and Education - signposting information on walking and cycling groups and other community groups and projects.	Public Information	Via the Internet/social media/community noticeboards and groups. Clean Air Day campaigns and School Competitions.	2023	2025	North Yorkshire Council / DEFRA / Local Schools/ Community Groups/ Councillors	NYC	NO	Funded	< £10k	Implementation	Reduced NOx emissions from limiting Vehicle use.	Sign up rate, measured and community input.	Advertising campaigns/ Poster competition / Clean Air Day Campaign / Signposting on NYC website for clean air Burn Better, Breath Better. Public awareness.	https://www.northyorks.gov.uk/environment-and-neighbourhoods/pollution/air-quality/air-quality-your-area

Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Potential Barriers to Implementation
3	Replacing conventional NYC fleet vehicle with EV alternatives.	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2019	2040	North Yorkshire Council	NYC	NO	Funded	£100k - £500k	Implementation	TBA		NYC have started to replace conventional fleet vehicles with EV. The first Phase has involved replacing Front line services vehicles and pool cars.	Funding and available infrastructure and technology.
4	Local Transport Plan 4 (LTP4)	Policy Guidance and Development Control	Other policy	2016	2040	North Yorkshire Council	NYC	NO	Not Funded		Implementation			The LTP will be updated and replaced in the next 12-18 months with a joint local transport Plan for York and North Yorkshire.	Objectives include Environment and Climate Change – managing the adverse impact of transport on the environment and Healthier Travel – promoting healthier travel opportunities known as 'active travel'.
5	National and Local Planning Policy and Guidance	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2023	2040	Yorkshire Dales National Park (YDNP) / NYC	YDNP	NO	Not Funded		Implementation			Planning regime implemented	https://www.yorkshiredales.org.uk/park-authority/living-and-working/planning-policy/local-plan-2023-40/
6	Anti-idling campaigns	Traffic Management	Anti-idling enforcement	2022	2028	North Yorkshire Council	NYC	NO	Partially Funded	£10k - 50k	Implementation	TBA	Reduction in NOx from continued monitoring.	Campaigns have been promoted periodically to raise awareness and remain on-going.	Compliance and monitoring.
7	Undertake enforcement of New Street, Selby weight restriction	Freight and Delivery Management	Route Management Plans/ Strategic routing strategy for HGV's	2022	2025	North Yorkshire Council, Trading Standards and Police	NYC	NO	Funded	£10k - 50k	Planning	TBA		In 2022 Selby District Council planned to undertake enforcement activity around contraventions of the vehicle weight limit restrictions on New Street, in partnership with North Yorkshire County Council, Trading Standards and the Police	Subject to resource which unfortunately was not available. This work will be revisited now when NYC restructure is complete
8	Real-time Air Monitoring for Particulates	Public Information	Other	2023	2025	North Yorkshire Council / Schools / Community involvement	NYC	NO	Funded	£100k - £500k	Planning	TBA	TBA	In Progress, planning stage.	Selection of appropriate locations/have required install infrastructure.
9	Improving Cycle Routes and Facilities	Transport Planning and Infrastructure	Cycle network	2023	2028	North Yorkshire Council and Local infrastructure Developers	NYC and Local infrastructure Developers	NO	Not Funded	£100k - £500k	Planning			This is an ongoing work programme, with many routes now identified through the LCWIP process	Funding.

Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Potential Barriers to Implementation
10	Enforcement of the Air Quality (domestic Solid Fuel Standards) (England) Regulations 2020	Public Information	Via the Internet	2023	2040	North Yorkshire Council – Trading Standards – Env. Health / DEFRA	NYC	NO	Not Funded		Implementation		Enforcement records.	All sellers identified in NYC area. Continued advice during 2024/25 to achieve compliance for sellers and the General Public. A review will then take place on any non-compliance and (subject to funding) a test purchase prog. undertaken, with a view to escalation of formal action.	Visibility on NYC website & social media platforms, appetite for change and economical challenges
11	Transformation Scheme - (Strategic Improvements in towns of Harrogate, Selby, and Skipton)	Traffic Management	Strategic highway improvements and Re-prioritising Road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2023	2030	NYC/West Yorkshire Combined Authority/ Transforming Cities Fund (TCF)	NYC/ WYCA/ TCF	NO	Funded	> £10 million	Planning	TBA	TBA	Planning Consultations carried out with some planning applications approved.	https://www.northyorks.gov.uk/uk-shared-prosperity-fund/sport-and-active-travel-programme
12	Taxi Policy Updates	Promoting Low Emission Transport	Taxi Licensing conditions	2023	2040	North Yorkshire Council	NYC	NO	Not Funded		Implementation		Reduction of NOx. Number of vehicles converted.	Issued policy and all vehicles subject to review. Further policy review also underway to incorporate further measures.	Hackney Carriage Private Hire Policy 2023 (northyorks.gov.uk)
13	Develop Policies to Support Better Air Quality	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance. Low emission strategy, other policies, regional groups	2024	On-going	NYC	NYC	No	Not funded yet	TBC	Planning	TBC	TBA		
14	Control Domestic Emissions	Promoting Low Emission Plant	Regulations, Planning Policy	2024	On-going	NYC	NYC	No	n/a	n/a			Strategic measure to assist with reduction of AQ pollution in AQMAs	Increase in insulation in new homes and better EPC ratings.	Costs and buy in.
15	Review of Smoke Control Areas	Promoting Low Emission Plant	Regulations, Planning Policy	2024	On-going	NYC	NYC	No	n/a	n/a	Planning	TBC	Implementation of new enforcement methods / reduction of the amount of nuisance complaints	Exploratory phase	Government's future Air Quality Plans: a) An extension of existing SCA's smoke emission standards to apply to the whole of England b) The provision of new powers for local authorities to respond

Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Potential Barriers to Implementation
															to instances of nuisance smoke pollution with improvement and enforcement action
16	Bus Service Improvement Plan	Policy Guidance and Development Control	Other policy	2021	2040	NYC	NYC	No	Funded	TBC	On-going	TBC	• Increase overall customer satisfaction on services in North Yorkshire • Increase passenger numbers countywide 3% by 2030. • Improve punctuality in the three main urban centres of Harrogate, Selby, and Scarborough • Maintain and improve the current >95% reliability across all services in North Yorkshire. • 25% fleet zero emissions by 2030 and 60% by 2035.	£12 million spending from funding from DfT and NYC in 2023/24.	A new mayoral combined authority was established in February 2024 meaning North Yorkshire and City of York will receive devolved funding for transport, education, and business support, alongside a Mayoral Investment Fund worth £540m (£18m per year over 30 years).
17	Zebra Buses Harrogate	Promoting Low Emission Transport	Other	2023	2024	Private Company/ Local Authority, DfT	Private Company, DfT	No	Funded	£10m/>£10m	Implementation	Reductions in NO_2 and PM	Number of electric buses replacing existing diesel buses	Buses were ordered order in 2023, about to be delivered and are expected to operate on routes in the next few months.	– the electric buses will operate on Route 1, between Harrogate and Knaresborough and will pass through the AQMA at Bond End, Route 7 (Harrogate, Wetherby and Leeds) passing through the AQMA at Wetherby Road, Harrogate, Rout 36 (Leeds, Harrogate, Ripon), though the former AQMA at Skellgate, Ripon, and Route 24 between Harrogate and Pateley Bridge.
18	Encouraging farmers to reduce ammonia emissions by following the Code of Good	Public information	Via the internet	2025		NYC	NYC	No	N/A	N/A	Planning	Reductions in NO_2, NH_3 and PM.	Raising awareness of the air quality issues associated with many farming practices and the financial incentives available to	Exploratory phase	Agriculture is a major source of nitrous oxide, methane and ammonia in the UK, accounting for 70% of nitrous oxide emissions, 49% of methane emissions and 87% of ammonia emissions in 2022.

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	Agricultural Practice for Reducing Ammonia Emissions												promote more sustainable practices and improve efficacy of fertiliser usage etc.		No direct regulatory powers over agriculture and air quality emissions.

Appendix A: Response to Consultation

Table A.1 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response
Neighbouring Local Authority	Air Quality Action Plan Measures	Seems a good report, the only suggestion I have is the possible inclusion of a further discussion detailing why those measures have been selected, why they have been included in the order they have and are they targeting any specific area such as a particular AQMA. Thanks.
Public	Review of Smoke Control Areas	An excellent idea, at last action on log burners.
Public	Traffic management	If the speed of traffic was not artificially slowed, then the air quality would improve. 20mph speed limits are not the answer neither are artificial chicanes and speed bumps. By all means have 20mph around schools but only at appropriate times and controlled by the school itself. It is ridiculous that these are imposed for every single day of the year.
Public	Monitoring Location	I am not convinced that Bedale is a good place for the air quality measurements. Northallerton appears to have more traffic and industry so this would be a better site to measure air quality.

Consultee	Category	Response
Public	Monitoring Location	I assume you monitor all over the county and the Air Quality Management Areas are the worst locations for pollution. To be able to revoke half of these areas is good news. It is also good that the monitoring continues, especially with all the new houses that are being built, which will see an increase in cars.

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Appendix B: Reasons for Not Pursuing Action Plan Measures

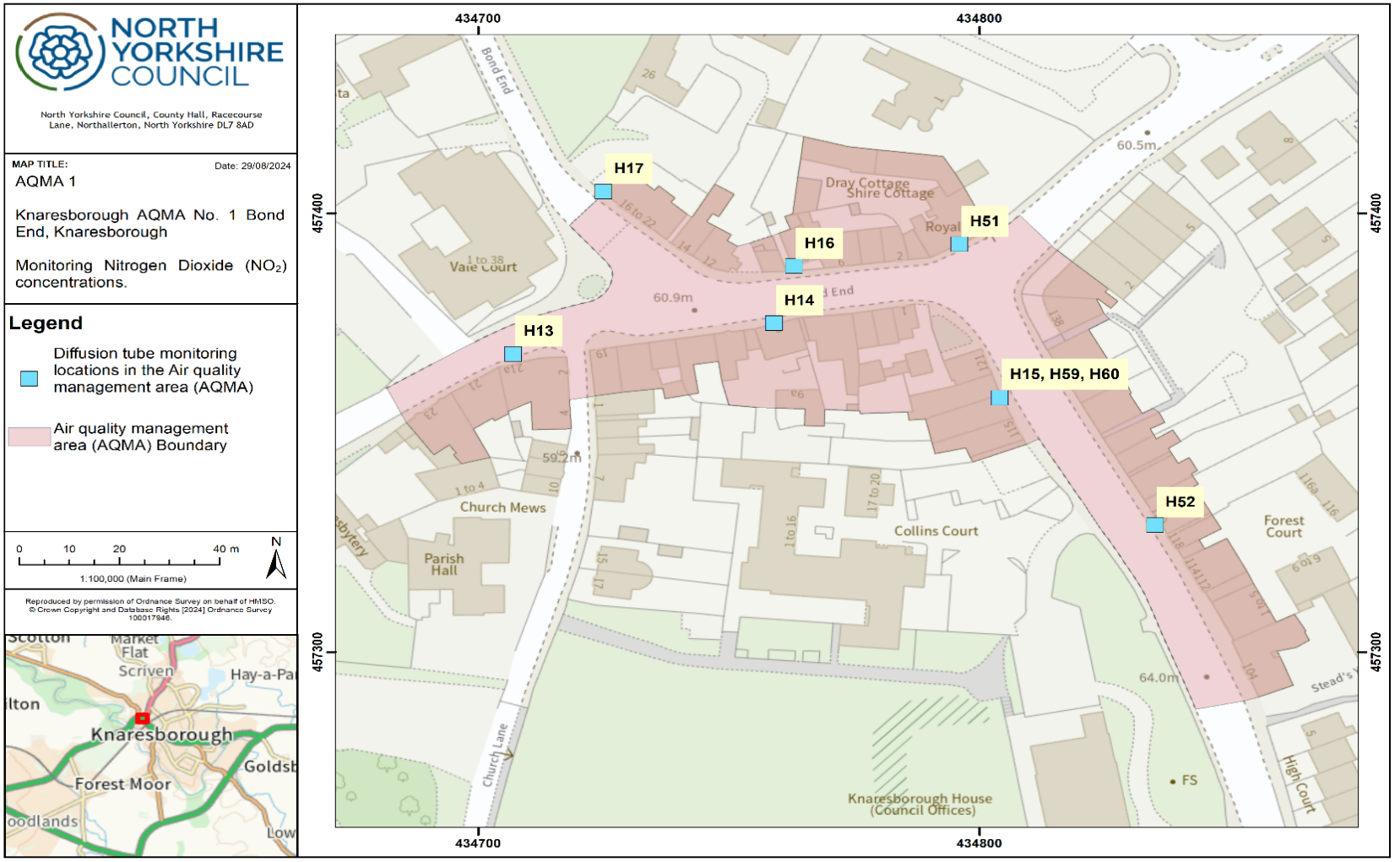
Table B.1 – Action Plan Measures Not Pursued and the Reasons for that Decision

Action category	Action description	Reason action is not being pursued (including Stakeholder views)
Traffic Management	Bedale Aiskew Leeming Bar bypass scheme	The bypass has been completed, and monitoring has shown that concentrations are well below the air quality objective.
Traffic Management	A168 Thirsk junction improvement scheme	The junction improvement scheme at this location has been completed. Monitoring has shown that concentrations are more than 15µg/m^3 below the annual mean objective.
Traffic Management	Bond End junction improvement	The junction improvement scheme at this location was completed in 2018, so it is no longer appropriate to keep in the Action Plan measures.

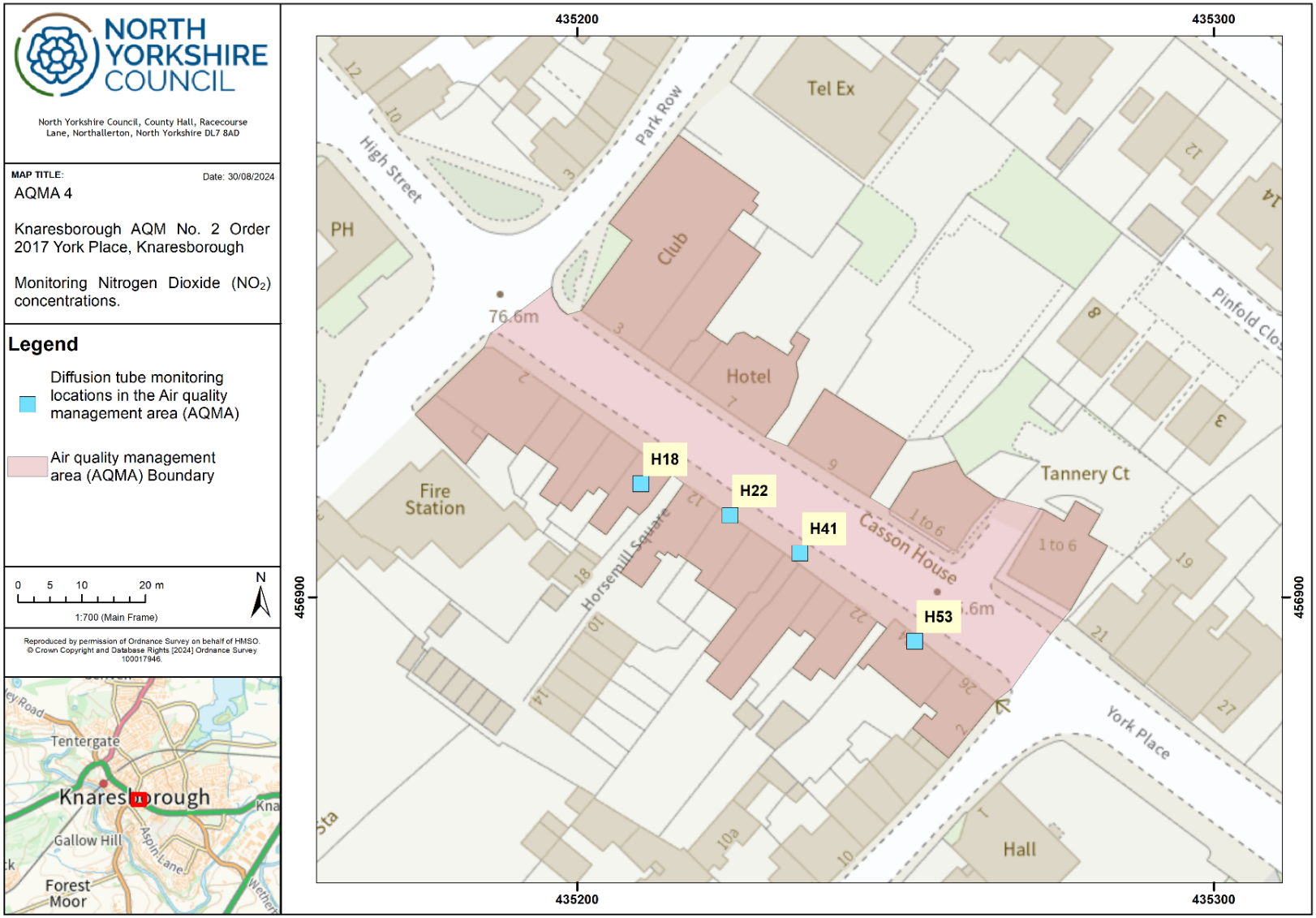
To be completed following consultation.

Appendix C: AQMA Maps

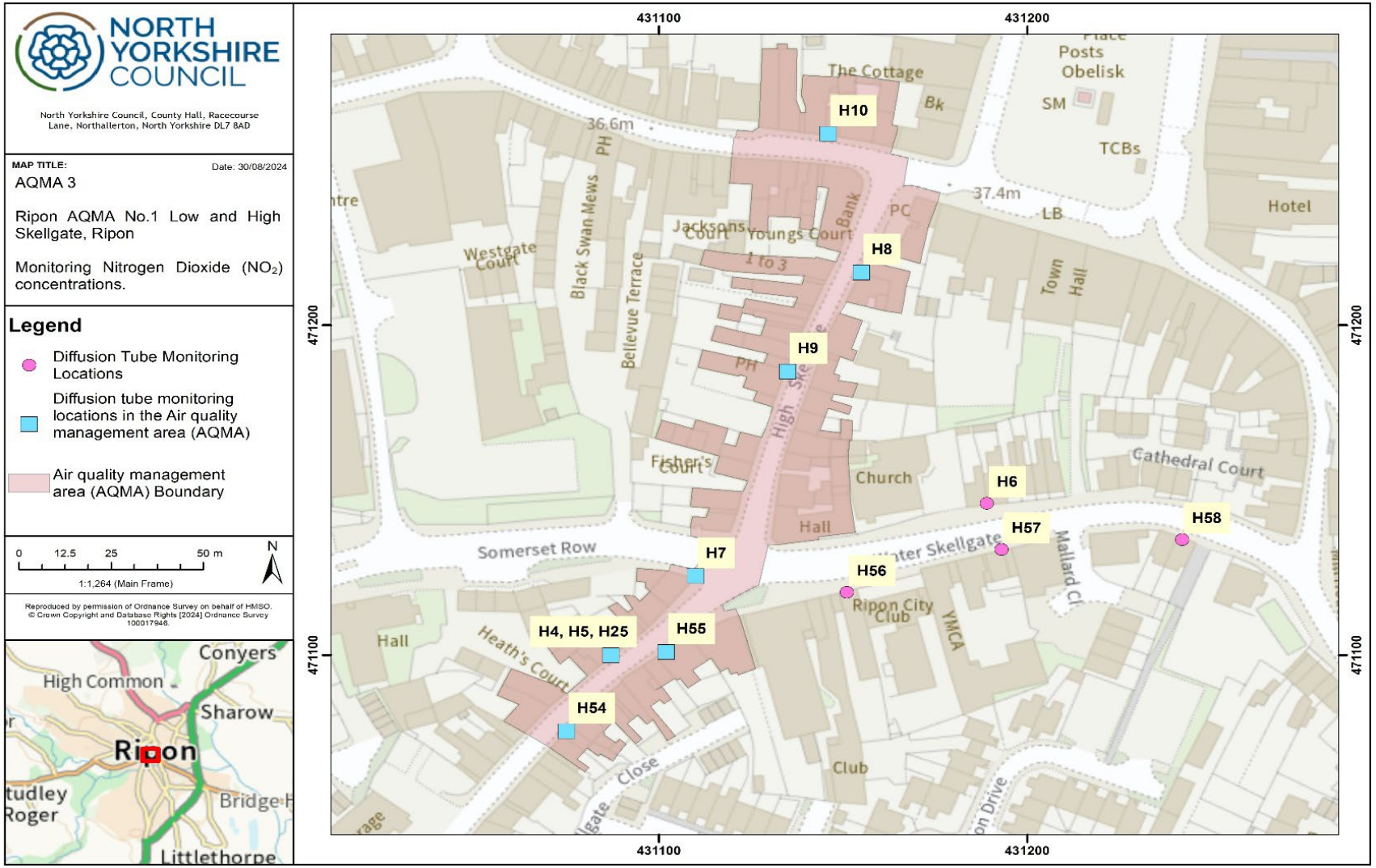
AQMA 1 – Bond End, Knaresborough – AQMA to be retained for Continued Monitoring.



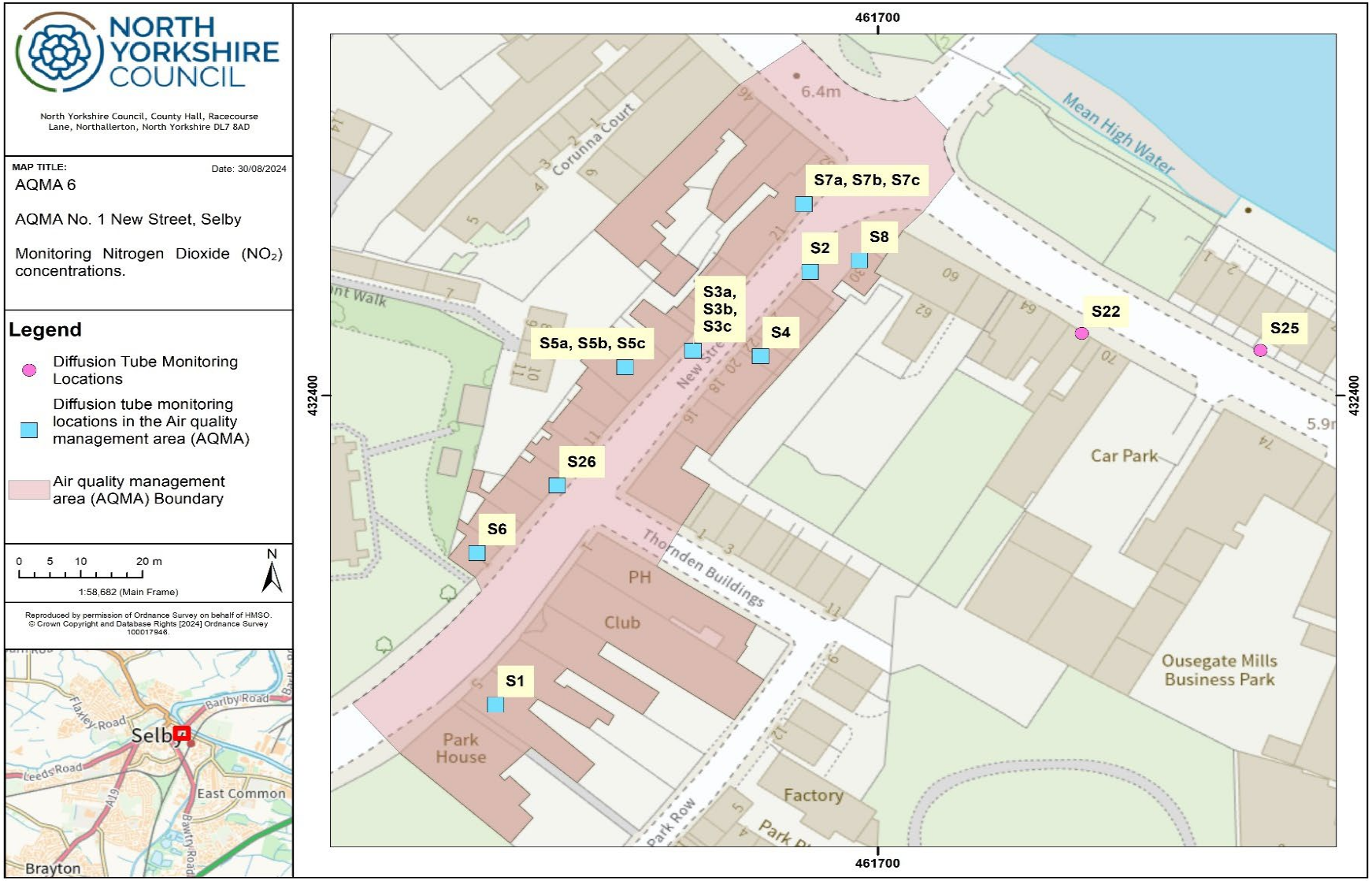
AQMA 4 – York Place Knaresborough – To be Revoked due to 5-year compliance with the AQO.



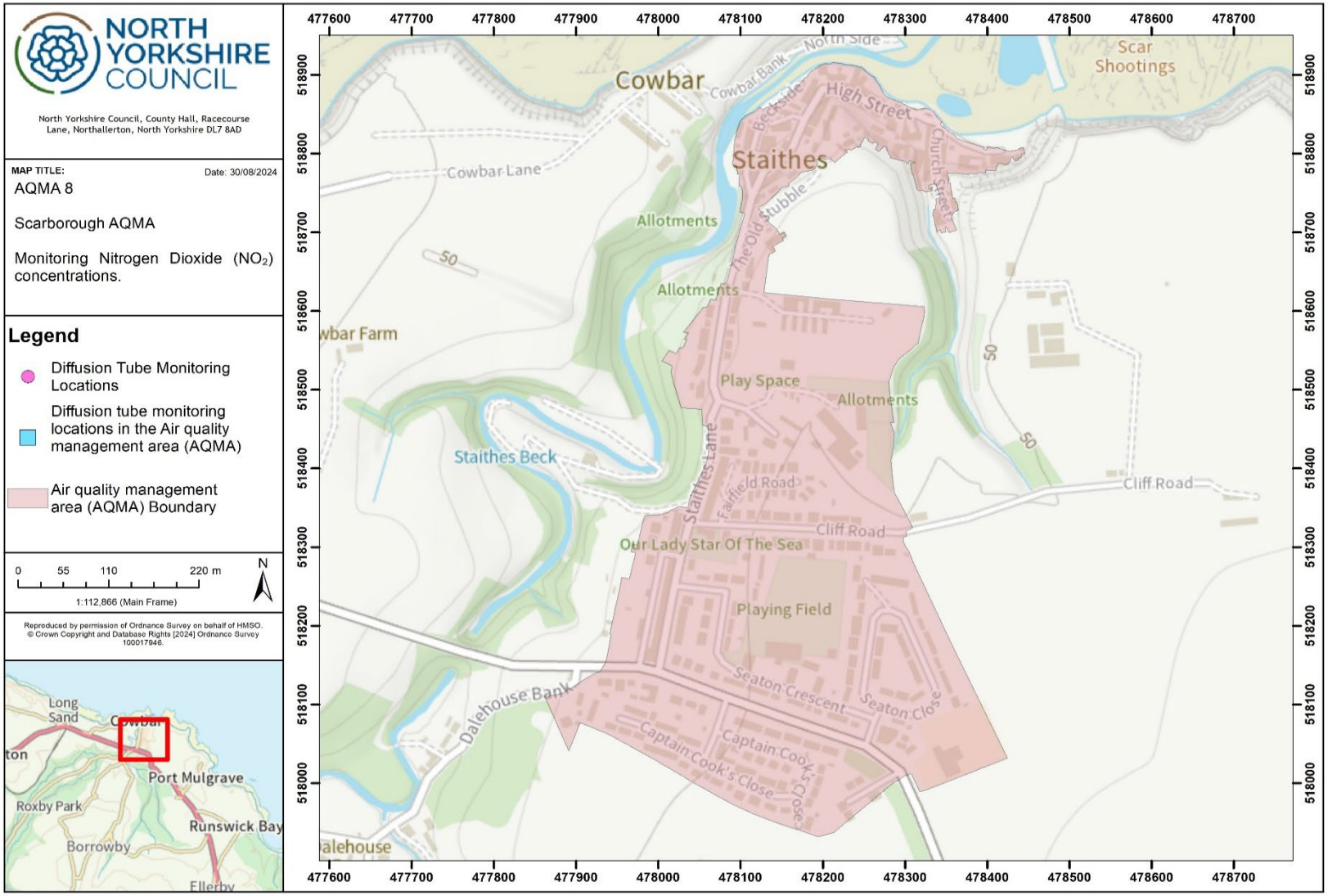
AQMA 3 Ripon – To be Revoked due to 5 years compliance with the AQO.



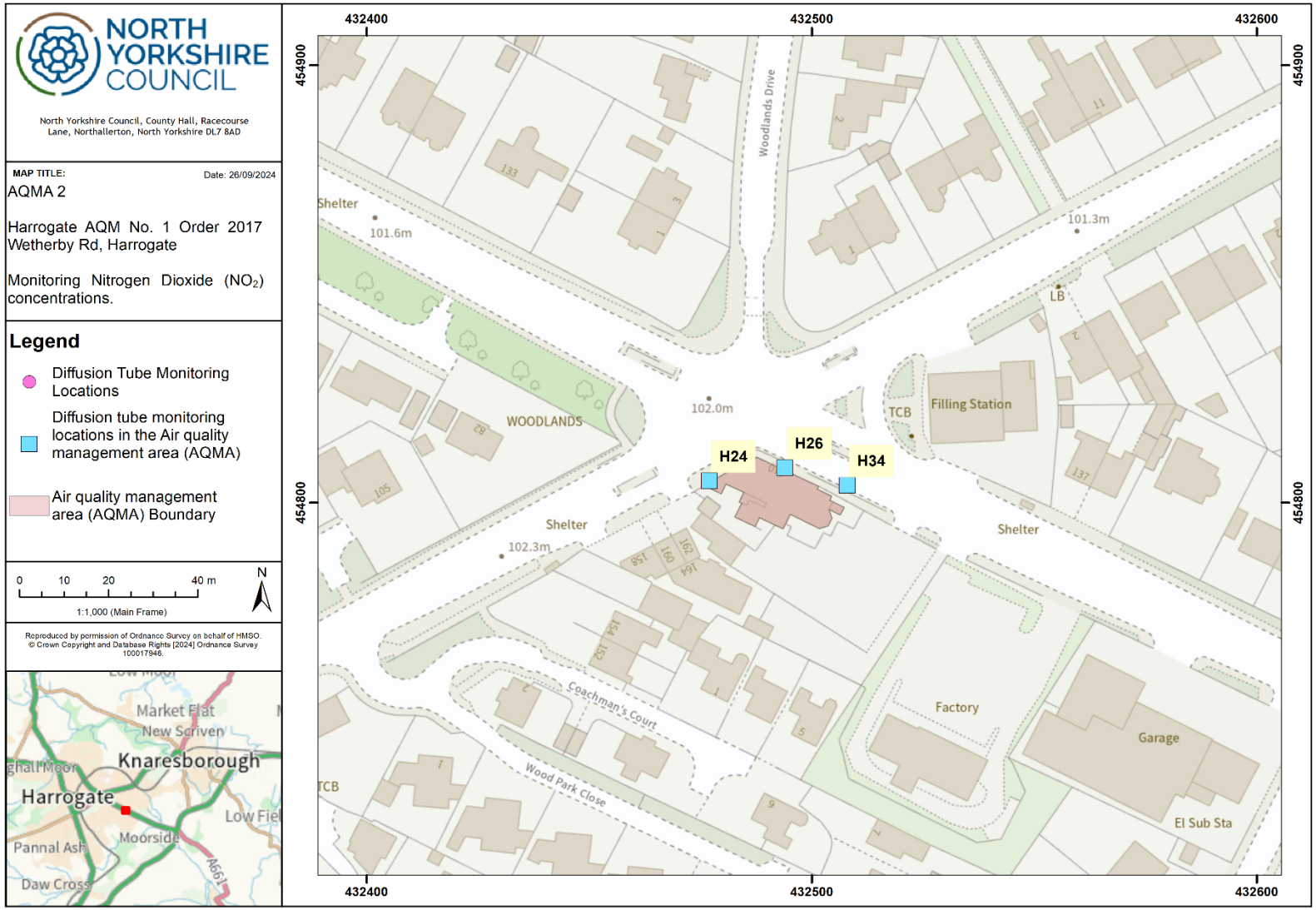
AQMA 6 – Selby – AQMA to be retained for Continued Monitoring.



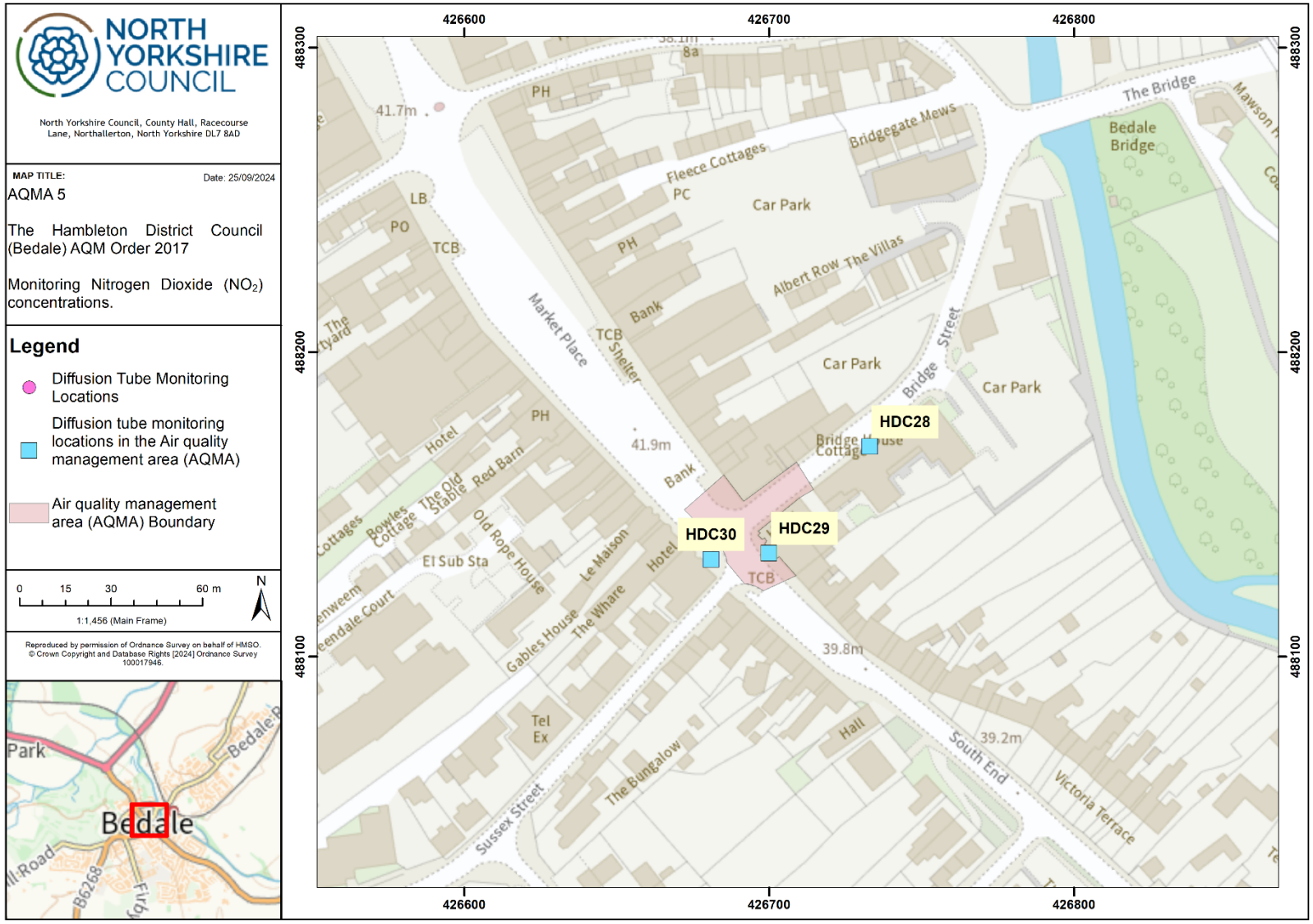
AQMA 8 – Scarborough, The Village of Staithes – Reinstated monitoring for PM_{10}.



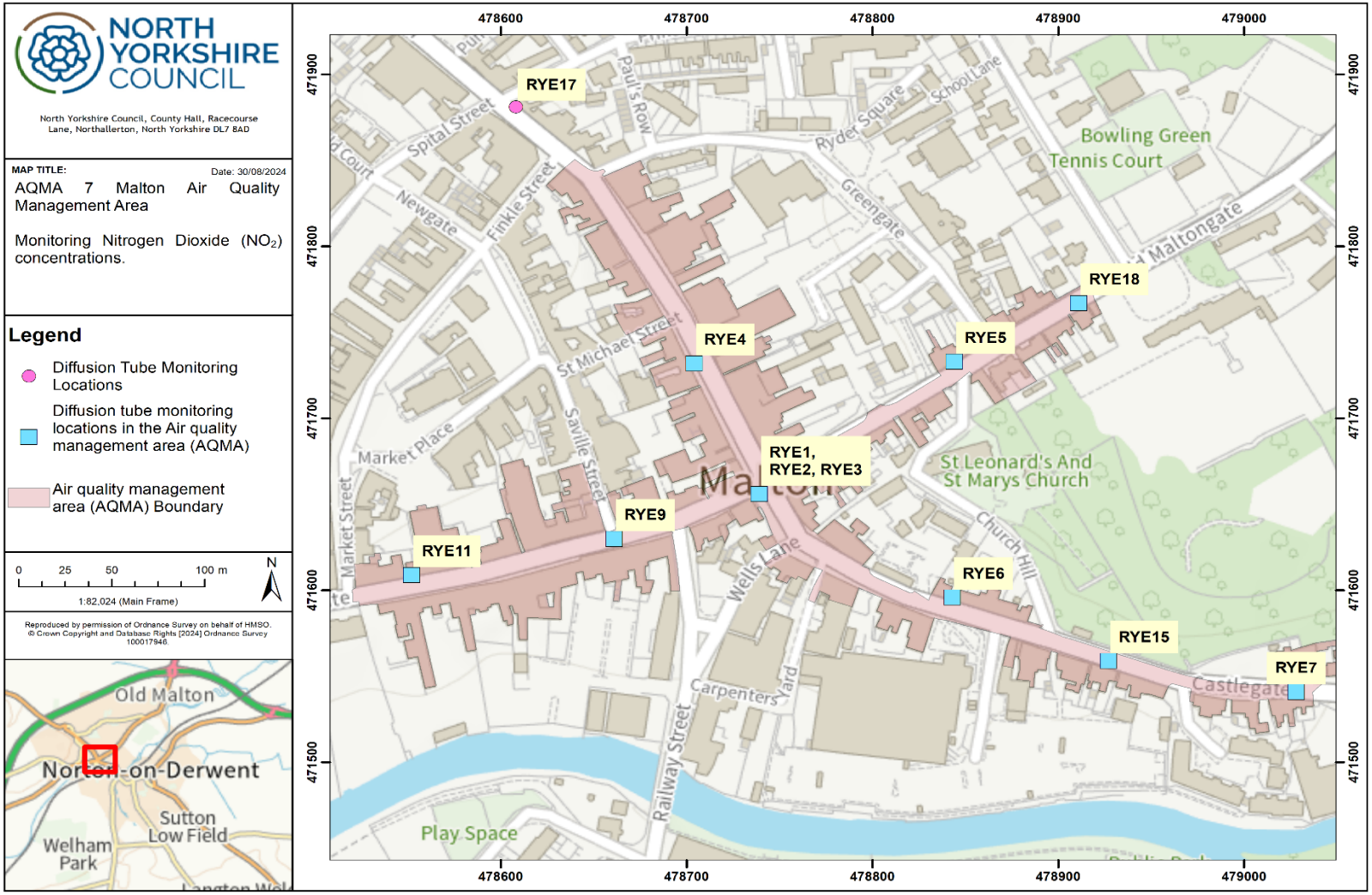
AQMA 2 – Wetherby Road, Harrogate – Continued Monitoring



AQMA 5 – Bridge Street, Bedale – To be Revoked due to 5-year compliance with the AQO



AQMA 7 – Malton – To be Revoked due to 5-year compliance with AQO



Appendix D: Local Plans and policies that relate to Air Quality

Former District Area	Local Plan	Policy within local plan relating to Air Quality	Policy	Link
Craven	2012 - 2032	Policy ENV7: Land and Air Quality	Growth in Craven will help to safeguard and improve air quality in the following ways: a) Development will avoid severe residual cumulative impacts of traffic congestion and wherever possible, will help to ease existing traffic congestion. b) The location, layout and design of development will encourage walking, cycling and the use of public transport, and green travel plans will promote reductions in car use. c) The location, layout and design of development will avoid or reduce harmful or unpleasant emissions from buildings, and mitigation measures will be introduced where necessary.	Craven Local Plan
Hambleton	2019 - 2035	RM 4: Air Quality	The Council will seek to protect and improve air quality within the district. Proposals will be categorised based on the extent to which there is potential for adverse air quality impacts. Categorisation will be based on factors including the: a) scale and nature of the proposed development. b) type and volume of traffic generation and whether production of a travel plan, travel assessment or travel statement are required, in relation to the requirements of policy CI2 'Transport and Accessibility'; c) requirement for assessments, such as an environmental impact assessment or habitats regulations assessment, that could indicate the potential for adverse air quality impacts. d) location of the site in relation to designated air quality management areas (AQMA), clean air zones (CAZ) or identified areas of air quality concern; and e) extent to which people or sensitive receptors may be exposed to poor air quality.	https://democracy.hambleton.gov.uk/documents/s15267/Hambleton%20Local%20Plan%20Publication%20Draft.pdf

			The categorisation, consideration factors and air quality impact assessment, where required, will determine whether mitigation measures are necessary and the form they need to take. Development will only be supported where the location of the proposed development does not adversely affect a special area of conservation (SAC), special protection area (SPA) or Ramsar site within or close to the local plan area by way of increased air pollution. This includes increases in traffic on roads within 200m of a SAC, SPA or Ramsar site that is vulnerable to nitrogen deposition/ acidification. Where mitigation measures are necessary the proposal will only be supported where they will be implemented and, as necessary, maintained. Where adequate mitigation measures are not possible, compensatory measures may be appropriate.	
Harrogate	2014–2035	Policy NE1: Air Quality	Applicants must submit an air quality assessment and/or a dust assessment report and identify mitigation measures to ensure no significant adverse effects where development may: a) Affect the air quality management areas (AQMAs) at Bond End, Knaresborough; High and Low Skellgate, Ripon; Woodlands Junction at Hookstone Chase, Harrogate; and York Place, Knaresborough; or at any other AQMAs designated over the course of the plan period. b) Create emissions of dust during demolition, earth moving and construction, or through site operations associated with mineral extraction, waste disposal or agriculture. c) Impact on the air quality of a special area of conservation (SAC), special protection area (SPA), or site of special scientific interest (SSSI), or on a non-statutory site where there is a relevant sensitivity; or d) Create significant amounts of traffic, as determined through a transport assessment and/or air quality modelling specific to the proposal. Mitigation measures should ensure consistency with the council's Air Quality Action Plan and the Habitats Regulation Assessment where impacts are related to the diversity of ecosystems; and where	https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020024/EN020024-000615-North%20Yorkshire%20Council%20-%20Responses%20to%20the%20Examining%20Authority%E2%80%99s%20Written%20Questions%20(ExQ1).%204.pdf

		Air Quality Supplementary Planning Document (SPD)	impacts are traffic related, the current North Yorkshire Local Transport Plan. Provides additional supporting information for developers where development may have an adverse impact on air quality, and what should be considered when undertaking an air quality assessment or traffic assessment and what mitigation measures could be required to minimise the impact.	https://www.northyorks.gov.uk/sites/default/files/2023-03/Air%20quality%20SPD%202021%20-%20accessible.pdf
Richmondshire	2012–2028	Core Policy CP3: Achieving Sustainable Development	Support will be given for sustainable development which promotes: a) the efficient use of land and infrastructure including developments with a sustainable and complementary mix of uses. b) the conservation of scarce resources and reduction of their use, and encouragement of the use and re-use of sustainable resources. c) the health, economic and social well-being, amenity, and safety of the population. d) a reduction in social inequalities and disadvantages within the community. e) the quality of natural resources including water, air, land, and biodiversity and minimises the impacts of airborne pollution; f) the protection of the best and most versatile agricultural land; g) the natural drainage of surface water mitigating the effects of flash flooding of rivers, drains and drought; h) the vitality of the area; i) a high quality and adaptability of development; j) the character and quality of local landscapes and the wider countryside. k) the distinctiveness, character, townscape and setting of settlements. l) the historic, environmental, and cultural features of acknowledged importance. m) the provision of essential services to the public.	https://www.northyorks.gov.uk/sites/default/files/fileroot/planning_migrated/planning_policy/core-strategy-2012-28.pdf

			n) the reduction of waste, the promotion of recycling and the provision of suitable and accessible sites which foster sustainable waste management. Development proposals will be encouraged to re-use or adapt existing buildings. Where this is not practicable or is shown to be a less sustainable solution, proposals should seek to reuse existing materials, where possible. Development will be encouraged to utilise previously developed land first (brownfield land), where that land is in a sustainable location and is not of high environmental value, in preference to greenfield sites. The use and development of land will be assessed against the community's housing, economic and social requirements. The sustainability and enhancement of the natural and built environment, minimisation of energy consumption and the need to travel will also be key factors. Development that would significantly harm the natural or built environment, or that would generate a significant adverse traffic impact, without appropriate mitigation, will not be permitted. Development Proposals will be expected to provide an appropriate risk assessment and remediation strategy that addresses any issues of land contamination or land instability arising from past uses or activities. Where relevant non-mineral development is proposed within Mineral Safeguarding Areas defined by the mineral planning authority, the local planning authority will expect consideration to be afforded to the extraction of the mineral resource prior to development. Development and the provision of services should, as far as possible, be located so as to minimise the need to travel. Convenient access via foot, cycle and public transport should exist or be provided, where possible, encouraging the use of these modes of travel for local journeys and reducing the need to travel by private car and improving the accessibility of services to all. Transport schemes that lead to improvements in accessibility will be supported. The potential for more sustainable means of transport related to the uses and users of the development must be addressed. This includes the preparation of	

			travel plans and consideration of the scope to utilise local sourcing of materials and supply chains. The use of locally reclaimed and the re-use of more sustainable building materials will be supported, where appropriate, where this does not harm the character and appearance of historic and environmental assets.	
Ryedale	2012 - 2027	SP 17 Managing Air Quality, Land and Water Resources	Air Quality will be protected and improved by: • Locating and managing development to reduce traffic congestion and air pollution and promote the use of alternative forms of travel to the private car. • Supporting measures to encourage non- car-based means of travel or the use of low emission vehicles. • Reducing air quality emissions from buildings through renewable energy provision and sustainable building standards in line with policy SP18. • Requiring development proposals within or adjoining the Malton Air Quality Management Area to demonstrate how effects on air quality will be mitigated and further human exposure to poor air quality reduced. All development proposals within or near to the Air Quality Management Area which are likely to impact upon air quality, which are sensitive to poor air quality, or which would conflict with any Air Quality Action Plan will be accompanied by an Air Quality Assessment. • Only permitting development if the individual or cumulative impact on air quality is acceptable and appropriate mitigation measures are secured.	https://democracy.ryedale.gov.uk/documents/s8323/Local%20Plan%20Strategy_Final_version.pdf
Selby	2022 - 2040	Policy NE7 – Air Quality	A. Development will not be supported where it; 1. Results in further significant air quality deterioration, or the need to declare further Air Quality Management Areas (AQMAs); and 2. Results in any increase in the number of people exposed to poor air quality; and 3. Conflicts with elements of an Authority Air Quality Action Plan (AQAP). B. Developments will only be permitted if the impact on air quality is acceptable, and mechanisms are in place to mitigate adverse	https://democracy.selby.gov.uk/documents/s16614/Appendix%201%20Publication%20Local%20Plan.pdf

			impacts and prevent further exposure to poor air quality. This will help to protect human health. C. This will be achieved by: a) All developments promoting the uptake of low emission mitigation (such as through electric vehicle charging provision) and supporting sustainable travel to reduce air quality impacts. b) Developments in or affecting an Air Quality Management Area or where pre-application discussions have indicated that the development could result in the designation of an Air Quality Management Area or where the grant of planning permission would conflict with, or render unworkable, elements of the Authority Air Quality Action Plan, applicants must submit an Air Quality Assessment and/or a Dust Assessment Report and identify mitigation measures to ensure no significant adverse effects where development may: i) Involve agricultural developments which have the potential to produce ammonia emissions and particulates which could affect residents; or ii) Create emissions of dust during demolition, earth moving and construction, or through site operations associated with mineral extraction, waste disposal or agriculture; or iii) Impact on the air quality of a Special Area of Conservation (SAC), Special Protection Area (SPA), or Site of Special Scientific Interest (SSSI), or on a non-statutory site where there is a relevant sensitivity. iv) Create significant amounts of traffic (the level at which it has the potential to increase local air pollution, either individually or cumulatively), as determined through a Transport Assessment and/or air quality modelling specific to a planning application; or A. Mitigation measures should ensure consistency with the Council's Air Quality Action Plan and the Habitats Regulation Assessment where impacts are related to the diversity of	

			ecosystems, and where impacts are traffic related, the North Yorkshire Local Transport Plan.	
Scarborough	2023 - 2040	Policy ENV 3 Environmental Risk	Environmental Risk Proposals will be expected to mitigate against the implications of environmental risk and the effects of climate change. This will be achieved by: a) avoiding development in high flood risk areas by following a sequential approach in giving priority to lowest risk areas as identified by the North-East Yorkshire Strategic Flood Risk Assessment or any subsequent update or replacement. Where the Sequential Test cannot be passed, the Exception Test should be utilised to demonstrate whether the development's wider benefits to the community outweigh the flood risks, whether the development can be made safe, and whether it has, wherever possible, reduced flood risk overall; b) seeking opportunities from new development that may help to reduce the causes and impacts of flooding, and safeguarding land which is needed for flood risk management purposes (as identified in DEFRA's Programme of flood and coastal erosion risk management schemes and other Environment Agency or Lead Local Flood Authority documents); c) ensuring water supply and water resources are managed and water efficiency measures are incorporated to reduce resource need, in line with the Environment Agency's licensing strategies. d) using mitigation measures such as Sustainable Drainage Systems where possible to facilitate development in areas of sensitive drainage and to meet the requirements of the Water Framework Directive. e) ensuring development has adequate provision for foul and surface water disposal in advance of occupation. f) ensuring development does not lead to pollution of controlled waters in line with the requirements of the Water Framework Directive. g) requiring development to manage waste from the site (both during construction and operation) in a sustainable way consistent with the waste hierarchy.	https://www.northyorks.gov.uk/sites/default/files/fileroot/planning_migrated/planning_policy/DRAFT_LOCAL_PLAN_JAN_2023__0.PDF

			h) requiring the remediation or mitigation of contaminated or unstable land to reduce unacceptable risks to the environment through development. i) monitoring and seeking to maintain good ambient air quality standards; and j) ensuring development does not contribute to or exacerbate coastal erosion and/or landslip and ensuring development is not exposed to the risks of coastal erosion and/or coastal flooding.	

Appendix E: Five-year Diffusion Tube monitoring results for the AQMAs

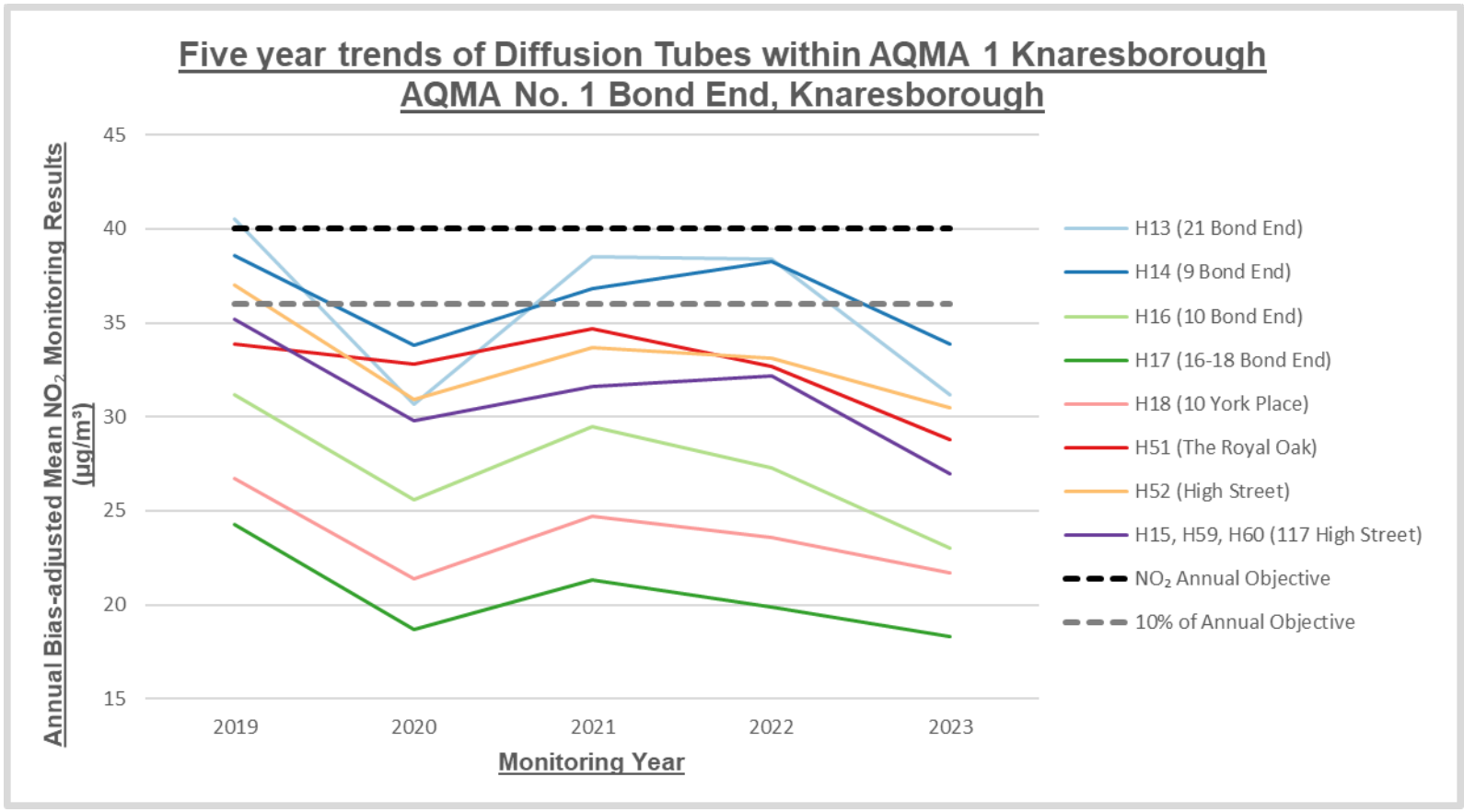
AQMA	Diffusion Tube ID	Diffusion Tube location	Annual Bias-adjusted Mean NO_2 Monitoring Results (µg/m³)				
			2019	2020	2021	2022	2023
AQMA 1 Knaresborough AQMA No. 1 Bond End, Knaresborough	H13	21 Bond End, Knaresborough	40.5	30.7	38.5	38.4	31.2
	H14	9 Bond End, Knaresborough	38.6	33.8	36.8	38.3	33.9
	H16	10 Bond End, Knaresborough	31.2	25.6	29.5	27.3	23
	H17	16-18 Bond End, Knaresborough	24.3	18.7	21.3	19.9	18.3
	H18	10 York Place, Knaresborough	26.7	21.4	24.7	23.6	21.7
	H51	The Royal Oak, Knaresborough	33.9	32.8	34.7	32.7	28.8
	H52	High Street, Knaresborough	37	30.9	33.7	33.1	30.5
	H15, H59, H60	117 High Street, Knaresborough	35.2	29.8	31.6	32.2	27
AQMA 2 Harrogate AQM No. 1 Order 2017 Wetherby Rd, Harrogate	H24	Woodlands Pub, Hookstone Drive	25.4	20.8	22.7	23.1	19.3
	H26	Woodlands Pub, Wetherby Road	35.9	31.3	31.7	31.8	27.9
	H34	Woodlands Pub, Lamppost, Wetherby Road	26.8	22.1	24	23.5	19
AQMA 3 Ripon AQMA No.1 Low and High Skellgate, Ripon	H7	1 Low Skellgate, Ripon	24.9	19.2	22.5	19.5	18.3
	H8	24 High Skellgate, Ripon	29.8	23.1	30.1	26.3	23.4
	H9	9 High Skellgate, Ripon	28.7	22.1	27.1	25.6	23.2
	H10	3a Westgate, Ripon	27.4	22.4	25.3	21.5	19.6
	H4, H5, H25	5 Low Skellgate, Ripon	35	28.9	33.3	32.4	28.4
	H54	30 Low Skellgate, Ripon	28.2	22.3	27.6	24.9	22.1

	H55	35 Low Skellgate, Ripon	28.5	24	25.3	26.3	22.8
AQMA 4 Knaresborough AQM No. 2 Order 2017 York Place, Knaresborough	H22	14 York Place, Knaresborough	34.9	27.3	28.9	29.7	25.9
	H41	16 York Place, Knaresborough	28.3	23.9	27.7	26.3	23.1
	H53	The Old Tannery, York Place, Knaresborough	26.8	23.3	26.1	24.9	21.5
AQMA 5 The Hambleton District Council (Bedale) AQM Order 2017	HDC28	Bridge Street, Bedale	20.7	16.5	19.1	18.5	17.1
	HDC29	White Bear Hotel, Bedale	30.4	22.1	23.2	18.1	13.5
	HDC30	Commerce House, Bedale	23.3	17.1	15.8	16.1	15.2
AQMA 6 AQMA No. 1 New Street, Selby	S6	Preston Baker / Hairdresser, New Street	26.4	20.6	24.6	22.7	22.5
	S26	Skin & Furs, New Street		4	30.3	27.2	27.6
	S5a, S5b, S5c	Roko Furniture, New Street	39.2	29.6	33.3	30.1	32.8
	S7a, S7b, S7c	21 New Street	**46.5**	35.2	**41.9**	39.1	39.8
	S8	30 New Street	29.2	21.1	24.7	23.5	22.3
	S4	Eye of Bri, New Street	43.6	32.2	39.2	37.1	36.8
	S3a, S3b, S3c	Tutti's, New Street	36	25.8	33	30.6	30.8
	S1	Fringe Hair, New Street	32.1	24.2	28.3	26.8	26.4
AQMA 7 Malton Air Quality Management Area	RYE1, RYE2, RYE3	Butcher Corner, Malton	33.2	31.3	24.6	23.7	23.4
	RYE4	Wheelgate (1)	23.6	24.1	24.6	26.5	23.8
	RYE5	Old Maltongate (1)	32.3	30	23.1	24.8	22
	RYE6	Castlegate (1)	31.9	30.4	18.9	19.5	18.9

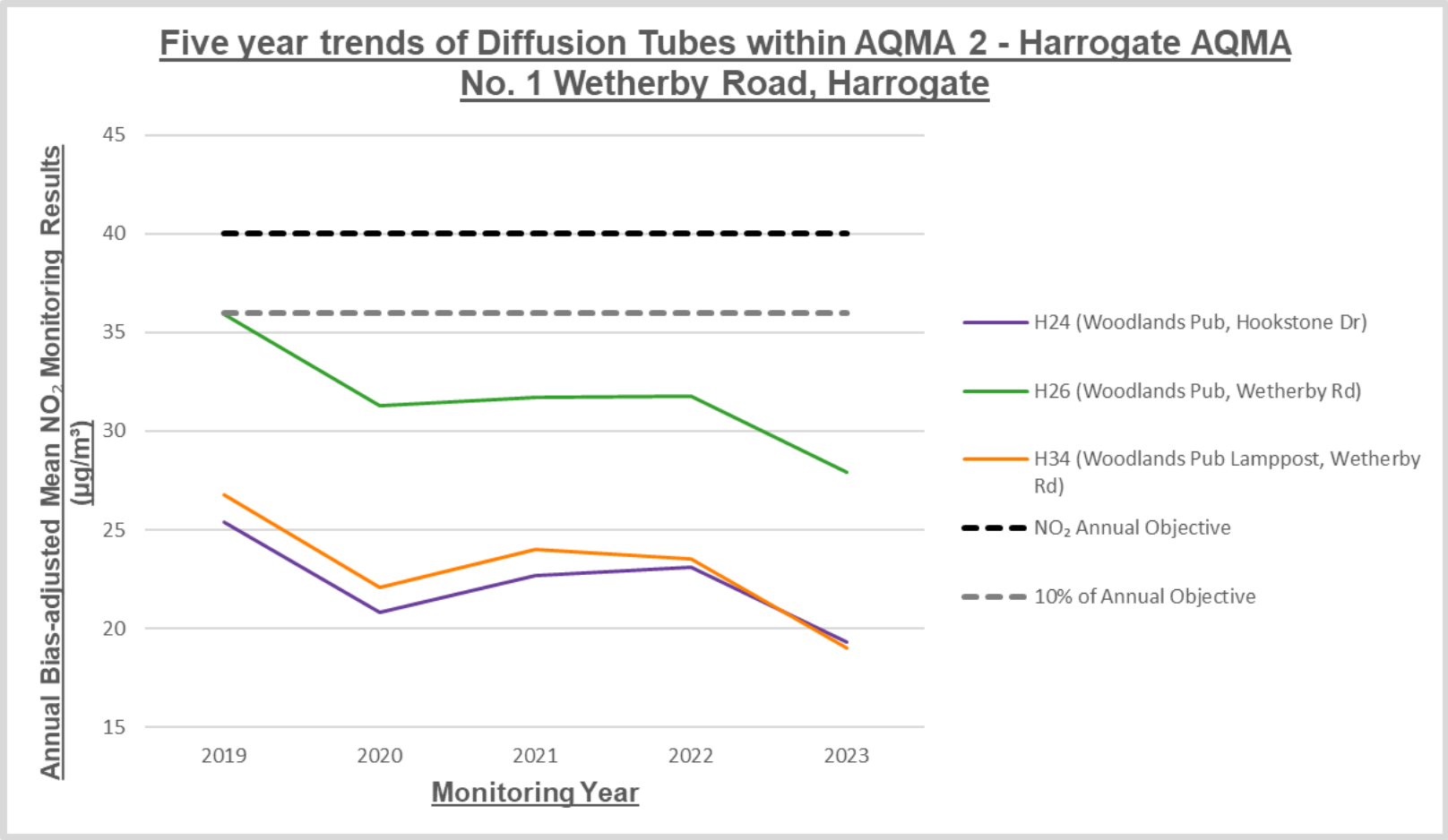
	RYE7	Castlegate (2)	33.3	33.4	24.4	25.7	25.8
	RYE9	Yorkersgate (1)	20.5	16.5	26	26.1	21.8
	RYE11	Yorkersgate (2)	21.8	20.3	13.7	18.7	18.3
	RYE15	Castlegate (3)	18.2	17.5	25.1	25.1	25
	RYE18	Old Maltongate (2)	15.4	19.1	24.3	25	24.3

Appendix F – Graphs showing 5-year trends of Diffusion tube monitoring locations in AQMAs

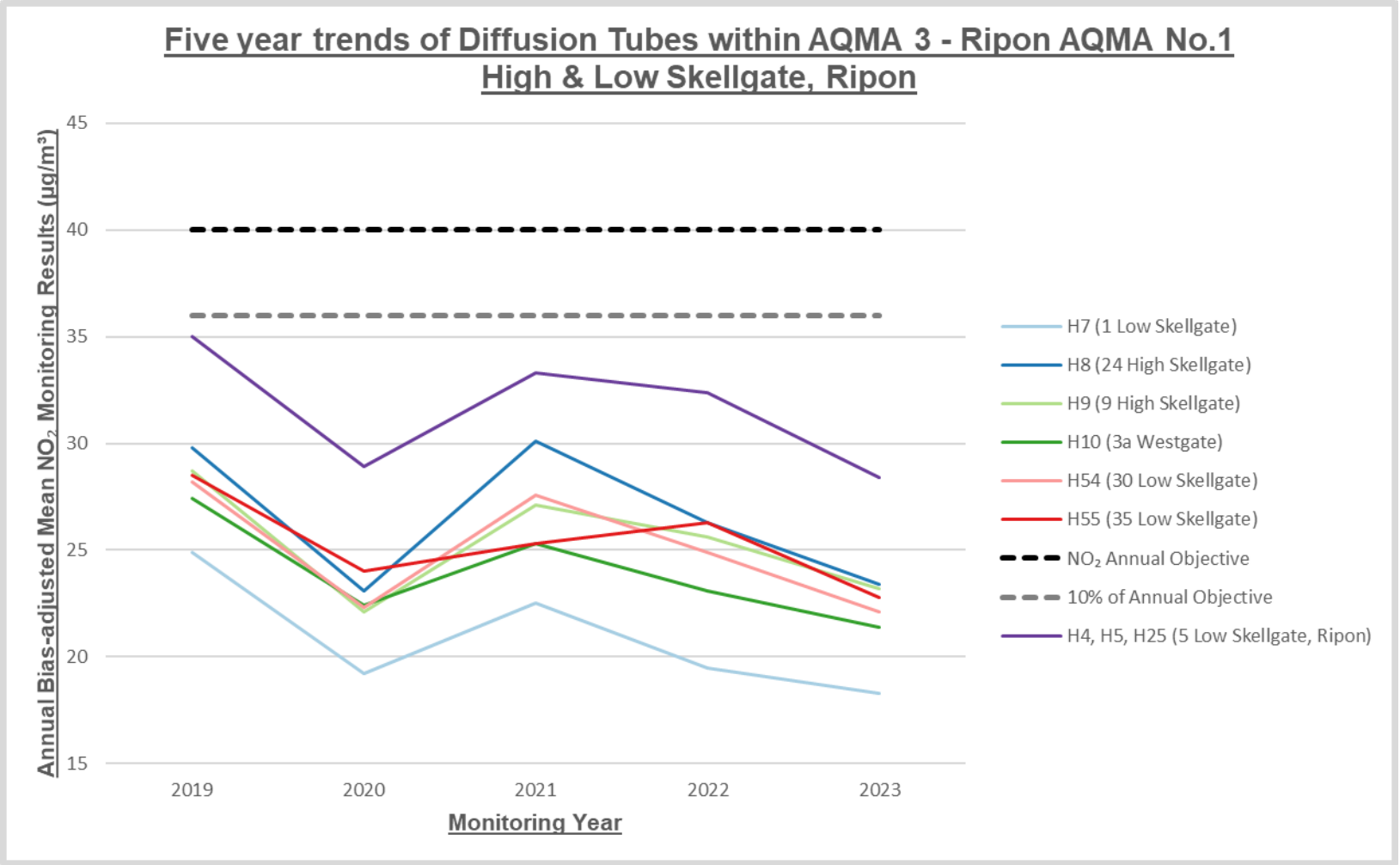
Graph 1 – AQMA no.1 – Bond End, Knaresborough



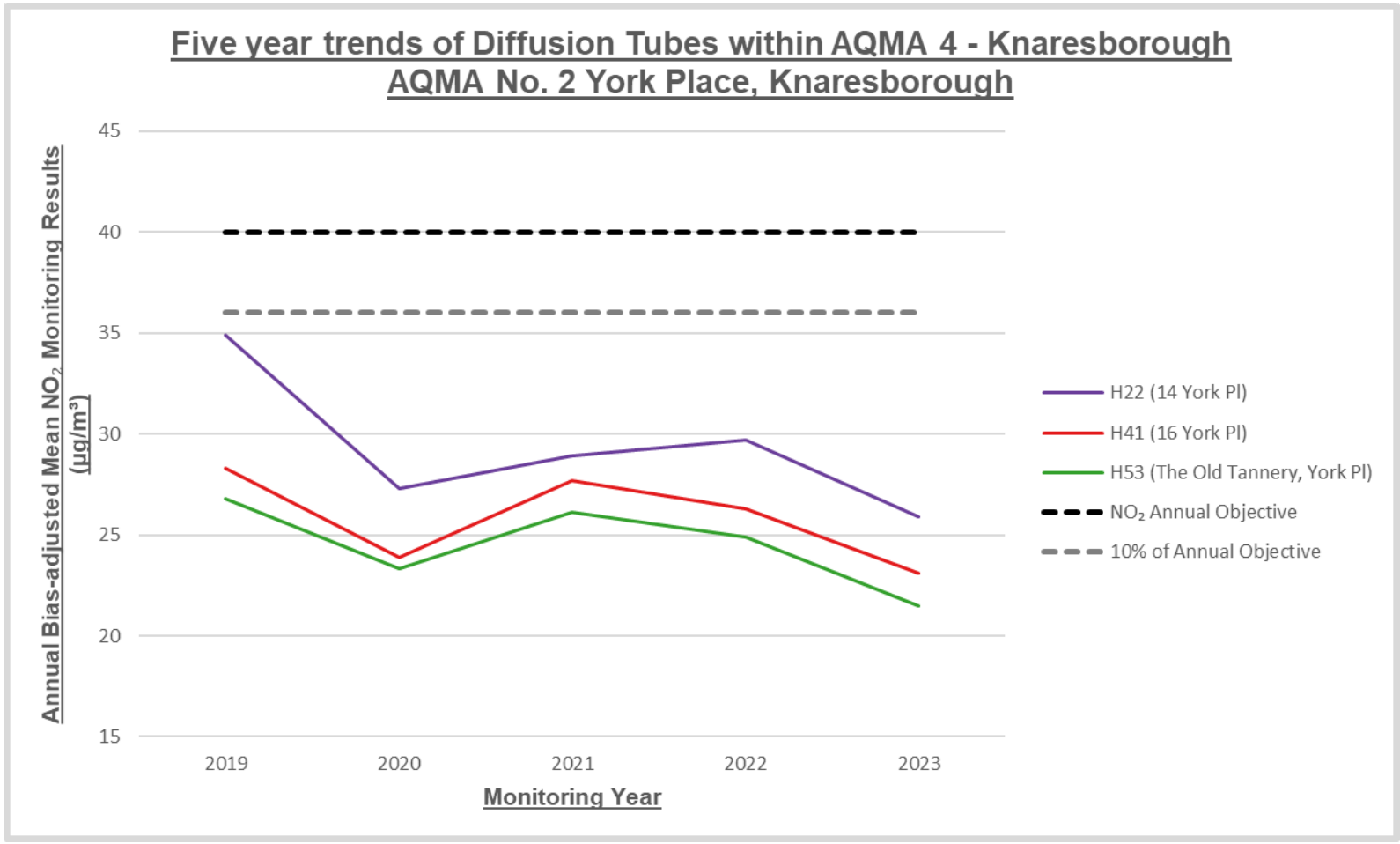
Graph 2 – AQMA no.2 – Wetherby Road, Harrogate



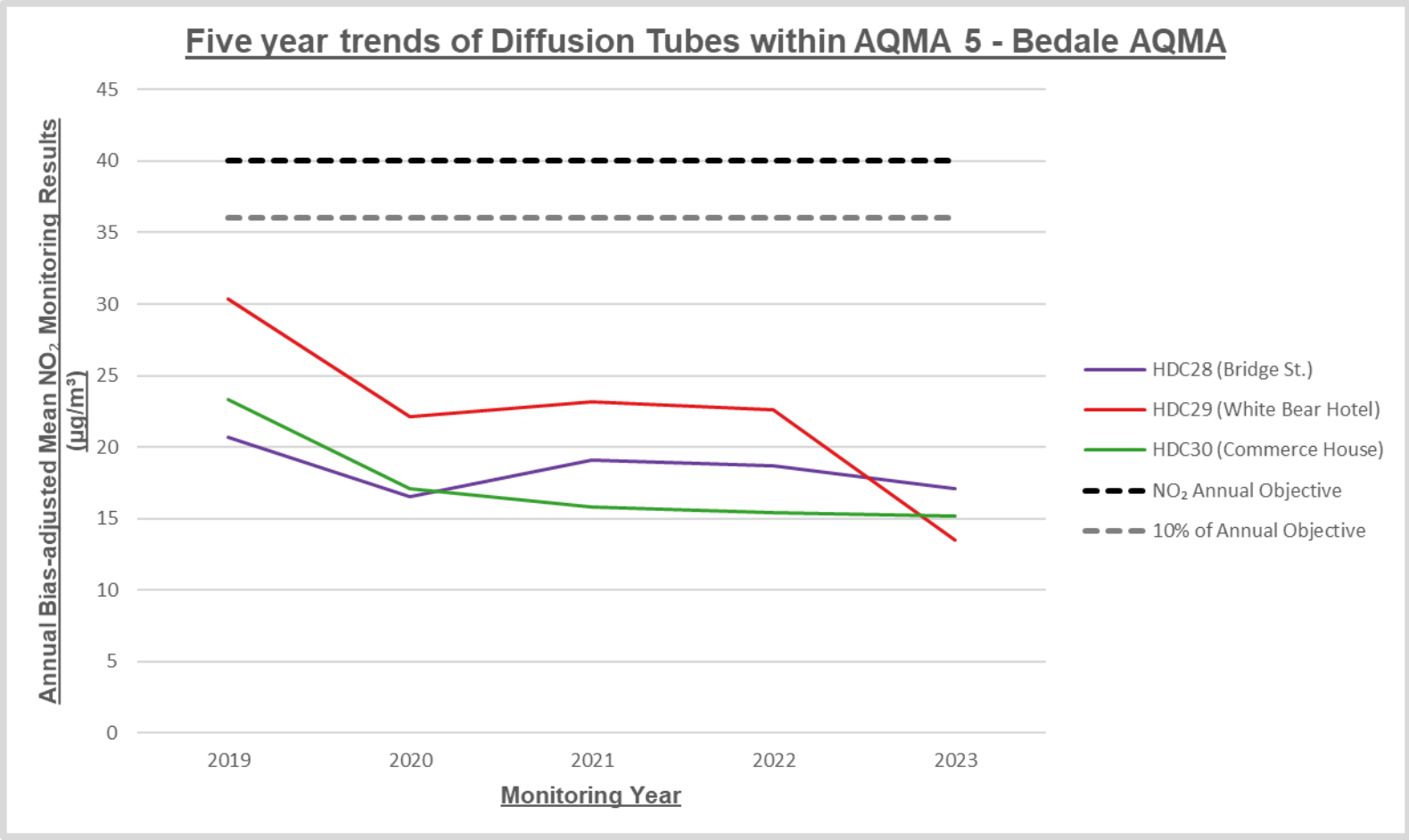
Graph 3 – AQMA no.3 – High & Low Skellgate, Ripon



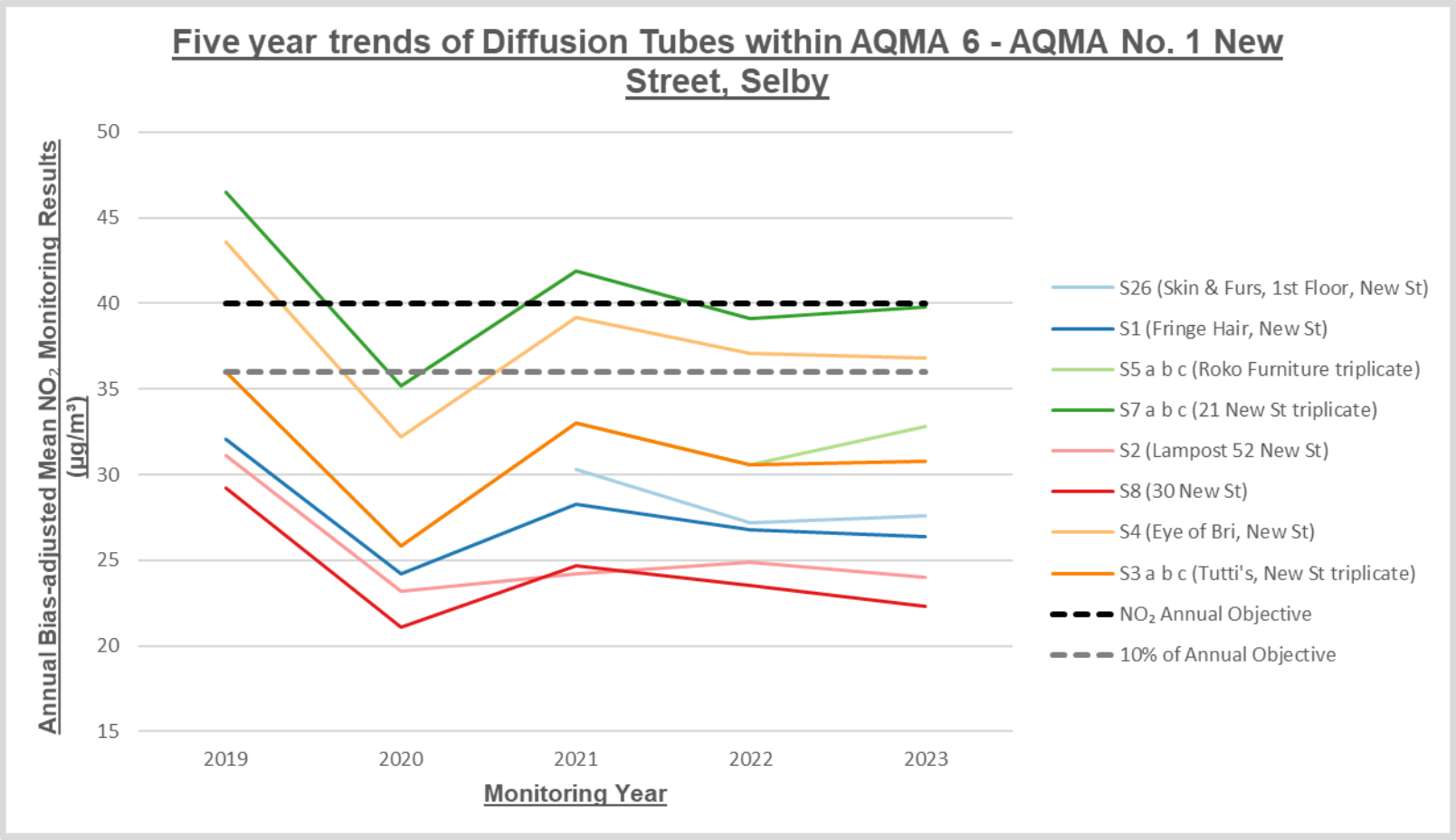
Graph 4 – AQMA no.4 – York Place, Knaresborough



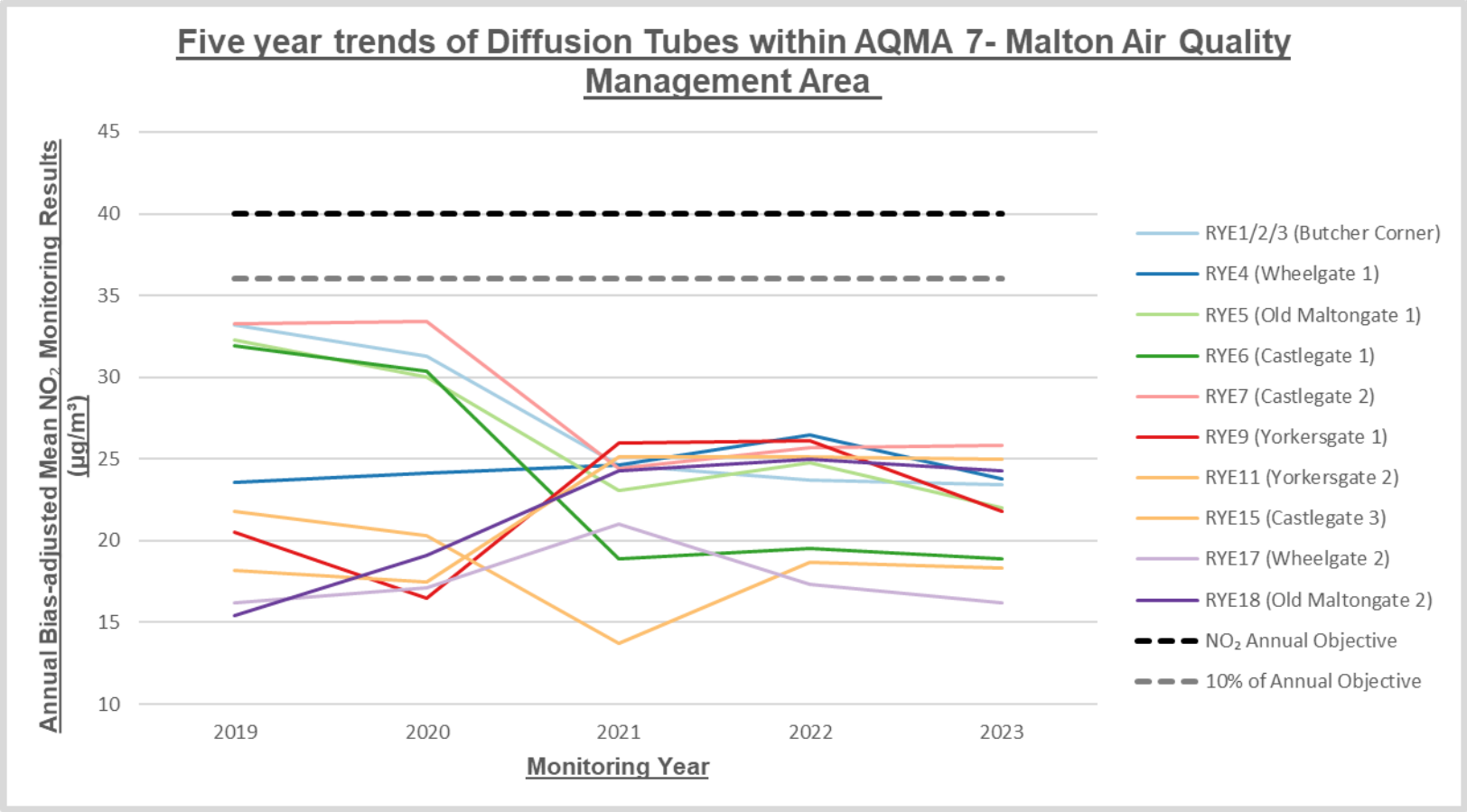
Graph 5 – AQMA no.5 – Bedale AQMA



Graph 6 – AQMA no.6 – New Street, Selby



Graph 7 – AQMA no.7 – Malton AQMA



Appendix G: Clean Air Day Posters submitted from School Project

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
ASHP	Air Source Heat Pump
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport UK
EU	European Union
LAQM	Local Air Quality Management
LGR	Local Government Review
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
TSP	Total suspended particulate. TSP includes airborne particles > 10 µm in diameter.

References

- Environment Act 2021 (2021) Environment Act 2021 (legislation.gov.uk)
- Defra. Clean Air Strategy. (2019) https://assets.publishing.service.gov.uk/media/5c3b9debe5274a70c19d905c/clean-air-strategy-2019.pdf
- Benedict W Wheeler, Y. B.-S. (2005). Environmental equity, air quality, socioeconomic status, and respiratory health: a linkage analysis of routine data from the Health Survey for England. J Epidemiol Community Health, 59:948–954. doi: 10.1136/jech.2005.036418.
- Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis. (2006) https://uk-air.defra.gov.uk/reports/cat09/0701110944_AQinequalitiesFNL_AEAT_0506.pdf
- Defra. Air quality appraisal: Damage Cost Guidance (2023) https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance
- Office for National Statistics. Population estimates for England and Wales. (2022) https://www.beta.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/populationestimatesforenglandandwales/mid2022
- Office for National Statistics. Indices of Deprivation 2015 and 2019. http://dclgapps.communities.gov.uk/imd/iod_index.html
- Defra. Emissions of air pollutants in the UK – Summary. (2024) https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-summary
- Defra. Air quality strategy: framework for local authority delivery. (2023) https://www.gov.uk/government/publications/the-air-quality-strategy-for-england/air-quality-strategy-framework-for-local-authority-delivery
- Defra. Background Mapping data for local authorities – 2018 https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018
- Defra. Emissions Factors Toolkit https://laqm.defra.gov.uk/air-quality/air-quality-assessment/emissions-factors-toolkit/
- Chief Medical Officer's Annual Report 2022: https://assets.publishing.service.gov.uk/mwginternal/de5fs23hu73ds/progress?id=i8m5J5egGiRk9LeevIwAnFThInUFKlpi6fR82MnB2s8,&dl
- Philip Barlow. Regulation 28: Report to Prevent Future Deaths (2021). https://www.judiciary.uk/wp-content/uploads/2021/04/Ella-Kissi-Debrah-2021-0113-1.pdf
- Public Health England. Health matters: air pollution. (2018) https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution
- Institute of Air Quality Management. Land-Use Planning & Development Control: Planning for Air Quality. (2017) https://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf
- Defra. Local Air Quality Management Technical Guidance (TG22). (2022) https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf
- Defra. Local Air Quality Management Policy Guidance (PG22) (2022) https://laqm.defra.gov.uk/wp-content/uploads/2023/11/LAQM-Policy-Guidance-2022.pdf
- Defra. Air quality: explaining air pollution – at a glance (2019) https://www.gov.uk/government/publications/air-quality-explaining-air-pollution/air-quality-explaining-air-pollution-at-a-glance