2024 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management, as amended by the Environment Act 2021

Date: 30 June 2024

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Executive Summary: Air Quality in Our Area

On 1 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 Richmondshire, Selby, Craven, Harrogate, Hambleton, Scarborough, and Ryedale with North Yorkshire County Council. Therefore, this report represents the first combined Annual Status Report (ASR) for the County of North Yorkshire, reporting on and reviewing the data and information collated on Air Quality for the former districts.

North Yorkshire is a large non-metropolitan county in the North of England, a geographical area incorporating the historic towns of Harrogate, Richmond, Scarborough, Malton, Skipton, and Selby with the County Town of Northallerton lying in the former Hambleton district. There are also considerable stretches of deep rurality from the rolling hills of the Yorkshire Dales National Park in the West, through the North Yorkshire Moors National Park to the unique rugged coastline in the East. With a county population of over 600,000 people (Census 2021) the diverse region of North Yorkshire offers the benefits of beautiful rurality, coastline settings, historical towns, and an excellent quality of life, with easy access to the main national road and rail network.

Air Quality in North Yorkshire

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in hospital admissions and mortality. In the UK, it is estimated that the reduction in healthy life expectancy caused by air pollution is equivalent to 29,000 to 43,000 deaths a year[1].

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Additionally, people living in less affluent areas are most exposed to dangerous levels of air pollution[2].

[1] UK Health Security Agency. Chemical Hazards and Poisons Report, Issue 28, 2022.

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

Air quality is compromised when it contains particulate matter, which can include dust, dirt, soot, smoke, and liquid droplets. These emissions are typically emitted from Transport, Waste Management, Industrial Process, and Agricultural soils. Particles less than 10 micrometres in diameter (PM_{10}) pose a health concern, particles less than 2.5 micrometres ($PM_{2.5}$) in diameter are referred to as 'fine' and pose the greatest health risks because their small size can be inhaled deeply into the lungs. Air pollution can negatively affect human health through short term (days to weeks) transitory exposure and long-term accumulated exposure (over years to decades) with the latter considered to cause the greater harm.

Table ES 1 provides a brief explanation of the key pollutants relevant to Local Air Quality Management and the kind of activities they might arise from.

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO_2)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO_2)	Sulphur dioxide (SO_2) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM_{10} refers to particles under 10 micrometres. Fine particulate matter, or $PM_{2.5}$ are particles under 2.5 micrometres.

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) and particulate matter (PM_{10}); the primary focus of our monitoring for air pollution being nitrogen dioxide (NO_2). The major road systems that run the length and breadth of the county include the A1(M), A64, A66, A170, A19 and A59, plus numerous 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.

Nitrogen dioxide levels have been the principal focus of monitoring road traffic conditions in 2023 for North Yorkshire. Some urban areas with narrow congested streets, road junctions and canyon-like surroundings (i.e., buildings close to the road) have reported elevated NO_2 results in previous years with increasing throughput of traffic.

Monitored areas that **exceed** the UK's National Air Quality Objective (AQO), require an Air Quality Management Area (AQMA) to be declared. North Yorkshire currently have *eight declared AQMAs*, seven for NO_2 and one for PM_{10} (which are discussed later in the report under section 2.1).

The Air Quality Standards Regulations (2010) **Nitrogen dioxide (NO2) - GOV.UK (www.gov.uk)** require that the annual mean concentration of NO_2 must not exceed **40µg/m^3** (40 microgrammes / cubic metre) and that there should be no more than 18 exceedances of the hourly mean limit value (concentrations above 200 µg/m^3) in a single year. Depending on the levels of exceedance of the AQO in an area an effective and targeted Air Quality Action Plan (AQAP) is formulated in the context of a wider local air quality strategy to manage and improve the air quality in those areas; with the aim of bringing the AQO back to acceptable levels to protect people's health and the wider environment.

In March 2024 a revised single AQAP (Draft) was submitted to Defra which recommended the revocation of four of the eight established AQMAs across North Yorkshire, with plans to also address the remaining four AQMAs with the aim of bringing the air quality standards below the AQO. Following recent feedback on the interim draft ASR for Hambleton, which is currently being reviewed by Defra, a fifth AQMA (Bedale) will also be revoked, and the final AQAP will reflect this decision. Further work is underway, with the final submission of the AQAP due in September 2024.

The key sectors that broadly dominate employment and commercial activity in North Yorkshire and which subsequently have an impact on our air quality are Agriculture, Military, Distribution, Hotels and Restaurants, Public Administration, Education and Health. NYC are the regulator for over 260 Industrial and commercial permitted sites, including five A2 permitted sites, which tend to be larger more complex operations. The permits primarily facilitate monitoring of potential emissions to air, but also to water, and land for some installation sites. These permitted sites include fuel stations, quarries, dry chemical cleaning processes, concrete block manufacturing, waste incineration and crematoria.

An established permitting inspection regime for commercial and industrial operations is currently under review by the newly formed NYC, in line with the Environmental Permitting

Regulations (England and Wales) 2016. The Environmental Permitting (England and Wales) Regulations 2016 (legislation.gov.uk).
This will enable closer and consistent monitoring and control of the activities and potential emissions that can cause harm to human health and the environment. Working with business partners and facility operators, this will promote best practice, achieve consistency, compliance and facilitate high standards in the wider North Yorkshire area.

Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades, there are some areas where local action is needed to protect people and the environment from the effects of air pollution.

The Environmental Improvement Plan[3] sets out actions that will drive continued improvements to air quality and to meet the new national interim and long-term targets for fine particulate matter ($PM_{2.5}$), the pollutant most harmful to human health. The Air Quality Strategy[4] provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

The Department for Transport's 'The Road to Zero[5] 'details the Government's approach to reduce exhaust emissions from road transport through a number of mechanisms, in balance with the needs of the local community. This is extremely important given that cars are the most popular mode of personal travel, and the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

Following a consistent downward trend in Air Quality issues in relation to NO_2, NYC are planning to revoke four AQMAs for NO_2, and one AQMA in relation to PM_{10}. The remaining three AQMAs will continue to be monitored in relation to NO_2 and the AQO of 40µg/m^3. Should these remaining AQMAs consistently fall below the AQO for 3 years or more, NYC will seek to revoke the AQMAs in line with local authority expectations, or sooner if advised to do so by Defra.

[3] Defra. Environmental Improvement Plan 2023, January 2023

[4] Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

[5] DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

North Yorkshire Council's main actions are to continue to monitor at 212 sample stations across NYC's wider district (with some location changes as detailed in the report).

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 actions and permitting regime.

A new Scientific Team was established in April 2024 which will bring together the air quality duties previously held by the seven former districts and boroughs under one roof.

It is a priority to develop stakeholder relationships both within the new unitary Council and externally to assist in managing the air quality and local initiatives in North Yorkshire and at our borders with other counties.

As a consultee to the Planning Regime within NYC, Environmental Health teams have a thorough and effective process surrounding the review of all planning applications that ensures the consideration of air quality issues on developments. This process is also applied when reviewing planning applications for the Yorkshire Dales National Park (YDNP) and the North Yorkshire Moors National Park (NYMNP) in the North Yorkshire district. This has been particularly effective at one major development in Harrogate, were, under a section 106 agreement, developer contributions (a community levy) will fund future air quality projects. These will be further reported in the next ASR (2025).

Diffusion tube locations

There have been no changes to sample stations in the former areas of **Richmondshire, Craven, and Ryedale**. Consistent levels and some downward trends have been observed. Air quality challenges in these areas, surround the emissions from standing traffic and the popularity of solid fuel appliances.

Review of diffusion tube locations

A county-wide review will be undertaken over the next two years 2024/2025 to ensure that all locations are appropriately sited and representative of the whole County.

Diffusion tube location changes and newly sited locations

The former **Hambleton** area removed diffusion tube HDC58 at 14 Thirsk Road (S1) at the end of 2022 and no further monitoring was obtained for 2023 due to a lack of bracket/post. This tube location will not be reinstated in 2024. A new diffusion tube location has been established for 2024, namely HDC69 located at 1 Foundry Way, **Leeming Bar**, which will assist in monitoring increased traffic emissions due to a new supermarket planned for this area.

SC22 (Beulah Terrace, **Scarborough**) is a **new** monitoring location due to the public raising concerns regarding the idling of the large Nova 3 diesel trains on the adjacent rail track. Only four months data was collected so this result has been annualised. There is currently no map provided in Appendix D for this location.

All monitoring locations within the former **Harrogate** area remain below the AQO because of improved actions to reduce the nitrogen dioxide levels. During 2024 two of the Harrogate AQMAs will be revoked. Following resident feedback two new monitoring locations have been added at Kingsley Road, Harrogate, one near to the junction with Knaresborough Road (H69), and the other near to the junction with Kingsley Drive (H68). The locations of these diffusion tubes are shown in Appendix D.

Outside the AQMA in the former **Selby** area there has been a general downward trend of nitrogen dioxide levels. The worst-case location within the Selby AQMA is still just under the AQO, at 39.8µg/m^3 at site S7 (21 New Street), but this is a higher concentration than in 2022. The highest change was seen at location S5 (3 New Street) with an increase of 2.7µg/m^3. The annualised and bias adjusted data showed no monitoring sites were in breach of the annual mean nitrogen dioxide concentration objectives. Monitoring will continue throughout the next reporting year.

Selby area ceased monitoring at diffusion tube S22 Dr Inks, at the end of February 2023, as this was no longer feasible due to the re development to townhouses. A new monitoring location S35 at Park Street was installed during May 2023, due to concerns raised about emissions in this area. The results were annualised for this location due to limited monitoring data availability. Monitoring data can be seen in Appendix B.

North Yorkshire have several smoke control areas which remain in force. Further discussion under section 2.3 under '$PM_{2.5.}$ Local Authority Approach to Controlling Emissions'.

New areas of concern

There are no new major areas of concern at present, but we continue to monitor and look out for new commercial developments, permitted sites, road changes and upgrades in North Yorkshire and due consideration is given to prospective new housing developments through the planning process and the associated potential for increased traffic which would affect air quality in our County.

There are some areas that require further consideration with the potential changes and improvements to the rail sector service between York and the East Coast. Increased services have helped in some areas by reducing road traffic, but concerns have also been

raised that commuter travel may increase traffic or have a potential impact through diverted traffic congestion in **Malton** and **Norton,** thus, potentially, having a negative impact on the AQMA in this area. The increased frequency of trains on the Scarborough to York line, after two new operators were awarded the local rail franchises in 2015, mean there will be an additional service stopping at Malton Station every half hour during peak commute hours. However, monitoring of the NO_2 levels within the **Malton AQMA** have resulted in **no exceedances** of the annual mean NO_2 objective since 2016 so this AQMA will be revoked in 2024. To ensure continued compliance, air quality monitoring in this area will continue as part of the diffusion tube monitoring process.

The new Environmental Health Scientific Team is currently working with Public Health and Climate Change colleagues within the council to identify and instigate projects across the county to reduce levels of $PM_{2.5}$ in accordance with the requirements of the Environment Act 2021. To quantify any pollution reductions 6 x Aeroqual AQS1 Air Quality Stations have been purchased and configured to measure NO_2, CO, PM (PM10, PM2.5, PM1 and TSP). The purchase was funded directly by North Yorkshire Council. Updates will be provided in future ASRs.

Conclusions and Priorities

This report provides the results of the monitoring of nitrogen dioxide (NO_2) concentrations over the past 5 years. The NO_2 annual mean concentrations are compared to the AQO of 40µg/m^3 for England.

- The annual mean objective of 40µg/m^3 for England was not exceeded at any of the monitoring stations in any of the areas covered by NYC in 2023. In fact, there is a steady decrease in annual concentrations consistent with an overall predicted downward trend for the majority of locations. Concerns around the Bedale AQMA, due to some expected commercial development changes in the area, means that monitoring will continue in this area, however it is anticipated that the annual mean objective will remain low as a consequence of the improvements seen since the construction of the bypass. Following recent feedback on the interim draft ASR for Hambleton, which is currently being reviewed by Defra, the AQMA for (Bedale) will also be revoked, and the final AQAP therefore will reflect this change.

The priorities for the coming year:

- An overarching AQAP (drafted in 2024) encompassing all former 7 districts within North Yorkshire Council in collaboration with the Transport, Planning, Public Health,

and sustainability teams is underway. The AQAP details how objectives, strategies and policies will be integrated, particularly those relating to transport, planning, climate change and public health. It will aim to reduce polluting emissions to air and to reduce pollution levels and keep the AQMAs below the AQO and improve awareness of air quality with the public.

- Revocation of 5 existing AQMAs will occur in 2024. Such action is mandatory when the monitoring results show that sites within an AQMA are below the AQO for 5 consecutive years.

  These are:

  - Low and High Skellgate, Ripon (AQMA 3)
  - York Place, Knaresborough (AQMA 4)
  - Castlegate, Malton (AQMA 7)
  - Bedale (AQMA 5)

  and for the previous exceedance of the annual mean objective for PM_{10} at Staithes,

  - Scarborough (PM_{10}) (AQMA 8).
- Continue to review and assess local air quality across North Yorkshire and to fulfil our legal obligations
- Reviewing development schemes and improvement works.
- Review locations of all monitoring sites over the next two years.
- Review suppliers of the tubes as and when current contracts end (there are currently two different suppliers for the monitoring tubes across the county area).

No further AQMAs have been declared.

In the Richmondshire area of North Yorkshire a new retail and factory development planned for Scotch Corner at the junction of the A66 and the A1(M) has been slow to progress. Impact on the air quality in the area in connection with the construction phase and future customer traffic will be closely monitored as progress is made.

Local Engagement and How to get Involved

Members of the public are encouraged, through the NYC website, to help by reducing the number of car-driver trips, car sharing, increasing the use of public transport and increasing active travel (cycling and walking). North Yorkshire annually promotes information about Clean Air Day and Clear Air Night via the website and uses social media to raise awareness and understanding of the impacts of air pollution. The council

instigated a poster competition at Richmond Methodist Primary School along with the Richmondshire Climate Action Partnership as part of the 2024 Clean Air Day. The children were encouraged to think about alternatives to car use and ways to reduce traffic pollution. NYC Staff are also incentivised to cycle through the Cycle to work Scheme offered.

During 2023, EVCPs (electric vehicle charge points) have been installed in council-run car parks across the wider North Yorkshire area as part of the 2030 net-zero plans.

NYC won funding following a bid to the **Local Electric Vehicle Infrastructure Fund** (LEVI) which is a £450m scheme announced by the UK government in March 2022 as part of their electric vehicle (EV) Infrastructure Strategy. Installations continue through 2024 and 2025.

Local Responsibilities and Commitment

This ASR was prepared by the newly established Scientific Service of North Yorkshire Council with the support and agreement of the following officers and departments:

- NYC Environmental Health
- NYC Trading Standards
- NYC Planning Policy
- NYC Climate Action officers
- NYC Highways and Traffic Management
- NYC Public Health Officer
- NYC Economic Development

This ASR has been approved by:

Karl Battersby, Corporate Director - Environment

This ASR has been signed off by:

Louise Wallace, Director of Public Health

If you have any comments on this ASR, please send them to:

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1 Local Air Quality Management

This report provides an overview of air quality in North Yorkshire during 2023. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not, the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by North Yorkshire Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented in Table E.1.

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 18 months. The AQAP should specify how air quality targets will be achieved and maintained and provide dates by which measures will be carried out.

A summary of AQMAs declared by North Yorkshire Council (NYC) can be found in Table 2.1. The table presents a description of the eight AQMAs that are currently designated within North Yorkshire.

Appendix D: Map(s) of Monitoring Locations and AQMAs and the air quality monitoring locations in relation to the AQMAs. The air quality objectives pertinent to the current AQMA designations are as follows:

- NO_2 annual mean
- PM_{10} annual mean and 24-hour mean

As stated in the Technical Guidance LAQM.TG22, the revocation of an AQMA should be considered if pollutant levels fall below the UK national air quality objective (AQO) levels for a period of 3 consecutive years of compliance with the relevant objective, as evidenced through monitoring and/or modelling. As such, there should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period. However, due to several locality issues, traffic management considerations and the last 5 years monitoring being influenced by COVID 19 data, the AQMAs have been retained until now.

NYC are proposing to revoke the following five AQMAs; 4 AQMAs previously declared for exceedances of the nitrogen dioxide (NO_2) annual mean objective of 40µg/m^3 that have now consistently demonstration air quality objective levels below the required annual mean for 5 years or more, at:

- Low and High Skellgate, Ripon (AQMA 3)
- York Place, Knaresborough (AQMA 4)
- Castlegate, Malton (AQMA 7)
- Bedale (AQMA 5)

and 1 AQMA for the previous exceedance of the annual mean objective of PM_{10} of 40µg/m^3

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

Three AQMAs will remain, and all will continue to be monitored. No change in pollution sources is expected in these areas, nor any significant changes or sources expected in any other areas of North Yorkshire.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA 1 Knaresborough AQMA No. 1 Bond End, Knaresborough	Declared 26 November 2010	NO2 Annual Mean	The Royal Oak, 1-23 Bond End and 104-138 High Street, Knaresborough	NO	53.6	Not exceeded 33.9	4 years	NYC AQAP Draft Action Plan 2024	https://www.northyorks.gov.uk/environment-and-neighbourhoods/pollution/air-quality/local-air-quality-management
AQMA 2 Harrogate AQM No. 1 Order 2017 Wetherby Rd, Harrogate	Declared 4 October 2017	NO2 Annual Mean	The Flat above 110 Wetherby Road	NO	46.4	Not exceeded 27.9	5 Years	NYC AQAP Draft Action Plan 2024	https://www.northyorks.gov.uk/environment-and-neighbourhoods/pollution/air-quality/local-air-quality-management
AQMA 3 Ripon AQMA No.1 Low and High Skellgate, Ripon	Declared 26 November 2010	NO2 Annual Mean	1-6 & 29-36 Low Skellgate, 8A Heaths Court, all properties High Skellgate, and 1-4 & 28-34 Westgate, Ripon	NO	50.6	Not exceeded 28.4	7 Years	NYC AQAP Draft Action Plan 2024	**No web link**

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA 4 Knaresborough AQM No. 2 Order 2017 York Place, Knaresborough	Declared 4 October 2017	NO2 Annual Mean	2-26 York Place, 1-6 Casson Place and 1-6 Tannery Court, Knaresborough	NO	41.2	Not exceeded 25.9	7 Years	NYC AQAP Draft Action Plan 2024	**No web link**
AQMA 5 The Hambleton District Council (Bedale) AQM Order 2017	Declared 1 November 2017	NO2 Annual Mean	An area encompassing several properties at the junction of Bridge Street and Market Place Bedale.	NO	50.2	Not exceeded 17.1	6 Years	NYC AQAP Draft Action Plan 2024	**No web link**
AQMA 6 AQMA No. 1 New Street, Selby	Declared 29 February 2016	NO2 Annual Mean	An area encompassing a section of New Street and several properties flanking the road between Selby Abbey and the junction with Ouse Gate.	NO	55	Not exceeded 39.8	2 years	NYC AQAP Draft Action Plan 2024	**https://www.northyorks.gov.uk/environment-and-neighbourhoods/pollution/air-quality/local-air-quality-management**

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA 7 Malton Air Quality Management Area	Declared December 2009	NO2 Annual Mean	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.	NO	42	Not exceeded 25.8	7 years	NYC AQAP Draft Action Plan 2024	**No web link**
AQMA 8 Scarborough AQMA	Declared 1 August 2004, Amended 29 August 2018 (reported on UK-AIR)	PM_{10} Annual Mean	The majority of the village of Staithes	NO	n/a Affected by salt crystals	n/a	6 years minimum	NYC AQAP Draft Action Plan 2024	No web link currently available due to impending revocation.

☒ **North Yorkshire Council confirm the information on UK-Air regarding their AQMA(s) is up to date.**

☒ **North Yorkshire Council confirm that all current AQAPs have been submitted to Defra.**

2.2 Progress and Impact of Measures to address Air Quality in North Yorkshire

Defra's appraisal of last year's district ASRs are concluded below, with one combined authority ASR from 2024 onwards. All seven districts in the combined authority undertake non-automatic monitoring of diffusions tubes:

- **Richmondshire** – There are no declared AQMAs. The ASR conclusions reached were accepted by DEFRA for all sources and pollutants. It was recommended that Public Health sign off the ASR and *this is achieved for the 2024 submission year*.
  It would be useful to see an example calculation for annualisation using the national bias factor (0.83) mentioned in text. The LAQM-TG22 guidance (page 137) has information on such a calculation. Further calculations for annualisation are in Appendix C.
  LAQM Guidance notes 2023 – *Noted for the 2024 submission*. *All grammatical errors corrected before publication in 2023*.
  Report is well structured, detailed and information in line with Guidance expectations and to continue the good work.
- **Harrogate** – There are four AQMAs within this area, two of which have achieved compliance for 6 years; *it is the intention to revoke these AQMAs during 2024. Sufficient detail was provided in support of this in last year's report.*
  A draft AQAP has been submitted during April 2024. This is encouraged by DEFRA.
  The report was accepted for all pollutants and sources. It was advised that Public Health should sign off the 2024 report – *This is achieved for the 2024 submission*.
- **Ryedale** – There is one AQMA in the Malton area which was declared in 2009. Although compliant with the AQO for several years, NYC will retain this AQMA due to ongoing traffic changes in the area and continue to monitor for the forthcoming year 2024. Revocation will be considered as per clear LAQM Technical Guidance 2022 for the following year. *A draft AQAP has been drawn up to reflect this*.
  DEFRA recommend continued monitoring and review of all diffusion tube sites.
  NYC will undertake a detailed review of all diffusion tube locations during 2024 to assess compliance, necessity of some locations and address any hot spot locations as needed.
  An update was provided on the Malton and Norton Infrastructure and Connectivity

Improvements Study. This is welcomed, and further updates should be provided in future ASRs.

- **Craven** – The original ASR was rejected in August 2023 due to inaccurate use of applying the national bias adjustment factor to the raw diffusion tube measurements; this has now been rectified with a new submission of the report in April 2024. The Council have made some amendments based off comments from the original appraisal, however, there remain some issues which will need to be addressed before the report can be accepted.

  The Council states that factor 0.83 was used as the national factor, but this is assumed to be a typo as the results appear to be adjusted with 0.85.

  - NYC *confirm that a bias adjusted factor of 0.85 in line with the national bias factor was used* and the 2023 report has been amended before publication, including table B.1.

  Based on the evidence provided by the local authority the conclusions reached are **accepted** for all sources and pollutants.
  Background maps are hard to read.

  - A different set of background maps and clear legends will be used so that locations of monitoring sites are consistent in the 2024 ASR.

  The Council have highlighted measures which are in place to reduce $PM_{2.5}$ concentrations, including the presence of two smoke control areas. The Council could consider installing a monitoring location for $PM_{2.5}$ to ensure that concentrations are below the objective, and to assess whether additional measures are required to ensure the 2040 objective of 10 µg/m^3 will be achieved.

  - Noted. This will be reviewed and reported on in the 2024 ASR.

- **Scarborough** - The original reported was rejected in November 2023. *All comments have been sufficiently rectified and addressed and the report re-submitted and accepted.*
  All sources and pollutants discussed in the 2023 report are also accepted.
  Scarborough currently have one declared AQMA, originally declared in 2004 for exceedances of the annual and 24-hour mean PM_{10} air quality objective (AQO) and SO_2 15-minute, 1-hour and 24-hour mean AQO.

  - *This was intended to be revoked in 2018 but due to an administrative oversight it was amended instead. It will now be revoked during 2024 as per the draft AQAP submitted in April 2024 as compliance has been achieved for*

a significant number of years, in terms of pollutants. It should be noted that any further monitoring of PM_{10} in this AQMA of Staithes, due to its close proximity to the sea, would be subject to contamination through salt crystals and provide unreliable results.

- *Updates are provided in this 2024 ASR under section 2.3 $PM_{2.5}$.*

- **Selby** – There is one AQMA in this area, declared in 2016 and following continued monitoring and traffic management initiatives, has been compliant for 2 consecutive years. However, the triplicate diffusion tube monitoring in this area has shown consistently high levels, albeit below the maximum AQO levels of NO_2 due to the spatial nature of this location and increased traffic congestion. NYC will therefore continue to monitor this AQMA.
  The report is well structured and detailed.
  A screenshot of the bias adjustment factor spreadsheet should be used for completeness.
  - *This is addressed in the 2024 ASR.*
  - *The head of Public Health will sign off this year's report.*
  - *Formatting and structure will be addressed in the 2024 report.*
- **Hambleton** - LAQM helpdesk are currently reviewing the Hambleton ASR 2023. Once this report has been accepted, an update on the appraisal will be provided in this section before publication to the public.

NYC has continued with several direct measures during the current year of 2023 although significant time has been taken up with the re-organisation and consolidation of the unitary authority. It is expected that a more holistic and pro-active approach will be evident during 2024. Measures in progress, planned or completed are set out in Table 2.2.
(17) Measures are included within Table 2.2, with the type of measure and the progress NYC have made during the reporting year of 2023. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

Whilst there are several local measures that will continue to be worked on in the former district areas, during the coming reporting year, NYC expects to work on reviewing these plans, actions, and strategies, under the new structure of the Unitary Authority. This approach will also include all relevant stakeholders, any neighbouring council areas and relevant steering groups to provide a more streamlined approach to managing air quality in North Yorkshire. This is in evidence already with the drafted AQAP and new steering groups established with regular monthly meetings.

Details included in table 2.2 incorporates some former local actions and measures proposed in the accepted draft action plan submitted for review and due to be finalised September 2024.

Some key completed measures are:

- Draft AQAP submitted and approved – to be finalised September 2024.
- Delivery of EV charging infrastructure into NYC Car Parks
- AQMA 1 Bond End, Knaresborough – project that incorporated removal of traffic lights and traffic engineering changes have had a positive impact by reducing NO_2 concentrations by 11.8µg/m^3 in one year.
- AQMA 5 Bedale bypass has had a significant impact on the continued reduction of NO_2 in the area. This will continue to be monitored however due to new developments planned.
- In the Ryedale area as part of the Malton & Norton Infrastructure and Connectivity Improvements Study a trial of a one-way west-bound section on Norton Road was introduced in September 2023. This was suspended in mid-December 2023 when parts of Norton Road were flooded but reinstated in April 2024 and is ongoing currently.

NYC expects the following measures to be completed over the course of the next reporting year:

- Further monitoring of the Thirsk Junction improvement scheme with the aim to ensuring levels remain below 10% of the AQO.

North Yorkshire Council's priorities for the coming year, as also outlined in our Executive Summary on page 10, are as follows:

- Submit and gain acceptance for the Final AQAP.
- Complete revocations of AQMAs as defined.
- Work together with stakeholders and partners towards achieving improved AQ in North Yorkshire.
- Getting the Public involved, working on local projects and working with schools.
- Pro-active work on $PM_{2.5}$, with installation and reporting of newly acquired monitors.

NYC worked to implement these measures in partnership with the following stakeholders during 2023:

- York City Council and other Councils involved in Pollution advisory groups (YALPAG).

- Local interest and community groups.
- Public Health
- Transport and Highways department
- Environment Agency

The principal challenges and barriers to implementation that NYC anticipates facing are:

- Budgetary constraints
- Influence of newly established Mayoral directives.
  The York and North Yorkshire Combined Authority is now set up to work with local leaders and communities to invest in ways that will help to make York and North Yorkshire a better place for you to live, work and do business.
- Resources and unitary authority settlement.

North Yorkshire Council's measures stated above and in Table 2.2 are achieving compliance in all AQMAs.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1	A168 Thirsk junction improvement scheme	Traffic Management	Strategic highway improvements, Re-prioritising Road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2018	2019	Local Authority Environmental Health, Local Authority Transport Dept, County Council.	NYC	NO	Funded	> £10m	Implemented	Predicted reduction vehicle emissions to below 10% of the NO_2 annual mean objective (36µg/m3)	Measured NO_2 concentration at diffusion tube sites HDC33, HDC34 and HDC35 in Thirsk	Monitoring results from 2022 indicate the bias adjusted annual mean is below 36µg/m3 (24.3 µg/m3).	Monitoring to continue to assess whether predicted reduction is achieved.
2	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.
3	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	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/local-air-quality-management

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
4	NYC Local Planning and Conservation Framework	Policy Guidance and Development Control	Other policy	2012	2026	North Yorkshire Council	NYC	NO	Not Funded		Implementation	N/A	N/A	On-going	The Core Strategy and objectives relevant to air quality include ensuring that all development is sustainable, reducing the need for travel and encouraging the use of sustainable forms of transport such as public transport, walking and cycling, reducing the adverse impact of society on the environment (e.g., reducing pollution) and responding to the implications of climate change. https:// www.northyorks.gov .uk/planning-and-conservation/planning-policy/planning-policy-your-local-area
5	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.
6	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'.
7	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.
8	Undertake enforcement of New Street, Selby weight restriction	Freight and Delivery Management	Route Management Plans/ Strategic routing strategy for HGV's	2023	2025	North Yorkshire Council, Trading Standards and Police	NYC	NO	Funded	£10k - 50k	Planning	TBA		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 were planned for 2022	Subject to resource which unfortunately was not available. This work will be revisited now when NYC restructure is complete
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.
10	Transformation Scheme - (Strategic	Traffic Management	Strategic highway improvements and Re-	2023	2030	NYC/West Yorkshire Combined Authority/	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

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
	Improvements in towns of Harrogate, Selby, and Skipton)		prioritising Road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane			Transforming Cities Fund (TCF)									
11	Clean Air Day	Public Information	Via the Internet	2023	2024	NYC/Schools/ Community Groups	NYC	NO	Funded	< £10k	Completed			Annual Event/Campaign	Poster Competition and Promotion of Importance of Air Quality in our Area.
12	Air Quality Strategy	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2023	2026	NYC - Environmental Health / Public Health	NYC	NO	Funded	< £10k	Planning	TBA	TBA	Draft AQAP submitted and accepted. Steering Group established.	Draft AQ strategy under review to give a holistic approach across NYC alongside AQAPs.
13	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
14	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.
15	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)
16	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/
17	National and Local Planning Policy and Guidance	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2020	2025	North York Moors National Park (NYMNP) / NYC	NYMNP	NO	Not Funded		Implementation			Development Plan Implemented in 2020 but subject to review.	https://www.northyorkmoors.org.uk/planning/policy

2.3 $PM_{2.5}$ – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy[6], local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter ($PM_{2.5}$ - particulate matter smaller than 2.5 micrometres). There is clear evidence that $PM_{2.5}$ has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases. The UK Governments annual mean concentration target for the end of 2040 for $PM_{2.5}$ is 10µg/m^3 and this is not to be exceeded at any monitoring station.

The NYC website provides residents with information on stoves, open fires, and seasoned wood, as these have been identified as an increasing source of $PM_{2.5}$ across the country. There are several smoke control areas in the NYC area, covering parts of Harrogate, Selby and Skipton, and the villages of South Milford, Sherburn in Elmet, Tockwith, Thorpe Willoughby, Cross Hills and Sutton in Craven. The smoke control areas have been in place for some time, but this enables pro-active monitoring and enforcement action, should a breach of the smoke control legislation be identified. No warning letters or penalty fines were issued by NYC in 2023 for smoke control violations.

Defra are currently looking for additional locations in England to enhance national air quality monitoring, to increase the evidence base for $PM_{2.5.}$ Locations in Harrogate and Scarborough are currently being considered.

Continuous $PM_{2.5}$ monitoring has been carried out by some neighbouring councils such as City of York Council, Leeds City Council, Stockton Borough Council and Middlesbrough Council. The monitoring has shown annual averages for 2023 ranging from 2.8 to 8.0µg/m^3, with the majority being in the 6.7-8.0 µg/m^3 range. Continuous $PM_{2.5}$ monitoring is also carried out at a rural background site at High Muffles in the Ryedale area of Stape, and in 2023 the concentration recorded was 0.4 µg/m^3. Concentrations in North Yorkshire could therefore be reasonably expected to be under 8.0 µg/m^3, with concentrations potentially as low as 0.4 µg/m3 in some rural areas.

This strongly suggests that the levels in the North Yorkshire Council area already meet the 2040 target. Despite this the council aims to monitor particulates across the area using a

[6] Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

number of real-time monitors. The council is currently considering where these monitors will be located, and how long they will monitor for at any particular location.

The Public Health Outcomes Framework (PHOF), a department of Health data tool for England intended to focus public health action on increasing health life expectancy and reducing differences in life expectancy between communities, uses indicators to assess improvements. Due to the significant impact that poor air quality can have on health, the PHOF includes an indicator relating to $PM_{2.5}$. The indicator is PHOF indicator D01 Fraction of mortality attributable to particulate air pollution (new method).

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 lowest in the Yorkshire and Humber region, alongside North Lincolnshire. The average for England is 5.8%.

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

This section sets out the monitoring undertaken within 2023 by North Yorkshire Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2019 and 2023 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

North Yorkshire Council does not undertake automatic (continuous) monitoring at any of our locations. Further information about monitoring networks and other resources about air pollution are available on the Defra UK AIR website found here: Home - Defra, UK

3.1.2 Non-Automatic Monitoring Sites

North Yorkshire Council undertook non-automatic (i.e., passive) monitoring of NO_2 at 212 sites during 2023. Table A.1 in Appendix A presents the details of the non-automatic sites. There were no co-located diffusion tube sites. A national bias adjustment factor (0.81) was used to calculate the annual mean (ug/m^3) for 69 diffusion tubes that were analysed by Gradko with a method of 20% TEA in Water. A national bias adjustment factor (0.77) was used to calculate the annual mean (ug/m^3) for 143 diffusion tubes that were analysed by Socotec. No local bias adjustment factor was used.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g., annualisation and/or distance correction), are included in Appendix C.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, annualisation (where the annual mean data capture is below 75% and greater than 25%), and distance correction. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO_2)

Table A. in Appendix A compare the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40µg/m^3. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2023 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

This commentary mostly relates to the monitoring results for nitrogen dioxide (NO_2) of 40µg/m^3. Commentary is also given on relation to PM_{10} in relation to the AQMA in **Staithes**. The results for all monitoring sites are below the annual AQO.

NB. Annual mean concentrations of less than 60µg/m^3 are also unlikely to have breached the hourly mean AQO.

Most sites have shown a general downward trend over the last 5 years (See Table A.2). This will 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 habits (working from home).

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 to enable consistence in future years (as and when current contracts expire).

The following is a commentary on the diffusion tube monitoring in each of the key areas in North Yorkshire.

Harrogate area

AQMA1 (Table 2.1): AQMA (No.1) (Bond End), **Knaresborough**

The concentrations in this AQMA remain below the objective for all monitoring locations, all concentrations are more than 10% below the objective level. The highest level recorded was at H14 with a concentration of 33.9µg/m^3. Concentrations have decreased at all monitoring locations within the AQMA. There are no plans to revoke the AQMA or alter the boundary of the AQMA.

AQMA2 (Table 2.1) AQMA (No.1) (Wetherby Road) **Harrogate**

Concentration remained at less than 75% of the AQO. This is the fifth year that there have been no exceedances of the annual mean objective for NO_2. Revocation will be considered for 2025.

Monitoring point H42, which is located at the taxi rank on Station Parade, **Harrogate** recorded a concentration of 30.9µg/m^3 which is less than 80% of the annual mean objective. The remaining three locations here recorded concentrations at this location of less than 55% of the annual mean objective.

AQMA4 (Table 2.1): AQMA (No.2) (York Place) **Knaresborough**

The concentration at all monitoring locations within this AQMA remain less than 75% of the AQO. Concentrations have decreased at all monitoring locations within the AQMA. The AQMA will be revoked in 2024.

AQMA3 (Table 2.1): AQMA (No.1) (Low and High Skellgate) **Ripon**

Concentrations in all monitoring locations are less than 75% of the objective, the highest recorded concentration being 28.4 µg/m^3 at the H4/H5/H25 triplicate location. The concentrations at all other monitoring locations within the Ripon study area are less than 52% of the AQO. The AQMA will be revoked in 2024.

Selby area

AQMA6 (Table 2.1): AQMA No.1 New Street, **Selby**

The highest concentration of nitrogen dioxide recorded in the AQMA was under the annual mean objective at 39.8µg/m3 at site S7 (21 New Street). This is an increase in concentrations from 2022. This trend continues along the northern side of New Street, with all monitoring locations having increased compared to 2022. The biggest change was seen at location S5 (3 New Street) with an increase of 2.7µg/m^3. All concentrations from monitoring locations on the south side of New Street decreased compared to 2022 levels, as did location S6 which is on the northern side of The Crescent, close to New Street.

Concentrations also increased at two out of five monitoring locations on Barlby Road, however all monitored concentrations in 2023 are equal to or less than 50% of the AQO. There was also a fractional increase at location S23 on Ousegate, which rose by 0.8 to 16.7µg/m3.

All other locations within the Selby study decreased in concentrations from 2022.

Richmond area

There are no AQMA’ s in this area.

R3 (Darlington Road, **Richmond**) has shown a slight increase overall through the year with a result of 11.4µg/m^3 for 2023, an increase of 0.4µg/m^3 over the results from 2022, still significantly below the air quality objective of 40µg/m^3.

The highest annual mean result was at R16 on Frenchgate (**Richmond**) at 20.4µg/m^3, still a reduction of over 8% from 2022. This is a regular hot spot for standing traffic during busy rush hour periods and a common spot for temporary traffic lights. During 2023 this has been better managed, and the traffic flow has been maintained where possible.

Additional influences on the overall downward trend of NO_2 emissions has been due to the increasing numbers of electric vehicles on the roads and the start-stop technology on modern vehicles. The last 5 years results illustrate this as seen in Table A.2.

Ryedale area

Diffusion tube location RYE21 (Highfield Lane), **Malton**, was annualised due to a missing tube for four months; Automatic monitoring site data from Fishergate and Bootham in York was used to calculate the annualised figure which gives an increase of 4.6% from the 2022 data at 13.7µg/m³.

The RYE22 (Pasture Lane) tube sited approximately 600 metres along the same road typically have very similar annual results in previous years at 12.3µg/m³.

AQMA7 (Table 2.1) **Malton**

Concentrations of NO_2 decreased by an average of 5.8% within the AQMA and decreased by an average of 8.1% outside the AQMA from 2022 levels. The highest annual mean NO_2 concentration measured within the AQMA during 2023 was 25.8µg/m³ at RYE7 (Castlegate 3).

The highest concentration measured outside the Malton AQMA was 18.3µg/m³ at RYE12 (Sherburn), both well below the annual mean objective.

Craven area

There are no AQMAs in this area and there are no significant issues with the twelve diffusion tubes relating to air quality in this area.

The highest annual mean result, bias adjusted for 2023 was at C5 (**Crosshills**) recording 21.5 µg/m^3 which is a reduction of 11.9% from 2022.

Hambleton area

AQMA5 (Table 2.1) **Bedale**

The AQO was not exceeded at any monitoring location in 2023 within the established AQMA. The highest concentration in this area is 17.1µg/m^3 at which is more than 50% below the AQO. The AQMA will be revoked in 2024 as advised by Defra in the interim draft response to the Hambleton ASR for 2023. Monitoring will continue in this area.

HDC3, a suburban location at Pennine View, **Northallerton** recorded a slight increase overall through the year with a result of 7.9µg/m^3 for 2023, an increase of 0.4µg/m^3 over the results from 2022.

Scarborough area

Very few areas within the seaside district of Scarborough are of concern in relation to air quality. Some diffusion tube locations have shown fractional changes over the year and two sites have shown a slight increase in the annual mean results.

Site SC14 (Strawberry Court, **Scarborough**) has reported a fractional increase overall in the annual mean, with a result of 27.7µg/m^3 for 2023, an increase of 0.4µg/m^3 over the results for 2022, yet still significantly below the air quality objective of 40µg/m^3.

Site SC19 (Downdinnerhill, **Whitby**) has reported a fractional increase overall in the annual mean, with a result of 25.2µg/m^3 for 2023, an increase of 2.7µg/m^3 (10.7%) over the results for 2022, yet still significantly below the air quality objective of 40µg/m^3. As visitor numbers have increased towards Whitby and more festivals are regularly held in the area, various traffic diversions to protect the safety of pedestrians and car drivers by closing the swing bridge to traffic during key weekends in the year appear to be affecting the NO_2 levels at SC19. This will continue to be monitored in the coming year.

AQMA8 (Table 2.1) **Staithes**

There is an amended AQMA within the village of Staithes for the previous exceedance of the annual mean objective for $PM_{10.}$ This was meant for revocation in 2018 and due to an administrative oversight, was only amended, not revoked, and therefore technically, remains in place. However, the monitoring station has long been removed at Staithes and NYC will revoke this AQMA in 2024.

Missing data/tubes

Missing data for some tubes for 1 or more month (often due to weather conditions (e.g. flooding pumps at RYE20 made the site inaccessible), tampering, missing lamppost and/or brackets), as evident in Table B.1 can result in a loss of data but generally this has had a negligible effect on the overall data captured.

For example: There were 4 missing tubes over different locations on different months in the former Craven area C1, C9, C10 and C12 and SC6, SC10, SC13 and SC23 in the Scarborough area.

In the Harrogate area the monitoring results from April 2023 appeared to be inconsistent with normal monitoring patterns (extremes of concentrations). Following discussions with other local authorities and Defra the whole month has been excluded from the study. There are other occasions throughout the year where anomalous figures have been removed.

New/Discontinued Tube Locations:

A **new** diffusion tube location has been established for 2024, namely HDC69 located at 1 Foundry Way, **Leeming Bar**, which will assist in monitoring increased traffic emissions due to a new supermarket planned for this area.

Following resident feedback two **new** monitoring locations were added in 2023 on Kingsley Road, **Harrogate**, one near to the junction with Knaresborough Road (H69), and the other near to the junction with Kingsley Drive (H68).

SC22 (Beulah Terrace, **Scarborough**) is a **new** monitoring location due to the public raising concerns regarding the idling of the large Nova 3 diesel trains on the adjacent rail track. Only four months data has been collected, so this result has been annualised.

One **new** monitoring location (S35) has been included in 2023, at Park Street, **Selby**. Monitoring did not start until May 2023, so the result has been annualised, giving a concentration of 19.6µg/m^3.

Hambleton area **removed** diffusion tube HDC58 at 14 Thirsk Road (S1) at the end of 2022 and no further monitoring was obtained for 2023 due to a lack of bracket / post. This tube location will not be reinstated in 2024.

Monitoring **ceased** at S22, Dr Inks, Ousegate (**Selby**) at the end of February 2023, there was insufficient data capture to present a monitoring result for the year. The monitoring was no longer able to be carried out due to the conversion of the building from a pub to town houses.

The locations of these diffusion tubes are shown in Appendix D.

Appendix A: Monitoring Results

Table A.1 – Details of Non-Automatic Monitoring Sites

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
R2	Queens Road Roundabout	Roadside	417180	501125	NO_2	No	8.0	1.8	No	2.5
R3	Darlington Road	Roadside	418066	501490	NO_2	No	22.0	1.4	No	2.6
R4	White Rose Crescent	Urban Background	418504	501455	NO_2	No	11.0	1.7	No	2.5
R6	Gatherley Moor Farm	Roadside	419207	506509	NO_2	No	0.0	8.0	No	2.0
R8	15 Queens Road	Roadside	417179	501127	NO_2	No	7.0	2.4	No	2.8
R10	Oglethorpe	Roadside	417381	501281	NO_2	No	1.7	1.7	No	2.7
R11	7 Gallowgate	Roadside	417377	501317	NO_2	No	0.0	3.3	No	2.7
R12	1 Anchorage Hill	Roadside	417542	501275	NO_2	No	3.5	1.8	No	2.7
R13	3 Maison Dieu	Roadside	417536	501258	NO_2	No	0.0	1.4	No	2.7
R15	2 Maison Dieu	Roadside	417500	501263	NO_2	No	0.0	1.6	No	2.8
R16	74 Frenchgate	Roadside	417451	501269	NO_2	No	0.0	1.5	No	2.7
R17	95 Frenchgate	Roadside	417370	501262	NO_2	No	2.0	1.5	No	3.0
R18	26 Darlington Road	Roadside	417661	501297	NO_2	No	3.5	1.7	No	2.7

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
R19	43 Frenchgate	Roadside	417312	501037	NO_2	No	0.0	1.8	No	2.7
R20	16 Catterick Road Catterick Garrison	Roadside	420754	498280	NO_2	No	0.0	1.8	No	2.7
HDC28	HDC28 Bridge Street Bedale (S1)	Roadside	426733	488169	NO_2	Yes - Bedale AQMA	1.0	1.5	No	3.0
HDC29	HDC29 White Bear Hotel Bedale (S2)	Roadside	426602	488141	NO_2	Yes - Bedale AQMA	0.0	1.5	No	3.5
HDC30	HDC30 Commerce House Bedale (S3)	Roadside	426681	488132	NO_2	Yes - Bedale AQMA	18.0	4.5	No	3.0
HDC4	HDC4 Northallerton South Parade	Roadside	436558	493326	NO_2	No	0.0	3.0	No	3.0
HDC3	HDC3 Northallerton Pennine View	Suburban	437714	493626	NO_2	No	6.0	1.5	No	3.0
HDC2	HDC2 Northallerton Bankhead Road	Suburban	435858	492676	NO_2	No	7.0	3.0	No	3.0
HDC5	HDC5 Thirsk	Suburban	442384	481510	NO_2	No	7.5	1.5	No	3.0
HDC6	HDC6 Easingwold	Suburban	453011	469267	NO_2	No	6.0	2.0	No	3.0
HDC7	HDC7 Bedale	Suburban	427096	487894	NO_2	No	10.0	2.5	No	3.0
HDC8	HDC8 Great Ayton Rosehill	Suburban	456243	510859	NO_2	No	4.0	2.0	No	3.0

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HDC10	HDC10 Aiskew	Roadside	427530	488821	NO_2	No	1.0	2.5	No	3.5
HDC61	HDC61 Great Ayton Newton Road	Roadside	456345	511088	NO_2	No	4.0	2.0	No	3.0
HDC62	HDC62 Morton on Swale	Roadside	432463	491936	NO_2	No	2.2	1.5	No	3.0
HDC63	HDC63 Skipton On Swale	Roadside	436652	479787	NO_2	No	3.0	1.5	No	3.0
HDC64	HDC64 Shipton by Benningbrough	Roadside	455278	458663	NO_2	No	3.2	1.5	No	3.0
HDC53	HDC53 York Vale House (S1)	Roadside	437037	493967	NO_2	No	4.7	2.5	No	3.0
HDC54	HDC54 Grosvenor House, East Road (S2)	Roadside	437039	493873	NO_2	No	8.0	2.0	No	3.0
HDC55	HDC55 5 Crosby Road (S3)	Roadside	437121	493879	NO_2	No	1.8	1.8	No	3.0
HDC56	HDC56 9 Crosby Road (S4)	Roadside	437140	493852	NO_2	No	2.1	1.4	No	3.0
HDC57	HDC57 16 Crosby Road (S5)	Roadside	437176	493762	NO_2	No	2.4	1.7	No	3.0
HDC12	HDC12 Masons Arms	Roadside	436885	494104	NO_2	No	4.5	2.0	No	3.0
HDC13	HDC13 Hunt and Wrigley	Roadside	436877	494087	NO_2	No	16.0	4.0	No	3.0

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HDC14	HDC14 Grande	Roadside	436886	494091	NO_2	No	16.0	4.0	No	2.5
HDC15	HDC15 The Tithe	Roadside	436933	494101	NO_2	No	4.0	5.5	No	3.0
HDC16	HDC16 Uno Memento	Roadside	436950	494105	NO_2	No	4.0	5.0	No	3.0
HDC17	HDC17 Odana	Roadside	436963	494107	NO_2	No	5.0	4.5	No	3.0
HDC65	HDC65 North Moor Road (S1)	Roadside	436156	496385	NO_2	No	4.0	1.5	No	3.0
HDC66	HDC66 North Moor Road (S2)	Roadside	436492	495337	NO_2	No	3.5	1.5	No	3.0
HDC67	HDC67 North Moor Road Bridge (S3)	Roadside	437039	495291	NO_2	No	3.5	1.5	No	3.0
HDC68	HDC68 Portland Road Junction (S4)	Roadside	437182	495273	NO_2	No	2.6	1.5	No	3.0
HDC39	HDC39 Northallerton A684 (S1)	Roadside	437109	494970	NO_2	No	13.7	2.7	No	3.0
HDC40	HDC40 Northallerton A684 (S2)	Roadside	437083	494958	NO_2	No	13.0	1.8	No	3.0
HDC41	HDC41 Northallerton A684 (S3)	Roadside	436988	494596	NO_2	No	8.7	1.6	No	3.0
HDC42	HDC42 Northallerton A684 (S4)	Roadside	436999	494584	NO_2	No	7.8	3.0	No	3.0

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HDC43	HDC43 Northallerton A684 (S5)	Roadside	436995	494515	NO_2	No	8.8	3.6	No	3.0
HDC44	HDC44 Northallerton A684 (S6)	Roadside	436973	494436	NO_2	No	7.0	3.0	No	3.0
HDC45	HDC45 Northallerton A684 (S7)	Roadside	436975	494395	NO_2	No	8.0	2.8	No	3.0
HDC46	HDC46 Northallerton A684 (S8)	Roadside	436934	494296	NO_2	No	5.5	2.7	No	3.0
HDC47	HDC47 Northallerton A684 (S9)	Roadside	436923	494220	NO_2	No	2.5	2.6	No	3.0
HDC48	HDC48 Northallerton Quaker Lane (S10)	Roadside	436973	494519	NO_2	No	11.4	1.7	No	3.0
HDC49	HDC49 Northallerton Quaker Lane (S11)	Roadside	436907	494500	NO_2	No	6.5	1.6	No	3.0
HDC50	HDC50 Northallerton Quaker Lane (S12)	Roadside	436717	494395	NO_2	No	5.0	1.8	No	3.0
HDC51	HDC51 Northallerton Quaker Lane (S13)	Roadside	436691	494388	NO_2	No	2.3	0.2	No	3.0
HDC52	HDC52 Northallerton	Roadside	436680	494362	NO_2	No	0.0	2.0	No	3.0

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	Quaker Lane/Windsor Rd (S14)									
HDC33	HDC33 11 Westgate Thirsk (S1)	Roadside	442783	481896	NO_2	No	0.0	1.0	No	3.0
HDC34	HDC34 27 Westgate Thirsk (S2)	Kerbside	442815	481915	NO_2	No	2.0	0.5	No	3.0
HDC35	HDC35 2 Castlegate Thirsk (S3)	Roadside	442871	481943	NO_2	No	1.0	3.0	No	3.0
HDC58	HDC58 14 Thirsk Road (S1)	Roadside	436097	493550	NO_2	No	1.0	1.5	No	3.0
HDC59	HDC59 6 Thirsk Road (S2)	Roadside	436893	493526	NO_2	No	1.0	1.5	No	3.0
HDC60	HDC60 7 Thirsk Road (S3)	Roadside	436879	493572	NO_2	No	1.0	2.0	No	3.0
RYE1, RYE2, RYE3	Yorkersgate, Butcher Corner, Malton 3 (NAS3)	Roadside	478739	471656	NO_2	Yes, Malton AQMA	0.9	3.0	No	3.0
RYE4	Wheelgate (1) Malton (NAS4)	Roadside	478704	471732	NO_2	Yes, Malton AQMA	0.0	2.8	No	2.7
RYE5	Old Maltongate (1) Malton (NAS5)	Kerbside	478844	471733	NO_2	Yes, Malton AQMA	1.1	0.5	No	3.0
RYE6	Castlegate (1) Malton (NAS6)	Roadside	478843	471596	NO_2	Yes, Malton AQMA	0.0	2.0	No	2.7
RYE7	Castlegate (2) Malton (NAS7)	Roadside	479028	471541	NO_2	Yes, Malton AQMA	0.2	2.0	No	3.3

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RYE8	Norton, 13 Kingston Rd. (NAS8)	Urban Background	479869	470761	NO_2	No	9.0	2.0	No	4.0
RYE9	Yorkersgate (1) Malton (NAS9)	Kerbside	478661	471630	NO_2	Yes, Malton AQMA	2.2	0.5	No	3.0
RYE10	Scarborough Road, Norton (NAS10)	Roadside	479668	471463	NO_2	No	0.0	3.1	No	3.0
RYE11	Yorkersgate (2), Malton (NAS11)	Roadside	478552	471609	NO_2	Yes, Malton AQMA	0.0	2.0	No	3.0
RYE12	Sherburn (NAS12)	Roadside	495854	476759	NO_2	No	0.5	2.5	No	2.2
RYE13	Rillington (NAS13)	Roadside	485362	474416	NO_2	No	18.0	3.5	No	3.0
RYE14	Pickering (NAS14)	Kerbside	479942	483826	NO_2	No	20.0	0.4	No	2.5
RYE15	Castlegate (3), Malton (NAS15)	Roadside	478927	471559	NO_2	Yes, Malton AQMA	0.0	2.4	No	2.7
RYE16	Helmsley (NAS16)	Kerbside	461282	483821	NO_2	No	11.0	0.3	No	2.5
RYE17	Wheelgate (2), Malton (NAS17)	Roadside	478608	471881	NO_2	No	0.0	1.7	No	2.5
RYE18	Old Malton Gate (2) Malton (NAS18)	Roadside	478911	471767	NO_2	Yes, Malton AQMA	0.0	1.5	No	3.2
RYE19	Newbiggin, Malton (NAS19)	Kerbside	478440	472037	NO_2	No	3.8	1.0	No	2.5
RYE20	Church Street 1, Norton (NAS20)	Kerbside	479120	471398	NO_2	No	14.5	0.5	No	2.5
RYE22	Pasture Lane, Malton (NAS22)	Roadside	479363	472468	NO_2	No	0.0	2.0	No	3.0

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RYE21	Highfield Road, Malton (NAS21)	Roadside	478792	472377	NO_2	No	4.7	1.2	No	2.5
RYE23	Church Street 2, Norton (NAS23)	Kerbside	479288	471386	NO_2	No	2.3	0.8	No	2.0
RYE24	St. Nicholas Street, Norton (NAS24)	Roadside	479173	471281	NO_2	No	10.0	1.2	No	3.0
H1	5 Otley Road, Killinghall	Roadside	428594	458666	NO_2	No	0.0	2.4	No	1.8
H2	24 Low Skellgate, Ripon	Roadside	431044	471039	NO_2	No	0.0	1.6	No	2.0
H6	27 Water Skellgate, Ripon	Roadside	431189	471146	NO_2	No	0.0	4.8	No	2.0
H7	1 Low Skellgate, Ripon	Roadside	431110	471124	NO_2	Yes (Ripon AQMA No.1)	0.0	2.5	No	2.0
H8	24 High Skellgate, Ripon	Roadside	431155	471216	NO_2	Yes (Ripon AQMA No.1)	0.0	1.7	No	2.1
H9	9 High Skellgate, Ripon	Roadside	431135	471186	NO_2	Yes (Ripon AQMA No.1)	0.0	1.7	No	2.6
H10	3a Westgate, Ripon	Roadside	431146	471258	NO_2	Yes (Ripon AQMA No.1)	0.0	1.8	No	2.0
H12	Vale Court, Knaresborough	Roadside	434715	457387	NO_2	No	0.0	8.1	No	1.5
H13	21 Bond End, Knaresborough	Roadside	434707	457368	NO_2	Yes (Kboro AQMA No. 1)	0.0	1.0	No	2.2
H14	9 Bond End, Knaresborough	Roadside	434759	457375	NO_2	Yes (Kboro AQMA No. 1)	0.0	1.8	No	2.0
H16	10 Bond End, Knaresborough	Roadside	434763	457388	NO_2	Yes (Kboro AQMA No. 1)	0.0	2.5	No	1.8

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H17	16-18 Bond End, Knaresborough	Roadside	434725	457405	NO_2	Yes (Kboro AQMA No. 1)	0.0	1.5	No	1.9
H18	10 York Place, Knaresborough	Roadside	435210	456918	NO_2	Yes (Kboro AQMA No. 1)	0.0	3.2	No	1.8
H19	35 High Street, Knaresborough	Roadside	435012	457084	NO_2	No	0.0	1.5	No	2.4
H20	24 High Street, Knaresborough	Roadside	435133	457009	NO_2	No	0.0	2.3	No	2.5
H21	10 High Street, Knaresborough	Roadside	435158	456992	NO_2	No	0.0	1.5	No	2.0
H22	14 York Place, Knaresborough	Roadside	435224	456913	NO_2	Yes (Kboro AQMA No. 2)	0.0	3.4	No	2.1
H23	34b High Street, Harrogate	Roadside	432918	455959	NO_2	No	0.0	3.0	No	2.4
H24	Woodlands Pub, Hookstone Drive	Roadside	432477	454805	NO_2	Yes (Hgate AQMA No. 1)	0.2	2.0	No	2.5
H4, H5, H25	5 Low Skellgate, Ripon	Roadside	431087	471100	NO_2	Yes (Ripon AQMA No. 1)	0.0	1.5	No	2.1
H26	Woodlands Pub, Wetherby Road	Roadside	432494	454808	NO_2	Yes (Hgate AQMA No. 1)	0.0	1.0	No	3.6
H28	77 Harlow Crescent	Urban Background	429313	453820	NO_2	No	0.0	5.0	No	1.9
H29	Epsom Court, Harrogate	Kerbside	429534	456882	NO_2	No	2.3	0.2	No	2.0
H30	Wintringham House, High	Roadside	435137	456968	NO_2	No	0.0	2.3	No	2.3

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	Street, Knaresborough									
H33	207 Skipton Road, Harrogate	Roadside	430224	456727	NO_2	No	0.0	2.0	No	2.1
H34	Woodlands Pub Lamppost, Wetherby Road	Roadside	432508	454804	NO_2	Yes (Hgate AQMA No. 1)	4.6	1.5	No	1.9
H35	208 Kings Road, Harrogate	Roadside	430513	456467	NO_2	No	2.7	2.0	No	1.9
H36	8-10 Westmoreland Street, Harrogate	Roadside	430925	455804	NO_2	No	0.0	1.5	No	2.0
H37	87 Skipton Road, Harrogate	Roadside	430573	456436	NO_2	No	0.0	8.0	No	2.0
H38	59 Skipton Road, Harrogate	Roadside	430647	456324	NO_2	No	0.0	3.0	No	1.7
H39	Devonshire Place, Harrogate	Kerbside	430995	455831	NO_2	No	3.0	0.6	No	1.8
H40	Vintage Boutique, Westmoreland Street, Harrogate	Roadside	430935	455826	NO_2	No	0.0	1.5	No	2.3
H41	16 York Place, Knaresborough	Roadside	435235	456907	NO_2	Yes (Kboro AQMA No. 2)	0.0	3.4	No	2.0
H42	Taxi Rank, Station Parade, Harrogate	Urban Centre	430367	455339	NO_2	No	0.0	0.1	No	2.1
H43	1 Station Square, Harrogate	Urban Centre	430397	455194	NO_2	No	0.0	0.5	No	2.0
H27, H44	The Old Police House, Walshford	Roadside	441851	453686	NO_2	No	0.0	12.2	No	2.0

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H45	15 Devonshire Place, Harrogate	Roadside	430991	455828	NO_2	No	0.0	3.7	No	1.7
H46	93 Skipton Road, Harrogate	Roadside	430535	456495	NO_2	No	0.0	8.6	No	1.8
H47	43 Woodfield Road, Harrogate	Urban Background	430800	456572	NO_2	No	0.0	30.8	No	1.6
H49	29 Bond End, Knaresborough	Roadside	434623	457314	NO_2	No	0.0	0.9	No	2.1
H50	55 Bond End, Knaresborough	Roadside	434578	457260	NO_2	No	0.0	1.9	No	2.3
H51	The Royal Oak, Knaresborough	Roadside	434796	457393	NO_2	Yes (Kboro AQMA No. 1)	0.0	1.3	No	2.3
H52	High Street, Knaresborough	Roadside	434835	457329	NO_2	Yes (Kboro AQMA No. 1)	0.0	2.1	No	2.0
H53	The Old Tannery, York Place, Knaresborough	Roadside	435253	456893	NO_2	Yes (Kboro AQMA No. 2)	0.0	3.4	No	2.0
H54	30 Low Skellgate, Ripon	Roadside	431075	471077	NO_2	Yes (Kboro AQMA No. 1)	0.0	1.5	No	2.7
H55	35 Low Skellgate, Ripon	Roadside	431102	471101	NO_2	Yes (Kboro AQMA No. 1)	0.0	2.0	No	2.1
H56	Crown Court, Ripon	Roadside	431151	471119	NO_2	No	0.0	3.8	No	2.1
H57	6 Water Skellgate, Ripon	Roadside	431193	471132	NO_2	No	0.0	2.3	No	2.0

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H58	17 Water Skellgate, Ripon	Roadside	431242	471135	NO_2	No	0.0	2.1	No	2.2
H15, H59, H60	117 High Street, Knaresborough	Roadside	434804	457358	NO_2	Yes (Kboro AQMA No. 1)	0.0	2.6	No	1.9
H61	13 East Parade, Harrogate	Roadside	430478	455297	NO_2	No	1.7	2.3	No	2.2
H62	Bilton Lane, Harrogate	Roadside	430420	456798	NO_2	No	2.0	2.6	No	2.0
H63	109 Station Parade, Harrogate	Roadside	430548	454832	NO_2	No	1.5	2.3	No	2.0
H64	Station View, Knaresborough Road	Roadside	432806	455899	NO_2	No	11.5	2.5	No	2.0
H67	Otley Road, Harrogate	Roadside	429503	454275	NO_2	No	3.7	2.4	No	1.9
H68	Kingsley Road/Drive, Harrogate	Roadside	432253	456220	NO_2	No	14.7	1.8	No	2.0
H69	Kingsley Road/Kboro Rd, Harrogate	Roadside	432513	455850	NO_2	No	8.8	2.0	No	2.0
9N	Bryony Court	Urban Background	460899	430935	NO_2	No	6.0	2.0	No	2.5
4N	Brook St Opposite Ebor Opening	Roadside	461096	432191	NO_2	No	5.0	1.0	No	2.5
3N	3Carentan Close	Urban Background	460855	432820	NO_2	No	7.0	1.5	No	2.5

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S6	Preston Baker/Hairdresser New St	Roadside	461635	432372	NO_2	Yes - New Street AQMA Order No.1	0.0	1.5	No	2.7
S26	Skin & Furs 1st Floor New St	Roadside	461648	432384	NO_2	Yes - New Street AQMA Order No.1	3.5	1.5	No	3.5
S5a, S5b, S5c	Roko Furniture 3 New St	Roadside	461659	432405	NO_2	Yes - New Street AQMA Order No.1	0.0	1.5	No	2.5
S7a, S7b, S7c	21 New St 3	Roadside	461688	432434	NO_2	Yes - New Street AQMA Order No.1	0.0	1.0	No	3.0
S2	Lamp Post 52 New St	Roadside	461689	432422	NO_2	Yes - New Street AQMA Order No.1	5.0	1.7	No	2.5
S8	30 New St	Roadside	461697	432424	NO_2	Yes - New Street AQMA Order No.1	0.0	6.0	No	3.0
S4	Eye of Bri New St	Roadside	461681	432407	NO_2	Yes - New Street AQMA Order No.1	0.0	1.3	No	2.5
S3a, S3b, S3c	Tutti's 3 New St	Roadside	461670	432408	NO_2	Yes - New Street AQMA Order No.1	0.0	1.5	No	2.5

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S1	Fringe Hair New St	Roadside	461638	432345	NO_2	Yes - New Street AQMA Order No.1	0.0	2.4	No	2.5
S11	Lisa's Florist 10 The Crescent	Roadside	461507	432319	NO_2	No	0.0	3.0	No	3.0
S10	Greggs Lamppost Gowthorpe	Roadside	461317	432356	NO_2	No	0.0	1.0	No	2.5
S27	Scott Rd Lamppost 1	Roadside	461120	432303	NO_2	No	2.2	2.1	No	2.2
S28	28 Scott Rd Downpipe	Roadside	461062	432475	NO_2	No	2.2	3.8	No	2.2
S29	Scott Rd Lamppost 12	Roadside	461041	432539	NO_2	No	2.2	2.2	No	2.2
S32	Elm Street Access Sign	Roadside	461871	432643	NO_2	No	2.2	6.0	No	2.2
S34	Barlby Rd lamppost 13	Roadside	461938	432710	NO_2	No	2.2	2.7	No	2.2
S33	John Street Access Sign	Roadside	461935	432672	NO_2	No	2.2	6.6	No	2.2
S31	Barlby Rd lamppost 6	Roadside	461852	432594	NO_2	No	2.2	1.9	No	2.2
S30	Barlby Rd lamppost 3	Roadside	461806	432546	NO_2	No	2.2	2.1	No	2.2
S18	5B Millgate	Roadside	461517	432582	NO_2	No	2.5	1.3	No	2.5
S19	10 Millgate	Roadside	461526	432584	NO_2	No	2.5	1.6	No	2.5
S22	Dr Inks Ousegate	Roadside	461733	432411	NO_2	No	2.5	0.6	No	2.5
S23	lamppost 26 Ousegate	Roadside	461821	432376	NO_2	No	2.5	0.6	No	2.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
S24	lamppost 27 Ousegate	Roadside	461788	432379	NO_2	No	2.5	0.6	No	2.5
S25	lamppost 28 Ousegate	Roadside	461762	432408	NO_2	No	2.5	0.6	No	2.5
S35	Park Street	Roadside	461617	432148	NO_2	No	4.5	2.5	No	2.5
C1	Station Road Bentham	Roadside	366749	469197	NO_2	No	0.9	1.4	No	2.0
C2	Duke Street Settle	Roadside	381959	463625	NO_2	No	0.6	1.2	No	2.0
C3	Newmarket Street Skipton	Roadside	399103	451611	NO_2	No	0.5	1.4	No	2.0
C4	Craven Street Skipton	Roadside	398820	451196	NO_2	No	3.9	1.5	No	2.0
C5	Main Street Crosshills	Roadside	400629	444999	NO_2	No	1.4	1.7	No	2.0
C6	Station Road Crosshills	Roadside	400811	445217	NO_2	No	6.1	1.3	No	2.0
C7	Broughton Road Skipton	Roadside	397795	451308	NO_2	No	2.3	1.8	No	2.0
C8	Water Street Skipton	Roadside	398898	451835	NO_2	No	0.4	1.0	No	2.0
C9	Colne Road Glusburn	Roadside	400006	444760	NO_2	No	1.8	2.4	No	2.0
C10	High Street Gargrave	Roadside	393272	454225	NO_2	No	0.2	3.0	No	2.0
C11	Main Street Hellifield	Roadside	385397	456675	NO_2	No	2.7	2.8	No	2.0
C12	Brown Bank Terrace Crosshills	Roadside	401212	445224	NO_2	No	3.5	0.8	No	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
SC1	Odeon Roundabout, Scarborough	Roadside	503929	488389	NO_2	No	0.0	2.0	No	2.0
SC2	Ramshill 1, Scarborough	Roadside	504094	487815	NO_2	No	1.4	2.7	No	2.0
SC3	Ramshill 2, Scarborough	Roadside	504109	487497	NO_2	No	8.0	2.5	No	2.0
SC4	Main Street, Cayton	Roadside	505466	483378	NO_2	No	0.0	1.1	No	2.0
SC5	East Ayton 1	Roadside	498998	484889	NO_2	No	0.3	1.4	No	2.0
SC6	East Ayton 2	Roadside	499023	484885	NO_2	No	0.4	2.2	No	2.0
SC7	Snainton 1	Roadside	492186	482266	NO_2	No	0.1	1.0	No	2.0
SC8	Snainton 2	Roadside	492161	482291	NO_2	No	0.1	1.2	No	2.0
SC9	Valley Rd Junct. Scarborough	Roadside	503288	487538	NO_2	No	7.0	3.6	No	2.0
SC10	Spring Bank, Scarborough	Roadside	503273	487523	NO_2	No	2.2	0.4	No	2.0
SC11	Seamer Road 1, Scarborough	Roadside	503288	487911	NO_2	No	0.7	2.4	No	2.0
SC12	Seamer Road corner 2, Scarborough	Roadside	503218	487940	NO_2	No	1.0	2.8	No	2.0
SC13	Falsgrave Road, Scarborough	Roadside	503088	487922	NO_2	No	4.4	2.9	No	2.0
SC14	Strawberry Court, Scarborough	Roadside	503045	488003	NO_2	No	2.1	0.5	No	2.0
SC15	Manor Road, Scarborough	Roadside	502929	488227	NO_2	No	10.0	0.6	No	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
SC16	Ruswarp 1	Roadside	488913	509314	NO_2	No	12.0	1.9	No	2.0
SC17	Ruswarp 2	Roadside	488912	509271	NO_2	No	0.0	1.0	No	2.0
SC18	Dock End, Whitby	Kerbside	489863	510887	NO_2	No	0.0	0.0	No	2.0
SC19	Downdinner Hill, Whitby 2	Roadside	489388	510619	NO_2	No	10.0	1.5	No	2.0
SC20	Prospect Hill, Whitby	Roadside	489277	510331	NO_2	No	4.5	1.2	No	2.0
SC21	Helredale Road 1, Whitby	Roadside	490370	509314	NO_2	No	11.0	0.5	No	2.0
SC22	Beulah Terrace, Scarborough	Kerbside	503741	488079	NO_2	No	8.0	0.0	No	2.0
SC23	Helredale Road 2, Whitby	Roadside	490374	510024	NO_2	No	21.0	2.0	No	2.0
SC24	Peasholm Drive, Scarborough	Urban Background	503615	489367	NO_2	No	14.0	4.6	No	2.0
SC25	Bridlington Street	Roadside	509679	477308	NO_2	No	0.0	2.8	No	2.0
SC26	Murray Street, Filey	Roadside	511698	480664	NO_2	No	0.0	1.5	No	2.0
SC27	Eastborough	Kerbside	504703	488799	NO_2	No	1.8	0.3	No	2.0
SC28	St Nicholas Street, Scarborough	Kerbside	504357	488553	NO_2	No	0.0	2.0	No	2.0

Diffusion Tube ID Key:

R – former Richmondshire area, HDC – former Hambleton area, RYE – former Ryedale area, H – former Harrogate area, S or N – former Selby area, C – former Craven area, SC – former Scarborough area

Notes: (1) 0m if the monitoring site is at a location of exposure (e.g., installed on the façade of a residential property).

(2) N/A if not applicable.

Table A.2 – Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
R2	417180	501125	Roadside		100.0	22.5	18.4	18.9	17.8	15.5
R3	418066	501490	Roadside		100.0	14.8	11.4	11.6	11.0	11.4
R4	418504	501455	Urban Background		100.0	7.4	5.8	5.6	5.7	4.8
R6	419207	506509	Roadside		100.0	20.6	15.7	17.3	16.7	16.1
R8	417179	501127	Roadside		100.0	27.7	19.8	21.4	20.3	18.9
R10	417381	501281	Roadside		100.0	28.6	23.5	24.3	22.4	21.9
R11	417377	501317	Roadside		100.0	32.7	26.4	27.5	25.4	23.0
R12	417542	501275	Roadside		100.0	21.0	16.1	17.4	16.2	14.2
R13	417536	501258	Roadside		100.0	19.3	15.4	17.3	17.7	14.8
R15	417500	501263	Roadside		100.0	21.9	16.0	18.5	18.4	15.9
R16	417451	501269	Roadside		100.0	30.3	22.7	23.8	22.2	20.4
R17	417370	501262	Roadside		100.0	23.4	17.1	18.2	17.8	17.5
R18	417661	501297	Roadside		100.0	21.8	16.9	18.4	17.3	15.3
R19	417312	501037	Roadside		100.0	21.1	15.5	17.3	16.4	16.3
R20	420754	498280	Roadside		100.0			20.8	19.5	16.9
HDC28	426733	488169	Roadside		90.4	20.7	16.5	19.1	18.5	17.1
HDC29	426698	488143	Roadside		100.0	30.4	22.1	23.2	18.1	13.5

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
HDC30	426681	488132	Roadside		100.0	23.3	17.1	15.8	16.1	15.2
HDC4	436558	493326	Roadside		100.0	26.2	20.2	22.8	20.7	20.0
HDC3	437714	493626	Suburban		100.0	11.2	9.0	7.7	7.5	7.9
HDC2	435858	492676	Suburban		100.0	9.7	7.8	8.8	8.7	6.7
HDC5	442384	481510	Suburban		100.0	11.4	9.1	8.3	9.1	7.8
HDC6	453011	469267	Suburban		100.0	11.1	9.0	8.3	8.6	8.0
HDC7	427096	487894	Suburban		82.7	8.9	7.2	7.0	6.7	6.1
HDC8	456243	510859	Suburban		100.0	8.2	7.2	7.1	7.5	5.9
HDC10	427530	488821	Roadside		100.0	12.3	9.7	10.5	9.8	9.3
HDC61	456345	511088	Roadside		100.0	12.5	8.5	10.7	9.7	9.9
HDC62	432463	491936	Roadside		92.3				11.5	9.3
HDC63	436652	479787	Roadside		100.0				11.0	10.7
HDC64	455278	458663	Roadside		100.0				18.4	17.1
HDC53	437037	493967	Roadside		100.0	21.9	17.8	19.7	17.1	14.9
HDC54	437046	493802	Roadside		100.0	22.5	18.6	20.9	19.4	19.6
HDC55	437121	493879	Roadside		100.0	13.8	14.3	13.0	13.4	11.5
HDC56	437140	493852	Roadside		100.0	15.6	16.6	14.6	13.6	13.1
HDC57	437176	493762	Roadside		100.0	11.4	11.2	11.4	11.0	10.1

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
HDC12	436885	494104	Roadside		100.0	26.5	22.5	23.7	22.5	20.8
HDC13	436877	494087	Roadside		100.0	30.8	24.3	24.9	25.0	22.0
HDC14	436886	494091	Roadside		100.0	29.5	23.7	24.2	25.2	22.8
HDC15	436933	494101	Roadside		100.0	26.7	20.7	23.0	22.5	19.6
HDC16	436950	494105	Roadside		100.0	25.6	20.7	22.0	22.6	20.0
HDC17	436963	494107	Roadside		100.0	28.1	15.7	17.3	15.9	13.5
HDC65	436156	496385	Roadside		100.0				13.5	12.8
HDC66	436492	495337	Roadside		100.0				13.6	12.1
HDC67	437039	495291	Roadside		75.0				12.2	11.1
HDC68	437182	495273	Roadside		100.0				12.0	10.4
HDC39	437109	494970	Roadside		100.0	15.4	13.1	13.7	13.9	11.0
HDC40	437083	494958	Roadside		92.3	25.5	19.9	22.1	22.8	18.1
HDC41	436988	494596	Roadside		100.0	27.3	22.7	24.4	22.5	18.6
HDC42	436999	494584	Roadside		100.0	22.5	18.1	19.9	19.3	16.3
HDC43	436995	494515	Roadside		100.0	26.5	21.3	22.1	22.2	18.7
HDC44	436973	494436	Roadside		100.0	26.0	19.7	22.1	21.2	17.9
HDC45	436975	494395	Roadside		92.3	22.5	18.2	19.6	18.9	17.0
HDC46	436934	494296	Roadside		100.0	27.5	20.6	23.9	21.2	19.7

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
HDC47	436923	494220	Roadside		100.0	22.9	19.2	21.7	20.9	18.7
HDC48	436973	494519	Roadside		100.0	21.2	16.9	18.9	18.1	13.9
HDC49	436907	494500	Roadside		75.0	16.4	14.1	14.8	14.2	11.2
HDC50	436717	494395	Roadside		67.3	21.9	17.2	18.3	18.4	14.2
HDC51	436691	494388	Roadside		75.0	19.8	16.2	18.7	18.3	13.8
HDC52	436680	494362	Roadside		100.0	21.3	16.1	17.2	17.4	13.6
HDC33	442783	481896	Roadside		100.0	29.4	23.1	25.4	24.2	20.6
HDC34	442815	481915	Kerbside		100.0	34.1	26.3	30.0	27.4	25.5
HDC35	442871	481943	Roadside		100.0	25.4	19.8	21.2	21.4	18.5
HDC58	436097	493550	Roadside		7.7	21.3	16.3	16.9	22.4	-
HDC59	436893	493526	Roadside		75.0	29.4	23.2	23.3	18.9	21.4
HDC60	436879	493572	Roadside		100.0	25.5	18.2	19.9	18.5	16.4
RYE1, RYE2, RYE3	478739	471656	Roadside		100.0	33.2	31.3	24.6	23.7	23.4
RYE4	478704	471732	Roadside		100.0	23.6	24.1	24.6	26.5	23.8
RYE5	478844	471733	Kerbside		84.6	32.3	30.0	23.1	24.8	22.0
RYE6	478843	471596	Roadside		100.0	31.9	30.4	18.9	19.5	18.9
RYE7	479028	471541	Roadside		84.6	33.3	33.4	24.4	25.7	25.8
RYE8	479869	470761	Urban Background		100.0	25.4	23.8	8.1	7.6	6.3

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
RYE9	478661	471630	Kerbside		92.3	20.5	16.5	26.0	26.1	21.8
RYE10	479668	471463	Roadside		100.0	21.7	19.1	16.8	17.0	15.9
RYE11	478552	471609	Roadside		100.0	21.8	20.3	13.7	18.7	18.3
RYE12	495854	476759	Roadside		84.6	22.7	23.2	18.4	21.0	18.3
RYE13	485362	474416	Roadside		100.0	24.0	25.7	13.4	12.3	11.7
RYE14	479942	483826	Kerbside		100.0	19.0	15.9	10.4	18.7	16.6
RYE15	478927	471559	Roadside		100.0	18.2	17.5	25.1	25.1	25.0
RYE16	461282	483821	Kerbside		92.3	9.6	9.7	8.5	12.6	11.4
RYE17	478608	471881	Roadside		100.0	16.2	17.1	21.0	17.3	16.2
RYE18	478911	471767	Roadside		100.0	15.4	19.1	24.3	25.0	24.3
RYE19	478440	472037	Kerbside		100.0	23.7	21.5	12.0	12.4	11.4
RYE20	479120	471398	Kerbside		75.0	13.0	13.0	11.4	16.8	14.9
RYE22	479363	472468	Roadside		100.0	13.0	13.0	13.3	13.6	12.3
RYE21	478792	472377	Roadside		69.2	13.0	13.0	9.9	13.1	13.7
RYE23	479288	471386	Kerbside		92.3			18.5	18.9	16.0
RYE24	479173	471281	Roadside		84.6			10.3	10.7	11.0
H1	428594	458666	Roadside		92.3	19.3	15.6	17.7	19.9	16.7
H2	431044	471039	Roadside		76.9	20.3	17.6	19.9	18.7	17.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
H6	431189	471146	Roadside		92.3	20.1	16.9	17.5	16.9	15.7
H7	431110	471124	Roadside		92.3	24.9	19.2	22.5	19.5	18.3
H8	431155	471216	Roadside		92.3	29.8	23.1	30.1	26.3	23.4
H9	431135	471186	Roadside		92.3	28.7	22.1	27.1	25.6	23.2
H10	431146	471258	Roadside		76.9	27.4	22.4	25.3	23.1	21.4
H12	434715	457387	Roadside		92.3	25.5	19.8	23.3	21.5	19.6
H13	434707	457368	Roadside		92.3	**40.5**	30.7	38.3	38.4	31.2
H14	434759	457375	Roadside		92.3	38.6	33.8	36.8	38.3	33.9
H16	434763	457388	Roadside		92.3	31.2	25.6	29.5	27.3	23.0
H17	434725	457405	Roadside		92.3	24.3	18.7	21.3	19.9	18.3
H18	435210	456918	Roadside		73.1	26.7	21.4	24.7	23.6	21.7
H19	435012	457084	Roadside		92.3	26.9	22.2	27.1	25.6	21.9
H20	435133	457009	Roadside		92.3	31.3	24.9	31.1	27.3	26.7
H21	435158	456992	Roadside		92.3	23.3	20.4	23.8	22.7	18.0
H22	435224	456913	Roadside		92.3	34.9	27.3	28.9	29.7	25.9
H23	432918	455959	Roadside		92.3	20.4	17.0	18.7	18.2	17.0
H24	432477	454805	Roadside		92.3	25.4	20.8	22.7	23.1	19.3
H4, H5, H25	431087	471100	Roadside		84.6	35.0	28.9	33.3	32.4	28.4

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
H26	432494	454808	Roadside		92.3	35.9	31.3	31.7	31.8	27.9
H28	429313	453820	Urban Background		84.6	9.2	8.8	9.3	8.3	7.7
H29	429534	456882	Kerbside		92.3	24.7	21.4	23.5	25.3	21.8
H30	435137	456968	Roadside		76.9	33.8	34.1	37.7	31.5	29.1
H33	430224	456727	Roadside		92.3	25.2	20.1	20.6	23.4	19.8
H34	432508	454804	Roadside		82.7	26.8	22.1	24.0	23.5	19.0
H35	430513	456467	Roadside		92.3	19.7	16.0	19.6	18.0	15.4
H36	430925	455804	Roadside		84.6	20.3	17.3	20.3	19.1	17.1
H37	430573	456436	Roadside		92.3	21.4	17.4	20.9	20.5	19.3
H38	430647	456324	Roadside		92.3	23.3	22.5	21.7	22.4	20.8
H39	430995	455831	Kerbside		92.3	38.4	30.7	31.9	33.4	31.1
H40	430935	455826	Roadside		84.6	23.9	18.9	22.2	20.8	19.2
H41	435235	456907	Roadside		92.3	28.3	23.9	27.7	26.3	23.1
H42	430367	455339	Urban Centre		76.9	33.6	30.6	34.1	33.9	30.9
H43	430397	455194	Urban Centre		92.3	21.1	16.6	19.4	19.0	16.6
H27, H44	441851	453686	Roadside		92.3	23.5	18.9	21.2	19.2	16.8
H45	430991	455828	Roadside		92.3	26.6	23.8	26.8	25.2	23.8
H46	430535	456495	Roadside		92.3	19.8	17.7	17.6	18.2	16.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
H47	430800	456572	Urban Background		84.6	10.9	10.6	11.3	9.4	7.9
H49	434623	457314	Roadside		92.3	27.6	24.7	29.8	29.1	25.1
H50	434578	457260	Roadside		84.6	28.6	25.6	30.5	28.7	25.9
H51	434796	457393	Roadside		92.3	33.9	32.8	34.7	32.7	28.8
H52	434835	457329	Roadside		92.3	37.0	30.9	33.7	33.1	30.5
H53	435253	456893	Roadside		82.7	26.8	23.3	26.1	24.9	21.5
H54	431075	471077	Roadside		84.6	28.2	22.3	27.6	24.9	22.1
H55	431102	471101	Roadside		92.3	28.5	24.0	25.3	26.3	22.8
H56	431151	471119	Roadside		92.3	25.4	19.7	20.9	20.2	18.3
H57	431193	471132	Roadside		92.3	27.4	21.2	24.1	23.5	20.5
H58	431242	471135	Roadside		84.6	22.3	18.3	19.5	19.1	18.0
H15, H59, H60	434804	457358	Roadside		92.3	35.2	29.8	31.6	32.2	27.0
H61	430478	455297	Roadside		92.3		21.5	22.3	21.3	21.9
H62	430420	456798	Roadside		92.3		16.9	15.6	17.0	14.1
H63	430548	454832	Roadside		67.3			21.0	21.7	20.0
H64	432806	455899	Roadside		84.6			19.5	19.8	17.8
H67	429503	454275	Roadside		84.6				16.1	14.3
H68	432253	456220	Roadside		92.3					9.1

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
H69	432513	455850	Roadside		92.3					14.2
9N	460899	430935	Urban Background		100.0	16.2	10.8	11.1	10.9	9.7
4N	461096	432191	Roadside		92.3	26.5	17.1	21.7	18.7	17.7
3N	460855	432820	Urban Background		100.0	15.3	12.5	12.3	11.8	11.0
S6	461635	432372	Roadside		100.0	26.4	20.6	24.6	22.7	22.5
S26	461648	432384	Roadside		100.0		4.0	30.3	27.2	27.6
S5a, S5b, S5c	461659	432405	Roadside		100.0	39.2	29.6	33.3	30.1	32.8
S7a, S7b, S7c	461688	432434	Roadside		100.0	**46.5**	35.2	**41.9**	39.1	39.8
S2	461689	432422	Roadside		100.0	31.1	23.2	24.2	24.9	24.0
S8	461697	432424	Roadside		100.0	29.2	21.1	24.7	23.5	22.3
S4	461681	432407	Roadside		100.0	**43.6**	32.2	39.2	37.1	36.8
S3a, S3b, S3c	461670	432408	Roadside		100.0	36.0	25.8	33.0	30.6	30.8
S1	461638	432345	Roadside		100.0	32.1	24.2	28.3	26.8	26.4
S11	461507	432319	Roadside		100.0	33.2	24.3	27.8	27.1	24.3
S10	461317	432356	Roadside		76.9	30.5	22.6	26.6	23.7	23.4
S27	461120	432303	Roadside		82.7			32.7	28.1	26.1

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
S28	461062	432475	Roadside		100.0			19.1	16.6	15.3
S29	461041	432539	Roadside		100.0			21.8	20.1	18.4
S32	461871	432643	Roadside		100.0			15.1	13.8	13.7
S34	461938	432710	Roadside		92.3			23.3	20.8	20.0
S33	461935	432672	Roadside		92.3			15.5	14.3	13.6
S31	461852	432594	Roadside		100.0			20.1	17.6	17.9
S30	461806	432546	Roadside		92.3			21.3	18.4	18.7
S18	461517	432582	Roadside		92.3	29.5	21.0	24.7	23.5	21.4
S19	461526	432584	Roadside		82.7	34.1	22.7	29.2	26.5	25.4
S22	461733	432411	Roadside		15.4	24.0	18.3	21.1	19.8	-
S23	461821	432376	Roadside		82.7	20.5	15.9	17.1	15.9	16.7
S24	461788	432379	Roadside		100.0	23.6	19.6	20.9	20.2	19.5
S25	461762	432408	Roadside		100.0	21.9	18.8	21.3	20.6	20.2
S35	461617	432148	Roadside	100	67.3					19.6
C1	366749	469197	Roadside		90.4	19.3	13.0	14.2	14.5	13.0
C2	381959	463625	Roadside		100.0	21.4	15.8	17.5	16.7	14.8
C3	399103	451611	Roadside		100.0	26.5	19.2	21.7	22.3	19.7
C4	398820	451196	Roadside		100.0	22.4	14.4	17.6	16.5	15.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
C5	400629	444999	Roadside		100.0	27.4	21.7	24.7	24.4	21.5
C6	400811	445217	Roadside		100.0	23.7	17.1	20.0	18.8	17.2
C7	397795	451308	Roadside		100.0		19.3	15.3	15.8	13.4
C8	398898	451835	Roadside		100.0		15.2	17.5	17.8	15.0
C9	400006	444760	Roadside		90.4		16.4	19.1	18.1	18.6
C10	393272	454225	Roadside		92.3		22.6	22.4	22.1	20.5
C11	385397	456675	Roadside		100		21.0	16.7	16.4	14.4
C12	401212	445224	Roadside		92.3			14.6	15.4	13.8
SC1	503929	488389	Roadside		100.0	31.3	20.1	23.3	23.9	21.8
SC2	504094	487815	Roadside		100.0	28.2	18.3	21.4	23.3	20.5
SC3	504109	487497	Roadside		100.0	27.3	17.8	22.1	23.2	22.3
SC4	505466	483378	Roadside		100.0	15.0	10.6	13.4	12.7	11.2
SC5	498998	484889	Roadside		100.0	26.7	16.8	22.7	20.7	19.6
SC6	499023	484885	Roadside		92.3	19.7	15.8	17.8	16.1	15.8
SC7	492186	482266	Roadside		100.0	30.1	19.9	23.5	23.3	21.4
SC8	492161	482291	Roadside		100.0	21.2	13.3	17.1	17.7	16.6
SC9	503288	487538	Roadside		100.0	32.4	19.1	26.5	27.8	25.2
SC10	503273	487523	Roadside		92.3	23.6	17.7	19.5	22.1	19.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
SC11	503288	487911	Roadside		34.6	33.4	20.4	26.6	27.1	25.5
SC12	503218	487940	Roadside		82.7	26.4	17.1	20.8	20.3	19.7
SC13	503088	487922	Roadside		90.4	26.2	17.4	22.8	21.6	20.8
SC14	503045	488003	Roadside		92.3	34.2	24.2	25.4	27.3	27.7
SC15	502929	488227	Roadside		100.0	21.0	13.6	20.8	16.6	15.3
SC16	488913	509314	Roadside		100.0	14.0	10.2	13.2	12.0	10.1
SC17	488912	509271	Roadside		100.0	20.8	15.4	18.9	17.8	15.9
SC18	489863	510887	Kerbside		90.4	19.6	12.2	15.9	14.8	13.7
SC19	489388	510619	Roadside		84.6	34.3	18.7	25.0	22.5	25.2
SC20	489277	510331	Roadside		100.0	18.4	12.0	15.1	13.2	12.6
SC21	490370	509314	Roadside		84.6	27.0	18.1	21.1	21.0	19.3
SC22	503741	488079	Kerbside		34.6					11.0
SC23	490374	510024	Roadside		50.0	15.8	13.6	13.9	12.9	13.4
SC24	503615	489367	Urban Background		100.0	11.5	9.3	10.8	10.2	8.3
SC25	509679	477308	Roadside		92.3	14.4	10.8	13.1	12.1	10.9
SC26	511698	480664	Roadside		100.0	13.7	10.1	11.8	10.7	9.1
SC27	504703	488799	Kerbside		92.3	21.6	14.8	17.9	17.9	16.8
SC28	504357	488553	Kerbside		82.7	18.0	17.7	16.8	18.9	18.7

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.**

☒ **Diffusion tube data has been bias adjusted.**

☒ **Reported concentrations are those at the location of the monitoring site (bias adjusted and annualised, as required), i.e., prior to any fall-off with distance correction.**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g., if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Diffusion Tube ID Key:
R – former Richmondshire area, HDC – former Hambleton area, RYE – former Ryedale area, H – former Harrogate area, S or N – former Selby area, C – former Craven area, SC – former Scarborough area

Figure A.1 – Trends in Annual Mean NO_2 Concentrations

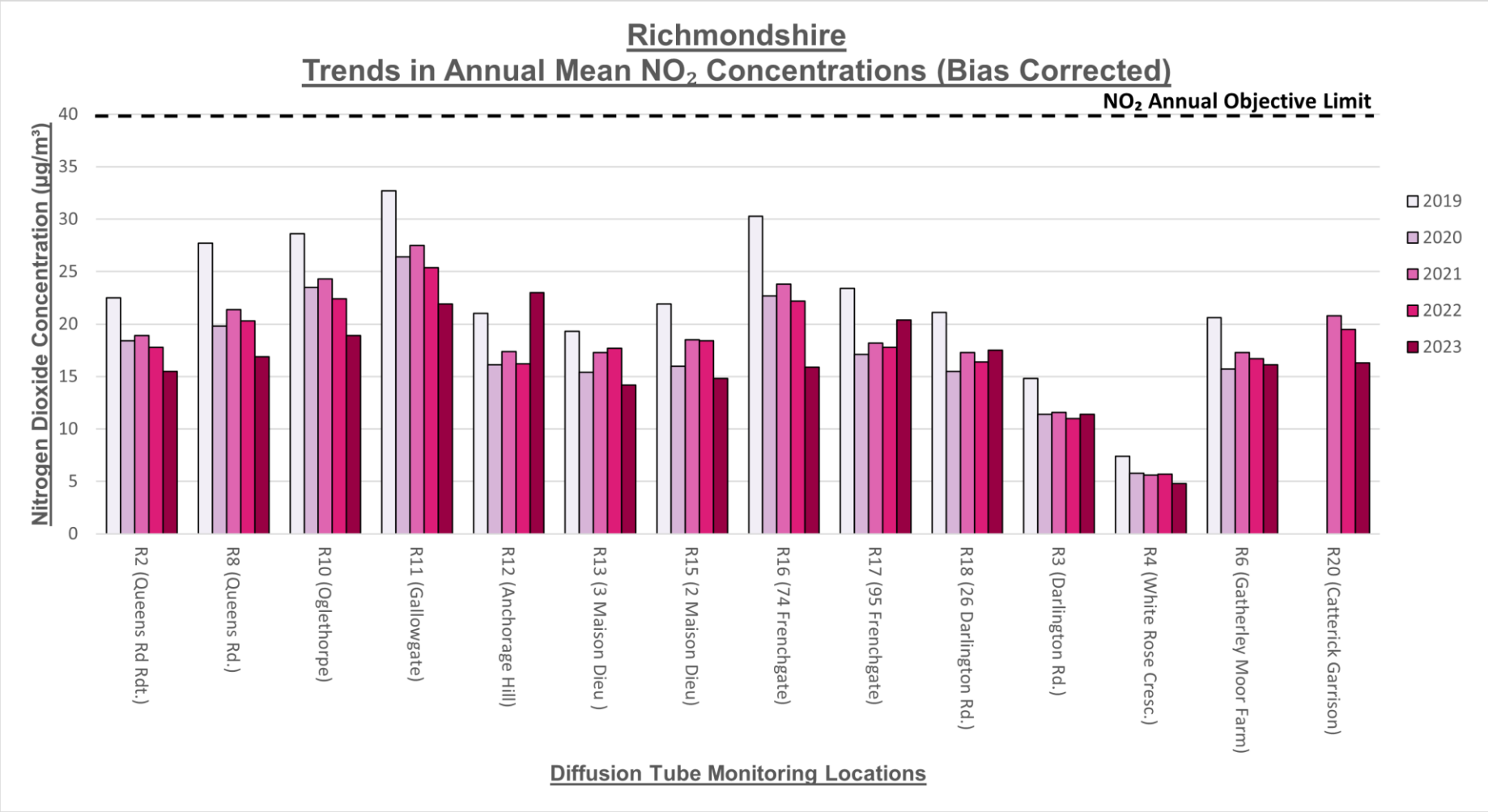


Figure A.2.

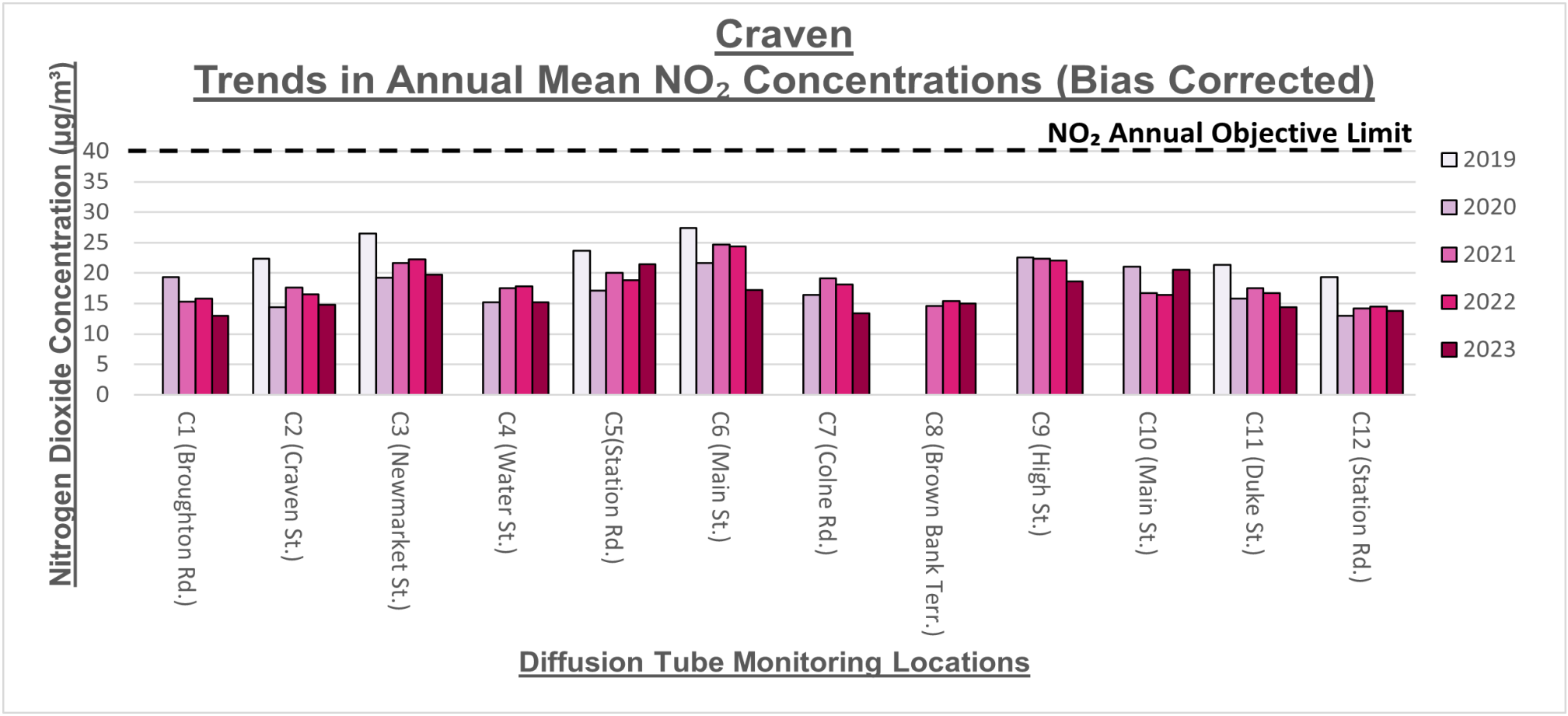

Craven
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
C1 (Broughton Rd.)
C2 (Craven St.)
C3 (Newmarket St.)
C4 (Water St.)
C5(Station Rd.)
C6 (Main St.)
C7 (Colne Rd.)
C8 (Brown Bank Terr.)
C9 (High St.)
C10 (Main St.)
C11 (Duke St.)
C12 (Station Rd.)
Diffusion Tube Monitoring Locations

Figure A.3.

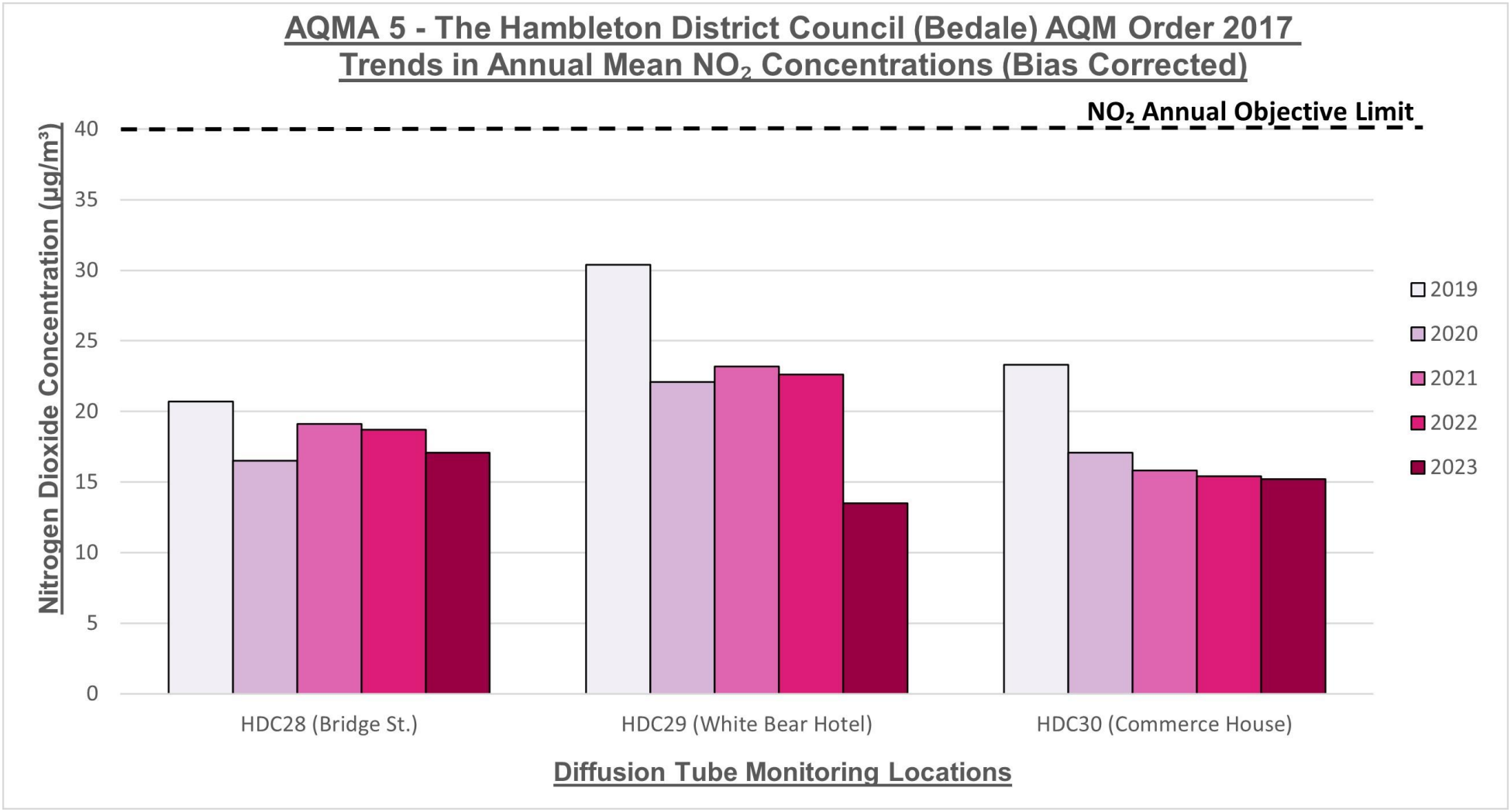

AQMA 5 - The Hambleton District Council (Bedale) AQM Order 2017
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
HDC28 (Bridge St.)
HDC29 (White Bear Hotel)
HDC30 (Commerce House)
Diffusion Tube Monitoring Locations

Figure A.4.

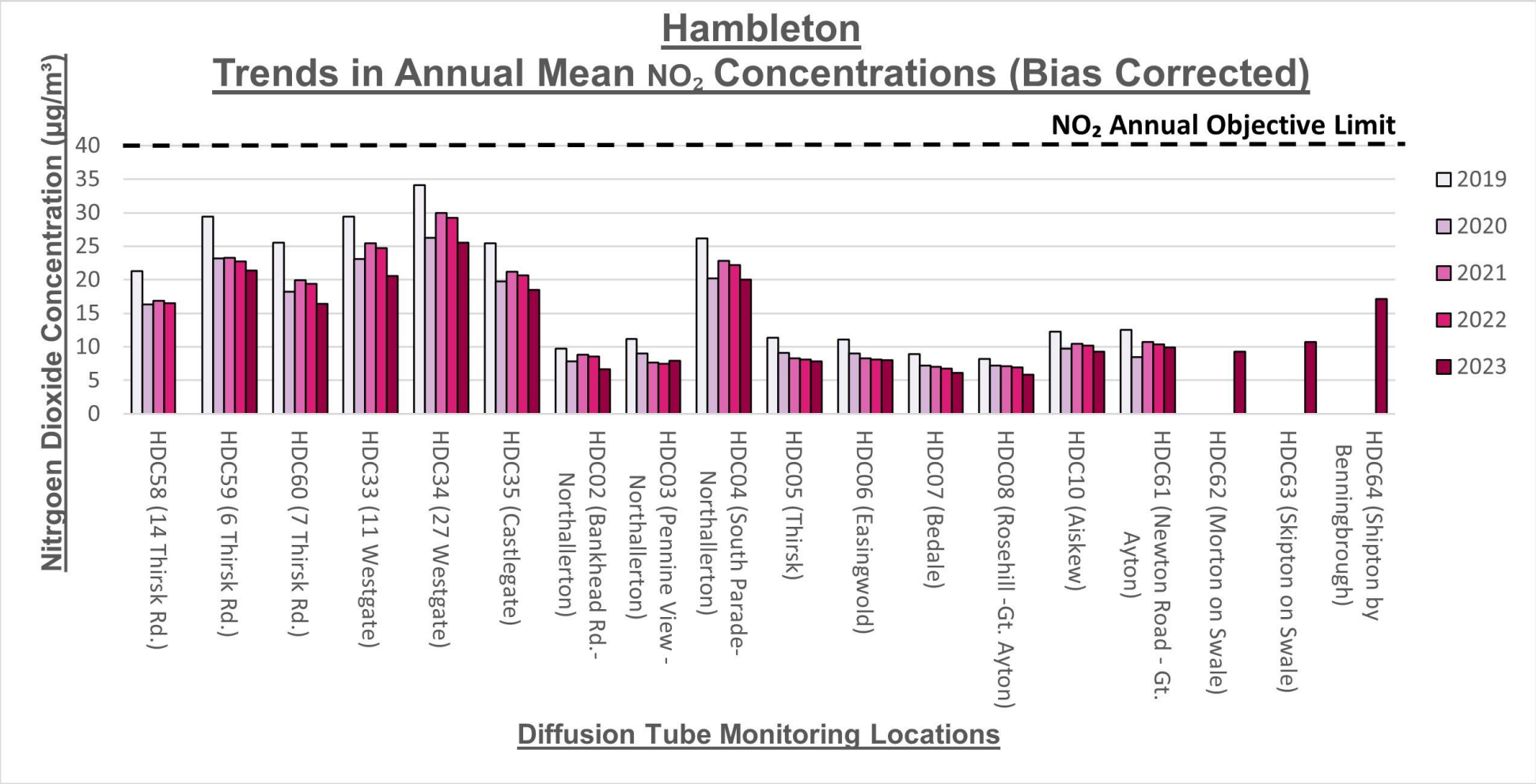

Hambleton
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrgoen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
HDC58 (14 Thirsk Rd.)
HDC59 (6 Thirsk Rd.)
HDC60 (7 Thirsk Rd.)
HDC33 (11 Westgate)
HDC34 (27 Westgate)
HDC35 (Castlegate)
HDC02 (Bankhead Rd.- Northallerton)
HDC03 (Pennine View - Northallerton)
HDC04 (South Parade- Northallerton)
HDC05 (Thirsk)
HDC06 (Easingwold)
HDC07 (Bedale)
HDC08 (Rosehill -Gt. Ayton)
HDC10 (Aiskew)
HDC61 (Newton Road - Gt. Ayton)
HDC62 (Morton on Swale)
HDC63 (Skipton on Swale)
HDC64 (Shipton by Benningbrough)
Diffusion Tube Monitoring Locations

Figure A.5.

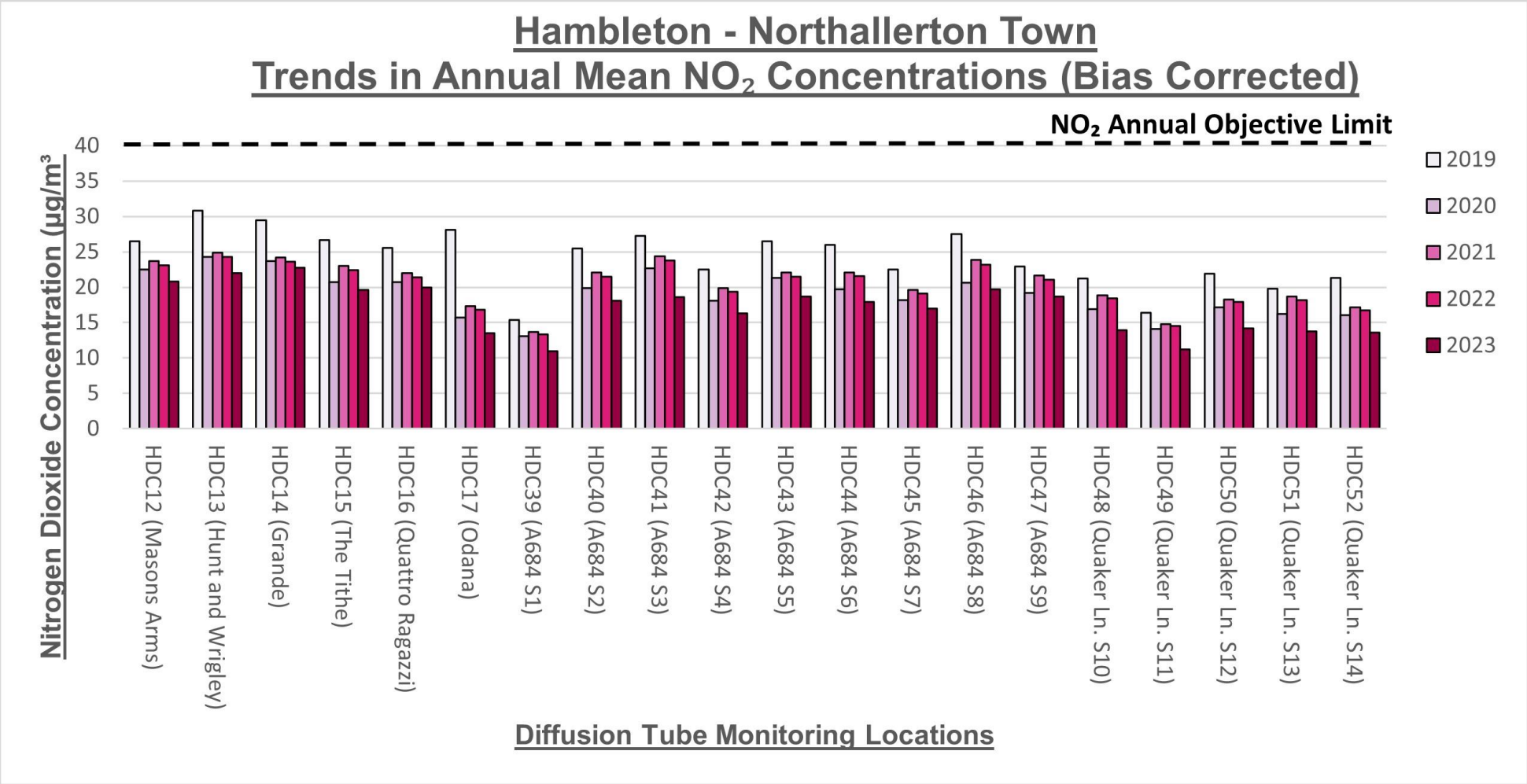

Hambleton - Northallerton Town
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
HDC12 (Masons Arms)
HDC13 (Hunt and Wrigley)
HDC14 (Grande)
HDC15 (The Tithe)
HDC16 (Quattro Ragazzi)
HDC17 (Odana)
HDC39 (A684 S1)
HDC40 (A684 S2)
HDC41 (A684 S3)
HDC42 (A684 S4)
HDC43 (A684 S5)
HDC44 (A684 S6)
HDC45 (A684 S7)
HDC46 (A684 S8)
HDC47 (A684 S9)
HDC48 (Quaker Ln. S10)
HDC49 (Quaker Ln. S11)
HDC50 (Quaker Ln. S12)
HDC51 (Quaker Ln. S13)
HDC52 (Quaker Ln. S14)
Diffusion Tube Monitoring Locations

Figure A.6.

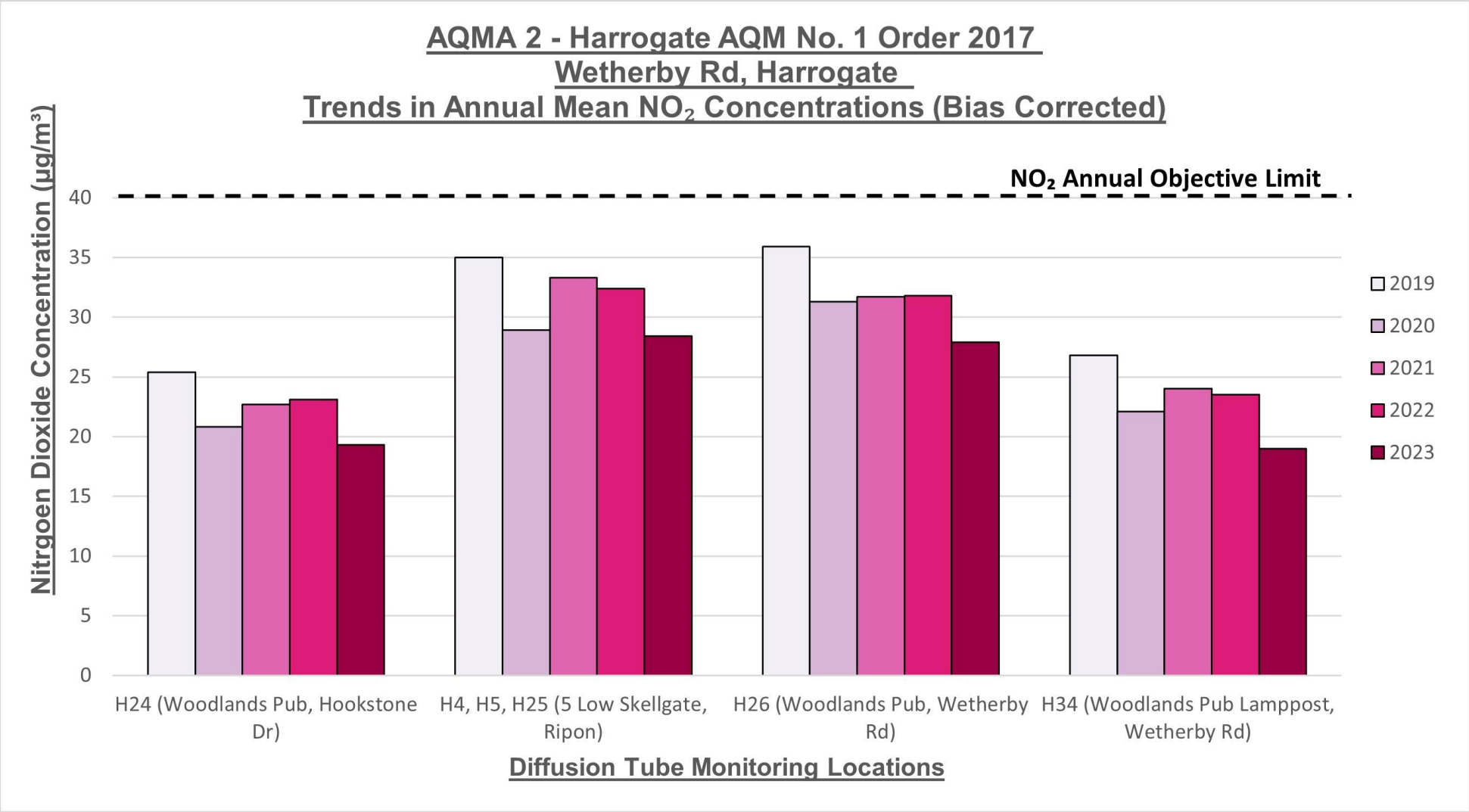

AQMA 2 - Harrogate AQM No. 1 Order 2017
Wetherby Rd, Harrogate
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrgoen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
H24 (Woodlands Pub, Hookstone Dr)
H4, H5, H25 (5 Low Skellgate, Ripon)
H26 (Woodlands Pub, Wetherby Rd)
H34 (Woodlands Pub Lamppost, Wetherby Rd)
Diffusion Tube Monitoring Locations

Figure A.7.

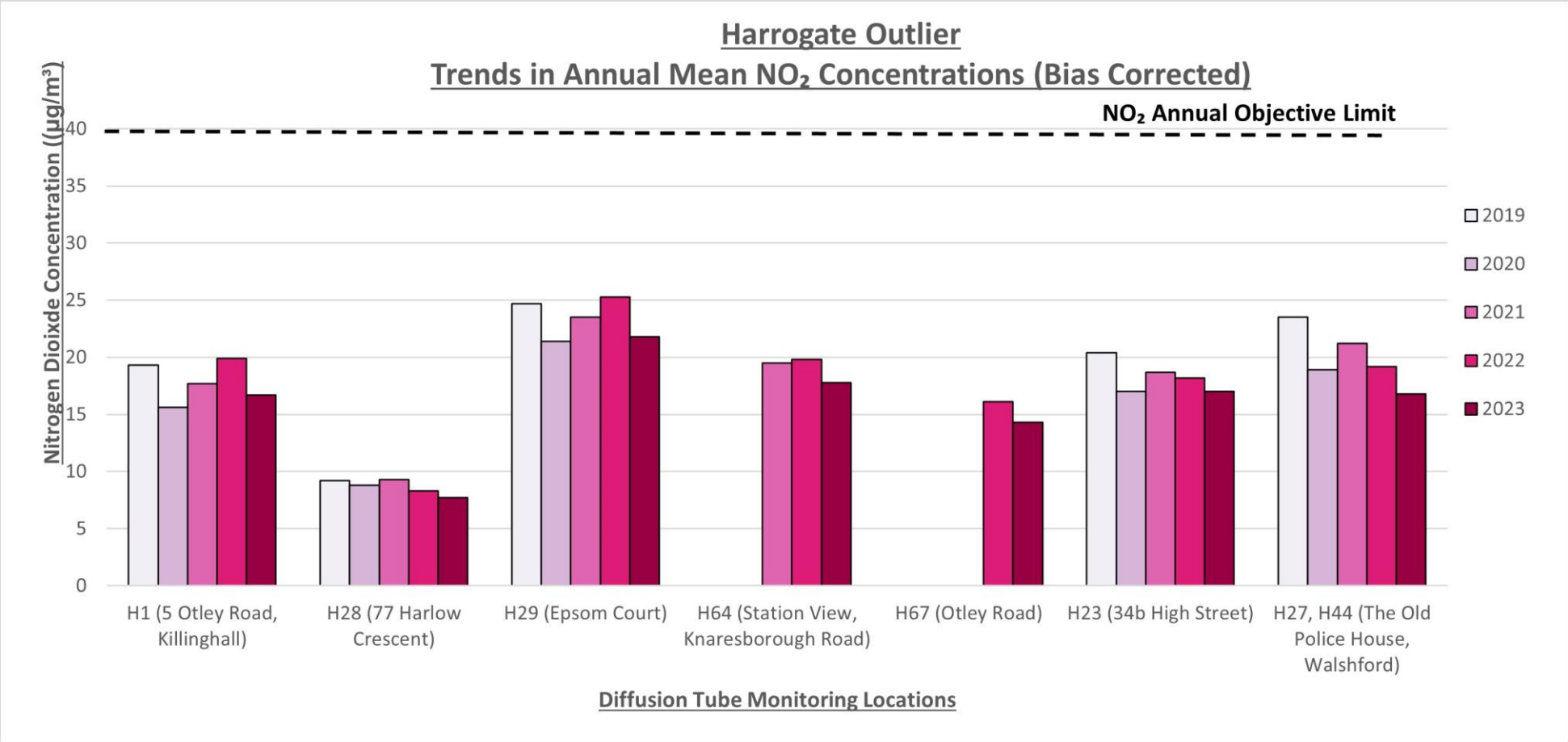

Harrogate Outlier
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioixde Concentration ((µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
H1 (5 Otley Road, Killinghall)
H28 (77 Harlow Crescent)
H29 (Epsom Court)
H64 (Station View, Knaresborough Road)
H67 (Otley Road)
H23 (34b High Street)
H27, H44 (The Old Police House, Walshford)
Diffusion Tube Monitoring Locations

Figure A.8.

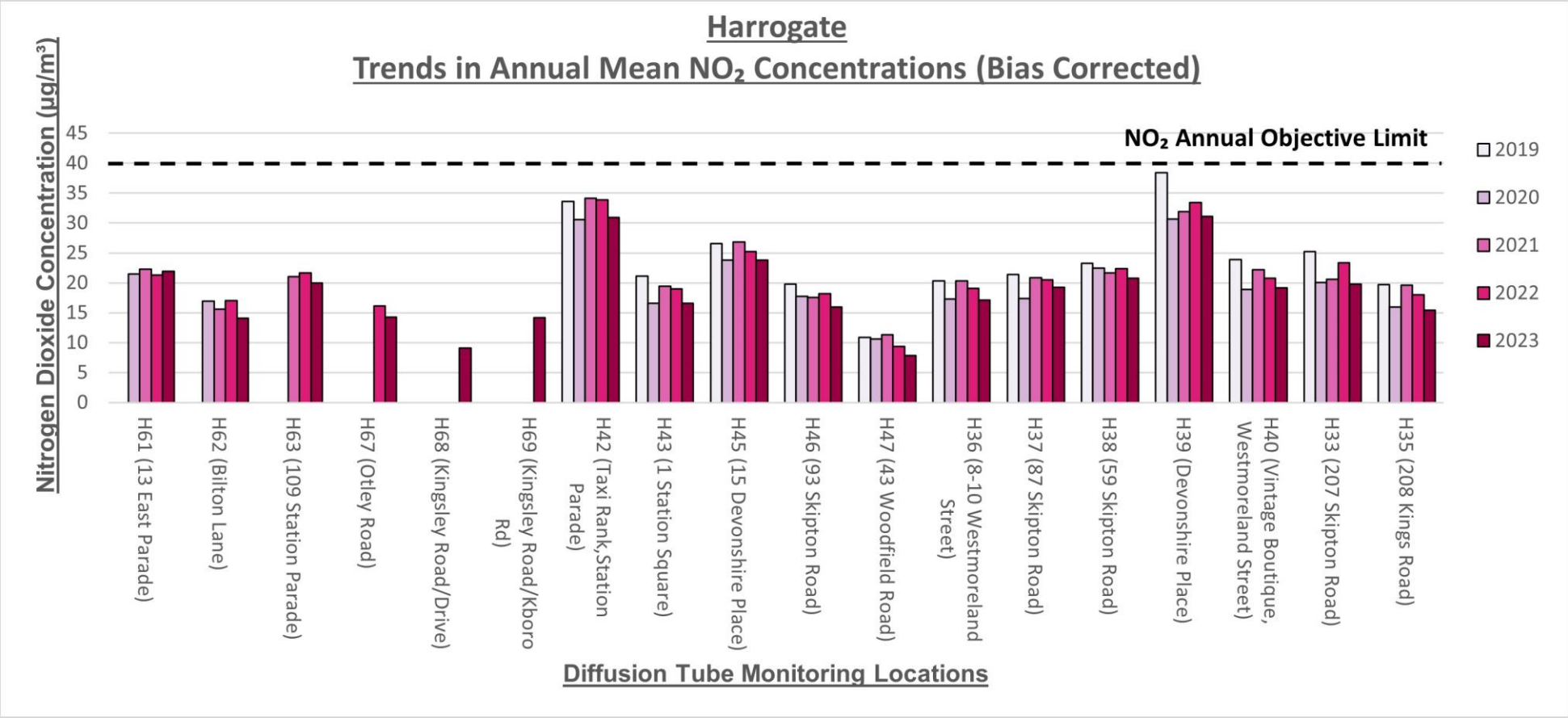

Harrogate
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
Nitrogen Dioxide Concentration (µg/m³)
45
40
35
30
25
20
15
10
5
0
NO2 Annual Objective Limit
2019
2020
2021
2022
2023
H61 (13 East Parade)
H62 (Bilton Lane)
H63 (109 Station Parade)
H67 (Otley Road)
H68 (Kingsley Road/Drive)
H69 (Kingsley Road/Kboro Rd)
H42 (Taxi Rank,Station Parade)
H43 (1 Station Square)
H45 (15 Devonshire Place)
H46 (93 Skipton Road)
H47 (43 Woodfield Road)
H36 (8-10 Westmoreland Street)
H37 (87 Skipton Road)
H38 (59 Skipton Road)
H39 (Devonshire Place)
H40 (Vintage Boutique, Westmoreland Street)
H33 (207 Skipton Road)
H35 (208 Kings Road)
Diffusion Tube Monitoring Locations

Figure A.9.

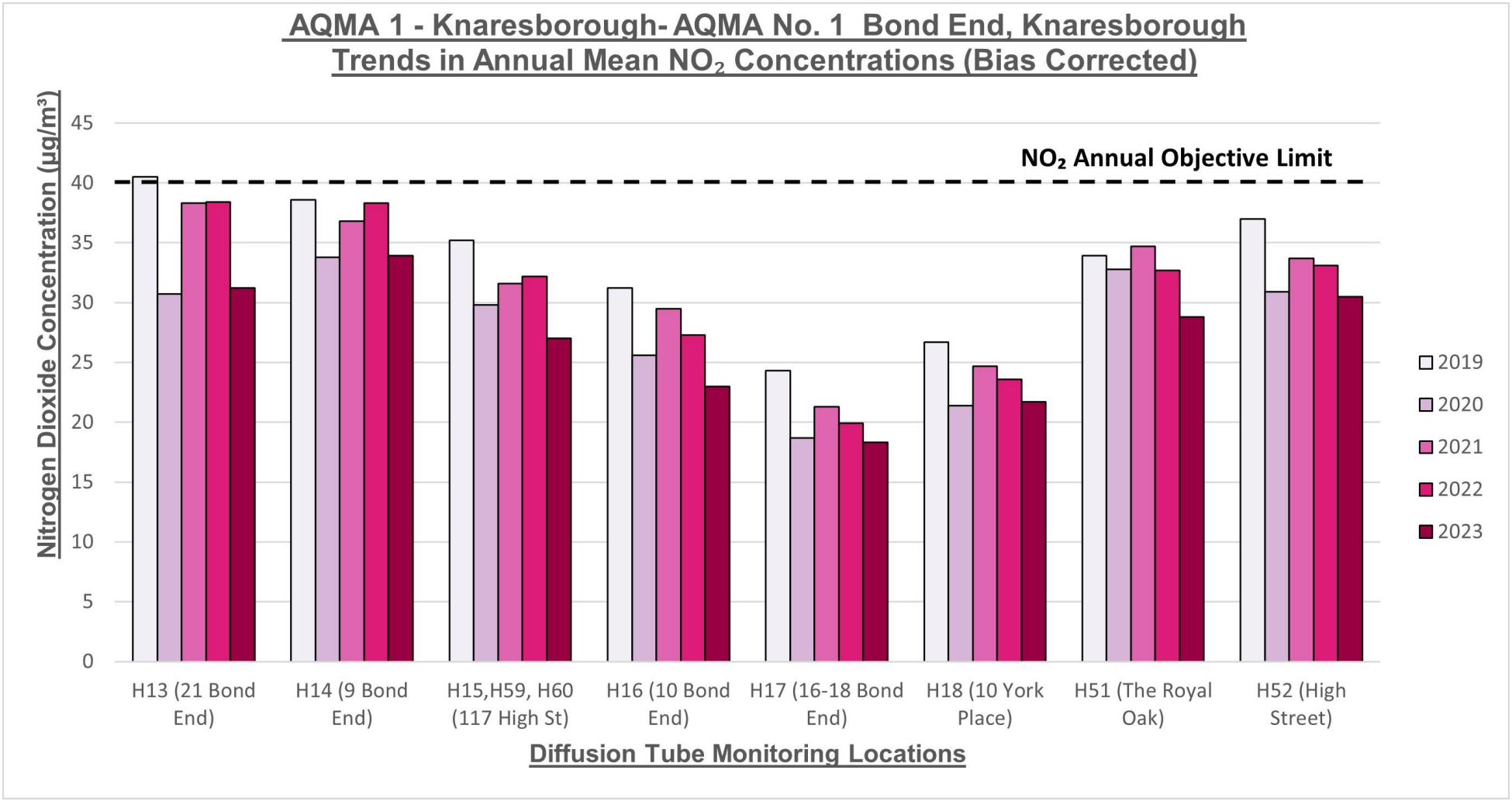

AQMA 1 - Knaresborough- AQMA No. 1 Bond End, Knaresborough
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
Nitrogen Dioxide Concentration (µg/m³)
45
40
35
30
25
20
15
10
5
0
NO2 Annual Objective Limit
2019
2020
2021
2022
2023
H13 (21 Bond End)
H14 (9 Bond End)
H15,H59, H60 (117 High St)
H16 (10 Bond End)
H17 (16-18 Bond End)
H18 (10 York Place)
H51 (The Royal Oak)
H52 (High Street)
Diffusion Tube Monitoring Locations

Figure A.10.


AQMA 4 - Knaresborough AQM No. 2 Order 2017
York Place, Knaresborough
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
H22 (14 York Pl)
H41 (16 York Pl)
H53 (The Old Tannery, York Pl)
Diffusion Tube Monitoring Locations

Figure A.11.

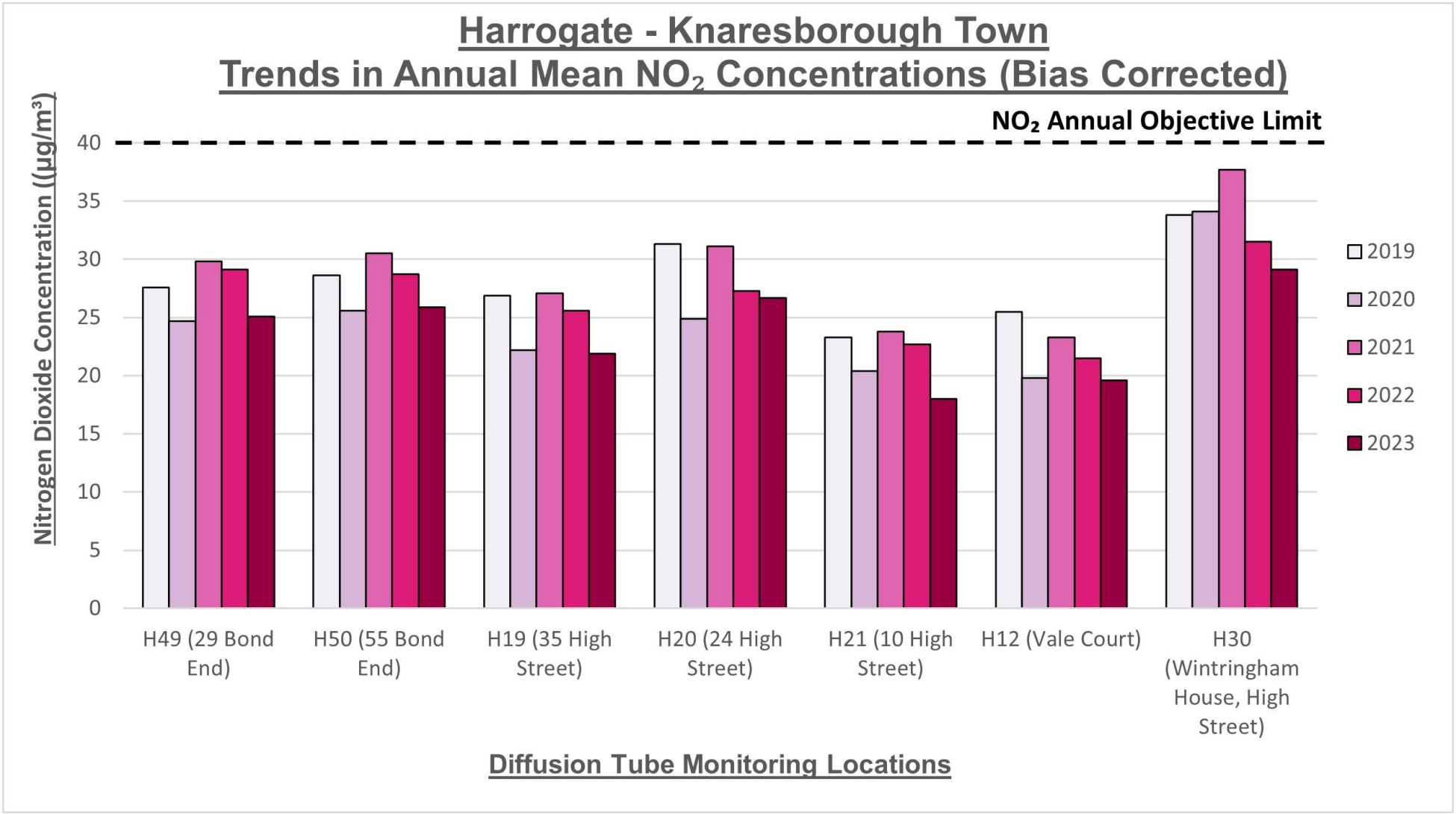

Harrogate - Knaresborough Town
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration ((µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
H49 (29 Bond End)
H50 (55 Bond End)
H19 (35 High Street)
H20 (24 High Street)
H21 (10 High Street)
H12 (Vale Court)
H30 (Wintringham House, High Street)
Diffusion Tube Monitoring Locations

Figure A.12.

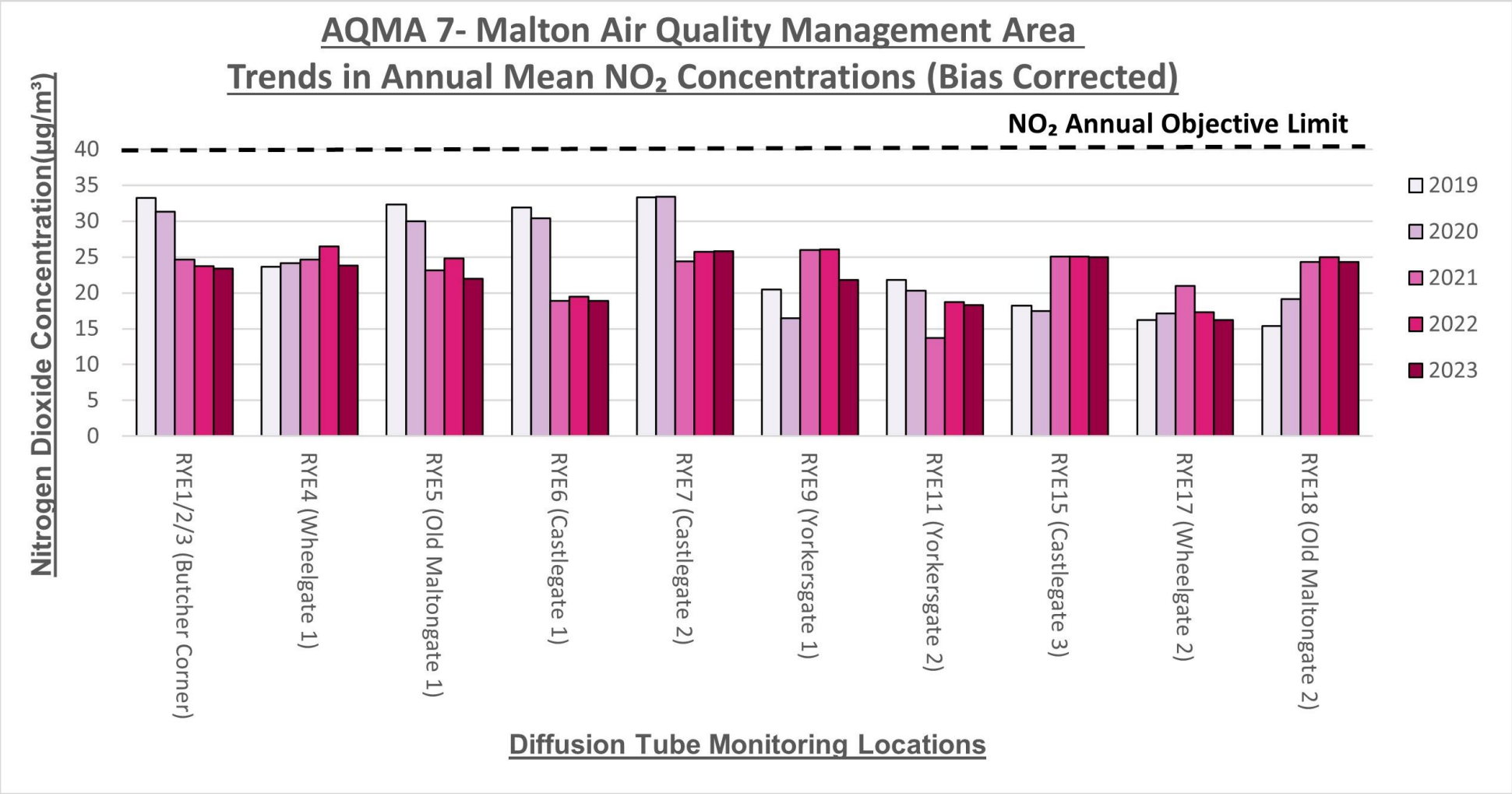

AQMA 7- Malton Air Quality Management Area
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration(µg/m3)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
RYE1/2/3 (Butcher Corner)
RYE4 (Wheelgate 1)
RYE5 (Old Maltongate 1)
RYE6 (Castlegate 1)
RYE7 (Castlegate 2)
RYE9 (Yorkersgate 1)
RYE11 (Yorkersgate 2)
RYE15 (Castlegate 3)
RYE17 (Wheelgate 2)
RYE18 (Old Maltongate 2)
Diffusion Tube Monitoring Locations

Figure A.13.

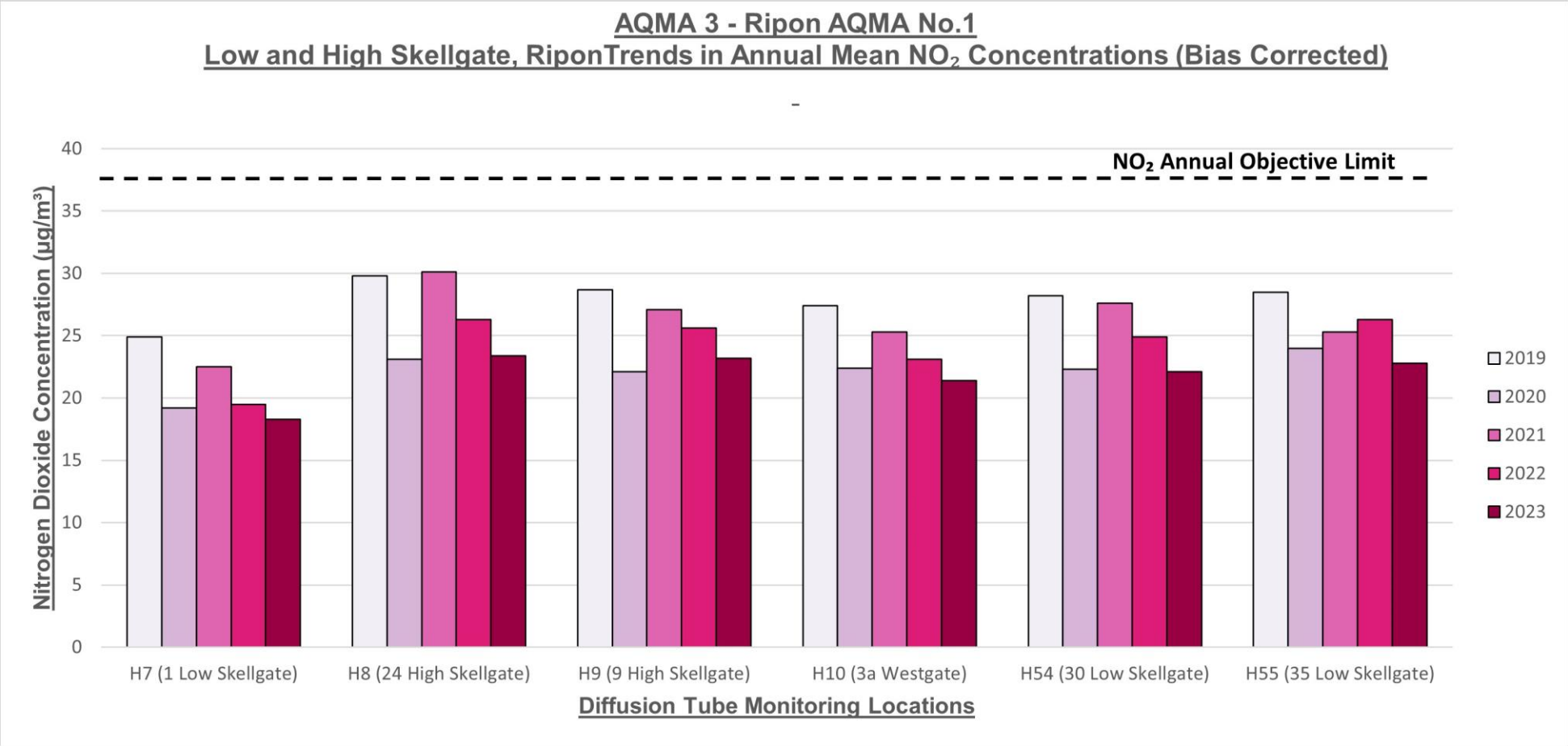

AQMA 3 - Ripon AQMA No.1
Low and High Skellgate, RiponTrends in Annual Mean NO2 Concentrations (Bias Corrected)
-
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
H7 (1 Low Skellgate)
H8 (24 High Skellgate)
H9 (9 High Skellgate)
H10 (3a Westgate)
H54 (30 Low Skellgate)
H55 (35 Low Skellgate)
Diffusion Tube Monitoring Locations

Figure A.14.

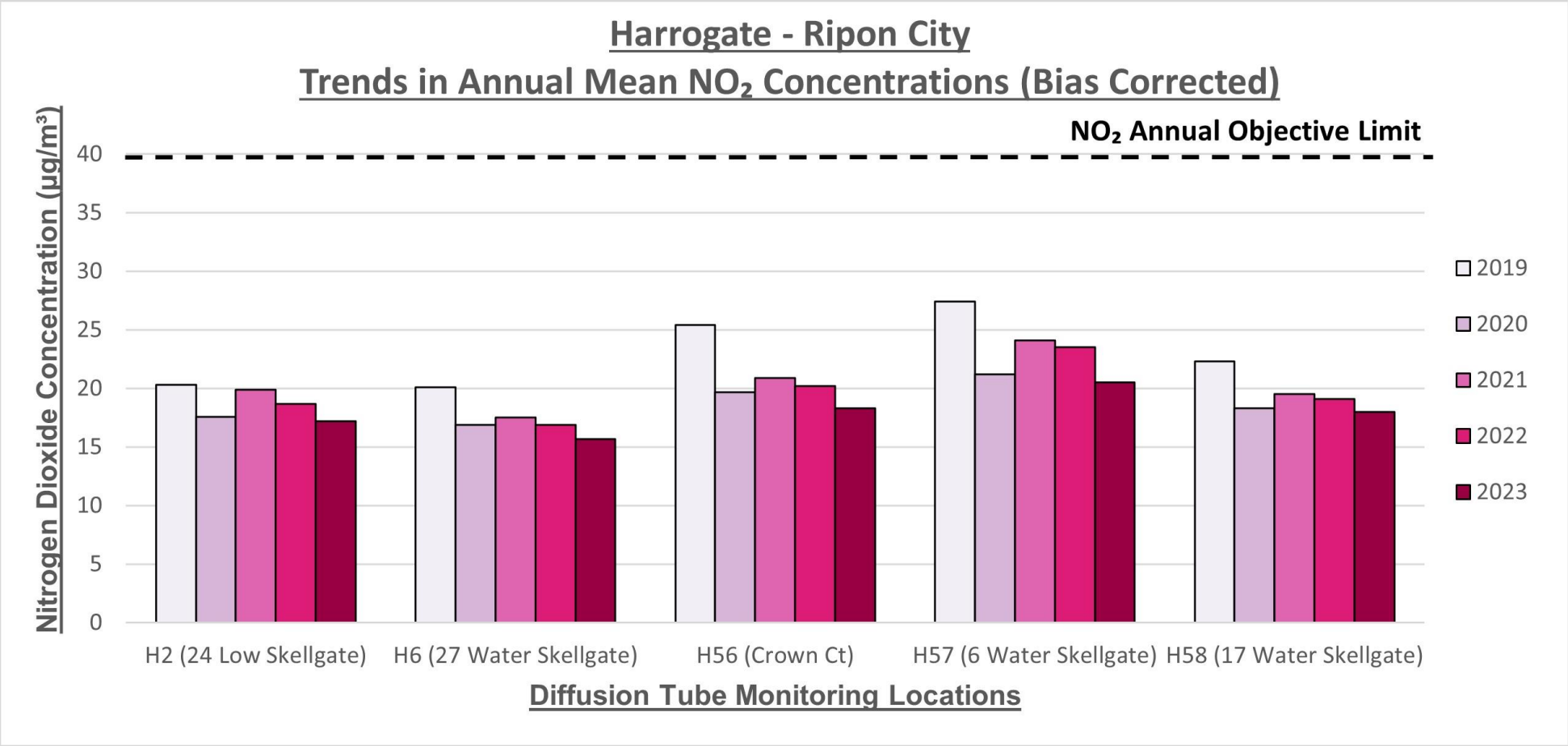

Harrogate - Ripon City
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
H2 (24 Low Skellgate)
H6 (27 Water Skellgate)
H56 (Crown Ct)
H57 (6 Water Skellgate)
H58 (17 Water Skellgate)
Diffusion Tube Monitoring Locations

Figure A.15.

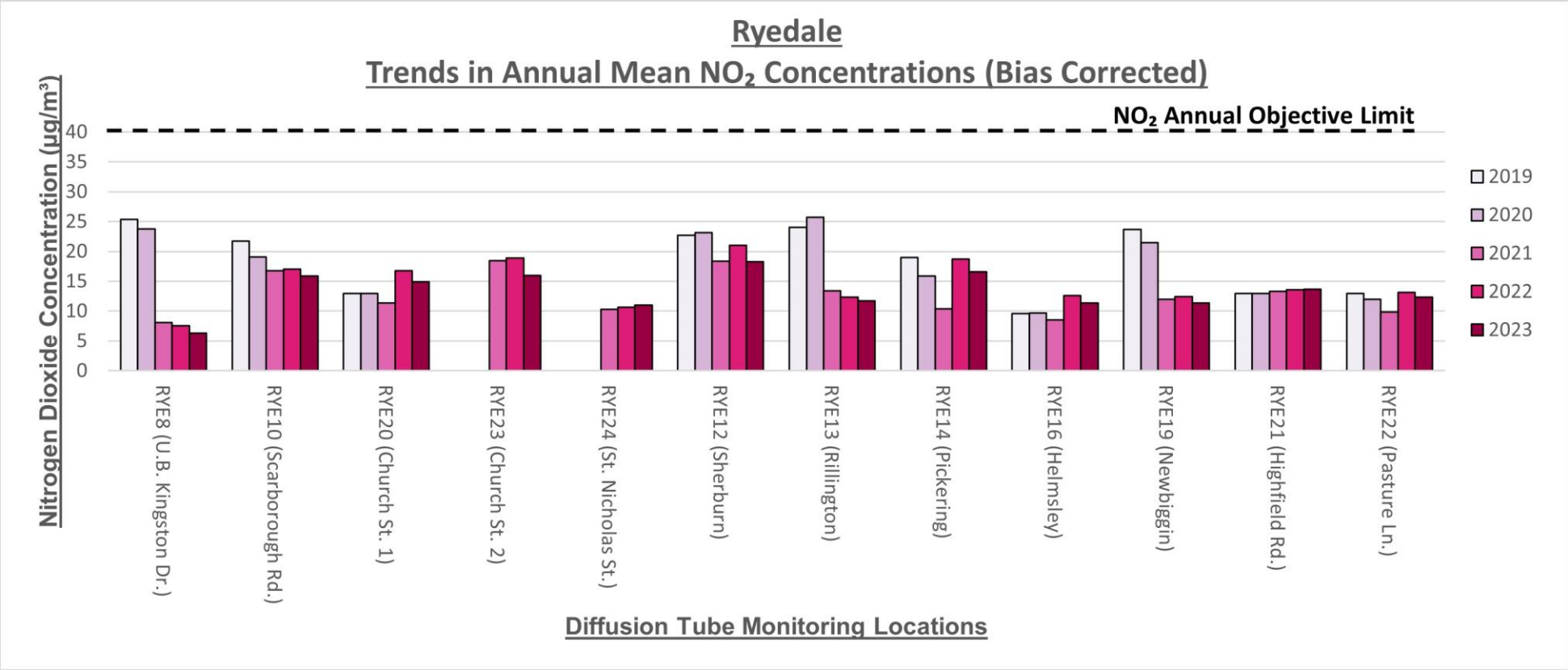

Ryedale
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
RYE8 (U.B. Kingston Dr.)
RYE10 (Scarborough Rd.)
RYE20 (Church St. 1)
RYE23 (Church St. 2)
RYE24 (St. Nicholas St.)
RYE12 (Sherburn)
RYE13 (Rillington)
RYE14 (Pickering)
RYE16 (Helmsley)
RYE19 (Newbiggin)
RYE21 (Highfield Rd.)
RYE22 (Pasture Ln.)
Diffusion Tube Monitoring Locations

Figure A.16.

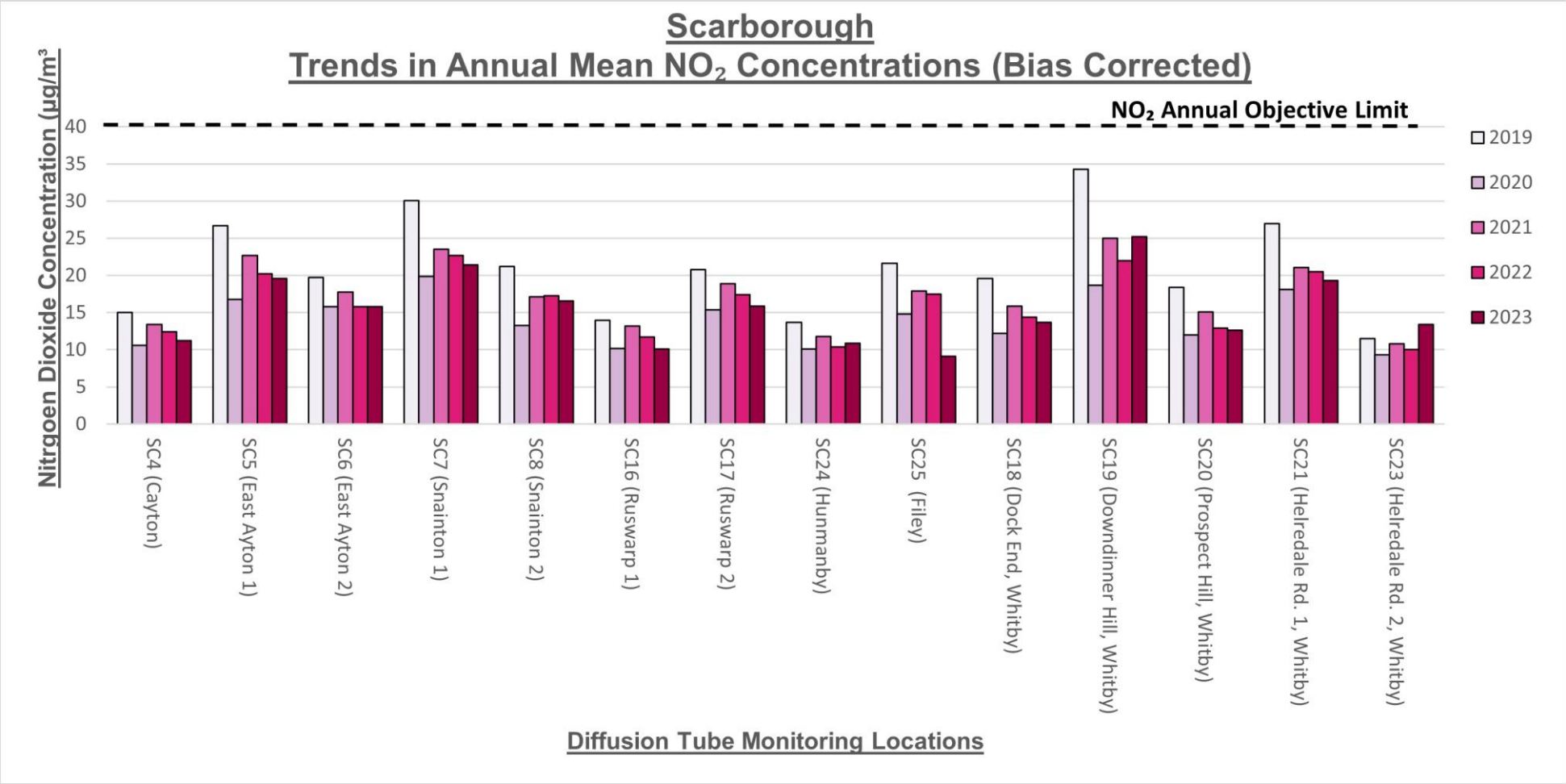

Scarborough
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
Nitrgoen Dioxide Concentration (µg/m³)
NO2 Annual Objective Limit
0
5
10
15
20
25
30
35
40
2019
2020
2021
2022
2023
SC4 (Cayton)
SC5 (East Ayton 1)
SC6 (East Ayton 2)
SC7 (Snainton 1)
SC8 (Snainton 2)
SC16 (Ruswarp 1)
SC17 (Ruswarp 2)
SC24 (Hunmanby)
SC25 (Filey)
SC18 (Dock End, Whitby)
SC19 (Downdinner Hill, Whitby)
SC20 (Prospect Hill, Whitby)
SC21 (Helredale Rd. 1, Whitby)
SC23 (Helredale Rd. 2, Whitby)
Diffusion Tube Monitoring Locations

Figure A.17.

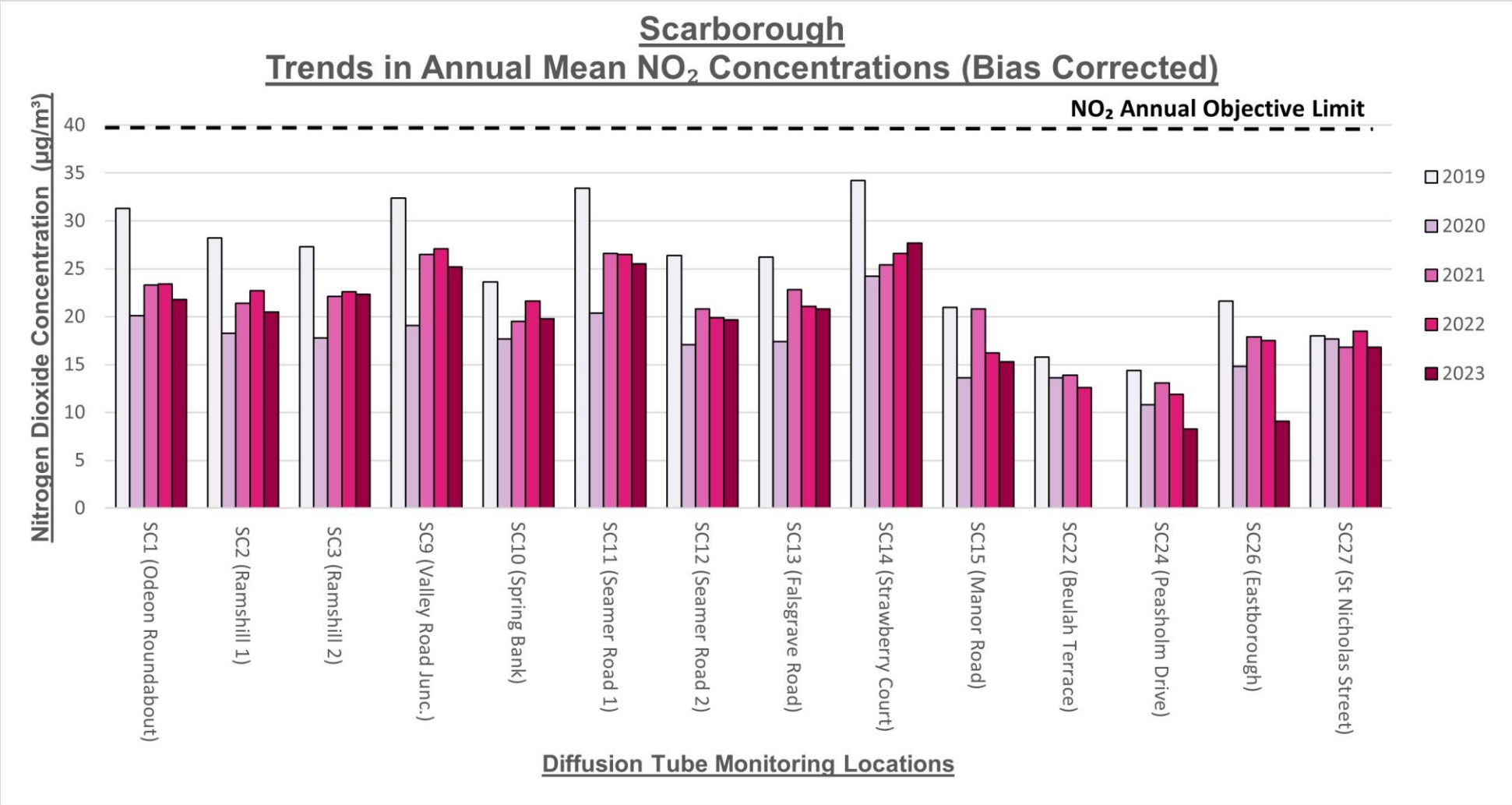

Scarborough
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
SC1 (Odeon Roundabout)
SC2 (Ramshill 1)
SC3 (Ramshill 2)
SC9 (Valley Road Junc.)
SC10 (Spring Bank)
SC11 (Seamer Road 1)
SC12 (Seamer Road 2)
SC13 (Falsgrave Road)
SC14 (Strawberry Court)
SC15 (Manor Road)
SC22 (Beulah Terrace)
SC24 (Peasholm Drive)
SC26 (Eastborough)
SC27 (St Nicholas Street)
Diffusion Tube Monitoring Locations

Figure A.18.

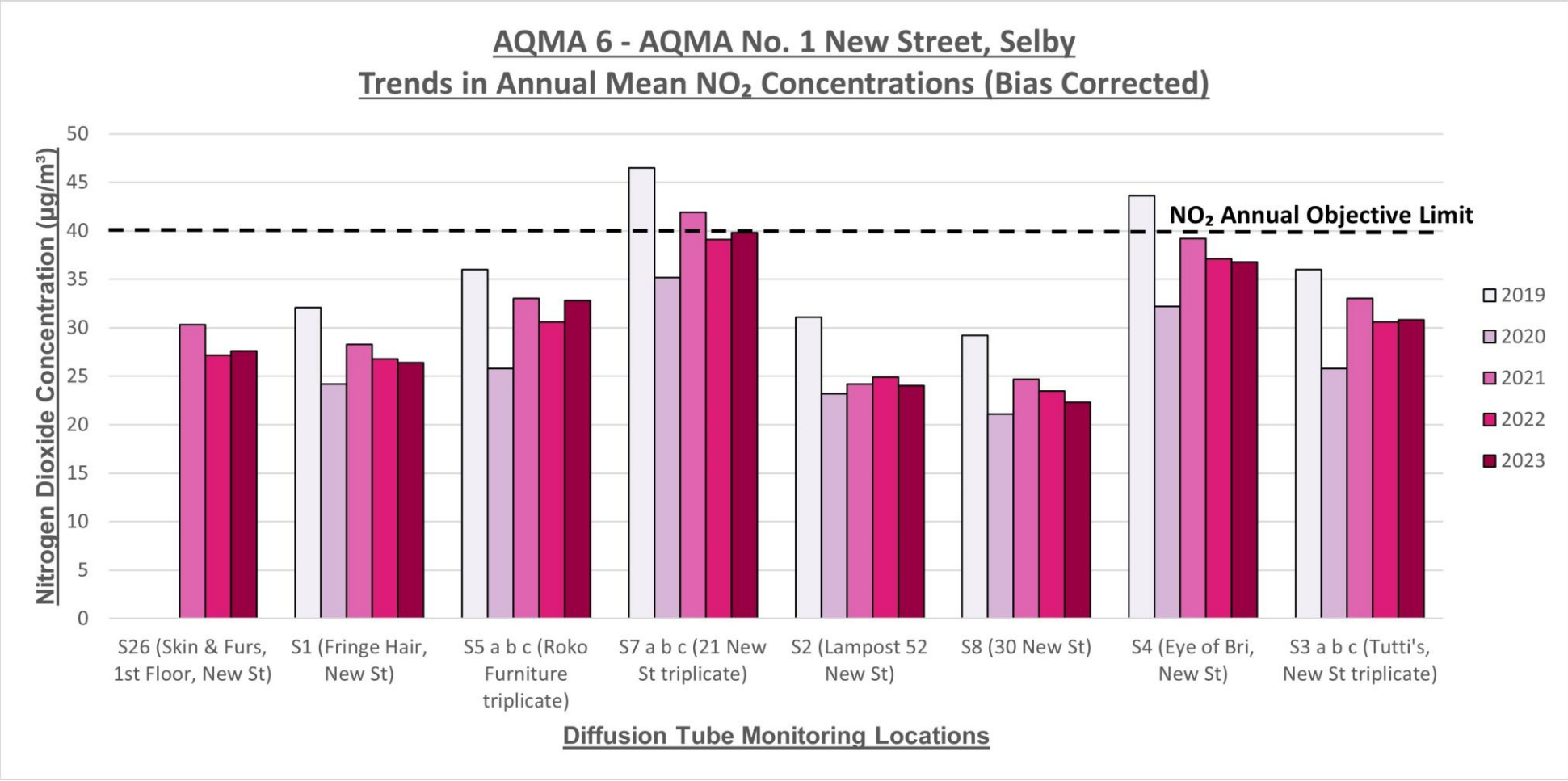

AQMA 6 - AQMA No. 1 New Street, Selby
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
Nitrogen Dioxide Concentration (µg/m³)
50
45
40
35
30
25
20
15
10
5
0
NO2 Annual Objective Limit
2019
2020
2021
2022
2023
S26 (Skin & Furs, 1st Floor, New St)
S1 (Fringe Hair, New St)
S5 a b c (Roko Furniture triplicate)
S7 a b c (21 New St triplicate)
S2 (Lampost 52 New St)
S8 (30 New St)
S4 (Eye of Bri, New St)
S3 a b c (Tutti's, New St triplicate)
Diffusion Tube Monitoring Locations

Figure A.19.

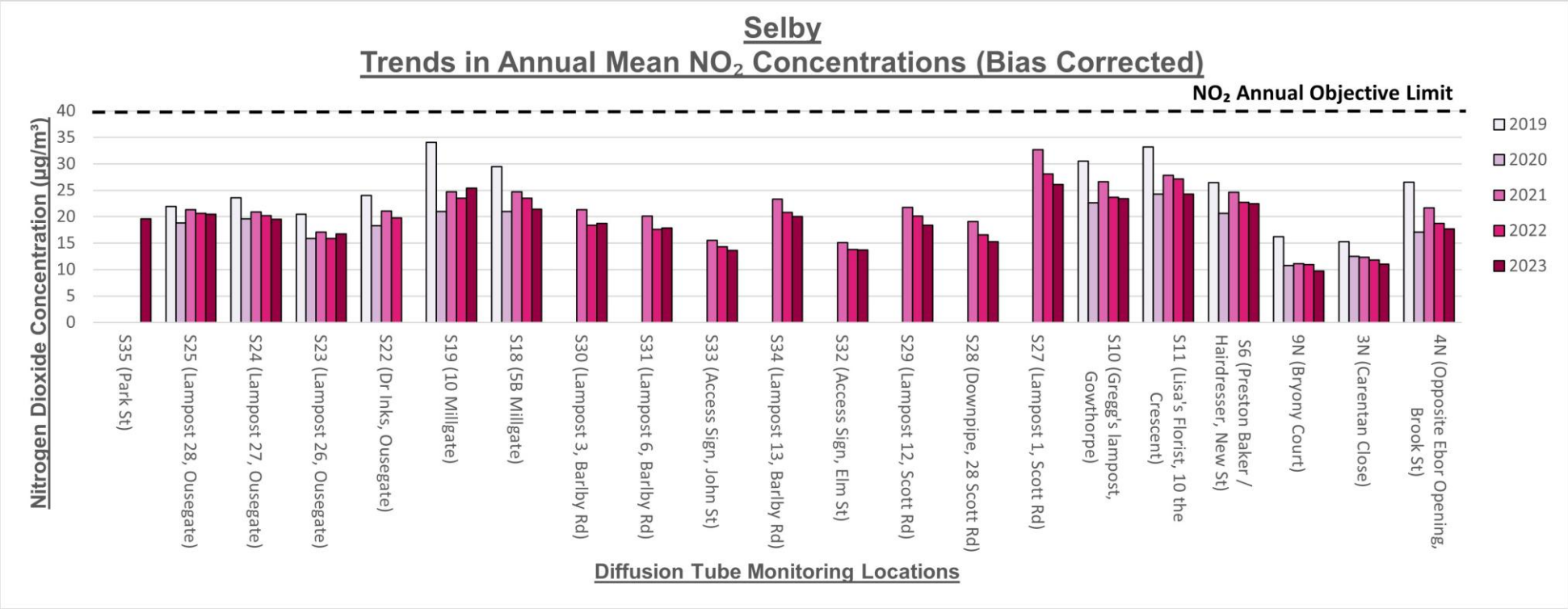
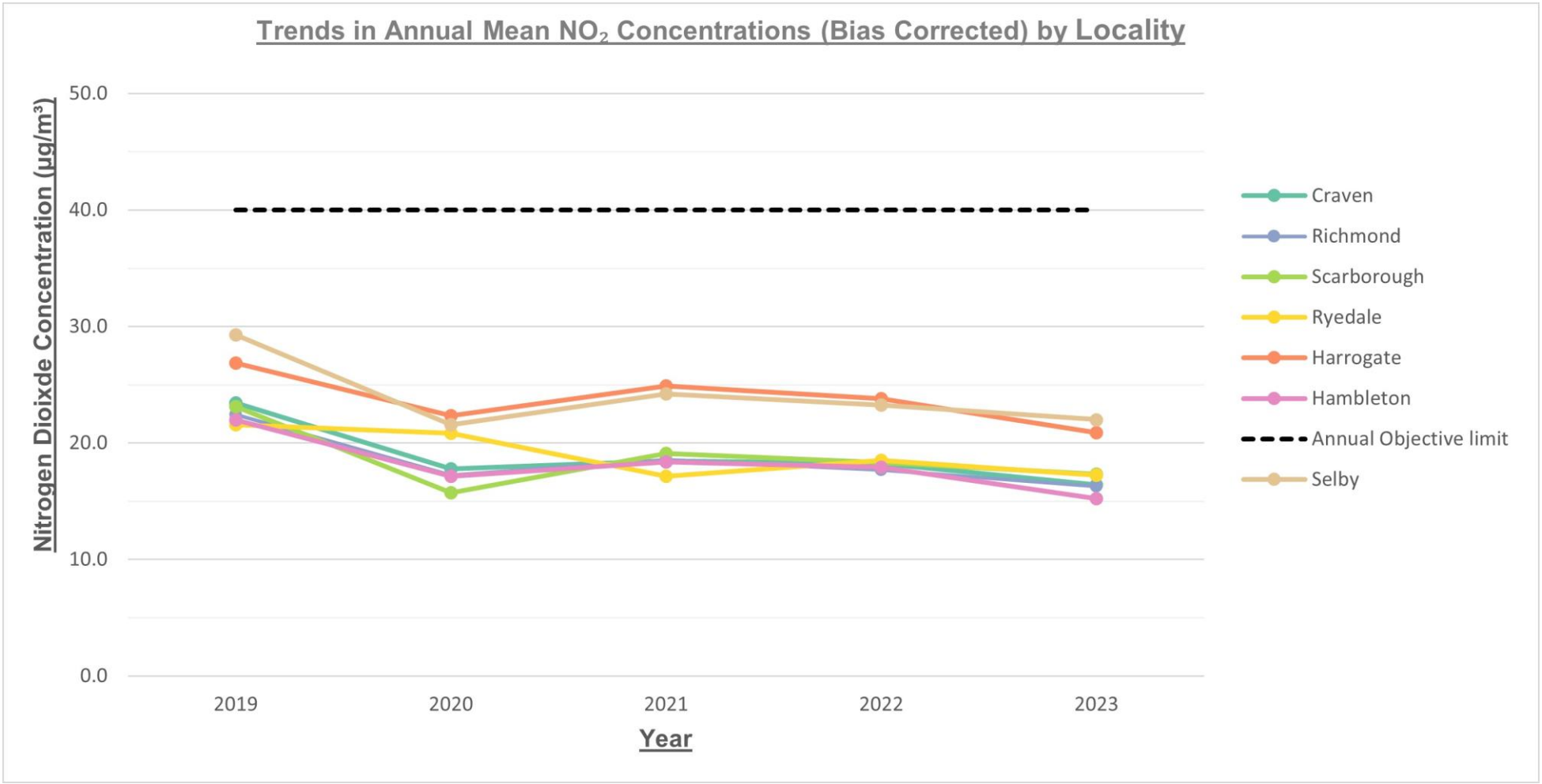

Selby
Trends in Annual Mean NO2 Concentrations (Bias Corrected)
NO2 Annual Objective Limit
Nitrogen Dioxide Concentration (µg/m³)
40
35
30
25
20
15
10
5
0
2019
2020
2021
2022
2023
S35 (Park St)
S25 (Lampost 28, Ousegate)
S24 (Lampost 27, Ousegate)
S23 (Lampost 26, Ousegate)
S22 (Dr Inks, Ousegate)
S19 (10 Millgate)
S18 (5B Millgate)
S30 (Lampost 3, Barlby Rd)
S31 (Lampost 6, Barlby Rd)
S33 (Access Sign, John St)
S34 (Lampost 13, Barlby Rd)
S32 (Access Sign, Elm St)
S29 (Lampost 12, Scott Rd)
S28 (Downpipe, 28 Scott Rd)
S27 (Lampost 1, Scott Rd)
S10 (Gregg's lampost, Gowthorpe)
S11 (Lisa's Florist, 10 the Crescent)
S6 (Preston Baker / Hairdresser, New St)
9N (Bryony Court)
3N (Carentan Close)
4N (Opposite Ebor Opening, Brook St)
Diffusion Tube Monitoring Locations

Figure A.20.


Trends in Annual Mean NO2 Concentrations (Bias Corrected) by Locality
Nitrogen Dioixde Concentration (µg/m³)
50.0
40.0
30.0
20.0
10.0
0.0
2019
2020
2021
2022
2023
Year
Craven
Richmond
Scarborough
Ryedale
Harrogate
Hambleton
Annual Objective limit
Selby

Appendix B: Full Monthly Diffusion Tube Results for 2023

Table B.1 – NO_2 2023 Diffusion Tube Results (µg/m^3)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.77)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
R2	417180	501125	21.3	25.5	23.8	14.8	22.7	20.5	18.2	18.7	19.5	17.7	22.3	16.5	20.1	15.5		
R3	418066	501490	16.9	13.5	13.7	9.5	12.7	12.0	10.8	11.0	18.6	25.4	15.4	17.6	14.8	11.4		
R4	418504	501455	9.6	7.4	6.3	5.2	6.9	3.7	3.9	3.6	5.1	7.1	6.7	8.7	6.2	4.8		
R6	419207	506509	22.7	21.2	22.1	21.6	18.8	17.3	13.3	18.8	19.0	22.6	29.0	24.2	20.9	16.1		
R8	417179	501127	30.1	32.4	28.0	14.1	26.3	24.3	21.1	22.2	24.9	14.8	25.5	31.5	24.6	18.9		
R10	417381	501281	37.5	30.7	31.8	27.8	27.3	28.9	20.5	22.8	28.3	20.7	31.7	32.7	28.4	21.9		
R11	417377	501317	32.0	36.1	33.2	20.9	27.6	33.1	26.4	33.0	24.9	29.0	29.9	33.1	29.9	23.0		
R12	417542	501275	24.9	8.6	22.1	21.3	7.1	17.7	10.4	16.3	19.2	26.7	20.7	25.8	18.4	14.2		
R13	417536	501258	23.6	15.1	24.3	21.3	21.2	17.7	15.5	16.1	21.7	21.6	26.6	6.7	19.3	14.8		
R15	417500	501263	25.8	4.2	24.1	44.9	25.2	16.3	16.4	16.1	22.2	20.4	8.3	24.3	20.7	15.9		
R16	417451	501269	29.5	26.6	27.3	34.4	22.8	26.1	24.9	24.2	28.1	27.5	30.2	15.9	26.5	20.4		
R17	417370	501262	21.5	15.7	25.1	24.7	22.2	23.2	17.6	20.9	23.9	22.4	19.9	35.9	22.8	17.5		
R18	417661	501297	25.6	5.9	25.2	25.3	22.6	19.6	18.6	16.5	22.0	19.5	22.0	16.4	19.9	15.3		
R19	417312	501037	29.3	27.1	22.5	20.9	18.1	16.1	14.6	15.6	22.3	21.3	22.8	23.0	21.1	16.3		
R20	420754	498280	31.5	10.4	24.1	22.8	21.3	20.9	19.2	18.4	23.4	23.5	22.0	25.5	21.9	16.9		
HDC 28	426733	488169	28.0	30.7	22.1	26.2	27.5		15.1	14.7	21.4	18.4	18.5	21.0	22.1	17.1		
HDC 29	426698	488143	16.4	22.4	20.9	20.3	15.9	16.8	12.0	11.2	15.5	18.5	22.2	19.0	17.6	13.5		
HDC 30	426681	488132	22.1	19.9	22.6	21.1	16.3	18.3	20.5	18.1	24.0	22.0	11.5	20.3	19.7	15.2		
HDC4	436558	493326	32.7	29.2	27.2	29.4	25.8	21.4	19.2	22.3	26.7	22.6	29.9	24.8	25.9	20.0		
HDC3	437714	493626	16.5	12.6	11.8	9.7	7.0	6.1	6.0	7.6	8.8	9.1	16.3	11.3	10.2	7.9		
HDC2	435858	492676	12.8	12.0	9.1	8.8	5.6	7.2	5.1	5.5	8.3	8.1	12.0	9.4	8.7	6.7		
HDC5	442384	481510	16.1	12.5	11.6	9.1	5.9	6.4	6.4	6.5	9.8	10.0	14.8	12.1	10.1	7.8		
HDC6	453011	469267	14.7	15.5	9.1	9.3	7.6	5.9	5.4	6.9	10.8	8.9	15.1	14.9	10.3	8.0		
HDC7	427096	487894	12.5	11.3	9.2	9.7	6.0	5.3	4.8	6.2	6.4			8.2	8.0	6.1		
HDC8	456243	510859	11.6	9.1	9.1	10.5	5.8	4.2	5.0	5.7	8.4	4.2	10.4	7.8	7.7	5.9		
HDC 10	427530	488821	16.5	15.5	13.1	13.6	10.8	10.2	8.1	11.1	12.0	7.0	13.5	13.7	12.1	9.3		

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.77)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
HDC 61	456345	511088	19.6	15.7	14.3	14.3	10.2	10.2	10.2	9.9	11.2	9.3	16.2	13.9	12.9	9.9		
HDC 62	432463	491936	15.0	20.0	11.5	11.5	9.6	9.0	9.7	9.3	10.9	11.3	15.5		12.1	9.3		
HDC 63	436652	479787	19.0	16.9	18.3	13.8	12.0	11.5	10.6	13.6	12.8	12.4	13.3	12.8	13.9	10.7		
HDC 64	455278	458663	30.7	25.8	24.3	21.6	17.6	15.3	16.3	18.8	21.7	22.0	26.9	26.0	22.3	17.1		
HDC 53	437037	493967	28.0	24.3	23.8	20.1	15.9	15.5	15.9	16.5	22.2	15.8	19.3	14.6	19.3	14.9		
HDC 54	437046	493802	33.0	29.9	28.1	27.2	20.3	19.5	15.4	20.5	25.3	21.5	37.2	27.6	25.5	19.6		
HDC 55	437121	493879	25.1	20.5	15.7	14.2	10.0	9.7	10.1	10.0	14.6	14.4	23.2	11.3	14.9	11.5		
HDC 56	437140	493852	26.6	22.8	17.9	15.7	12.4	11.0	11.5	11.9	18.1	13.3	25.4	17.3	17.0	13.1		
HDC 57	437176	493762	18.9	17.6	15.0	12.8	9.8	7.5	7.6	9.5	13.3	15.0	15.5	14.5	13.1	10.1		
HDC 12	436885	494104	36.0	33.8	31.8	31.8	24.3	22.5	18.1	21.3	25.4	24.6	29.6	25.3	27.0	20.8		
HDC13	436877	494087	37.3	30.5	28.3	33.0	27.0	20.7	24.7	23.8	31.5	28.5	31.8	26.5	28.6	22.0		
HDC 14	436886	494091	38.7	30.4	33.3	31.8	25.4	23.7	23.4	23.5	31.1	27.7	35.5	30.8	29.6	22.8		
HDC 15	436933	494101	28.8	29.4	30.8	28.0	21.2	19.1	19.8	21.9	25.9	26.5	32.1	22.3	25.5	19.6		
HDC 16	436950	494105	31.3	29.6	30.6	26.5	21.1	20.1	21.2	21.8	26.6	24.5	31.2	27.2	26.0	20.0		
HDC 17	436963	494107	23.6	19.9	20.5	16.1	13.6	13.2	11.3	14.2	18.5	18.4	22.8	18.8	17.6	13.5		
HDC 65	436156	496385	27.9	23.5	15.1	15.6	12.7	11.2	12.5	8.9	14.9	17.0	19.2	21.0	16.6	12.8		
HDC 66	436492	495337	28.8	15.6	17.5	12.6	10.1	8.5	21.4	10.2	14.9	13.8	18.1	16.9	15.7	12.1		
HDC 67	437039	495291	19.7	17.7	14.4		8.8		9.6	8.9	14.4		19.2	17.0	14.4	11.1		
HDC 68	437182	495273	17.6	17.6	16.0	12.7	10.6	9.3	10.6	12.1	15.0	15.0	5.5	19.6	13.5	10.4		
HDC 39	437109	494970	15.8	19.6	16.0	14.8	11.3	9.2	7.6	12.1	15.2	14.2	19.8	15.3	14.2	11.0		
HDC 40	437083	494958	29.6	27.3	22.0		24.0	19.3	18.6	20.5	25.5	24.2	24.0	24.0	23.5	18.1		
HDC 41	436988	494596	31.7	28.6	26.5	27.9	22.6	19.4	16.9	17.6	25.9	22.2	30.5	19.8	24.1	18.6		
HDC 42	436999	494584	25.1	21.3	21.6	23.9	19.0	16.4	16.0	20.1	22.4	21.3	27.2	19.6	21.2	16.3		
HDC 43	436995	494515	29.7	30.9	28.4	26.8	20.8	20.8	17.8	18.4	21.4	21.8	27.8	26.9	24.3	18.7		
HDC 44	436973	494436	36.3	31.3	18.4	22.6	18.8	14.9	18.2	18.3	22.3	23.4	28.3	25.9	23.2	17.9		
HDC 45	436975	494395	29.1	23.6	25.5	26.9	17.2	16.9	13.8	16.7	20.3	20.7	31.9		22.1	17.0		
HDC 46	436934	494296	34.0	31.2	29.4	27.3	22.4	18.5	17.7	19.4	27.9	24.7	29.4	24.4	25.5	19.7		
HDC 47	436923	494220	30.9	26.0	26.4	27.8	21.7	19.5	16.7	18.0	23.7	23.4	31.8	25.3	24.3	18.7		

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.77)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
HDC 48	436973	494519	21.3	22.9	22.2	21.1	14.6	13.0	10.9	13.8	17.4	18.2	22.4	18.4	18.0	13.9		
HDC 49	436907	494500	22.6	18.1	17.8	16.5	10.3	9.8	9.7	10.3				15.3	14.5	11.2		
HDC 50	436717	494395	26.2	22.6	21.1	18.3		11.8	11.5	13.3				17.0	17.7	14.2		
HDC 51	436691	494388	27.8	23.6	21.0	19.0	13.9	12.9	12.2	14.1				17.2	18.0	13.8		
HDC 52	436680	494362	25.2	20.4	16.5	18.6	13.5	12.6	12.8	13.8	19.4	15.8	24.9	18.4	17.7	13.6		
HDC 33	442783	481896	33.1	34.4	26.0	30.5	25.9	23.5	19.1	24.2	26.3	22.5	32.1	24.0	26.8	20.6		
HDC 34	442815	481915	43.7	40.0	41.9	33.6	29.9	25.2	23.3	29.5	33.2	30.0	37.2	30.1	33.1	25.5		
HDC 35	442871	481943	25.5	31.2	30.5	26.7	22.6	22.5	17.7	22.6	26.9	21.1	16.3	24.1	24.0	18.5		
HDC 59	436893	493526	32.5	35.2	30.5	29.1	23.0	21.8	23.0	24.7				30.3	27.8	21.4		
HDC 60	436879	493572	27.4	22.6	24.1	30.2	23.5	19.4	16.7	18.4	24.1	19.6	7.5	22.4	21.3	16.4		
RYE1	478739	471656	39.1	27.7			27.6	24.6	25.0	28.8	28.8		34.4	26.9	-	-		Triplicate Site with RYE1, RYE2 and RYE3 - Annual data provided for RYE3 only
RYE2	478739	471656	37.0	35.0	35.6	33.7	29.7	24.3	26.0	30.3	29.0	25.7	35.7	28.7	-	-		Triplicate Site with RYE1, RYE2 and RYE3 - Annual data provided for RYE3 only
RYE3	478739	471656	33.0	37.7			27.3	25.9	28.7	30.6	28.6	26.5	33.1	22.4	30.3	23.4		Triplicate Site with RYE1, RYE2 and RYE3 - Annual data provided for RYE3 only
RYE4	478704	471732	38.8	24.5	36.8	31.2	28.9	25.6	27.8	30.1	31.3	29.9	37.5	29.0	31.0	23.8		
RYE5	478844	471733	35.5		32.3	32.2	30.3	25.9	25.7	29.2	30.7	7.6	36.6		28.6	22.0		
RYE6	478843	471596	26.5	25.4	25.9	32.6	24.1	22.3	20.5	23.9	24.6	23.9	26.3	18.3	24.5	18.9		
RYE7	479028	471541	39.4	41.7	34.6		29.7	26.1	27.9	31.9	33.9	28.5	41.4		33.5	25.8		
RYE8	479869	470761	13.5	12.2	8.8	7.4	6.3	4.8	4.9	5.9	8.0	9.8	11.6	5.0	8.2	6.3		
RYE9	478661	471630	36.3	16.3	33.7	31.6	25.8	23.3	25.1	29.4	32.1		27.9	30.5	28.4	21.8		
RYE 10	479668	471463	25.1	13.9	22.7	25.0	20.5	22.0	13.9	18.0	19.5	23.4	25.9	18.5	20.7	15.9		
RYE 11	478552	471609	25.7	24.5	24.5	32.6	23.1	22.4	17.1	23.7	20.6	23.7	30.2	17.7	23.8	18.3		
RYE 12	495854	476759		25.3	24.4		25.0	23.9	19.7	24.2	23.7	24.5	26.8	19.7	23.7	18.3		
RYE 13	485362	474416	16.4	10.3	17.9	18.5	16.5	12.5	11.8	14.9	17.1	17.3	16.7	12.1	15.2	11.7		
RYE 14	479942	483826	28.9	26.8	21.5	22.9	19.8	18.0	16.5	18.0	21.3	20.8	29.0	15.7	21.6	16.6		
RYE 15	478927	471559	37.1	35.2	35.1	32.4	31.7	29.9	34.5	32.0	34.8	31.1	36.4	19.6	32.5	25.0		
RYE 16	461282	483821	15.6	16.1	15.0	19.0	13.7	12.9	8.4	12.4	14.8	15.7	18.6		14.7	11.4		
RYE 17	478608	471881	22.4	20.5	23.8	24.3	23.1	20.7	13.5	19.8	17.1	23.2	26.1	18.0	21.0	16.2		

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.77)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
RYE 18	478911	471767	37.6	33.4	33.4	34.8	29.4	27.6	17.3	28.8	35.5	34.0	36.6	30.8	31.6	24.3		
RYE19	478440	472037	16.5	14.8	16.4	16.7	17.0	13.0	10.0	11.8	12.3	16.4	20.4	12.7	14.8	11.4		
RYE20	479120	471398		24.6	21.9	19.8	19.1	17.5	13.5	18.1	17.7	22.5			19.4	14.9		
RYE22	479363	472468	19.8	18.7	15.6	16.9	12.7	12.6	10.6	13.7	15.3	17.9	20.5	17.7	16.0	12.3		
RYE21	478792	472377			17.3	19.3	16.5	13.6	11.6	14.4	17.2		20.4		16.3	13.7		
RYE23	479288	471386	27.8	18.3	25.0	27.0	19.9	18.8		19.5	22.2	22.4	7.9	19.8	20.8	16.0		
RYE24	479173	471281	18.8		14.3	11.0	10.8	8.5		10.8	13.0	17.7	19.2	18.7	14.3	11.0		
H1	428594	458666	20.7	23.4	24.3		23.5	20.8	18.8	22.1	27.3	19.4	20.1	18.2	21.7	16.7		
H2	431044	471039	17.3	25.4	25.3			24.6	14.6	20.1		26.8	24.1	22.3	22.3	17.2		
H4	431087	471100		38.2	46.5		40.4	35.8	30.0	32.3	34.4	39.0	39.7	33.1	-	-		Triplicate Site with H4, H5 and H25 - Annual data provided for H25 only
H5	431087	471100		40.2	47.5		36.7	32.6	33.7	33.5	37.7	33.9	41.8	38.1	-	-		Triplicate Site with H4, H5 and H25 - Annual data provided for H25 only
H6	431189	471146	23.7	24.5	21.2		15.7	15.7	14.8	16.2	22.0	22.2	26.7	21.7	20.4	15.7		
H7	431110	471124	28.9	26.0	27.3		17.4	19.7	19.6	19.8	23.1	25.6	26.7	26.8	23.7	18.3		
H8	431155	471216	28.2	33.9	38.0		32.1	29.6	22.8	25.6	34.1	32.6	29.1	28.1	30.4	23.4		
H9	431135	471186	32.3	36.9	36.6		31.0	27.7	23.4	27.9	31.5	22.5	32.1	29.3	30.1	23.2		
H10	431146	471258		33.3	31.4		29.0	23.7	17.9	22.9	26.9	28.9	36.6		27.8	21.4		
H12	434715	457387	24.1	33.6	31.4		25.1	20.4	20.9	24.7	26.1	18.0	31.5	23.7	25.4	19.6		
H13	434707	457368	40.5	47.0	42.5		39.0	41.2	33.9	39.8	42.2	38.2	40.8	40.8	40.5	31.2		
H14	434759	457375	42.0	50.9	52.2		41.3	34.1	38.1	40.1	44.7	42.4	51.0	47.1	44.0	33.9		
H15	434804	457358	41.0	39.0	36.4		31.7	26.3	31.7	29.0	35.4	39.0	37.6	37.9	-	-		Triplicate Site with H15, H59 and H60 - Annual data provided for H60 only
H16	434763	457388	32.5	36.6	36.8		33.7	37.6	20.5	30.7	22.8	26.5	23.7	26.8	29.8	23.0		
H17	434725	457405	26.2	29.0	28.3		24.3	24.7	17.6	19.5	23.6	25.0	21.2	22.2	23.8	18.3		
H18	435210	456918	30.1	30.9			24.2	24.1	21.4		30.4	31.3	36.2	25.2	28.2	21.7		
H19	435012	457084	31.8	33.5	32.1		26.4	26.6	26.7	26.1	29.6	32.0	21.3	26.6	28.4	21.9		
H20	435133	457009	32.4	36.6	41.4		37.1	39.8	21.3	31.4	36.9	40.5	36.4	27.2	34.6	26.7		
H21	435158	456992	31.8	27.8	29.3		22.0	15.0	17.6	19.1	23.3	17.3	30.8	22.5	23.3	18.0		
H22	435224	456913	35.2	39.2	42.8		29.2	25.1	31.4	28.6	32.4	40.5	35.9	30.4	33.7	25.9		
H23	432918	455959	25.9	22.1	25.6		22.3	23.5	15.0	19.1	21.5	23.2	24.1	20.6	22.1	17.0		
H24	432477	454805	23.3	28.6	31.0		24.0	24.9	18.9	23.4	26.4	28.3	29.0	17.6	25.0	19.3		

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H25	431087	471100		36.7	45.3		34.7	37.8	33.0	30.9	31.8	37.0	36.1	39.1	36.9	28.4		Triplicate Site with H4, H5 and H25 - Annual data provided for H25 only
H26	432494	454808	43.8	38.6	40.5		31.1	31.3	33.5	38.1	36.7	32.5	39.2	33.1	36.2	27.9		
H27	441851	453686	26.9	28.4	21.4		16.9	16.8	21.4	24.0	23.7	20.3	25.8	18.4	-	-		Duplicate Site with H27 and H44 - Annual data provided for H44 only
H28	429313	453820	13.5	15.2	12.5		7.0	7.2	7.8	6.7	7.3	10.4	12.6		10.0	7.7		
H29	429534	456882	24.6	28.5	33.4		28.6	28.6	23.4	33.0	31.3	27.8	31.4	21.2	28.3	21.8		
H30	435137	456968			52.0		33.2	28.3	39.6	34.1	38.0	43.2	40.7	31.3	37.8	29.1		
H33	430224	456727	31.1	29.3	32.0		20.7	22.2	20.2	22.4	23.8	25.2	29.9	25.7	25.7	19.8		
H34	432508	454804	33.8	30.4			12.1	26.2	0.7	28.0	23.9	32.5	38.3	20.8	24.7	19.0		
H35	430513	456467	23.2	24.1	24.4		18.1	16.4	15.2	16.7	20.0	19.5	21.9	20.9	20.0	15.4		
H36	430925	455804	22.7	23.0	26.8		21.0	19.4	16.5	18.3	23.2	25.8	25.3		22.2	17.1		
H37	430573	456436	31.5	25.0	29.7		23.9	19.8	22.2	22.2	23.4	18.4	31.4	27.6	25.0	19.3		
H38	430647	456324	34.5	33.6	31.9		21.4	17.3	23.9	21.9	26.8	26.5	32.2	26.5	27.0	20.8		
H39	430995	455831	42.3	48.1	49.7		43.3	39.2	27.9	36.8	41.3	41.3	44.6	29.6	40.4	31.1		
H40	430935	455826	28.2	27.0	25.1		22.1	20.4	20.5	20.7	25.3	25.2	34.3		24.9	19.2		
H41	435235	456907	35.7	37.1	37.4		23.1	19.7	26.1	26.9	31.6	29.8	32.2	30.2	30.0	23.1		
H42	430367	455339	46.2		44.4		33.8	33.5	31.8	40.3	42.2		53.0	36.4	40.2	30.9		
H43	430397	455194	25.0	23.6	28.0		20.9	18.0	15.1	18.2	21.3	22.7	24.5	19.6	21.5	16.6		
H44	441851	453686	24.3	28.9	24.1		18.2	14.9	18.0	23.2	25.0	18.1	25.3	16.5	21.8	16.8		Duplicate Site with H27 and H44 - Annual data provided for H44 only
H45	430991	455828	34.7	34.1	38.6		31.9	28.2	19.6	25.1	28.3	30.1	41.1	28.0	30.9	23.8		
H46	430535	456495	28.2	25.1	27.6		17.8	14.7	16.0	15.3	18.9	20.8	23.1	21.3	20.8	16.0		
H47	430800	456572	8.3	15.0	13.4		8.1	6.8	6.7	7.6	8.8	12.8	14.7		10.2	7.9		
H49	434623	457314	32.8	33.0	40.7		34.0	31.3	28.1	34.0	37.1	29.9	27.0	30.6	32.6	25.1		
H50	434578	457260	25.8	33.8	42.3		32.4	35.4		36.3	31.9	33.0	35.2	30.3	33.6	25.9		
H51	434796	457393	41.1	44.4	50.1		40.4	34.3	23.5	32.1	32.1	36.3	45.1	32.4	37.4	28.8		
H52	434835	457329	37.9	41.0	37.6		47.4	46.3	31.0	38.3	40.1	39.4	43.4	33.1	39.6	30.5		
H53	435253	456893	36.9	16.2	26.5		28.4	23.8	25.4		27.0	28.4	38.0	28.0	27.9	21.5		
H54	431075	471077	30.3	29.5	33.4		29.4	28.7	23.2	24.9	28.9	29.3	29.4		28.7	22.1		
H55	431102	471101	34.9	32.1	36.7		27.7	27.3	28.1	25.2	33.7	30.0	22.9	27.7	29.7	22.8		
H56	431151	471119	24.7	26.5	26.2		19.9	19.9	20.4	19.2	24.4	24.4	29.2	27.3	23.8	18.3		
H57	431193	471132	28.8	29.5	32.5		22.0	17.3	22.8	21.6	27.2	28.9	32.5	30.0	26.6	20.5		

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H58	431242	471135	28.2		27.6		20.2	22.5	20.5	18.2	22.7	23.0	24.3	26.2	23.3	18.0		
H59	434804	457358	38.2	41.0	41.1		28.0	26.2	35.5	31.6	36.9	32.4	34.5	41.4	-	-		Triplicate Site with H15, H59 and H60 - Annual data provided for H60 only
H60	434804	457358	45.6	40.7	38.3		31.0	26.2	33.4		36.2	30.7	33.9	39.8	35.1	27.0		Triplicate Site with H15, H59 and H60 - Annual data provided for H60 only
H61	430478	455297	33.9	32.6	29.4		23.8	20.0	22.4	25.0	27.2	29.4	36.5	32.0	28.4	21.9		
H62	430420	456798	23.2	23.9	20.6		16.4	15.3	15.0	15.0	10.2	20.8	23.5	17.5	18.3	14.1		
H63	430548	454832	32.9	34.7	27.9		21.6	20.4	23.8	17.6				16.6	24.4	20.0		
H64	432806	455899	25.7	28.2	28.3		15.0	19.7		17.9	24.6	22.9	22.9	25.4	23.1	17.8		
H67	429503	454275	21.1	23.9	18.8			15.2	14.4	14.6	16.5	19.9	24.9	16.2	18.6	14.3		
H68	432253	456220	14.4	15.9	14.3		10.0	7.3	8.9	7.9	12.4	11.1	13.4	13.9	11.8	9.1		
H69	432513	455850	22.3	21.2	23.8		11.8	15.0	14.7	13.6	19.8	17.8	21.5	21.0	18.4	14.2		

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9N	460899	430935	17.0	17.4	12.4	9.8	7.4	8.5	8.4	8.6	10.9	12.6	17.0	13.8	12.0	9.7		
4N	461096	432191	25.7	26.3	24.3	22.0	19.0	16.0	15.9	18.5	22.4	23.8	26.5		21.8	17.7		
3N	460855	432820	20.5	20.4	14.1	10.8	8.1	8.3	10.5	8.4	13.5	12.5	18.1	17.7	13.6	11.0		
S6	461635	432372	27.6	30.4	30.2	27.3	26.7	26.9	22.3	32.3	28.3	27.1	30.6	23.2	27.7	22.5		
S26	461648	432384	36.9	40.1	37.1	33.3	32.2	32.5	32.2	25.6	37.1	37.9	35.5	29.1	34.1	27.6		
S5a	461659	432405		46.4	38.8	36.7	37.0	36.3	37.0	38.1	43.3	43.2	44.0	38.6	-	-		Triplicate Site with S5a, S5b and S5c - Annual data provided for S5c only
S5b	461659	432405	52.2	47.1	39.7	37.6	38.6	37.1	37.5	39.6	42.2	41.7	44.9	37.4	-	-		Triplicate Site with S5a, S5b and S5c - Annual data provided for S5c only
S5c	461659	432405		42.3	38.9	36.1	36.1	37.1	34.7	38.1	40.3	39.0	41.0	32.8	40.4	32.8		Triplicate Site with S5a, S5b and S5c - Annual data provided for S5c only
S7a	461688	432434	51.2	68.0	48.1	43.9	41.3	41.8	44.9	48.9	49.7	46.8	48.6	48.0	-	-		Triplicate Site with S7a, S7b and S7c - Annual data provided for S7c only
S7b	461688	432434	51.4	63.7	47.3	44.3	42.7	44.4	46.2	47.5	53.0	51.9	51.1	47.1	-	-		Triplicate Site with S7a, S7b and S7c - Annual data provided for S7c only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.81)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
S7c	461688	432434	56.9	66.0	48.0	44.5	39.5	43.6	45.5	49.8	51.5	51.8	53.0	46.6	49.1	39.8		Triplicate Site with S7a, S7b and S7c - Annual data provided for S7c only
S2	461689	432422	31.9	33.6	32.6	30.8	24.6	27.5	24.6	27.3	31.8	29.1	32.3	29.7	29.7	24.0		
S8	461697	432424	35.1	33.8	29.4	27.3	23.4	22.0	24.7	25.3	31.6	19.7	28.7	29.7	27.6	22.3		
S4	461681	432407	48.0	52.9	46.7	44.6	43.7	46.7	40.9	46.9	50.6	46.1	37.3	41.3	45.5	36.8		
S3a	461670	432408	37.7	39.0	40.3	39.9	36.7	40.8	34.7	37.8	41.3	42.9	34.1	33.1	-	-		Triplicate Site with S3a, S3b and S3c - Annual data provided for S3c only
S3b	461670	432408	34.5	39.1	37.6	38.5	36.6	40.5	34.8	37.1	41.4	41.9	35.8	32.4	-	-		Triplicate Site with S3a, S3b and S3c - Annual data provided for S3c only
S3c	461670	432408	36.6	40.6	38.4	39.5	37.8	38.9	34.2	38.1	42.8	43.9	37.1	31.6	38.0	30.8		Triplicate Site with S3a, S3b and S3c - Annual data provided for S3c only
S1	461638	432345	32.6	35.0	33.5	30.6	29.1	34.0	32.0	32.1	37.2	32.9	33.5	28.5	32.6	26.4		
S11	461507	432319	32.9	33.5	30.3	27.3	26.4	29.1	27.4	28.6	33.2	32.2	29.3	29.9	30.0	24.3		
S10	461317	432356	32.8	34.7	28.1		23.2	25.4		24.0		32.3	31.7	28.2	28.9	23.4		
S27	461120	432303	40.4	39.5	34.0	28.1	25.7	25.3	30.0	29.6	34.5			35.1	32.2	26.1		
S28	461062	432475	22.2	24.3	20.0	17.4	17.4	16.1	14.4	16.3	19.1	20.7	21.2	17.8	18.9	15.3		
S29	461041	432539	27.3	26.7	24.2	21.3	18.9	18.4	20.2	19.8	25.2	23.9	24.8	22.4	22.8	18.4		
S32	461871	432643	19.8	20.8	17.4	14.5	11.4	13.3	13.0	12.7	16.9	17.3	19.4	26.0	16.9	13.7		
S34	461938	432710	29.3	30.8	27.3	21.5	20.5	20.0	20.9	21.0	25.0	26.3	29.6		24.7	20.0		
S33	461935	432672	22.5	22.4	17.8	14.6	12.2	12.4	13.1	13.6	16.6	17.4	21.5		16.7	13.6		
S31	461852	432594	26.0	28.0	24.1	19.8	17.8	20.8	18.1	18.4	22.0	22.0	26.0	22.7	22.1	17.9		
S30	461806	432546	28.8	30.4	24.2	20.7	19.2	18.7	18.6	19.6	23.6	23.6	26.1		23.1	18.7		
S18	461517	432582	30.3	32.0	29.0		23.9	21.7	24.6	25.4	29.1	24.4	24.7	26.0	26.5	21.4		
S19	461526	432584	30.3			35.8	32.0	31.7	26.6	28.4	33.1	31.0	33.9	30.5	31.3	25.4		
S22	461733	432411	38.9	29.8											-	-		
S23	461821	432376	28.0	24.4	20.9	17.1	14.3			15.2	20.4	19.4	24.5	21.6	20.6	16.7		
S24	461788	432379	28.3	31.8	26.4	21.2	18.0	16.4	21.2	20.5	26.4	22.4	28.4	27.4	24.0	19.5		
S25	461762	432408	30.2	31.6	26.6	24.0	21.8	20.4	19.0	21.3	25.5	24.8	29.7	24.2	24.9	20.2		
S35	461617	432148					24.2	22.9	18.8	21.6	13.6	24.6	29.5	23.5	22.3	19.6		
C1	366749	469197	21.0	22.8	16.9	14.8	12.3	12.2	14.1		14.4	14.5	18.8	15.3	16.1	13.0		
C2	381959	463625	23.7	18.3	22.1	19.5	15.2	16.9	14.0	14.5	18.2	17.6	22.6	17.2	18.3	14.8		
C3	399103	451611	32.0	30.1	25.1	22.8	18.4	20.0	20.9	20.5	23.9	23.5	29.3	26.1	24.4	19.7		
C4	398820	451196	20.9	22.7	20.9	20.7	17.2	16.7	12.7	14.1	17.9	20.6	23.1	17.8	18.8	15.2		

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C5	400629	444999	29.3	31.6	31.2	29.6	25.5	25.6	15.4	23.7	21.2	27.9	30.9	27.1	26.6	21.5		
C6	400811	445217	23.7	24.2	23.7	22.3	15.5	17.3	17.1	18.2	19.6	23.9	26.8	22.2	21.2	17.2		
C7	397795	451308	21.3	22.0	18.2	16.7	13.5	13.1	12.5	13.0	14.1	18.1	20.1	15.9	16.5	13.4		
C8	398898	451835	24.6	23.3	20.8	17.4	13.3	15.9	15.0	13.8	18.5	18.7	21.8	19.3	18.5	15.0		
C9	400006	444760	25.8	26.7	21.2	20.7	17.5		24.8	16.7	30.3	22.6	25.6	21.1	23.0	18.6		
C10	393272	454225	33.1	30.4	26.3	24.5	22.3	10.5	25.9	25.7	26.5		28.2	24.9	25.3	20.5		
C11	385397	456675	23.5	22.9	16.6	16.4	13.8	16.1	15.3	16.2	17.8	15.1	21.2	18.5	17.8	14.4		
C12	401212	445224	20.5	20.2	18.5	17.1		12.7	11.4	11.7	15.7	19.7	21.5	18.8	17.1	13.8		
SC1	503929	488389	27.7	26.3	30.2	28.4	21.1	24.4	24.1	27.6	31.1	26.4	30.0	26.4	27.0	21.8		
SC2	504094	487815	26.8	24.6	27.1	27.4	25.4	26.6	23.3	26.4	24.9	23.4	26.4	21.3	25.3	20.5		
SC3	504109	487497	27.0	26.9	28.6	30.0	26.6	28.9	24.8	30.8	29.9	26.9	28.7	21.9	27.6	22.3		
SC4	505466	483378	17.5	15.8	15.4	13.4	10.2	11.3	10.7	12.3	13.1	14.3	16.8	14.4	13.8	11.2		
SC5	498998	484889	25.5	27.3	27.4	25.8	24.7	23.4	19.8	23.5	26.2	23.9	21.8	21.5	24.2	19.6		
SC6	499023	484885	23.0	21.6	18.3		13.2	17.2	15.5	18.8	19.5	19.8	26.9	20.3	19.5	15.8		
SC7	492186	482266	31.6	30.9	30.9	29.3	23.1	25.6	24.1	18.6	30.4	17.5	30.5	24.1	26.4	21.4		
SC8	492161	482291	20.0	21.0	19.5	20.1	19.1	19.1	14.4	29.8	20.6	26.5	20.5	15.4	20.5	16.6		
SC9	503288	487538	28.8	29.1	26.0	34.7	35.8	35.1	29.3	35.2	30.7	28.9	32.9	26.2	31.1	25.2		
SC10	503273	487523		24.0	33.1	26.5	23.2	23.5	21.8	23.3	25.9	22.1	25.8	20.2	24.5	19.8		
SC11	503288	487911		30.7	31.0		29.4	29.4							30.1	25.5		
SC12	503218	487940	23.9	24.9	25.4	26.4	25.2	25.1	19.4	22.8	27.1	22.8			24.3	19.7		
SC13	503088	487922	25.6	25.3	27.1	29.3	24.0	26.1	22.7	28.3	27.9	26.1		20.3	25.7	20.8		
SC14	503045	488003	38.2	34.8	34.0		30.1	35.4	29.7	35.8	36.5	33.9	35.8	31.5	34.1	27.7		
SC15	502929	488227	20.5	19.5	21.8	21.5	18.8	16.3	15.0	18.9	17.4	17.5	23.1	17.0	18.9	15.3		
SC16	488913	509314	13.8	13.7	14.0	13.4	12.4	10.7	10.0	11.4	14.3	11.1	14.2	11.0	12.5	10.1		
SC17	488912	509271	23.7	20.8	21.9	20.2	16.0	18.2	17.5	19.7	21.0	19.3	20.2	17.2	19.6	15.9		
SC18	489863	510887	16.4	17.0	17.1	17.6	15.6		15.6	18.9	20.2	16.5	18.2	12.7	16.9	13.7		
SC19	489388	510619	28.6		32.7	36.4	29.9	33.9	26.1	35.1	34.6		26.9	26.9	31.1	25.2		
SC20	489277	510331	16.3	16.3	14.9	16.4	14.9	14.0	13.9	16.2	17.4	15.6	16.0	14.7	15.5	12.6		
SC21	490370	509314	24.4	25.1	25.1	25.2	23.0	21.9		22.8	29.3		22.7	18.7	23.8	19.3		
SC22	503741	488079								10.5	17.3	12.2	18.1		14.5	11.0		
SC23	490374	510024	13.2	14.2	16.3		28.0	13.4	11.1						16.0	13.4		

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.81)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
SC24	503615	489367	13.9	13.3	11.1	10.0	7.5	7.7	8.1	8.5	9.5	9.1	13.6	11.5	10.3	8.3		
SC25	509679	477308	16.8	15.9	15.3	11.8	9.2	10.6		12.5	13.1	13.3	16.1	13.2	13.4	10.9		
SC26	511698	480664	13.4	13.6	12.5	9.9	7.5	9.4	8.9	10.5	10.6	11.4	14.3	12.3	11.2	9.1		
SC27	504703	488799		22.7	21.9	23.8	16.0	19.4	19.9	25.2	19.0	19.6	21.4	19.4	20.7	16.8		
SC28	504357	488553	22.7	22.5	21.3		36.0		20.4	22.9	23.0	20.6	22.0	19.4	23.1	18.7		

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table B.1**.

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

☐ **Local bias adjustment factor used.**

☒ **National bias adjustment factor used.**

☐ **Where applicable, data has been distance corrected for relevant exposure in the final column.**

☒ **North Yorkshire Council confirm that all 2023 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

New or Changed Sources Identified Within North Yorkshire During 2023

NYC has not identified any new sources relating to air quality within the reporting year of 2023.

In the Harrogate area of North Yorkshire there have been refurbishment and replacement work on 2 leisure centres at Harrogate and Knaresborough. At both locations solar panels have been installed on and air source heat pumps have been installed.

In the Craven area of North Yorkshire there is one permitted quarry location that has seen an increase in HGV traffic, but the introduction of a new rail link planned for the quarry site will reduce the HGV's traversing this area. This is currently being constructed and should be completed later in the year.

Additional Air Quality Works Undertaken by North Yorkshire Council in 2023

No additional works have bene undertaken.

QA/QC of Diffusion Tube Monitoring

The nitrogen dioxide diffusion tubes are supplied and analysed by two laboratories Socotec Didcot (former authorities of Richmond, Hambleton, Ryedale, and Harrogate) and Gradko (former authorities of Selby, Craven and Scarborough). The Socotec tubes are prepared with 50% triethanolamine (TEA) in acetone, and the Gradko tubes are prepared with 20% TEA in water. All the monitoring has been completed in adherence with the 2023 Diffusion Tube Monitoring Calendar. It is envisaged that synchronisation of diffusion tubes suppliers and methodology will take place when contracts end.

The samples have been analysed in accordance with Socotec's standard operating procedure ANU/SOP/1015. This method meets the guidelines set out in Defra's 'Diffusion Tubes for Ambient NO_2 Monitoring: Practical Guidance'. This analysis of diffusion tube samples to determine the amount of nitrogen dioxide present on tubes is within the scope of the Socotec UKAS schedule.

Gradko follow the procedures set out in the document Diffusion Tubes for Ambient NO_2 Monitoring: Practical Guidance.

Socotec and Gradko have both taken part in the Air NO_2 Proficiency Testing Scheme. There were four results for 2023, for all periods both laboratories had 100% satisfactory results.

The results of precision testing show that Socotec had 28 Good and 0 Poor precision results for 2023, and Gradko had 21 Good and 0 Poor precision results for 2023. Tube precision is separated into two categories, “Good” or “Poor;” tubes are considered to have good precision where the coefficient of variation of duplicate or triplicate diffusion tubes for eight or more periods during the year is less than 20% and the average CV of all monitoring periods is less than 10%.

Diffusion Tube Annualisation

Annualisation has been carried out for eight sites, with data capture ranging from 4 to 9 months. The Diffusion Tube Data Processing Tool has been used to carry out the annualisation for 2023. Data from Automatic monitoring sites at York Bootham and York Fishergate have been used.

Table C.1 – Annualisation Summary (concentrations presented in µg/m^3)

Site ID	Annualisation Factor York Bootham	Annualisation Factor York Fishergate	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
HDC50	1.0384	1.0487	1.0436	17.7	18.5
RYE21	1.1245	1.0680	1.0962	16.3	17.9
H18	0.9609	0.9753	0.9681	28.2	27.3
H63	1.0596	1.0632	1.0614	24.4	25.9
S35	1.0932	1.0697	1.0814	22.3	24.2
SC11	1.0666	1.0203	1.0434	30.1	31.4
SC22	0.9335	0.9340	0.9337	14.5	13.5
SC23	1.0403	1.0293	1.0348	16.0	16.6

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance regarding the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO_2 continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

The former localities of Richmond, Hambleton, Ryedale, and Harrogate use Socotec Didcot laboratory and have applied a national bias adjustment factor of 0.77 has been applied to the 2023 monitoring data, taken from the 03/24 version of the spreadsheet, which was comprised of 28 studies.

The former localities of Selby, Craven and Scarborough use Gradko laboratory and have applied a national bias adjustment factor 0.81 has been applied to the 2023 monitoring data, this was taken from the 03/24 version of the spreadsheet, which was comprised of 23 studies.

NYC does not undertake automatic monitoring and therefore has not conducted a triplicate co-location study to allow for determination of a local bias factor. A summary of bias adjustment factors used over the past five years is presented in Table C.2.

Table C.2 – Bias Adjustment Factors

Gradko

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2023	National	03/24	0.81
2022	National	03/23 & 09/23	0.83 & 0.85
2021	National	03/22	0.84
2020	National	03/21	0.81
2019	National	03/20	0.93

Socotec

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2023	National	03/24	0.77
2022	National	03/23	0.76
2021	National	03/22	0.78
2020	National	03/21	0.77
2019	National	03/20	0.80

Table C.3 – Bias adjustment factor calculation – version 03/24

Gradko – 20% TEA in Acetone

National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 03/24

Follow the steps below **in the correct order** to show the results of **relevant** co-location studies

Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods

Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet

This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of June 2024

LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1:	Step 2:	Step 3:	Step 4:								
Select the Laboratory that Analyses Your Tubes from the Drop-Down List	Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor3 shown in blue at the foot of the final column.								
If a laboratory is not shown, we have no data for this laboratory.	If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data2	If you have your own co-location study then see footnote4. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953								
Analysed By1	Method	Year	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m3)	Automatic Monitor Mean Conc. (Cm) (µg/m3)	Bias (B)	Tube Precision5	Bias Adjustment Factor (A) (Cm/Dm)
Gradko	20% TEA in water	2023	R	Gateshead Council	11	23	18	26.9%	G	0.79
Gradko	20% TEA in water	2023	R	Gateshead Council	12	27	22	20.7%	G	0.83
Gradko	20% TEA in water	2023	R	Gateshead Council	12	29	23	25.9%	G	0.79
Gradko	20% TEA in water	2023	R	Gateshead Council	12	30	33	-7.8%	G	1.08
Gradko	20% TEA in water	2023	KS	Marylebone Road intercomparison	11	45	38	20.3%	G	0.83
Gradko	20% TEA in water	2023	B	South Holland District Council	10	8	7	12.4%	G	0.89
Gradko	20% TEA in water	2023	R	Worcestershire	12	12	11	17.4%	G	0.85
Gradko	20% TEA in Water	2023	R	Ards And North Down Borough Council	12	33	21	60.2%	G	0.62
Gradko	20% TEA in Water	2023	R	Lisburn & Castlereagh City Council	11	24	20	22.1%	G	0.82
Gradko	20% TEA in water	2023		Overall Factor3 (23 studies)				Use		0.81

Table C.4 – Bias adjustment factor calculation – version 03/24

Socotec – 50% TEA in Acetone

National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 03/24

Follow the steps below **in the correct order** to show the results of **relevant** co-location studies
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of June 2024

LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1:	Step 2:	Step 3:	Step 4:
Select the Laboratory that Analyses Your Tubes from the Drop-Down List	Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor3 shown in blue at the foot of the final column.
If a laboratory is not shown, we have no data for this laboratory	If a preparation method is not shown, we have no data for this method at this laboratory	If a year is not shown, we have no data2	If you have your own co-location study then see footnote4. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953

Analysed By1	Method	To undo your selection, choose (All) from the pop-up list	To undo your selection, choose (All)	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m3)	Automatic Monitor Mean Conc. (Cm) (µg/m3)	Bias (B)	Tube Precision5	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didcot	50% TEA in Acetone		2023	UI	North Lincolnshire Council	10	14	11	26.2%	G	0.79
SOCOTEC Didcot	50% TEA in acetone		2023	R	Bridgend Council	11	32	27	20.8%	G	0.83
SOCOTEC Didcot	50% TEA in acetone		2023	R	Cambridge City Council	12	22	18	24.8%	G	0.80
SOCOTEC Didcot	50% TEA in acetone		2023	R	Leeds City Council	10	39	29	32.3%	G	0.76
SOCOTEC Didcot	50% TEA in acetone		2023	KS	Leeds City Council	10	30	20	48.9%	G	0.67
SOCOTEC Didcot	50% TEA in acetone		2023	R	Leeds City Council	12	25	19	30.0%	G	0.77
SOCOTEC Didcot	50% TEA in acetone		2023	UC	Leeds City Council	11	26	19	40.0%	G	0.71
SOCOTEC Didcot	50% TEA in acetone		2023	KS	Marylebone Road intercomparison	11	53	38	41.4%	G	0.71
SOCOTEC Didcot	50% TEA in acetone		2023	R	Vale Of White Horse District Council	10	22	18	21.2%	G	0.83
SOCOTEC Didcot	50% TEA in acetone		2023	UB	Wirral Council	11	15	13	16.7%	G	0.86
SOCOTEC Didcot	50% TEA in acetone		2023		Overall Factor3 (28 studies)				Use		0.77

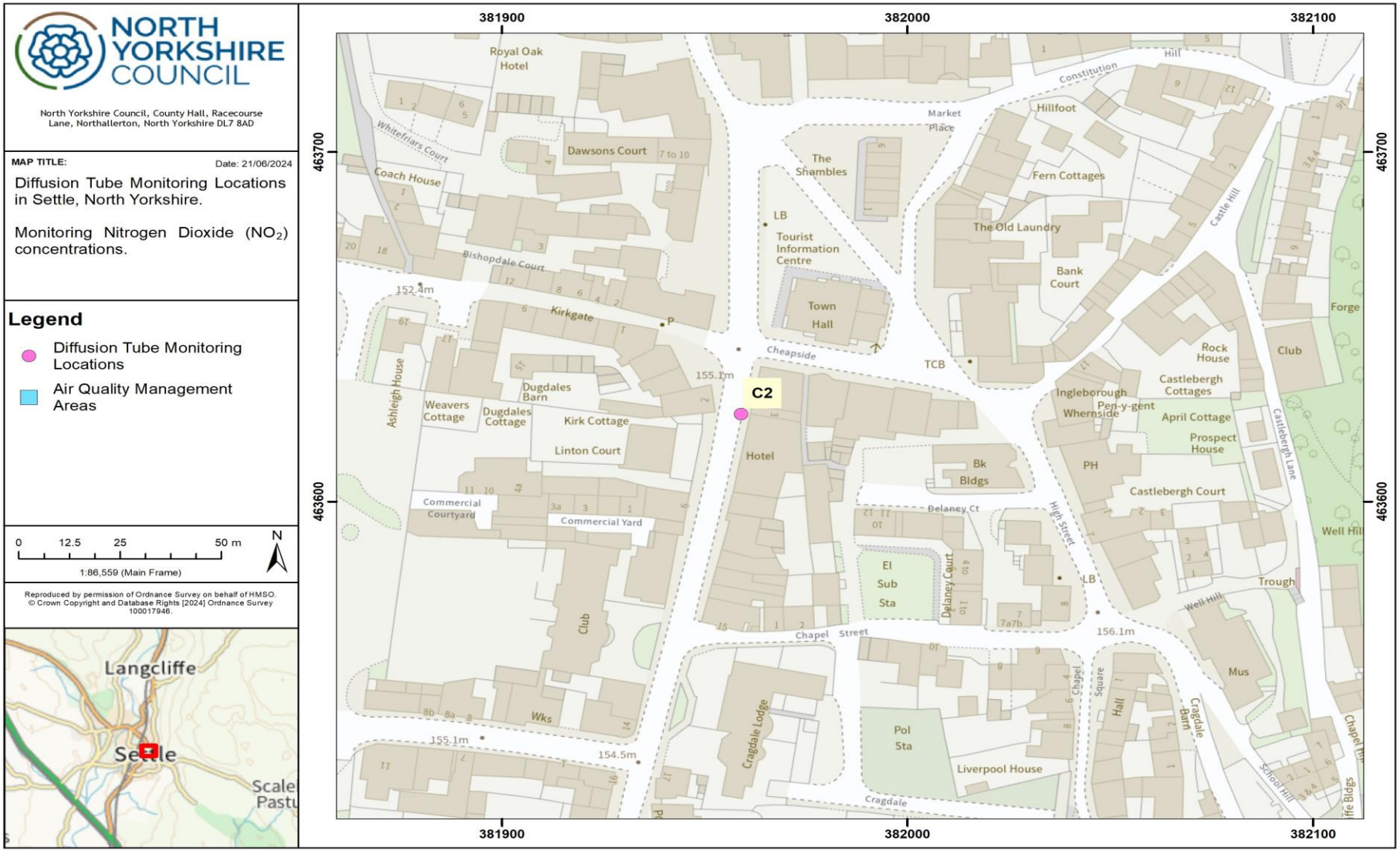
NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure have been estimated using the Diffusion Tube Data Processing Tool/NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO_2 concentrations corrected for distance would be presented in Table B.1. No diffusion tube NO_2 monitoring locations within the North Yorkshire Council area required distance correction during 2023.

Appendix D: Map(s) of Monitoring Locations and AQMAs

Figure D.1 – Maps of Non-Automatic Monitoring Sites in Craven Area

Figure D.2.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Settle, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 12.5 25 50 m
1:86,559 (Main Frame)
N
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Langcliffe
Settle
Scale
Past
381900
382000
382100
463700
463600
C2
Royal Oak Hotel
Dawsons Court
Whitefriars Court
Coach House
Bishopdale Court
Kirkgate
Cheapside
The Shambles
Market Place
Town Hall
Tourist Information Centre
LB
TCB
Hillfoot
Fern Cottages
The Old Laundry
Bank Court
Constitution Hill
Castle Hill
Forge
Club
Rock House
Castlebergh Cottages
Ingleborough
Pen-y-gent
Whernside
April Cottage
Prospect House
Castlebergh Lane
Castlebergh Court
Well Hill
Trough
Mus
Ashleigh House
Weavers Cottage
Dugdales Barn
Dugdales Cottage
Kirk Cottage
Linton Court
Hotel
Bk Bldgs
PH
Delaney Ct
Delaney Court
High Street
El Sub Sta
Commercial Courtyard
Commercial Yard
Chapel Street
Wks
Cragdale Lodge
Pol Sta
Liverpool House
Cragdale
Chapel Square
Hall
Cragdale Barn
School Hill
Chapel Hill
Bldgs
152.4m
155.1m
154.5m
156.1m

Figure D.3.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Hellifield, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,263 (Main Frame)
N
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Long Preston
Hellifield
385200
385300
385400
385500
385600
456800
456700
456600
456500
C11
Station Court
Midland Terrac
MP 0.5
Yorke Rise
Coppice Lane
Ashton Court
Newton Way
Hawthorn Close
Rowan Lane
Kendal Close
Brooklands
Asperlands
Greystones
The Rockeries
MS
Allotment Gardens
East View
The Mews
Aspinall Rise
Hammerton Drive
Drovers Walk
Yorkshire Terrace
Lancashire and
Penfold Court
Beech Court
Church
Town End Bridge
El Sub Sta
School House
Temperance Square
Sycamore Court
Crown Terrace
Victoria Buildings
Main Road
Wheelwrights Court
Craven House
The Old School House
Shelter
Hall
The Old Smithy GP
Health Centre
The Black Horse Hotel
Posts
Haw Grove Court
Dairy Cottage
Hart Farm
143.9m
142.5m
142.3m
144.0m
43.2m

Figure D.4.

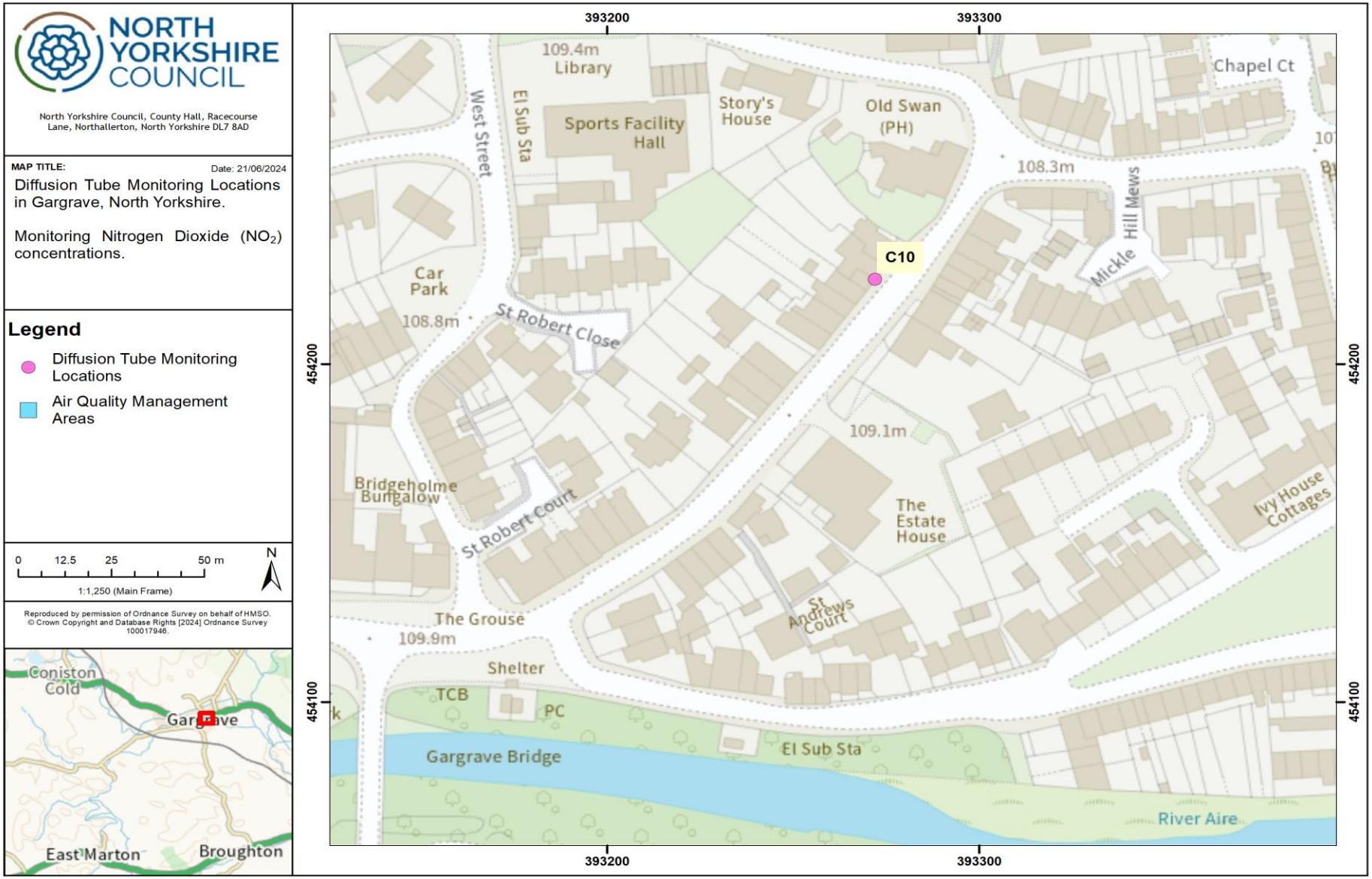
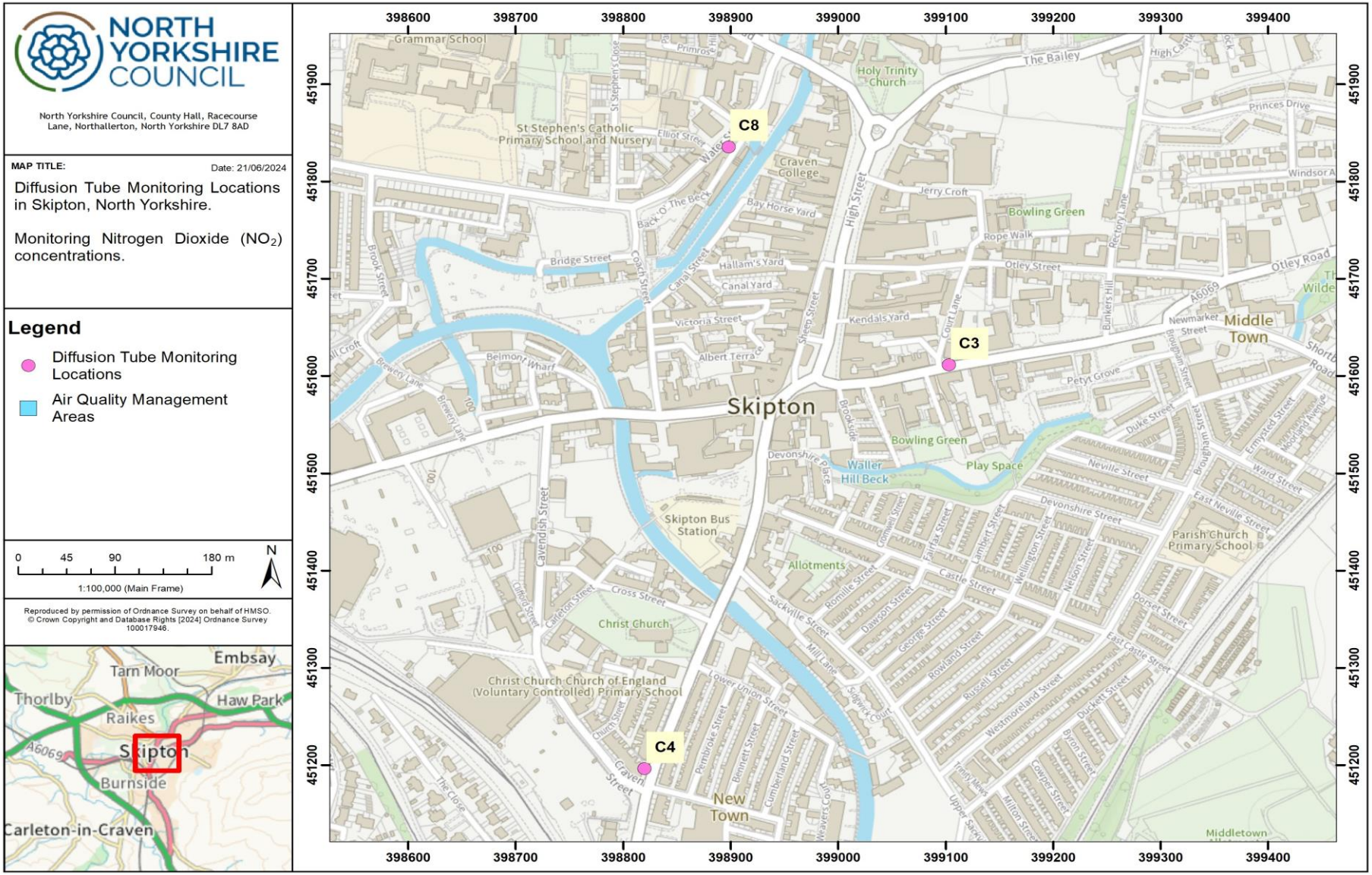

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Gargrave, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 12.5 25 50 m
1:1,250 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Coniston Cold
Gargrave
East Marton
Broughton
393200
393300
454200
454100
109.4m Library
West Street
El Sub Sta
Sports Facility Hall
Story's House
Old Swan (PH)
Chapel Ct
108.3m
Hill Mews
Mickle
C10
Car Park
108.8m
St Robert Close
109.1m
Bridgeholme Bungalow
St Robert Court
The Estate House
Ivy House Cottages
St Andrews Court
The Grouse
109.9m
Shelter
TCB
PC
El Sub Sta
Gargrave Bridge
River Aire

Figure D.5.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Skipton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 45 90 180 m
1:100,000 (Main Frame)
N
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Embsay
Tarn Moor
Thorlby
Haw Park
Raikes
Skipton
A6069
Burnside
Carleton-in-Craven
C8
C3
C4
Skipton
Middle Town
New Town
Christ Church
Skipton Bus Station
Allotments
Bowling Green
Play Space
Waller Hill Beck
Parish Church Primary School
Christ Church Church of England (Voluntary Controlled) Primary School
St Stephen's Catholic Primary School and Nursery
Grammar School
Holy Trinity Church
Craven College
Middletown
398600
398700
398800
398900
399000
399100
399200
399300
399400
451900
451800
451700
451600
451500
451400
451300
451200

Figure D.6.

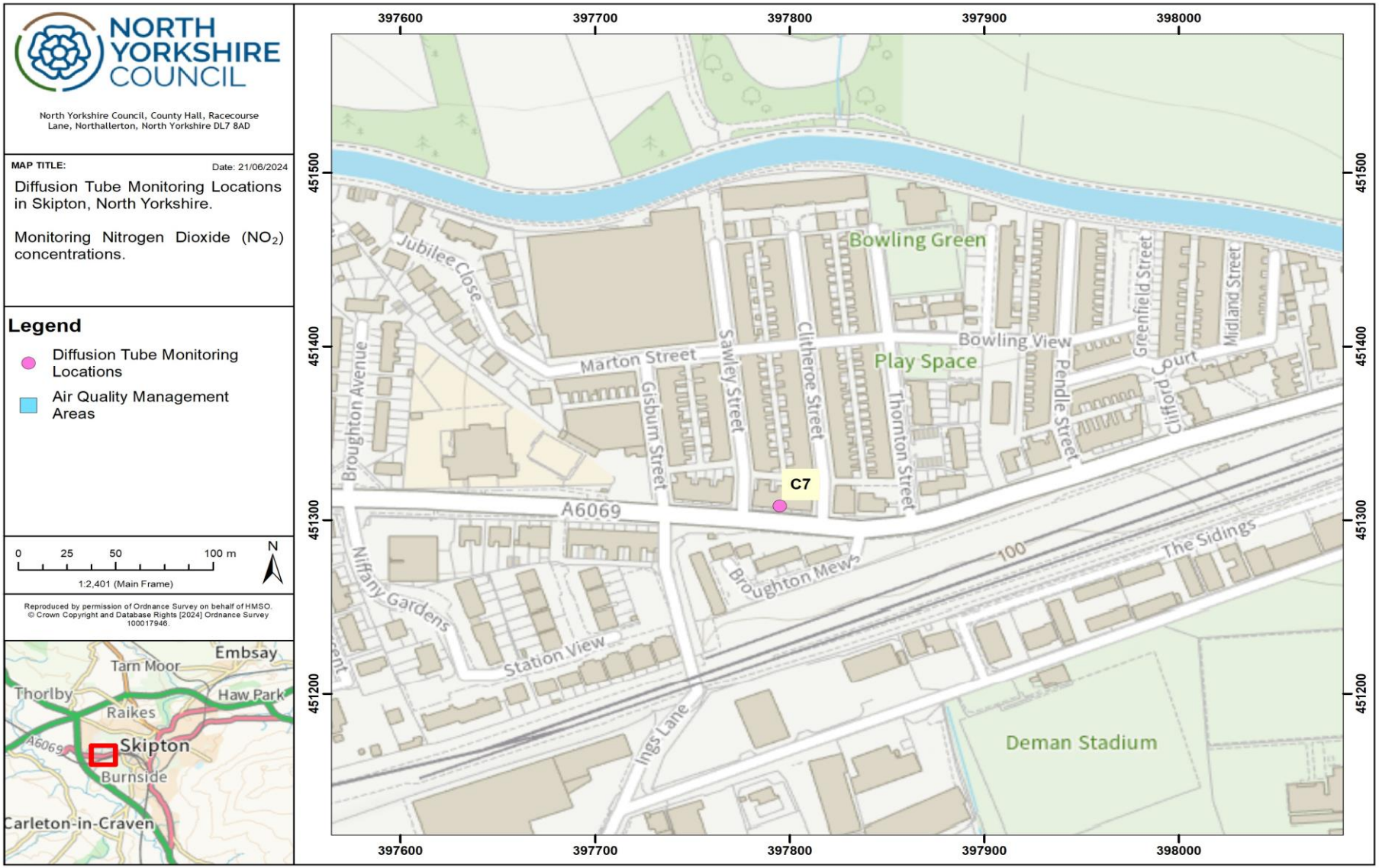

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Skipton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 25 50 100 m
1:2,401 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Embsay
Tarn Moor
Thorlby
Haw Park
Raikes
Skipton
A6069
Burnside
Carleton-in-Craven
397600
397700
397800
397900
398000
451500
451400
451300
451200
Bowling Green
Play Space
Jubilee Close
Marton Street
Broughton Avenue
Gisburn Street
Sawley Street
Clitheroe Street
Thornton Street
Bowling View
Pendle Street
Greenfield Street
Clifford Court
Midland Street
C7
A6069
Niffany Gardens
Station View
Broughton Mews
100
The Sidings
Ings Lane
Deman Stadium

Figure D.7.

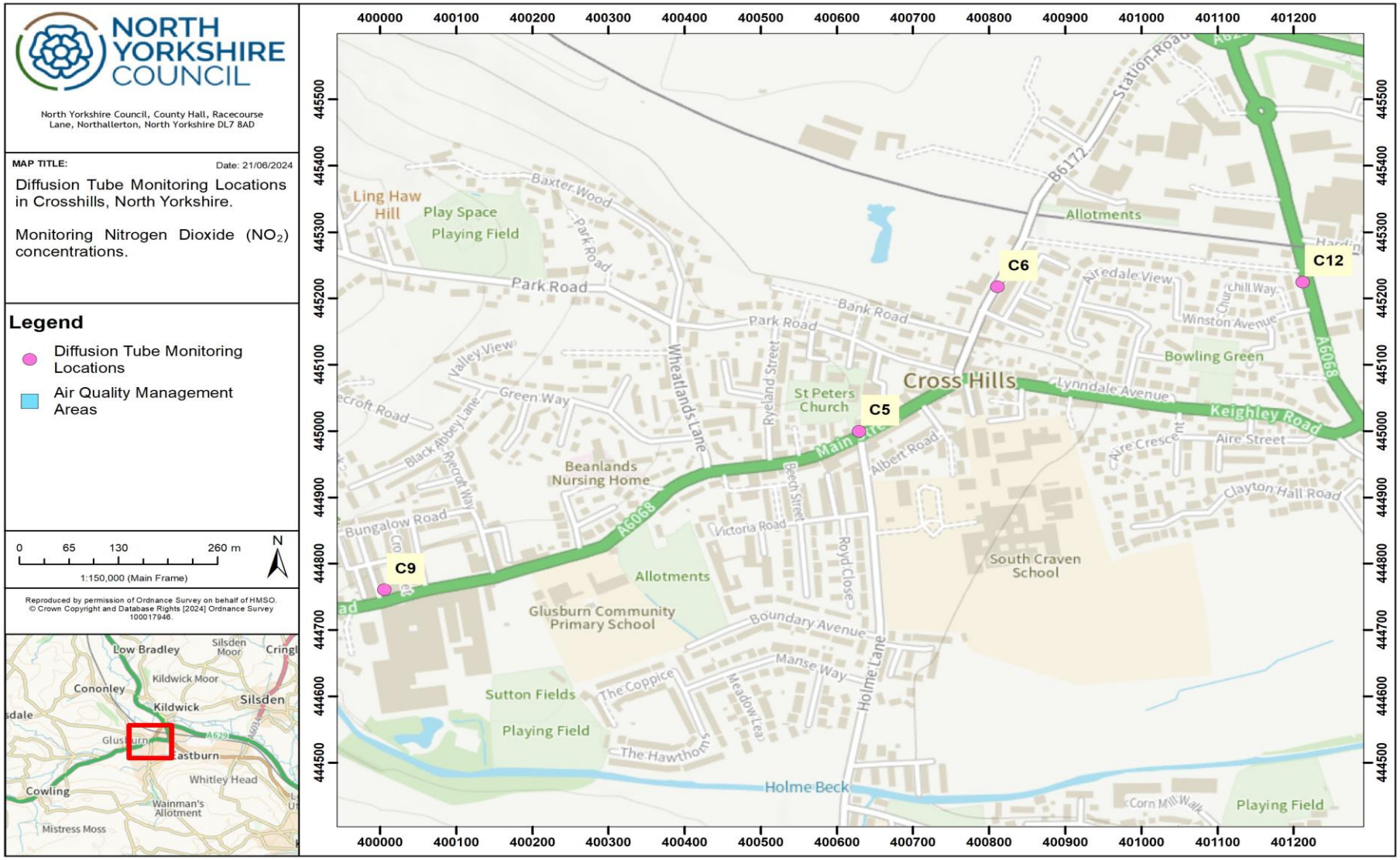

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Crosshills, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 65 130 260 m
1:150,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
C6
C12
C5
C9
Cross Hills
St Peters Church
Beanlands Nursing Home
Glusburn Community Primary School
South Craven School
Allotments
Bowling Green
Playing Field
Sutton Fields
Holme Beck
A6068
Keighley Road
Main Street
Park Road
Bank Road
Wheatlands Lane
Albert Road
Victoria Road
Boundary Avenue
Manse Way
Holme Lane
Lynndale Avenue
Aire Street
Clayton Hall Road
Bungalow Road
Green Way
Valley View
Ryeland Street
Beech Street
Royd Close
Meadow Lea
The Coppice
The Hawthorns
Corn Mill Walk
Winston Avenue
Airedale View
Station Road
B6172
Baxter Wood
Park Road
Ling Haw Hill
Play Space
Playing Field
Low Bradley
Silsden Moor
Kildwick Moor
Cononley
Kildwick
Silsden
Glusburn
Eastburn
Whitley Head
Cowling
Wainman's Allotment
Mistress Moss
400000 400100 400200 400300 400400 400500 400600 400700 400800 400900 401000 401100 401200
445500 445400 445300 445200 445100 445000 444900 444800 444700 444600 444500

Figure D.8. Maps of Non-Automatic Monitoring Sites in Hambleton Area

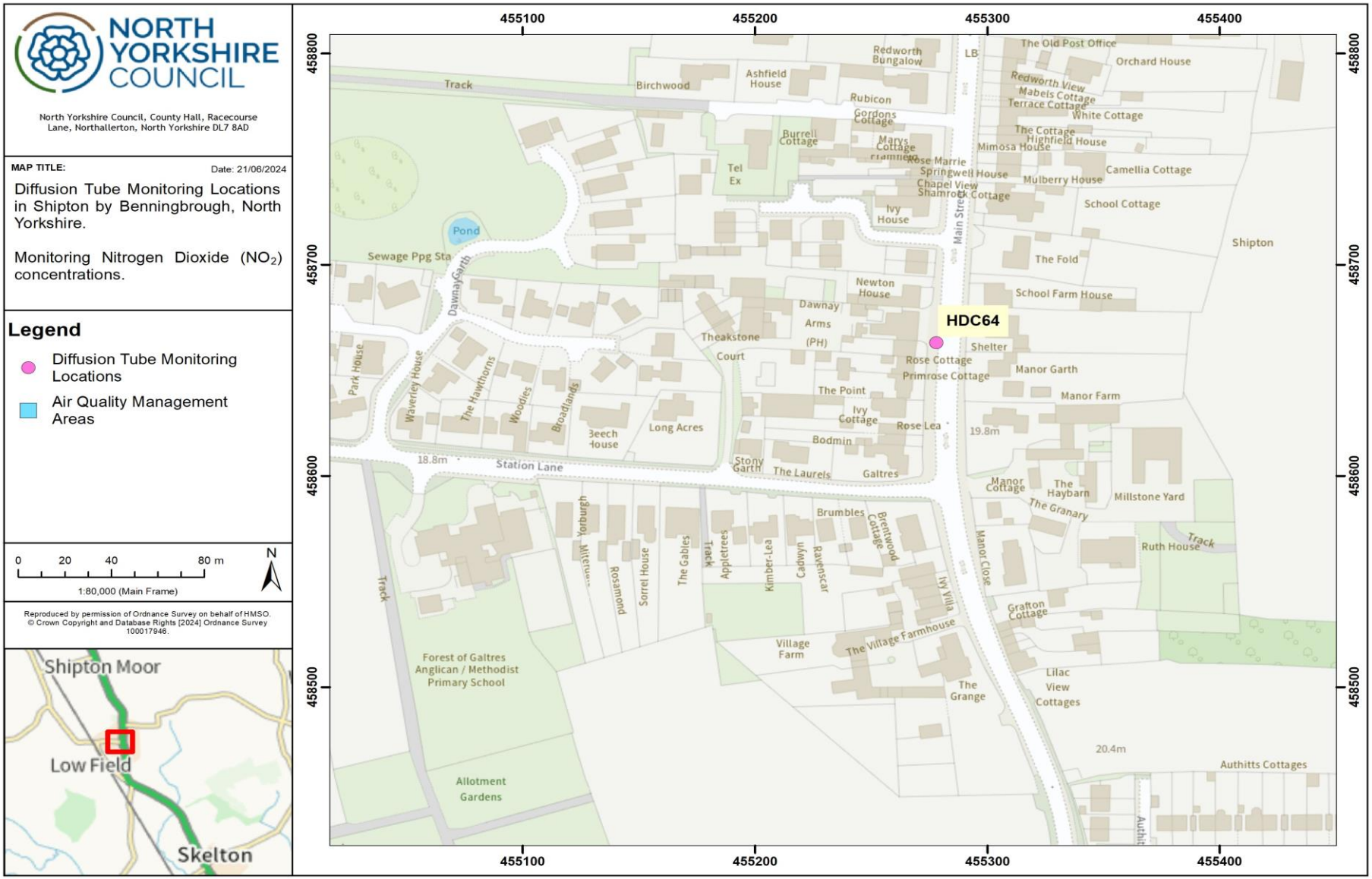


Figure D.9.

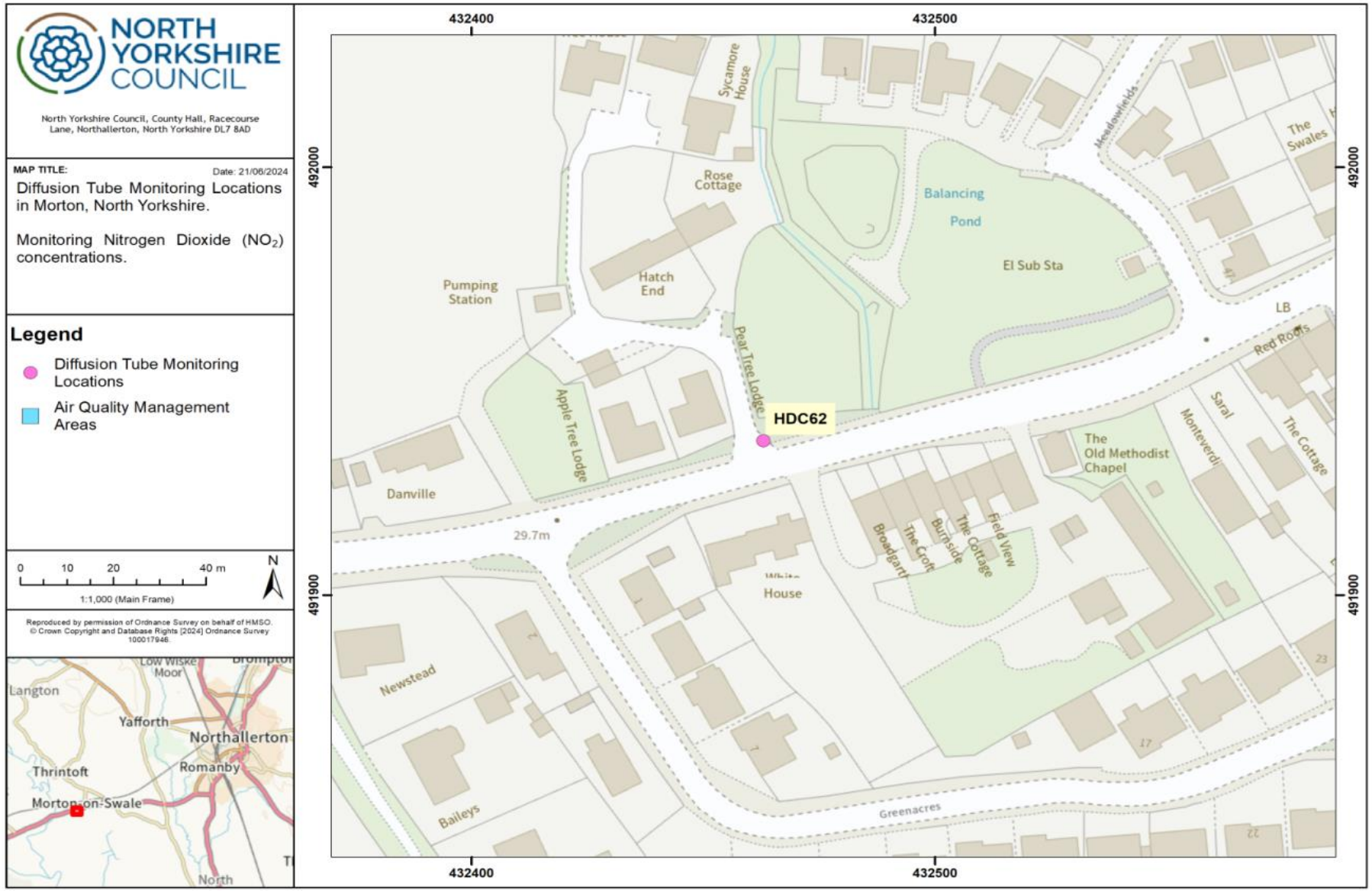

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Morton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 10 20 40 m
1:1,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Low Wiske Moor
Langton
Yafforth
Northallerton
Romanby
Thrintoft
Mortonon-Swale
North
432400
432500
492000
491900
Sycamore House
Rose Cottage
Balancing Pond
El Sub Sta
Pumping Station
Hatch End
Pear Tree Lodge
Apple Tree Lodge
HDC62
Danville
29.7m
House
Newstead
Bailey
Greenacres
The Old Methodist Chapel
Broadgarth
The Croft
Burnside
The Cottage
Field View
Monteverdi
Saral
The Cottage
Red Roofs
LB
The Swales
Meadowfields

Figure D.10.

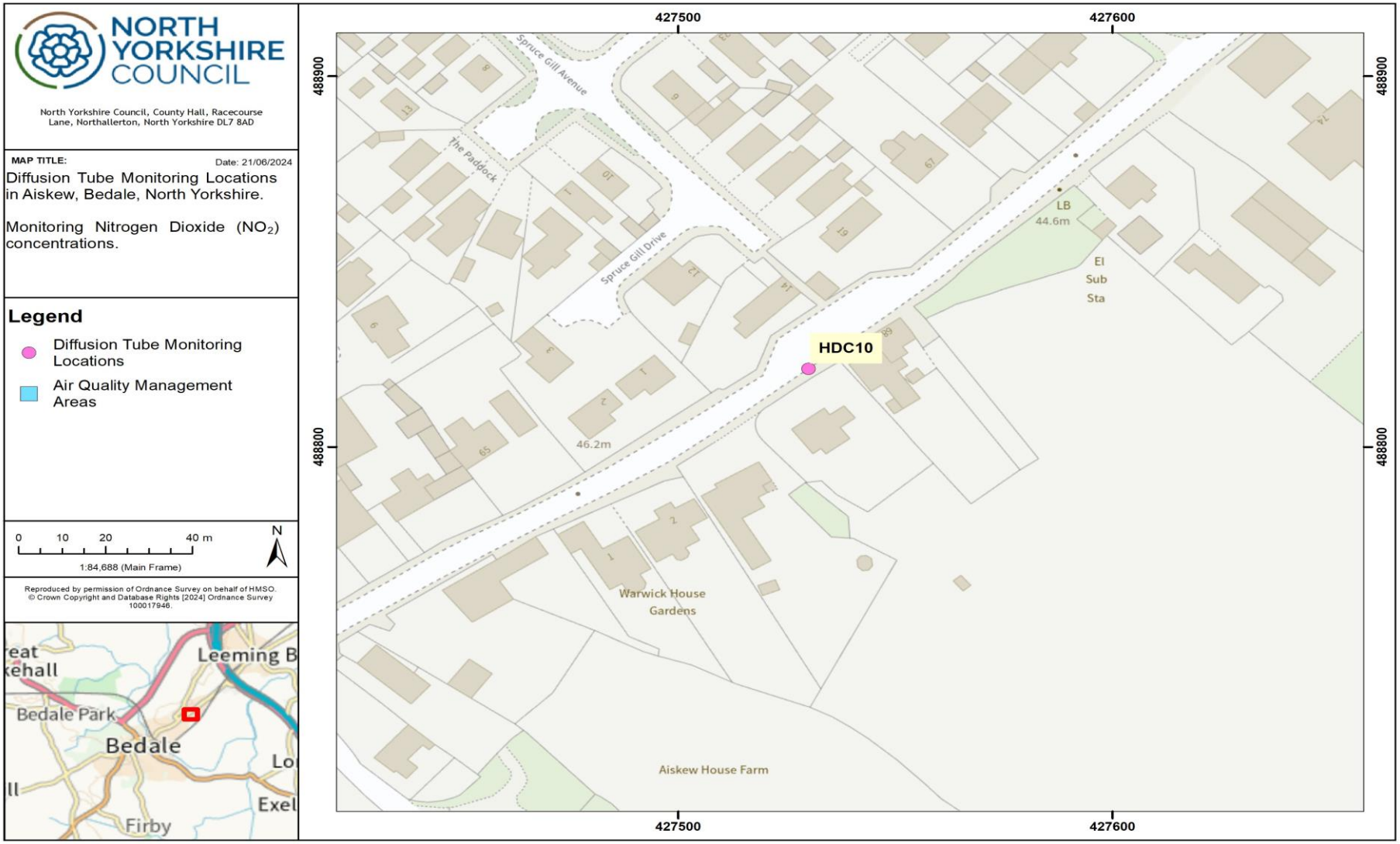

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Aiskew, Bedale, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 10 20 40 m
1:84,688 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Leeming B
Bedale Park
Bedale
Firby
427500
427600
488900
488800
Spruce Gill Avenue
The Paddock
Spruce Gill Drive
HDC10
LB
44.6m
El Sub Sta
46.2m
Warwick House Gardens
Aiskew House Farm

Figure D.11.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Northallerton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:1,765 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Low Wiske Moor
Brompton
Yafforth
Northallerton
Romanby
435700
435800
435900
436000
492800
492700
492600
Whiteways
LB
Play Area
Car Park
34.7m
St James Road
El Sub Sta
Romanby
HDC2
Pennine View
Studley Close
Harewood Chase
Play Area
El Sub Sta
34.4m

Figure D.12.

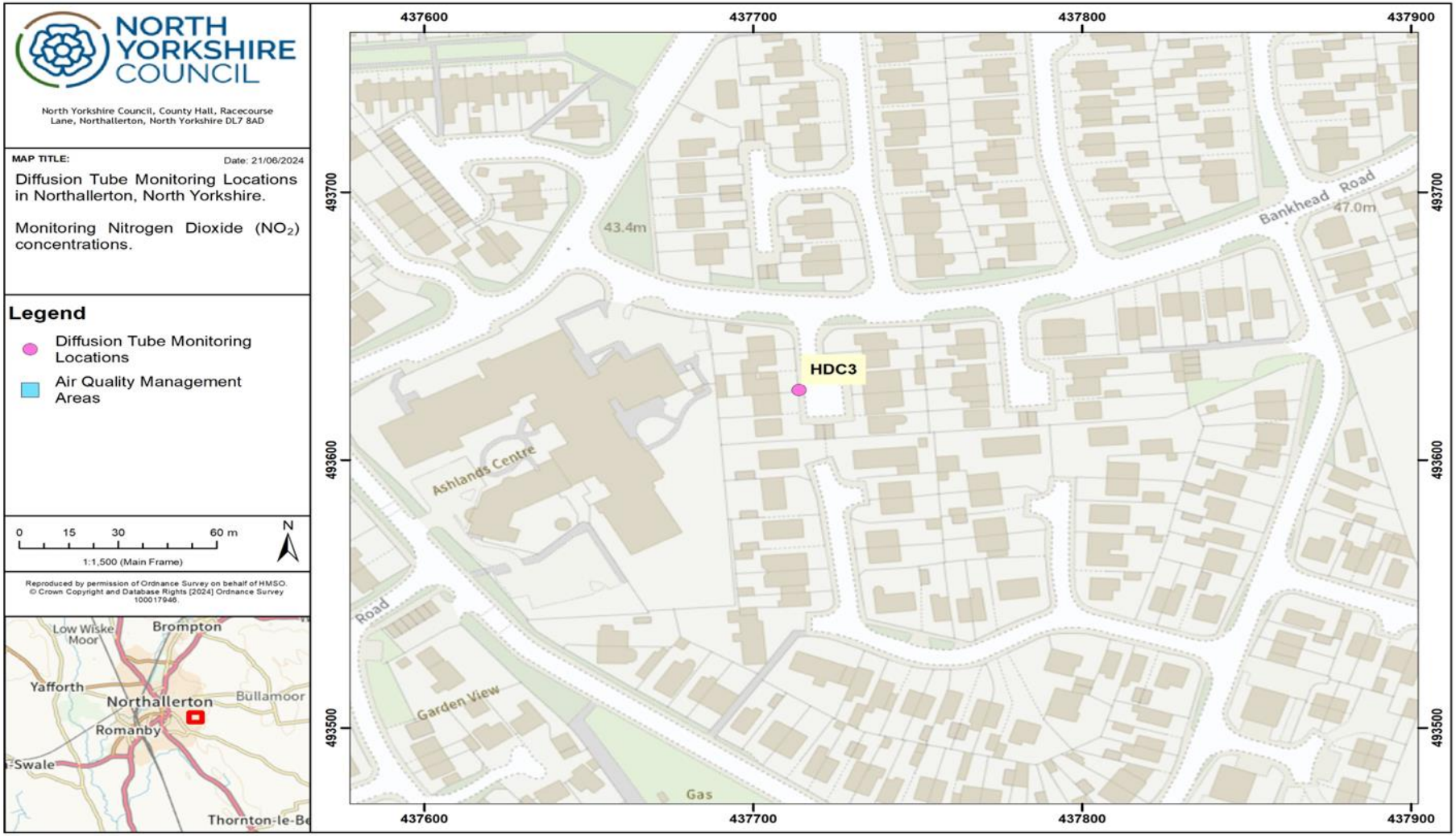

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Northallerton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:1,500 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Low Wiske Moor
Brompton
Yafforth
Northallerton
Bullamoor
Romanby
Swale
Thornton-le-Be
437600
437700
437800
437900
493700
493600
493500
HDC3
43.4m
47.0m
Bankhead Road
Ashlands Centre
Road
Garden View
Gas

Figure D.13.

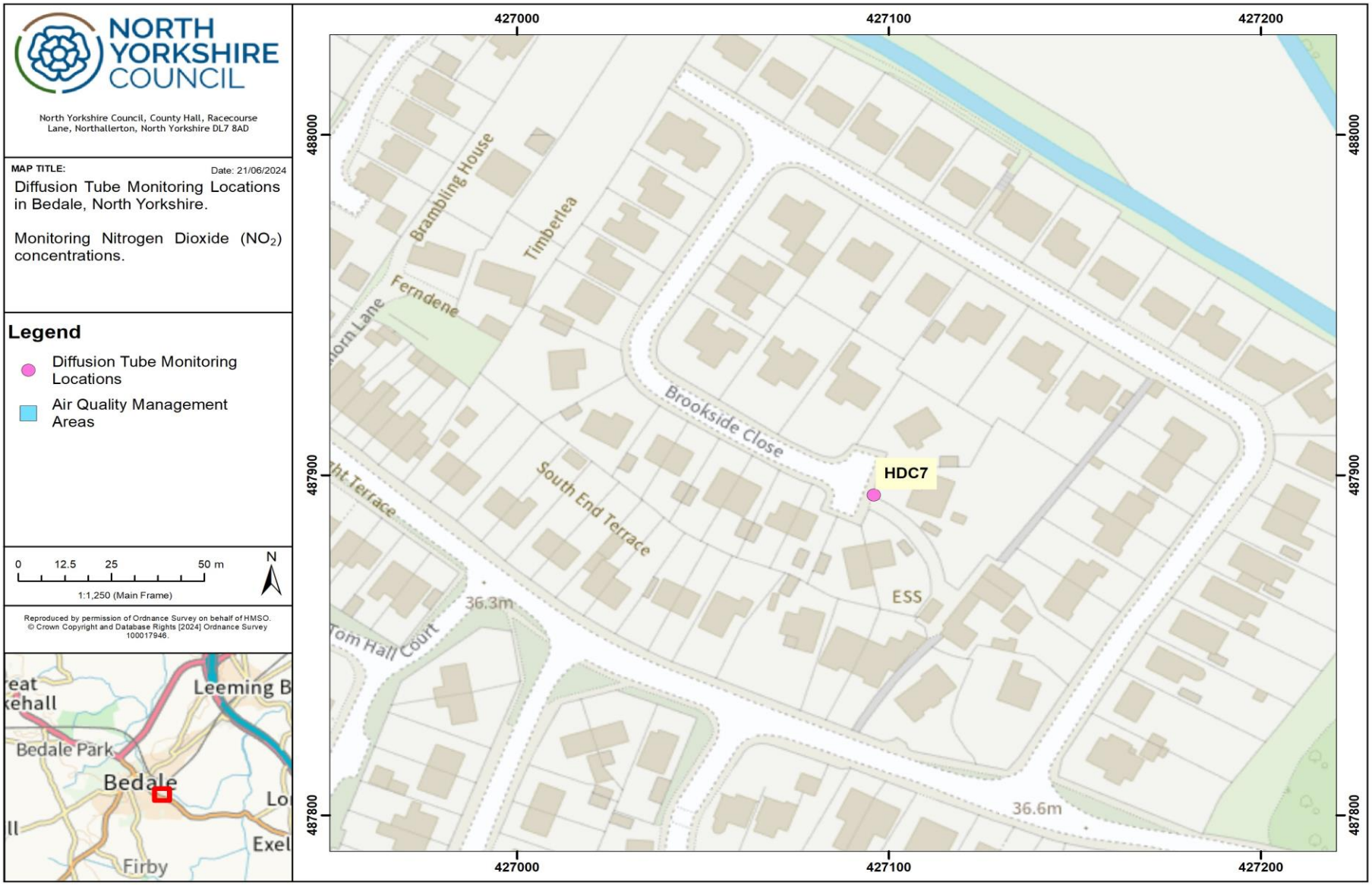

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Bedale, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 12.5 25 50 m
1:1,250 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Leeming B
Bedale Park
Bedale
Firby
427000
427100
427200
488000
487900
487800
Brambling House
Timberlea
Ferndene
Brookside Close
South End Terrace
HDC7
ESS
36.3m
36.6m

Figure D.14.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations and AQMA 5, The Hambleton District Council, AQM Order 2017, in Bedale, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 10 20 40 m
1:1,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
426600
426700
488200
488100
HDC28
HDC29
HDC30
Market Place
Bank
TCB Shelter
Albert Row
Car Park
Bridge Street
Bridge House Cottage
41.9m
PH
Hotel
Red Barn
The Old Stable
Bowles Cottage
El Sub Sta
Le Maison
The Wharf
Gables House
TCB
B6268
39.8m
B6285
Tel Ex
The Bungalow
Hall
39.2m
South End
Sussex Street
Leeming B
Bedale Park
Bedale
Firby

Figure D.15.

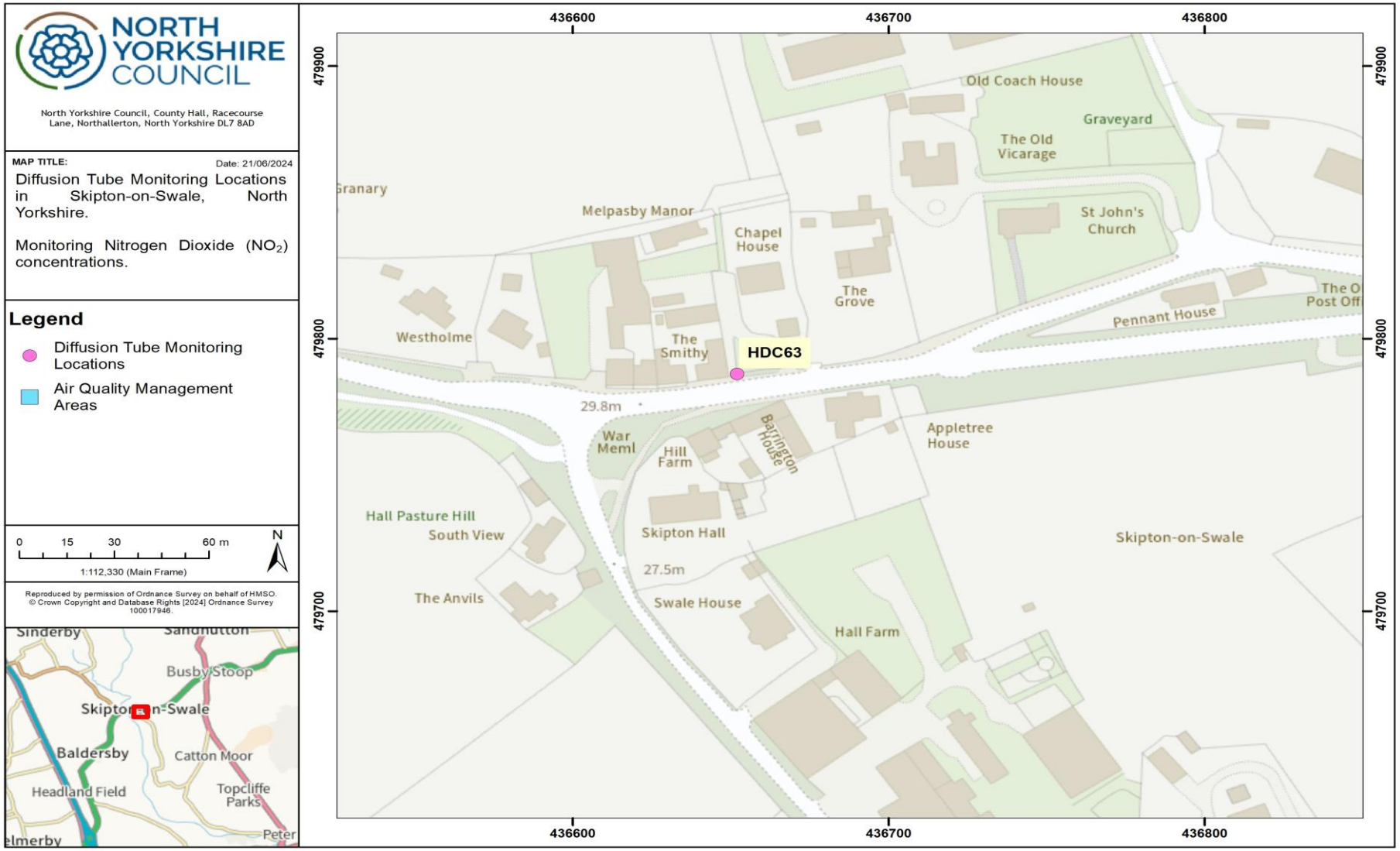

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Skipton-on-Swale, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:112,330 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Sinderby
Sandhutton
Busby Stoop
Skipton-on-Swale
Baldersby
Catton Moor
Headland Field
Topcliffe Parks
436600
436700
436800
479900
479800
479700
Granary
Melpasby Manor
Chapel House
The Grove
Old Coach House
Graveyard
The Old Vicarage
St John's Church
Pennant House
Westholme
The Smithy
HDC63
29.8m
War Meml
Hill Farm
Barrington House
Appletree House
Hall Pasture Hill
South View
Skipton Hall
27.5m
The Anvils
Swale House
Hall Farm
Skipton-on-Swale

Figure D.16.

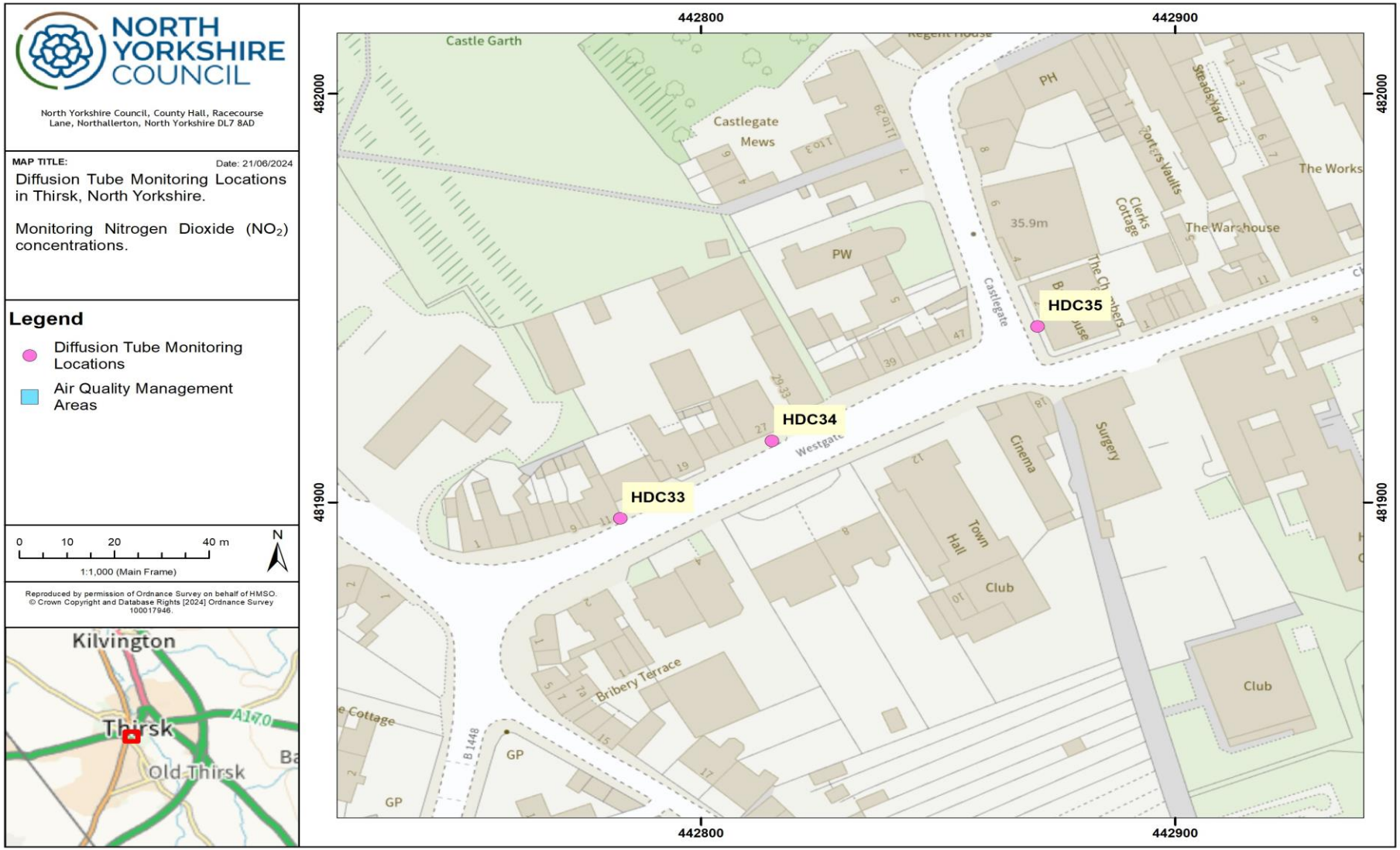
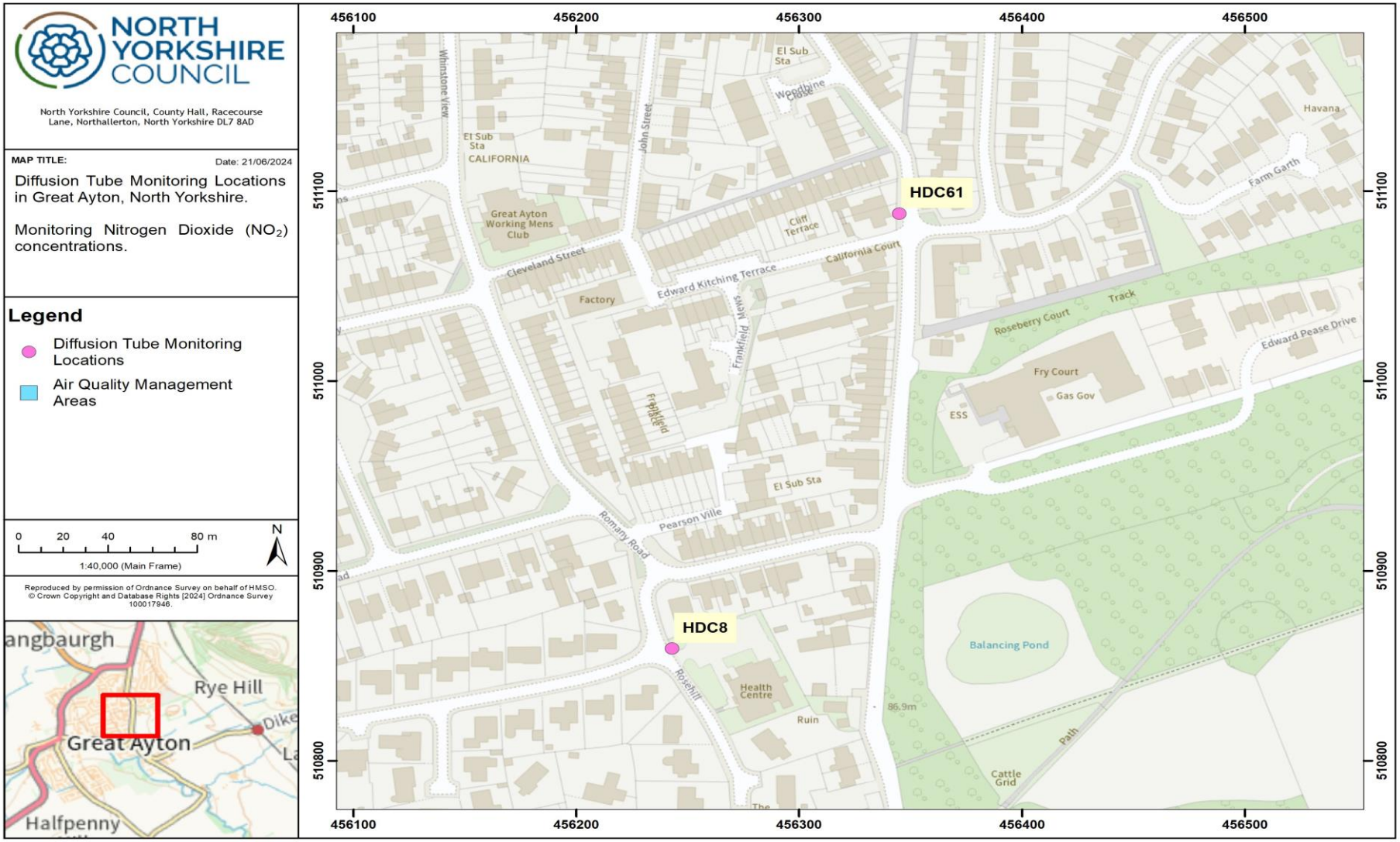

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Thirsk, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 10 20 40 m
1:1,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Kilvington
Thirsk
Old Thirsk
A170
442800
442900
482000
481900
Castle Garth
Castlegate Mews
PW
PH
Steads Yard
Porters Vaults
The Works
Clerks Cottage
35.9m
The Warehouse
Castlegate
HDC35
HDC34
Westgate
HDC33
Cinema
Surgery
Town Hall
Club
Bribery Terrace
B 1448
GP

Figure D17.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Great Ayton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:40,000 (Main Frame)
N
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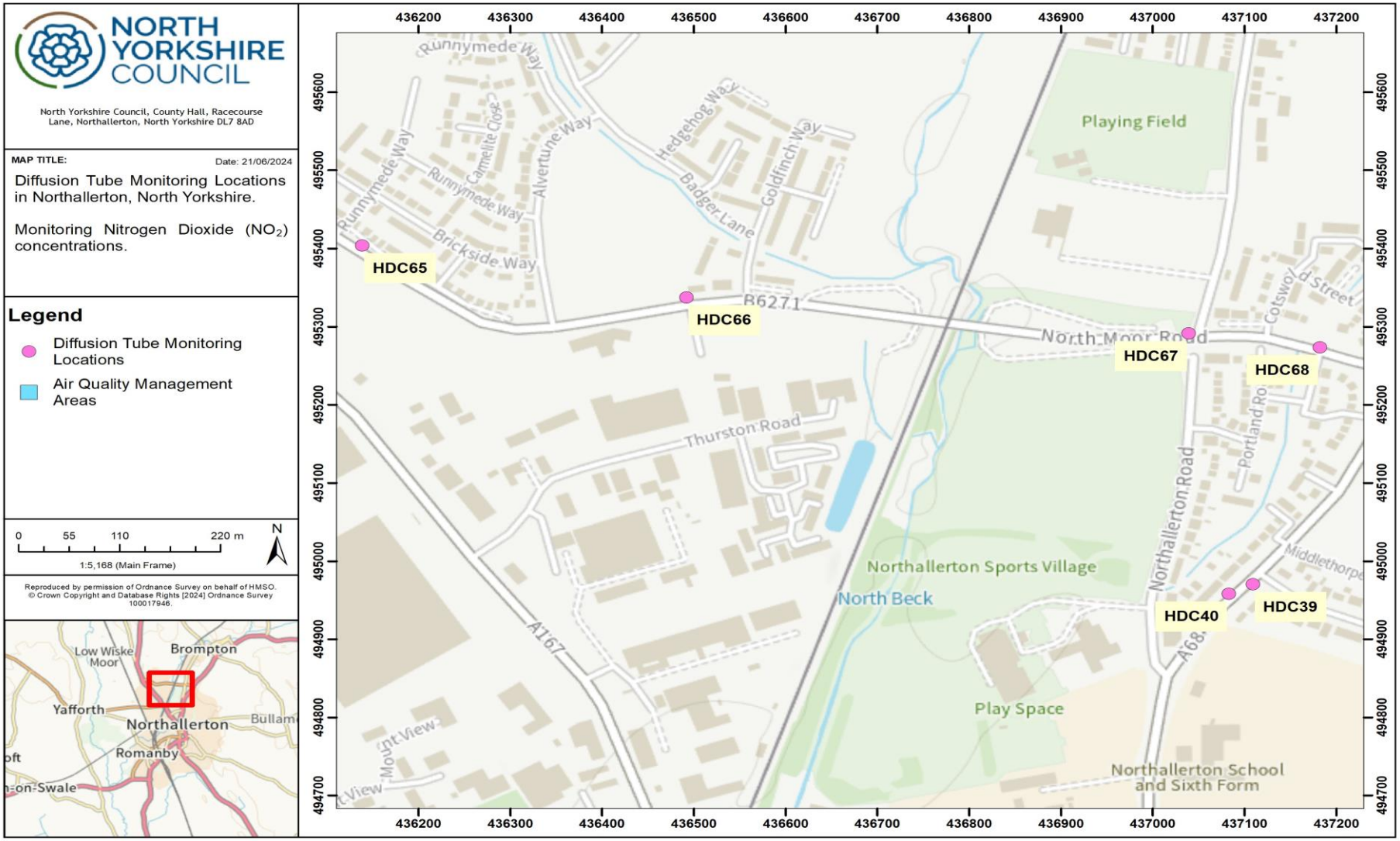
angbaurgh
Rye Hill
Great Ayton
Halfpenny
456100
456200
456300
456400
456500
511100
511000
510900
510800
HDC61
HDC8
El Sub Sta
Whinstone View
Woodbine Close
John Street
CALIFORNIA
Great Ayton Working Mens Club
Cliff Terrace
Cleveland Street
California Court
Factory
Edward Kitching Terrace
Frankfield Mews
Frankfield Place
Havana
Farm Garth
Roseberry Court
Track
Edward Pease Drive
Fry Court
Gas Gov
ESS
Romany Road
Pearson Ville
Balancing Pond
Health Centre
Ruin
86.9m
Path
Cattle Grid
Rosehill

Figure D.18.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Northallerton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 55 110 220 m
1:5,168 (Main Frame)
N
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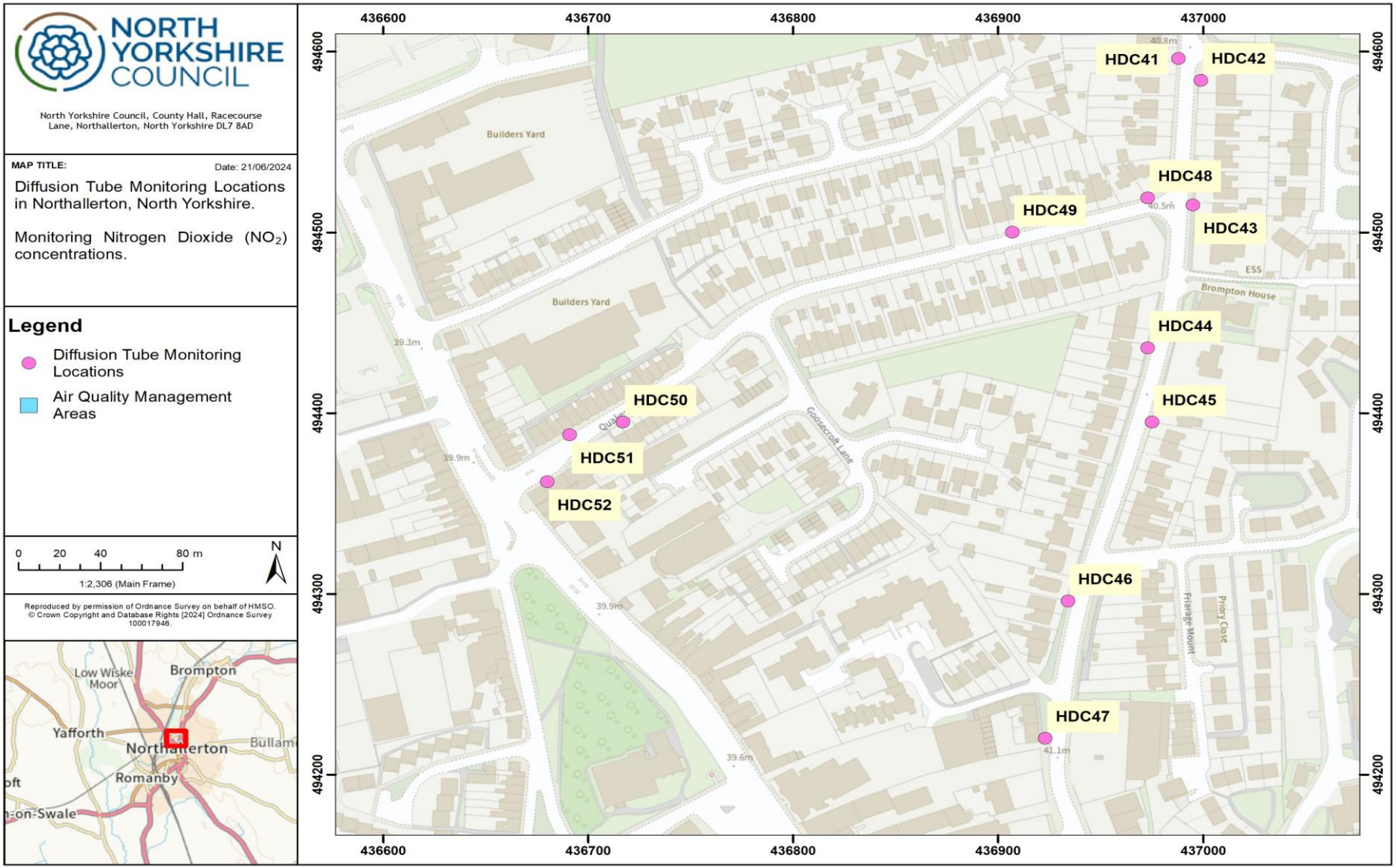
Low Wiske Moor
Brompton
Yafforth
Northallerton
Romanby
Bullam
oft
n-on-Swale
436200
436300
436400
436500
436600
436700
436800
436900
437000
437100
437200
495600
495500
495400
495300
495200
495100
495000
494900
494800
494700
Runnymede Way
Camelite Close
Alvertune Way
Hedgehog Way
Badger Lane
Goldfinch Way
Brickside Way
Playing Field
HDC65
HDC66
B6271
North Moor Road
HDC67
HDC68
Cotswold Street
Portland Ro
Thurston Road
Northallerton Road
Middlethorpe
Northallerton Sports Village
North Beck
HDC40
HDC39
A167
A68
Play Space
Mount View
View
Northallerton School and Sixth Form

Figure D.19.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Northallerton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,306 (Main Frame)
N
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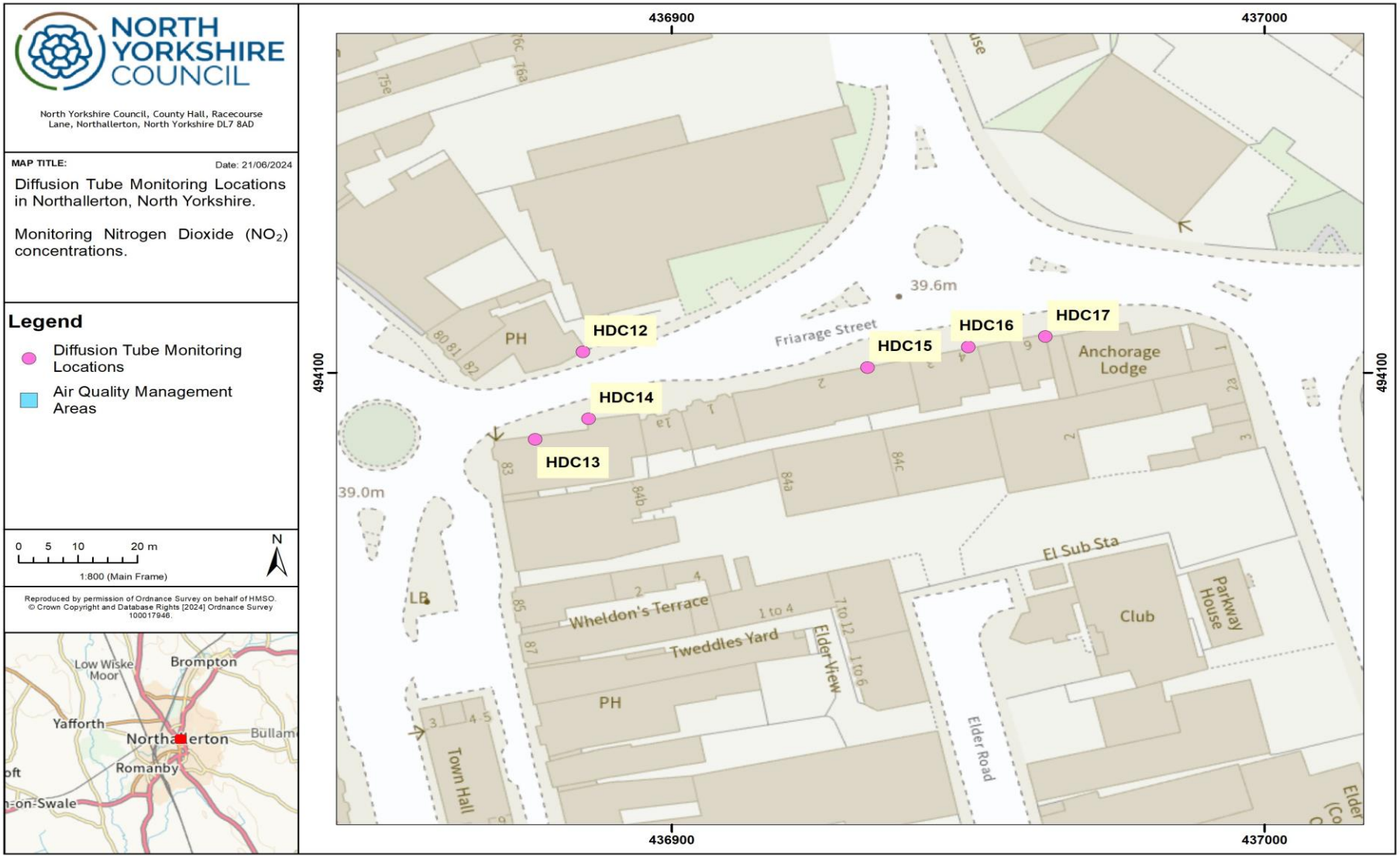
Low Wiske Moor
Brompton
Yafforth
Northallerton
Romanby
436600
436700
436800
436900
437000
494600
494500
494400
494300
494200
HDC41
HDC42
HDC48
HDC49
HDC43
HDC44
HDC45
HDC50
HDC51
HDC52
HDC46
HDC47
Builders Yard
Brompton House
Gooscroft Lane
Priory Close
Friarage Mount
39.3m
39.9m
39.6m
40.5m
41.1m

Figure D.20.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Northallerton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 5 10 20 m
1:800 (Main Frame)
N
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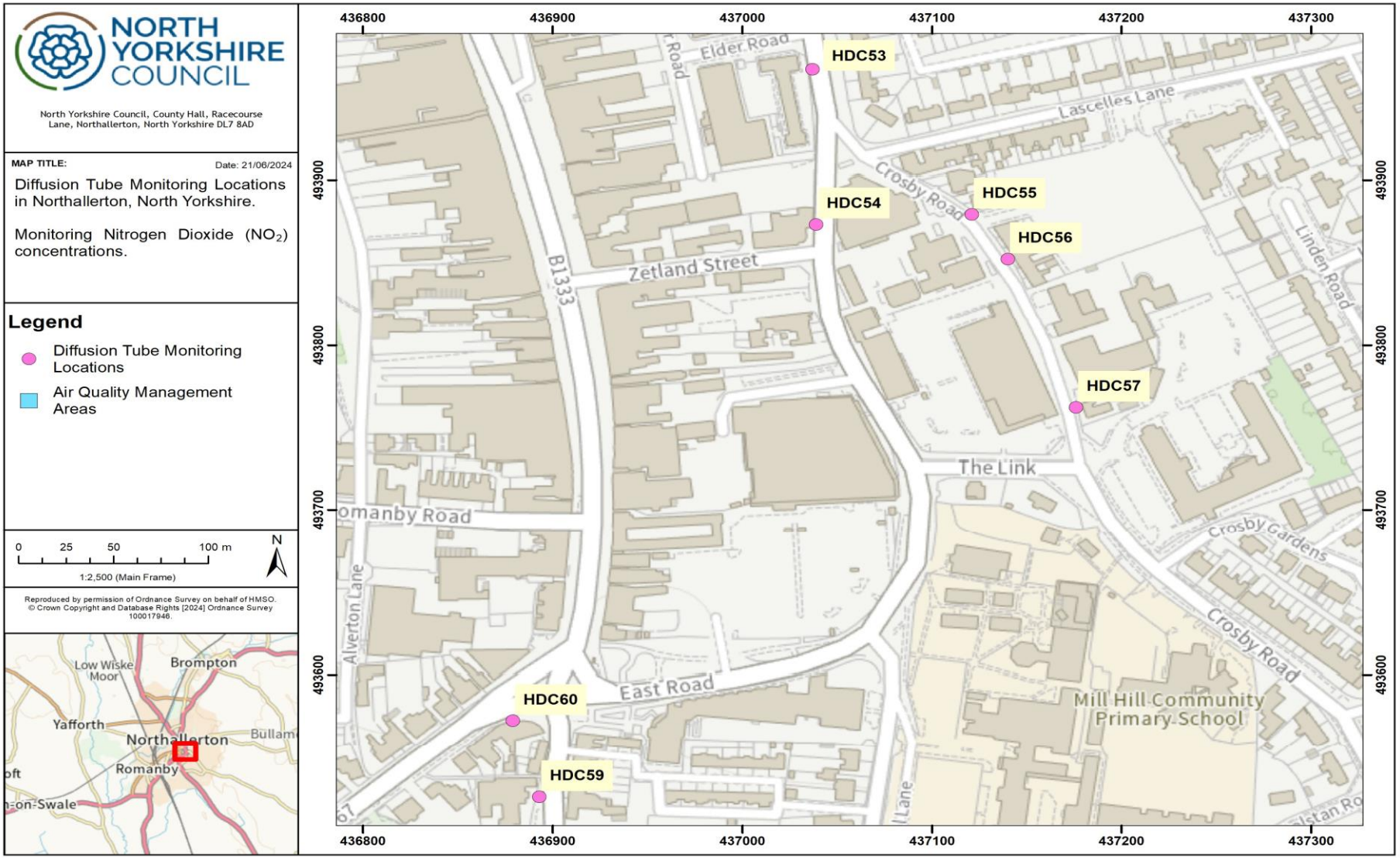
Low Wiske Moor
Brompton
Yafforth
Northallerton
Romanby
436900
437000
494100
HDC12
HDC13
HDC14
HDC15
HDC16
HDC17
Friarage Street
39.6m
39.0m
PH
Anchorage Lodge
El Sub Sta
Wheldon's Terrace
Tweddles Yard
Elder View
Elder Road
Parkway House
Club
Town Hall
LB

Figure D.21.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Northallerton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 25 50 100 m
1:2,500 (Main Frame)
N
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Low Wiske Moor
Brompton
Yafforth
Northallerton
Romanby
HDC53
HDC54
HDC55
HDC56
HDC57
HDC59
HDC60
Elder Road
Lascelles Lane
Crosby Road
Zetland Street
B1333
Linden Road
The Link
Crosby Gardens
Alverton Lane
East Road
Mill Hill Community Primary School
436800
436900
437000
437100
437200
437300
493900
493800
493700
493600

Figure D.22.

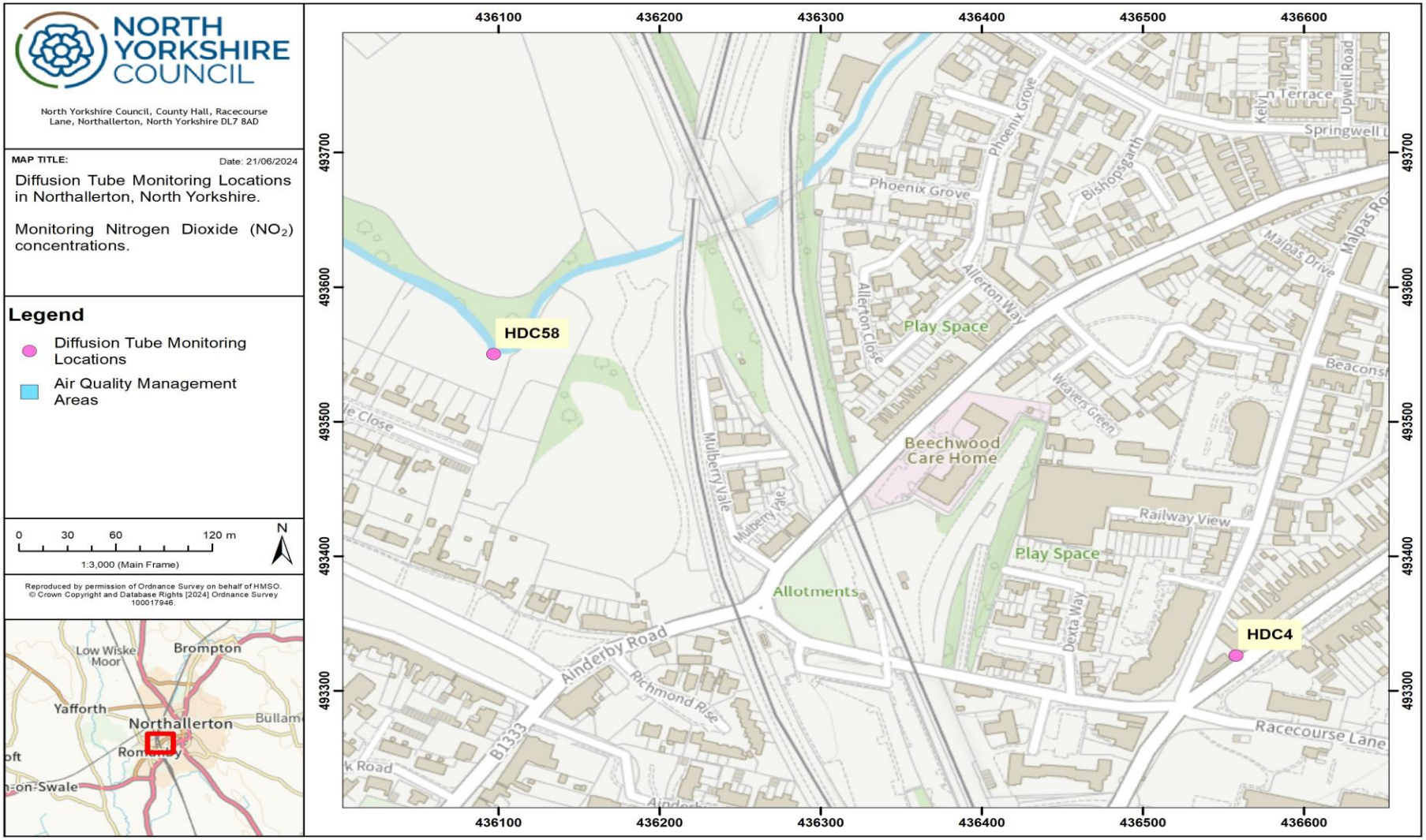
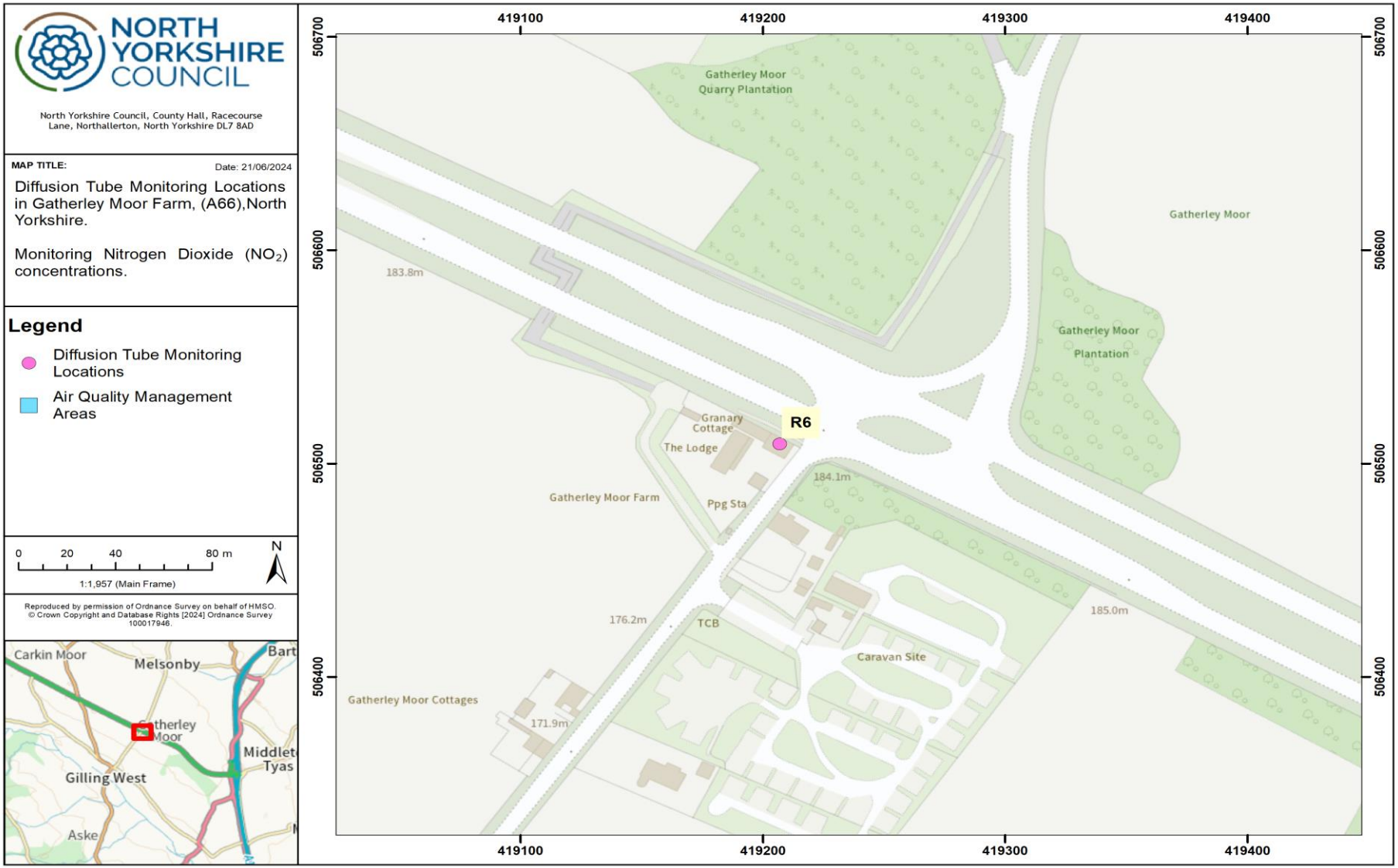
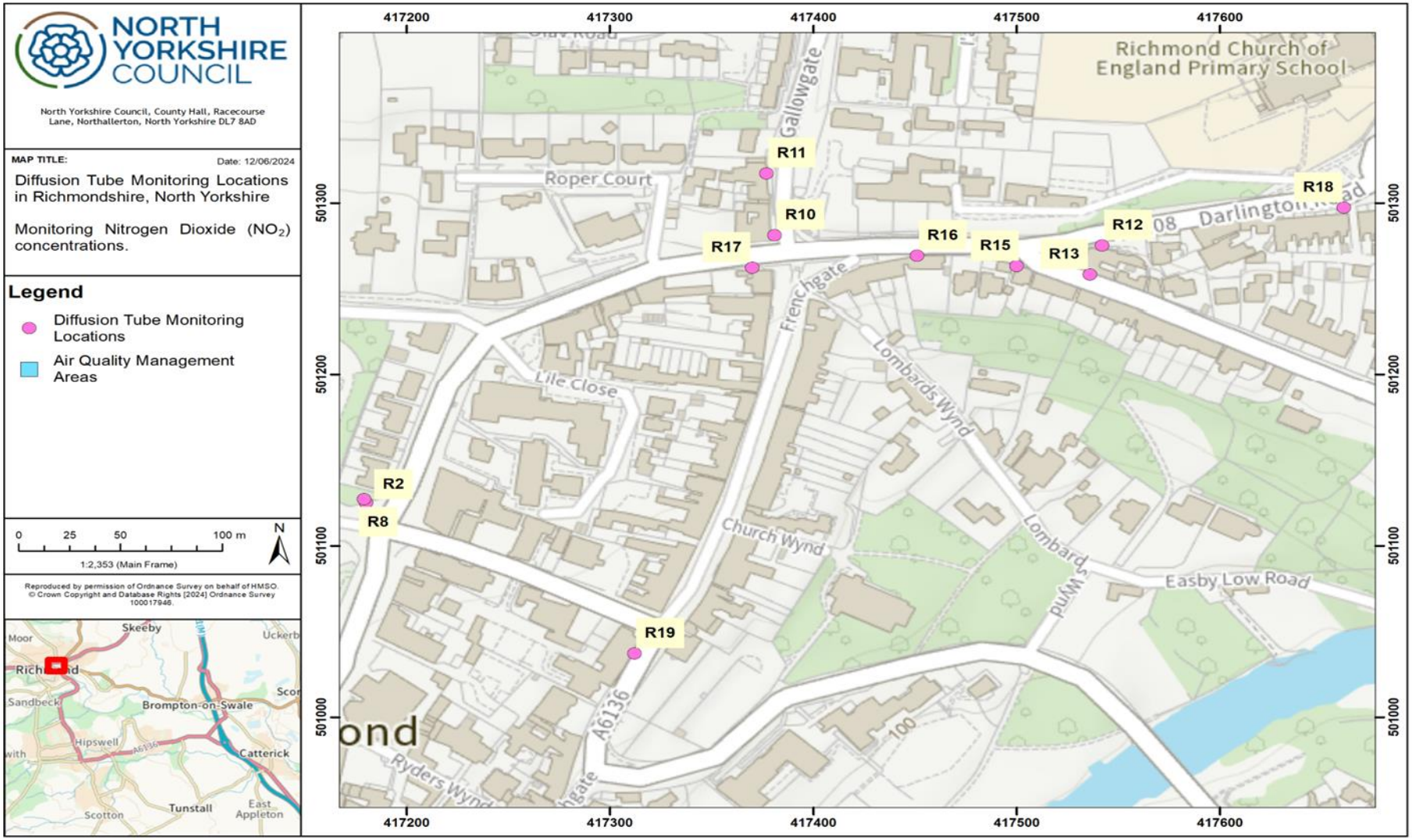

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Northallerton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 30 60 120 m
1:3,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Low Wiske Moor
Brompton
Yafforth
Northallerton
Bullam
Romanby
-on-Swale
436100
436200
436300
436400
436500
436600
493700
493600
493500
493400
493300
HDC58
HDC4
Play Space
Allerton Close
Allerton Way
Phoenix Grove
Bishopsgarth
Malpas Drive
Upwell Road
Springwell
Beechwood Care Home
Weavers Green
Mulberry Vale
Railway View
Play Space
Allotments
Dexta Way
Ainderby Road
Richmond Rise
B1333
Racecourse Lane

Figure D.23. Maps of Non-Automatic Monitoring Sites in Richmondshire Area



Map

Figure D.24.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Richmondshire, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 25 50 100 m
1:2,353 (Main Frame)
N
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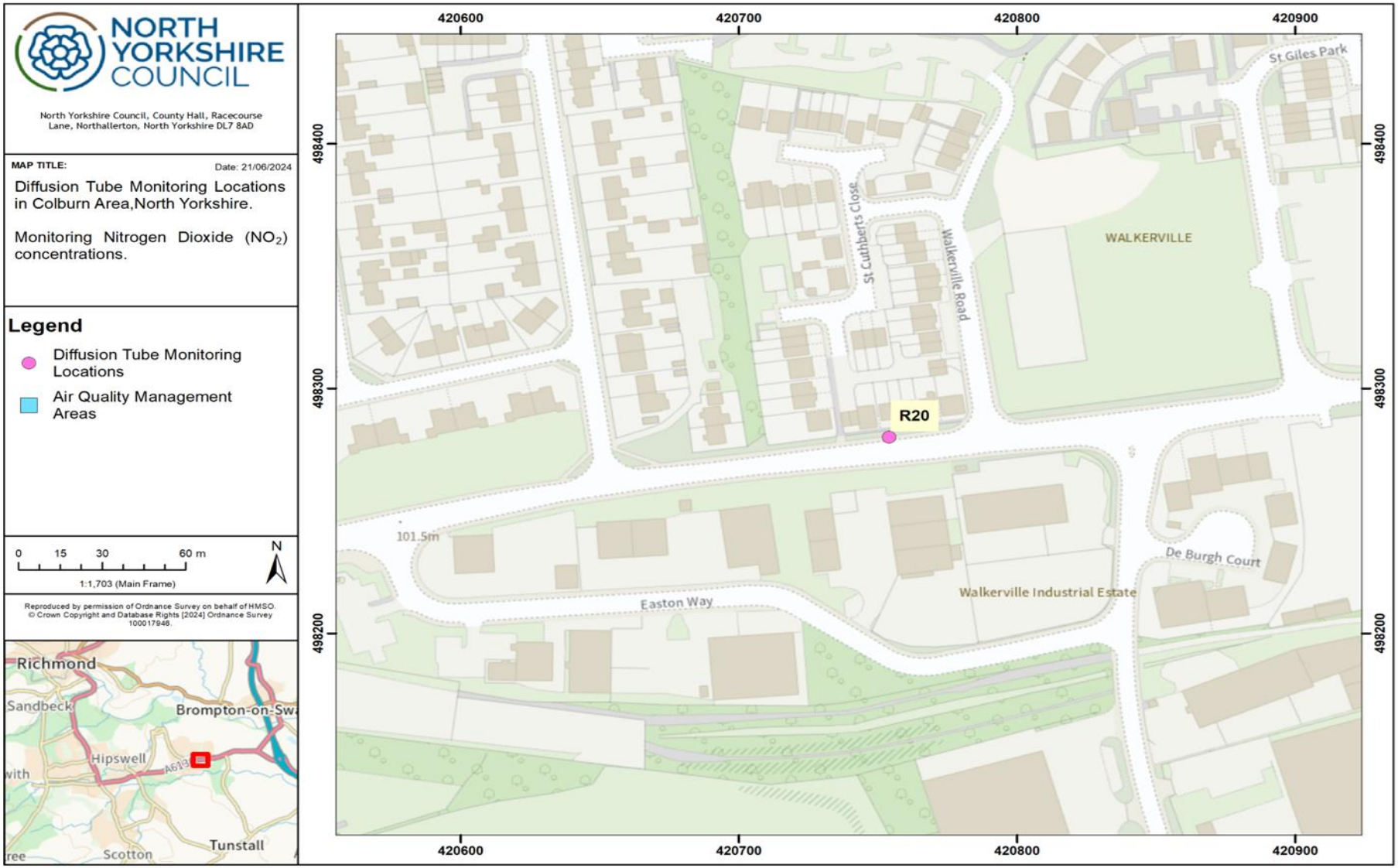
Skeeby
Brompton-on-Swale
Hipswell
Catterick
Tunstall
East Appleton
Scotton
417200
417300
417400
417500
417600
501300
501200
501100
501000
Richmond Church of England Primary School
Gallowgate
Roper Court
Darlington Road
Frenchgate
Lombards Wynd
Lile Close
Church Wynd
Easby Low Road
Ryders Wynd
A6136
R2
R8
R10
R11
R12
R13
R15
R16
R17
R18
R19

Figure D.25.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Colburn Area,North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:1,703 (Main Frame)
N
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Richmond
Sandbeck
Brompton-on-Swa
Hipswell
A6136
Scotton
Tunstall
420600
420700
420800
420900
498400
498300
498200
St Giles Park
St Cuthberts Close
Walkerville Road
WALKERVILLE
R20
101.5m
Easton Way
Walkerville Industrial Estate
De Burgh Court

Figure D.26.

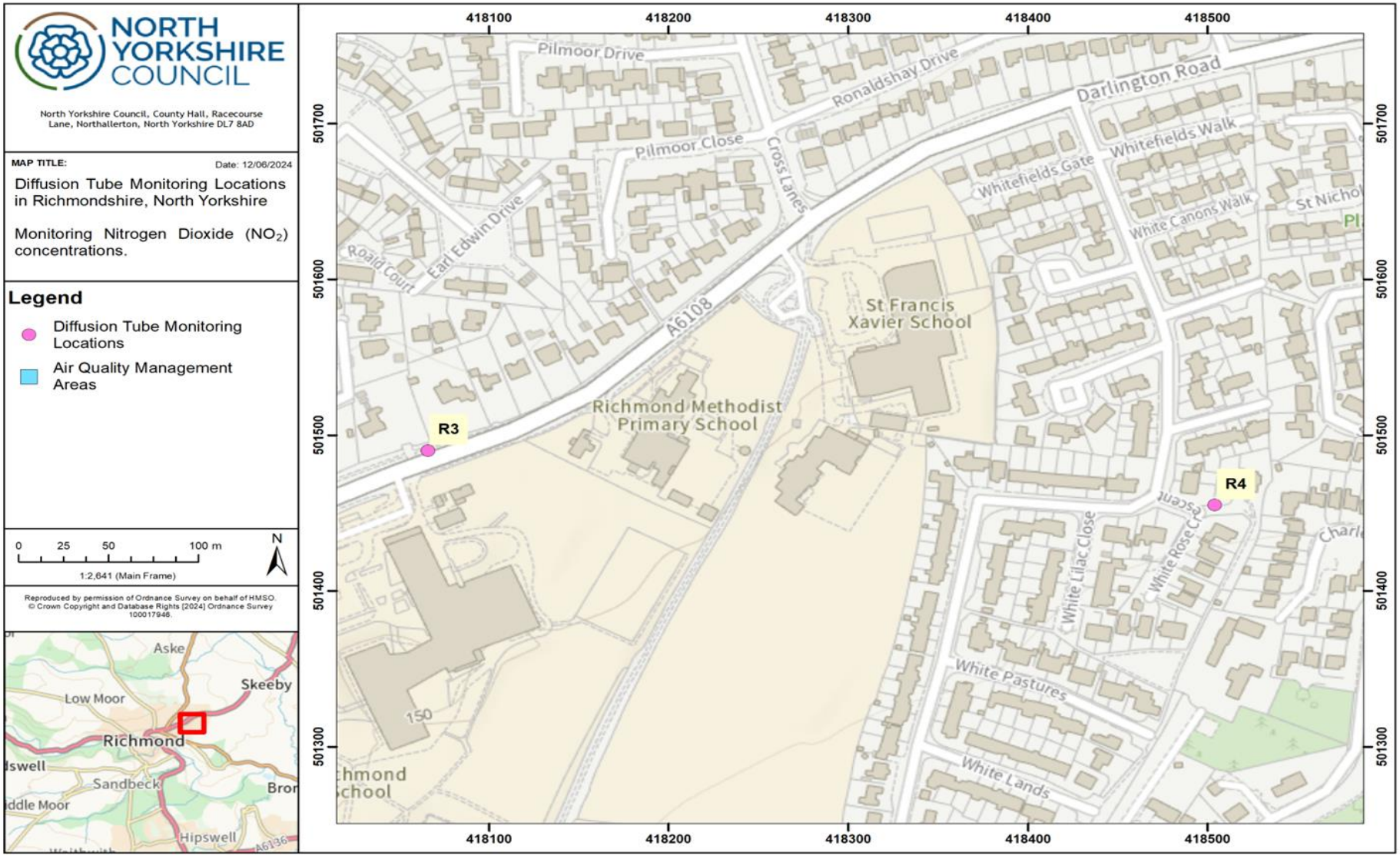

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Richmondshire, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 25 50 100 m
1:2,641 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Aske
Skeeby
Low Moor
Richmond
Sandbeck
Hipswell
A6136
418100
418200
418300
418400
418500
501700
501600
501500
501400
501300
Pilmoor Drive
Ronaldshay Drive
Darlington Road
Pilmoor Close
Cross Lanes
Whitefields Walk
Whitefields Gate
White Canons Walk
Earl Edwin Drive
Roald Court
A6108
St Francis Xavier School
Richmond Methodist Primary School
R3
R4
White Lilac Close
White Rose Cr
White Pastures
White Lands
150

Figure D.27 Maps of Non-Automatic Monitoring Sites in the Harrogate Area.

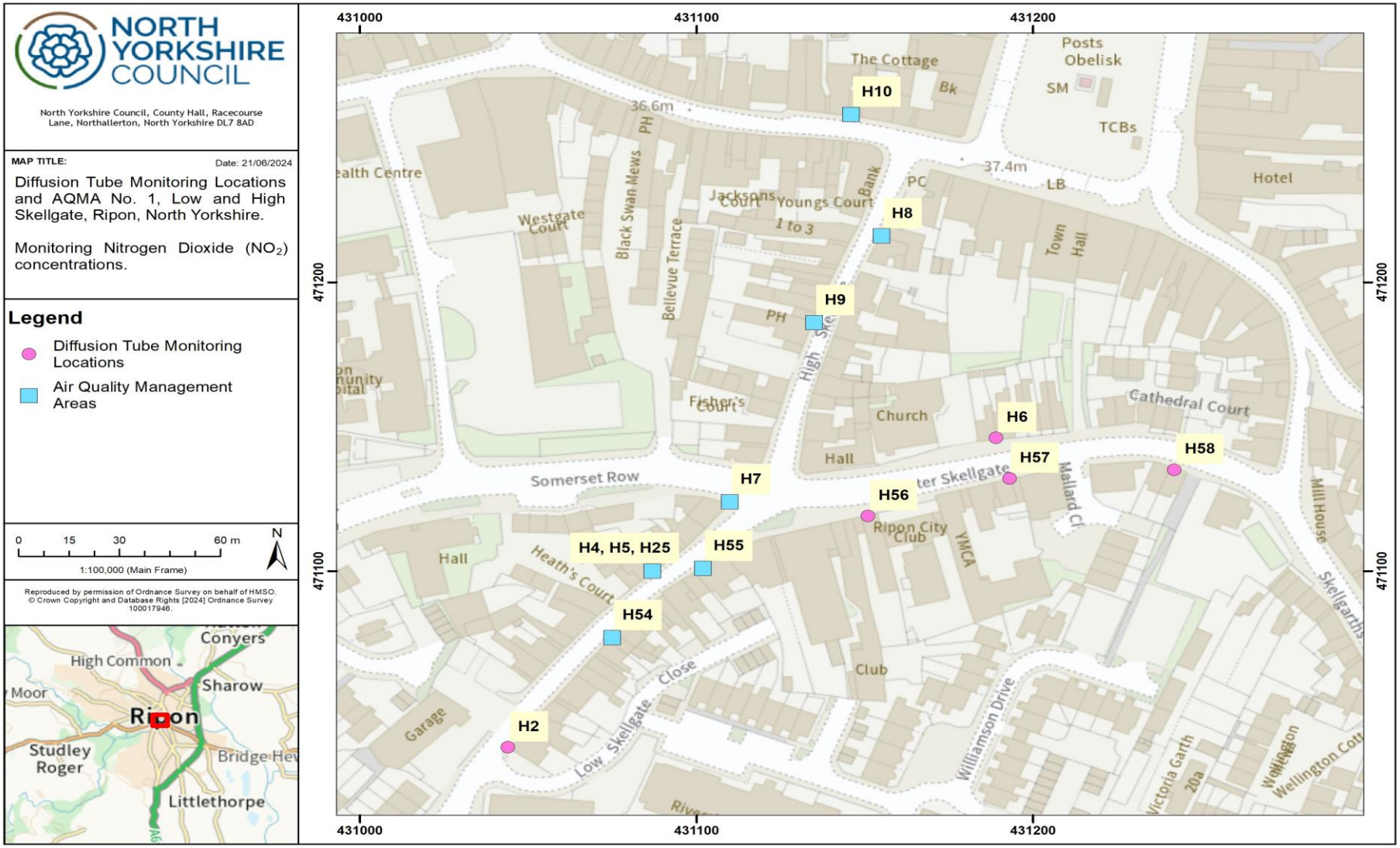


Figure D.28.

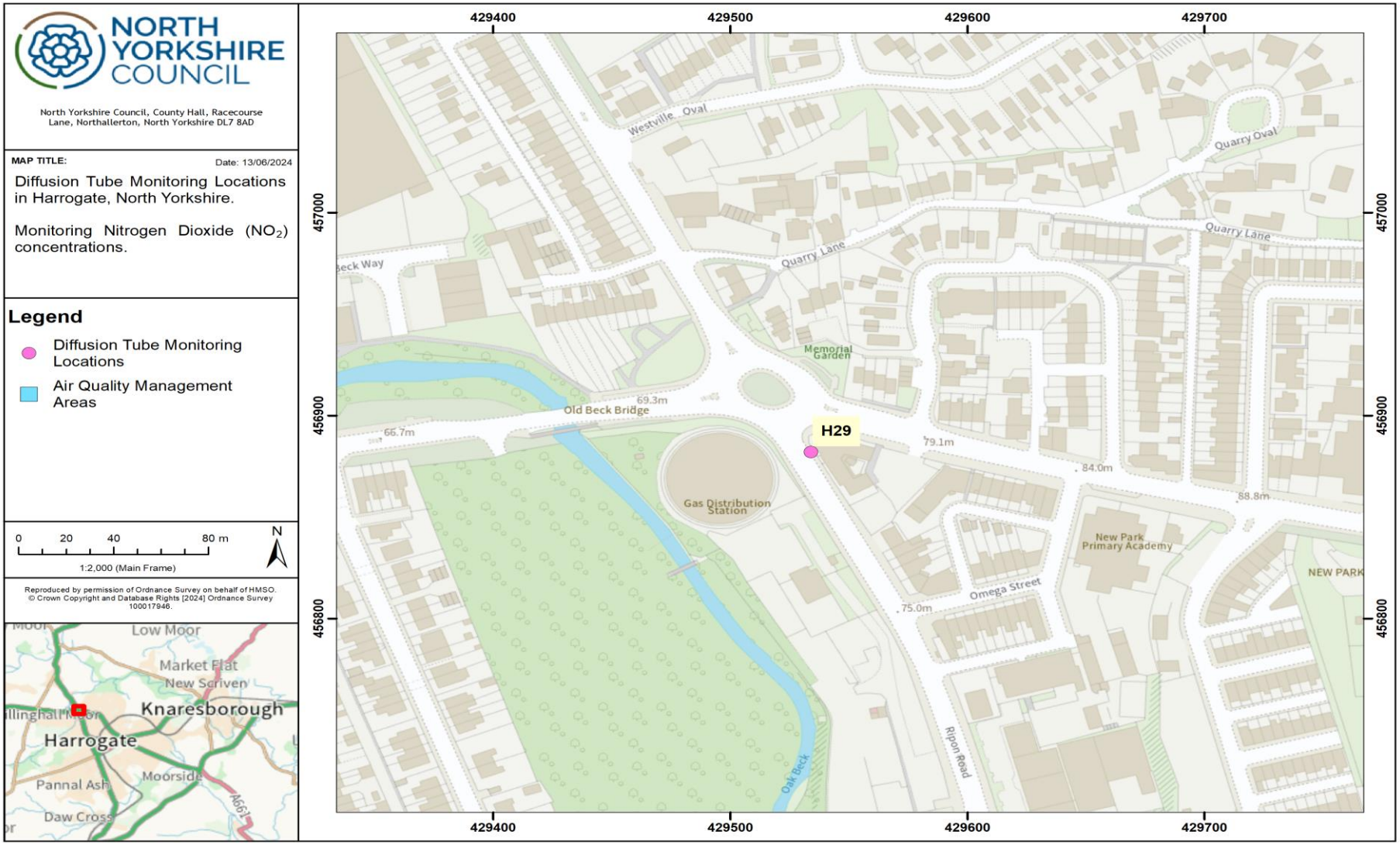

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 13/06/2024
Diffusion Tube Monitoring Locations in Harrogate, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Low Moor
Market Flat
New Scriven
Knaresborough
Harrogate
Pannal Ash
Moorside
Daw Cross
A661
429400
429500
429600
429700
457000
456900
456800
Westville Oval
Quarry Oval
Quarry Lane
Memorial Garden
Old Beck Bridge
69.3m
66.7m
H29
79.1m
84.0m
88.8m
Gas Distribution Station
New Park Primary Academy
NEW PARK
Omega Street
75.0m
Ripon Road
Oak Beck

Figure D.29.

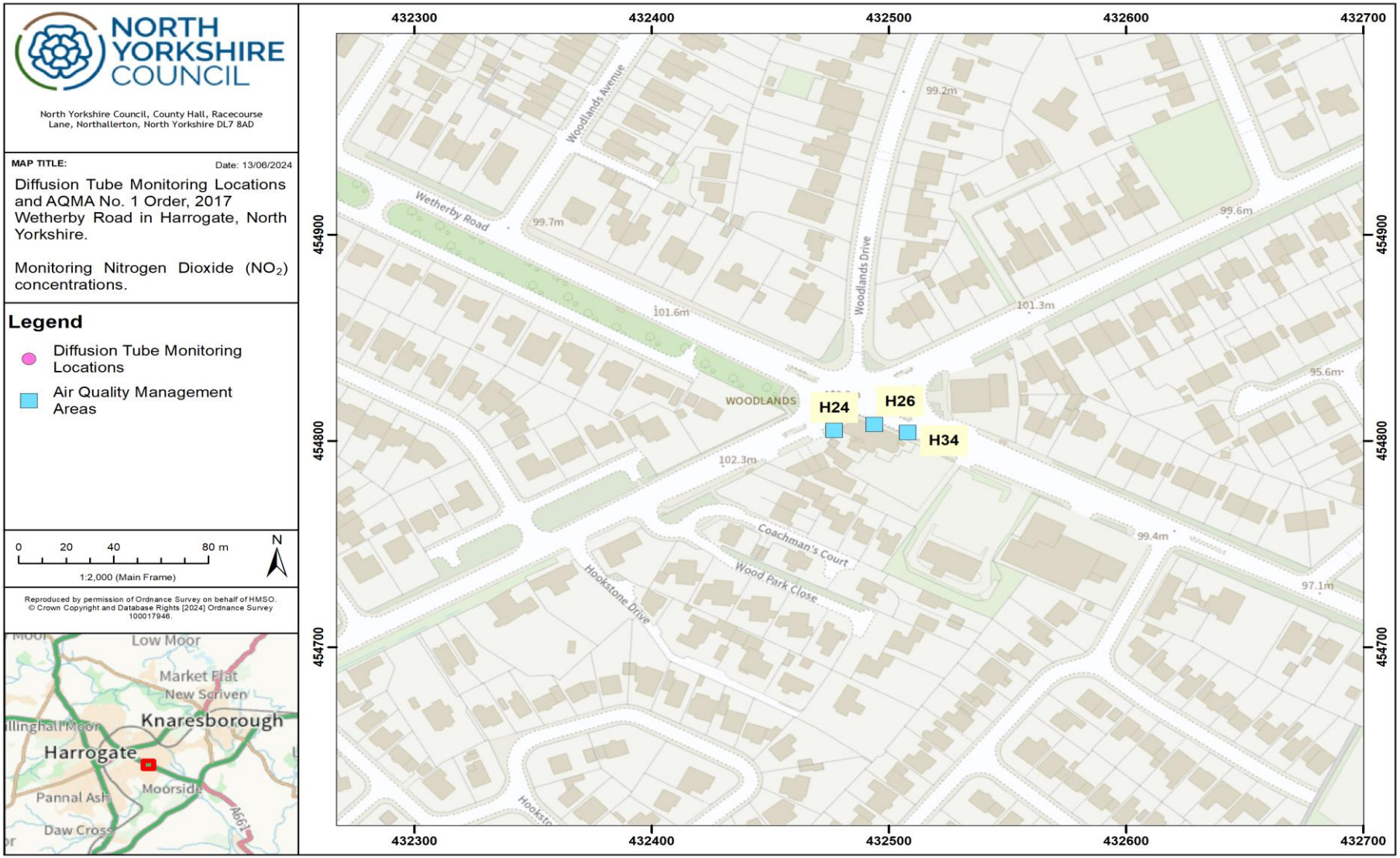

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 13/06/2024
Diffusion Tube Monitoring Locations and AQMA No. 1 Order, 2017 Wetherby Road in Harrogate, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Low Moor
Market Flat
New Scriven
Knaresborough
Harrogate
Moorside
Pannal Ash
Daw Cross
A661
432300
432400
432500
432600
432700
454900
454800
454700
Woodlands Avenue
Wetherby Road
Woodlands Drive
Coachman's Court
Wood Park Close
Hookstone Drive
WOODLANDS
H24
H26
H34
99.2m
99.7m
99.6m
101.6m
101.3m
95.6m
102.3m
99.4m
97.1m

Figure D.30.

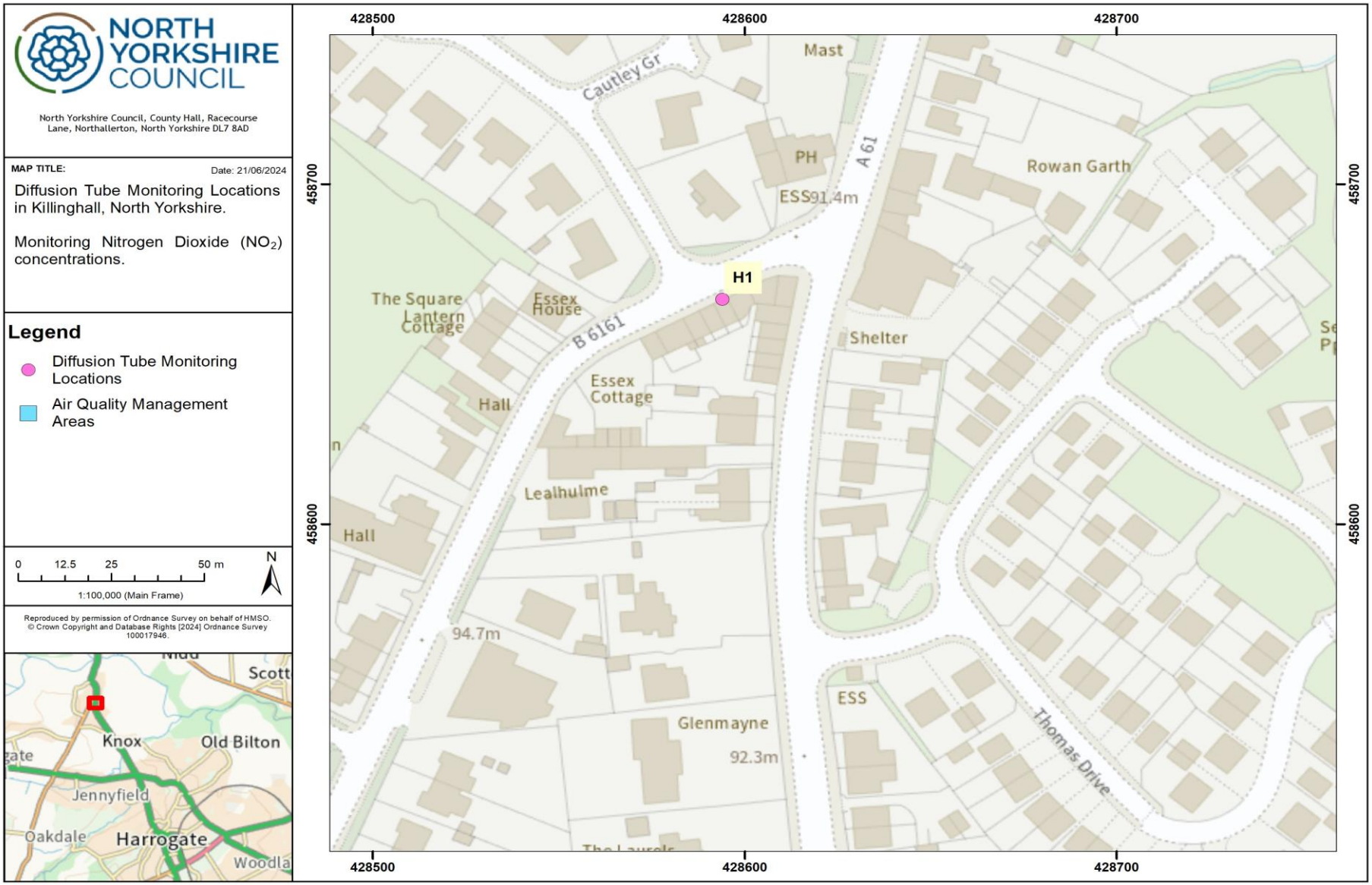

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Killinghall, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 12.5 25 50 m
1:100,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Knox
Old Bilton
Jennyfield
Oakdale
Harrogate
428500
428600
428700
458700
458600
Mast
Cautley Gr
PH
A 61
ESS91.4m
Rowan Garth
H1
The Square
Lantern Cottage
Essex House
B 6161
Shelter
Essex Cottage
Hall
Lealholme
94.7m
Glenmayne
92.3m
ESS
Thomas Drive

Figure D.31.

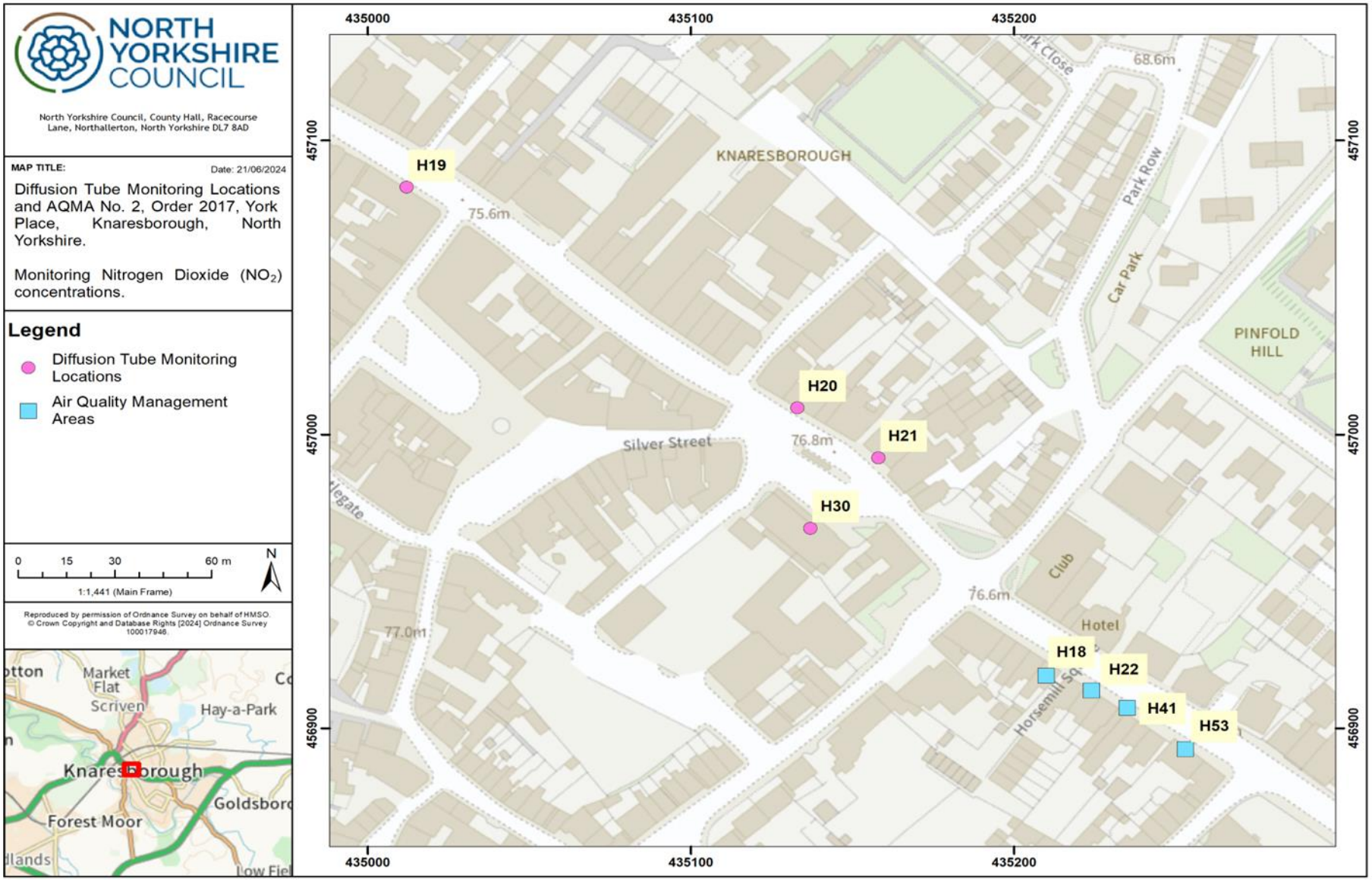

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations and AQMA No. 2, Order 2017, York Place, Knaresborough, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:1,441 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
435000
435100
435200
457100
457000
456900
KNARESBOROUGH
PINFOLD HILL
Park Row
Car Park
Silver Street
Club
Hotel
Horsemill Sq
75.6m
76.8m
76.6m
77.0m
68.6m
H19
H20
H21
H30
H18
H22
H41
H53
Market Flat
Scriven
Hay-a-Park
Knaresborough
Forest Moor

Figure D.32.

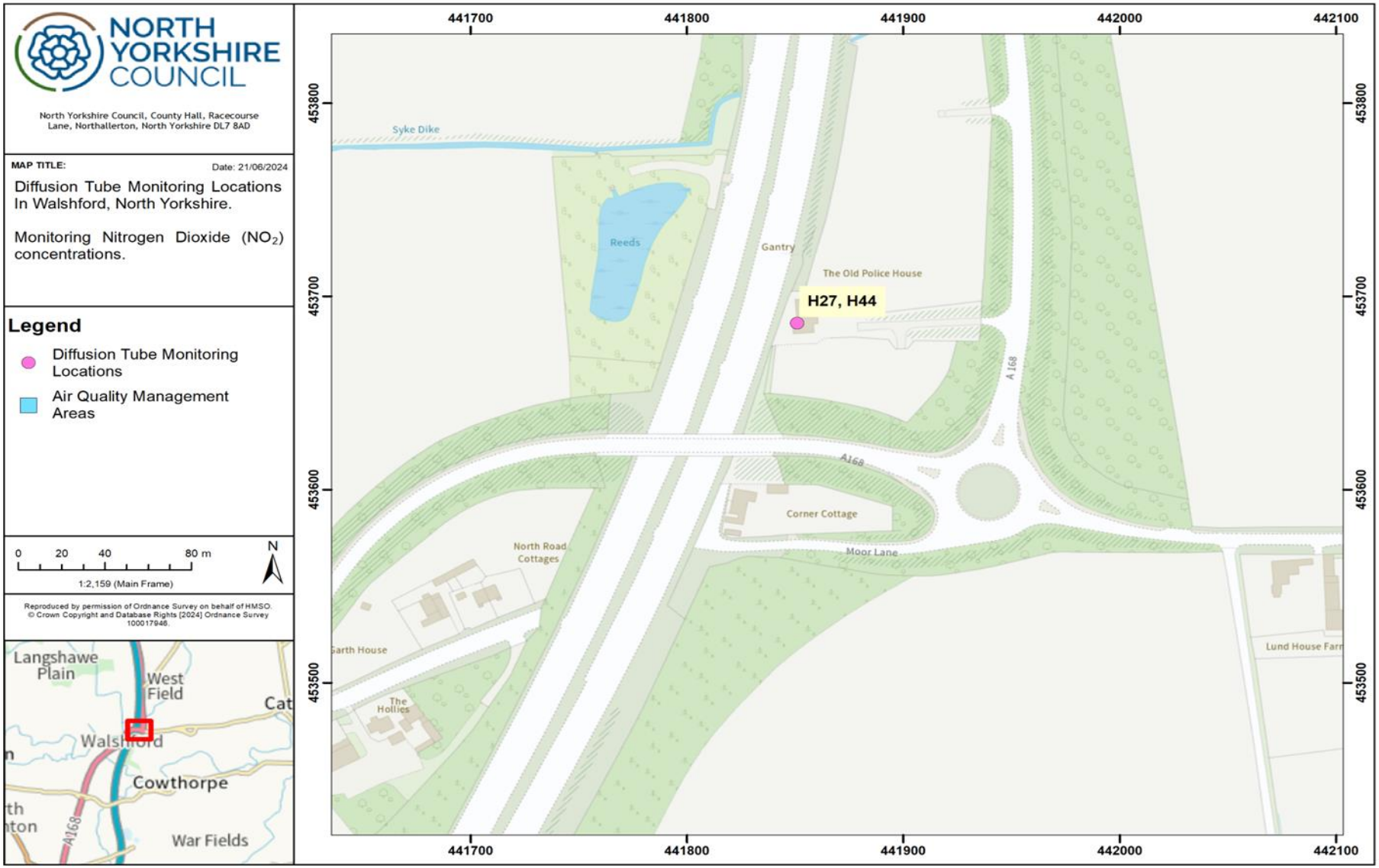
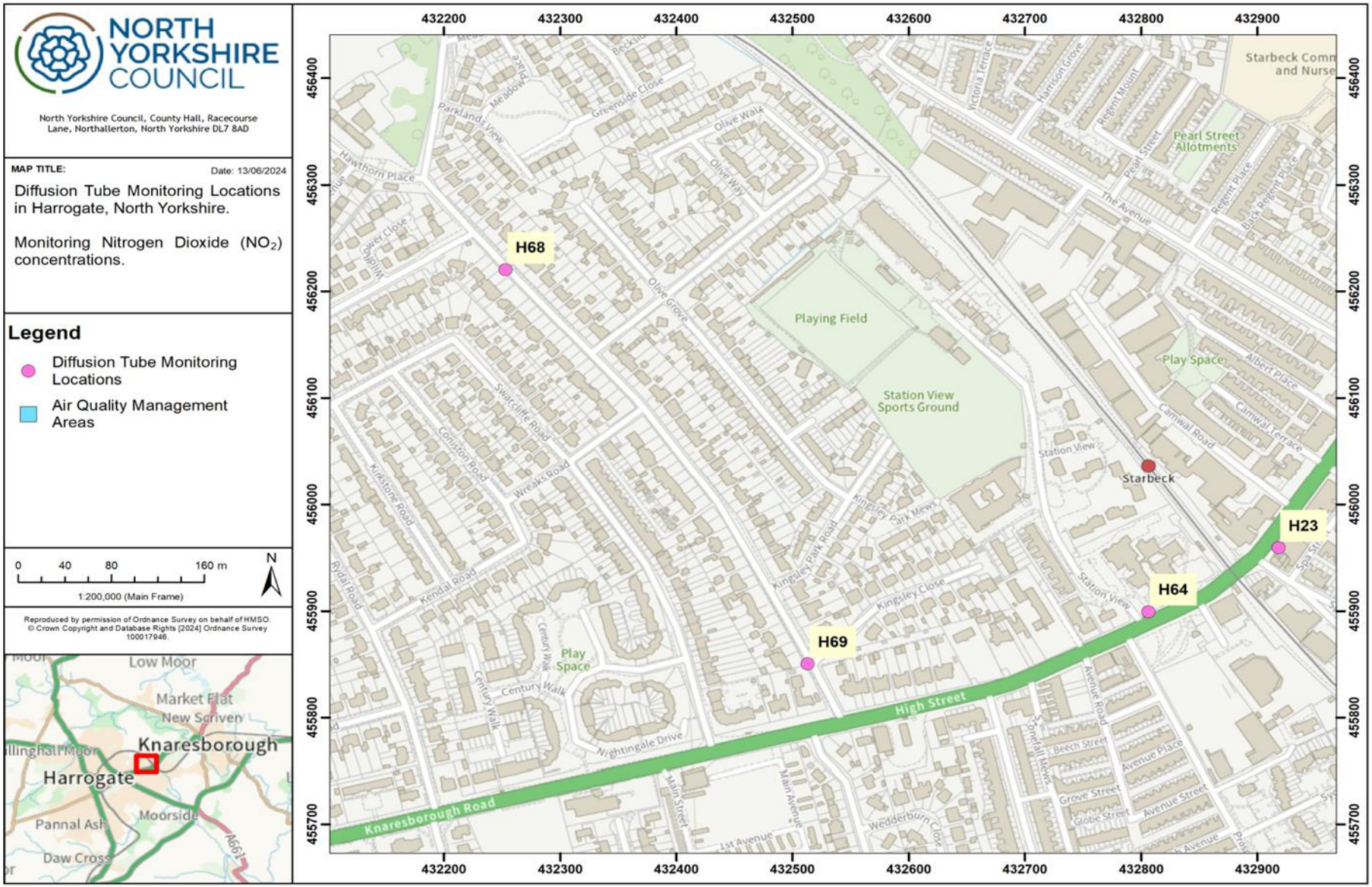

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations In Walshford, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,159 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Langshawe Plain
West Field
Walshford
Cowthorpe
War Fields
A168
441700
441800
441900
442000
442100
453800
453700
453600
453500
Syke Dike
Reeds
Gantry
The Old Police House
H27, H44
A168
Corner Cottage
Moor Lane
North Road Cottages
Garth House
The Hollies
Lund House Farm

Figure D.33.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 13/06/2024
Diffusion Tube Monitoring Locations in Harrogate, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 40 80 160 m
1:200,000 (Main Frame)
N
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Low Moor
Market Flat
New Scriven
Knaresborough
Harrogate
Pannal Ash
Moorside
Daw Cross
H68
H69
H64
H23
Starbeck
Playing Field
Station View Sports Ground
Play Space
Pearl Street Allotments
Starbeck Comm and Nurse
High Street
Knaresborough Road
Station View
Kingsley Park Road
Kingsley Close
Century Walk
Nightingale Drive
Wedderburn Close
Olive Grove
Olive Way
Swarcliffe Road
Coniston Road
Wreaks Road
Kirkstone Road
Kendal Road
Rydal Road
Parkland View
Greenside Close
Hawthorn Place
Meadow Rise
Victoria Terrace
Harrison Grove
Regent Mount
Pearl Street
Regent Place
Back Regent Place
The Avenue
Albert Place
Canwal Road
Canwal Terrace
Spa Street
Avenue Road
Avenue Place
Avenue Street
Grove Street
Globe Street
Beech Street
Tonelli Mews
Main Street
Main Avenue
1st Avenue
432200
432300
432400
432500
432600
432700
432800
432900
456400
456300
456200
456100
456000
455900
455800
455700

Figure D. 34.

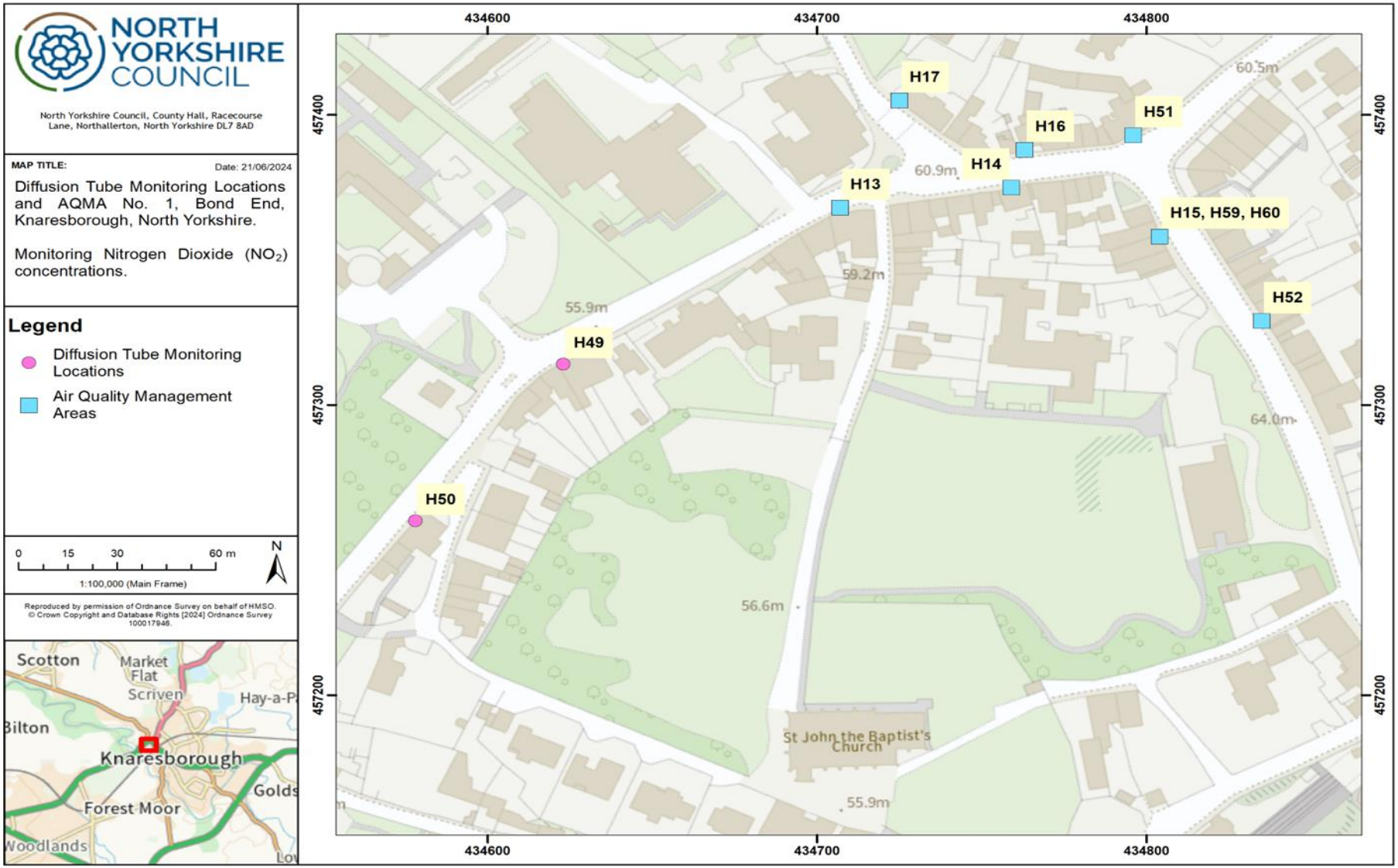

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations and AQMA No. 1, Bond End, Knaresborough, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:100,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Scotton
Market Flat
Scriven
Hay-a-P
Bilton
Knaresborough
Golds
Forest Moor
Woodlands
434600
434700
434800
457400
457300
457200
H17
H16
H51
H14
H13
H15, H59, H60
H52
H49
H50
60.5m
60.9m
59.2m
55.9m
64.0m
56.6m
St John the Baptist's Church
55.9m

Figure D.35.

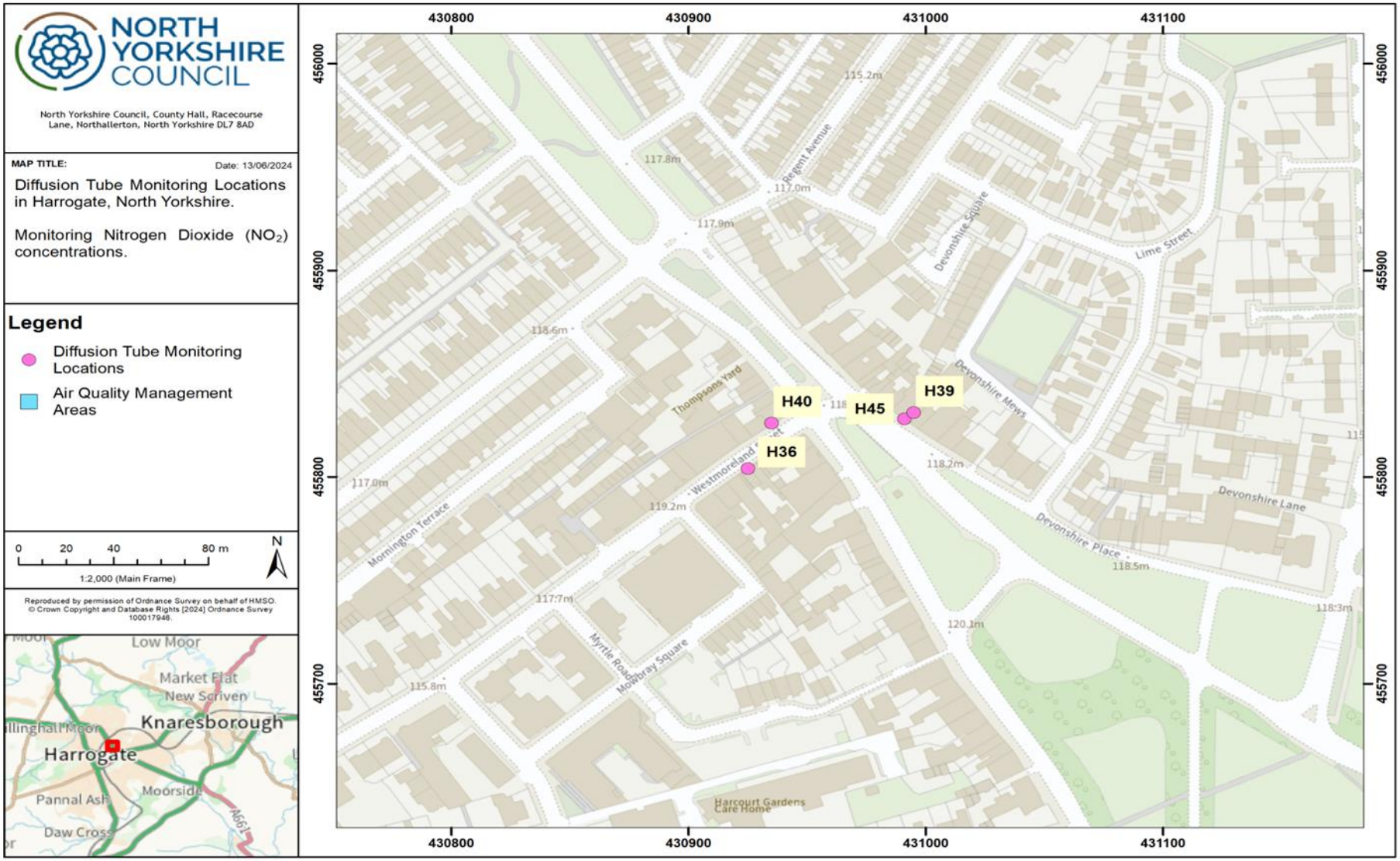

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 13/06/2024
Diffusion Tube Monitoring Locations in Harrogate, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,000 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Low Moor
Market Flat
New Scriven
Knaresborough
Harrogate
Moorside
Pannal Ash
Daw Cross
A661
430800
430900
431000
431100
456000
455900
455800
455700
H40
H45
H39
H36
Thompsons Yard
Westmoreland
Regent Avenue
Devonshire Square
Devonshire Mews
Lime Street
Devonshire Lane
Devonshire Place
Mornington Terrace
Myrtle Road
Mowbray Square
Harcourt Gardens Care Home
115.2m
117.8m
117.0m
117.9m
118.6m
117.0m
119.2m
118.2m
118.5m
117.7m
120.1m
118.3m
115.8m

Figure D.36.

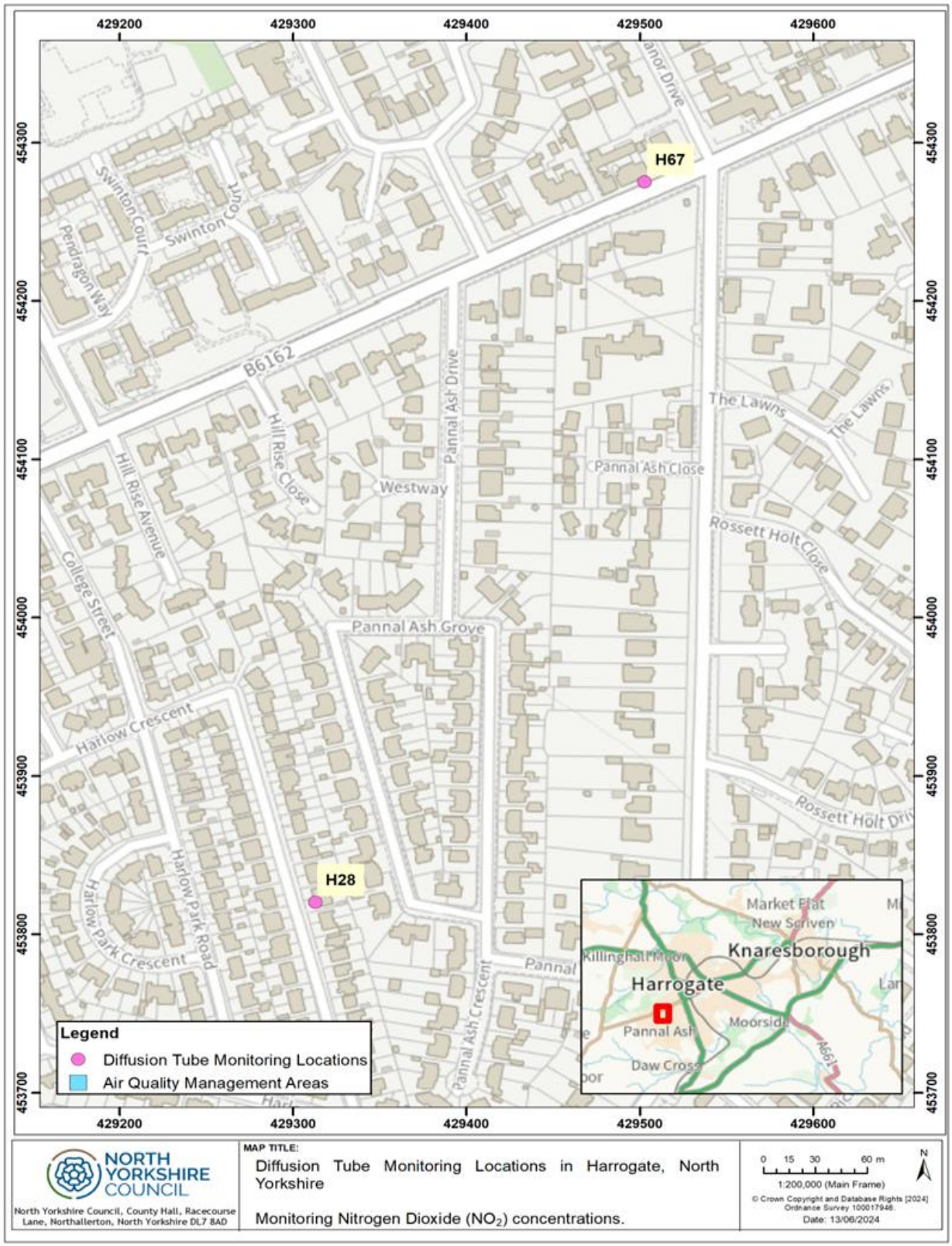
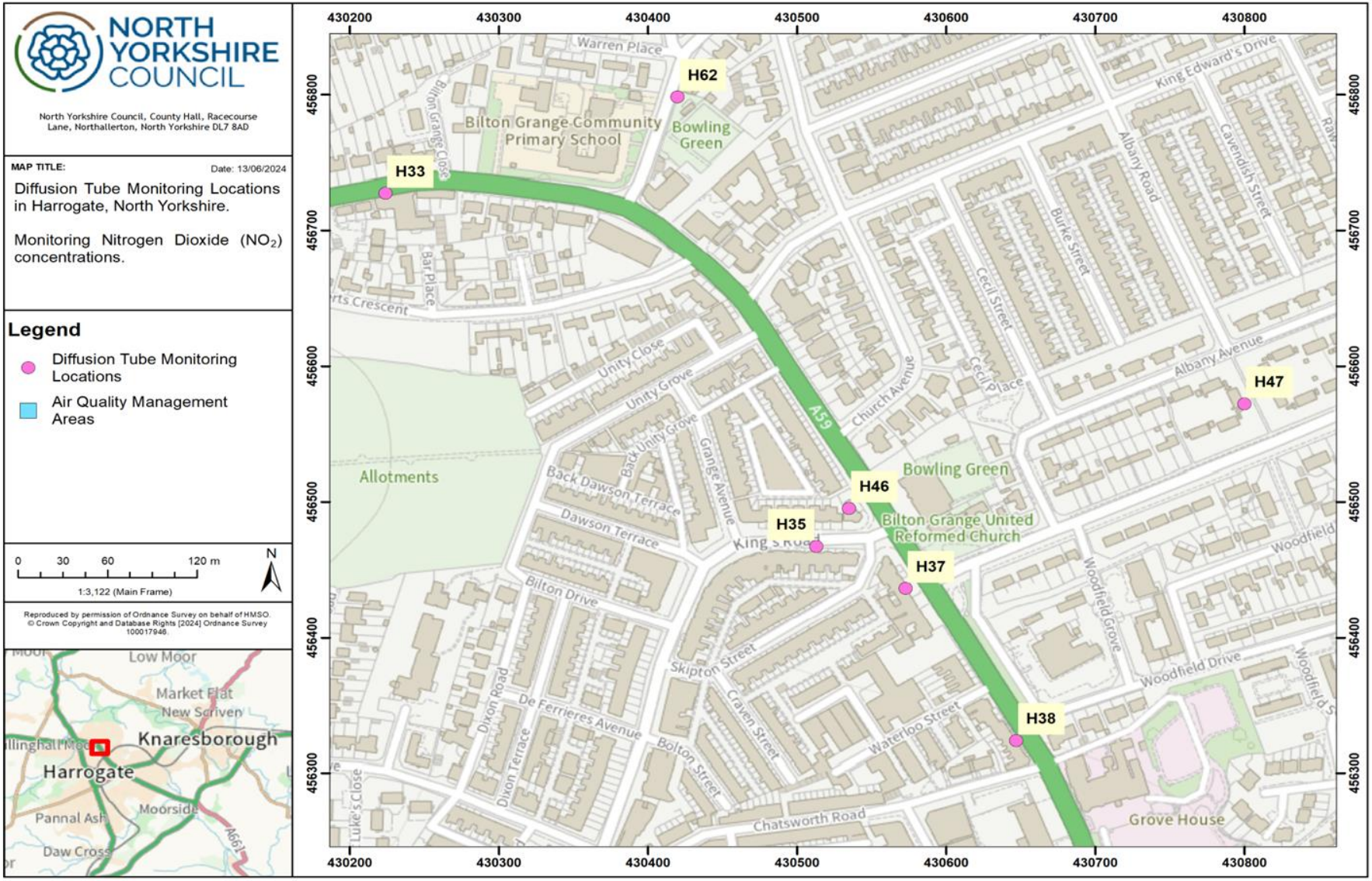

429200
429300
429400
429500
429600
454300
454200
454100
454000
453900
453800
453700
H67
H28
B6162
Swinton Court
Pendragon Way
Hill Rise Close
Hill Rise Avenue
College Street
Pannal Ash Drive
Westway
Pannal Ash Close
The Lawns
Rossett Holt Close
Pannal Ash Grove
Harlow Crescent
Harlow Park Crescent
Harlow Park Road
Pannal Ash Crescent
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
Market Flat
New Scriven
Knaresborough
Harrogate
Killinghall Moor
Pannal Ash
Moorside
Daw Cross
A661
NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Diffusion Tube Monitoring Locations in Harrogate, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
0 15 30 60 m
1:200,000 (Main Frame)
© Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Date: 13/06/2024
N

Figure D.37.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 13/06/2024
Diffusion Tube Monitoring Locations in Harrogate, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 30 60 120 m
1:3,122 (Main Frame)
N
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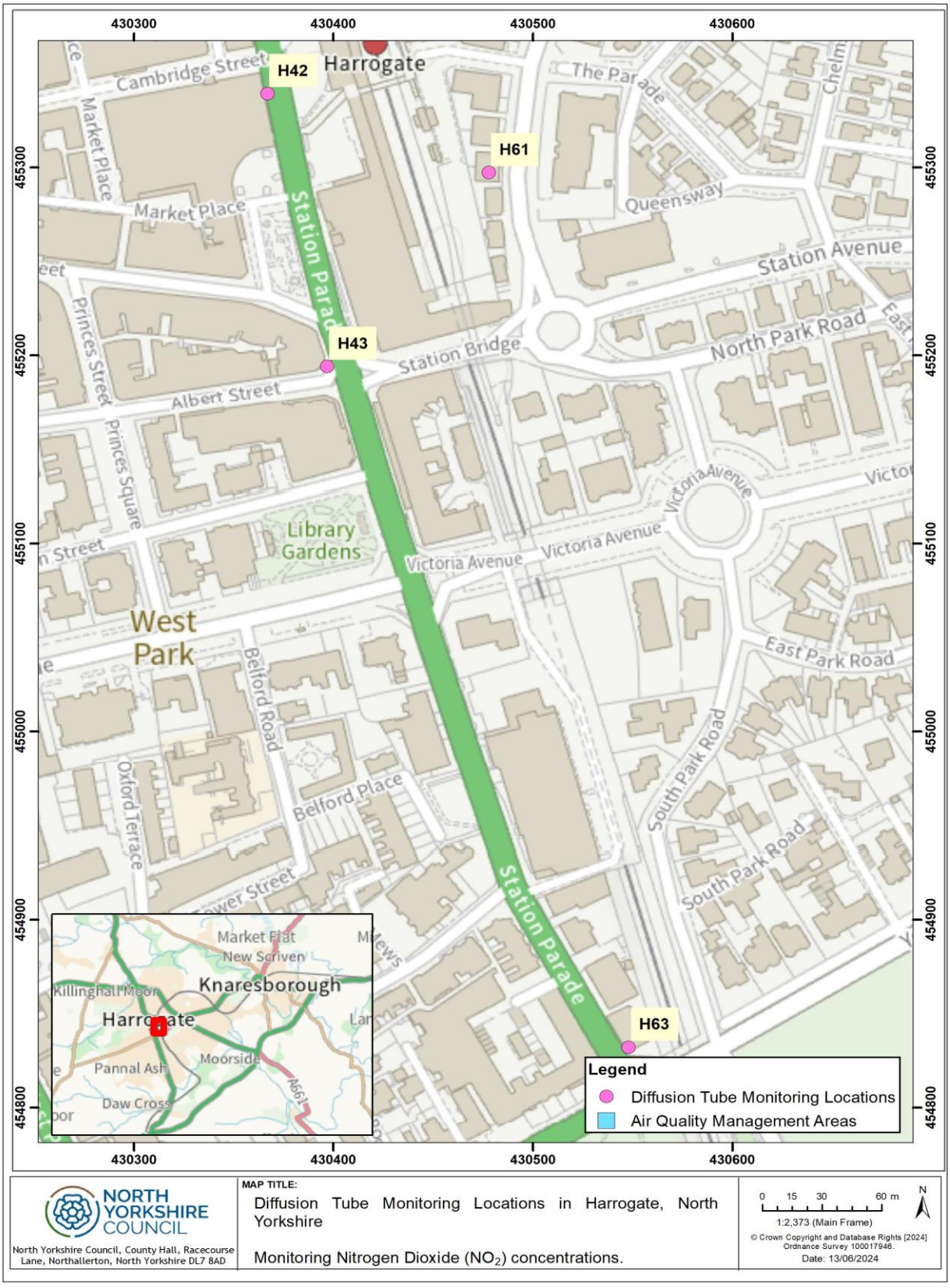
Low Moor
Market Flat
New Scriven
Knaresborough
Harrogate
Pannal Ash
Moorside
Daw Cross
H62
H33
H47
H46
H35
H37
H38
Bilton Grange Community Primary School
Bowling Green
Allotments
Bilton Grange United Reformed Church
Grove House
A59
Warren Place
Bilton Grange Close
Bar Place
Unity Close
Unity Grove
Back Unity Grove
Grange Avenue
Back Dawson Terrace
Dawson Terrace
Bilton Drive
Church Avenue
Cecil Street
Cecil Place
Burke Street
Albany Road
Albany Avenue
King Edward's Drive
Cavendish Street
Woodfield Grove
Woodfield Drive
Woodfield
Skipton Street
Craven Street
De Ferrieres Avenue
Dixon Road
Dixon Terrace
Bolton Street
Waterloo Street
Chatsworth Road
Luke's Close
430200
430300
430400
430500
430600
430700
430800
456800
456700
456600
456500
456400
456300

Figure D.38.


430300
430400
430500
430600
455300
455200
455100
455000
454900
454800
H42
H43
H61
H63
Harrogate
Cambridge Street
Market Place
Station Parade
The Parade
Queensway
Station Avenue
North Park Road
Station Bridge
Albert Street
Princes Street
Princes Square
Library Gardens
Victoria Avenue
West Park
Belford Road
Belford Place
Oxford Terrace
East Park Road
South Park Road
Market Flat
New Scriven
Knaresborough
Killinghall Moor
Pannal Ash
Moorside
Daw Cross
A661
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Diffusion Tube Monitoring Locations in Harrogate, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
0 15 30 60 m
1:2,373 (Main Frame)
N
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Date: 13/06/2024

Figure D.39. Maps of Non-Automatic Monitoring Sites in Ryedale Area

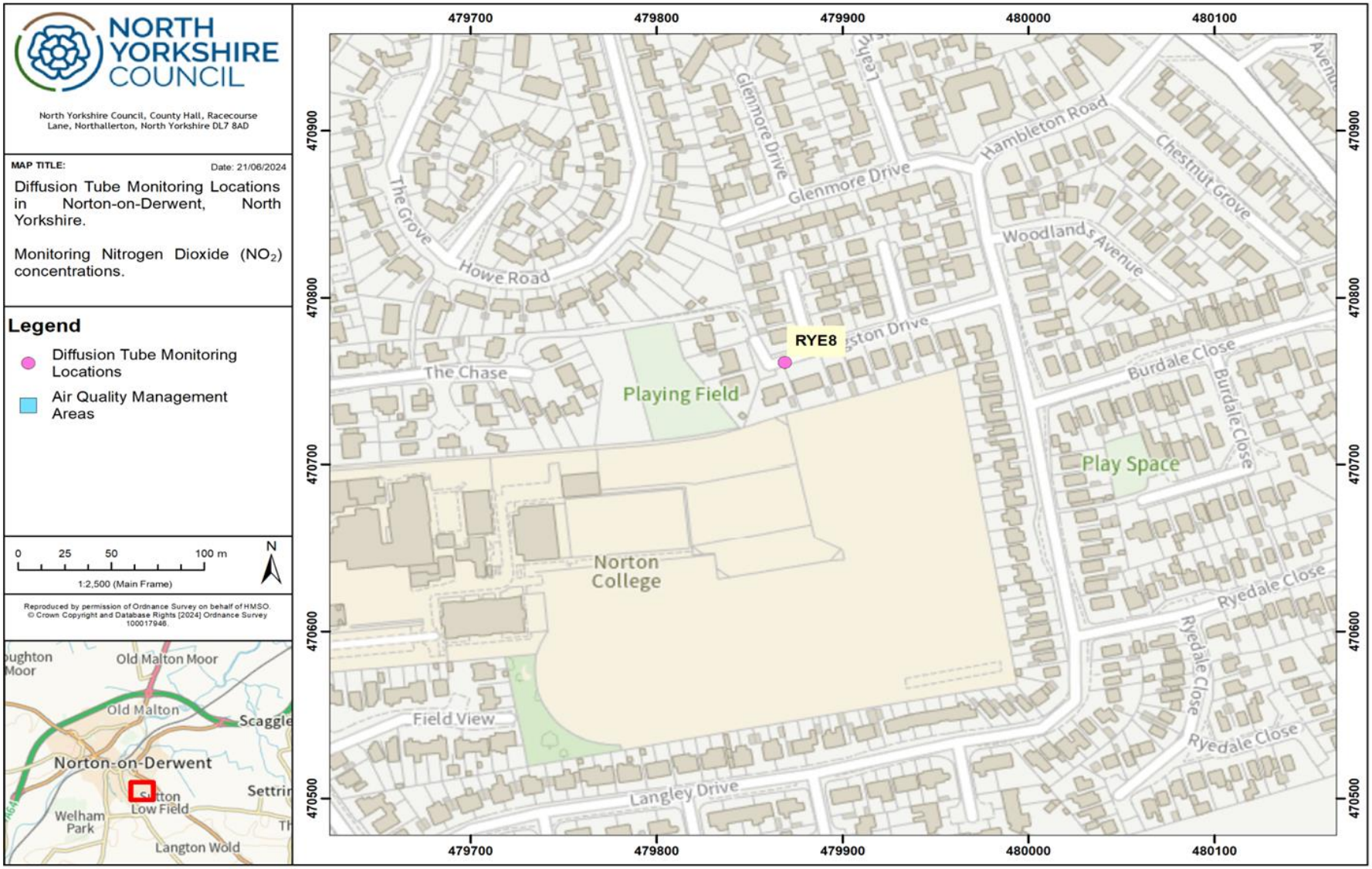
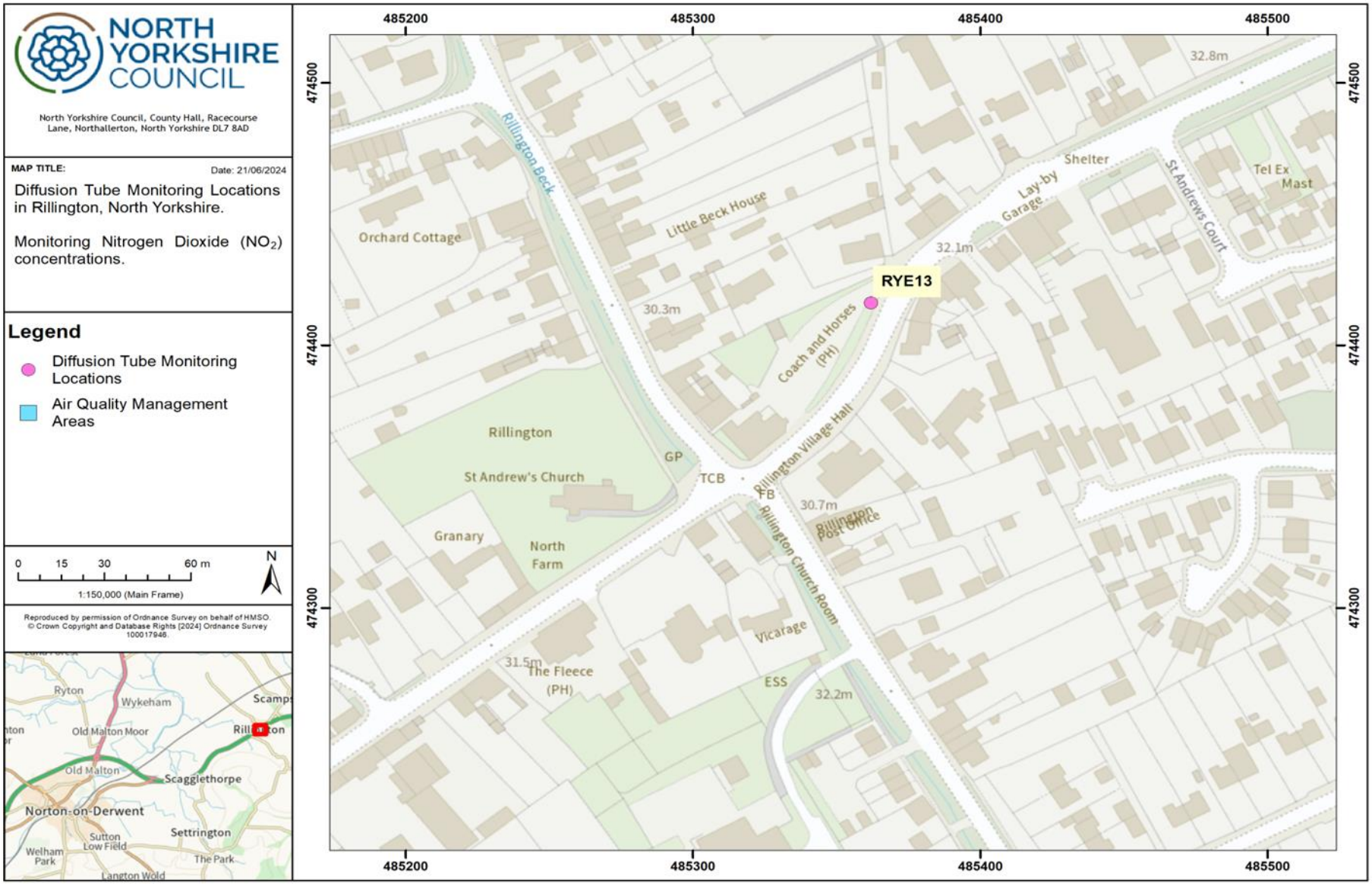


Figure D.40.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Rillington, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:150,000 (Main Frame)
N
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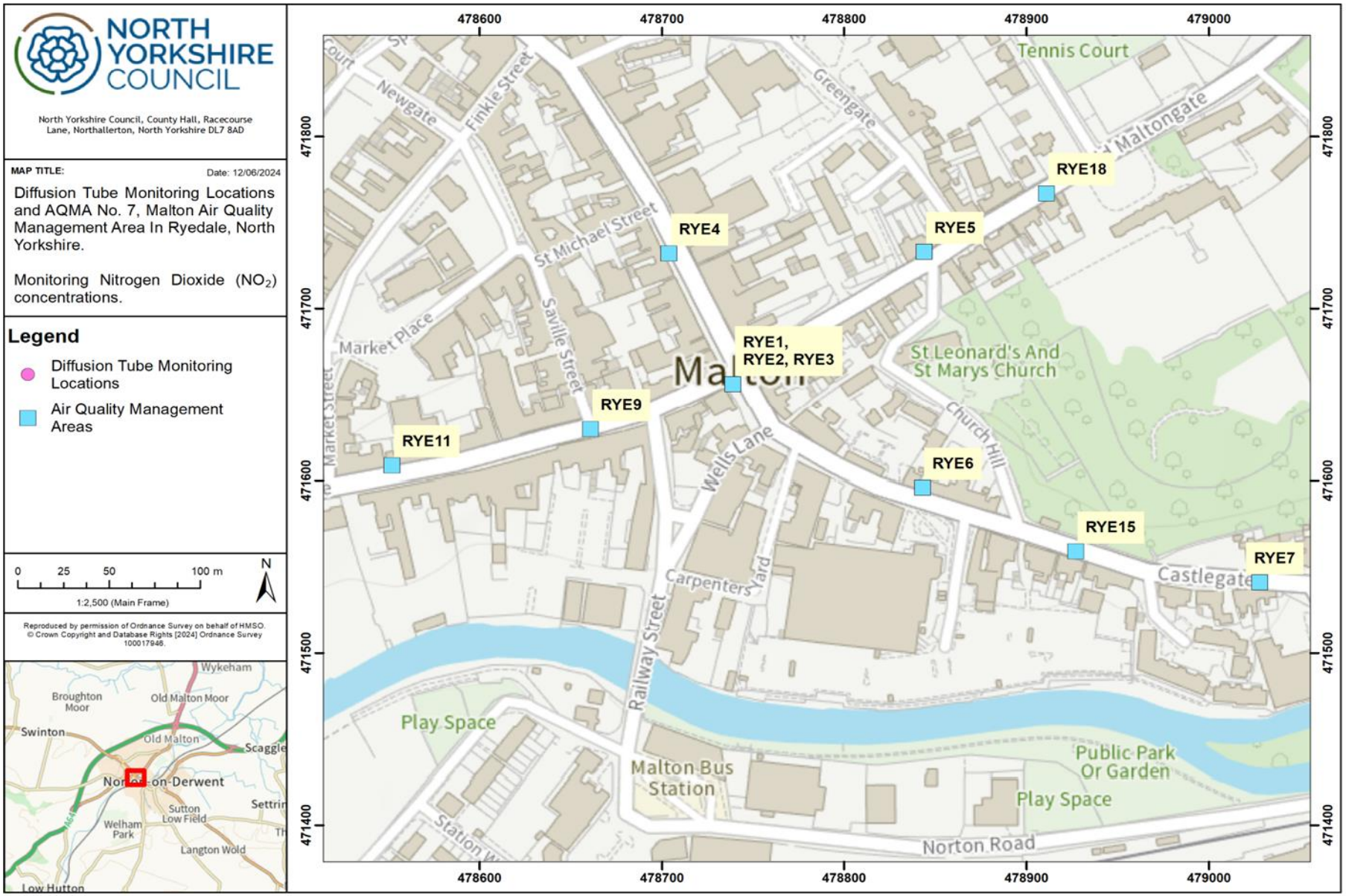
485200
485300
485400
485500
474500
474400
474300
RYE13
Rillington Beck
Orchard Cottage
Little Beck House
Shelter
Lay-by
Garage
St Andrews Court
Tel Ex Mast
32.8m
32.1m
30.3m
Coach and Horses (PH)
Rillington
St Andrew's Church
GP
TCB
FB
Rillington Village Hall
30.7m
Rillington Post Office
Granary
North Farm
Rillington Church Room
Vicarage
31.5m
The Fleece (PH)
ESS
32.2m
Ryton
Wykeham
Old Malton Moor
Old Malton
Scagglethorpe
Norton-on-Derwent
Sutton Low Field
Settrington
Welham Park
The Park
Langton Wold

Figure D.41.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations and AQMA No. 7, Malton Air Quality Management Area In Ryedale, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 25 50 100 m
1:2,500 (Main Frame)
N
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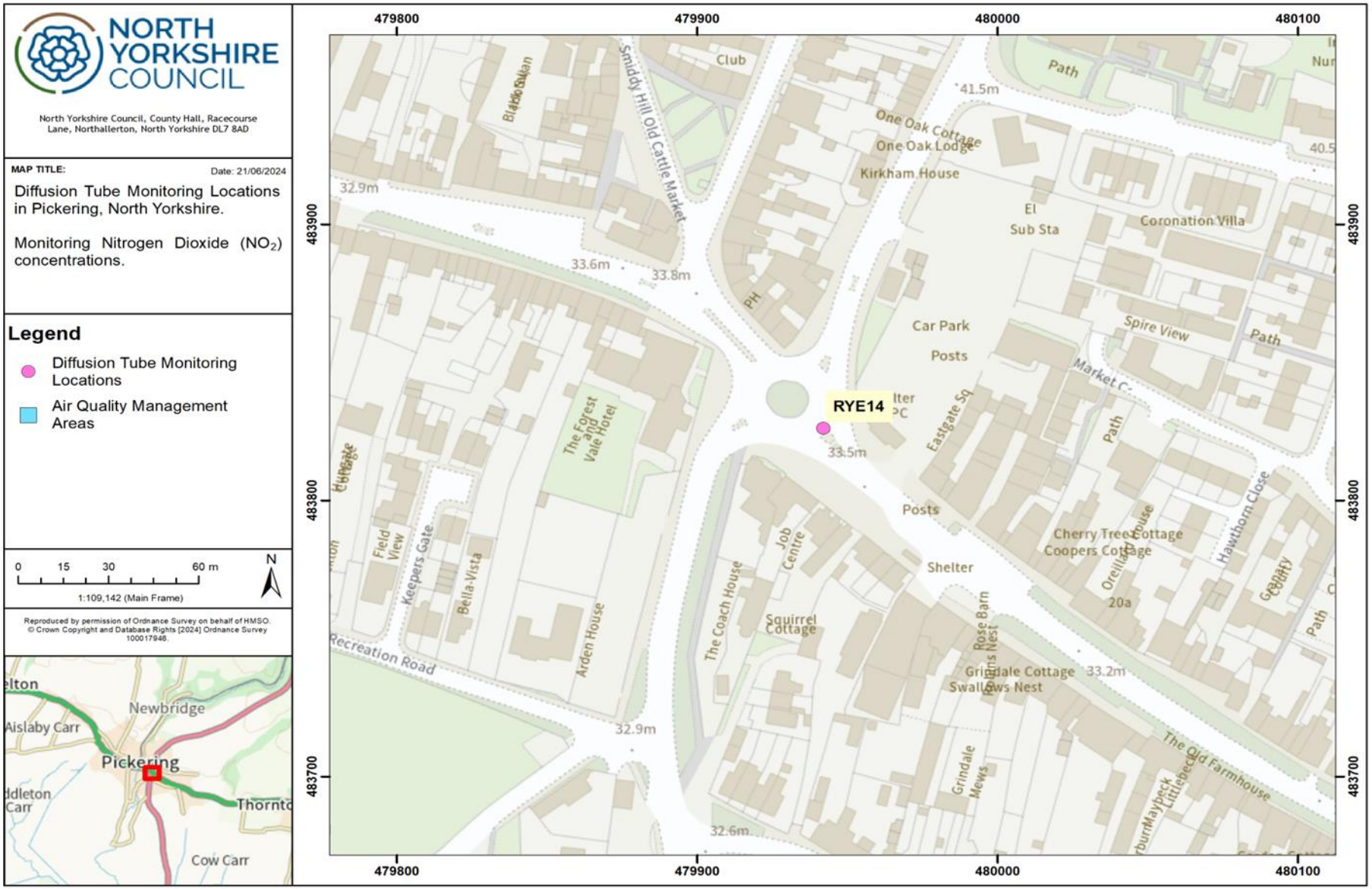
478600
478700
478800
478900
479000
471800
471700
471600
471500
471400
RYE1, RYE2, RYE3
RYE4
RYE5
RYE6
RYE7
RYE9
RYE11
RYE15
RYE18
Tennis Court
Maltongate
Greengate
Finkle Street
Newgate
St Michael Street
Saville Street
Market Place
Market Street
Wells Lane
Church Hill
St Leonard's And St Marys Church
Carpenters Yard
Railway Street
Castlegate
Play Space
Malton Bus Station
Public Park Or Garden
Play Space
Norton Road
Station
Wykeham
Broughton Moor
Old Malton Moor
Swinton
Old Malton
Scagglethorpe
Sutton Low Field
Welham Park
Langton Wold
Low Hutton

Figure D.42.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Pickering, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:109,142 (Main Frame)
N
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Newbridge
Aislaby Carr
Pickering
Cow Carr
479800
479900
480000
480100
483900
483800
483700
RYE14
33.5m
Car Park
Posts
Shelter
Recreation Road
Smiddy Hill Old Cattle Market
One Oak Cottage
One Oak Lodge
Kirkham House
Coronation Villa
Spire View
Path
Eastgate Sq
Market C-
The Forest and Vale Hotel
The Coach House
Job Centre
Squirrel Cottage
Arden House
Keepers Gate
Bella-Vista
Field View
Cherry Tree Cottage
Coopers Cottage
Hawthorn Close
Rose Barn
Grindale Cottage
Swallows Nest
Grindale Mews
The Old Farmhouse
20a
41.5m
32.9m
33.6m
33.8m
33.2m
32.6m

Figure D.43.

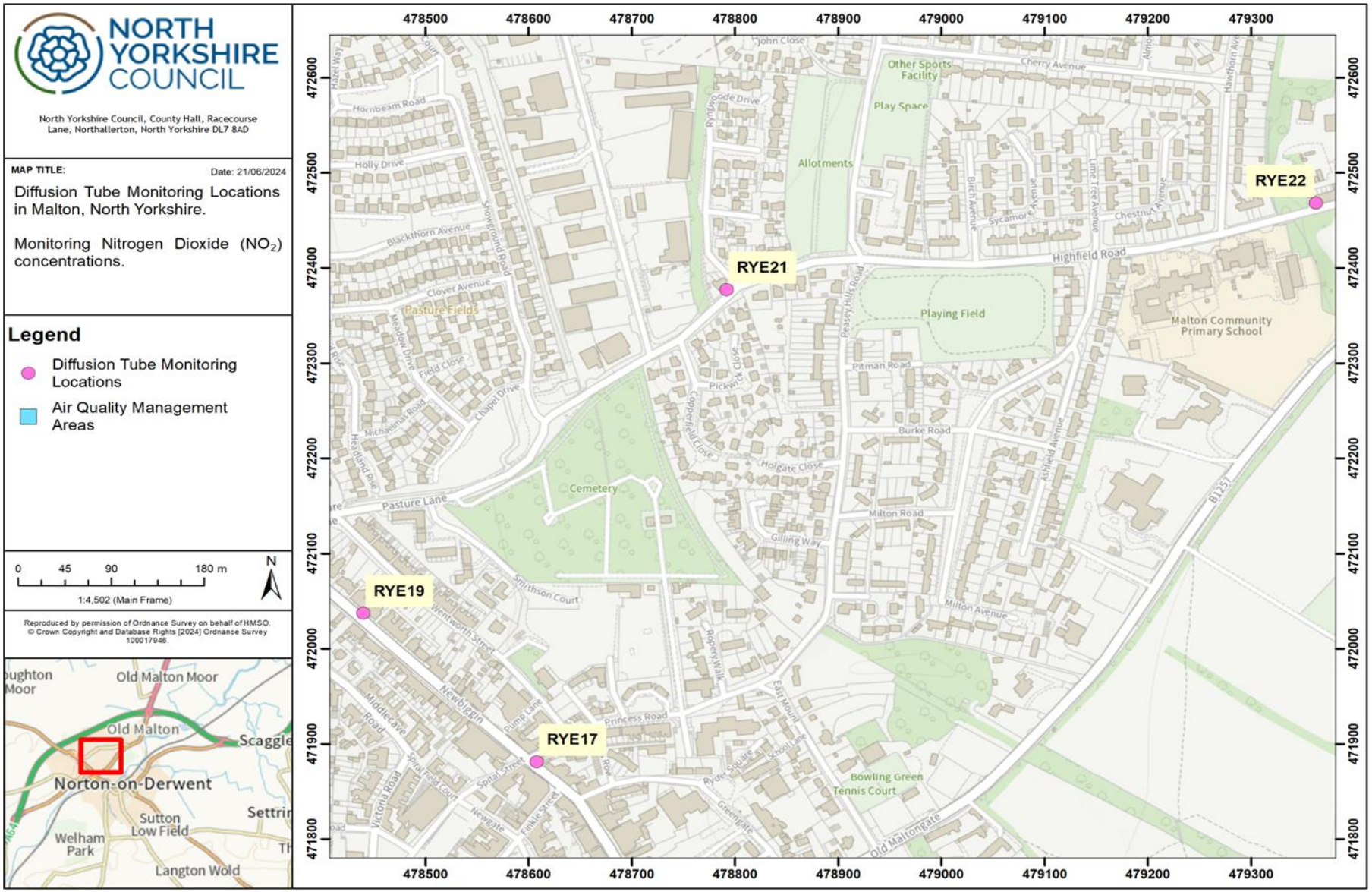

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Malton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 45 90 180 m
1:4,502 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Old Malton Moor
Old Malton
Norton-on-Derwent
Sutton Low Field
Welham Park
Langton Wold
RYE19
RYE17
RYE21
RYE22
Other Sports Facility
Play Space
Allotments
Playing Field
Malton Community Primary School
Cemetery
Pasture Fields
Bowling Green Tennis Court
Highfield Road
Pasture Lane
Milton Road
Burke Road
Pitman Road
Cherry Avenue
Princess Road
Old Maltongate
B1257
478500
478600
478700
478800
478900
479000
479100
479200
479300
472600
472500
472400
472300
472200
472100
472000
471900
471800

Figure D.44.

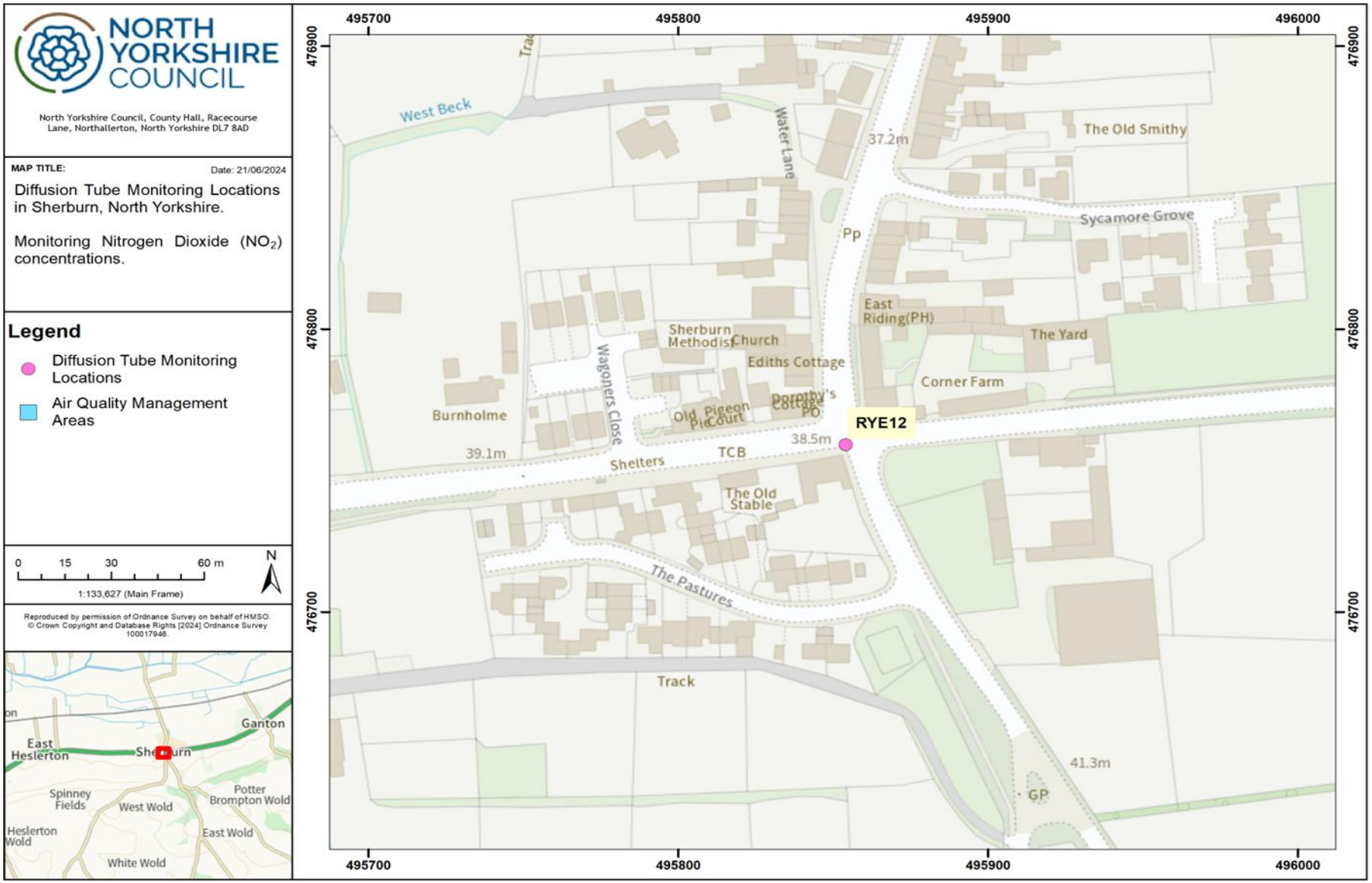
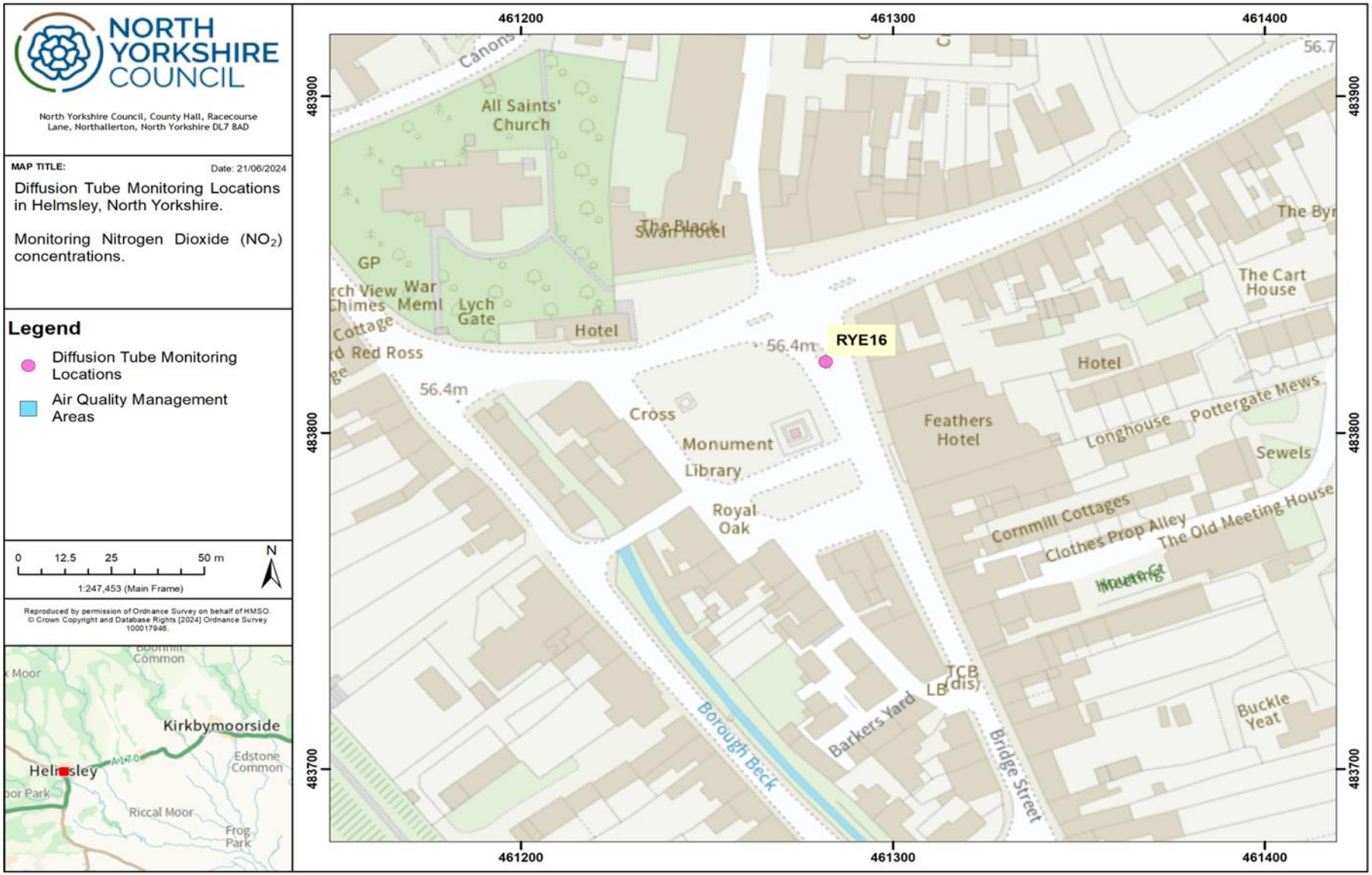

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Sherburn, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:133,627 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
495700
495800
495900
496000
476900
476800
476700
West Beck
Water Lane
37.2m
The Old Smithy
Sycamore Grove
Pp
East Riding(PH)
The Yard
Corner Farm
Sherburn Methodist Church
Ediths Cottage
Wagoners Close
Burnholme
Old Pigeon Pie Court
Dorothy's Cottage
PO
RYE12
38.5m
39.1m
Shelters
TCB
The Old Stable
The Pastures
Track
41.3m
GP
Ganton
East Heslerton
Sherburn
Spinney Fields
West Wold
Potter Brompton Wold
Heslerton Wold
East Wold
White Wold

Figure D.45.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Helmsley, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 12.5 25 50 m
1:247,453 (Main Frame)
N
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461200
461300
461400
483900
483800
483700
RYE16
56.4m
All Saints' Church
The Black Swan Hotel
GP
War Meml
Lych Gate
Hotel
Cross
Monument
Library
Royal Oak
Feathers Hotel
Longhouse
Pottergate Mews
Sewels
Cornmill Cottages
Clothes Prop Alley
The Old Meeting House
The Cart House
Borough Beck
Barkers Yard
Bridge Street
Buckle Yeat
Kirkbymoorside
Helmsley
Edstone Common
Riccal Moor
Frog Park

Figure D.46.

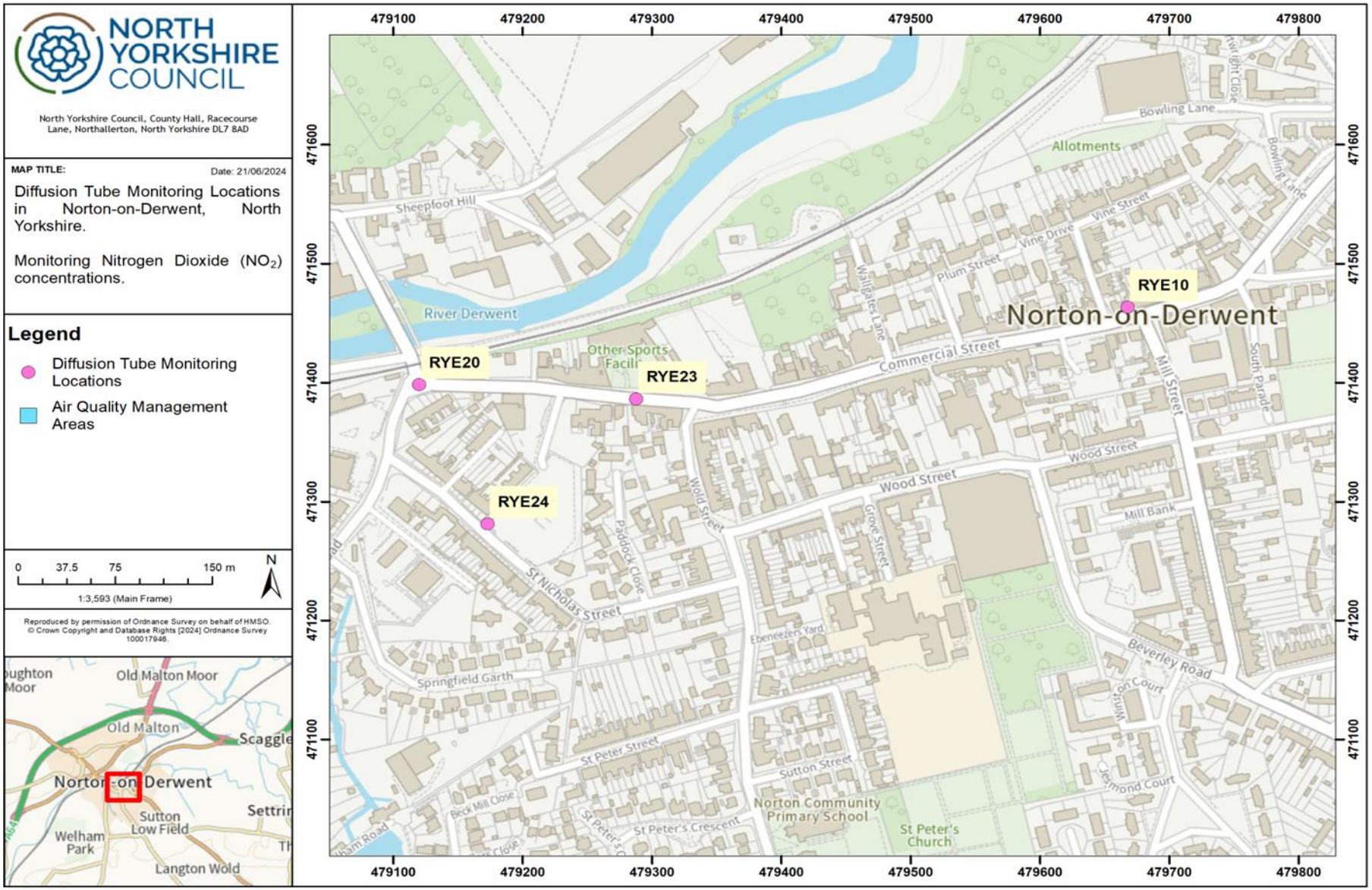

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Norton-on-Derwent, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 37.5 75 150 m
1:3,593 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Old Malton Moor
Old Malton
Norton-on-Derwent
Sutton Low Field
Welham Park
Langton Wold
479100
479200
479300
479400
479500
479600
479700
479800
471600
471500
471400
471300
471200
471100
RYE10
RYE20
RYE23
RYE24
Norton-on-Derwent
River Derwent
Sheepfoot Hill
Other Sports Facili
Allotments
Bowling Lane
Vine Street
Vine Drive
Plum Street
Wallgates Lane
Commercial Street
Mill Street
South Parade
Wood Street
Mill Bank
Grove Street
Wold Street
Paddock Close
St Nicholas Street
Springfield Garth
Ebeneezers Yard
Beverley Road
Winston Court
Jesmond Court
St Peter Street
Sutton Street
Beck Mill Close
St Peter's Crescent
Norton Community Primary School
St Peter's Church

Figure D.47. Maps of Non-Automatic Monitoring Sites in the Scarborough Area

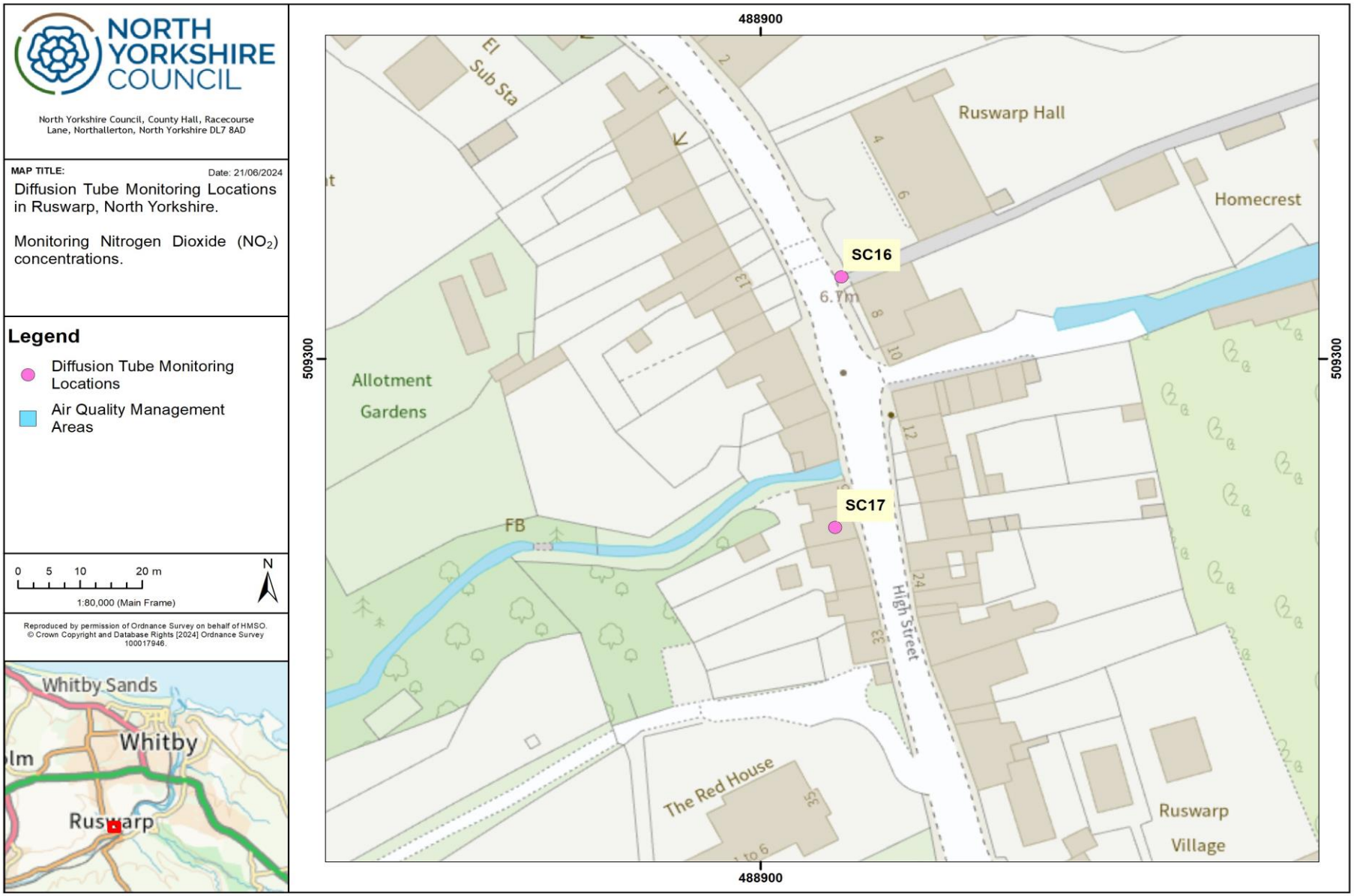


Figure D.48.

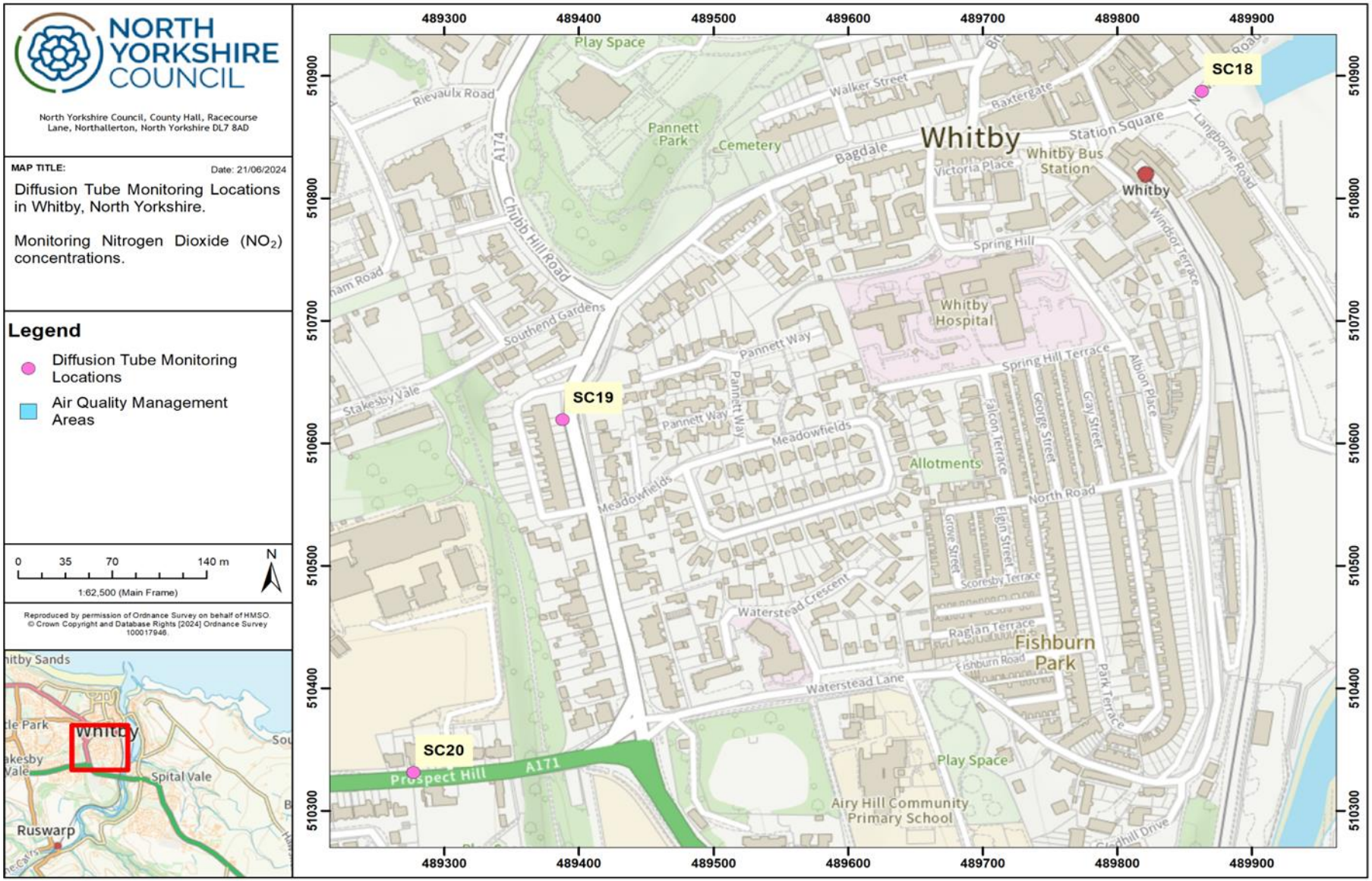
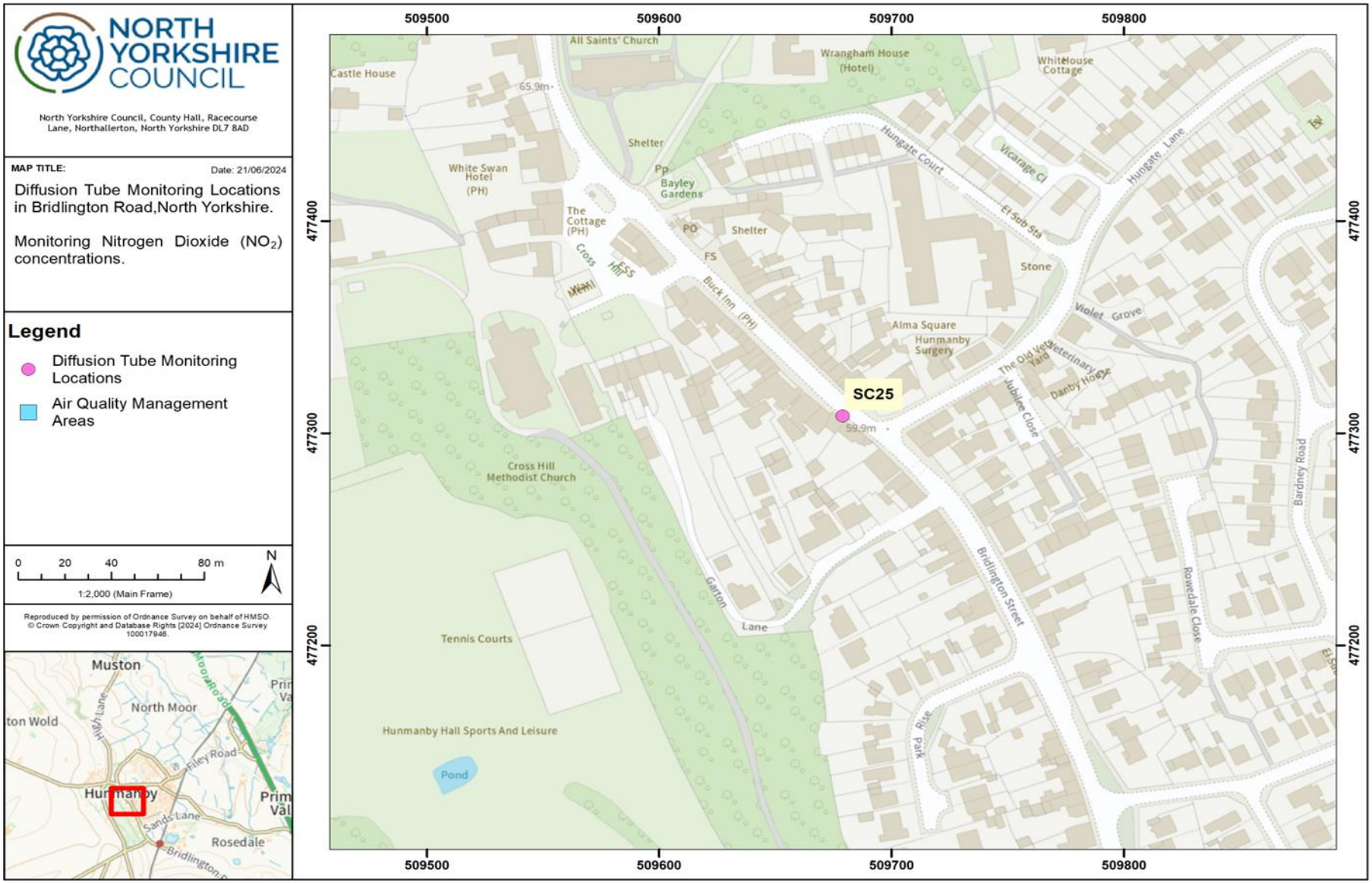

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Whitby, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 35 70 140 m
1:62,500 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
SC18
SC19
SC20
Whitby
Whitby Bus Station
Whitby Hospital
Pannett Park
Cemetery
Play Space
Allotments
Fishburn Park
Airy Hill Community Primary School
Ruswarp
Spital Vale
A171
A174
Prospect Hill
Chubb Hill Road
Rievaulx Road
Walker Street
Baxtergate
Station Square
Bagdale
Spring Hill
Pannett Way
Meadowfields
Waterstead Crescent
Waterstead Lane
North Road
Raglan Terrace
Spring Hill Terrace
Southend Gardens
Stakesby Vale
489300
489400
489500
489600
489700
489800
489900
510900
510800
510700
510600
510500
510400
510300

Figure D.49.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Bridlington Road,North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,000 (Main Frame)
N
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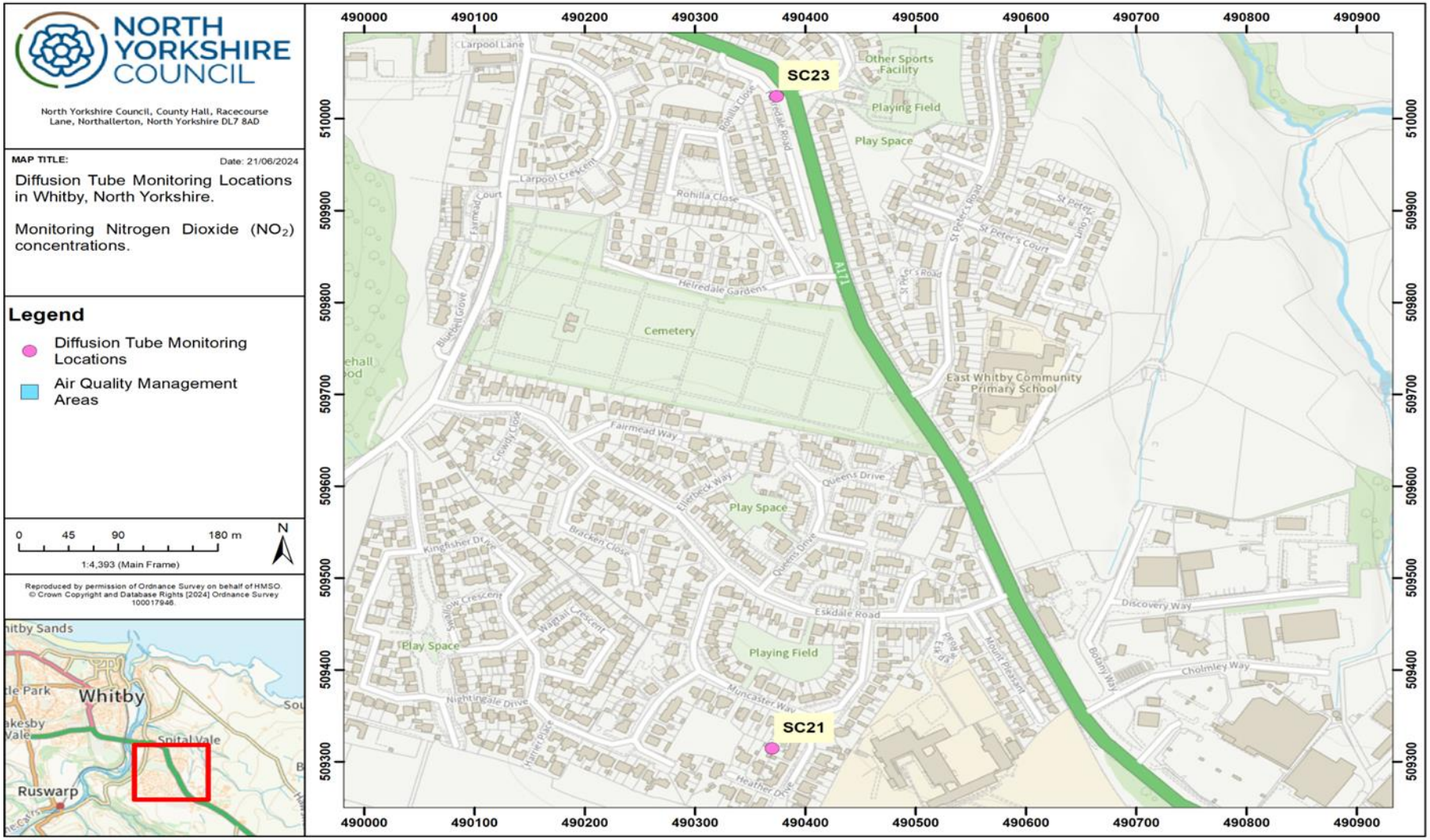
509500
509600
509700
509800
477400
477300
477200
SC25
59.9m
All Saints' Church
Castle House
65.9m
Wrangham House (Hotel)
White House Cottage
Shelter
White Swan Hotel (PH)
Bayley Gardens
Hungate Court
Vicarage Cl
Hungate Lane
The Cottage (PH)
PO
Shelter
FS
El Sub Sta
Stone
Buck Inn (PH)
Alma Square
Hunmanby Surgery
Violet Grove
Jubilee Close
Danby House
Cross Hill Methodist Church
Garton Lane
Bridlington Street
Bardney Road
Rowedale Close
Tennis Courts
Hunmanby Hall Sports And Leisure
Pond
Park Rise
Muston
North Moor
Filey Road
Hunmanby
Sands Lane
Rosedale
Bridlington

Figure D.50.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Whitby, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 45 90 180 m
1:4,393 (Main Frame)
N
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Whitby
Ruswarp
Spital Vale
SC23
SC21
A174
Other Sports Facility
Playing Field
Play Space
Cemetery
East Whitby Community Primary School
Eskdale Road
Larpool Lane
Larpool Crescent
Rohilla Close
Helredale Gardens
Fairmead Way
Queens Drive
Discovery Way
Cholmley Way
490000
490100
490200
490300
490400
490500
490600
490700
490800
490900
510000
509900
509800
509700
509600
509500
509400
509300

Figure D.51.

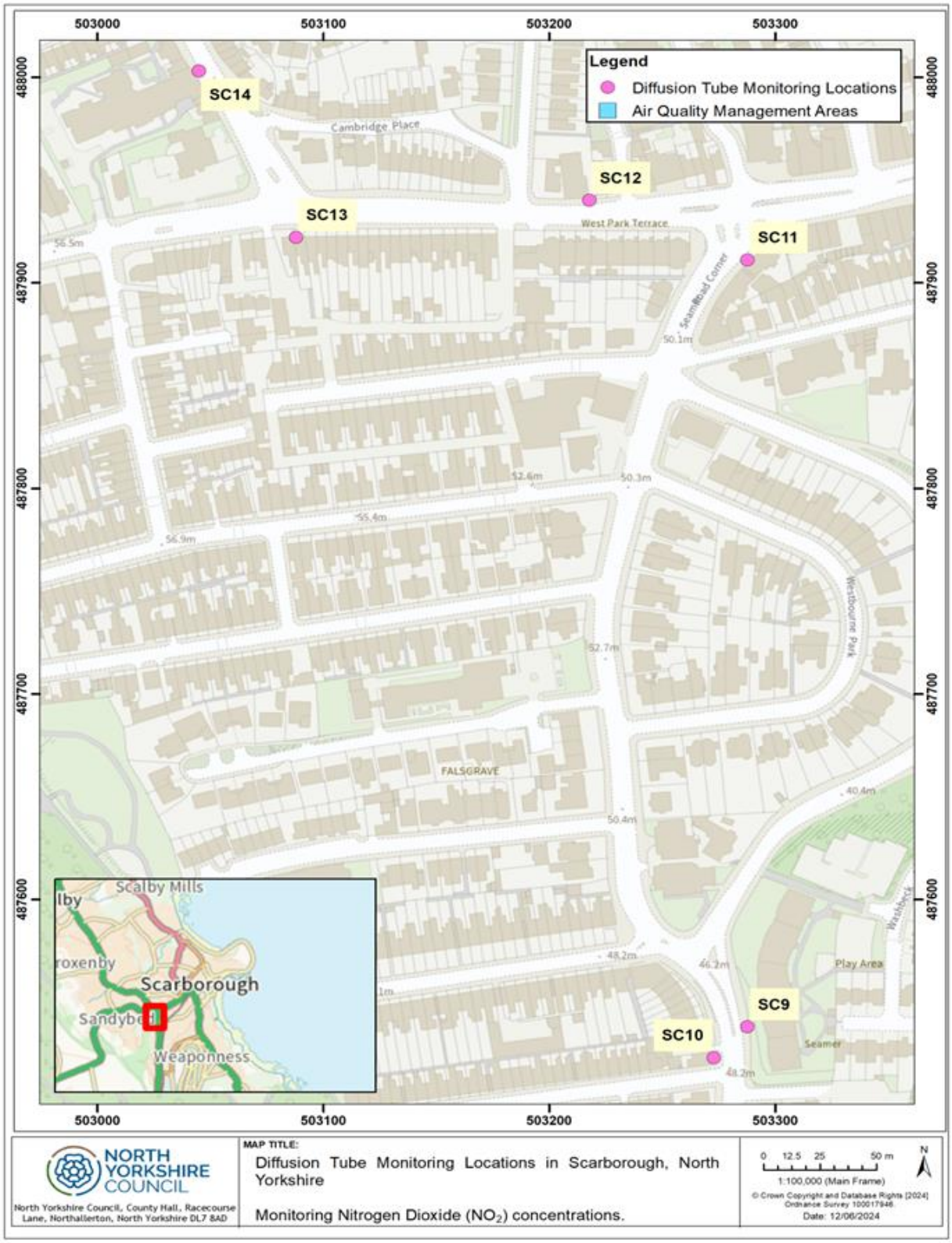
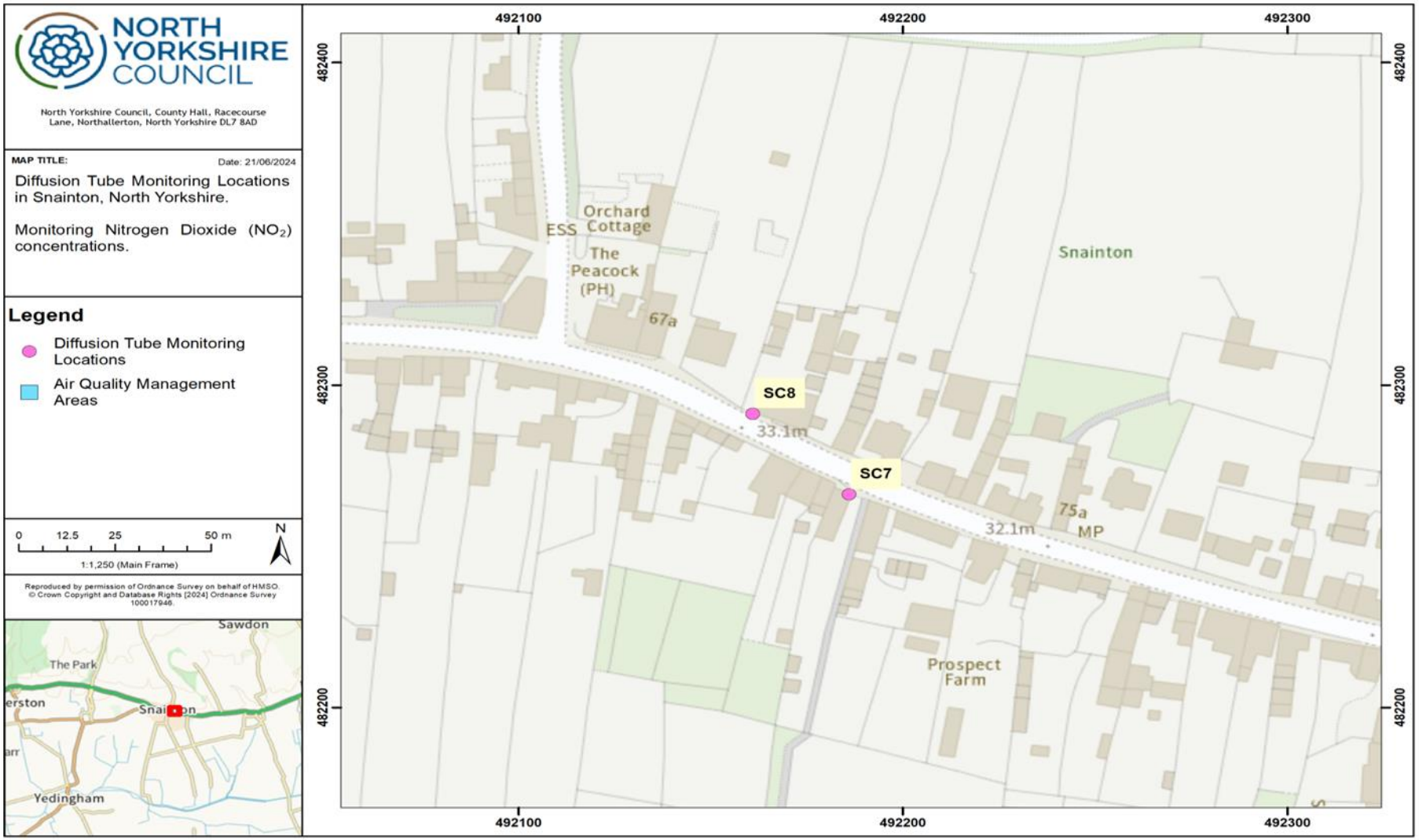

503000
503100
503200
503300
488000
487900
487800
487700
487600
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
SC14
SC13
SC12
SC11
SC10
SC9
Cambridge Place
West Park Terrace
Seamer Road Corner
Westbourne Park
FALSGRAVE
Play Area
Seamer
Scalby Mills
Scarborough
Weaponness
NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Diffusion Tube Monitoring Locations in Scarborough, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
0 12.5 25 50 m
1:100,000 (Main Frame)
© Crown Copyright and Database Rights [2024] Ordnance Survey 100017946
Date: 12/06/2024
N

Figure D.52.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Snainton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 12.5 25 50 m
1:1,250 (Main Frame)
N
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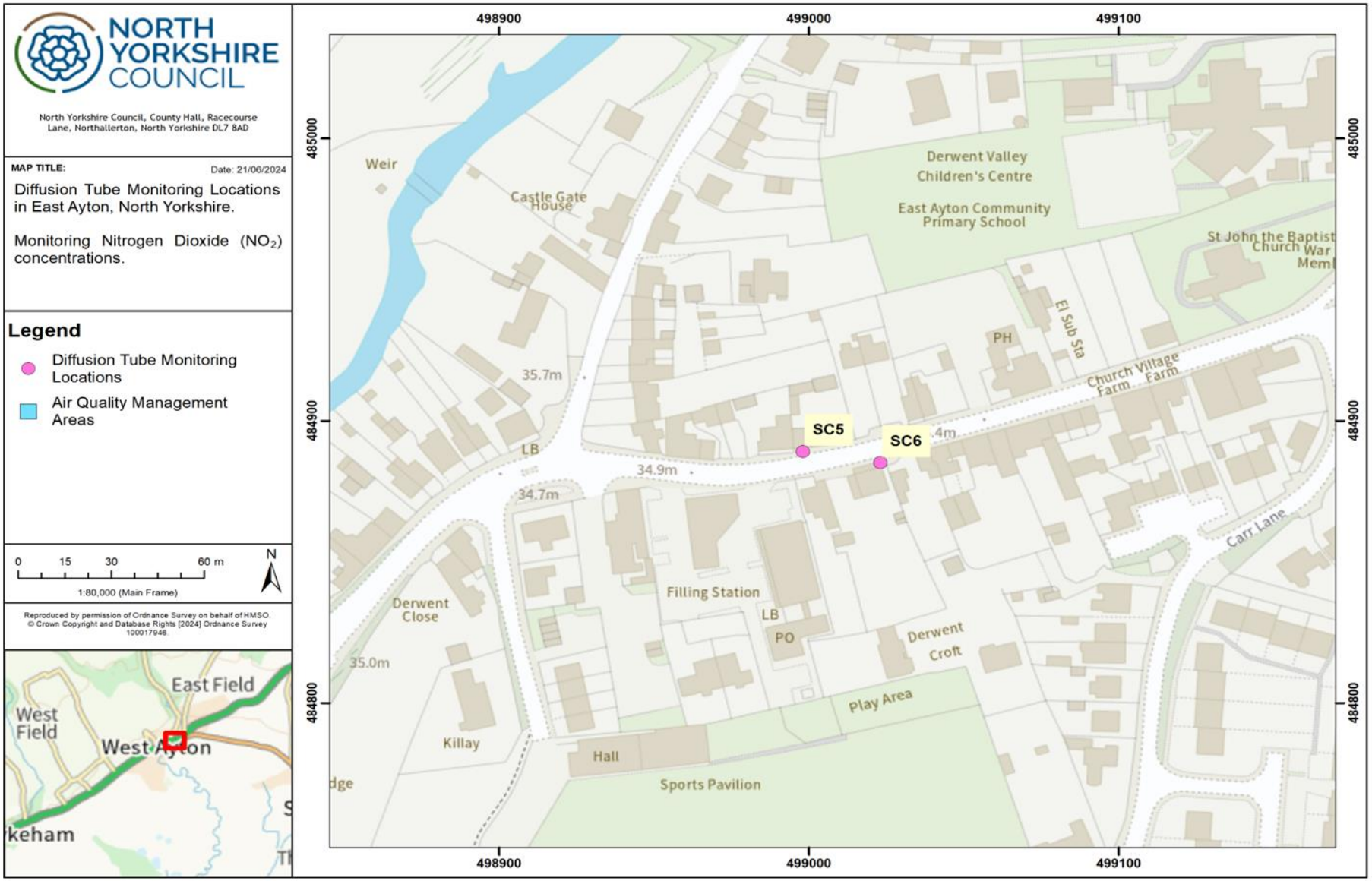
Sawdon
The Park
Yedingham
492100
492200
492300
482400
482300
482200
Orchard Cottage
ESS
The Peacock (PH)
67a
Snainton
SC8
33.1m
SC7
32.1m
75a
MP
Prospect Farm

Figure D.53.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in East Ayton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:80,000 (Main Frame)
N
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East Field
West Field
West Ayton
498900
499000
499100
485000
484900
484800
Weir
Castle Gate House
Derwent Valley Children's Centre
East Ayton Community Primary School
St John the Baptist Church War Mem
El Sub Sta
PH
Church Village Farm
Farm
35.7m
SC5
SC6
4m
LB
34.9m
34.7m
Carr Lane
Derwent Close
Filling Station
LB
PO
Derwent Croft
35.0m
Play Area
Killay
Hall
Sports Pavilion

Figure D.54.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Cayton, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:80,000 (Main Frame)
N
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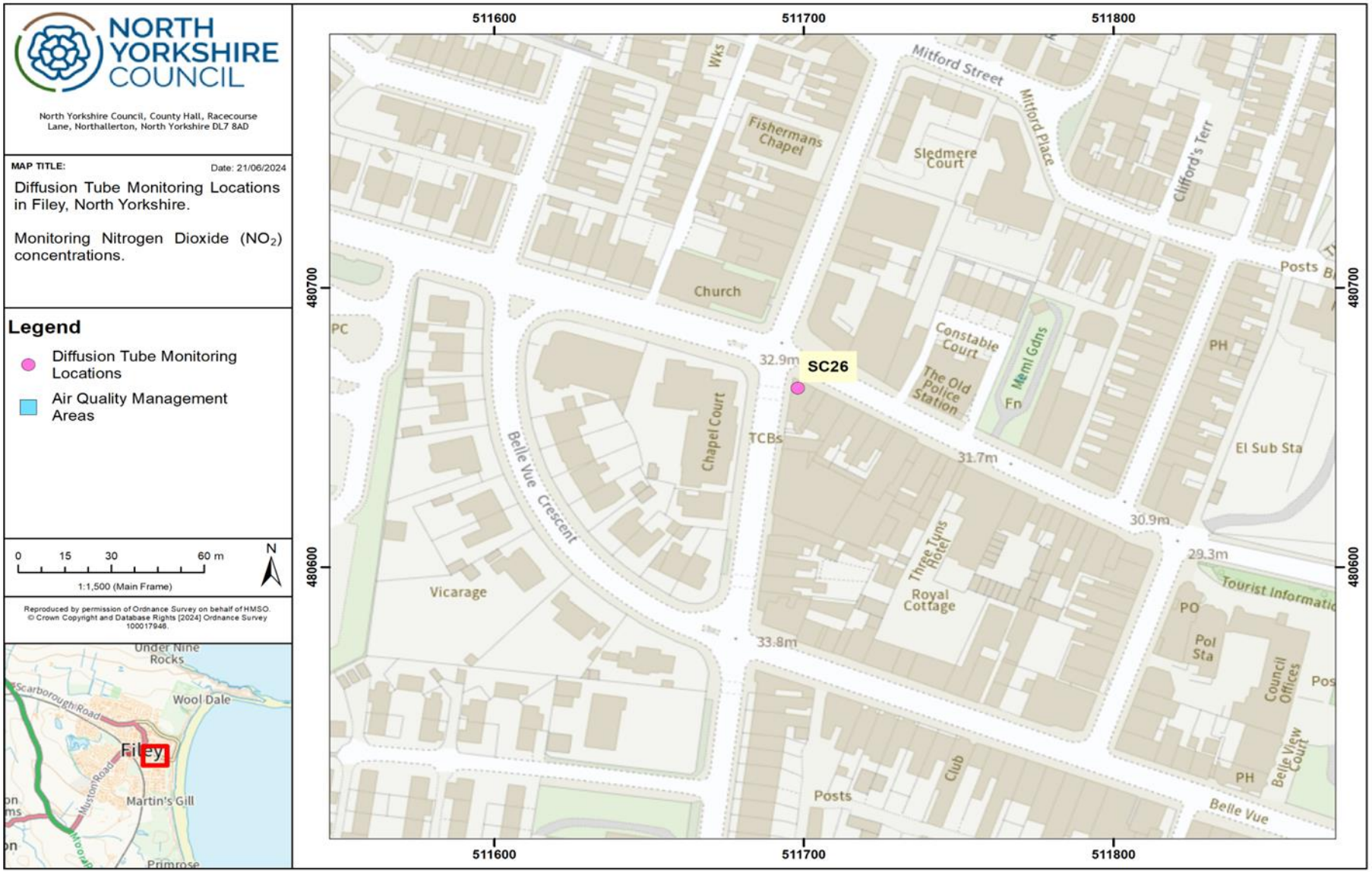
Osgodby
Eastfield
505400
505500
505600
483500
483400
483300
SC4
38.8m
43.5m
Cayton
Lodge Close
Church Lane

Figure D.55.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 21/06/2024
Diffusion Tube Monitoring Locations in Filey, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 15 30 60 m
1:1,500 (Main Frame)
N
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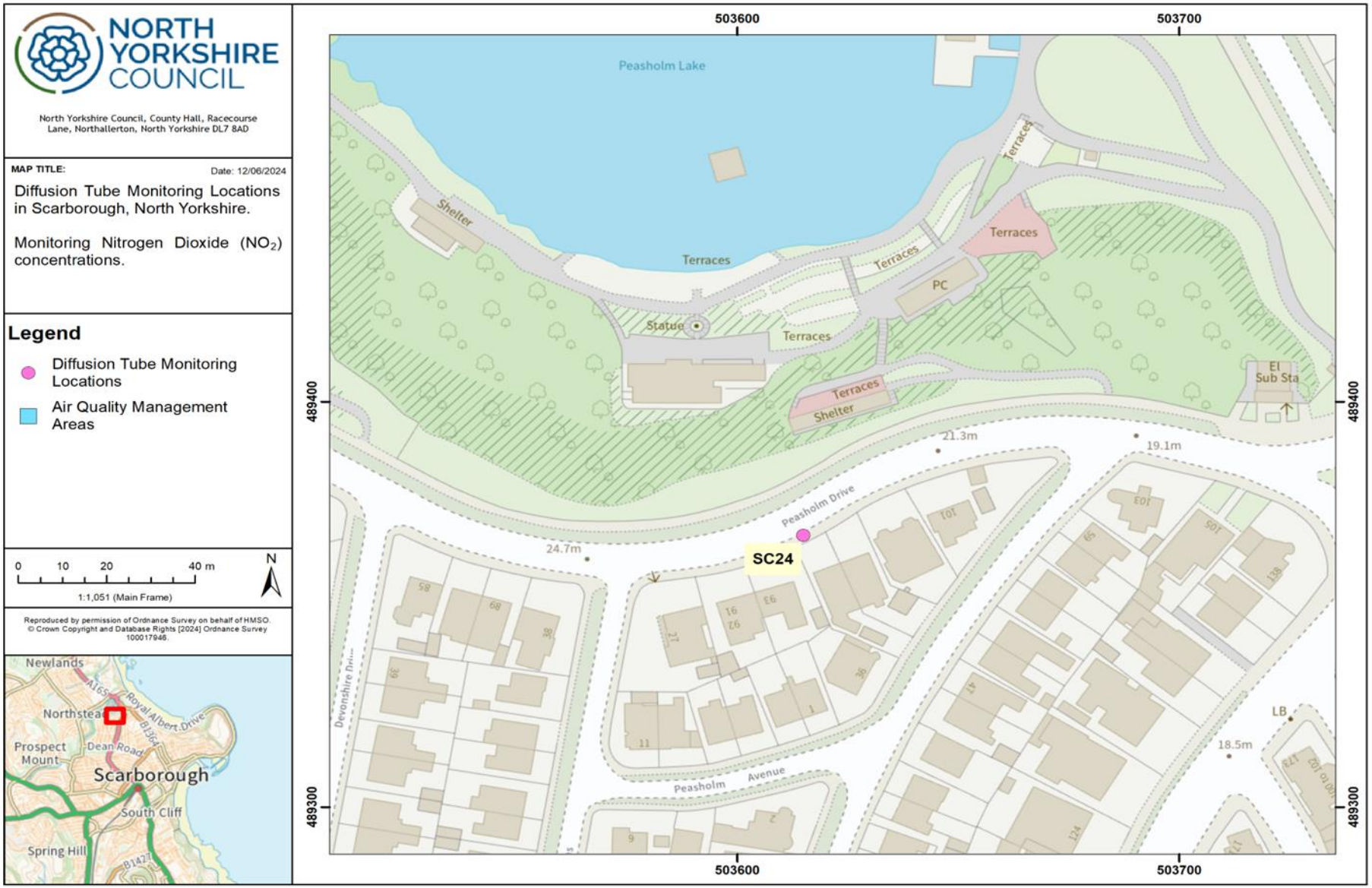
511600
511700
511800
480700
480600
SC26
32.9m
31.7m
30.9m
29.3m
33.8m
Mitford Street
Mitford Place
Clifford's Terr
Sledmere Court
Fishermans Chapel
Church
Constable Court
The Old Police Station
Meml Gdns
Chapel Court
Belle Vue Crescent
TCBs
Vicarage
Three Tyns Hotel
Royal Cottage
Tourist Information
PO
Pol Sta
Council Offices
Belle View Court
Belle Vue
Posts
Club
PH
El Sub Sta
Under Nine Rocks
Wool Dale
Scarborough Road
Filey
Muston Road
Martin's Gill
Primrose

Figure D.56.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Scarborough, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 10 20 40 m
1:1,051 (Main Frame)
N
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Newlands
Northstead
Prospect Mount
Dean Road
Royal Albert Drive
Scarborough
South Cliff
Spring Hill
503600
503700
489400
489300
Peasholm Lake
Shelter
Terraces
Statue
PC
El Sub Sta
SC24
Peasholm Drive
Peasholm Avenue
Devonshire Dri...
21.3m
19.1m
24.7m
18.5m
LB

Figure D.57.

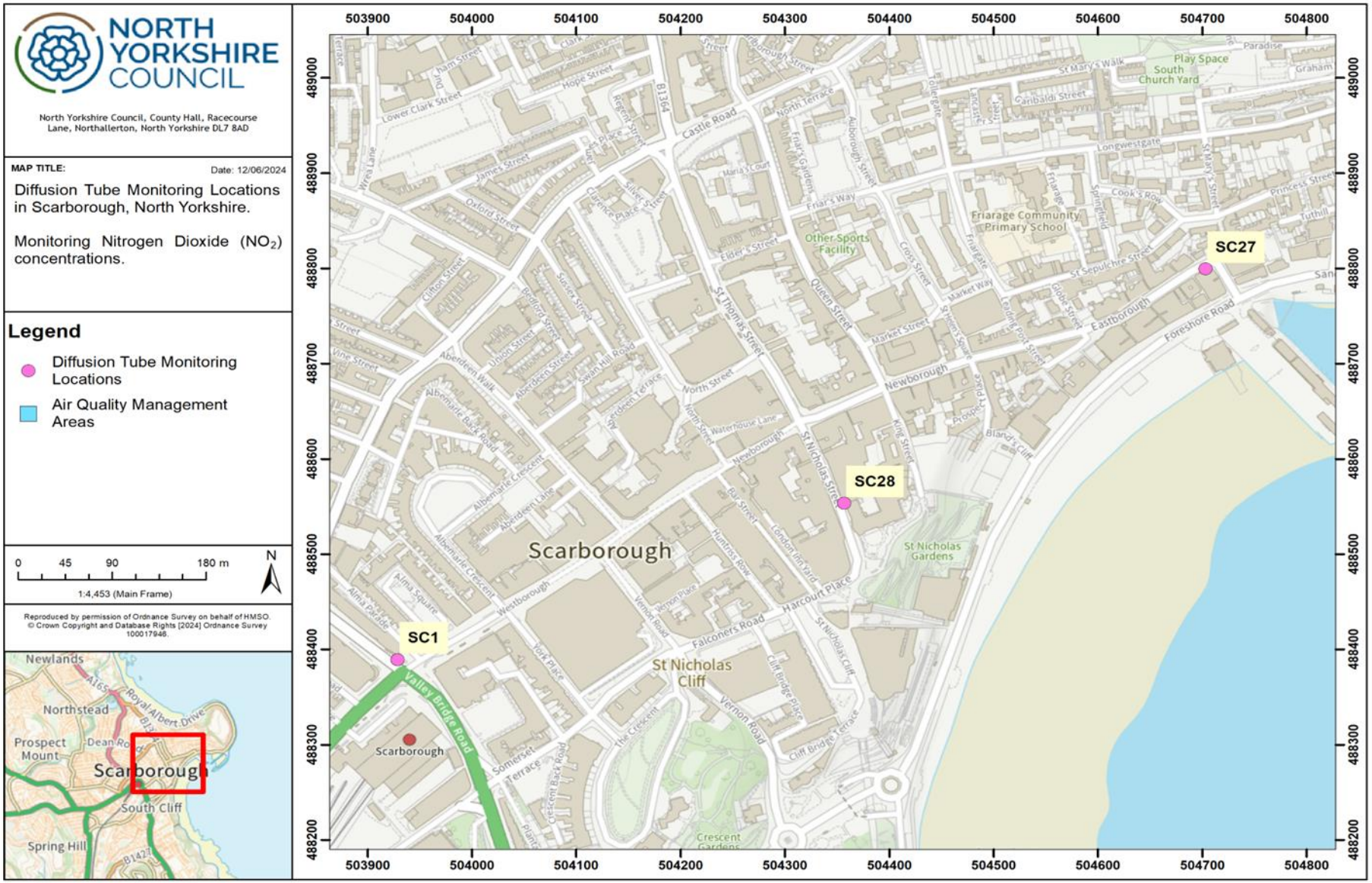
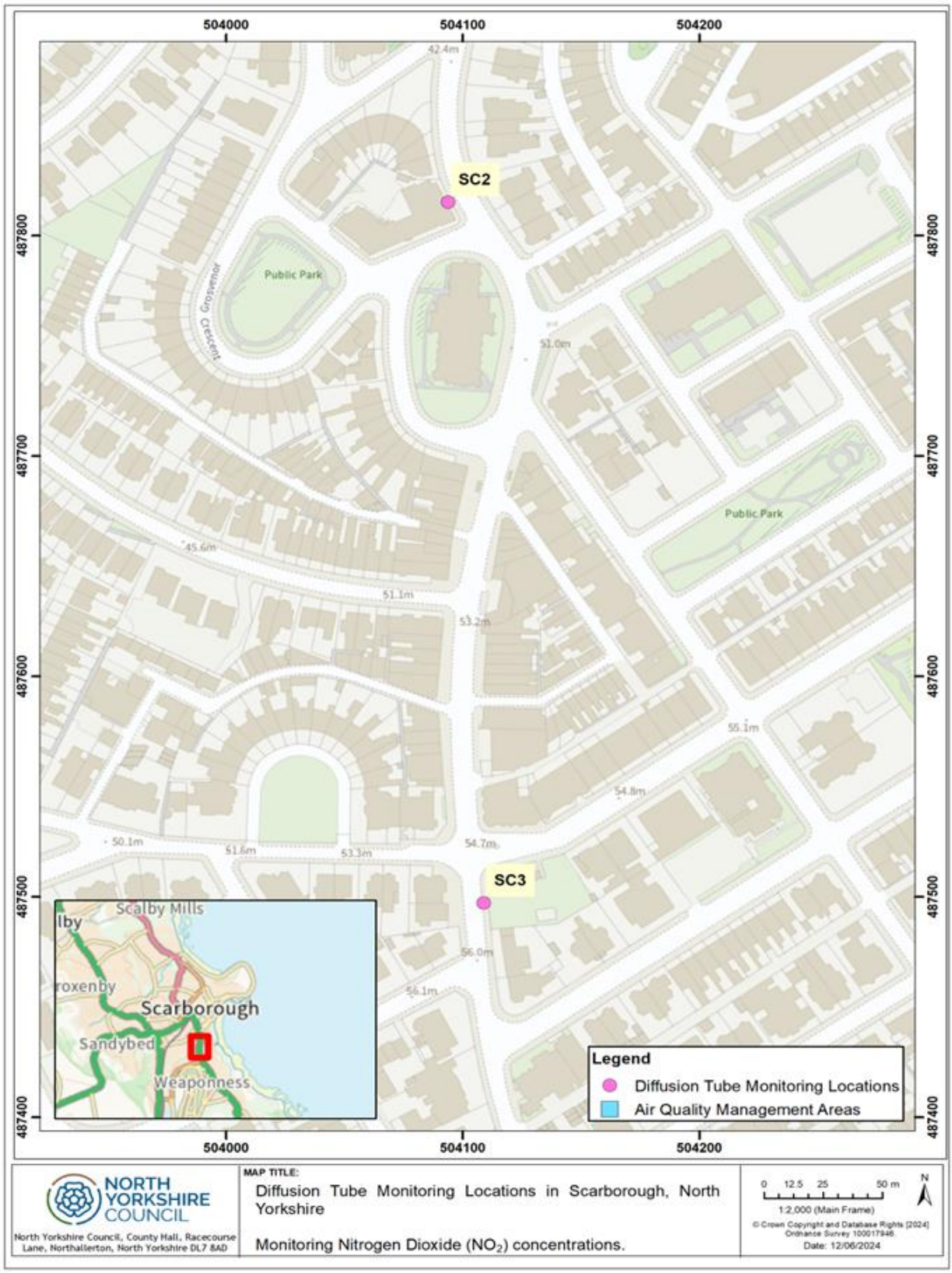

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Scarborough, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 45 90 180 m
1:4,453 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
SC1
SC27
SC28
Scarborough
St Nicholas Cliff
Valley Bridge Road
Castle Road
Newborough
Westborough
Falconers Road
Harcourt Place
Foreshore Road
Eastborough
Queen Street
St Thomas Street
Market Street
North Street
Friarage Community Primary School
Other Sports Facility
St Nicholas Gardens
Play Space South Church Yard
Newlands
Northstead
Prospect Mount
South Cliff
Spring Hill
503900 504000 504100 504200 504300 504400 504500 504600 504700 504800
489000 488900 488800 488700 488600 488500 488400 488300 488200

Figure D.58.


504000
504100
504200
487800
487700
487600
487500
487400
SC2
SC3
Public Park
Grosvenor Crescent
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
Scalby Mills
Scarborough
Sandybed
Weaponness
NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Diffusion Tube Monitoring Locations in Scarborough, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
0 12.5 25 50 m
1:2,000 (Main Frame)
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Date: 12/06/2024
N

Figure D.59. Maps of Non-Automatic Monitoring Sites in the Selby Area

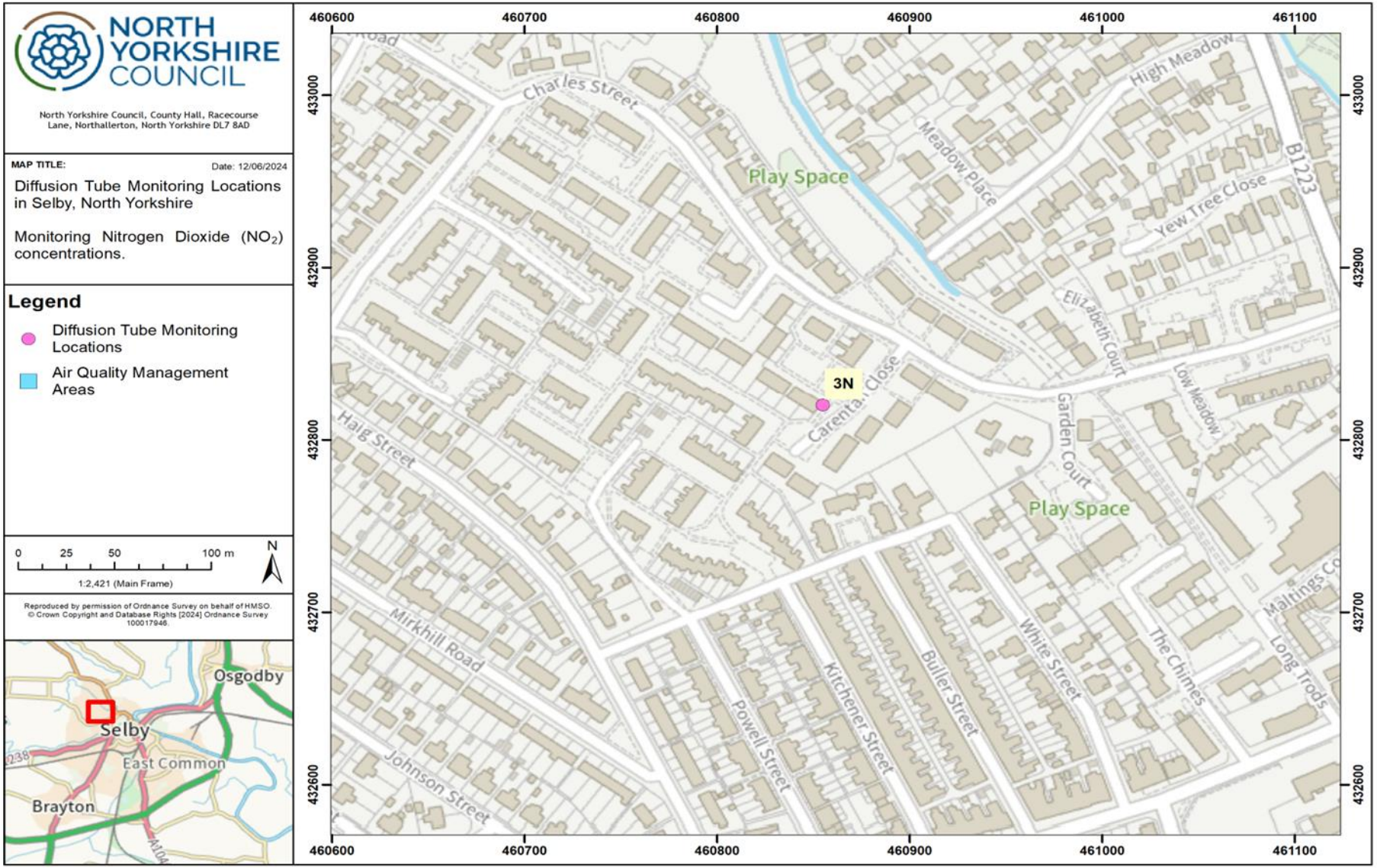


Figure D.60.

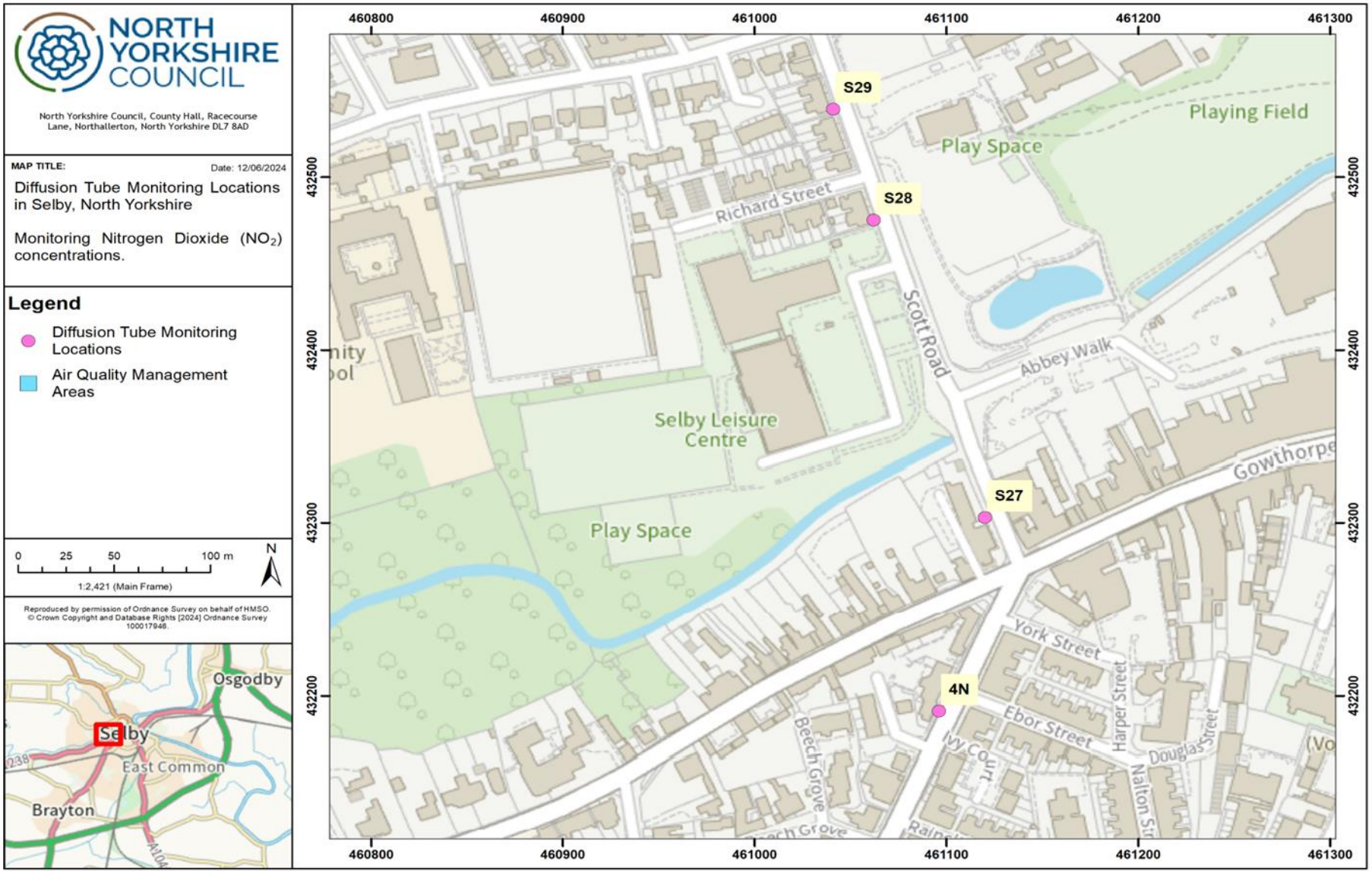
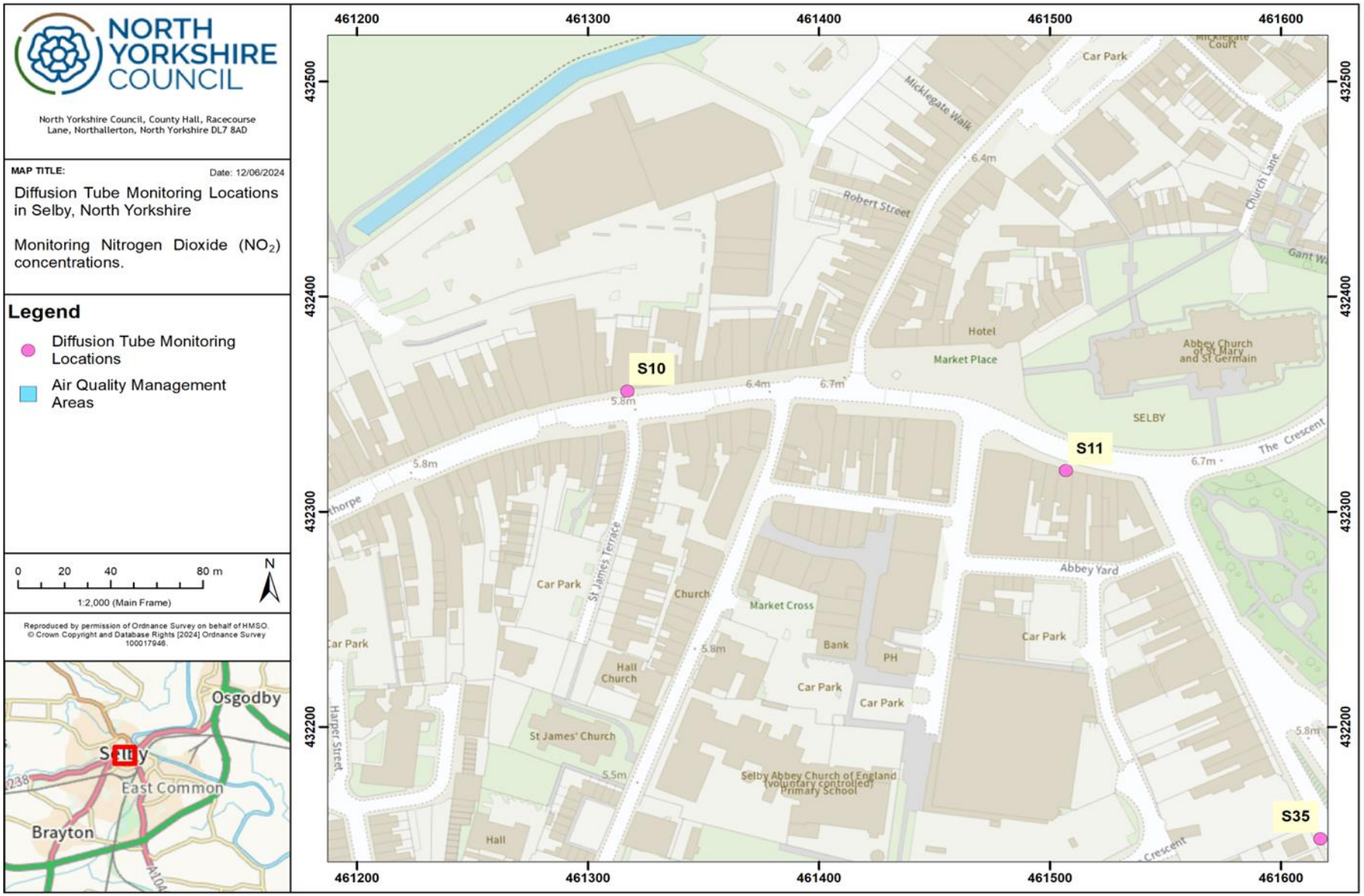

NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Selby, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 25 50 100 m
1:2,421 (Main Frame)
N
Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database Rights [2024] Ordnance Survey 100017946.
Osgodby
Selby
East Common
Brayton
460800
460900
461000
461100
461200
461300
432500
432400
432300
432200
S29
S28
S27
4N
Playing Field
Play Space
Richard Street
Scott Road
Abbey Walk
Selby Leisure Centre
Play Space
Gowthorpe
York Street
Ebor Street
Harper Street
Douglas Street
Beech Grove
Ivy Court

Figure D.61.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Selby, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,000 (Main Frame)
N
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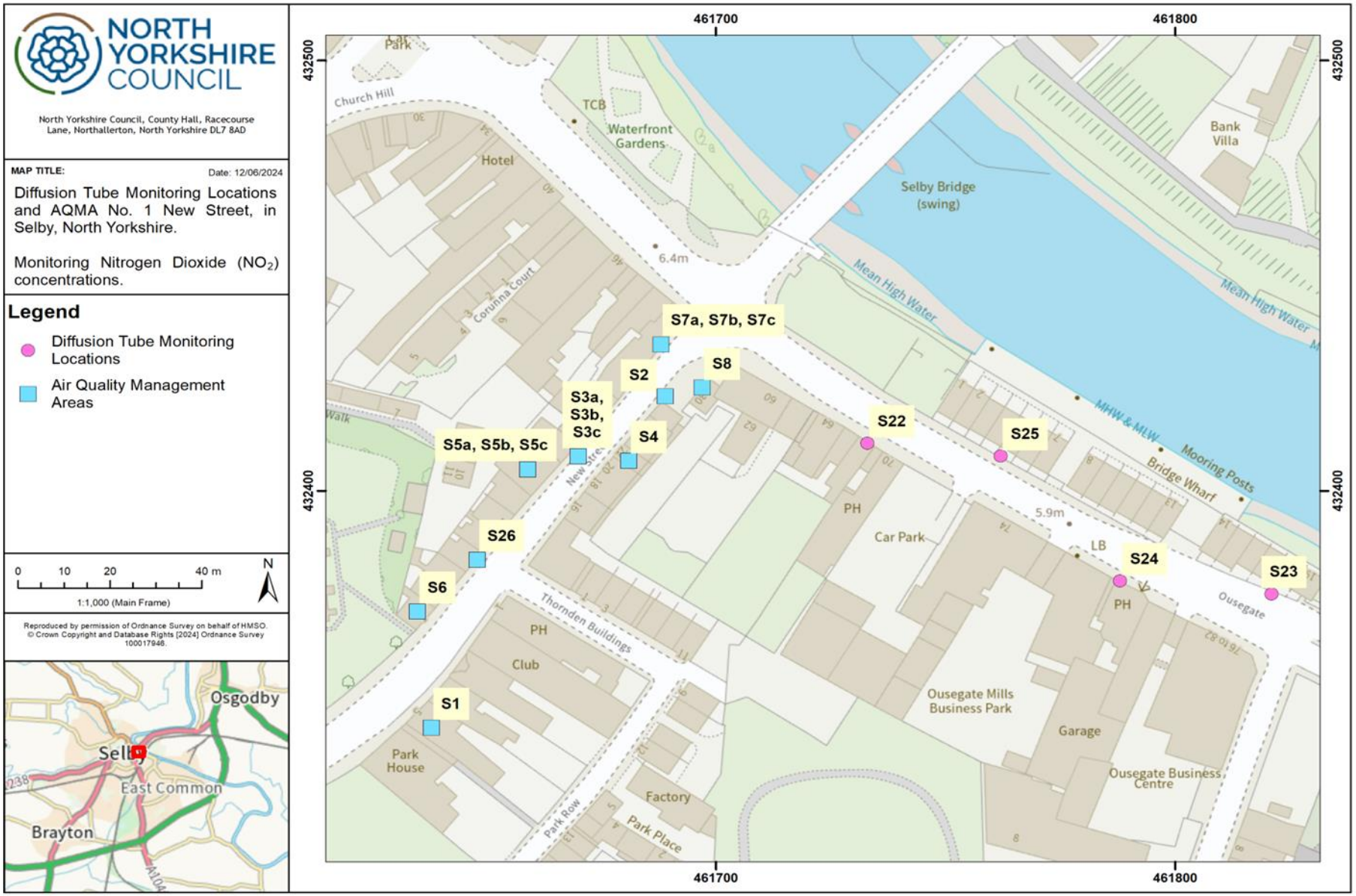
Osgodby
Selby
East Common
Brayton
461200
461300
461400
461500
461600
432500
432400
432300
432200
S10
S11
S35
Car Park
Micklegate Walk
Robert Street
Hotel
Market Place
Abbey Church of St Mary and St Germain
SELBY
The Crescent
Abbey Yard
St James's Terrace
Church
Market Cross
Bank
PH
Hall Church
St James' Church
Selby Abbey Church of England (voluntary controlled) Primary School
Hall
Church Lane
6.4m
6.7m
5.8m
5.5m

Figure D.62.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations and AQMA No. 1 New Street, in Selby, North Yorkshire.
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 10 20 40 m
1:1,000 (Main Frame)
N
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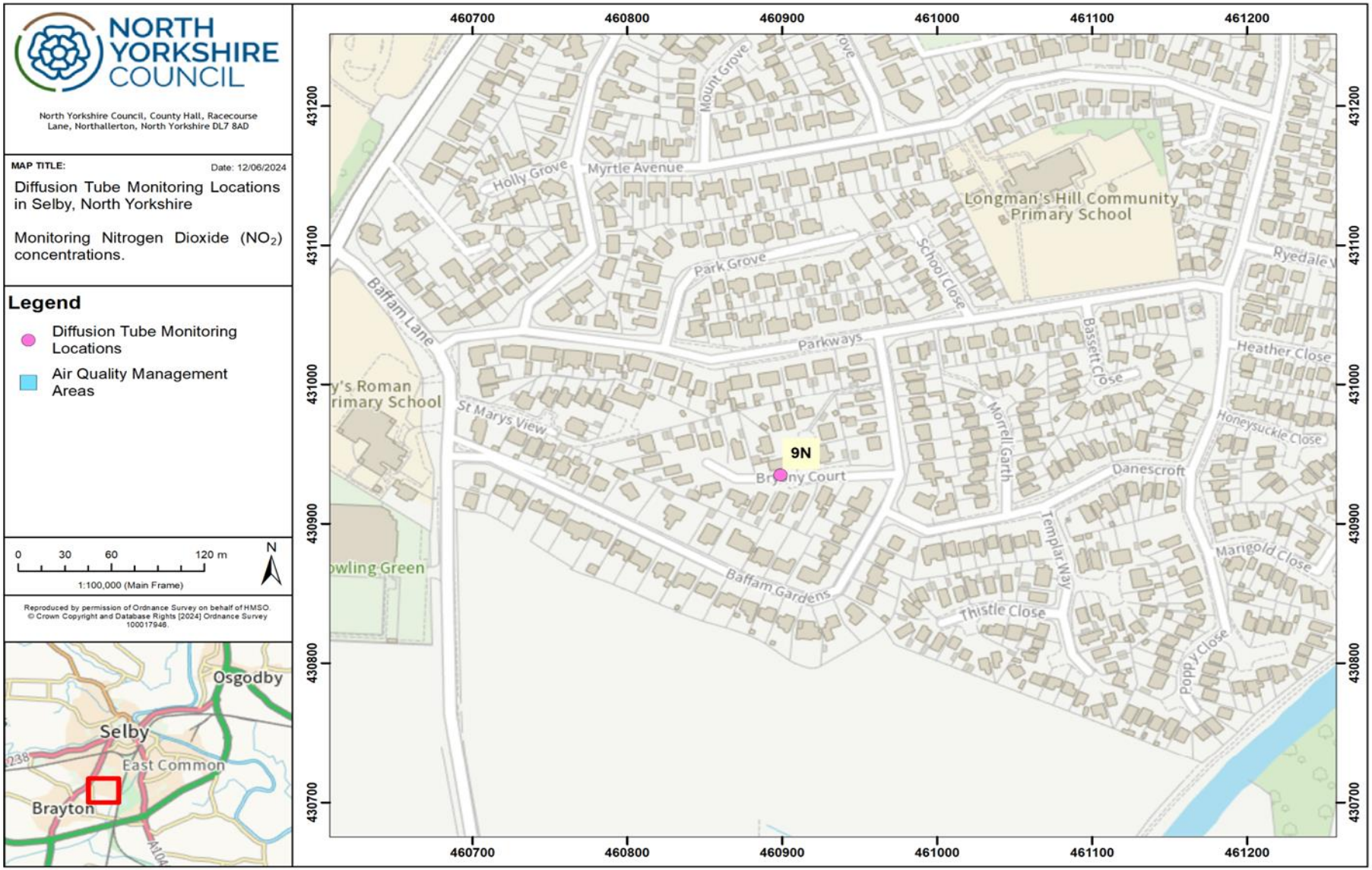
Osgodby
Selby
East Common
Brayton
461700
461800
432500
432400
S1
S2
S3a, S3b, S3c
S4
S5a, S5b, S5c
S6
S7a, S7b, S7c
S8
S22
S23
S24
S25
S26
Church Hill
TCB
Waterfront Gardens
Hotel
Selby Bridge (swing)
Bank Villa
Mean High Water
MHW & MLW
Mooring Posts
Bridge Wharf
Corunna Court
New Street
Thornden Buildings
PH
Club
Car Park
LB
Ousegate
Ousegate Mills Business Park
Garage
Ousegate Business Centre
Park House
Factory
Park Row
Park Place
6.4m
5.9m

Figure D.63.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Selby, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 30 60 120 m
1:100,000 (Main Frame)
N
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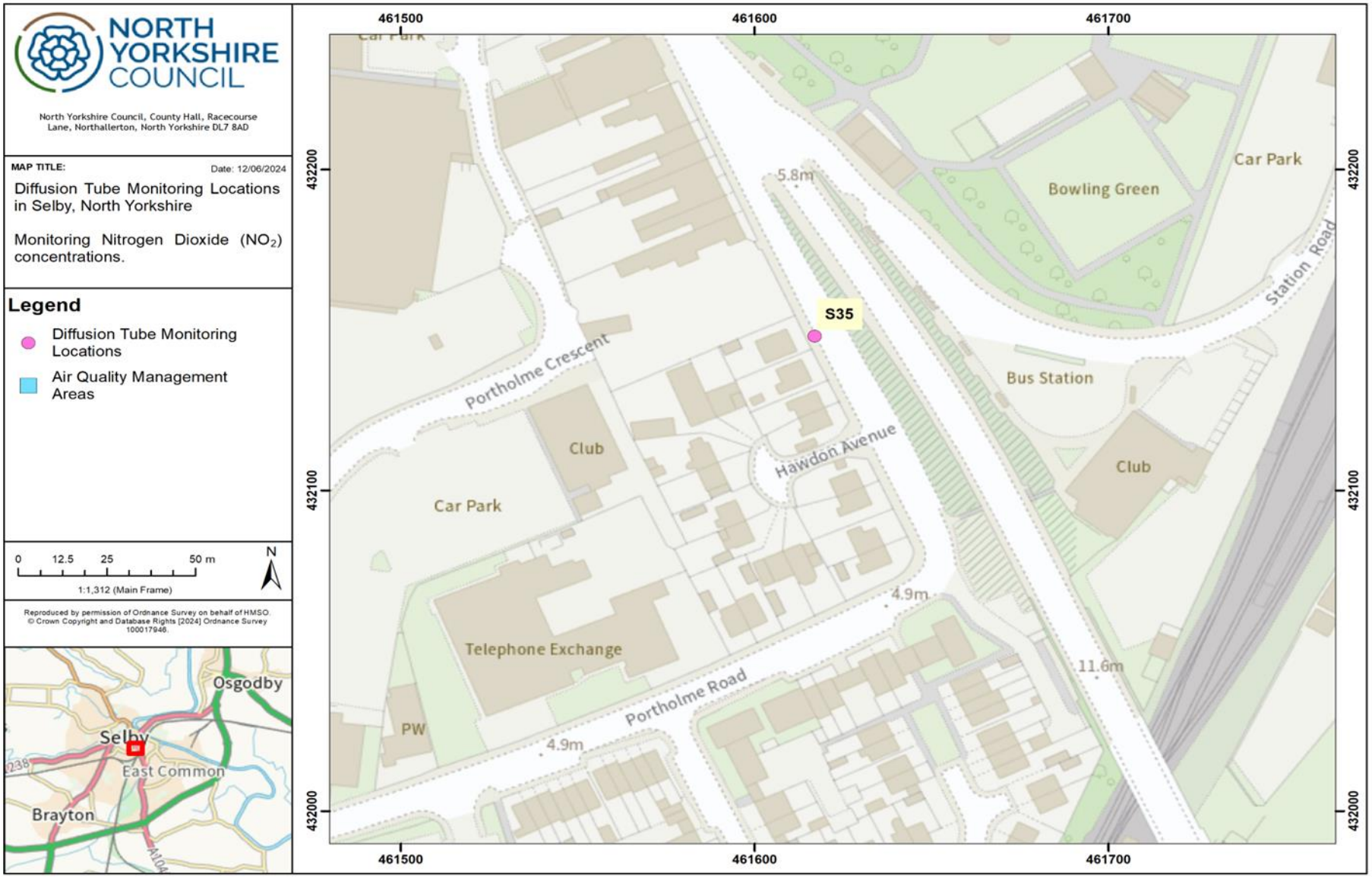
Osgodby
Selby
East Common
Brayton
460700
460800
460900
461000
461100
461200
431200
431100
431000
430900
430800
430700
Holly Grove
Myrtle Avenue
Mount Grove
Longman's Hill Community Primary School
Park Grove
School Close
Baffam Lane
Parkways
Bassett Close
Heather Close
Ryedale
St Marys View
Morrell Garth
Honeysuckle Close
9N
Danescroft
Templar Way
Marigold Close
Baffam Gardens
Thistle Close
Poppy Close

Figure D.64.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Selby, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 12.5 25 50 m
1:1,312 (Main Frame)
N
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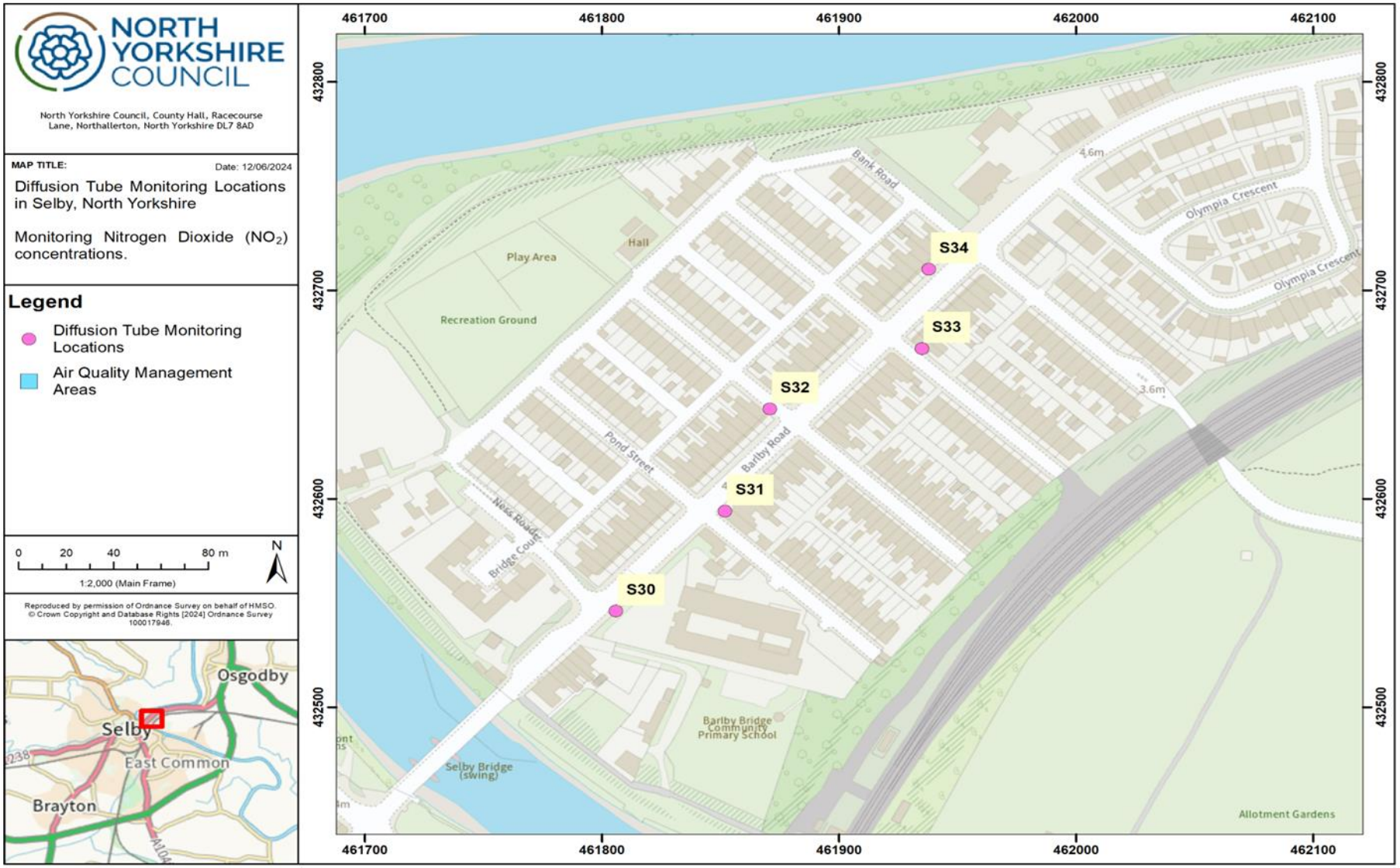
Osgodby
Selby
East Common
Brayton
461500
461600
461700
432200
432100
432000
S35
5.8m
Bowling Green
Car Park
Station Road
Portholme Crescent
Bus Station
Club
Hawdon Avenue
Car Park
Club
4.9m
Telephone Exchange
11.6m
Portholme Road
PW
4.9m

Figure D.65.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Selby, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 20 40 80 m
1:2,000 (Main Frame)
N
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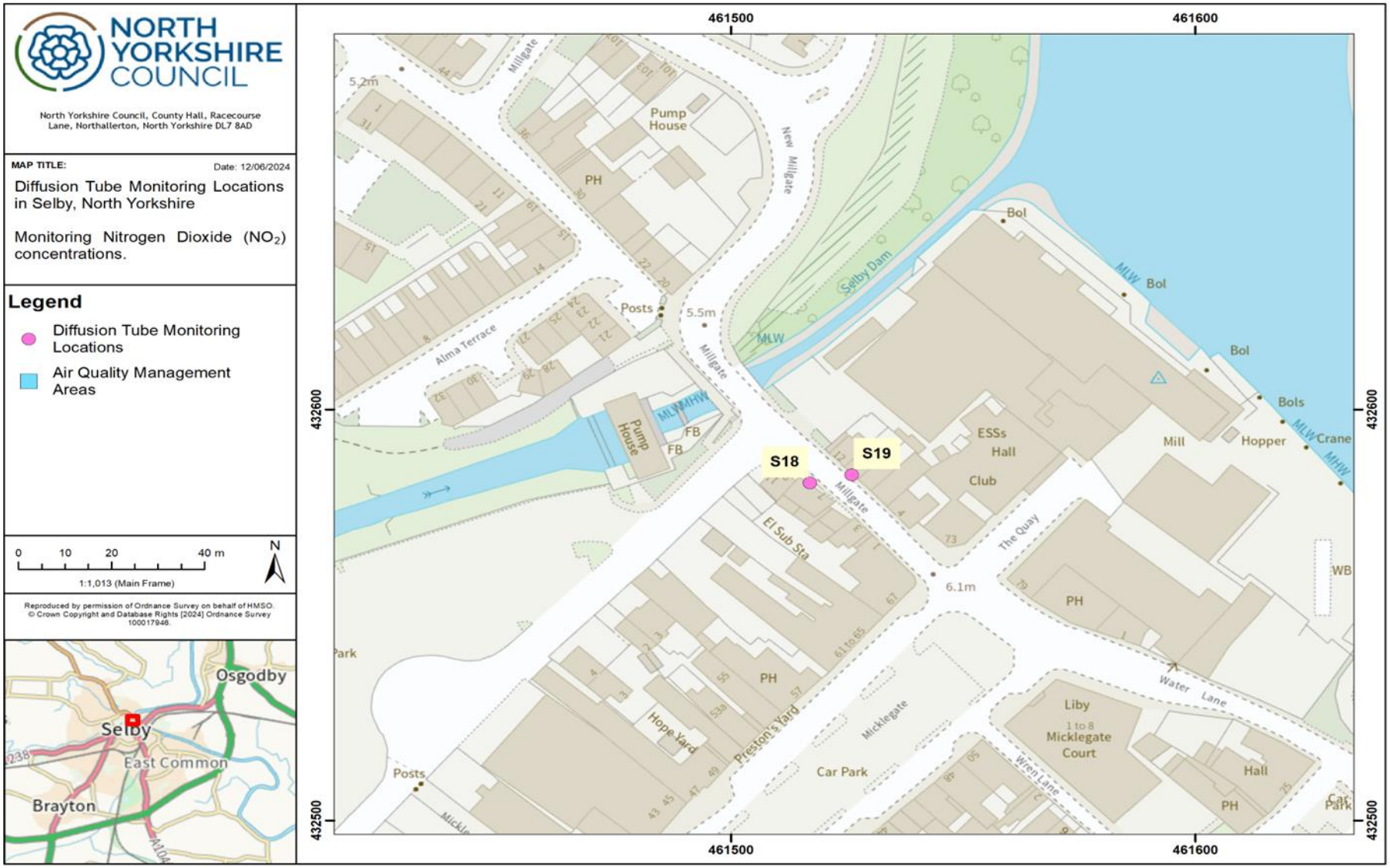
Osgodby
Selby
East Common
Brayton
461700
461800
461900
462000
462100
432800
432700
432600
432500
S34
S33
S32
S31
S30
Bank Road
Play Area
Hall
Recreation Ground
Olympia Crescent
Pond Street
Barlby Road
Barlby Bridge Community Primary School
Selby Bridge (swing)
Allotment Gardens
4.6m
3.6m

Figure D.66.


NORTH YORKSHIRE COUNCIL
North Yorkshire Council, County Hall, Racecourse Lane, Northallerton, North Yorkshire DL7 8AD
MAP TITLE:
Date: 12/06/2024
Diffusion Tube Monitoring Locations in Selby, North Yorkshire
Monitoring Nitrogen Dioxide (NO_2) concentrations.
Legend
Diffusion Tube Monitoring Locations
Air Quality Management Areas
0 10 20 40 m
1:1,013 (Main Frame)
N
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Osgodby
Selby
East Common
Brayton
461500
461600
432600
432500
S18
S19
Pump House
PH
Posts
5.2m
5.5m
6.1m
Milligate
New Milligate
Alma Terrace
Selby Dam
MLW
MHW
Bol
Bols
Crane
Mill
Hopper
ESSs
Hall
Club
El Sub Sta
The Quay
WB
Water Lane
Liby
1 to 8 Micklegate Court
Micklegate
Car Park
Hope Yard
Preston's Yard
Wren Lane
FB

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[7]

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO_2)	200µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO_2)	40µg/m^3	Annual mean
Particulate Matter (PM_{10})	50µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM_{10})	40µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	350µg/m^3, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO_2)	125µg/m^3, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO_2)	266µg/m^3, not to be exceeded more than 35 times a year	15-minute mean

[7] The units are in microgrammes of pollutant per cubic metre of air (µg/m^3).

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'
AQM	Air Quality Management
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
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
EU	European Union
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NYC	North Yorkshire Council
NYMNP	North Yorks Moors National Park
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO_2	Sulphur Dioxide
TEA	Triethanolamine
TCF	Transforming Cities Fund
TSP	Total Suspended Particles
WYCA	West Yorkshire Combined Authority
YDNP	Yorkshire Dales National Park
NYMNP	North Yorkshire Moors National Park

References

- Local Air Quality Management Technical Guidance LAQM.TG22. August 2022. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Local Air Quality Management Policy Guidance LAQM.PG22. August 2022. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK Health Security Agency
- Air Quality Strategy – Framework for Local Authority Delivery. August 2023. Published by Defra.