f

Folkestone and Hythe District Council

Annual Status Report 2024

Bureau Veritas

June 2023

Move Forward with Confidence

Document Control Sheet

Identification	
Client	Folkestone and Hythe District Council
Document Title	Folkestone and Hythe District Council – 2024 Annual Status Report
Bureau Veritas Ref No.	AIR21917307

Contact Details		
Company Name	Bureau Veritas UK Limited	Folkestone and Hythe District Council
Contact Name	Daniel Clampin	Wai Tse
Position	Principal Air Quality Consultant	Environmental Protection Specialist
Address	Atlantic House, Atlas Business Park, Wythenshawe, Manchester, M22 5PR	Civic Centre, Castle Hill Avenue, Folkestone, Kent, CT20 2QY
Telephone	079589 59666	01303 853550
E-Mail	daniel.clampin@bureauveritas.com	wai.tse@folkestone-hythe.gov.uk
Website	www.bureauveritas.com	www.folkestone-hythe.gov.uk

Configuration				
Version	**Date**	**Author**	**Reason for Issue/Summary of Changes**	**Status**
1.0	06/06/2024	M Lenehan	First Draft	Issued

	Name	Job Title	Signature
Prepared By	Meg Lenehan	Air Quality Consultant	
Approved By	Daniel Clampin	Principal Air Quality Consultant	

Bureau Veritas UK Limited
5th Floor, 100 Lower Thames,
London
EC3R 6DL

Telephone: +44 (0) 161 446 4600
Registered in England 1758622
www.bureauveritas.co.uk

Registered Office
Suite 206 Fort Dunlop
Fort Parkway
Birmingham B24 9FD

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: June 2024

Information	Folkestone and Hythe District Council Details
Local Authority Officer	Wai Tse
Department	Environmental Health
Address	Civic Centre, Castle Hill Avenue, Folkestone, Kent, CT20 2QY
Telephone	01303 853550
E-mail	wai.tse@folkestone-hythe.gov.uk
Report Reference Number	Folkestone and Hythe_2024_ASR
Date	June 2024

Executive Summary: Air Quality in Our Area

Air Quality in Folkestone and Hythe

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].

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.

[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

The District of Folkestone and Hythe is situated in Kent on the south east coast of England, approximately 69 miles from London. The area occupies a key strategic position on the M20 as a gateway to continental Europe with the Channel Tunnel and London Ashford Airport all within its boundary. Folkestone and Hythe District contains an area of approximately 137 square miles and boasts a rich variety of charming landscape. More than 33% of the District falls within the Kent Downs Area of Outstanding Natural Beauty (AONB) and there are over 15 Sites of Special Scientific Interest (SSSI).

In comparison to the rural areas of the District, the largest urban area is the town of Folkestone, where approximately half of the District's population, exceeding 110,000, live. Other population centres within the District are Hythe, New Romney and Hawkinge.

Air pollution within the District is predominantly caused by road traffic emissions originating from major roads including the M20, A20, A259, A260 and A2034 that pass through the area. Due to the strategic nature of the road links, the majority of the vehicles are throughflow traffic, they do not start nor end their journeys within Folkestone and Hythe. However, these roads do experience high volumes of traffic as they form the main part of the arterial highway network within Folkestone and Hythe, connecting the District to wider regions. Therefore, these roads have a tendency to become heavily congested, resulting in the stopping and starting of vehicles, which in turns leads to elevated pollutant concentrations. Other pollution sources including commercial, industrial, and domestic sources also contribute to pollutant concentrations within the District.

Due to Folkestone and Hythe District Council's consistent years of no reported exceedances of the annual mean NO_2 AQS (Air Quality Standard), the area is considered to have good air quality. As a result of this, there have never been any declared Air Quality Management Areas (AQMAs) within the District. The Council continued to review its monitoring network during 2023, and determined no requirement for implementation of new sites or amendments to existing monitoring locations.

During 2023, concentrations of NO_2 were monitored passively via a diffusion tube network of 18 sites. When compared to the 18 sites that made up the diffusion tube network in the previous reporting year, the NO_2 annual mean concentration decreased at 88% of sites in 2023. No single diffusion tube site recorded an NO_2 annual mean concentration above the air quality objective of 40 $\mu g/m^3$, with a maximum concentration in 2023 of 22.8 $\mu g/m^3$ at diffusion tube monitoring location DT 4, a roadside site, located along Black Bull Road (A259) in Folkestone. This location also reported the maximum concentration in the 2022 and 2023 ASRs, 26.2 $\mu g/m^3$ and 25.1 $\mu g/m^3$ respectively. Compliance with the annual NO_2

AQS objective has been demonstrated by Folkestone and Hythe since 2019, as seen in this ASR, as such the Council have sufficient monitoring data to support not declaring an AQMA.

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 of 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 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.

Within Folkestone & Hythe District Council, since the initiation of the passive monitoring network, there has been no sites that have exceeded the AQS annual mean objective for NO_2. As a result, there are currently no designated AQMAs therefore an Air Quality Action Plan (AQAP) is not required. The Council are committed to publishing an Air Quality Strategy for the District, with the draft report being prepared internally and expected for issue before the 2025 ASR is due.

The air quality in Folkestone and Hythe District is considered to be good, with air quality in 2023 displaying complete compliance with the annual NO_2 AQS and following the same

[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

trend for the previous 7 years of monitoring. The Council will continue to monitor and assess the results for the coming year within the NO_2 diffusion tube network.

Folkestone and Hythe District Council remain involved in a collaborative Kent local authorities project, where a joint bid for a DEFRA Air Quality Grant bid worth £175,675 was successful. The funding has facilitated the development of a digital training resource for Health Care Professionals (HCPs) across the Kent and Medway Group to provide training, local evidence and resources to enable practitioners to advise patients with Cardiovascular Disease (CVD) or respiratory disease on how to reduce their exposure to air pollution. Therefore, promoting an inclusive community and collaboration by working with the health service to identify opportunities for improving education surrounding air quality, limiting emission source(s) use, and encouraging mortality longevity by outlining areas for improvement (e.g. reducing outdoor activity during a high pollution episode).

Folkestone and Hythe District Council remain to work with councils across Kent as well as the National Health Service (NHS), to help residents save energy in their homes in turn supporting the reduction of pollutant release from gas stoves and limiting wood burner use, for example. The campaign was launched in November 2022, remains current and is available to review: https://www.kenthousinggroup.org.uk/share-the-warmth/

The Council have also been committed to improving the District's social housing stock, thus making it more energy efficient. In collaboration with the Social Housing Decarbonisation Fund (SHDF), the Council has sought to improve approximately 420 properties within the District across two phases. Ross House, a block of 16 flats in Folkestone, underwent a significant retrofit as part of the scheme's first phase in June 2023. Works include internally insulating and rendering the building, replacing kitchens, loft and floor voids insulation, installing photovoltaic panels and more energy-efficient air source heat pumps to replace the current electric heating system. Thus, improving property thermal efficiency with Energy Performance Certificate (EPC) ratings updated to Band C, as well as reducing broader carbon footprint. Folkestone and Hythe District Council were awarded £2.6 million in phase two of the SHDF, of which the Council replicated to bring the total spend for improving the homes and wellbeing of tenants in the District to £5.2 million. The Council seek to meet their target of all council-managed homes achieving an EPC of Band C by 2030. More information regarding the initiative is available here: https://www.folkestone-hythe.gov.uk/news/article/159/warm-welcome-for-housing-improvements

Folkestone and Hythe District Council continue to progress with the Click2cycle innovative bike sharing service in Folkestone, Sandgate, and Hythe. The service was launched in June 2018 and continues to be endorsed with users able to rent a bike from any of the various Bike Hire Stations along a 5-mile route between Romney, Hythe and Dymchurch Light Railway in Hythe and Folkestone Harbour.

The Council maintain their collaborative relationship with Kent County Council and other local authorities to promote active travel in the District via the Explore Kent page. It provides information to the public on the range of sustainable travel options that are available across the county of Kent, in particular Folkestone. These range from local walking maps, cycle routes, public transport journey planners, electric bike hire, and cycling groups.

The Council have been awarded £25,000 from Active Travel England Capability Fund to update the existing Local Cycling and Walking Infrastructure Plan (LCWIP) for the District, considering schemes that have emerged since its launch such as the Cheriton Road and Levelling Up Funding Scheme. The urban centres of Folkestone and Hythe are the focus of the LCWIP due to the concentration of population and trip generators that are reflective of the position that the two centres have at the top of the District's settlement hierarchy. The LCWIP provides a new strategic approach to identifying cycling and walking improvements required at the local level. The document enables a long-term approach to developing local cycling and walking networks, ideally over a 10-year period, and forms a vital part of the Government's strategy to increase the number of trips made on foot or by cycle. The LCWIP has been prepared in consultation with Kent County Council as the Local Highway Authority. Kent County Council will be responsible for implementing the actions within the LCWIP.

Folkestone and Hythe continue to promote beneficial community uses of the Active Travel Fund, which is a grant that supports local transport authorities with the development of cycling and walking facilities.

Folkestone and Hythe District Council remains actively encouraging large developers at the planning stage to install electric charging points or consider suitable infrastructure to allow for future cost-efficient installations.

As part of the Council's commitment to reduce the impacts of, and tackle climate change, the Council continues to progress and aim to hit net-zero carbon emissions by 2030 on Councils assets and fleets. Folkestone and Hythe District Council have set out 33 actions to reduce Carbon Dioxide (CO_2) emissions, which have shared benefits in reducing both

NO_2 and PM emissions. In 2023, the Council commenced work on drafting a net zero toolkit to provide guidance for developers and homeowners on how to eliminate carbon emissions in new build housing developments and refurbishment projects. Work is expected to continue into the 2024 monitoring year on this tool.

The Council confirms the collaborative relationship with Kent County Council and five other local authorities (Gravesham Borough Council, Medway Council, Sevenoaks District Council, Thanet District Council, and Tonbridge and Malling Borough Council) to roll out a programme of charging points for electrical vehicles (EV) across the District, resulting in 103 EV charging points being implemented. This has reduced number of EV charging points from previously noted in the 2022 ASR, however the Council have outlined that a total of 600 EV charging points will be installed across the Kent County within the next two years, with the Council and neighbouring District's applying for 75% of funding through Kent County Council and Connected Kerb funding the remaining 25%. More information can be found at: https://www.folkestone-hythe.gov.uk/parking.

The Council has also provided investment into purchasing battery-operated grounds maintenance equipment where suitable to replace petrol-powered equipment.

Folkestone and Hythe District Council continues to be an active member of the Kent and Medway Air Quality Partnership. In 2020, the KentAir website was updated following a change of provider. It is possible to subscribe to an air quality email system, whereby an air pollution forecasts and alerts are emailed to the subscriber's inbox.

Conclusions and Priorities

During 2023, the NO_2 annual mean objective was not exceeded at any monitoring location within Folkestone and Hythe District. This is a continuing trend that has been observed across the District since 2019, as shown in this ASR. The Council will use the passive monitoring network to monitor air quality within the District and ensure compliance is maintained with the annual and 1-Hour NO_2 AQS objectives.

The following actions are considered to be key priorities in ensuring the air quality conditions within Folkestone and Hythe District continue to comply with the AQS objectives:

- Continue to review the current monitoring programme, exploring the need to deploy new monitoring locations in areas where monitoring has not previously been

undertaken and where it is believed that there may be elevated concentrations of NO_2 in areas of relevant public exposure;

- Actively engage with large residential developers at planning application stages to promote the installation of electric vehicle charging or alternatively, provide suitable infrastructure to allow for future cost-efficient installations;
- To work in conjunction with the County Council to investigate the scope for the introduction of traffic management initiatives where appropriate, including lorry management and traffic speed control;
- Provide an integrated transport network to facilitate the efficient movement of pedestrian and vehicular traffic, goods, and services within the District;
- Continuation of improving accessibility to key services and facilities whilst directing development to sustainable locations in order to achieve sustainable development;
- Continue to reduce the volume of traffic on the District's roads by encouraging effective active transport methods (e.g. public transport, cycling, and walking) and by the careful integration of residential areas, shopping and recreational facilities, and the workplace; and
- Continue to be an active member of the Kent and Medway Air Quality Partnership.

Local Engagement and How to get Involved

Given the main source of air pollution within Folkestone and Hythe is from transport sources, the public can support the reduction in air pollutant(s) release and improve air quality within the District by participating in active travel.

Folkestone and Hythe District Council have progressed additional public engagement work in 2023 through the below schemes, although the engagement schemes in 2022 are still active:

- The collaborative relationship with the NHS to reduce energy use and associated pollutant release in private homes and via the HCP digital training resource;
- The collaborative relationship with Kent County Council and other local authorities to promote active travel in the District via the Explore Kent page. It provides information to the public on the range of sustainable travel options that are available across the county of Kent, in particular Folkestone. These range from local walking maps, cycle routes, public transport journey planners, electric bike hire, and cycling groups;

- Continued roll out a programme of charging points for electrical vehicles (EV) across the District, resulting in 106 EV charging points being implemented and a total of 600 planned;
- Commitment to improving thermal efficiency of approximately 420 social housing units, to reduce carbon footprint and tenant welfare; and
- Investment into purchasing battery-operated grounds maintenance equipment where suitable to replace petrol-powered equipment.

The following measures are possible alternatives to private travel and actions that everyone can complete that would contribute to improving air quality within the District:

- Use public transport where available – This reduces the number of private vehicles in operation reducing pollutant concentration through the volume of vehicles and limits congestion;
- Walk or cycle if your journey allows – From choosing to walk or cycle for your journey the number of vehicles is reduced and also there is the added health benefits through exercise;
- Car/lift sharing – Where a number of individuals are making similar journeys, such as travelling to work or to school car sharing reduces the volume of vehicles on the road and therefore the amount of emissions being released. This can be promoted via travel plans through the workplace and within schools;
- Alternative fuel / more efficient vehicles – Choosing a vehicle that meets the specific needs of the owner, fully electric, hybrid fuel and more fuel efficient cars are available, and all have different levels benefits by reducing the amount of emissions being released; and
- Asking your employer, school or college about the possibility of developing a green travel plan.

The public can also engage with air quality issues in Folkestone and Hythe District via the dedicated KentAir website. This provides information on a range of air quality topics, such as monitoring data, details on the main pollutants associated with air quality, alongside an air quality email subscription service.

Local Responsibilities and Commitment

This ASR was prepared by Bureau Veritas on behalf of Folkestone and Hythe District Council, with the support of the following officers and departments:

- Wai Tse, Environmental Protection Specialist.

This ASR has been approved by:

- Wai Tse, Environmental Protection Specialist.

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

If you have any comments on this ASR please send them to Environmental Protection at:

Civic Centre, Castle Hill Avenue, Folkestone, Kent, CT20 2QY OR wai.tse@folkestone-hythe.gov.uk

Table of Contents

List of Figures

List of Tables

1 Local Air Quality Management

This report provides an overview of air quality in Folkestone and Hythe 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 Folkestone and Hythe District 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.

Folkestone and Hythe District Council do not have any declared AQMAs. A map of monitoring locations within the District is presented in Appendix D: Maps of Monitoring Locations.

2.2 Progress and Impact of Measures to address Air Quality in Folkestone and Hythe

Defra's appraisal of last year's ASR concluded that:

"The report is well structured, detailed, and provides the information specified in the Guidance."

The following comment was designed to help inform Folkestone and Hythe 2024 ASR:

- Include the tube concentrations on the maps to show where the maximum concentrations are located.
    - Appendix D has an additional map in the 2024 ASR which highlights where the maximum pollutant concentrations are located.

Folkestone and Hythe Council has taken forward a number of direct measures during the current reporting year of 2023 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2. 1. Four measures are included within Table 2. 1, with the type of measure and the progress Folkestone and Hythe Council have made during the reporting year of 2023 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2. 1.

Key completed measures are:

- Working collaboratively as a member of the Kent and Medway Air Quality Partnership to develop Air Quality Planning Guidance for partner local authorities, developers and consultants;
- Implementation of a Climate Change Champions Group amongst Council staff, who actively seek to raise awareness of energy efficiency and reducing carbo emissions;
- Improvement of Ross House in Folkestone to improve the thermal efficiency of the properties broader tenant welfare as well as reduce emissions and carbon footprint;
- Using alternative lighting for street lamps, with 321 adopted street lights in the District being converted to light emitting diode (LED) lighting;
- Reduction of the Council's emissions by encouraging staff to work from home where applicable, and adapting the working environment to reduce the number of

printers (14 to 6 in Civic Centre), accommodate bookable desks and meeting rooms with hybrid equipment to minimise the number of commuting journeys; and

- Implementation of digital training resource for Health Care Professionals (HCPs) across the Kent and Medway Group to provide training, local evidence and resources to enable practitioners to advise patients with Cardiovascular Disease (CVD) or respiratory disease on how to reduce their exposure to air pollution.

Folkestone and Hythe District Council's priorities for the coming year are:

- Complete and publish an Air Quality Strategy for the District before the 2025 ASR is due;
- Engage further with senior members within the Air Quality Working Group for the Kent and Medway Air Quality Partnership, to improve communication between and input from public and voluntary sectors;
- Production of a net zero toolkit to provide guidance for developers and homeowners on how to eliminate carbon emissions in new build housing developments and refurbishment projects within the District; and
- Continuation of social housing review and improvement to ensure reduced emissions and carbon footprint, greater tenant comfort and EPC of Band C by 2030.

Folkestone and Hythe District Council worked to implement measures in partnership with the following stakeholders during 2023:

- National Health Service (NHS);
- UK Government (SHDF);
- Neighbouring local authorities; and
- Kent County Council.

Table 2. 1 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced	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	Kent and Medway Air Quality Partnership - Air quality working group	Policy Guidance and Development Control	Regional Groups Coordinating programmes to develop Area wide Strategies to reduce emissions and improve air quality	2015	2023	All Kent local authorities and Medway Council.	N/A	NO	Not Funded	<£10k	Implementation	Reduction in a range of pollutants	N/A	The Kent and Medway Air Quality Partnership have developed Air Quality Planning Guidance for partner local authorities, developers and consultants.	Air Quality Working Group involves key players at senior level in public sector and voluntary sectors
2	Supporting / Encouraging Homeworking	Promoting Travel Alternatives	Encourage / Facilitate home-working	2022	2023	Folkestone and Hythe District Council	N/A	NO	Not Funded	<£10k	Completed	Reduced Vehicle Emissions	N/A	Ongoing	Accommodation reviews have consolidated building use, which has expanded the opportunities across the Council for more agile working.
3	Making reports on Air Quality available to public	Public Information	Via other mechanisms	2022	2023	Folkestone and Hythe District Council	N/A	NO	Not Funded	<£10k	Completed	N/A	Annual Reports	Ongoing	N/A
4	Environmental Permits	Environmental Permits	Introduction/ increase of environmental funding through permit systems and economic instruments	2022	2023	Folkestone and Hythe District Council	N/A	NO	Partially Funded	<£10k	Completed	Various pollutants regulated	100% Inspections	Ongoing	Non-compliant processes are encouraged to comply by lower annual subsistence fees and less regulatory input.

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 ($PM_{2.5}$). 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.

$PM_{2.5}$ Monitoring:

There is not currently any monitoring of PM_{10} or $PM_{2.5}$ within the District of Folkestone and Hythe. As such, no concentration values can be reported or estimated using the method described in Box 7.7 of LAQM.TG(22), which provides a for estimating $PM_{2.5}$ concentrations from PM_{10} measurements.

$PM_{2.5}$ Background Concentrations:

The current Defra 2023 background maps for Folkestone and Hythe District Council (2018 based)[7] show that all background concentrations on $PM_{2.5}$ are significantly below the current annual mean AQS objective of 20 µg/m^3. The highest background concentration is predicted to be 10.1 µg/m^3 within the grid square (1 x 1 km) with the centroid grid reference 622500, 136500. This grid square encompasses the north-east of Folkestone city centre, including part of the A259, which is a key arterial route, where the PM secondary fraction (formed of gaseous pollutants) constitutes as the key contributor to $PM_{2.5}$.

It is noted that although the maximum predicted $PM_{2.5}$ background concentration in 2023 is well below the current annual mean AQS objective of 20 µg/m^3, it is above the AQS objective of 10 µg/m^3 that is not to be exceeded at any monitoring station by 31st December 2040. Therefore, Folkestone and Hythe District Council will consider further actions as well as continuing those implemented already to reduce $PM_{2.5}$ across the District.

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

[7] Defra Background Mapping (2018 Based). Available at: https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018

Smoke Control Areas:

Smoke control areas (SCAs) are designated zones in which smoke it is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler. It is also an offence to acquire an unauthorised fuel for use within a SCA unless it is used within an exempt appliance (exempted from the controls which generally apply in SCAs). There are currently no SCAs declared within Folkestone and Hythe. However, the Council have outlined if they determine an increase in smoke reports causing a statutory nuisance, they will enforce an SCA with accompanying fines for those who do not comply to the guidelines.

Impact on Human Health:

The Public Health Outcomes Framework data tool[8], compiled by Public Health England quantifies the mortality burden of $PM_{2.5}$ within England on a county and local authority scale. The 2022 fraction of mortality attributable to $PM_{2.5}$ emissions within Folkestone and Hythe is 4.5%, which is lower than the average for the South-East region (5.7%) and England as a whole (5.8%).

Measures to Improve $PM_{2.5}$ Concentrations:

Folkestone and Hythe District Council is taking the following measures to address $PM_{2.5}$:

- Actively encouraging large developers at the planning stage to install EV charging points or the consideration of suitable infrastructure to allow for future cost efficient installations;
- Implementation of 103 EV charging points throughout the District to encourage cleaner vehicle adoption;
- Replacement of Council owned petrol-powered grounds maintenance equipment with battery-operated tools;
- Continuation of the Click2cycle innovative bike sharing service in Folkestone, Sandgate, and Hythe to promote alternative forms of travel and reduce emissions;
- Promotion of the Local Cycling and Walking Infrastructure Plan (LCWIP) to reduce the number of vehicle trips generated by Folkestone and Hythe areas and

[8] Public Health England – Public Health Outcomes Framework. Available at: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/1/gid/1000043/pat/6/ati/501/are/E07000112/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0

subsequent pollutant emission release, due to the high population concentrations and hierarchical positions in the District's settlements;

- Promotion of the 'Explore Folkestone' website which maps various walking and cycling routes throughout the District as well as providing additional tourist information such as 'look out spots' along the routes; and
- Promotion of the Active Travel Fund, which is a grant that supports local transport authorities with the development of cycling and walking facilities, promoting active travel and supporting the reduction in vehicle volume and associated emission releases.

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

This section sets out the monitoring undertaken within 2023 by Folkestone and Hythe District 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

Folkestone and Hythe District Council did not undertake any automatic (continuous) monitoring during 2023.

3.1.2 Non-Automatic Monitoring Sites

Folkestone and Hythe District Council undertook non-automatic (i.e. passive) monitoring of NO_2 at 18 sites during 2023. 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.

During 2023, the diffusion tube network was well maintained, with an average data capture of approximately 86%. With the exception of DT's 16 and 18, no single diffusion tube site had more than one month of data missing during the entire monitoring period for which the site was established.

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. 2 in Appendix A compares 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).

In comparison to the 18 sites that made up the diffusion tube monitoring network in 2023, the NO_2 annual mean concentration decreased at 16 sites in 2023, equating to a reduction in pollutant concentrations at 88% of sites. The maximum decrease in NO_2 concentration between 2022 and 2023 reporting years was 2.6 µg/m^3 at DT 10, located on A259 in New Romney, a rural area of the Folkestone and Hythe District.

All monitoring sites within the District of Folkestone and Hythe continue to report annual mean NO_2 concentrations below the annual AQS objective of 40 µg/m^3, therefore all passive monitoring sites are compliant and not expected to exceed or be an area of concern. Therefore, the Council do not need to implement an AQMA within the District.

Due to the low monitored concentrations, fall-off with distance correction was not required.. The maximum reported concentration in 2023 is 22.8 µg/m^3 at diffusion tube monitoring location DT 4, a roadside site, located along Black Bull Road (A259) in Folkestone. This location also reported the maximum concentration in the 2022 and 2023 ASRs, 26.2 µg/$m^3$and 25.1 µg/m^3 respectively.

Figure A.1 presents the 2023 annual mean NO_2 concentrations at Folkestone and Hythe District Council's monitoring sites. Concentrations at all sites decreased slightly during 2023 in comparison to 2022, with the exception of DT 14 and DT 18 which both increased by 1.1 µg/m^3 and 1.5 µg/m^3 respectively. The increase at DT 14 is most likely attributable to its positioning on the coastal road Princes Parade, with the route lending itself to potential increased vehicular traffic and subsequent emissions during the spring/ summer periods, particularly with 'coastal tourism.' This is similar for DT 18, positioned on Littlestone Road, a direct access road to the coastal road Grand Parade/ Marine Parade in New Romney. Both tubes may also be susceptible to reporting increased annual NO_2 concentrations with potential contributions from transboundary pollution migration from nearby European destinations as well as ship emissions due to their coastal location.

For diffusion tubes, the full 2023 dataset of monthly values is provided in Appendix B. Note that the concentration data presented in Table B.1 – NO2 2023 Diffusion Tube Results

(µg/m3) includes distance corrected values, only where relevant. The monitoring dates were not aligned with the Defra calendar dates for January, March and April during the survey period, due to staff shortages and resourcing constraints. As such, there is a degree of uncertainty surrounding the monitoring results provided.

It is possible to infer the risk of exceedances of the 1-hour mean NO_2 AQS objective at diffusion tube monitoring sites. LAQM.TG(22) provides an empirical relationship that states exceedances of the 1-hour objective are unlikely when the annual mean concentration is below 60µg/m^3. Given that the highest recorded annual mean concentration at any of the diffusion tube monitoring sites is 22.8µg/m^3 in 2023, and 30.0µg/m^3 since 2019, it is possible to conclude that there have been no likely exceedances of the hourly mean NO_2 objective at all monitoring locations in the last five years.

3.2.2 Particulate Matter (PM_{10})

Particulate Matter (PM_{10}) was not monitored by Folkestone and Hythe District Council in 2023.

3.2.3 Particulate Matter ($PM_{2.5}$)

In 2023, Particulate Matter ($PM_{2.5}$) was not monitored by Folkestone and Hythe District Council.

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	Cheriton Road	Roadside	622400	136100	NO_2	N	1.0	1.2	No	3.0
DT2	Cheriton Place	Roadside	622584	135820	NO_2	N	5.0	1.8	No	2.6
DT3	Wear Bay Road	Roadside	609964	135279	NO_2	N	11.5	3.0	No	3.5
DT4	Black Bull Road	Roadside	612900	138200	NO_2	N	1.0	5.0	No	3.0
DT5	Martello Cottages	Roadside	622734	136769	NO_2	N	7.0	10.0	No	2.5
DT6	Cold Harbour	Roadside	614552	134012	NO_2	N	N/A	N/A	No	2.0
DT7	Oak	Roadside	622396	136976	NO_2	N	6.0	3.5	No	2.6
DT8	Stanford North	Urban Background	612964	136190	NO_2	N	N/A	N/A	No	2.0
DT9	Cherry Garden Avenue	Roadside	621248	137352	NO_2	N	7.5	8.0	No	2.5
DT10	Martins Cottages	Roadside	604116	124888	NO_2	N	1.2	1.0	No	2.5
DT11	Hawking	Roadside	621436	139593	NO_2	N	1.2	1.0	No	3.0
DT12	Horn Street	Kerbside	618860	135899	NO_2	N	1.0	1.0	No	2.0
DT13	Kennett Lane	Rural	612481	137978	NO_2	N	91.0	0.0	No	2.0
DT14	Princes Parade	Roadside	618727	134797	NO_2	N	39.0	1.0	No	2.0
DT15	Dixiwell	Roadside	621361	135511	NO_2	N	15.0	0.0	No	2.0
DT16	Seabrook Road	Roadside	618680	134977	NO_2	N	8.0	0.0	No	2.0
DT17	St Andrews Road	Roadside	608206	124832	NO_2	N	21.5	0.0	No	2.0
DT18	Littlestone Road	Roadside	607675	124699	NO_2	N	16.3	0.0	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 2023 (%) [2]	2019	2020	2021	2022	2023
DT1	622400	136100	Roadside	99.4	99.4	21.0	18.3	21.6	20.0	18.9
DT2	622584	135820	Roadside	99.4	99.4	25.7	15.6	16.7	16.7	15.4
DT3	609964	135279	Roadside	90.8	90.8	17.7	14.2	13.2	15.0	13.2
DT4	612900	138200	Roadside	99.4	99.4	27.9	22.6	26.2	25.1	22.8
DT5	622734	136769	Roadside	93.6	93.6	25.3	19.6	20.9	21.0	19.8
DT6	614552	134012	Roadside	99.4	99.4	11.8	9.7	9.9	10.8	9.4
DT7	622396	136976	Roadside	99.4	99.4	22.4	13.9	16.0	15.9	14.6
DT8	612964	136190	Urban Background	89.7	89.7	17.8	13.7	12.6	13.0	11.1
DT9	621248	137352	Roadside	99.4	99.4	30.0	19.7	23.2	22.2	21.8
DT10	604116	124888	Roadside	99.4	99.4	16.6	13.1	14.0	14.4	11.8
DT11	621436	139593	Roadside	99.4	99.4	19.3	14.5	16.8	16.0	15.3
DT12	618860	135899	Kerbside	91.9	91.9	16.2	14.1	14.7	14.8	14.2
DT13	612481	137978	Rural	99.4	99.4	13.6	10.9	10.8	11.0	9.3
DT14	618727	134797	Roadside	91.4	91.4	16.3	12.9	13.2	14.0	15.1
DT15	621361	135511	Roadside	99.4	99.4	24.3	20.1	20.2	20.3	19.5
DT16	618680	134977	Roadside	82.7	82.7	18.1	14.4	18.0	15.8	14.7
DT17	608206	124832	Roadside	91.4	91.4	-	9.9	9.6	9.8	8.9
DT18	607675	124699	Roadside	82.7	82.7	-	14.0	15.3	12.6	14.1

☒ **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**.

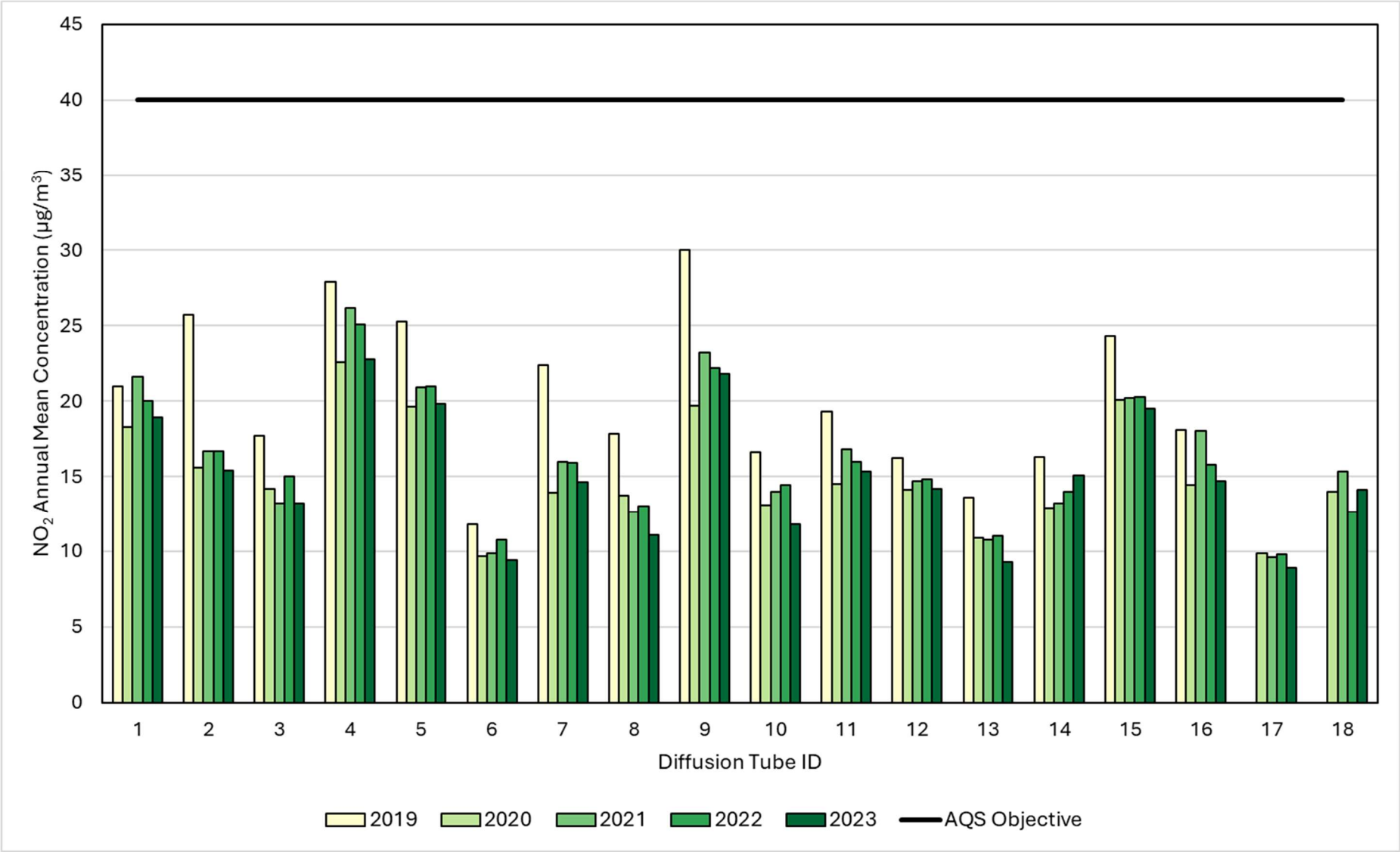
Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

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 – All Diffusion Tubes


45
40
35
30
25
20
15
10
5
0
NO2 Annual Mean Concentration (µg/m3)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Diffusion Tube ID
2019
2020
2021
2022
2023
AQS Objective

Appendix B: Full Monthly Diffusion Tube Results for 2023

Table B.1 – NO_2 2023 Diffusion Tube Results ($\mu g/m^3$)

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
1	622400	136100	34.3	35.1	25.2	29.0	15.5	24.6	16.7	21.8	27.8	22.3	28.3	18.5	24.5	18.9		
2	622584	135820	26.3	28.0	19.9	27.3	17.2	24.3	11.9	20.9	23.8	15.5	17.6	10.7	20.0	15.4		
3	609964	135279	20.1	22.2	16.2	20.8		20.6	11.7	16.3	22.4	13.4	17.9	9.7	17.2	13.2		
4	612900	138200	34.2	38.4	30.0	**41.1**	27.3	31.9	21.9	27.8	37.7	28.6	23.4	19.2	29.7	22.8		
5	622734	136769		33.8	29.6	28.3	21.8	27.6	19.3	23.9	34.0	23.8	23.7	17.5	25.7	19.8		
6	614552	134012	11.5	16.9	14.6	18.9	7.3	12.2	7.6	14.3	11.1	26.7	2.6	5.7	12.3	9.4		
7	622396	136976	21.9	27.1	18.0	31.4	12.0	19.2	13.9	17.6	21.8	21.6	17.0	11.8	18.9	14.6		
8	612964	136190	18.2	20.0	13.9	18.1	11.6	14.4	9.1		16.9	15.9	15.2	8.0	14.4	11.1		
9	621248	137352	**40.5**	27.4	28.6	28.6	18.2	26.5	21.0	24.8	34.6	31.8	35.6	25.4	28.3	21.8		
10	604116	124888	18.1	20.7	14.2	18.2	13.9	17.8	10.7	16.3	17.5	14.7	16.5	7.9	15.4	11.8		
11	621436	139593	23.7	26.9	21.8	21.5	13.2	19.8	16.6	18.1	23.4	20.6	21.5	13.4	19.9	15.3		
12	618860	135899	20.1	22.2	19.1	20.1	13.6	19.5		19.0	21.2	17.9	12.1	19.7	18.5	14.2		
13	612481	137978	17.5	16.3	13.0	12.5	6.7	12.8	9.9	12.2	13.8	11.2	12.1	8.1	12.0	9.3		
14	618727	134797	25.2	26.8	20.8	20.5	12.3	21.3	14.1	19.5		15.5	25.8	15.7	19.7	15.1		
15	621361	135511	32.6	33.6	26.3	28.1	15.9	25.9	17.3	22.6	33.9	22.0	31.1	18.4	25.4	19.5		
16	618680	134977	25.2	27.4	18.8	22.6	13.8	21.4	12.6	17.4	22.4			12.9	19.1	14.7		
17	608206	124832	12.6	14.0	11.6	18.0	6.4	14.1	8.4	13.7		12.4	10.9	6.5	11.5	8.9		
18	607675	124699	23.2	23.3	17.3	22.2	12.9	18.2	9.7	18.2		12.9	27.1		18.3	14.1		

☒ **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.**
☒ **Folkestone and Hythe District 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 QA/QC

New or Changed Sources Identified Within Folkestone and Hythe During 2023

Folkestone and Hythe District Council has identified at least 5 potential new, ongoing or recently closed development sources relating to air quality within the reporting year of 2023, detailed below in Table C. 1. Associated Air Quality Assessments (AQAs) or equivalent Environmental Assessments (EAs) / Construction Management Plans (CMPs) have been prepared and/or are required to be undertaken to outline that the developments are not expected to significantly impact the air quality objectives within the area as development progresses into the 2024 monitoring year and onwards.

Table C. 1 – 2023 Ongoing Developments in Folkestone and Hythe District

Application Number	Location	Proposal	Status
24/0520/FH	Land to the South of Ashford Road, Sellindge	Outline planning application for the erection of up to 55 dwellings with public open space, landscaping, sustainable drainage system (SUDS), a vehicular access point from Ashford Road. All matters reserved except for access.	Under Consultation
21/0553/FH	Land Opposite 24, Station Road, Hythe	Outline planning consent - some matters reserved.	Under Consultation
24/0030/FH	Nickolls Quarry, Dymchurch Road, Hythe, CT21 4NE	Application for the approval of Reserved Matters (Access, Appearance, Layout, Scale, and Landscaping) for Phases 3 and 4 pursuant to conditions 1, 4, 8, 9, 10, 16, 17, 21, 26, 30, 31, 34, 37, 39, and 43 of Outline planning permission Y19/1492/FH for a residential development including the provision of affordable housing, site access, landscaping, parking and earthworks.	Under Consultation
23/1972/FH	Land at the Junction of Aerodrome Road & Spitfire way, Hawkinge	Outline planning permission, with all other matters reserved (except for access & landscaping) for a mixed use development, comprising up to 52 dwellings comprising 36 houses and 16 flats, with a provision of up to 12 self/custom-build homes, and 11 'affordable' homes; together with up to 400 sq.m of convenience retail development (Class E), including access from Spitfire Way,	Closed

Application Number	Location	Proposal	Status
		landscaping, and new pedestrian access route	
23/2024/FH	Former Rotunda Amusement Park, Plot A, Marine Parade, Folkestone, CT20 2DR	Approval of Reserved Matters (Layout, Access, Scale and Appearance, Public realm, landscaping and plays space) pursuant to Phase 1 (Plot A) of Outline approval Y17/1099/SH. for the erection of a single 8-storey (ground and 7 upper floors) residential building plus lower ground car park. The building will comprise: 13 residential units, amenity uses (lobby, residents lounge and gym) refuse storage, ancillary plant space and parking at basement level (26 car parking and 41 cycle spaces). The application seeks approval for reserved matters (condition 7) of the outline consent. Supporting documentation for planning conditions 1, 2, 7, 8, 12, 13, 17, 18, 20 and 27 of the outline consent.	Closed
Y19/0257/FH	Otterpool Park Development, Ashford Road, Sellindge, Kent	Outline application, with all matters reserved, for a comprehensive residential led mixed use development comprising: Up to 8,500 residential homes including market and affordable homes; age restricted homes, assisted living homes, extra care facilities, care homes, sheltered housing and care villages; demolition of identified existing buildings; a range of community uses including primary and secondary schools, health centres and nursery facilities; retail and related uses; leisure facilities; business and commercial uses; open space and public realm; new planting and landscaping, and ecological enhancement works; sustainable urban drainage systems; utility and energy facilities and infrastructure; waste and waste water infrastructure and management facilities; vehicular bridge links; undercroft, surface and multi-storey car parking; creation of new vehicular and pedestrian accesses into the site, and creation of a new vehicular, pedestrian and cycle network within the site; improvements to the existing highway and local road network; lighting; engineering works, infrastructure and associated facilities; together with interim works or temporary structures required by the development and other associated works including temporary meanwhile uses.	Under Consultation

Additional Air Quality Works Undertaken by Folkestone and Hythe District Council During 2023

Folkestone and Hythe District Council has not completed any additional works within the reporting year of 2023.

QA/QC of Diffusion Tube Monitoring

Folkestone and Hythe District Council's diffusion tubes in 2023 were supplied and analysed by SOCOTEC Didcot, using the 50% Triethanolamine (TEA) in acetone preparation method. SOCOTEC's laboratory is UKAS accredited, participating in the AIR-PT Scheme for NO_2 tube analysis and the Annual Field Inter-Comparison Exercise. These provide strict performance criteria for participating laboratories to meet, thereby ensuring NO_2 concentrations reported are of a high calibre. The lab follows the procedures set out in the Harmonisation Practical Guidance. In the AIR PT intercomparison scheme for comparing spiked Nitrogen Dioxide diffusion tubes, SOCOTEC currently holds the highest rank of a 'Satisfactory' laboratory.

Local authority co-location studies which use tubes supplied by SOCOTEC with the 50% TEA in acetone preparation method in 2023, with 28 studio rated as 'good', as shown by the precision summary results. This precision reflects the laboratory's performance and consistency in preparing and analysing the tubes, as well as the subsequent handling of the tubes in the field. Tubes are considered to have a "good" precision where the coefficient of variation of duplicate or triplicate diffusion tubes for eight or more monitoring periods during a year is less than 20%.

Monitoring in 2023 was somewhat completed in adherence with the 2023 Diffusion Tube Monitoring Calendar, whereby all changeovers were completed within ±2 days of the specified date with the exception of January (shorter than the recommended period (-4 days)), March (longer than the recommended period (+4 days)), and April (shorter than the recommended period (-4 days)).

Diffusion Tube Annualisation

For any site where data capture is below 75%, annualisation is to be performed. This is because section 7.196 of LAQM.TG(22) states that:

"If data capture is below 75% for the year, then it is necessary to annualise the data… [as] the concentration varies throughout the year, and the instrument may have been operational for a period of above or below average concentrations".

During 2023, there was no requirement for annualisation at any diffusion tube sites within Folkestone and Hythe District, as all sites had greater than 75% data capture.

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 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.

Folkestone and Hythe District Council have applied a national bias adjustment factor of 0.77 to the 2023 monitoring data. A summary of bias adjustment factors used by Folkestone and Hythe District Council over the past five years is presented in Table C. 2.

No co-location studies are carried out by Folkestone and Hythe District Council therefore only a national factor can be applied. The national factor for SOCOTEC Didcot 50% TEA in acetone, as presented in the Diffusion Tube Bias Factors Spreadsheet v03_24, was 0.77 based on 28 studies. The National Bias Adjustment Spreadsheet is presented in Figure C. 1.

Table C. 2 – Bias Adjustment Factor

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	09/19	0.76
2019	National	06/18	0.75

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 – NO2 2023 Diffusion Tube Results (µg/m3).

No diffusion tube monitoring location within Folkestone and Hythe District Council required distance correction during 2023.

Figure C. 1 – National Bias Adjustment Factor Spreadsheet (03/24)

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

If a laboratory is not shown, we have no data for this laboratory.

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

If a preparation method is not shown, we have no data for this method at this laboratory.

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

If a year is not shown, we have no data[2]

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[3] shown in blue at the foot of the final column.**

If you have your own co-location study then see footnote[4]. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953

Analysed By[1]	Method (To undo your selection, choose (All) from the pop-up list)	Year[5] (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 Precision[6]	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didcot	50% TEA in Acetone	2023	R	East Suffolk Council	12	29	21	38.9%	G	**0.72**
SOCOTEC Didcot	50% TEA in Acetone	2023	R	Wrexham County Borough Council	11	17	14	25.2%	G	**0.80**
SOCOTEC Didcot	50% TEA in Acetone	2023	R	Horsham District Council	12	21	17	23.5%	G	**0.81**
SOCOTEC Didcot	50% TEA in Acetone	2023	R	Horsham District Council	10	25	17	43.5%	G	**0.70**
SOCOTEC Didcot	50% TEA in Acetone	2023	R	Horsham District Council	10	23	24	-5.4%	G	**1.06**
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 Factor[3] (28 studies)**				**Use**		**0.77**

Appendix D: Maps of Monitoring Locations

Figure D.1- All Non-Automatic Monitoring Sites

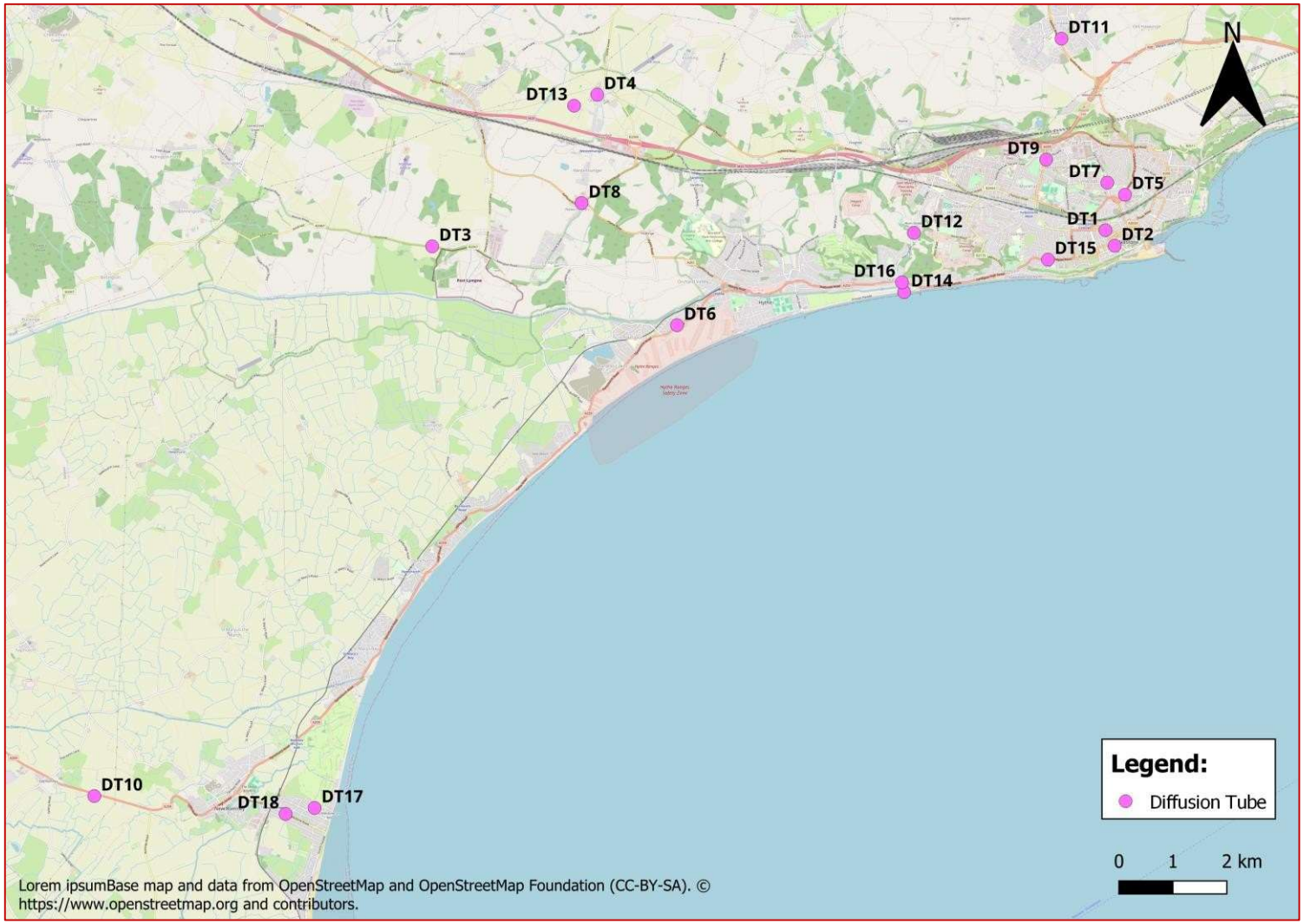


Figure D.2 – Non-Automatic Monitoring Sites: Lympne

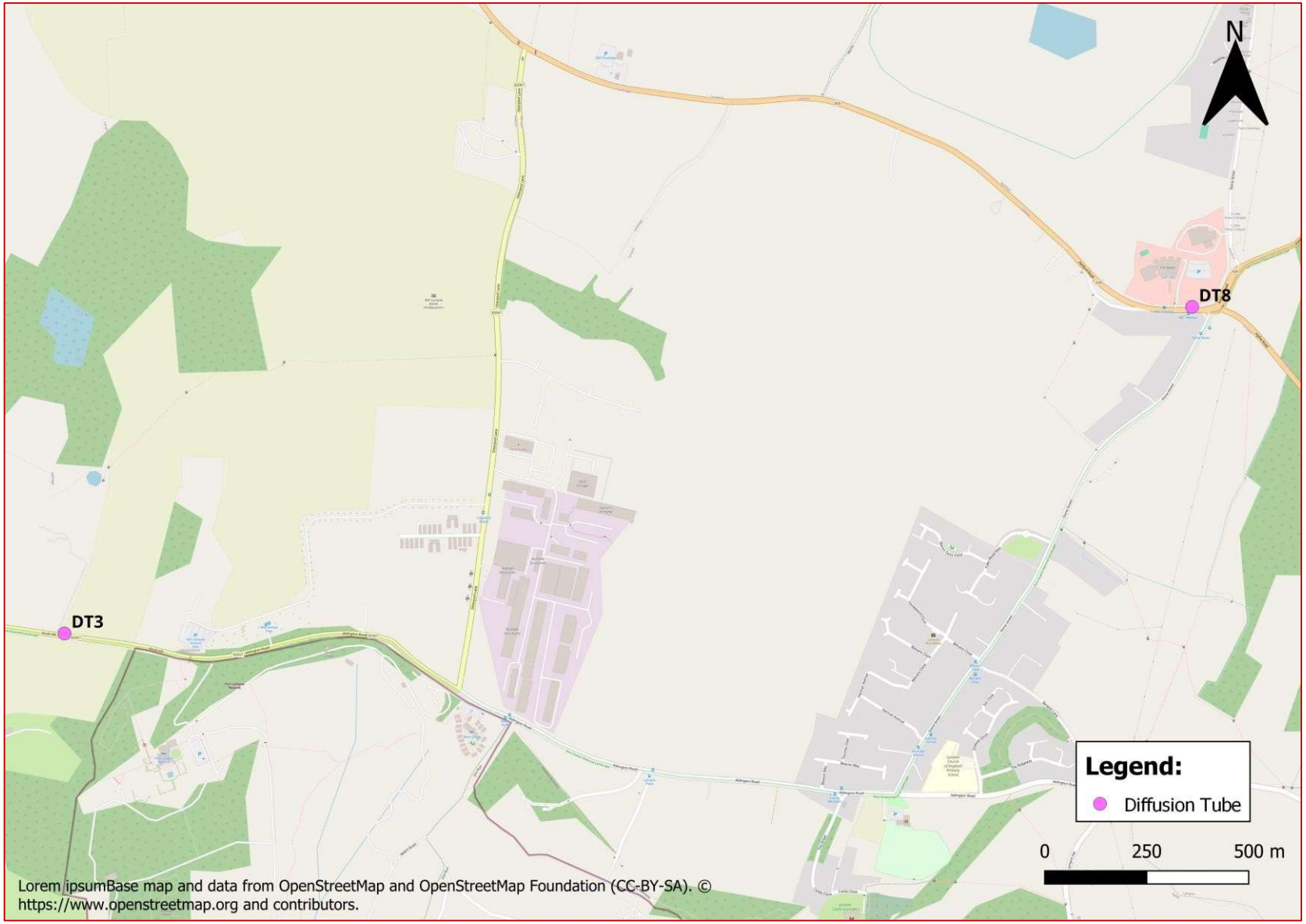


Figure D.3 – Non-Automatic Monitoring Sites: Folkestone

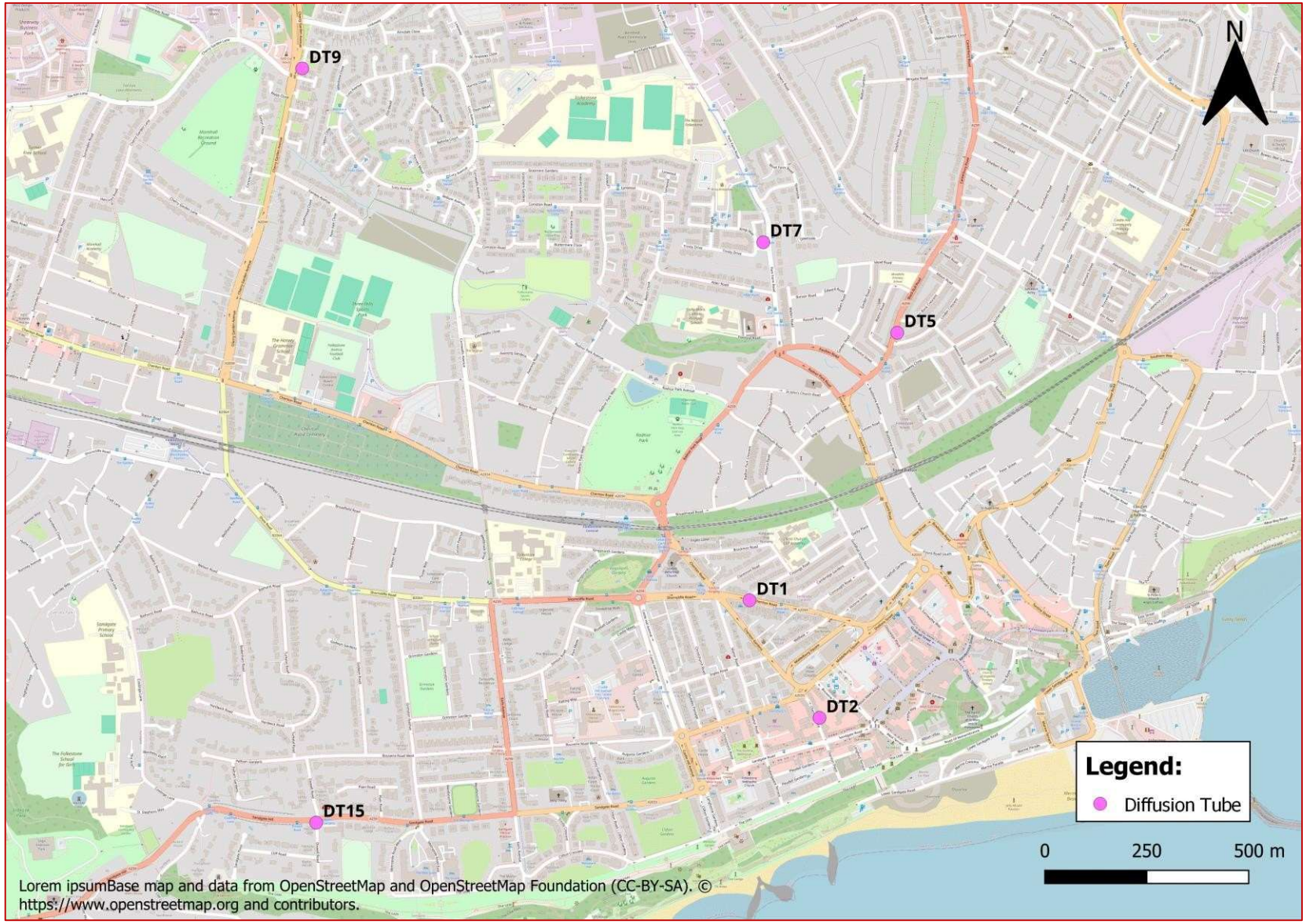


Figure D.4 – Non-Automatic Monitoring Sites: Hawkinge

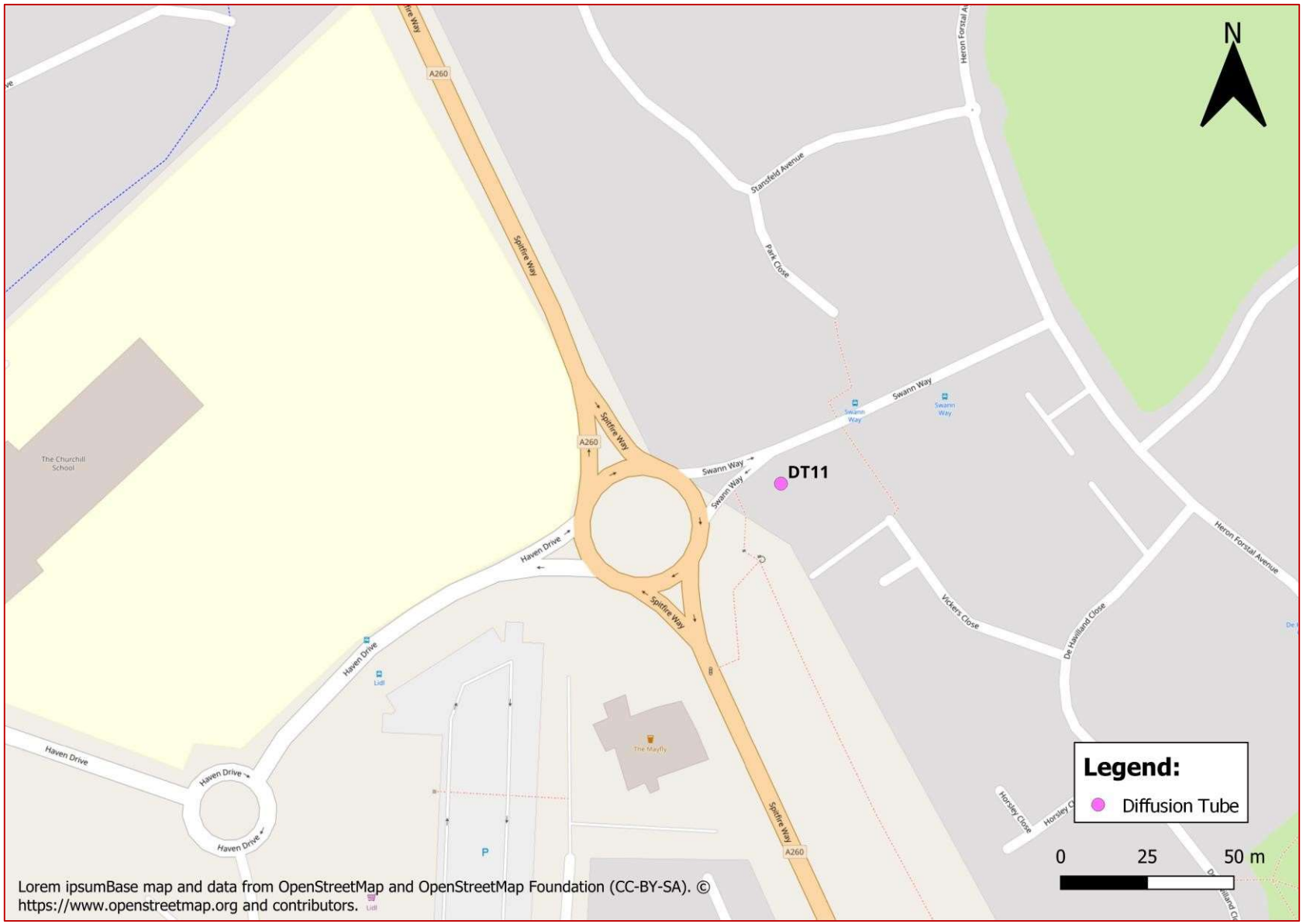


Figure D.5 – Non-Automatic Monitoring Sites: Pennypot

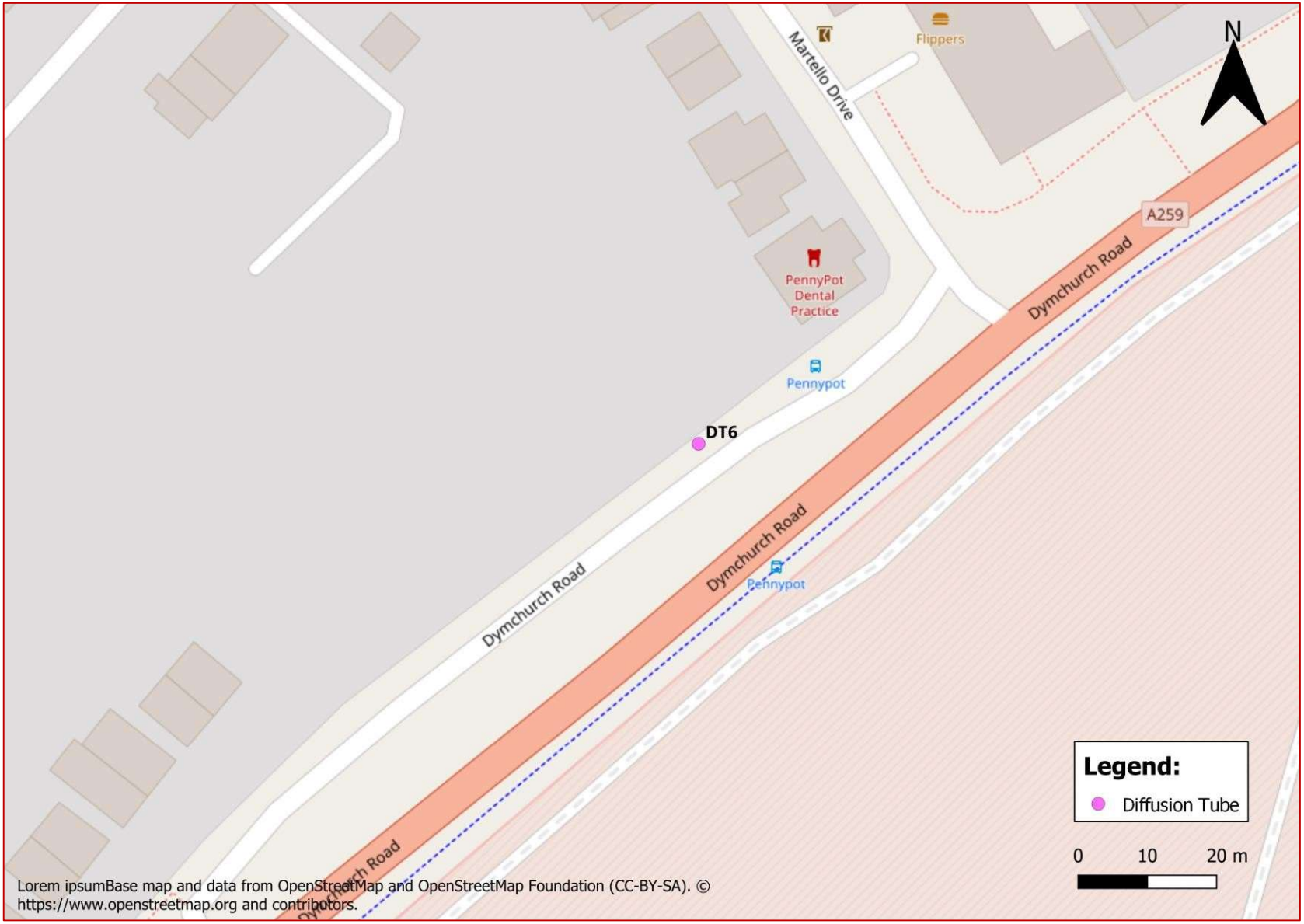


Figure D.6 – Non-Automatic Monitoring Sites: Romney

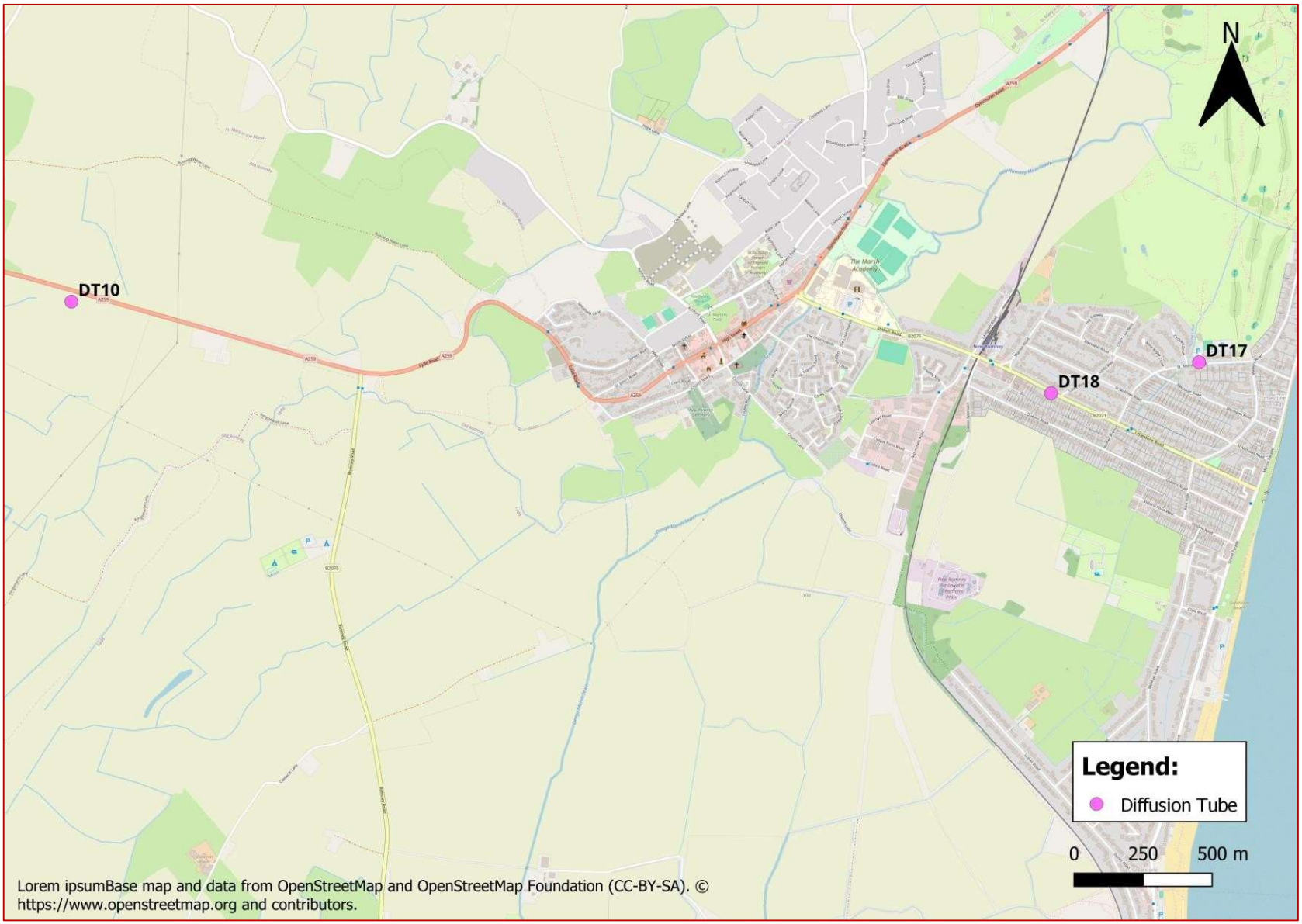


Figure D.7 – Non-Automatic Monitoring Sites: Seabrook

Figure D.8 – Non-Automatic Monitoring Sites: Stanford

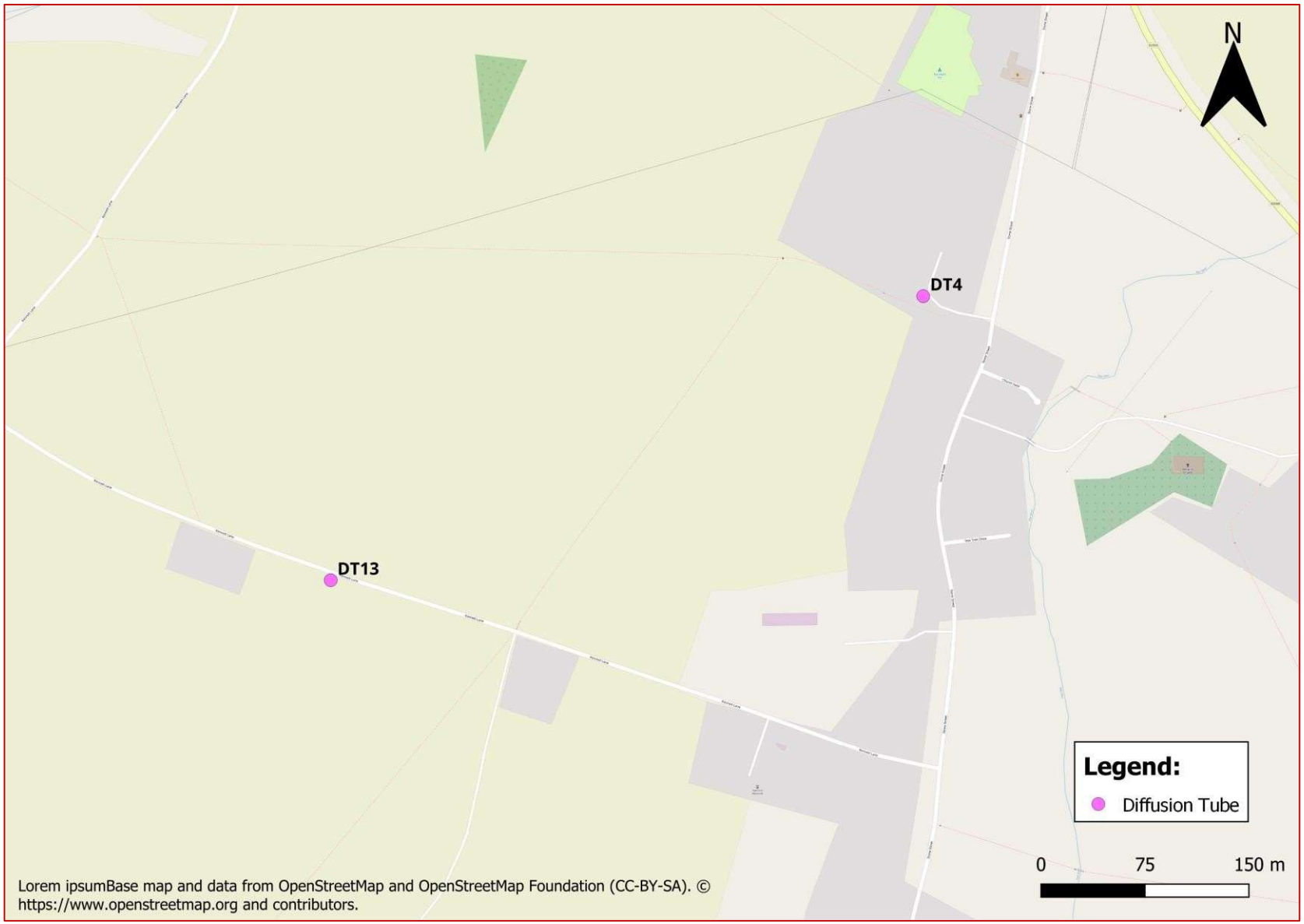
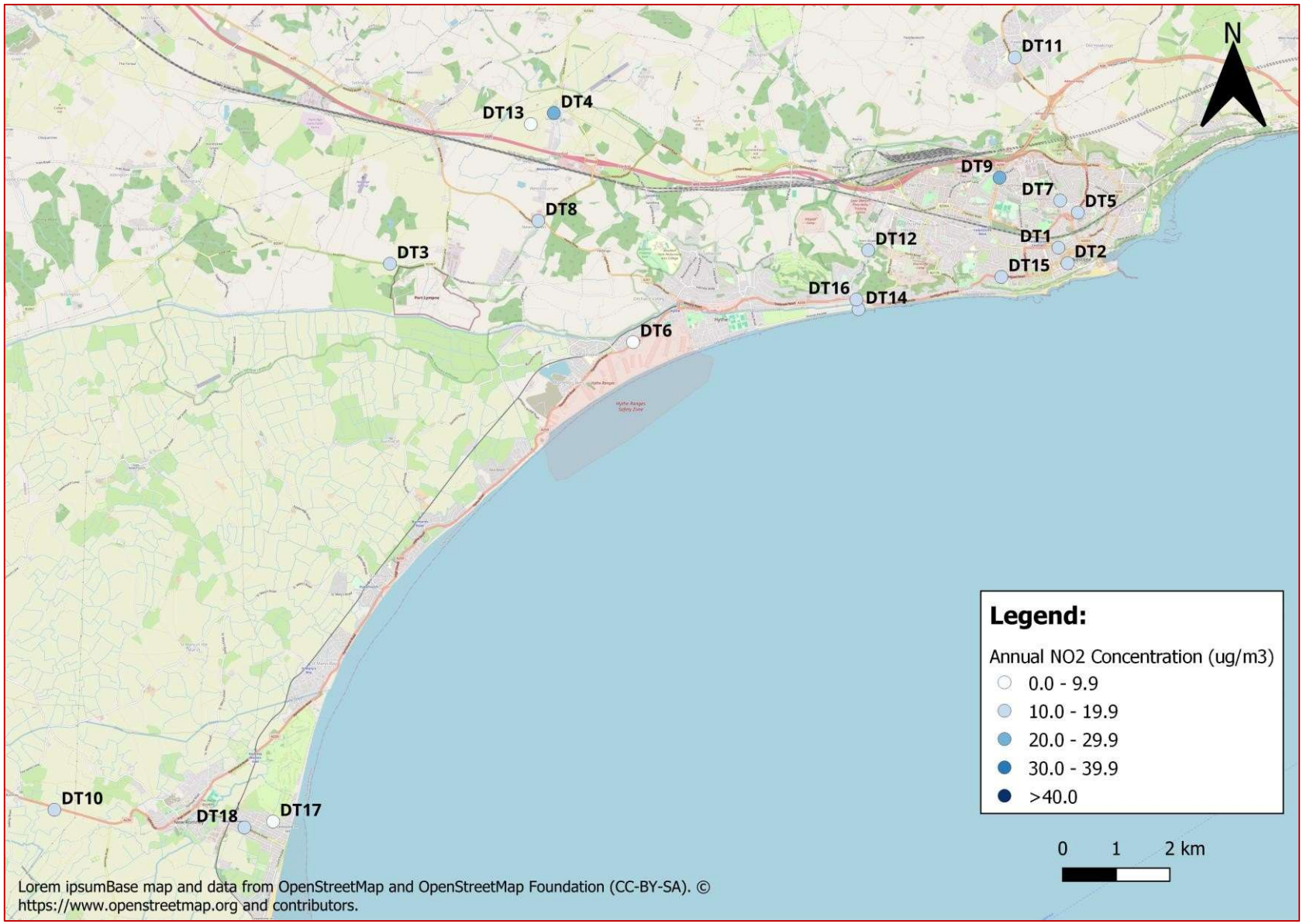


Figure D.9 – 2023 Annual NO_2 Concentrations All Non-Automatic Monitoring Sites



Appendix E: Summary of Air Quality Objectives in England

Table E.1– Air Quality Objectives in England[9]

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

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

Glossary of Terms

Abbreviation	Description
AQA	Air Quality Assessment
AONB	Area of Outstanding Natural Beauty
AQS	Air Quality Standard
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
CMP	Construction Management Plan
CO_2	Carbon Dioxide
CVD	Cardiovascular Disease
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
DT	Diffusion Tube
EA	Environmental Assessment
EPC	Energy Performance Certificate
EU	European Union
EV	Electric Vehicles
FDMS	Filter Dynamics Measurement System
HCP	Health Care Professionals
LAQM	Local Air Quality Management
LCWIP	Local Cycling and Walking Infrastructure Plan
LED	Light Emitting Diode
NHS	National Health Service
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides

Abbreviation	Description
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
PG	Policy Guidance
QA/QC	Quality Assurance and Quality Control
SCA	Smoke Control Area
SHDC	Social Housing Decarbonisation Fund
SO_2	Sulphur Dioxide
SSSI	Sites of Special Scientific Interest
TG	Technical Guidance

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.
- Folkestone and Hythe District Council 2023 Air Quality Annual Status Report.