2025 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: 30th June 2025

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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Health Department of Ribble Valley Borough Council with the support and agreement of the following officers and departments:

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This ASR has not been signed off by a Director of Public Health.

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Executive Summary: Air Quality in Our Area

This report fulfils the requirements of the Local Air Quality Management process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 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 the air quality objectives are likely to be achieved. Where exceedances are considered likely the local authority must then 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 pursuit of the objectives.

Ribble Valley's main Pollutant of concern is Nitrogen Dioxide (NO_2). Ribble Valley monitors Nitrogen Dioxide through passive diffusion tubes measuring NO_2 in the air. Within the 2024 monitoring period Ribble Valley Monitored NO_2 at 14 sites in the Borough. Ribble Valley is a relatively rural area and monitoring locations include areas where the locality is either urbanised or where road traffic is denser. Locations include the towns of Clitheroe and Longridge, larger roads near the M65 and M6 corridor and the larger village of Whalley. The results for 2024 show no exceedances of the National Objective for the annual bias adjusted figures for NO_2. The highest and lowest site measurements in the Authority area being 26.5 µg/m³ and 8.3 µg/m³ respectively. Encouragingly NO_2 levels have reduced for 12 out of 14 monitoring locations with the exceptions of DT10 (Mellor Brook) up 0.1 µg/m3 at 11.7 µg/m3 and DT12 (1 Preston Road, Longridge) up 0.3 µg/m3 at 24.2 µg/m3.
The trends for the last five years are reported in Table A.4 a chart of which is reproduced in Figure A.1. Ribble Valley Borough Council are continuing to monitor the diffusion tube network and explore other sites where air quality may be an issue. The network for 2025 will be expanded to include Gisburn where the A59 major road runs through the village.

Ribble Valley has one Air Quality Management Area, declared in 2010 for exceedance of NO_2. Within the reporting year the concentration of NO_2 is below the objective for the concentration of NO_2. Ribble Valley Borough Council have produced an AQAP in December 2023. Ribble Valley Borough Council will explore the requirements of a detailed assessment and undertake such measures with a view to revoke the AQMA which has not exceeded levels since 2016.

Ribble Valley Borough Council support the use of electric vehicles. At the end of 2023 there were 4 charging points in the Railway View Car Park, Clitheroe, and 6 charging posts on Chester Avenue Car Park. During 2024 the Council installed charging posts on the following rural Council car parks: Slaidburn, Sabden, Chipping, and Ribchester. Works are underway to install a further six chargers at Barclay Road Longridge.

Ribble Valley Borough Council monitor air quality for all relevant planning applications, this work will continue. Ribble Valley Borough Council encourages greater use of public transport and alternative forms of travel, including the provision of electric vehicle recharging points through the planning system. We will continue to conduct the inspections and enforcement of permitted premises within the Borough under the Environmental Permitting Regulations.

Ribble Valley will continue to collaborate with partners in Public Health Lancashire, and across the Lancashire District authorities in the development and publication of the Lancashire Air Quality Documents.

- Undertake a detailed assessment of the AQMA with revocation in mind.
- The Council produced an Air Quality Action Plan as required by the Borough having an AQMA this work was undertaken and completed December 2023.
- Other actions the Council is taking, and the Lancashire County Council is reported in Table 2.2

The public can get involved by helping to make informed choices about their method of transport. By choosing to make shorter journeys on foot or using cycling and public transport you can reduce your own emissions. Consider car sharing, getting a lift with others is a sociable way to save money and emissions, you can register on sites such as Lift share (https://liftshare.com/uk) to find others in your area.

Working from home reduces the need to travel into work and thus reduces emissions into town centres.

For longer journeys the bus or train can be a more economical and eco-friendly option.

When buying a new car think about fuel consumption and emissions data, the Vehicle Certification Agency (VCA) can help with this. http://www.dft.gov.uk/vca/fcb/index.asp.

You could consider a lower emission vehicle, for example an electric car or hybrid. Even choosing a Petrol car over a Diesel car will save emissions and help to improve air quality. The Council aims to support electric car use by provision of charging points in the area.

When driving there are certain smarter driving techniques that you can use to reduce your fuel consumption. For further eco driving tips the AA is a helpful source http://www.theaa.com/motoring_advice/fuels-and-environment/drive-smart.html

There is a Boiler upgrade scheme from the Energy saving trust which is a government grant for people in England and Wales who want to install a heat pump or biomass boiler.

Boiler Upgrade Scheme explained - Energy Saving Trust

These measures will improve air quality over a standard boiler system.

If you would like to get involved in the work being undertaken to tackle air pollution within Ribble Valley; or you would like more information on how you can help reduce your personal emissions then please contact the Environmental Health Department at Ribble Valley Borough Council via e-mail at environmental.health@ribblevalley.gov.uk

- Please see Appendix F for ideas about how personal choices can help to improve air quality.

Air Quality in Ribble Valley Borough Council

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.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Low-income communities are also disproportionately impacted by poor air quality, exacerbating health and social inequalities.

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.

The UK Health Security Agency Public Health Outcomes Framework collated by the Office for Health Inequalities and Disparities provides the best evidence on the impact of air pollution on Ribble Valley's population, the website has a health protection indicator that considers the fraction of mortality attributed to particulate air pollution in each area. The 2023 results (the most recent published) revealed that the mortality rate for England was 5.2% and the value for the Northwest region stands at 4.9%. Ribble Valley is lower than both the national level and Northwest region at 4.5%. The information demonstrates that although particulate levels are lower for the Ribble Valley than the Northwest region particulates are still a matter of concern and are considered in this report.

The results of the estimated background maps from the UK air website have been considered for both $PM_{2.5}$ and PM_{10} within the Ribble Valley area. No exceedance of the current air quality objective has occurred in Ribble Valley for both types of these particulates in 2024.

Ribble Valley Borough Council Monitors Nitrogen Dioxide (NO_2) as this is a local air quality issue, associated with traffic; this is our primary monitoring focus.

Ribble Valley added additional NO_2 tubes in the monitoring year of 2022. The previous monitoring programme was deemed to be too Clitheroe centric. The diffusion tube network was extended to incorporate the township of Longridge where significant housebuilding projects have occurred both in the town and surrounding area, and the Larger Village of

Whalley. Sites along roads were selected close to the M6 and M65 motorways. As these are locations which will see more passing traffic. The total number of monitoring locations in 2024 totals 14 sites.

The NO_2 results for 2023 show no exceedances of the National Objective for the annual bias adjusted figures throughout the area, the highest and lowest site measurements being 26.5 µg/m³ and 8.3 µg/m³ respectively. Encouragingly NO_2 levels have reduced for 12 out of 14 monitoring locations with the exceptions of DT10 (Mellor Brook) up 0.1 µg/m3 at 11.7 µg/m3 and DT12 (1 Preston Road, Longridge) up 0.3 µg/m3 at 24.2 µg/m3.

Generally, levels of NO_2 have been decreasing over the last few years with the National trend, the results from 2020 and 2021 being an anomaly due to the impact of the national lockdowns and post Covid recovery period.

Figure A.1 shows the graph representation of the levels from 2020 to 2024 using the data from Table A.4.

Ribble Valley has one Air Quality Management Area [AQMA] within the borough, located in Clitheroe, this is known as Whalley Road, Clitheroe, Number 1, declared in 2010 for exceedance of NO_2. Within the reporting year the concentration of NO_2 is below the objective for the concentration of NO_2 at all monitoring locations in the AQMA.

It is important that work continues to maintain and improve the air quality within the Ribble Valley, given:

- The evidence on the harmful effects of both Particulate Matter and Nitrogen Dioxide.
- The Council's Ambitions are: *To help make people's lives safer and healthier* and *to protect and enhance the existing environmental quality of our area* (Corporate Strategy, Ambitions 3 and 4).
- The Council's duties under the Local Air Quality Management regime.
- The significant housing and business development within the area.

To that end, Ribble Valley Borough Council will continue to identify measures to improve and maintain the air quality within the Borough, including ensuring developments do not adversely affect or significantly contribute to pollutant levels.

There have been no new major roads or industrial processes constructed within the reporting year that will have a significant impact on air quality within the Borough. There have been

no noteworthy sources of increasing levels of NO_2 in the Borough. The major source of the pollutant NO_2 in the Ribble Valley Borough Council area is from traffic.

Sulphur Dioxide (SO_2) is not monitored by Ribble Valley as it was screened out historically as there is nothing in the local area which will elevate SO_2 levels over the objective.

Ribble Valley is in communication with their counterpart Officers from several Lancashire authorities, to keep updated on current developments in pollution control, and the sharing of good practice. The authority liaises on cross boundary air pollution issues in the region. Historically the Lancashire air quality group has responded to consultations at national level on guidelines for activities affecting air quality.

The Authority also maintains close working relations with the Environment Agency; Lancashire County Council, DEFRA, Planning, and consultancies to facilitate a coordinated approach to improve air quality.

Lancashire County Council are pursuing several strategies to improve air quality throughout the County, a summary of which is included in this report.

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[1] sets out actions that will drive continued improvements to air quality to help 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[2] provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

The Road to Zero[3] details the Government's approach to reduce exhaust emissions from road transport through several mechanisms, in balance with the needs of the local

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

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

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

community. This is extremely important given that cars are the most popular mode of personal travel, and most Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

Key actions the Council will be looking at over the next year include:

- Continuing with the now extended diffusion tube monitoring programme, including those within the AQMA. Adding a new site to Gisburn village along the A59.
- Continue to consider air quality for all relevant planning applications.
- Explore the requirements of a detailed assessment and undertake such measures with a view to revoke the AQMA which has not exceeded levels since 2016.
- Encourage greater use of public transport and alternative forms of travel, including the provision of electric vehicle recharging points through the planning system.
- We will continue to conduct the inspections and enforcement of permitted premises within the Borough under the Environmental Permitting Regulations.
- Continue to collaborate with partners in Public Health Lancashire, and across the Lancashire District authorities in the development and publication of the Lancashire Air Quality Documents.

- Undertake a detailed assessment of the AQMA with revocation in mind.
- The Council produced an Air Quality Action Plan as required by the Borough having an AQMA this work was undertaken and completed December 2023.
- Other actions the Council is taking, and the Lancashire County Council is reported in Table 2.2

Conclusions and Priorities

The results from the 2024 monitoring programme and review of the government data have identified no areas of exceedances of the national objective values for any of the pollutants of concern inside or outside of the declared AQMA.

The trend levels of NO_2 over the last few years have been reducing in the Ribble Valley area. For the monitoring period of 2024, NO_2 levels have reduced for 12 out of 14 monitoring locations with the exceptions of DT10 (Mellor Brook) up 0.1 µg/m3 at 11.7 µg/m3 and DT12 (1 Preston Road, Longridge) up 0.3 µg/m3 at 24.2 µg/m3. Levels in 2023

dropped in 10 locations from 2022. Looking at the last five years results, levels appear to be rising from 2020, however the years 2020 and to some degree 2021 are anomalous results due to the Covid pandemic in 2020 and the recovery phase in 2021. There have been no noteworthy sources of increasing levels of NO_2 in the Borough during 2024. The major source of the pollutant NO_2 in the Ribble Valley Borough Council area is from traffic.

Ribble Valley has one Air Quality Management Area, declared in 2010 for exceedance of NO_2. Within the reporting year the concentration of NO_2 is below the objective for the concentration of NO_2. Given the low results year on year, it is appropriate to revoke the AQMA. There are no exceedances outside of any existing AQMAs. Therefore, Ribble Valley does not need to designate any other AQMAs in the Borough. Ribble Valley submitted an Air Quality Action Plan in December 2023.

The Council knows of no developments which should have an impact on air quality.

Figure A.1 shows the graph representation of the levels from 2020 to 2024 using the data from Table A.4.

How to get Involved

The public can get involved by helping to make informed choices about their method of transport. By choosing to make shorter journeys on foot or using cycling and public transport you can reduce your own emissions. Consider car sharing, getting a lift with others is a sociable way to save money and emissions, you can register on sites such as Lift share (https://liftshare.com/uk) to find others in your area.

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These measures will improve air quality over a standard boiler system.

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Please see Appendix F for ideas about how personal choices can help to improve air quality.

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1 Local Air Quality Management

This report provides an overview of air quality in Ribble Valley Borough Council during 2024. 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 Ribble Valley Borough 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

Key actions the Council will be looking at over the next year include:

- Continuing with the now extended diffusion tube monitoring programme, including those within the AQMA.
- Adding a new site to Gisburn village along the A59.
- Continue to consider air quality for all relevant planning applications.
- Explore the requirements of a detailed assessment and undertake such measures with a view to revoke the AQMA which has not exceeded levels since 2016.
- Encourage greater use of public transport and alternative forms of travel, including the provision of electric vehicle recharging points through the planning system.
- We will continue to conduct the inspections and enforcement of permitted premises within the Borough under the Environmental Permitting Regulations.
- Continue to collaborate with partners in Public Health Lancashire, and across the Lancashire District authorities in the development and publication of the Lancashire Air Quality Documents.

- Undertake a detailed assessment of the AQMA with revocation in mind.
- The Council need to work towards the Air Quality Action Plan December 2023.

Other actions the Council is taking, and the Lancashire County Council is reported in Table 2.2.

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 Ribble Valley Borough Council can be found in Table 2.1. The table presents a description of the 1 AQMA that is currently designated within

Ribble Valley Borough Council. Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of the AQMA and also the air quality monitoring locations in relation to the AQMA. The air quality objectives pertinent to the current AQMA designation are as follows:

- NO_2 annual mean.

Ribble Valley Borough Council propose to revoke AQMA Whalley Road Clitheroe Number 1 as there have been no annual exceedances since 2016.

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
Whalley Road Clitheroe Number 1	31st May 2010	NO_2 Annual Mean	An area encompassing a number of residential properties at the junction of Whalley Road and Greenacre Street.	No	45	Highest level 26.5 No exceedance	7 years	Ribble Valley Borough Council Air Quality Action Plan - 2023 19th December 2023	N/A

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

☒ **Ribble Valley Borough Council confirm that all current AQAPs have been submitted to Defra.**

2.2 Progress and Impact of Measures to address Air Quality in Ribble Valley Borough Council

Defra's appraisal of last year's ASR concluded as follows:

Commentary

The report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports:

1. The Name and Date of AQAP Publication is missing from Table 2.1 in the report but is present within Table 2.1 in the supporting Excel spreadsheet.

2. The Council have included a discussion regarding measures to reduce PM2.5 concentrations across the Borough. The Council have also stated that there is a fraction of mortality attributable to particulate matter of 4.9% within the Borough. It would be useful if this was compared to the fractions on a regional and national scale.

3. There are a few instances where the subscripts on NO2, PM10, or PM2.5 are missing. These should be amended.

4. The following comments are relating to figures:

a. It would be useful to include titles on all figures which show the locations of monitoring site for easy reference.

b. A larger scale map of the sites within Longridge, Clitheroe, Whalley, and Read would be useful.

c. The figure which shows the whole monitoring network includes DT8, which is not included in any tables. This should be removed if the site is no longer active.

5. The comments from last years appraisal have been included within the report, and it is clear that the Council have addressed all comments. This is welcomed, and the Council should continue to do so in future reports.

6. It would be useful for the Council to include a screen capture of the appropriate national bias adjustment spreadsheet to demonstrate the use of the correct methodology.

7. It is noted that there is the potential for construction works around DT10. The Council should ensure that there is appropriate monitoring within this area should any additional development take place.

The comments have all been addressed in this years report.

Ribble Valley Borough Council has taken forward a number of direct measures during the current reporting year of 2024 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. 11 measures are included within Table 2.2, with the type of measure and the progress Ribble Valley Borough Council have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in their respective Action Plans Ribble Valley Borough Council Air Quality Action Plan 2023. Key completed measures are:

- Continuing with the now extended diffusion tube monitoring programme, including those within the AQMA.
- Continue to consider air quality for all relevant planning applications.
- Encourage greater use of public transport and alternative forms of travel, including the provision of electric vehicle recharging points through the planning system.
- We will continue to conduct the inspections and enforcement of permitted premises within the Borough under the Environmental Permitting Regulations.
- Continue to collaborate with partners in Public Health Lancashire, and across the Lancashire District authorities in the development and publication of the Lancashire Air Quality Documents.
- Require Electric Vehicle Recharge points on all relevant planning applications.
- Raise awareness with Members, and the General public.
- Require cycle storage on all appropriate planning applications.
- Develop Lancashire wide Planning Guidance on Air Quality and Implement
- Travel initiative for schools.
- Encouraging the use of sustainable forms of travel
- Supporting the transition to Low emission vehicles
- Creating cleaner healthier road networks
- Embedding Air Quality into Local Policy
- Raising Awareness of Air Quality and increasing engagement

Ribble Valley Borough Council expects the following measures to be completed over the course of the next reporting year:

- Explore the requirements of a detailed assessment and undertake such measures with a view to revoke the AQMA which has not exceeded levels since 2016.

Ribble Valley Borough Council's top three priorities for the coming year are:

1. To extend the monitoring locations to include Gisburn as the A59 major road goes through Gisburn village.
2. To revoke the AQMA as levels are well below the exceedance levels and have been for a number of years.
3. Continue to consider air quality for all relevant planning applications.

Ribble Valley Borough Council worked to implement these measures in partnership with the following stakeholders during 2024:

- Neighbouring Local Authorities
- Lancashire Highways
- Lancashire County Council Public Health
- Environment Agency
- DEFRA
- Planning Development control and Local Plans

The principal challenges and barriers to implementation that Ribble Valley Borough Council anticipates facing are lack of resources both within the Local Authority and partner organisations.

Progress on the following measures has been slower than expected due to:

Staff shortages in the Department

Ribble Valley Borough Council anticipates that the measures stated above and in Table 2.2 will achieve compliance in Whalley Road Clitheroe Number 1. The AQMA needs to be revoked due to compliance for several years the delay in revocation being the Covid pandemic affecting the results of the monitoring, as 2020 and 2021 were anomalous data for NO_2.

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	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	Require EVR points on all appropriate planning applications	Promoting Travel Alternatives	Other	2016	2032	Local Authority Environmental Health, Local Authority Planning Dept. Developers	Developers & highway infrastructure funding	YES	Partially Funded	£100k - £500k	Implementation	N/K	Ongoing	Lengthy Timescale
2	Raise awareness with Members, and public	Public Information	Via the Internet	2017	2032	Local Authority Environmental Health Department.	Local Authority	NO	Not Funded	< £10k	Implementation	N/K	Implementation on-going	Funding
3	Require cycle storage on all appropriate planning applications	Promoting Travel Alternatives	Other	2016	2032	Local Authority Environmental Health, Local Authority Planning Dept. Developers	Developers	NO	Not Funded	< £10k	Implementation	Reduced vehicle emissions	Implementation on-going	Financial
4	Develop Lancashire wide Planning Guidance on Air Quality and Implement	Policy Guidance and Development Control	Regional Groups Co-ordinating programmes to develop Area wide Strategies to reduce emissions and improve air quality	2016	2032	Policy Guidance and Environmental Health	Local Authority	NO	Not Funded	< £10k	Implementation	Improved Air Quality	Implementation on-going	Local Planning Department, government policy on Planning
5	Travel initiative for schools	Other	Other	2020	2022	Lancashire County Council.	Lancashire County Council	NO	Not Funded	< £10k	Implementation	Reduced vehicle emissions	Implementation on-going	Lengthy Timescale
6	Encouraging the use of sustainable forms of travel	Promoting Travel Alternatives	Promotion of cycling	2022	2028	Lancashire County Council.	Lancashire County Council	NO	Not Funded		Implementation	Reduced AQ Emissions	Implementation on-going	Lengthy Timescale
7	Supporting the transition to Low emission vehicles	Promoting Low Emission Transport	Other	2022	2032	Lancashire County Council.	Lancashire County Council	NO	Funded	£1 million - £10 million	Implementation	Reduced AQ emissions	Implementation on-going	Trial period with new technology
8	Creating cleaner healthier road networks	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2022	2022	Lancashire County Council.	Lancashire County Council	NO	Not Funded		Planning	Reduced AQ Emissions	Planning	Lengthy Timescale
9	Embedding Air Quality into Policy	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2022	2022	Lancashire County Council.	Lancashire County Council	NO	Not Funded		Planning	Reduced AQ Emissions	Planning	Lengthy Timescale

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
10	Raising Awareness and increasing engagement	Public Information	Via the Internet	2022	2022	Lancashire County Council.	Lancashire County Council	NO	Not Funded		Implementation	Reduced AQ Emissions	Implementation on-going	Public Awareness of site
11	Increase monitoring points for NO2 in LA	Public Information	Other	2022	2032	Local Authority Environmental Health	Local Authority Environmental Health	NO	Not Funded	< £10k	Planning	Reduced AQ Emissions	Implementation on-going	Staff resources

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[4], local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter ($PM_{2.5}$)). There is clear evidence that $PM_{2.5}$ (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Ribble Valley Borough Council is taking the following measures to address $PM_{2.5}$:

- The inclusion of $PM_{2.5}$ assessment within Air Quality Assessments conducted through the planning process.
- Encouraging the use of alternative travel options e.g., cycling, walking, and use of public transport.
- Provision of Electric Vehicle Recharging points on appropriate new developments.
- The provision of EVR points on Council car parks, bays capable of 11kW at the Chester Avenue long-stay car park and bays capable of 22kW at the Railway View Avenue short-stay car park. These are in addition to the charging points provided by Lancashire CC in York Street and the points for customer use in the Tesco car park.
- During 2024 Ribble Valley Borough Council installed more EVR charging points on the following rural Council Car parks, Slaidburn, Sabden, Chipping, and Ribchester. Works are underway to install six chargers at Barclay Road Longridge. N.B Public charging points in the Ribble Valley area are listed on Zap map
- Increasing the size and number of smoke control areas in the Borough is an area of evaluation for the Environmental Health team.
- DEFRA's Air Quality Strategy 2023 discusses actions for Local Authorities Domestic burning of solid fuels accounted for 27% of PM2.5 in 2021. When smoke complaints come in consideration and appropriate advice is made to homeowners on lighting their appliance, maintaining their flue, and using appropriate ready to burn fuel. About HETAS: Our Schemes, Accreditation & Training - HETAS

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

- Raise awareness of the harmful effects of $PM_{2.5}$ using the Public Health Indicators which demonstrate that Ribble Valley suffers from an adult mortality attributed to particulate matter of 4.5% fortunately this is lower than the Northwest average of 4.9% and the national average of 5.2%.

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

This section sets out the monitoring undertaken within 2024 by Ribble Valley Borough Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2020 and 2024 to allow monitoring trends to be identified and discussed.

A review of the area has been undertaken to assess any changes that have occurred over the last 12 months and the potential for these to impact either negatively or positively on-air quality.

Monitoring of the Borough using 14 diffusion tubes was undertaken during 2024 and the results are detailed below.

There have been no major road improvements or new roads or significant changes in traffic flow over the last year, with no significant changes to the railway network throughout the borough. There are no bus depots or significant ports within the borough. The airport at BAE systems Samlesbury is no longer used due to significant construction.

No new industrial sources, including biomass plants have been identified which are likely to make a significant contribution to pollutant emissions.

3.1 Summary of Monitoring Undertaken

3.1.1 Non-Automatic Monitoring Sites

Ribble Valley Borough Council undertook non- automatic (i.e. passive) monitoring of NO_2 at 14 sites during 2024. Table A.1 in Appendix A presents the details of the non-automatic sites.

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)

The results for 2024 show no exceedances of the National Objective for the annual bias adjusted figures for NO_2. The highest and lowest site measurements in the Authority area being 26.5 µg/m³ and 8.3 µg/m³ respectively. Encouragingly NO_2 levels have reduced for 12 out of 14 monitoring locations with the exceptions of DT10 (Mellor Brook) up 0.1 µg/m3 at 11.7 µg/m3 and DT12 (1 Preston Road, Longridge) up 0.3 µg/m3 at 24.2 µg/m3.
The trends for the last five years are reported in Table A.4 a chart of which is reproduced in Figure A.1

Ribble Valley has one Air Quality Management Area, declared in 2010 for exceedance of NO_2. Within the reporting year the concentration of NO_2 is below the objective for the concentration of NO_2 in the AQMA. Ribble Valley Borough Council intends to revoke the area. Ribble Valley Borough Council have produced an AQAP December 2023.

The trend levels of NO_2 over the last few years have been reducing in the Ribble Valley area, for the monitoring period of 2024. NO_2 levels have reduced for 12 out of 14 monitoring locations with the exceptions of DT10 (Mellor Brook) up 0.1 µg/m3 at 11.7 µg/m3 and DT12 (1 Preston Road, Longridge) up 0.3 µg/m3 at 24.2 µg/m3. Levels from 2023 had dropped in 10 locations from 2022. Looking at the last five years results, levels appear to be raising from 2020 however 2020 and to some degree 2021 are anomalous results due to the Covid pandemic in 2020 and the recovery phase in 2021. There have been no noteworthy sources of increasing levels of NO_2 in the Borough during 2024. The major source of the pollutant NO_2 in the Ribble Valley Borough Council area is from traffic.

Ribble Valley has one Air Quality Management Area, declared in 2010 for exceedance of NO_2. Within the reporting year the concentration of NO_2 is below the objective for the concentration of NO_2. Given the low results year on year in this area it is appropriate to revoke the AQMA. There are no exceedances outside of any existing AQMAs.

Consequently, Ribble Valley Borough Council does not need to designate any other AQMAs in the Borough.

The Council knows of no developments which should have an impact on air quality.

Figure A.1 shows the graph representation of the levels from 2020 to 2024 using the data from Table A.4.

Table A.2 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 2024 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.

3.2.2 Particulate Matter (PM_{10})

Ribble Valley Borough Council does not monitor PM_{10} levels. However. a check of the Defra background maps indicates no likely exceedances of the objective levels for PM10.

3.2.3 Particulate Matter ($PM_{2.5}$)

Ribble Valley Borough Council does not monitor $PM_{2.5}$ levels. However, an evaluation of the Defra background maps has been undertaken when authoring this report for $PM_{2.5}$ levels.

3.2.4 Sulphur Dioxide (SO_2)

Ribble Valley Borough Council does not monitor SO_2 levels

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)
DT1	31 Bolland Prospect	Urban Background	374789	441513	NO_2	No	0.0	6.8	No	2.0
DT2	Royal British Legion 1	Roadside	374234	441291	NO_2	Yes Whalley Road Clitheroe Number 1	0.0	1.8	No	2.0
DT3	Royal British Legion 2	Roadside	374234	441291	NO_2	Yes Whalley Road Clitheroe Number 1	0.0	1.8	No	2.0
DT4	Greenacre Street	Roadside	374222	441315	NO_2	Yes Whalley Road Clitheroe Number 1	0.0	1.5	No	2.0
DT5	49 Whalley Road	Roadside	374219	441256	NO_2	Yes Whalley Road Clitheroe Number 1	0.0	1.6	No	2.0
DT6	85 Whalley Road	Roadside	374175	441153	NO_2	No	0.0	1.6	No	2.0
DT7	Entrance at John Wall Court	Roadside	373910	441501	NO_2	No	10	4.1	No	2.0
DT9	7/9 Whalley Road Read	Roadside	376878	434509	NO_2	No	13.6	1.0	No	2.0
DT10	Mellor Brook	Roadside	363907	431271	NO_2	No	0	2.3	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)
DT11	1 Derby Road Longridge	Roadside	360165	437576	NO_2	No	15.1	2.1	No	2.0
DT12	1 Preston Road Longridge	Roadside	360109	437110	NO_2	No	0	1.5	No	2.0
DT13	22 Market Place Longridge	Roadside	360627	437217	NO_2	No	0	2.5	No	2.0
DT14	2 Clitheroe Road Whalley	Roadside	373376	436455	NO_2	No	0.7	2.7	No	2.0
DT15	1-3 Accrington Road Whalley	Roadside	373353	436158	NO_2	No	13.5	3.6	No	2.0

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 2024 (%) (2)	2020	2021	2022	2023	2024
DT1	374789	441513	Urban Background	100.0	100.0	9.1	8.5	9.1	8.5	8.3
DT2	374234	441291	Roadside	100.0	100.0	25.9	27.6	28.1	27.6	26.5
DT3	374234	441291	Roadside	100.0	100.0	26.6	28.1	26.2	26.1	24.4
DT4	374222	441315	Roadside	100.0	100.0	18.8	21.2	21.1	20.2	19.0
DT5	374219	441256	Roadside	100.0	100.0	25.5	26.7	27.1	25.6	24.8
DT6	374175	441153	Roadside	100.0	100.0	21.4	22.5	21.9	21.8	19.3
DT7	373910	441501	Roadside	100	100	13.9	15.3	14.9	14.5	14.4
DT9	376878	434509	Roadside	100	100	-	22.5	23.6	25.1	23.3
DT10	363907	431271	Roadside	100	100	-	-	10.9	11.6	11.7
DT11	360165	437576	Roadside	91.6	91.6	-	-	20.3	19.6	19.5
DT12	360109	437110	Roadside	100	100	-	-	23.1	23.9	24.2
DT13	360627	437217	Roadside	100	100	-	-	21.2	23.8	22.6
DT14	373376	436455	Roadside	100	100	-	-	19.9	19.4	19.2
DT15	373353	436158	Roadside	100	100	-	-	23.9	23.7	23.5

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

☒ **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**.

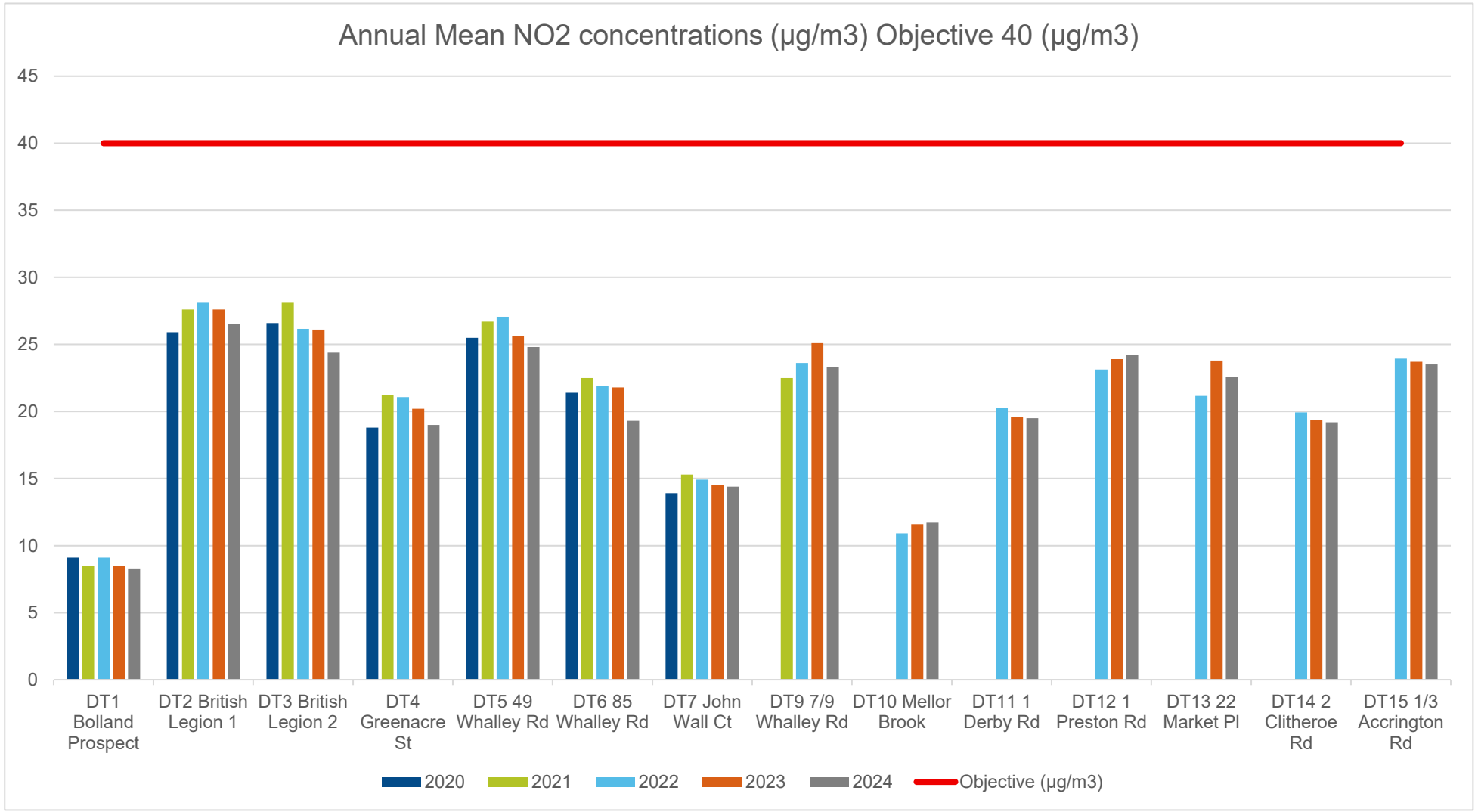
Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

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%).

Figure A.1 – Trends in Annual Mean NO_2 Concentrations



Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO_2 2024 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 (0.88)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT1	374219	441256	14.4	14.4	8.5	6.7	3.9	5.8	6.2	6.5	7.6	12.3	15.4	11.2	9.4	8.3	N/A	
DT2	374175	441153	32.7	34.6	31.0	28.7	33.5	22.3	24.3	21.8	30.2	36.7	35.9	29.2	30.1	26.5	N/A	
DT3	373910	441501	34.8	27.8	28.5	24.8	29.1	19.9	24.7	21.3	28.7	32.6	36.4	23.9	27.7	24.4	N/A	
DT4	376878	434509	26.9	26.5	22.9	19.6	20.4	15.0	17.2	15.4	18.7	25.9	26.9	23.2	21.6	19.0	N/A	
DT5	363907	431271	33.3	32.0	30.1	26.6	28.7	19.7	23.2	22.3	24.4	33.8	35.6	28.3	28.2	24.8	N/A	
DT6	360165	437576	14.4	24.9	21.6	22.8	20.0	15.9	19.9	17.6	25.4	23.6	32.8	24.3	21.9	19.3	N/A	
DT7	360109	437110	22.1	20.7	14.7	13.4	12.8	12.5	12.1	11.3	11.7	18.4	23.5	17.5	16.4	14.4	N/A	
DT9	360627	437217	34.7	35.3	25.9	20.3	19.5	24.2	24.2	24.0	18.8	30.3	34.4	25.8	26.5	23.3	N/A	
DT10	373376	436455	16.5	17.4	11.5	10.5	13.1	11.0	11.0	7.8	12.3	13.8	22.5	12.6	13.3	11.7	N/A	
DT11	373353	436158	27.2	N/A	22.9	19.5	21.8	17.7	20.7	17.0	18.3	27.1	31.1	19.7	22.1	19.5	N/A	
DT12	374219	441256	31.5	32.7	33.3	25.0	28.2	18.8	22.3	22.5	24.8	31.2	35.0	24.5	27.5	24.2	N/A	
DT13	374175	441153	32.1	30.0	25.5	23.8	23.6	26.2	25.6	23.8	24.0	20.9	29.3	23.0	25.7	22.6	N/A	
DT14	373910	441501	30.3	28.3	22.6	19.8	16.3	18.8	17.9	16.4	14.3	21.6	29.7	25.8	21.8	19.2	N/A	
DT15	376878	434509	28.7	30.3	25.1	23.0	29.4	27.7	24.7	18.9	26.5	26.9	30.9	28.2	26.7	23.5	N/A	

☒ **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.**

☒ **Ribble Valley Borough Council confirm that all 2024 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 Ribble Valley Borough Council During 2024

Ribble Valley Borough Council has not identified any new sources relating to air quality within the reporting year of 2024.

Additional Air Quality Works Undertaken by Ribble Valley Borough During 2024

Ribble Valley Borough Council has not completed any additional works within the reporting year of 2024.

QA/QC of Diffusion Tube Monitoring

50% TEA in acetone NO_2 passive diffusion tubes are obtained from Gradko Environmental, St Martins House, 77 Wales Street, Winchester, and Hampshire, SO23 0RH with no change in supplier throughout the monitoring period.

Nitrogen Dioxide diffusion tubes are exposed monthly in accordance with the annual calendar of exposure periods provided by Defra.

A national bias adjustment factor was applied to the annual mean for the diffusion tubes results. The bias used was from the National Diffusion Tubes spreadsheet version number 06/25 an adjustment factor of 0.88 was applied to the 2024 data.

Diffusion Tube Annualisation

All diffusion tube monitoring locations within Ribble Valley Borough Council recorded data capture of 75% or over therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

Diffusion Tube Bias Adjustment Factors

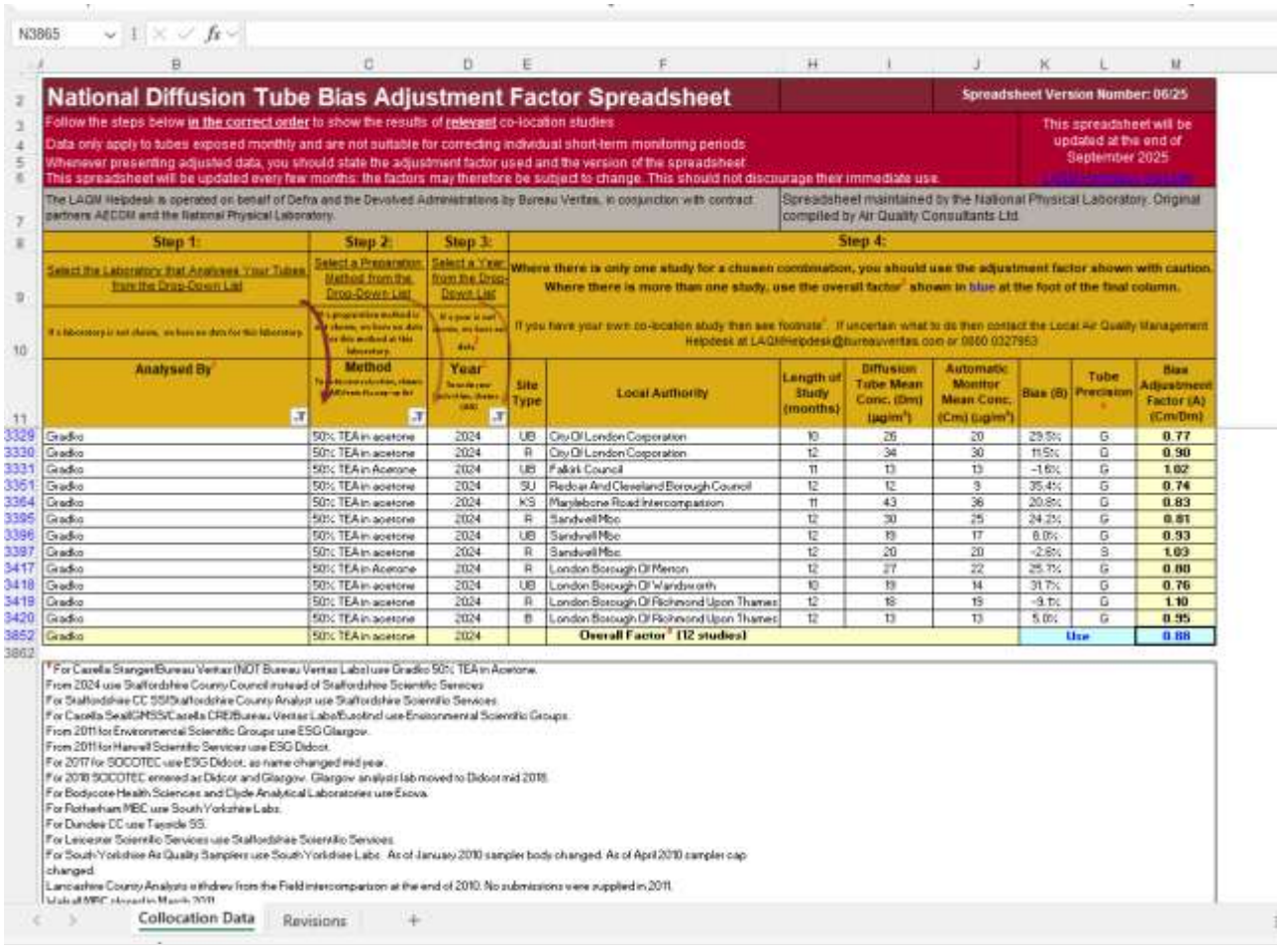
The diffusion tube data presented within the 2025 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application 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.

Ribble Valley Borough Council have applied a national bias adjustment factor of 0.88 to the 2024 monitoring data. A summary of bias adjustment factors used by Ribble Valley Borough Council over the past five years is presented in

Table C.1.

Table C.1 – Bias Adjustment Factor and Screenshot of 2025 Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	06/25	0.88
2023	National	03/24	0.83
2022	National	06/23	0.82
2021	National	09/22	0.82
2020	National	09/22	0.84



N3865

National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 06/25

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 September 2025

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: Select the Laboratory that Analyses Your Tubes from the Drop-Down List

Step 2: Select a Preparation Method from the Drop-Down List

Step 3: Select a Year from the Drop-Down List

Step 4: 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 factor shown in blue at the foot of the final column.

If you have your own co-location study then see footnote. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953

	Analysed By	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 Precision	Bias Adjustment Factor (A) (Cm/Dm)
3329	Gradko	50% TEA in acetone	2024	UB	City Of London Corporation	10	26	20	29.5%	G	0.77
3330	Gradko	50% TEA in acetone	2024	R	City Of London Corporation	12	34	30	11.5%	G	0.90
3331	Gradko	50% TEA in Acetone	2024	UB	Falkirk Council	11	13	13	-1.6%	G	1.02
3351	Gradko	50% TEA in acetone	2024	SU	Redcar And Cleveland Borough Council	12	12	9	35.4%	G	0.74
3364	Gradko	50% TEA in acetone	2024	KS	Marylebone Road Intercomparison	11	43	36	20.8%	G	0.83
3395	Gradko	50% TEA in acetone	2024	R	Sandwell Mbc	12	30	25	24.2%	G	0.81
3396	Gradko	50% TEA in acetone	2024	UB	Sandwell Mbc	12	19	17	8.0%	G	0.93
3397	Gradko	50% TEA in acetone	2024	R	Sandwell Mbc	12	20	20	-2.8%	S	1.03
3417	Gradko	50% TEA in Acetone	2024	R	London Borough Of Merton	12	27	22	25.1%	G	0.80
3418	Gradko	50% TEA in acetone	2024	UB	London Borough Of Wandsworth	10	19	14	31.7%	G	0.76
3419	Gradko	50% TEA in acetone	2024	R	London Borough Of Richmond Upon Thames	12	18	19	-9.1%	G	1.10
3420	Gradko	50% TEA in acetone	2024	B	London Borough Of Richmond Upon Thames	12	13	13	5.0%	G	0.95
3852	Gradko	50% TEA in acetone	2024		Overall Factor (12 studies)				Use		0.88

For Casella Stanger/Bureau Veritas (NOT Bureau Veritas Labs) use Gradko 50% TEA in Acetone.
From 2024 use Staffordshire County Council instead of Staffordshire Scientific Services
For Staffordshire CC SSI/Staffordshire County Analyst use Staffordshire Scientific Services.
For Casella Seal/GMSS/Casella CRE/Bureau Veritas Labs/Eurofins use Environmental Scientific Groups.
From 2011 for Environmental Scientific Groups use ESG Glasgow.
From 2011 for Harwell Scientific Services use ESG Didcot.
For 2017 for SOCOTEC use ESG Didcot, as name changed mid year.
For 2018 SOCOTEC entered as Didcot and Glasgow. Glasgow analysis lab moved to Didcot mid 2018.
For Bodycote Health Sciences and Clyde Analytical Laboratories use Exova.
For Rotherham MBC use South Yorkshire Labs.
For Dundee CC use Tayside SS.
For Leicester Scientific Services use Staffordshire Scientific Services.
For South Yorkshire Air Quality Samplers use South Yorkshire Labs. As of January 2010 sampler body changed. As of April 2010 sampler cap changed.
Lancashire County Analysts withdrew from the Field intercomparison at the end of 2010. No submissions were supplied in 2011.

Collocation Data | Revisions

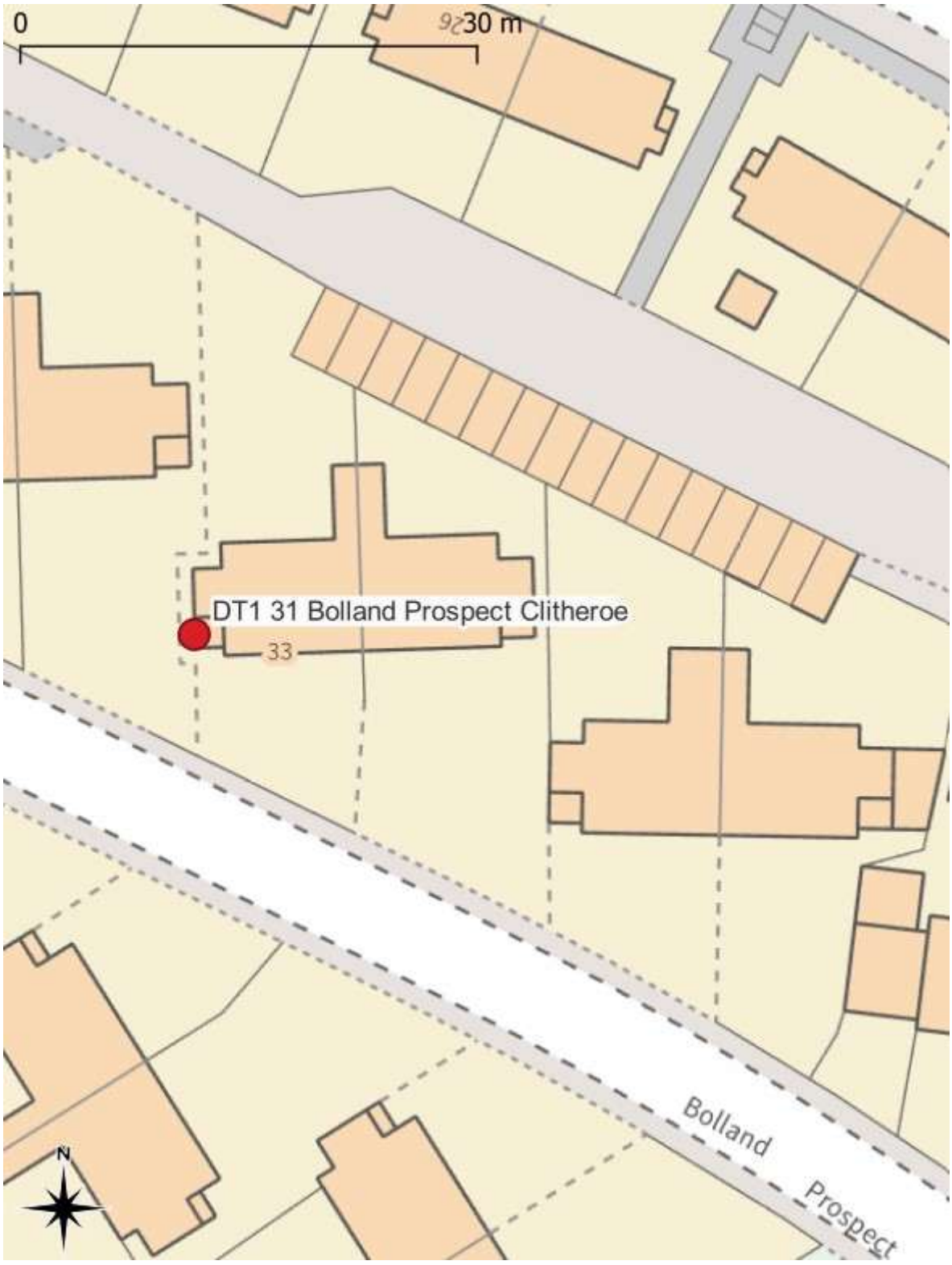
NO_2 Fall-off with Distance from the Road

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 has 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 are presented in Table B.1.

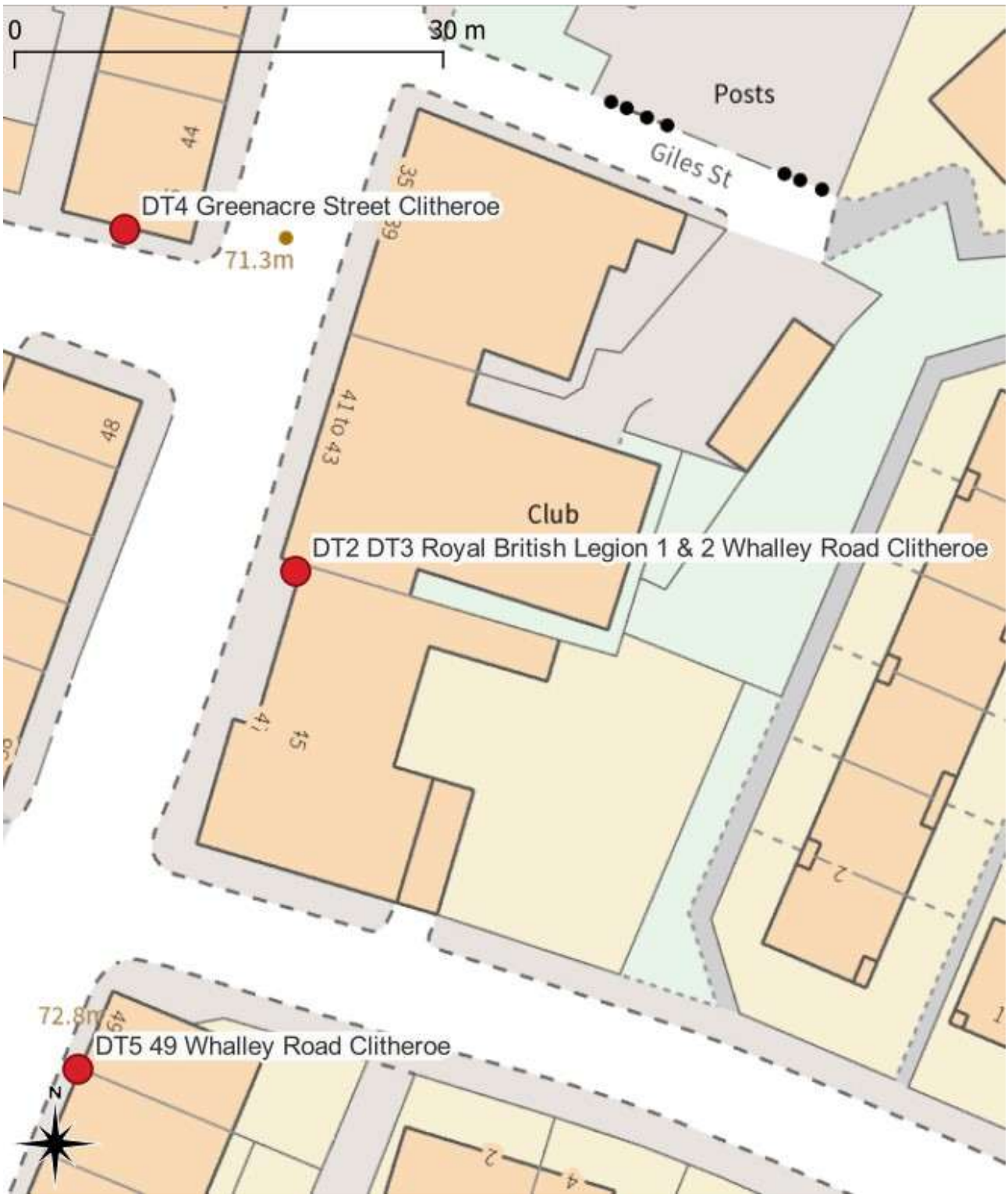
No diffusion tube NO_2 monitoring locations within Ribble Valley Borough Council required distance correction during 2024.

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

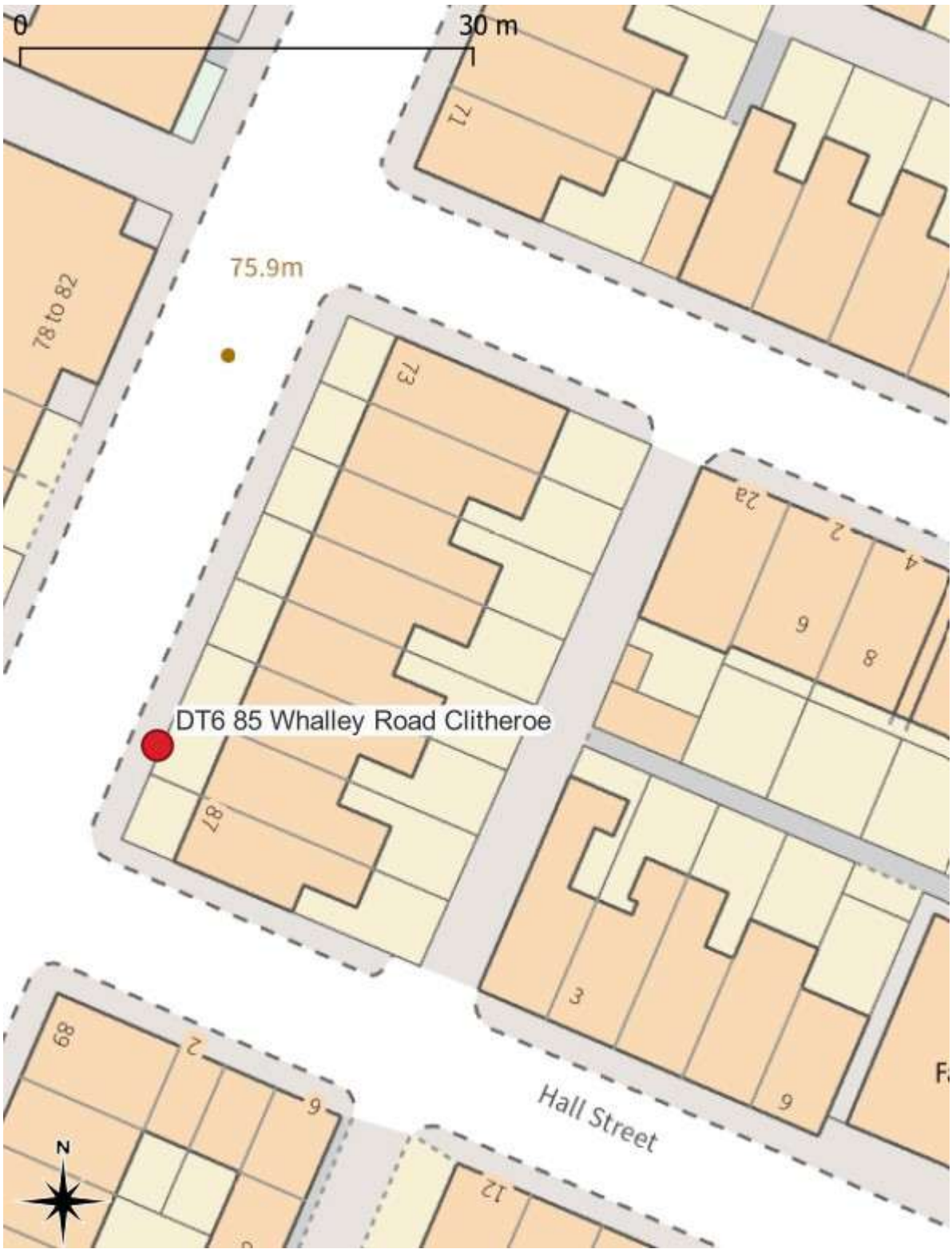
Figure D.1 – Maps of Non-Automatic Monitoring Sites



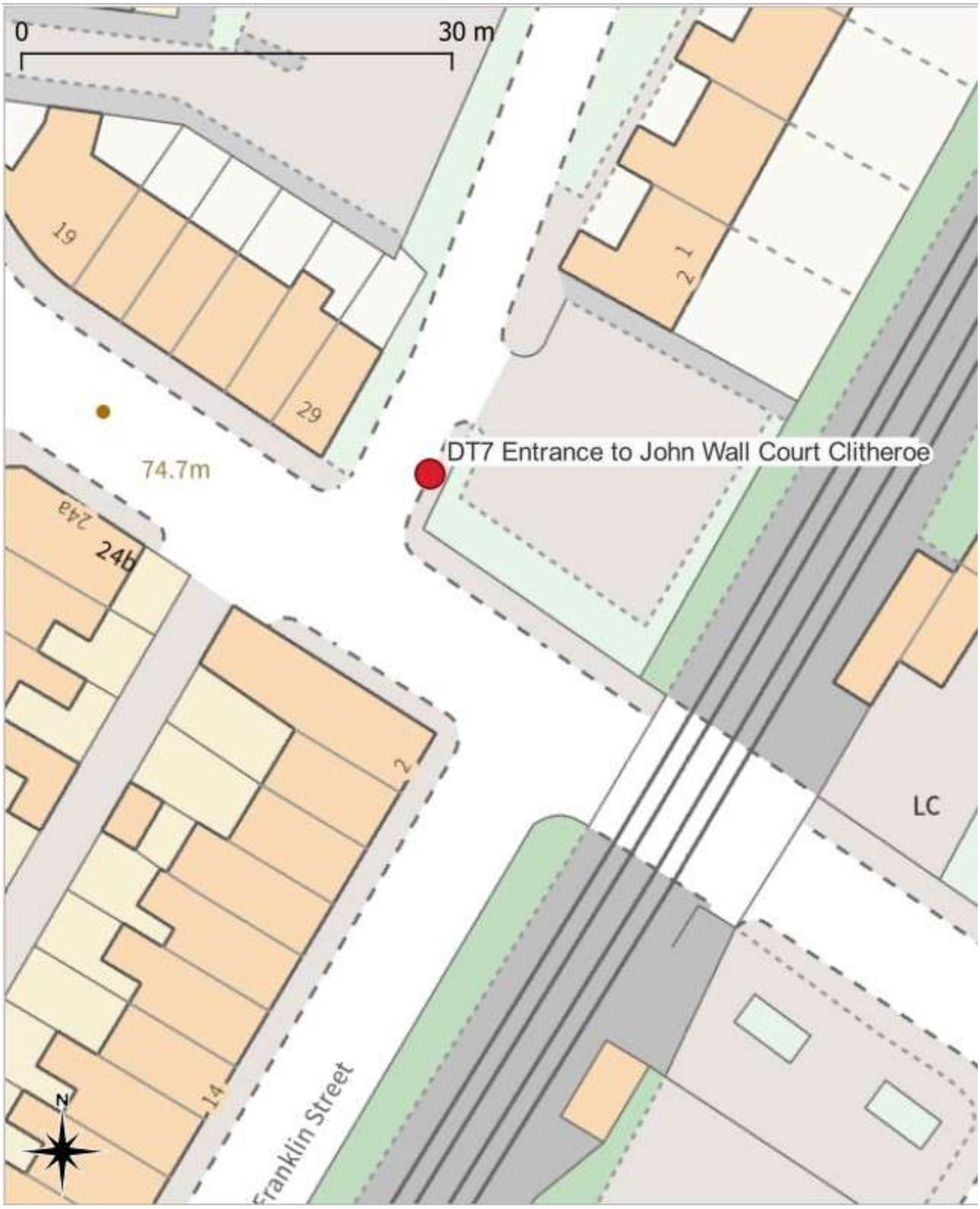
DT1 31 Bolland Prospect Clitheroe



DT2 & DT3 Royal British Legion, DT4 Greenacre Street and DT5 49 Whalley Road Clitheroe



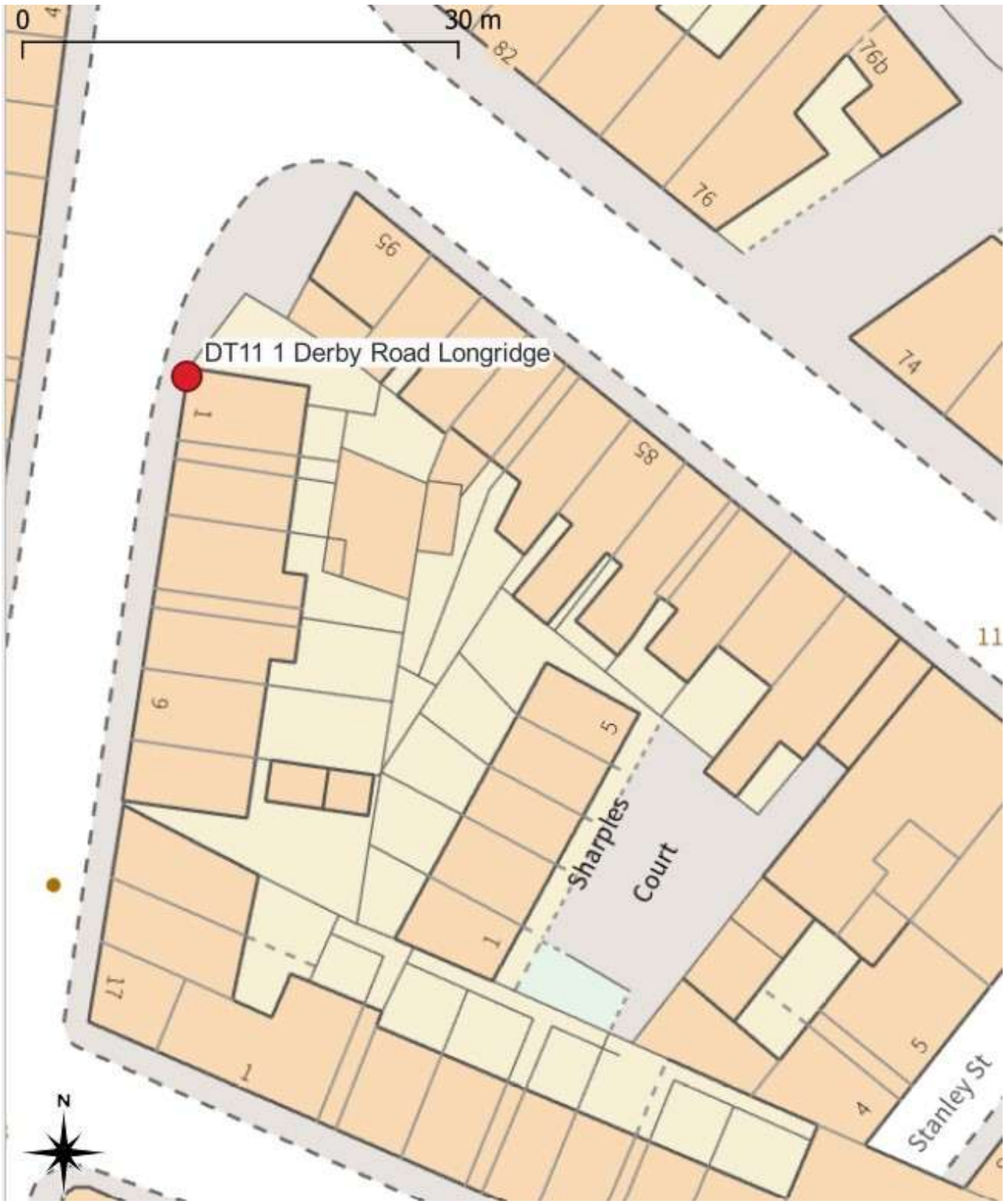
DT6 85 Whalley Road Clitheroe



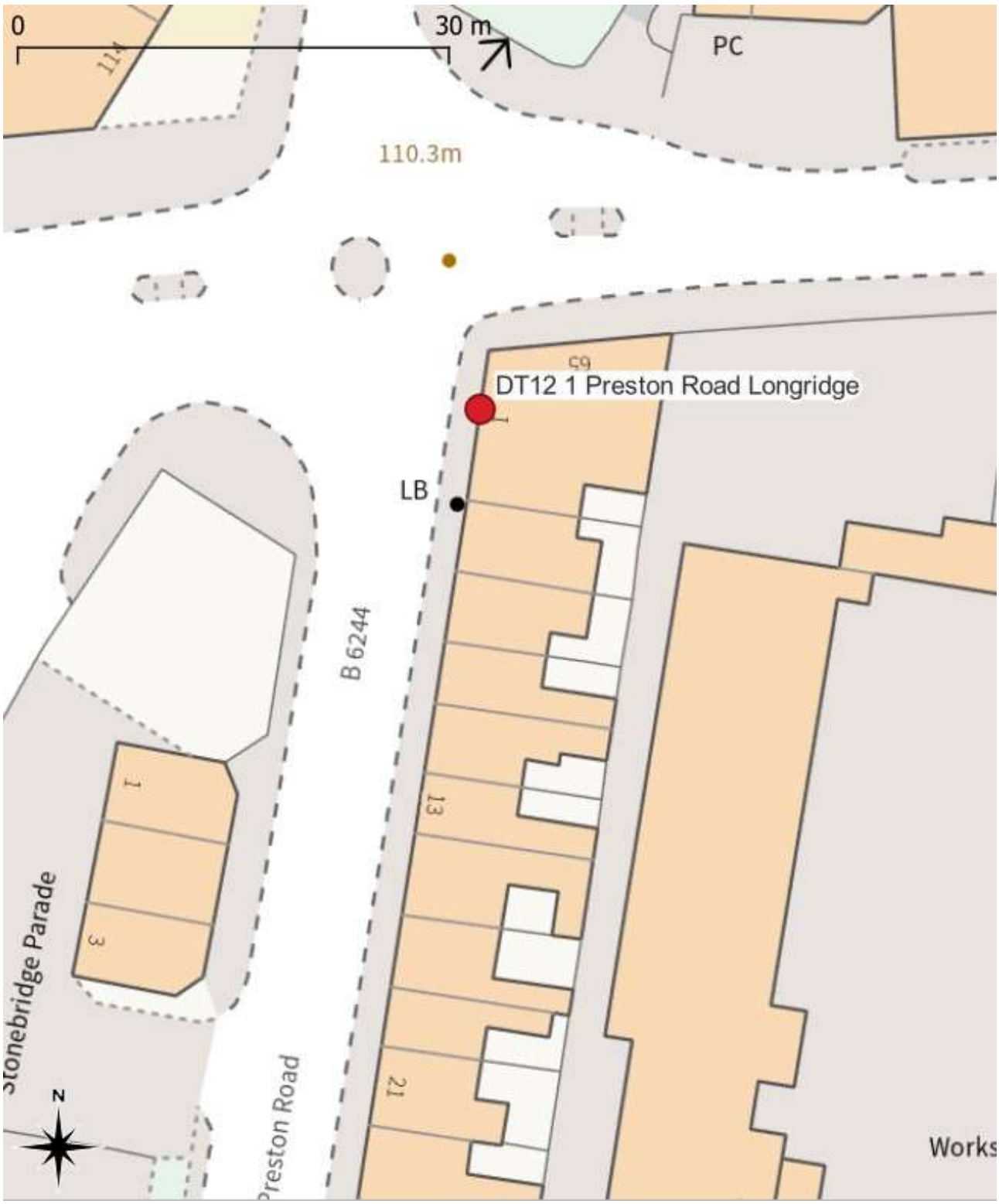
DT7 Entrance to John Wall Court Clitheroe

DT9 7/9 Whalley Road Read

DT10 Mellor Brook Mellor



DT11 1 Derby Road Longridge



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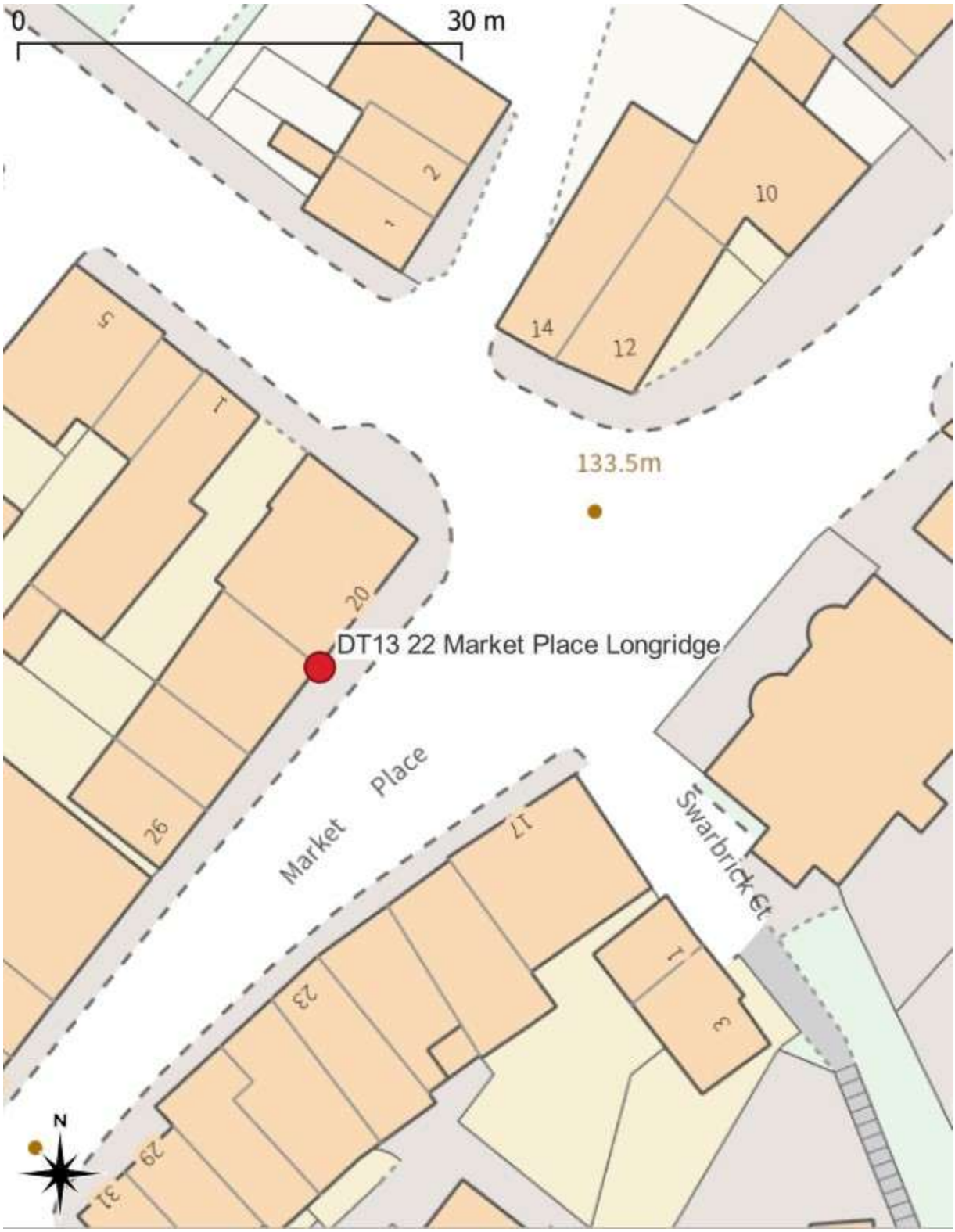
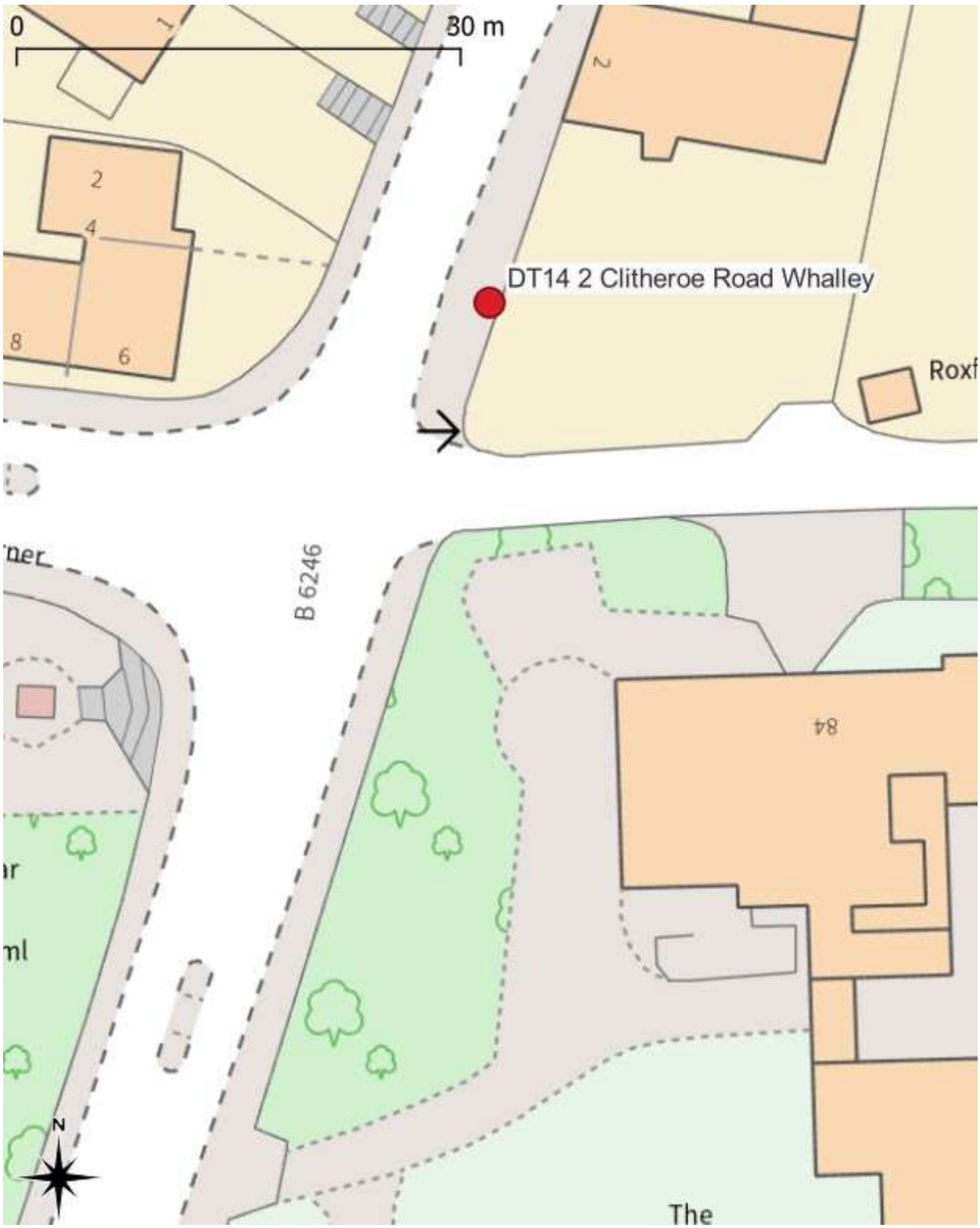
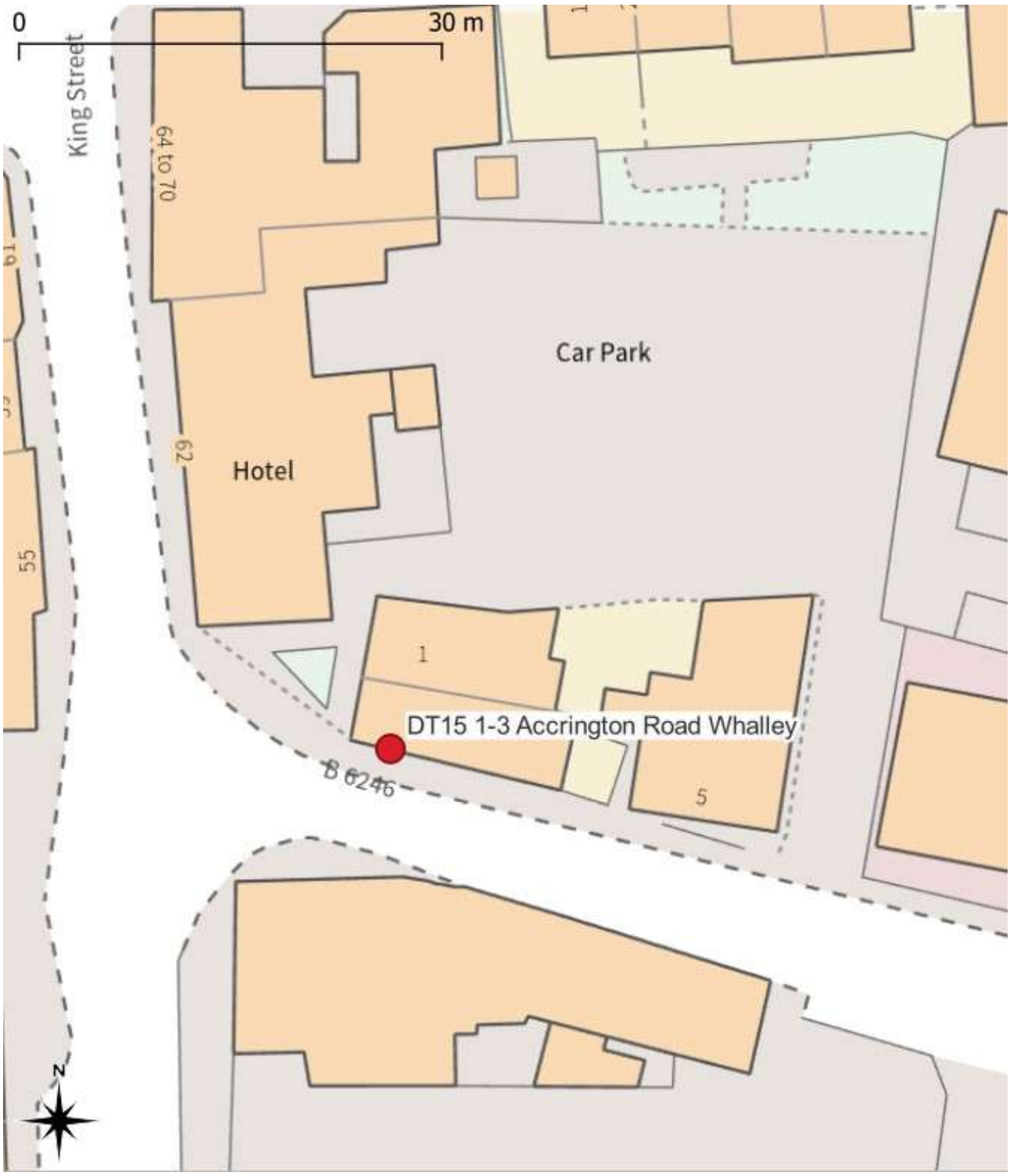


DT13 22 Market Place Longridge



DT14 2 Clitheroe Road Whalley



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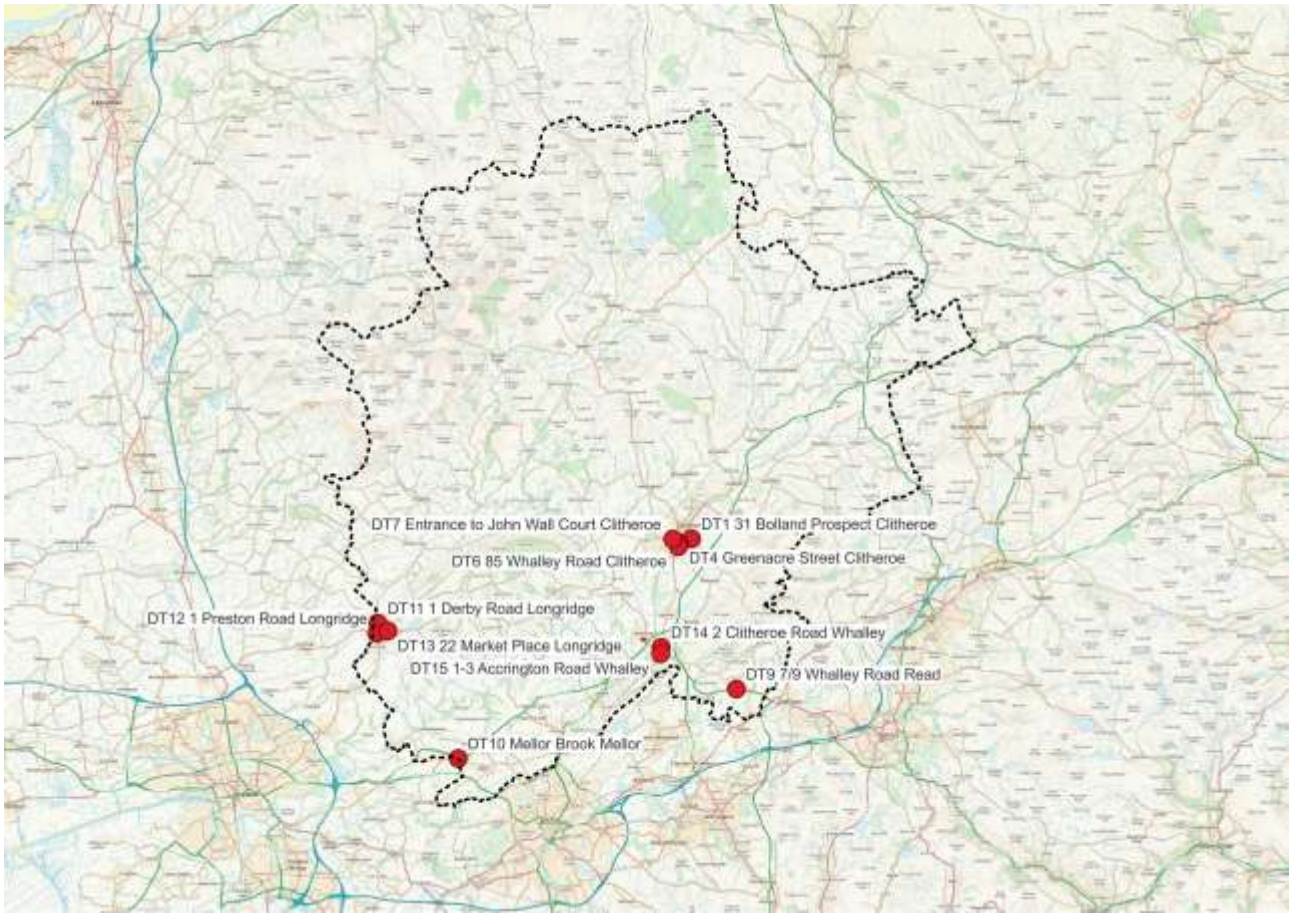
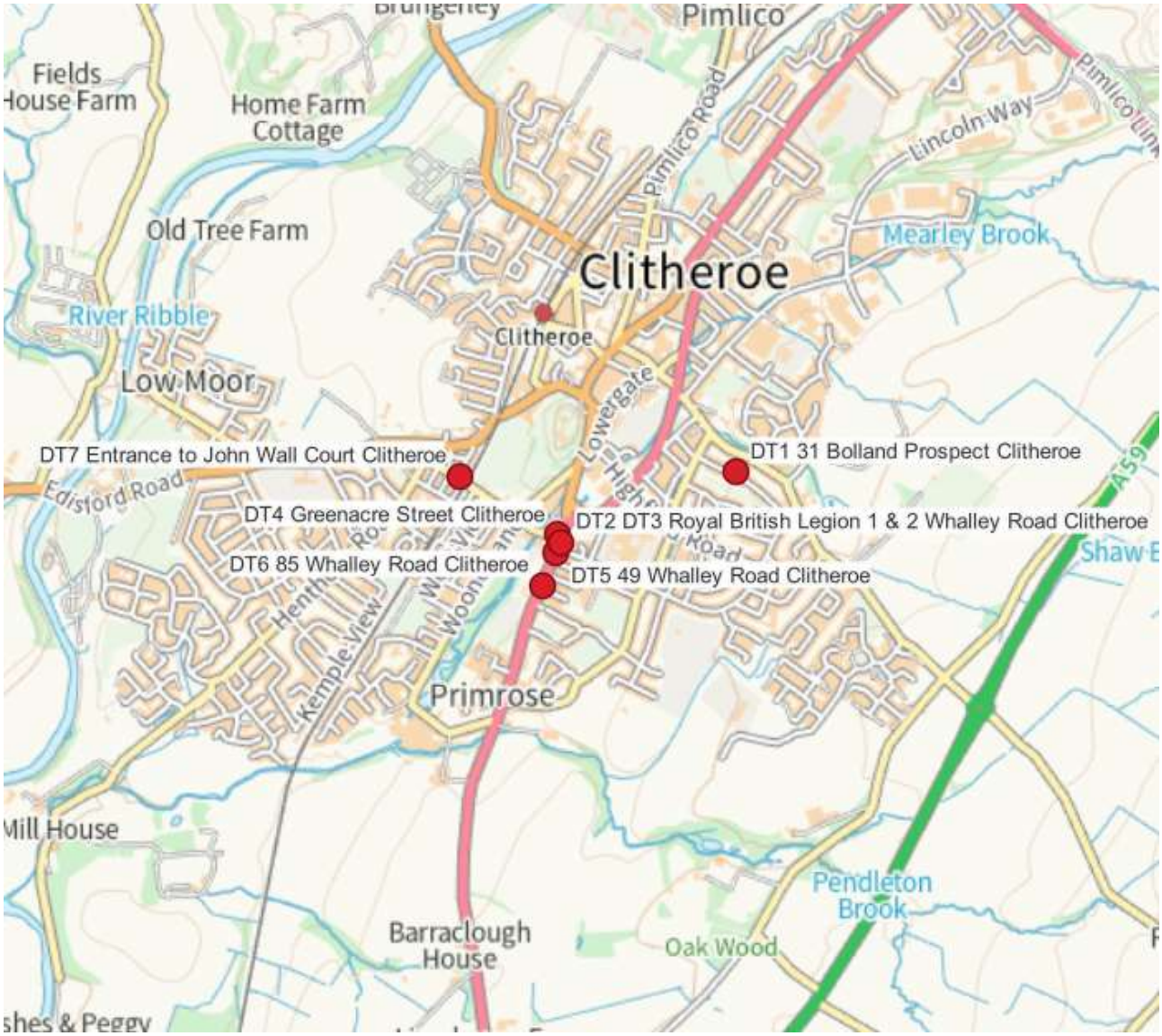


Ribble Valley Borough Council Boundary and whole Monitoring Network



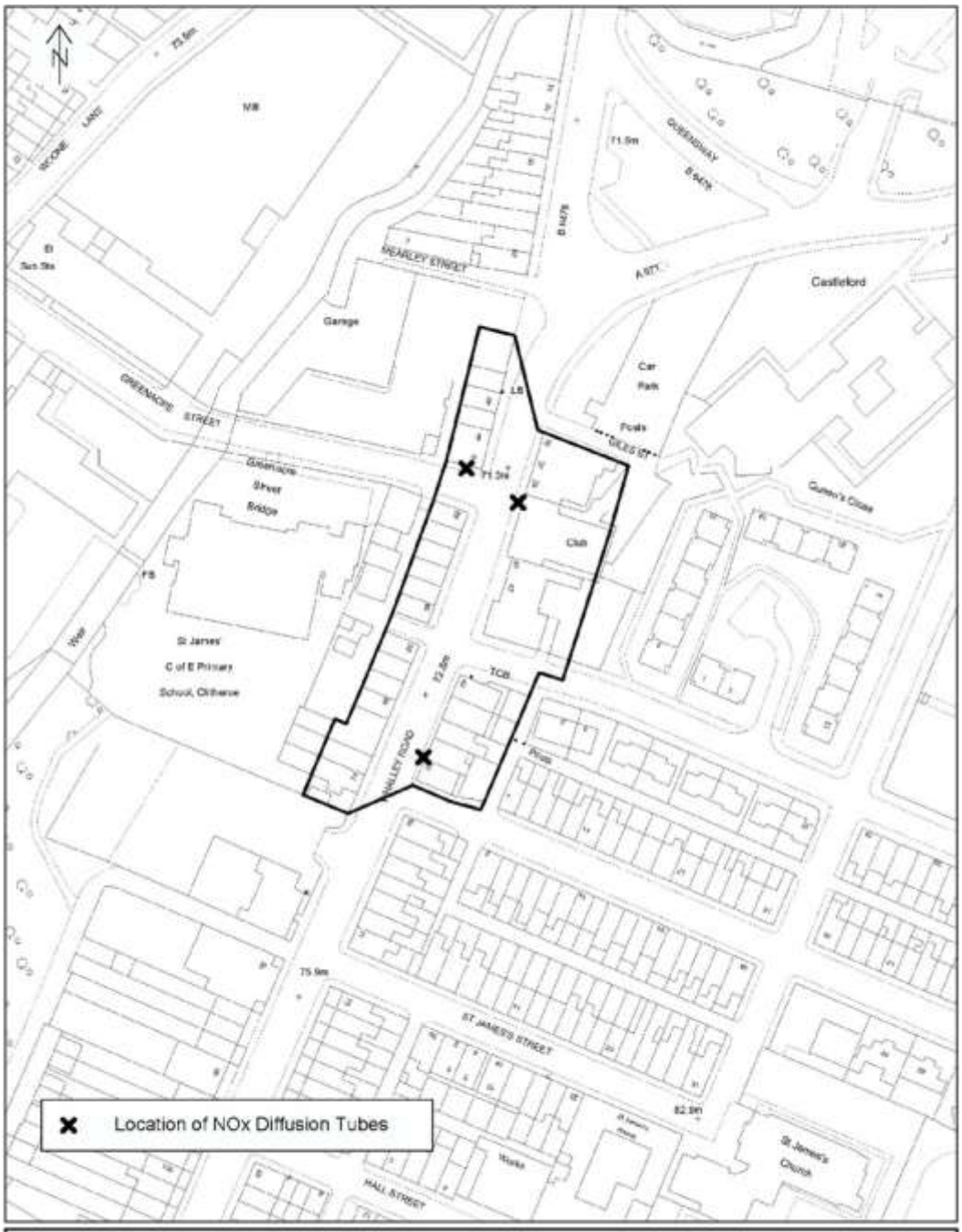
Clitheroe Monitoring Sites

Longridge Monitoring Sites

Whalley Monitoring Sites

Read Monitoring Site

Figure D.2- Map of AQMA



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[5]

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

[5] 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'
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
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
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

References

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- 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.
- Air Quality Monitoring Air Quality Modelling - Defra, UK
- Public Health Outcomes Framework- Public Health Outcomes Framework - OHID (phe.org.uk)