Dorset Council

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: June 2025

Information	Dorset Council Details
Local Authority Officer	Ben Frost-Jones
Department	Environmental Protection
Address	Dorset Council County Hall Dorchester Dorset DT1 1XJ
Telephone	01305 221000
E-mail	envhealth@dorsetcouncil.gov.uk
Report Reference Number	DC_ASR_2025
Date	June 2025

Local Responsibilities and Commitment

This ASR was prepared by the Environmental Protection Department of Dorset Council with the support and agreement of the following officers and departments:

Darren Naraine, Team Leader, Environmental Protection

Janet Moore, Service Manager, Environmental Protection

This ASR has been approved by:

Graham Duggan, Head of Service, Community and Public Protection

This ASR has been signed off by Rachel Partridge, Director of Public Health.

Executive Summary: Air Quality in Our Area

Air Quality in Dorset

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.

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 government's Environmental Improvement Plan 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 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 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.

Primary actions taken to improve air quality in Dorset principally revolve around the Air Quality Action Plan for Chideock and the harmonisation and streamlining of air quality monitoring practices between teams. National Highways (formerly Highways England), who hold responsibility for actions regarding the A35 trunk road passing through Dorset – the principal source of NO_2 emissions in the AQMA in Chideock – have seen success also with the extension of the 30mph speed limit and its permanent implementation. This means the speed limit can now be enforced. Dorset Council continue to work with our colleagues at National Highways, as well as our own Highways Department, Public Health Dorset, elected members and Parish Councils.

Further working has been undertaken as part of a DEFRA-funded project to monitor and quantify emissions from solid-fuel burning appliances. This sought to quantify PM emissions in locales with higher numbers of solid-fuel burners and measure the impact of behaviour change initiatives and campaigns. This project was completed in summer/autumn 2024, and report prepared and published in early 2025. Partners in Public Health and Litter Free Dorset are partnering with Environmental Protection to further extend anti-idling schemes outside schools, and to extend the school-streets programme which closes roads around schools at drop-off and pick-up times.

Conclusions and Priorities

In general, concentrations of NO_2 at monitoring locations showed reductions on 2022 concentrations. Given 2022 was the first year since 2019 without COVID-19 travel restrictions, this is taken to be an accurate reflection of "normal" air pollution conditions. With 2022 indicating reduced concentrations from 2019, 2024 showed a continuation of this trend. In some cases, 2024 concentrations exceeded 2023, however these remained marginal.

Two exceedances of the AQO were detected. Both of these exceedances occurred within the Chideock AQMA, at locations W39 and H6. H7 also demonstrated concentrations within 10% of the AQO, and neither W39 nor H7 lost this designation when corrected for distance. The AQMA at Chideock will remain in place. All sites in Chideock show reductions compared to 2022, demonstrating a continuation of the downward trend occurring since 2019.

The AQMA at Dorchester continues to detect low concentrations of NO_2, such that revocation of the AQMA was undertaken during late 2024. Monitoring will continue to ensure concentrations remain lowered. Sites within the Bridport East Road area remain below 2022 levels, with no sites within 10% of the AQO.

Sites in Weymouth, including the Boot Hill area largely show improved air quality on 2023, with some sites showing increases in concentrations. No sites show exceedances of the AQO, or concentrations within 10% of it. Monitoring will continue during 2025 with further provision planned for the Boot Hill area.

Air Quality in both former East Dorset and Purbeck districts remains very good, with no identified AQMAs, areas for concern, exceedances or sites within 10% of the AQO. All sites continue the downward trend from 2022 concentrations, however these sites remain less than, or in proximity to, half of the annual mean. Monitoring continues to take place, with careful consideration given to sites near significant developments and those guided by public and member requests.

No exceedances of the PM_{10} annual mean objective were detected across two sites in Dorset, with neither having 24-hour means over 50µg/m^3. Beaminster's annual mean continued to demonstrate a downwards trend, and concentrations in Ferndown returned to levels broadly consistent with a downwards trend since 2019. All monitors were decommissioned in late 2024, to be replaced in other Dorset locations to supplement passive monitoring.

Annual mean $PM_{2.5}$ levels show a mixed picture across Dorset, with a general downward trend. Beaminster concentrations continue to fall on pandemic levels, demonstrating clearly an anomalously low 2022 result. Ferndown has remained consistent with 2023 concentrations, and overall, the $PM_{2.5}$ outlook in Dorset remains good, with all sites remaining below the future 2040 target of 10µg/m^3. This is advised with caution however.

We continue to work with other council services including Highways and Planning, the Environment Agency and local businesses by way of the permitting regime to ensure that air quality is continually reviewed.

How to get Involved

Our Local Plan states “Everyone has a role to play in tackling climate change and in adapting to its impacts. Community based initiatives such as local car share schemes, village hall investments, biofuel utilisation, community emergency support and renewable energy part ownership will be supported by the Council. Neighbourhood plans may address the adaptation and mitigation of climate change at the community level as recognition that all neighbourhoods can contribute towards tackling climate change in a way which is appropriate to their local area.”

The Dorset Council website https://www.dorsetcouncil.gov.uk/travel/travel.aspx includes measures the public can actively use to improve air quality within the area, these include matters such as interactive cycle maps, adult cycle training and walking routes and trails.

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1 Local Air Quality Management

This report provides an overview of air quality in Dorset 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 Dorset to improve air quality and any progress that has been made.

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

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

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

A summary of AQMAs declared by Dorset can be found in Table 2.1. The table presents a description of the AQMA that is currently designated within Dorset. 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 is as follows:

- NO_2 annual mean;

The AQMA formerly covering High East Street in Dorchester was revoked during 2024. Monitoring continues within its former boundaries.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA Chideock	May 2007, Amended March 2012	NO_2 Annual Mean	A35 in Chideock	YES	45.5	59.0	0	Chideock Air Quality Action Plan, 2022	Link

☒ **Dorset confirm the information on UK-Air regarding their AQMA(s) is up to date**

☒ **Dorset confirm that all current AQAPs have been submitted to Defra**

2.2 Progress and Impact of Measures to address Air Quality in Dorset

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

> *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 Dorchester AQMA is missing from the LAQM Portal.*
> 2. *A significant number of charts have been provided to highlight the annual mean concentrations in different areas since 2019. This is helpful in highlighting any trends and potential hotspots. It may be useful for the Council to include a line highlighting the annual mean objectives where appropriate.*
> 3. *The following formatting errors are noted:*
>   a. *The bias adjustment factor should be added to the headers in Table B.1.*
>   b. *As monitoring has not been undertaken the Boot Hill monitoring site since 2018, this does not need to be included within the report tables.*
> 4. *Additional discussion has been provided regarding measures to reduce $PM_{2.5}$ emissions. This includes discussion regarding the modelled Defra backgrounds, which show a maximum $PM_{2.5}$ concentration of 14.8 µg/m^3 within Dorset (2019). The Council should continue these discussions in future ASRs. It may also be beneficial to discuss the Public Health Outcomes Framework indicator D01 (fraction of mortality attributable to particulate matter).*
> 5. *Figures have been included to highlight the location of monitoring sites. These figures are clear and the locations of monitoring sites are easy to read. A scale bar and north arrow could be added to these figures for completeness.*
> 6. *The Council are commended for including comments from the previous ASR appraisal and have clearly taken on board the feedback. The Council should continue to do so in future reports.*

Dorset 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. 28 measures are included within Table 2.2, with the type of measure and the progress Dorset 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. Key completed measures are:

- Implementation and enforcement of the 30mph speed limit on Chideock Hill in partnership with National Highways and Dorset Police.
- Conclusion and publishing of the DEFRA-funded solid-fuel burning project, in both report form, and as dissertation by lead author.
- Increasing our provision of PM monitoring to include urban locations likely to be sensitive to PM pollution by repurposing AQMesh monitors used for solid fuel burning project
- Information and marketing campaign to improve solid fuel burning behaviours
- Renewal of Dorset Council pool-car fleet to include new plug-in electric vehicles
- Installation of 10 charging points for use by council staff, and wider roll-out of charging points in Council-owned car parks
- Exploration of anti-idling, school street and traffic management schemes to improve roadside air quality.

Dorset Council worked to implement these measures in partnership with the following stakeholders during 2024:

- Neighbouring local authorities;
- National Highways
- Public Health Dorset
- Local and national transport authorities
- Dorset and Wiltshire Fire and Rescue
- Dorset Police
- South West Ambulance Trust
- NHS

Whilst the measures stated above and in Table 2.2 will help to contribute towards compliance, Dorset Council anticipates that further additional measures not yet prescribed

will be required in subsequent years to achieve compliance and enable the revocation of Chideock AQMA.

Low Carbon Dorset Programme

The programme is run by Dorset Council and aims to help improve energy efficiency, increase the use of renewable energy, and aid the development of new low carbon products. Dorset based businesses, public sector and community organisations can access free support and a fund pot of over £2.15m to help improve energy efficiency and develop renewable energy projects. https://www.lowcarbondorset.org.uk/

Climate Strategy and Ecological Action Plan

Dorset Council declared a Climate and Ecological Emergency in 2019 and established an Executive Advisory Panel to strategically guide the Councils response. A Climate and Ecological Emergency Strategy was produced in July 2020 which presented 8 key areas for action to ensure that Dorset Council becomes Carbon Neutral by 2040 and the Dorset Council Area by 2050 https://www.dorsetcouncil.gov.uk/climate- -emergency

Measures within the Action Plan will positively affect air quality throughout the Dorset Council area, and include:

- Ensure access to sustainable transport is considered in planning applications
- Investigate potential for small scale park & ride hubs with electric vehicle charging point availability
- Encourage decarbonisation of road transport through development of public EV charging network & promotion of ultra low emissions vehicles
- Expand cycle training and independent travel training programmes, and
- Explore introduction of a bike share scheme in larger settlements

Dorset Council Local Plan

Currently, Dorset Council is working on the new Local Plan to shape society, economy and the environment over a 15 year period. Consultation on it commenced early 2021, in readiness for its adoption in 2027.

The plan will:

- Protect and enhance Dorset's natural environment and biodiversity
- Deliver suitable housing to Dorset's needs

- Work to provide residents with a good quality of life with high quality and well designed developments
- Provide cycle ways and access to the countryside

Information can be found via https://www.dorsetcouncil.gov.uk/w/the-local-development-scheme-for-dorset-council-march-2024#introduction

Planning Applications

The Environmental Protection Team review all referred and validated planning applications for their air quality impact. Relevant guidance is followed when reviewing these applications, i.e. Land-Use Planning and Development Control: Planning for Air Quality, January 2017 (EPUK and IAQM). Where there is a potential adverse impact, or the development introduces new sensitive receptors within an AQMA, an air quality impact assessment is required. Where this identifies a significant adverse impact on air quality or human health then mitigation measures are required.

Local Transport Plan 3 2011 – 2026

The Local Transport Plan 3 (LTP3) is a statutory document which sets out a strategy for the management, maintenance and development of the County's transport system. It sets out a way forward to deliver transport needs through short, medium and long term transport solutions and how transport can improve safety and health, support the local economy, protect the environment and reduce carbon emissions and pollution. The LTP3 came into effect in April 2011 and has been produced for the whole of Bournemouth, Poole and Dorset. It covers the period from 2011 to 2026 and is based on a longer term strategy (2011 – 2026) and shorter term implementation plan(s) (3 years). Further information can be found at https://www.dorsetcouncil.gov.uk/roads-highways-maintenance/transport-planning/local-transport-plan/local-transport-plan-3.aspx

A new travel plan covering from 2026 onwards is in the creation phase, and environmental protection are consultees to feed into the process moving forwards. Initial discussions demonstrate a keenness from both officers and elected members to ensure air quality and its improvement is at the forefront of discussions.

Travel choice

This is a County-wide initiative to raise awareness about the impacts of travel behaviour and to encourage people to make informed decisions about journeys they make. For example information is provided on interactive cycle maps, adult cycle training and walking

routes and trails. This initiative also promotes Car Share Dorset, an online tool to encourage and facilitate car sharing by matching journeys, run jointly by Dorset Council and Bournemouth, Chrischurch and Poole (BCP) Council. More information can be found https://www.dorsetcouncil.gov.uk/travel/travel.aspx and https://liftshare.com/uk/community/dorset

Industrial Installations

Certain industrial processes and activities which have the potential to cause pollution are required to have an Environmental Permit to operate. The Environmental Permitting (England and Wales) Regulations 2016 were made under the Pollution Prevention and Control Act 1999 and prescribe those processes and activities which require a permit. These processes are split into three categories: Part A (1), Part A(2) and Part B and are regulated by the Environment Agency and local authorities.

A list of Permitted Processes in the Dorset Council area is available from https://www.dorsetcouncil.gov.uk/business-consumers-licences/licences-and-permits/environmental-permits/public-register-of-environmental-permits-in-west-dorset

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	Dorset Highways asset management plan (HAMP)	Transport Planning and Infrastructure	Public transport improvements-interchanges stations and services	2018	2022	DC	Capital	Funded		Completed			HAMP	
2	Low Carbon Travel Strategy	Promoting Low Emission Transport	Other	2011	2026	DC/BCP	Capital	Funded		Ongoing				2026
3	Promote and, as appropriate, implement road network improvements as identified through the Local Transport Plan and other related processes e.g. links to/from South West/Bristol/M4 e.g. A350/C13, road & rail links to/from Port of Poole and Weymouth/Portland Port, links to/from Bournemouth Airport.	Freight and Delivery Management	Route Management Plans/ Strategic routing strategy for HGV's	2017	2019	DC/BCP, DLEP, FQP, FTA, RHA, NH	Capital	Funded		Completed				Superseded by new HAMP
4	Sustainable Energy accross the Common Space (SEACS)	Promoting Low Emission Plant	Other measure for low emission fuels for stationary and mobile sources	2011	2021	Devon County Council Wiltshire Council 2 Local Uthority Partners from Brittany	INTERREG IV	Funded		Completed			Completed	Brexit
5	Dorset Solar Farm Community Benefits	Other	Other	2014	2016	Community Energy Team	Capital	Funded		Completed				
6	Expand EV Charging Points & other ultra-low emission fuel alternatives	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	ongoing		DC	Capital	Funded		Ongoing, but significant progress			10 points installed at County Hall, Dorchester	
7	Improve cycle infrastructure	Promoting Travel Alternatives	Promotion of cycling	2020		DC / BCP	Transforming Cities Fund	Funded		Implementation			Multiple new cycle routes and lanes in key commuting corridors	
8	Highways Maintenance	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2019			Capital	Funded		Implementation				
9	Lobby Govt for rail improvements	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2019		DC	Capital	Funded		Implementation			Improvements via nationalisation of operator franchises	

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	Respond to government calls and submit high quality grant applications	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2019		DC	Capital	Funded		Implementation				
11	Redirect investment from strategic road schemes to low carbon transport	Promoting Low Emission Transport	Other	2019		DC with STB & LEP	Capital	Funded		Implementation				
12	Reinforce low carbon transport policies through statutory planning documents including refreshed LTP and new Draft Local Plan	Promoting Low Emission Transport	Other	2019		DC	Capital	Funded		Implementation				
13	Ensure access to sustainable transport is considered in planning applications	Alternatives to private vehicle use	Other	2019		DC	Capital	Funded		Implementation				
14	Investigate potential for small scale park & ride hubs with electric vehicle charging point availability	Alternatives to private vehicle use	Bus based Park & Ride	2019		DC	Capital	Funded		Planning				
15	Encourage decarbonisation of road transport through development of public EV charging network & promotion of ultra low emissions vehicles, and including on-going management	Freight and Delivery Management	Delivery and Service plans	2019	2024	DC	Capital	Funded		Implementation				
16	Encourage use of ultra low emission public transport vehicles (including taxis) – particularly smaller buses	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2019	2024	DC	Capital	Funded		Implementation				
17	Working closely with Dorset Business Travel Network and Digital Dorset to promote the use of ICT to individuals and businesses to avoid travel / encourage working from home	Promoting Travel Alternatives	Encourage / Facilitate home-working	2019	2021	DC / Dorset Business Travel Network / Digital Dorset	Capital	Funded		Completed			Majority of council staff able to or currently are working from home. Full adoption of flexible approach	2021
18	To green the Council fleet	Vehicle Fleet Efficiency	Fleet efficiency and recognition schemes	2019	2025/26	DC	Capital	Funded		Implementation				2025/26
19	Reduce the need for staff to travel to and for work through remote	Promoting Travel Alternatives	Workplace Travel Planning	2019	2021	DC	Capital	Funded		Completed				2021

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
	working and the use of digital													
20	Promote behaviour change away from single occupancy private vehicle use	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2019		DC	Capital	Not Funded		Implementation				Succesful bid to the transforming cities fund, currently in implementation phase
21	DC procurement of alternative refuelling infrastructure to promote LEVs, EV recharging, tax emission incentives and taxi licensing conditions	Vehicle Fleet Efficiency	Other	2019	2026	DC	Capital	Funded		Ongoing with significant progress	NO_x, PM_{10} and $PM_{2.5}$			
22	Continue collaborative work with NH to investigate and, where appropriate, direct measures to improve Chideock AQ inc. permanence of 30mph speed limit	Public Information	Other	2018	2022	DC/NH	Capital	Funded		Complete	NO_x, PM_{10} and $PM_{2.5}$		Reviewed DRAFT AQAP	
23	Control domestic emissions and promoting of cleaner solid fuel consumption	Promoting Low Emission Plant	Other Policy	2022	2025	DC	Capital	Funded		Complete	PM_{10} and $PM_{2.5}$		Main project undertaken, ongoing reminder posts and promotions	
24	Network Rail Dorset Connectivity Project	Transport Planning and Infrastructure	Other	2021		DC/NR/ BCP/DfT	Capital	Not Funded		Planning				
25	Bus Service Improvement Plan	Transport Planning and Infrastructure	Bus route improvements	2021		DC/Bus service providers/ DfT	Capital	Not Funded		Planning				
26	DEFRA-funded solid-fuel burning project	Public information	Other	2021	2024	DC	Capital	Funded		Complete	PM_{10} and $PM_{2.5}$	Report upon completion	Complete, reports published	
27	Re-siting of PM_{10}/$PM_{2.5}$ monitors to review roadside PM	Monitoring	Other	2025	2026	DC, Town/Parish Councils, Private Companies	Capital	Funded		Implementation	PM_{10} and $PM_{2.5}$	Implementation		Procurement
28	Dorset Council Air Quality Strategy	Other	Other	2025	2027	DC	Capital	Funded		Planning	NO_2, PM_{10} and $PM_{2.5}$, NH_3	Report publication		

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[1], 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.

Dorset Council is taking the following measures to address $PM_{2.5}$:

Prior monitoring by Dorset Council have revealed consistently low levels of $PM_{2.5}$ pollution. Monitoring showed annual average concentrations broadly below 10µg/m^3 (2040 AQO) since 2020.

Despite this, actions to further reduce specifically $PM_{2.5}$ concentrations include:

- Scoping and research stages of a potential Dorset Air Quality Strategy to include local and regional sources of $PM_{2.5}$, seeking influence through council assets and infrastructure
- DEFRA-funded solid fuel burning project examining $PM_{2.5}$ emissions and behaviour influence methods to reduce improper burning and thus emissions to atmosphere (and indoor environments)
- Network Rail Dorset Connectivity seeking to increase train availability and service to reduce reliance on private car use for cross-district travel

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

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

This section sets out the monitoring undertaken within 2024 by Dorset 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.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Dorset undertook automatic (continuous) monitoring at 2 sites during 2024 for PM_{10} and $PM_{2.5}$. Table A.1 in Appendix A shows the details of the automatic monitoring sites. NB. Local authorities do not have to report annually on the following pollutants: 1,3 butadiene, benzene, carbon monoxide and lead, unless local circumstances indicate there is a problem.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C.

3.1.2 Non-Automatic Monitoring Sites

Dorset undertook non- automatic (i.e. passive) monitoring of NO_2 at 54 sites during 2024. Table A.2 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)

Table A.3 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).

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.

NO_2 data demonstrates a general and sustained trend in reductions of pollution compared to 2022 concentrations. Given the travel restrictions in place due to the COVID-19 pandemic in both 2020 and 2021, this provides the most realistic indicator of improvement. The 2023 ASR reported an improvement in 2022 against 2019 data, demonstrating 2020 and 2021 to be anomalous years.

Data from the Purbeck and East Dorset areas show a unanimous decrease on 2022 data, and the majority show a decrease compared to 2023 too. All locations demonstrated concentrations of less than half of the annual air quality objective.

Location	ID	2020	2021	2022	2023	2024
Swanage, Gilbert Road	P3	8.5	9.0	10.5	11.5	8.5
Swanage, Kings Rd.	P4	9.2	10.3	11.8	9.7	9.4
Upton, Blandford Road North	P5	16.3	17.4	22.1	18.2	16.1
Sandford, Sandford Road	P9	13.4	14.0	15.7	13.2	12.2
Wareham, Worgret Road	P10	8.2	8.9	10.7	7.4	8.1
Rempstone Car Park, Wareham	P12					9.3
North Street, Bere Regis	P13					11.3
Ham Lane (19 Glissons, Longham)	E2	14.8	14.6	18.6	14.5	14.3

45 Davids Lane, Ashley Heath	E4	11.6	11.3	12.9	11.3	11.2
2 Julians Road, Wimborne	E5	17.8	18.9	24.7	20.4	18.7
392 Ringwood Road, Ferndown	E6	19.1	18.4	22.3	21.0	18.6
7/9 Wimborne Road, Wimborne	E8	10.4	11.4	13.1	12.3	12.8
A31 24 Ringwood Road, Ashley Heath	E9	23.8	21.0	25.7	22.7	18.4
235 Christchurch Road, West Parley	E10	20.2	20.0	23.4	19.7	19.4
opp. 233 Christchurch Road, West Parley	E11	18.8	17.2	20.6	16.7	16.6
28a West Street, Wimborne	E12	12.6	11.6	15.4	13.6	12.8
7 West Borough, Wimborne	E13	14.0	13.3	16.1	15.4	13.4
Station Road, West Moors	E14					12.4

New sites at Rempstone Car Park, Wareham, and Station Road, West Moors, were established following requests by the public for air quality monitoring in response to perceived increases in traffic levels. North Street, Bere Regis, was established due to proposals for significant housing development in the area. Monitoring for sites continues into 2025.

Monitoring locations in the Weymouth and Portland area demonstrate decreased concentrations in comparison to 2022, although seven sites show slightly increased concentration in comparison to 2023.

Location	ID	2020	2021	2022	2023	2024
St Georges Est, Portland	W1	6.6	6.6	8.2	5.9	7.8
King St, Weymouth	W2	19.7	17.9	27.7	24.0	24.4
Rodwell Rd, Weymouth	W3	25.9	24.6	37.7	31.1	32.3
Co-location i	W5	24.0	22.8	30.9	31.8	25.5
Portmore Gardens, Weymouth	W6	22.9	21.0	31.1	26.7	26.4
Portland Port	W46		10.4	13.0	11.1	12.0
Castletown	W47		9.5	13.5	11.1	13.3
Rodwell Inn, Weymouth	W9	24.2	23.2	34.8	29.2	30.2

16 Rodwell Road, Weymouth	W10	26.3	19.0	37.3	31.9	31.9
Upwey St, Weymouth	W12	21.9	20.1	28.6	36.1	27.2
Dominoes, Weymouth	W13	22.1	20.8	30.5	30.6	25.4
Fortuneswell, Portland	W14	24.0	21.2	31.2	25.6	26.2

Upwey Street, W12, shows a decrease from previously being within 10% of the annual objective, with nearby W13 also showing a decrease, albeit less significant. Tubes in the Boot Hill/Rodwell Road area for concerns show concentrations broadly in line with 2023. The monitoring in Weymouth and Portland is planned to be supported by redistribution of the AQ Mesh pods to a site on Boot Hill, and near Portland Port. This is to monitor increased HGV traffic due to the now approved inert waste incinerator planned for Portland Port. Monitoring of all sites will continue into 2025.

Monitoring results from the Dorchester and Bridport areas demonstrate mixed results. All concentrations measured remain below those from 2022, although many show increases on 2023. These remain minor, however.

Location	ID	2020	2021	2022	2023	2024
Stratton House, Dorchester	W15	21.5	22.2	30.7	25.9	27.2
High East St (Majestic Wines)	W17	17.2	17.3	24.0	23.8	20.2
High East St (Church House)	W18	23.6	21.3	32.1	28.2	25.0
Borough Gardens, Dorchester	W24	7.4	7.8	9.5	7.5	9.4
High West St (Homechester Hse)	W25	18.8	18.5	27.7	20.9	21.9
49 East Rd (Lampost 12) Bridport	W27	25.2	24.9	36.6	35.2	31.0
45 East Rd (Lampost 10) Bridport	W28	26.3	26.5	35.1	27.2	28.8
East Rd (Rdbt sign) Bridport	W29	16.0	18.1	21.8	18.5	18.2

Tubes within the former Dorchester AQMA (W17 and W18) show continued decline in concentrations, further vindicating Dorset Council's decision to revoke the AQMA. Monitoring in all locations continues into 2025.

Tube locations within the Chideock AQMA showed no overall increase or decrease, but all changes were minor.

Location	ID	2020	2021	2022	2023	2024
Hope Cottage, Chideock	W32	10.4	12.1	13.8	12.4	12.1
Greenhill, Chideock	W33	10.4	11.0	14.4	11.3	12.7
Duck St, Chideock	W34	20.2	22.1	29.8	25.0	25.6
Village Hall, Chideock	W36	21.8	23.2	32.7	28.6	27.4
Whitecroft, Chideock	W37	30.0	32.2	**42.1**	35.7	34.2
Warren House, Chideock	W38	13.7	15.2	19.5	15.7	19.8
Chideock Hill Cottage, Chideock	W39	**45.1**	**47.6**	**64.5**	**54.4**	**59.0**
Bay Tree House	H2		21.9	28.1	23.1	23.0
Willens Cottage	H3		22.3	28.1	23.3	23.9
Village Hall	H4		27.3	34.0	28.0	28.7
Southside Cottage	H5		29.2	39.3	31.0	33.8
Langdon	H6		39.9	**57.2**	**57.9**	**49.3**
Yew Tree House	H7		35.9	**47.2**	39.3	37.9
The Clock	H8		27.2	36.0	32.0	27.6

Two exceedances of the AQO in the AQMA were detected, W39 and H6. H7 recorded a concentration within 10% of the AQO also. Both W39 and H7 required distance correction, but W39 remained above the objective (44.7µg/m^3) and within 10% of the objective (36.1µg/m^3) respectively. A localised rural background monitoring tube has been assigned to Chideock for 2025 to more accurately provide distance correction data. Monitoring will continue into 2025.

North Dorset area tubes showed continued low concentrations of NO_2.

Location	ID	2020	2021	2022	2023	2024
Lawrence Cotts, Gillingham	W40	22.8	23.0	25.7	27.1	22.0
The Barbers, Sturminster Newton	W42	19.7	20.1	28.1	23.6	25.4

Whilst W40 showed a decrease on 2023, W42 showed an increase but remained below 2022 concentrations. Monitoring will continue into 2025.

3.2.2 Particulate Matter (PM_{10})

Table A.4 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past five years with the air quality objective of 40µg/m^3.

Table A.5 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for the past five years with the air quality objective of 50µg/m^3, not to be exceeded more than 35 times per year.

Using our AQMesh Pods, PM_{10} has been measured at two sites in Dorset: Beaminster School and Ferndown Golf Club. Neither site has an annual mean exceeding the objective, and neither demonstrate daily means above 50µg/m^3.

Analysers at Sandford and Blandford that were previously used have been decommissioned. Ferndown and Beaminster were decommissioned at the end of 2024. New monitors are likely to be redistributed in late 2025.

Beaminster demonstrates a continued trend from 2020 and 2021 of decreasing PM_{10} emissions. A theory was alluded to in the 2023 ASR that recalibration in 2022 may have resulted in high variance in results, and this result appears to be consistent with this theory. Ferndown appears to remain consistent with 2020, 2021 and 2023 data. Both analysers show concentrations around 10µg/m^3. Neither monitor detected any 24h means over 50µg/m^3.

3.2.3 Particulate Matter ($PM_{2.5}$)

Table A.6 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations for the past five years.

Using our AQMesh Pods, PM_{10} has been measured at two sites in Dorset: Beaminster School and Ferndown Golf Club.

Analysers at Sandford and Blandford that were previously used have been decommissioned. Ferndown and Beaminster were decommissioned at the end of 2024. New monitors are likely to be redistributed in late 2025.

Beaminster again demonstrates a continued trend from 2020 and 2021 of decreasing $PM_{2.5}$ emissions to a concentration of 6.9µg/m^3. This result again appears to be consistent with the 2022 calibration theory. Ferndown remains at increased concentrations over 2020 and 2021 levels, but shows improvement over 2022 and 2023 with 5.4µg/m^3. Both analysers show very low concentrations, significantly below the national targets of 12 µg/m^3 by 2028, and 10µg/m^3 by 2040.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? (1)	Monitoring Technique	Distance to Relevant Exposure (m) (2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
Beaminster	Beaminster	Rural	347967	101967	PM_{10}, $PM_{2.5}$	No		Optical Particle Counter	0.0	27.0	4.0
Ferndown	Ferndown	Suburban	408440	99391	PM_{10}, $PM_{2.5}$	No		Optical Particle Counter	0.0	31.0	4.0

Notes:

(1) N/A if not applicable

(2) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

Table A.2 – 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)
P3	Swanage, Gilbert Road	Urban Background	402790	78950	NO_2		7.0	1.0	No	2.3
P4	Swanage, Kings Rd.	Roadside	402860	78830	NO_2		14.0	1.0	No	2.1
P5	Upton, Blandford Road North	Roadside	397910	93425	NO_2		19.0	2.0	No	2.2
P9	Sandford, Sandford Road	Roadside	393223	89947	NO_2		20.0	1.0	No	2.3
P10	Wareham, Wogret Road	Roadside	391790	87190	NO_2		13.0	1.0	No	2.3
P12	Rempstone Car Park, Wareham	Roadside	392470	87339	NO_2		11.0	1.0	No	5.0
P13	North Street, Bere Regis	Roadside	385127	95184	NO_2		0.0	4.5	No	1.5
E2	Ham Lane (19 Glissons, Longham)	Roadside	406362	98711	NO_2		0.0	1.0	No	3.0
E4	45 Davids Lane, Ashley Heath	Urban Background	413425	104429	NO_2		7.0	0.5	No	3.0
E5	2 Julians Road, Wimborne	Roadside	400677	99998	NO_2		0.0	1.0	No	3.0
E6	392 Ringwood Road, Ferndown	Roadside	407785	100135	NO_2		4.0	1.3	No	3.0
E8	7/9 Wimborne Road, Wimborne	Roadside	401003	100736	NO_2		0.0	1.5	No	3.0

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)
E9	A31 24 Ringwood Road, Ashley Heath	Roadside	412782	104118	NO_2		26.0	1.3	No	3.0
E10	235 Christchurch Road, West Parley	Roadside	408384	97986	NO_2		8.0	1.0	No	3.0
E11	opp. 233 Christchurch Road, West Parley	Roadside	408468	98002	NO_2		4.0	1.0	No	3.0
E12	28a West Street, Wimborne	Roadside	400833	100042	NO_2		0.0	1.2	No	3.0
E13	7 West Borough, Wimborne	Roadside	400901	100149	NO_2		0.0	3.6	No	3.0
E14	Station Road, West Moors	Roadside	407915	102848	NO_2		6.0	1.0	No	3.0
W1	St Georges Est, Portland	Urban Background	368779	71706	NO_2		0.0	2.0	No	2.5
W2	King St, Weymouth	Roadside	368003	79527	NO_2		0.0	2.0	No	2.5
W3	Rodwell Rd, Weymouth	Roadside	367542	78548	NO_2		2.5	2.5	No	2.5
W5	Co-location i	Roadside	367540	78471	NO_2		0.0	3.5	No	3.0
W6	Portmore Gardens, Weymouth	Roadside	367528	78554	NO_2		0.0	2.0	No	3.0
W46	Portland Port	Roadside	368888	74356	NO_2		0.0	0.5	No	3.0

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)
W47	Castletown	Roadside	368847	74356	NO_2		0.0	0.5	No	3.0
W9	Rodwell Inn, Weymouth	Roadside	367550	78485	NO_2		0.0	2.0	No	3.0
W10	16 Rodwell Road, Weymouth	Roadside	367533	78531	NO_2		0.0	2.0	No	3.0
W12	Upwey St, Weymouth	Roadside	367879	78567	NO_2		0.0	1.5	No	3.0
W13	Dominoes, Weymouth	Roadside	367995	79528	NO_2		0.0	2.5	No	3.0
W14	Fortuneswell, Portland	Roadside	368540	73593	NO_2		0.9	1.5	No	2.5
W15	Stratton House, Dorchester	Roadside	369121	90739	NO_2		0.0	2.0	No	2.5
W17	High East St (Majestic Wines)	Roadside	369484	90759	NO_2		0.0	2.0	No	2.5
W18	High East St (Church House)	Roadside	369387	90742	NO_2		0.0	2.0	No	2.5
W24	Borough Gardens, Dorchester	Urban Background	368982	90453	NO_2		5.0	2.0	No	2.5
W25	High West St (Homechester Hse)	Roadside	368982	90706	NO_2		0.0	3.0	No	2.5
W27	49 East Rd (Lampost 12) Bridport	Roadside	347557	93023	NO_2		0.0	2.0	No	2.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
W28	45 East Rd (Lampost 10) Bridport	Roadside	347612	93050	NO_2		0.0	2.0	No	2.0
W29	East Rd (Rdbt sign) Bridport	Roadside	347277	92867	NO_2		0.0	4.0	No	2.5
W32	Hope Cottage, Chideock	Roadside	342364	92814	NO_2	Chideock AQMA	0.0	1.5	No	2.0
W33	Greenhill, Chideock	Roadside	342151	92869	NO_2	Chideock AQMA	0.0	1.5	No	2.5
W34	Duck St, Chideock	Roadside	342190	92840	NO_2	Chideock AQMA	0.0	1.0	No	2.0
W36	Village Hall, Chideock	Roadside	342015	92887	NO_2	Chideock AQMA	0.0	2.0	No	2.5
W37	Whitecroft, Chideock	Roadside	341946	92908	NO_2	Chideock AQMA	0.0	1.0	No	2.0
W38	Warren House, Chideock	Roadside	342025	92894	NO_2	Chideock AQMA	0.0	1.5	No	2.0
W39	Chideock Hill Cottage, Chideock	Roadside	341629	93139	NO_2	Chideock AQMA	3.5	1.0	No	2.5
W40	Lawrence Cotts, Gillingham	Roadside	381302	126181	NO_2		4.1	1.5	No	2.5
W42	The Barbers, Sturminster Newton	Kerbside	378606	114009	NO_2		0.0	1.3	No	2.5
H2	Bay Tree House	Roadside	342143	92845	NO_2	Chideock AQMA	0.0	1.5	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)
H3	Willens Cottage	Roadside	342084	92856	NO_2	Chideock AQMA	0.0	1.5	No	2.5
H4	Village Hall	Roadside	342004	92890	NO_2	Chideock AQMA	0.0	1.5	No	2.5
H5	Southside Cottage	Roadside	341933	92913	NO_2	Chideock AQMA	0.0	3.0	No	2.5
H6	Langdon	Roadside	341881	92934	NO_2	Chideock AQMA	0.0	1.5	No	2.0
H7	Yew Tree House	Roadside	341819	92953	NO_2	Chideock AQMA	1.5	6.0	No	1.5
H8	The Clock	Roadside	342129	92847	NO_2	Chideock AQMA	0.0	1.5	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.3 – 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
P3	402790	78950	Urban Background	100.0	75.0	8.5	9.0	10.5	11.5	8.5
P4	402860	78830	Roadside	100.0	100.0	9.2	10.3	11.8	9.7	9.4
P5	397910	93425	Roadside	100.0	75.0	16.3	17.4	22.1	18.2	16.1
P9	393223	89947	Roadside	100.0	100.0	13.4	14.0	15.7	13.2	12.2
P10	391790	87190	Roadside	100.0	92.5	8.2	8.9	10.7	7.4	8.1
P12	392470	87339	Roadside	100.0	100.0					9.3
P13	385127	95184	Roadside	100.0	90.6					11.3
E2	406362	98711	Roadside	100.0	90.6	14.8	14.6	18.6	14.5	14.3
E4	413425	104429	Urban Background	100.0	100.0	11.6	11.3	12.9	11.3	11.2
E5	400677	99998	Roadside	100.0	100.0	17.8	18.9	24.7	20.4	18.7
E6	407785	100135	Roadside	100.0	100.0	19.1	18.4	22.3	21.0	18.6
E8	401003	100736	Roadside	100.0	100.0	10.4	11.4	13.1	12.3	12.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
E9	412782	104118	Roadside	100.0	100.0	23.8	21.0	25.7	22.7	18.4
E10	408384	97986	Roadside	100.0	100.0	20.2	20.0	23.4	19.7	19.4
E11	408468	98002	Roadside	100.0	100.0	18.8	17.2	20.6	16.7	16.6
E12	400833	100042	Roadside	100.0	81.1	12.6	11.6	15.4	13.6	12.8
E13	400901	100149	Roadside	100.0	100.0	14.0	13.3	16.1	15.4	13.4
E14	407915	102848	Roadside	100.0	92.5					12.4
W1	368779	71706	Urban Background	100.0	92.5	6.6	6.6	8.2	5.9	7.8
W2	368003	79527	Roadside	100.0	92.5	19.7	17.9	27.7	24.0	24.4
W3	367542	78548	Roadside	100.0	92.5	25.9	24.6	37.7	31.1	32.3
W5	367540	78471	Roadside	100.0	67.9	24.0	22.8	30.9	31.8	25.5
W6	367528	78554	Roadside	100.0	84.9	22.9	21.0	31.1	26.7	26.4
W46	368888	74356	Roadside	100.0	84.9		10.4	13.0	11.1	12.0
W47	368847	74356	Roadside	100.0	92.5		9.5	13.5	11.1	13.3

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
W9	367550	78485	Roadside	100.0	92.5	24.2	23.2	34.8	29.2	30.2
W10	367533	78531	Roadside	100.0	92.5	26.3	19.0	37.3	31.9	31.9
W12	367879	78567	Roadside	100.0	92.5	21.9	20.1	28.6	36.1	27.2
W13	367995	79528	Roadside	100.0	92.5	22.1	20.8	30.5	30.6	25.4
W14	368540	73593	Roadside	100.0	83.0	24.0	21.2	31.2	25.6	26.2
W15	369121	90739	Roadside	100.0	75.0	21.5	22.2	30.7	25.9	27.2
W17	369484	90759	Roadside	100.0	84.9	17.2	17.3	24.0	23.8	20.2
W18	369387	90742	Roadside	100.0	66.0	23.6	21.3	32.1	28.2	25.0
W24	368982	90453	Urban Background	100.0	49.1	7.4	7.8	9.5	7.5	9.4
W25	368982	90706	Roadside	100.0	75.0	18.8	18.5	27.7	20.9	21.9
W27	347557	93023	Roadside	100.0	84.9	25.2	24.9	36.6	35.2	31.0
W28	347612	93050	Roadside	100.0	92.5	26.3	26.5	35.1	27.2	28.8
W29	347277	92867	Roadside	100.0	92.5	16.0	18.1	21.8	18.5	18.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
W32	342364	92814	Roadside	100.0	83.0	10.4	12.1	13.8	12.4	12.1
W33	342151	92869	Roadside	100.0	92.5	10.4	11.0	14.4	11.3	12.7
W34	342190	92840	Roadside	100.0	92.5	20.2	22.1	29.8	25.0	25.6
W36	342015	92887	Roadside	100.0	92.5	21.8	23.2	32.7	28.6	27.4
W37	341946	92908	Roadside	100.0	92.5	30.0	32.2	**42.1**	35.7	34.2
W38	342025	92894	Roadside	100.0	83.0	13.7	15.2	19.5	15.7	19.8
W39	341629	93139	Roadside	100.0	75.0	**45.1**	**47.6**	**64.5**	**54.4**	**59.0**
W40	381302	126181	Roadside	100.0	92.5	22.8	23.0	25.7	27.1	22.0
W42	378606	114009	Kerbside	100.0	84.9	19.7	20.1	28.1	23.6	25.4
H2	342143	92845	Roadside	100.0	84.9		21.9	28.1	23.1	23.0
H3	342084	92856	Roadside	100.0	92.5		22.3	28.1	23.3	23.9
H4	342004	92890	Roadside	100.0	92.5		27.3	34.0	28.0	28.7
H5	341933	92913	Roadside	100.0	84.9		29.2	39.3	31.0	33.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
H6	341881	92934	Roadside	100.0	67.9		39.9	**57.2**	**57.9**	**49.3**
H7	341819	92953	Roadside	100.0	83.0		35.9	**47.2**	39.3	37.9
H8	342129	92847	Roadside	100.0	84.9		27.2	36.0	32.0	27.6

☒ **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**.

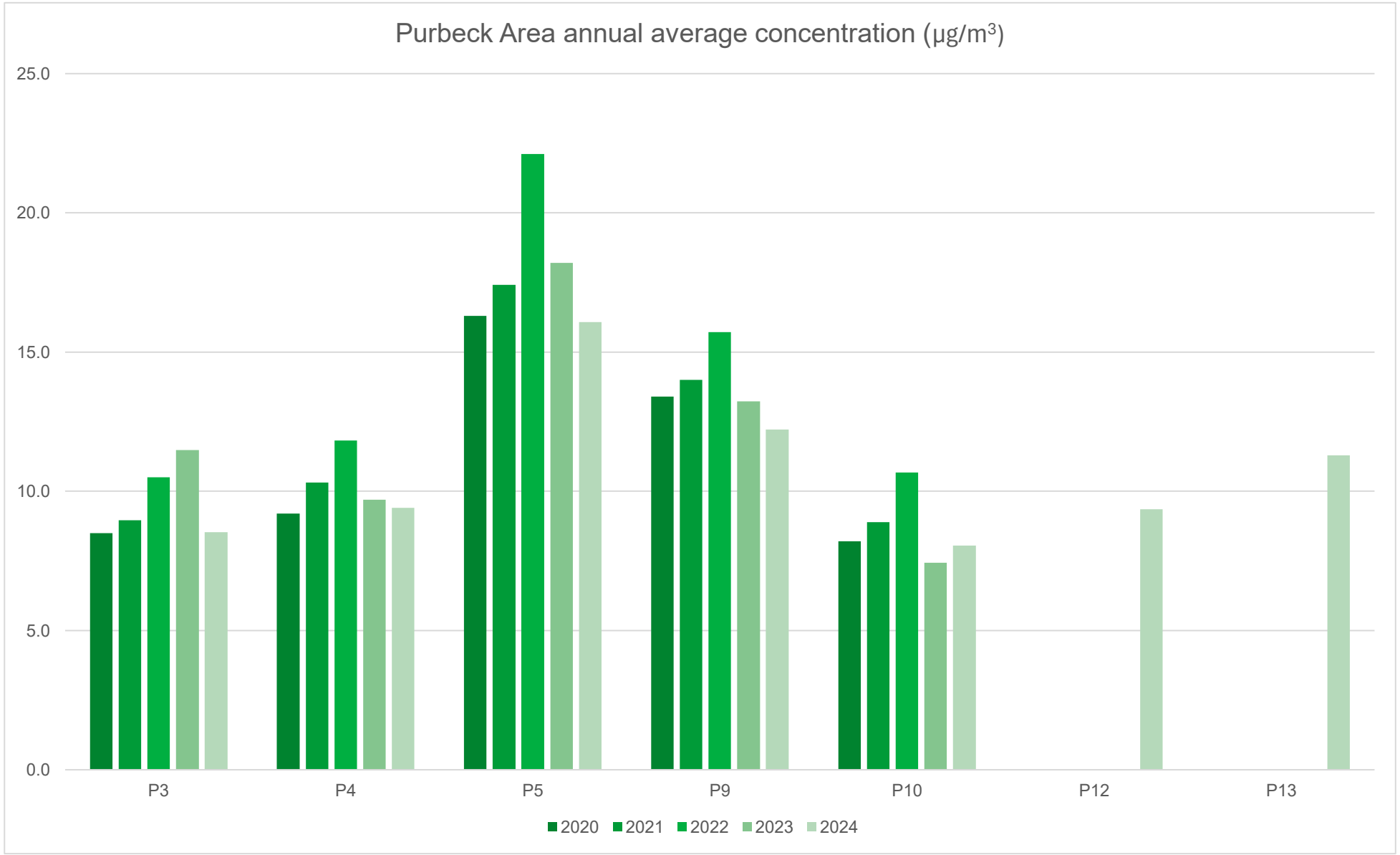
Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

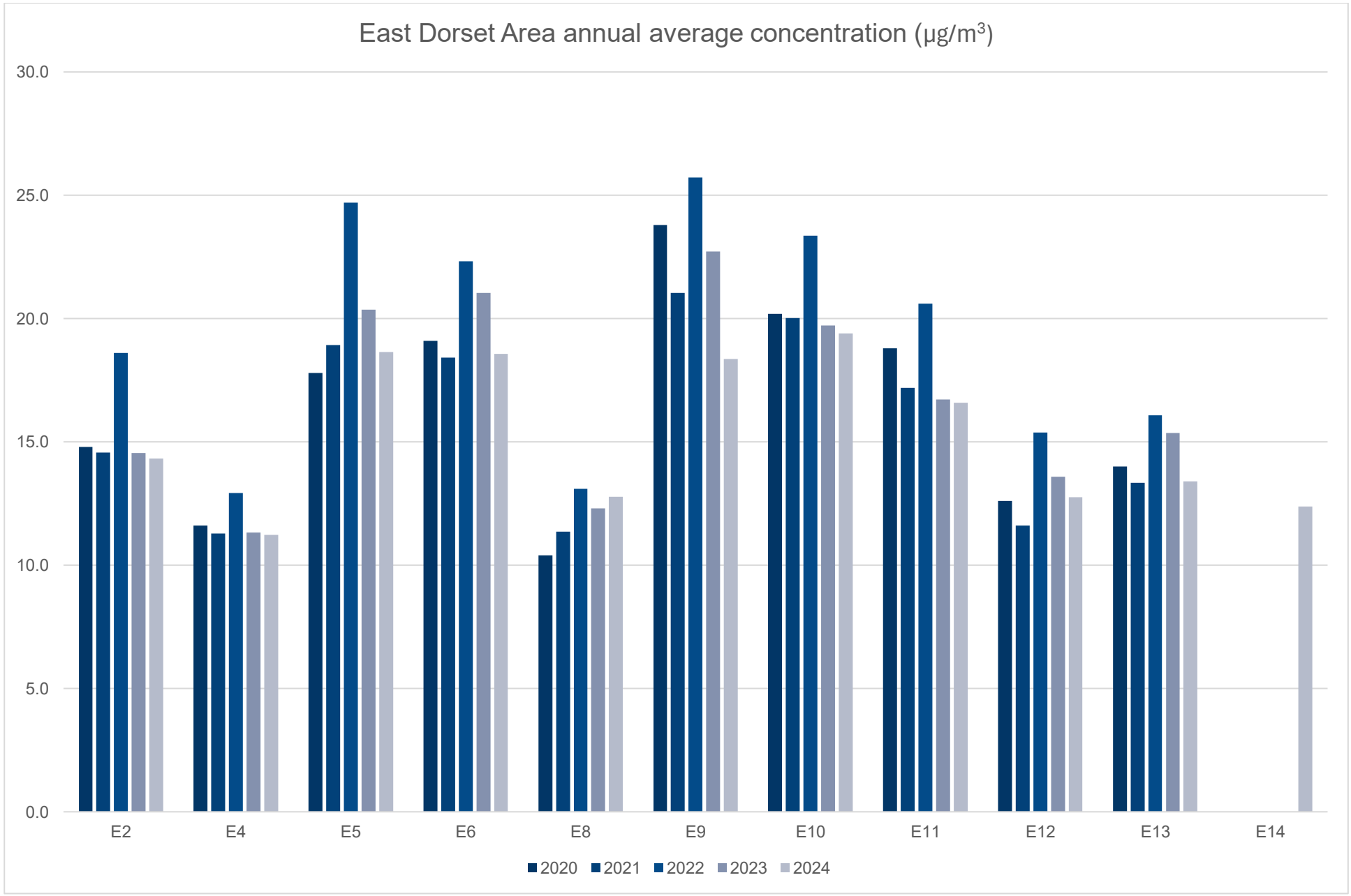
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

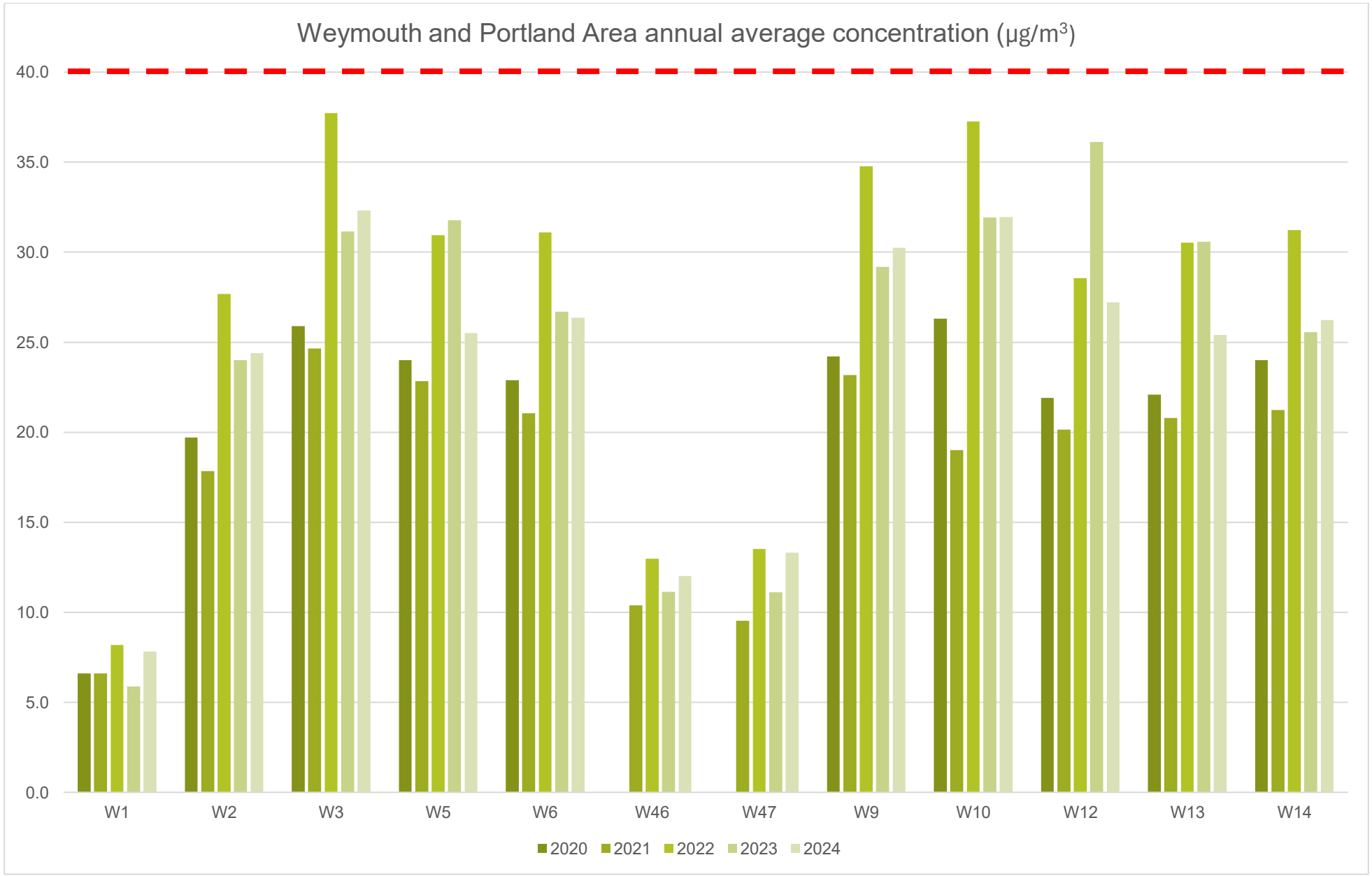
(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

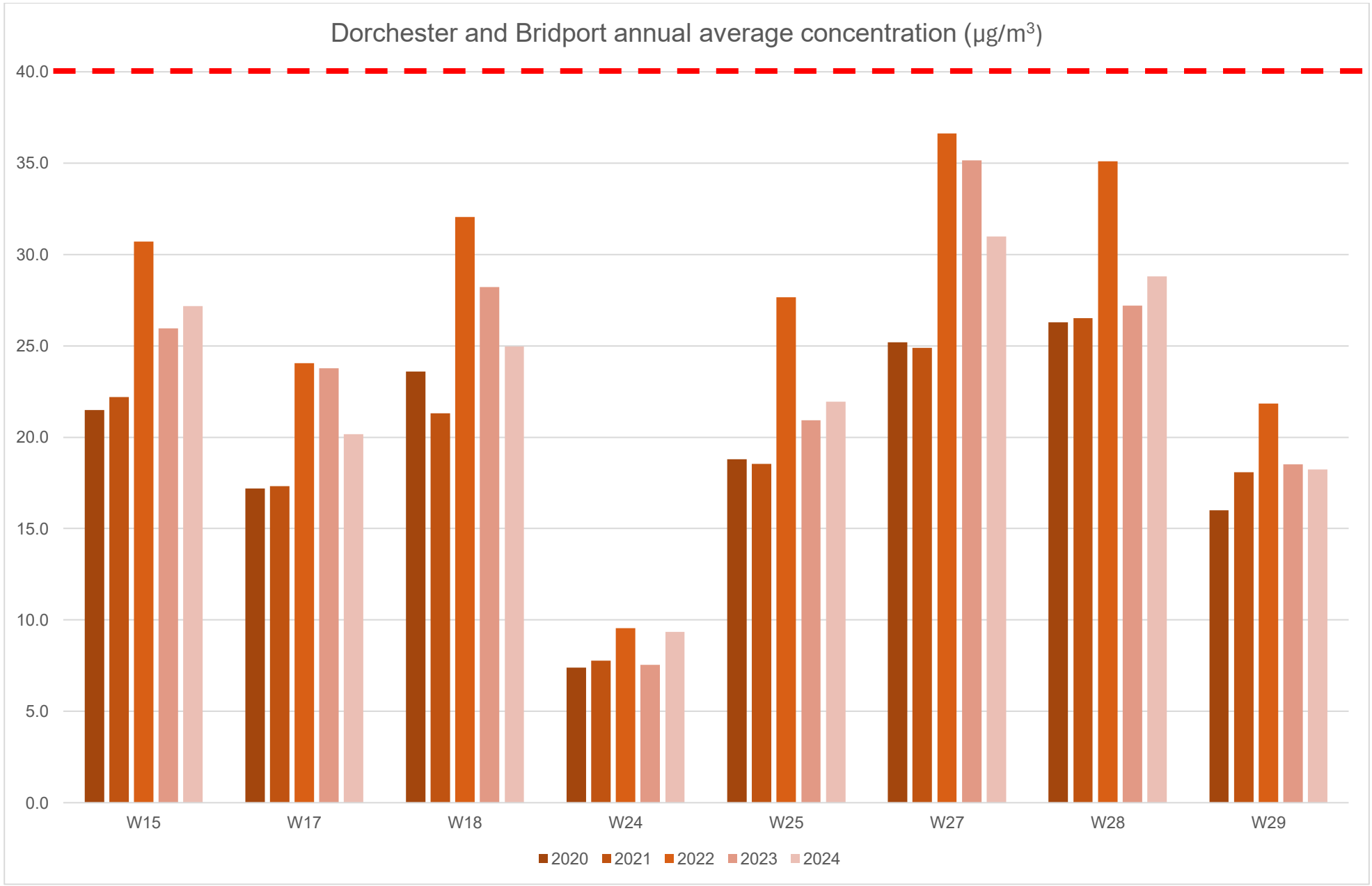
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

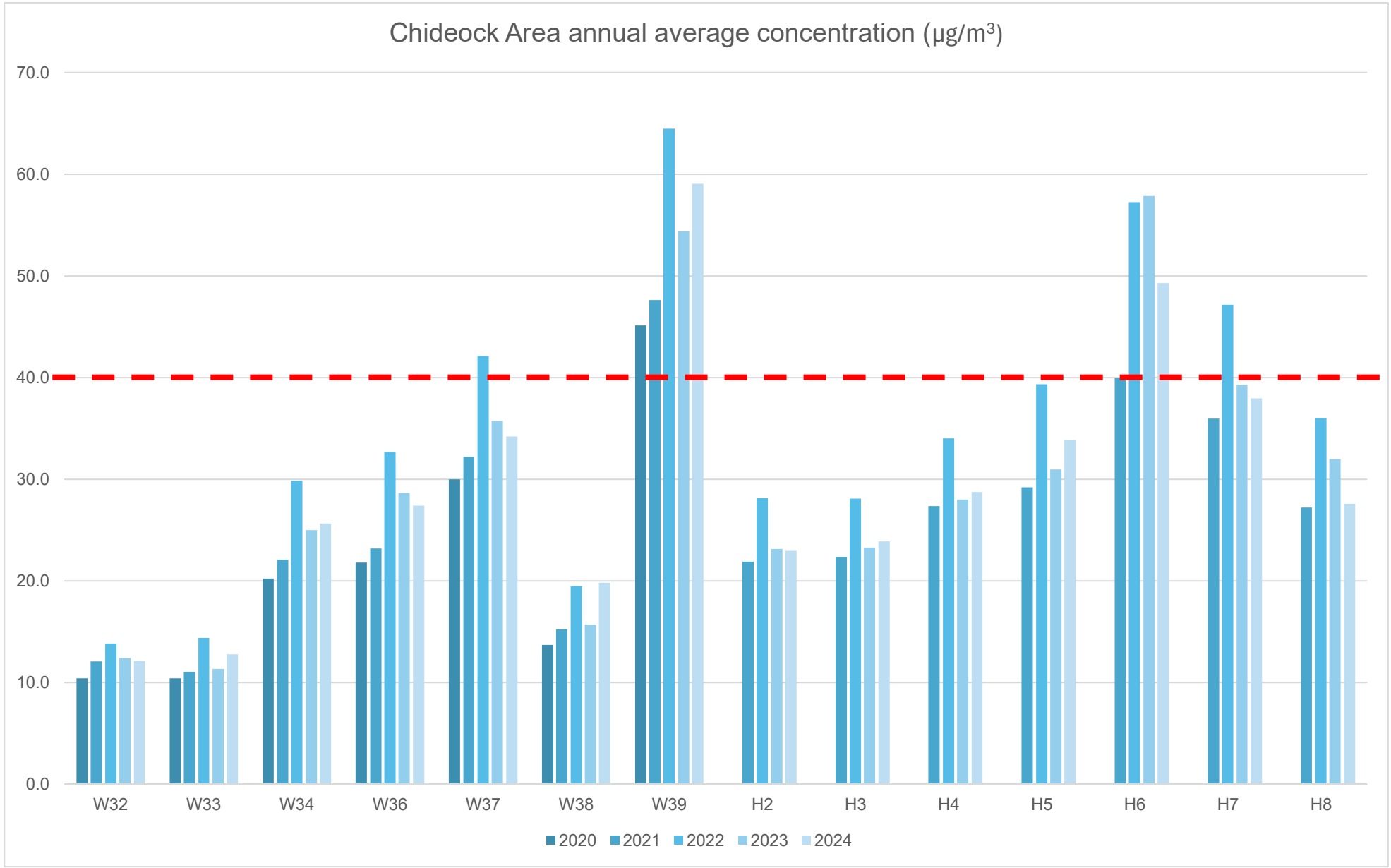
Figure A.1 – Trends in Annual Mean NO_2 Concentrations




East Dorset Area annual average concentration (µg/m3)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
E2
E4
E5
E6
E8
E9
E10
E11
E12
E13
E14
2020
2021
2022
2023
2024


Weymouth and Portland Area annual average concentration (µg/m³)
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
W1
W2
W3
W5
W6
W46
W47
W9
W10
W12
W13
W14
2020
2021
2022
2023
2024


Dorchester and Bridport annual average concentration (µg/m3)
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
W15
W17
W18
W24
W25
W27
W28
W29
2020
2021
2022
2023
2024


Chideock Area annual average concentration (µg/m³)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
W32
W33
W34
W36
W37
W38
W39
H2
H3
H4
H5
H6
H7
H8
2020
2021
2022
2023
2024

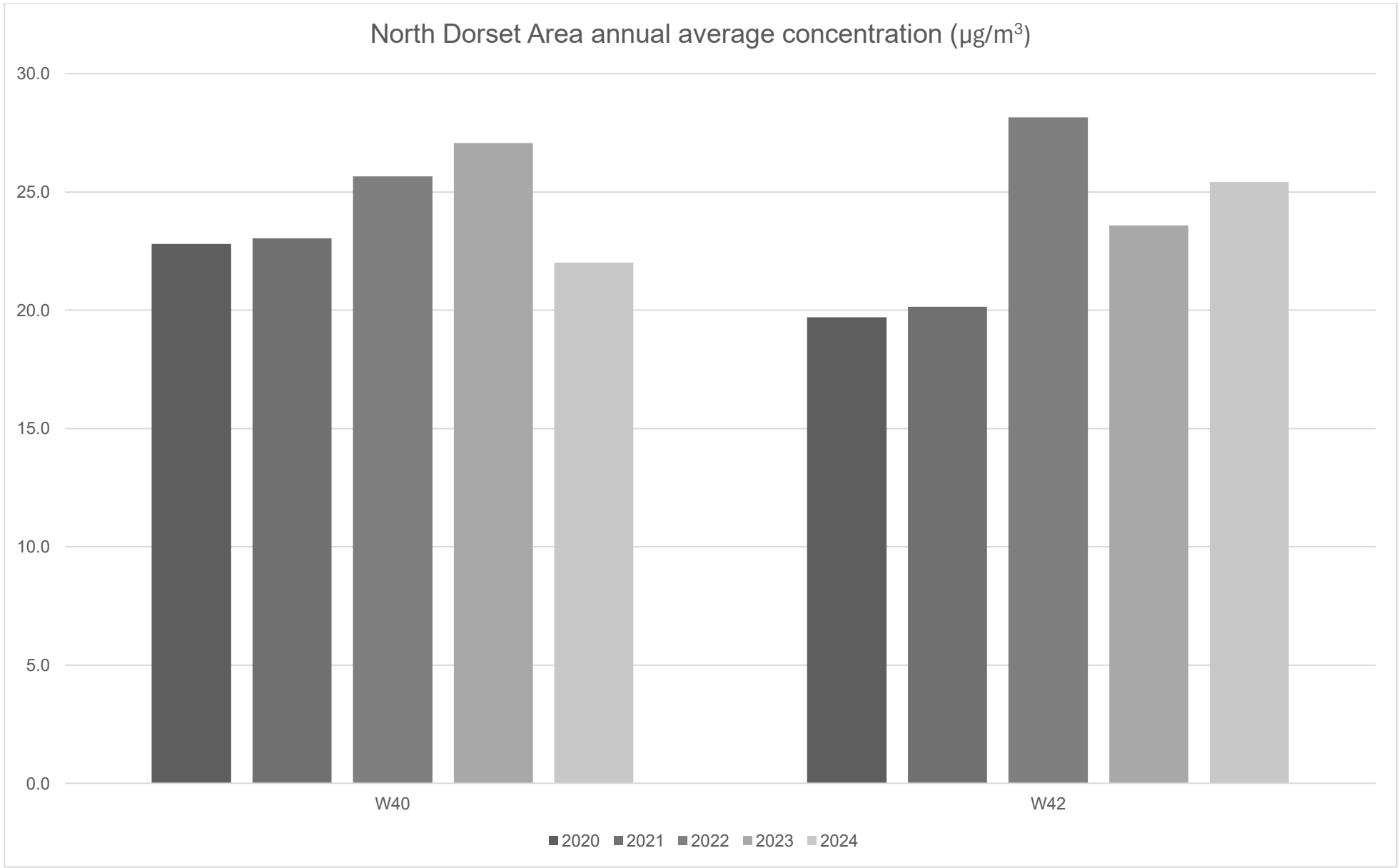

North Dorset Area annual average concentration (µg/m3)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
W40
W42
2020
2021
2022
2023
2024

Table A.4 – Annual Mean PM_{10} Monitoring Results ($\mu g/m^3$)

Site 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
Beaminster	347967	101967	Rural	100.0	81.0	21.77	18.07	8.62	13.6	10.8
Ferndown	408440	99391	Suburban	100.0	80.4	8.7	8.64	14.76	10.3	8.2
Blandford	387965	106833	Rural	0	0	17.51	18.11	10.78	28.5	
Sandford	393245	90156	Suburban	0	0	6.89	6.83	15.8	15.72	

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

Notes:

The annual mean concentrations are presented as $\mu g/m^3$.

Exceedances of the PM_{10} annual mean objective of $40\mu g/m^3$ are shown in **bold**.

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.

(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.2 – Trends in Annual Mean PM_{10} Concentrations

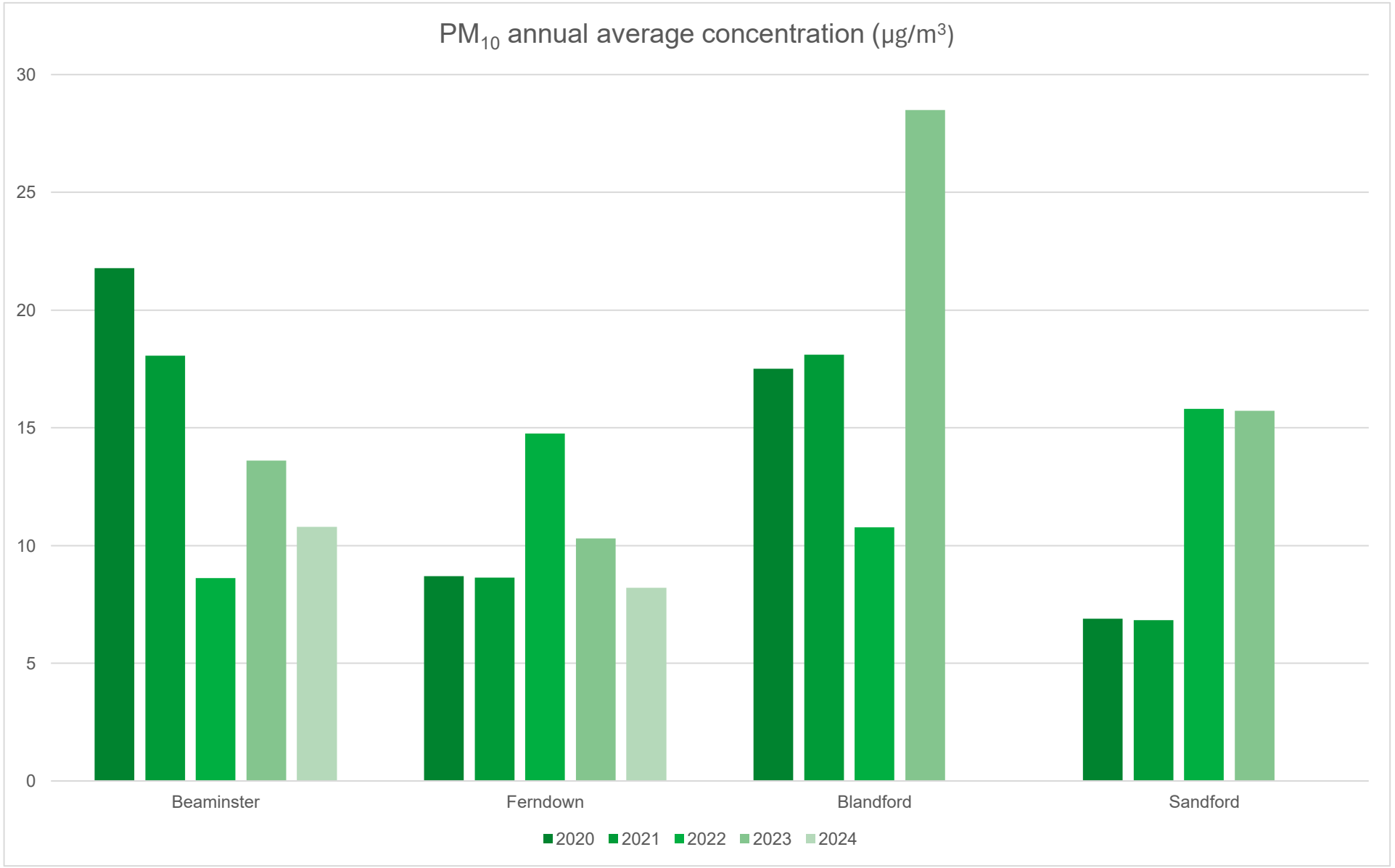


Table A.5 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site 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
Beaminster	347967	101967	Rural	100.0	81.0	16	4	0	6	0
Ferndown	408440	99391	Suburban	100.0	80.4	0	0	10	3	0
Blandford	387965	106833	Rural	0	0	6	18	2	2	
Sandford	393245	90156	Suburban	0	0	0	1	5	8	

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m^3 have been recorded.

Exceedances of the PM_{10} 24-hour mean objective (50µg/m^3 not to be exceeded more than 35 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

(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.3 – Trends in Number of 24-Hour Mean PM_{10} Results > 50µg/m^3

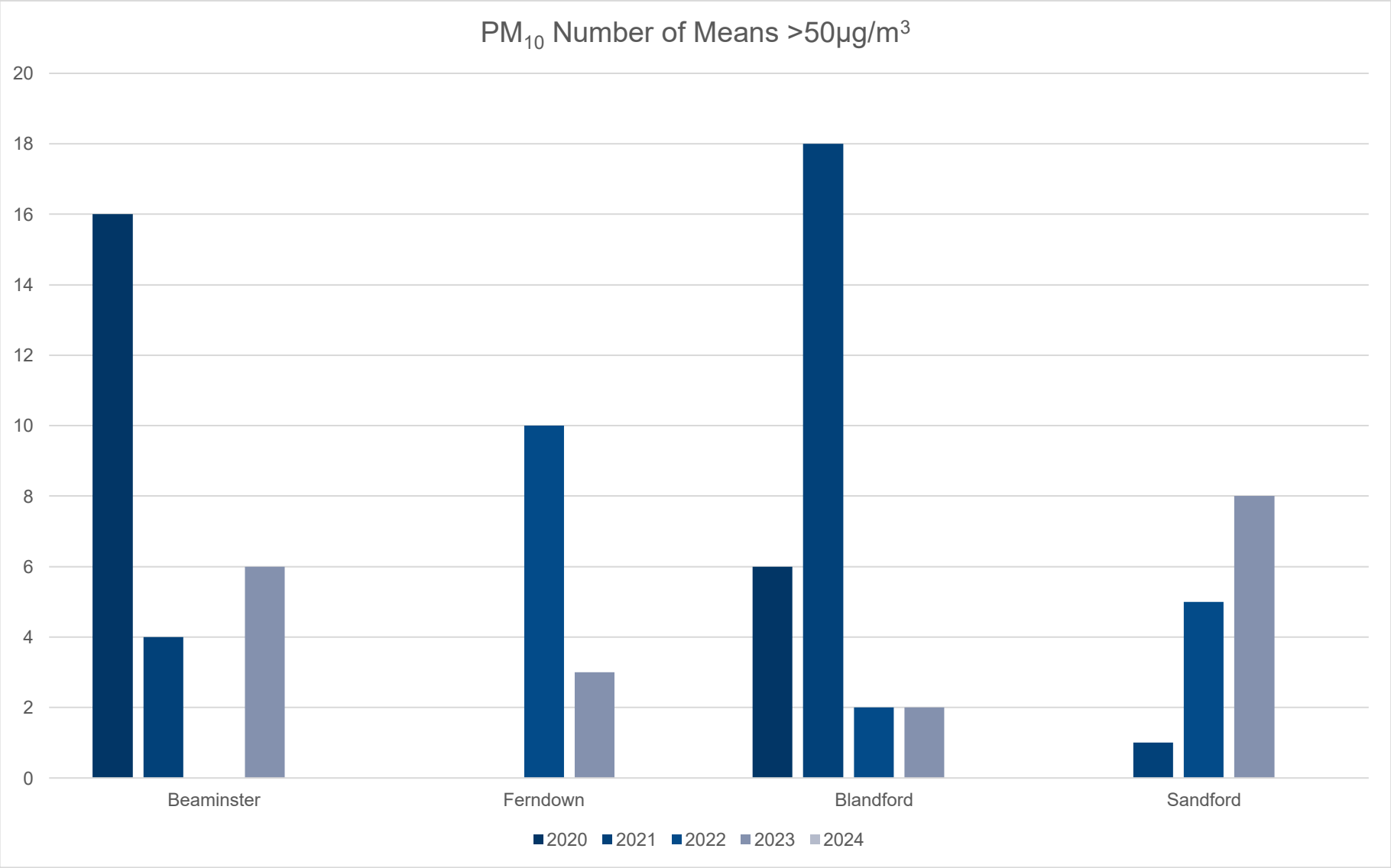


Table A.6 – Annual Mean $PM_{2.5}$ Monitoring Results (µg/m^3)

Site 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
Beaminster	347967	101967	Rural	100.0	81.0	9.56	9.6	4.04	8.7	6.9
Ferndown	408440	99391	Suburban	100.0	80.4	3.6	4.51	6.41	6.5	5.4
Blandford	387965	106833	Rural	0	0	3.05	7.09	6.12	10.3	
Sandford	393245	90156	Suburban	0	0	8.93	3.41	8.28	8.41	

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

Notes:

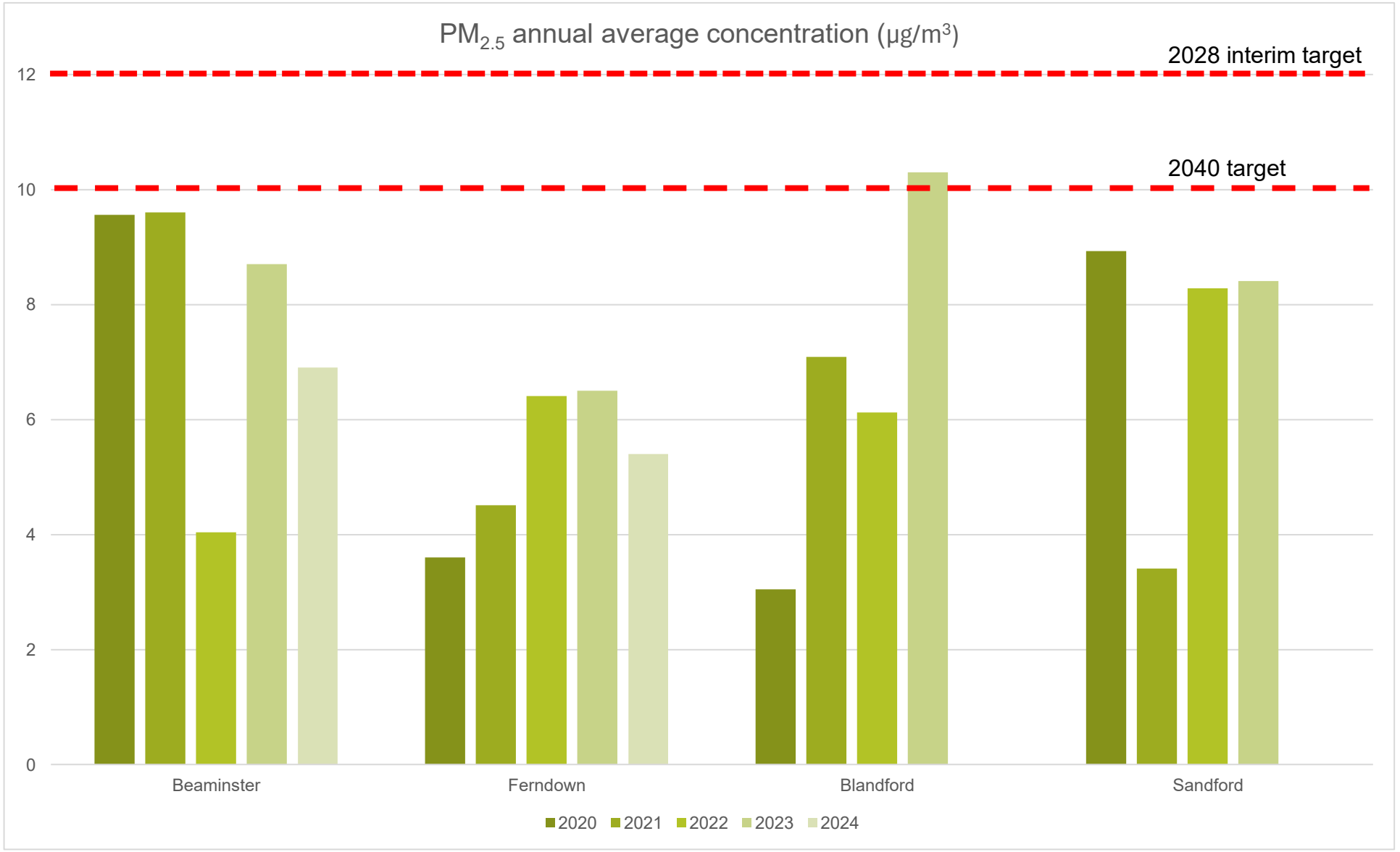
The annual mean concentrations are presented as µg/m^3.

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.

(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.4 – Trends in Annual Mean $PM_{2.5}$ 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 (0.81)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
P3	402790	78950	14.5	10.1		8.7		11.1	8.4	13.2		8.7	8.9	11.2	10.5	8.5	-	
P4	402860	78830	16.8	12.2	12.4	10.7	7.8	10.3	9.8	10.8	11.7	9.8	15.0	12.0	11.6	9.4	-	
P5	397910	93425				18.6	17.2	19.8	17.6	15.4	19.7	28.6	21.1	20.5	19.8	16.1	-	
P9	393223	89947	18.8	14.5	19.2	12.0	15.4	10.8	13.6	11.8	14.6	18.2	18.5	13.7	15.1	12.2	-	
P10	391790	87190	14.5	11.2	12.0		8.1	7.2	8.0	9.8	8.3	5.3	15.7	9.2	9.9	8.1	-	
P12	392470	87339	15.3	17.9	11.0	8.4	8.0	9.5	8.9	11.4	10.1	10.6	15.8	11.5	11.5	9.3	-	
P13	385127	95184	22.9		13.7	12.7	11.1	9.6	8.5	10.5	13.7	13.3	20.9	16.3	13.9	11.3	-	
E2	406362	98711	21.6	18.8	19.0	15.9	17.0	12.6	16.6	15.4	16.2	19.7	21.5		17.7	14.3	-	
E4	413425	104429	19.5	15.6	12.7	11.0	15.3	10.6	13.3	13.9	13.8	12.8	16.4	11.4	13.9	11.2	-	
E5	400677	99998	28.0	30.0	26.6	24.7	6.9	27.2	9.4	11.3	27.1	28.8	30.9	25.3	23.0	18.7	-	
E6	407785	100135	28.6	22.4	21.6	19.1	23.9	15.9	20.2	26.1	23.5	27.3	27.5	19.0	22.9	18.6	-	
E8	401003	100736	20.4	15.1	13.7	11.4	19.0	10.2	18.6	20.2	13.4	14.8	19.5	12.8	15.8	12.8	-	
E9	412782	104118	30.5	29.6	32.1	22.6	8.8	20.6	12.0	6.9	25.3	29.9	30.1	23.5	22.7	18.4	-	
E10	408384	97986	28.4	23.7	24.0	18.2	26.3	18.3	25.1	26.5	21.5	27.7	27.4	20.2	23.9	19.4	-	
E11	408468	98002	27.0	20.3	18.4	15.1	21.3	14.8	20.1	20.2	22.6	23.1	24.1	18.6	20.5	16.6	-	
E12	400833	100042	21.4	16.1	13.8	12.2	15.5	11.3	15.9	16.1	15.7		19.4		15.7	12.8	-	
E13	400901	100149	19.8	19.0	17.9	14.0	12.8	14.8	10.0	15.3	16.2	18.8	22.9	16.7	16.5	13.4	-	

E14	407915	102848		18.9	15.5	13.2	16.0	5.2	14.3	16.3	14.4	16.8	21.7	15.8	15.3	12.4	-	
W1	368779	71706	12.9	7.1		7.1	8.6	27.1	7.2	5.9	6.5	7.5	10.4	5.9	9.7	7.8	-	
W2	368003	79527	36.9	29.5		28.1	30.4	32.6	29.9	30.8	31.0	25.2	31.1	25.7	30.1	24.4	-	
W3	367542	78548	53.3	39.4		34.6	47.2	39.1	38.6	35.2	42.8	41.7	40.1	26.8	39.9	32.3	-	
W5	367540	78471	44.5	37.2				31.3	36.6	35.0		33.0	24.6	28.3	33.8	25.5	-	
W6	367528	78554	37.6	35.2		34.3	29.8		37.6	33.1	29.4	34.1	29.2	25.0	32.5	26.4	-	
W46	368888	74356	22.4	11.4		15.1	13.4	10.9		13.2	22.1	16.3	14.3	9.4	14.8	12.0	-	
W47	368847	74356	24.0	12.9		15.1	11.6	33.1	10.1	10.9	21.4	16.4	15.7	9.5	16.4	13.3	-	
W9	367550	78485	44.1	35.9		34.3	36.1	42.9	36.0	36.1	38.2	41.3	37.1	28.8	37.3	30.2	-	
W10	367533	78531	46.9	47.4		38.1	41.2	37.3	44.4	31.2	38.4	37.5	39.1	32.4	39.4	31.9	-	
W12	367879	78567	36.6	38.1		32.3	35.5	33.2	39.1	34.3	31.0	32.4	30.2	26.6	33.6	27.2	-	
W13	367995	79528	36.2	36.1		29.4	33.6	30.4	34.9	33.2	28.2	30.9	27.0	24.9	31.4	25.4	-	
W14	368540	73593	40.8	34.1		33.4	33.9	25.8	33.0	28.9	31.1	29.8	33.2		32.4	26.2	-	
W15	369121	90739		47.5		30.2	28.7		27.6	28.0	35.3	36.2	37.7	30.7	33.6	27.2	-	
W17	369484	90759	26.8	29.2		23.6	22.2	23.5		22.3	22.7	28.0	28.3	22.4	24.9	20.2	-	
W18	369387	90742	36.3					6.4	33.6	29.3	41.6	50.5	34.3	32.1	33.0	25.0	-	
W24	368982	90453	14.8					20.4	7.7	8.0			13.3	9.1	12.2	9.4	-	
W25	368982	90706		27.8		25.8	22.6		23.0	22.3	32.0	31.2	36.0	23.1	27.1	21.9	-	
W27	347557	93023	50.4	46.3		40.6	9.9	40.4		32.8	45.6	41.6	39.3	35.5	38.2	31.0	-	
W28	347612	93050	35.0	39.5		32.1	41.8	22.9	41.8	35.3	36.9	40.9	35.8	29.4	35.6	28.8	-	
W29	347277	92867	26.1	24.0		19.7	23.6	12.5	23.9	24.8	24.1	25.2	23.0	20.7	22.5	18.2	-	
W32	342364	92814	19.2	17.3		12.4	14.1	7.6	13.3	12.9	18.6	16.1	17.8		14.9	12.1	-	
W33	342151	92869	17.5	13.3		13.3	12.1	31.3	11.6	11.6	14.5	14.4	19.6	13.6	15.7	12.7	-	

W34	342190	92840	30.5	34.7		26.7	31.8	36.5	37.1	38.6	29.1	29.4	28.2	25.1	31.6	25.6	-	
W36	342015	92887	34.0	36.0		31.6	25.7	42.5	40.8	43.4	28.3	33.2	29.6	26.4	33.8	27.4	-	
W37	341946	92908	42.8	44.6		41.1	38.1	16.5	48.2	55.8	51.9	43.4	44.6	37.2	42.2	34.2	-	
W38	342025	92894	19.7	18.6		16.0		75.2	19.6	19.4	20.8	19.5	20.4	15.4	24.5	19.8	-	
W39	341629	93139	74.6	71.9		64.8			74.2	88.4	80.7	70.1	67.3	64.0	72.9	**59.0**	**44.8**	
W40	381302	126181	29.9	25.6	26.6		17.1	29.5	27.9	24.8	28.5	30.3	32.7	26.1	27.2	22.0	-	
W42	378606	114009	38.3	30.8	28.2		22.3		27.6	28.2	35.6	34.8	38.5	29.5	31.4	25.4	-	
H2	342143	92845	26.1	28.5		25.8	28.1	30.3		33.6	29.2	29.2	28.5	24.1	28.3	23.0	-	
H3	342084	92856	30.0	32.0		27.3	29.1	34.7	36.3	19.5	30.6	30.7	29.2	24.8	29.5	23.9	-	
H4	342004	92890	31.7	34.5		29.3	36.6	40.2	40.7	44.0	33.6	35.7	34.7	29.0	35.4	28.7	-	
H5	341933	92913	35.4	35.8			31.6	63.5	47.5	53.8	40.4	40.4	37.3	31.8	41.7	33.8	-	
H6	341881	92934		54.3				42.2	76.8	74.7	63.2	62.8	54.5	44.8	59.2	**49.3**	-	
H7	341819	92953	38.9	37.0		40.0		37.4	63.7	61.4	52.2	51.0	46.0	40.7	46.8	37.9	36.1	
H8	342129	92847	35.0	37.5		33.4	36.8		44.7	19.6	33.7	38.1	33.1	28.8	34.1	27.6	-	

☒ **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.**

☒ **Dorset 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 Dorset Council During 2024

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

Additional Air Quality Works Undertaken by Dorset Council During 2024

Dorset Council has undertaken two discreet additional air quality works during the reporting year of 2024.

Firstly, Dorchester AQMA has been revoked. The revocation order and report are available from:

Order: https://www.dorsetcouncil.gov.uk/documents/d/guest/dc-air-quality-management-revocation-order-2025-signed

Report: https://www.dorsetcouncil.gov.uk/documents/d/guest/revocation-report-draft-finalv2

Secondly, the DEFRA-grant funded solid fuel project was concluded with the report published in early 2025, with the bulk of the work and monitoring completed in 2024. The report is available from: https://www.dorsetcouncil.gov.uk/documents/d/guest/defra-air-quality-report-1

QA/QC of Diffusion Tube Monitoring

Dorset Council utilised diffusion tubes supplied by Somerset County Council Scientific Services. The method used was 20% TEA in water.

Diffusion Tube Annualisation

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

Site ID	Annualisation Factor Bournemouth	Annualisation Factor Honiton	Annualisation Factor Charlton Mackrell	Annualisation Factor Christchurch	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
W5	0.9327		0.9500	0.9117	0.9315	33.8	31.5
W18	0.9447		0.9558	0.9000	0.9335	33.0	30.8
W24	0.9354		0.9593	0.9373	0.9440	12.2	11.6
H6	1.0828		1.0122	0.9921	1.0290	59.2	60.9

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.

Dorset Council have applied a national bias adjustment factor of 0.81 to the 2024 monitoring data. A summary of bias adjustment factors used by Dorset Council over the past five years is presented in Table C.2.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	03/25	SCC: 0.81
2023	National	03/24	SCC: 0.79
2022	National	03/23	SCC: 0.82
2021	National	03/22	SYAQS: 0.77
2020	National	03/21	Gradko: 0.82 SYAQS: 0.77

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure 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.

Table C.3 – Non-Automatic NO_2 Fall off With Distance Calculations (concentrations presented in µg/m^3)

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted	Background Concentration	Concentration Predicted at Receptor	Comments
W39	1.0	4.5	59.0	12.2	**44.8**	*Predicted concentration at Receptor above AQS objective.*
H7	6.0	7.5	37.9	12.2	*36.1*	*Predicted concentration at Receptor within 10% the AQS objective.*

QA/QC of Automatic Monitoring

PM_{10} and $PM_{2.5}$ Monitoring Adjustment

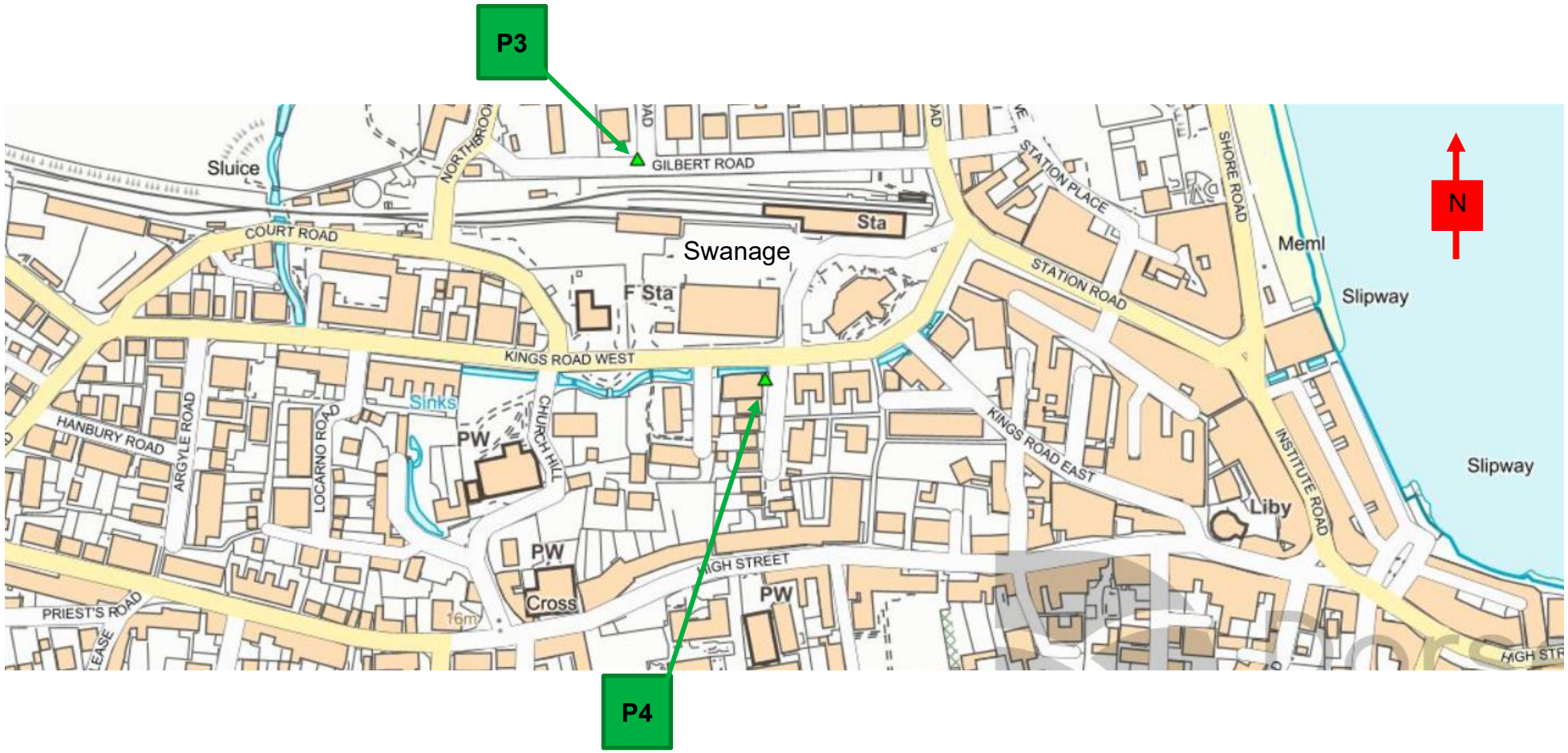
The type of PM_{10}/$PM_{2.5}$ monitor(s) utilised within Dorset Council do not require the application of a correction factor.

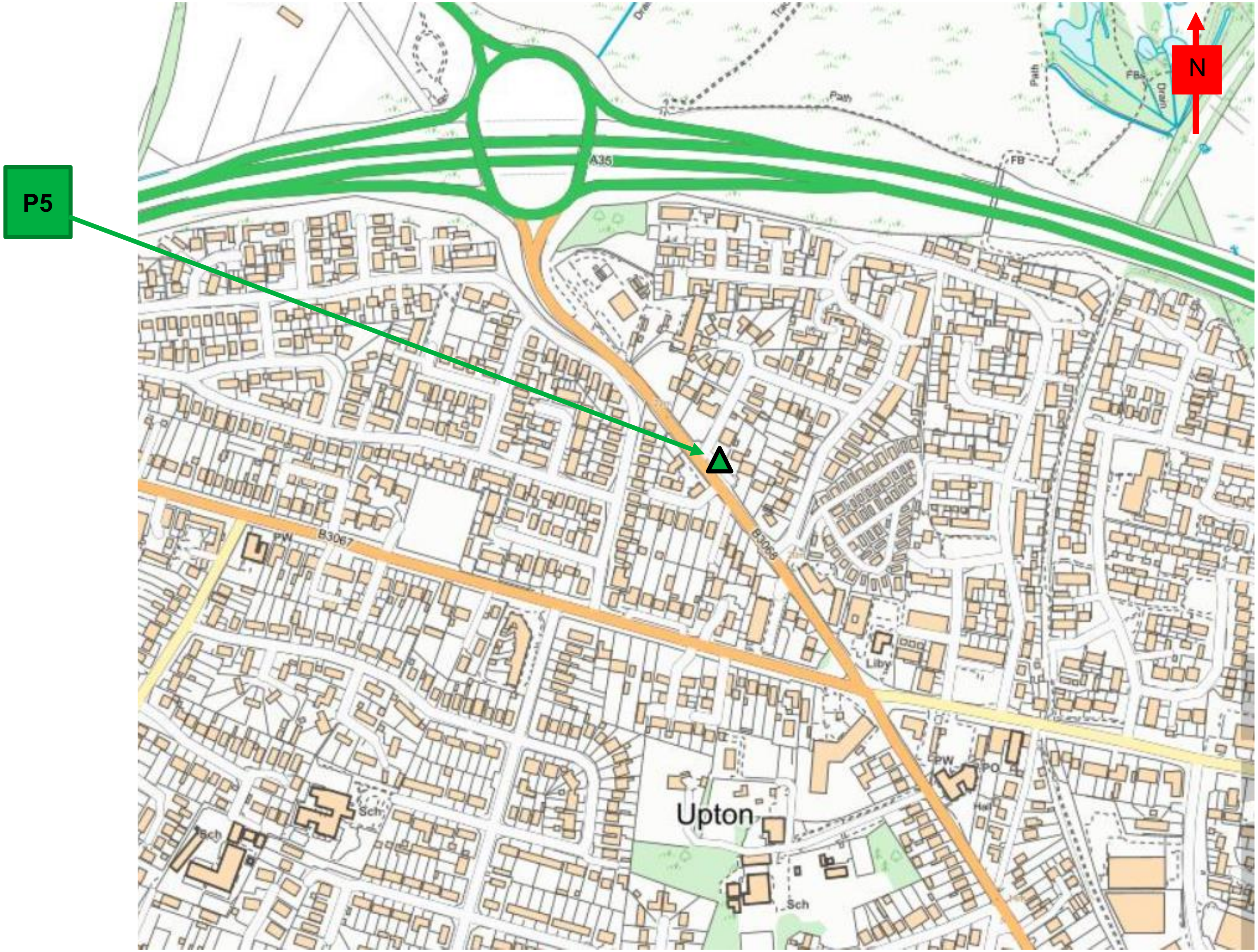
Automatic Monitoring Annualisation

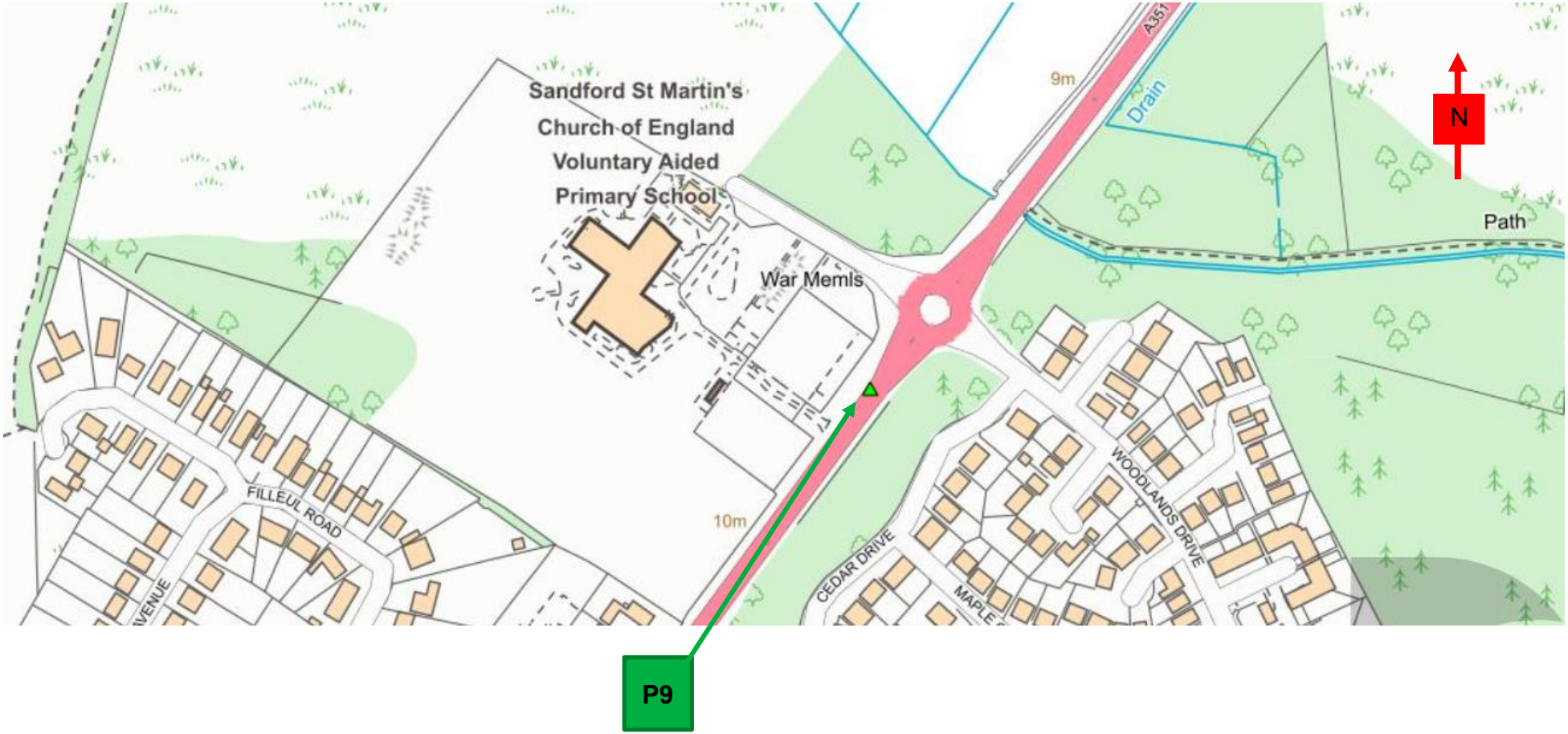
All automatic monitoring locations within Dorset Council recorded data capture of greater than 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

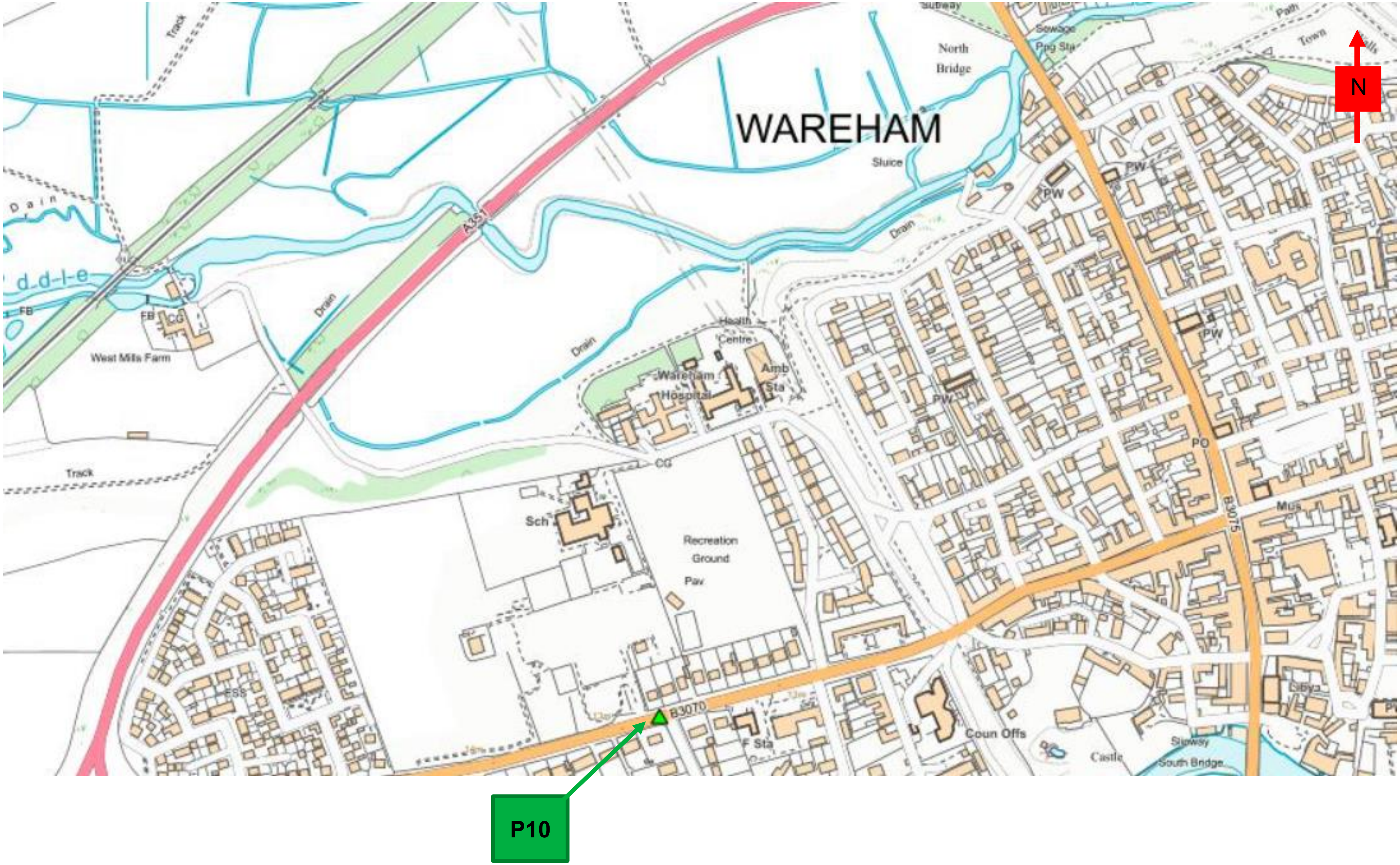
Appendix D: Map(s) of Monitoring Locations and AQMAs

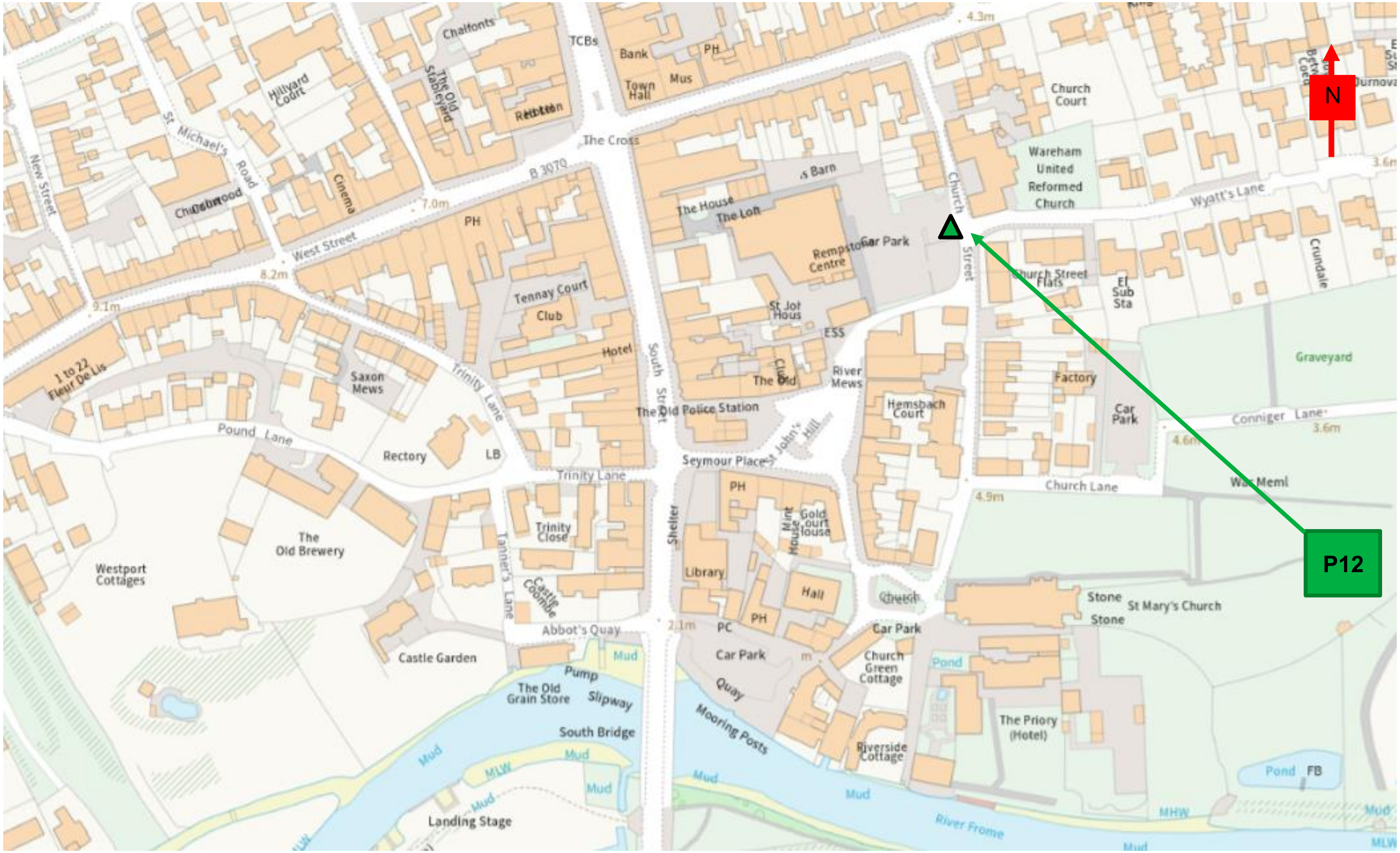
Figure D.1 – Map of Non-Automatic Monitoring Site

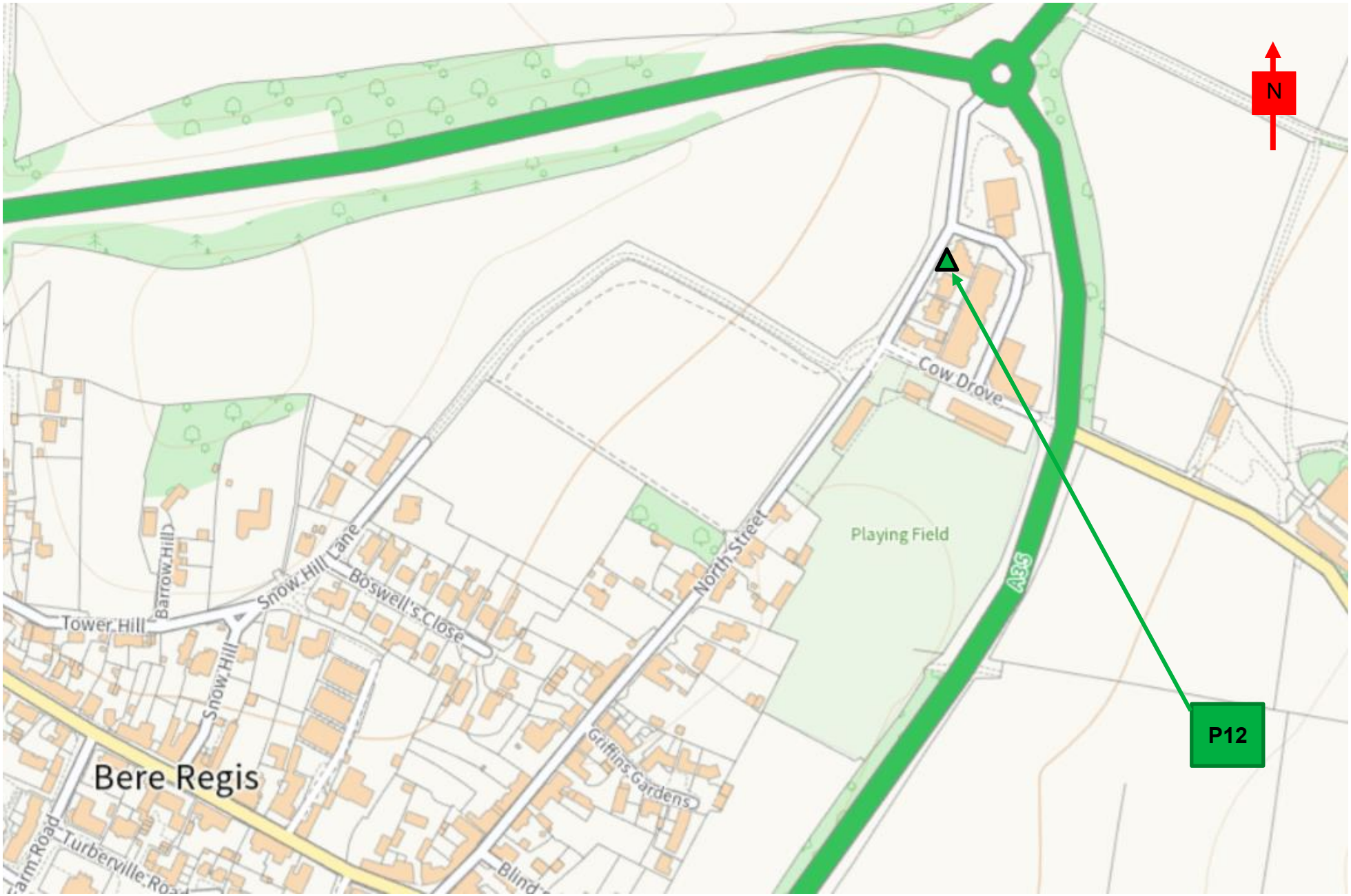



P5
N
A35
B3067
B3068
Upton
Path
FB
Sch
PW
Liby
PO
Hall

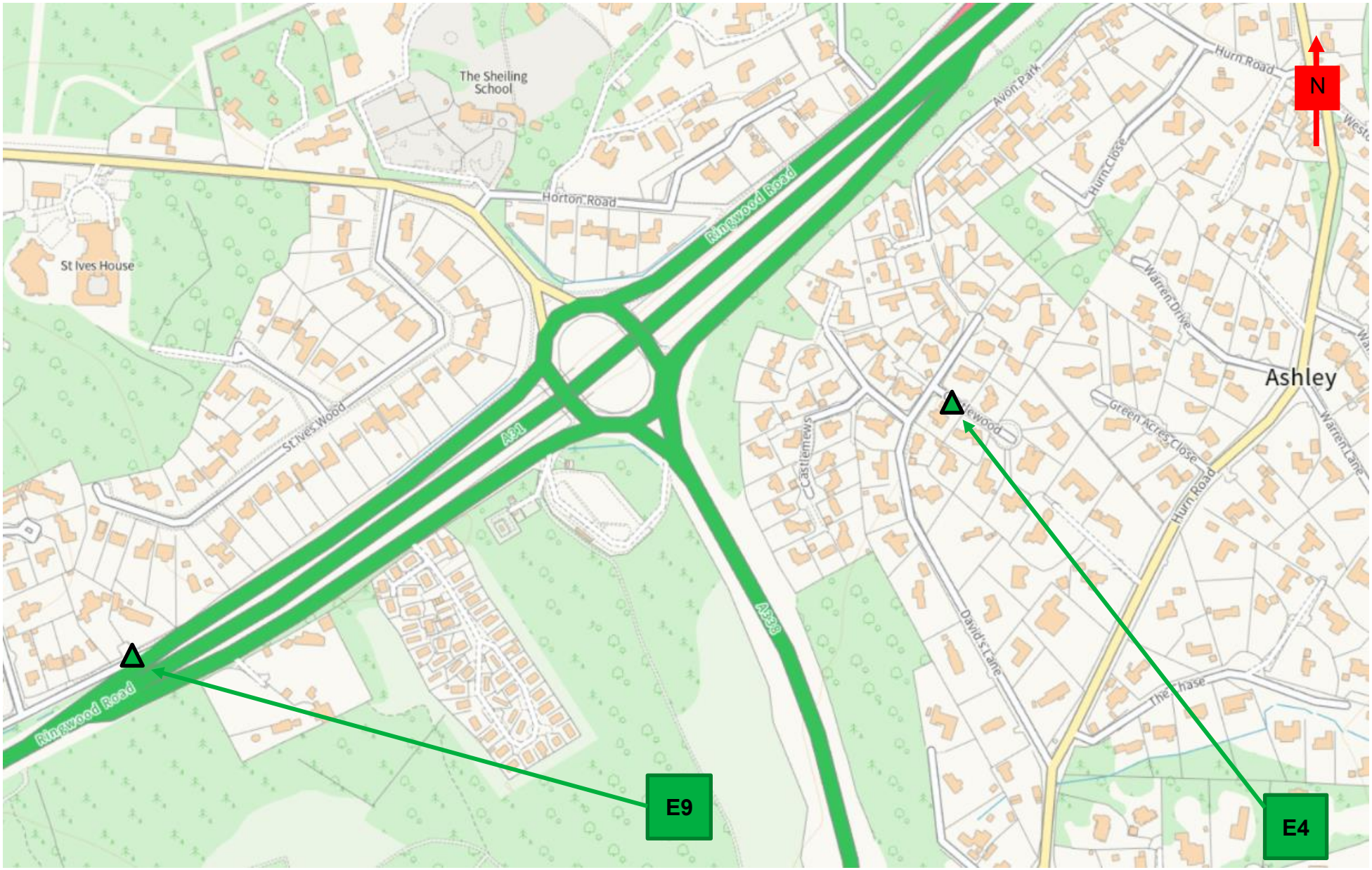

Sandford St Martin's
Church of England
Voluntary Aided
Primary School
War Memls
9m
Drain
A351
N
Path
10m
FILLEUL ROAD
CEDAR DRIVE
WOODLANDS DRIVE
P9

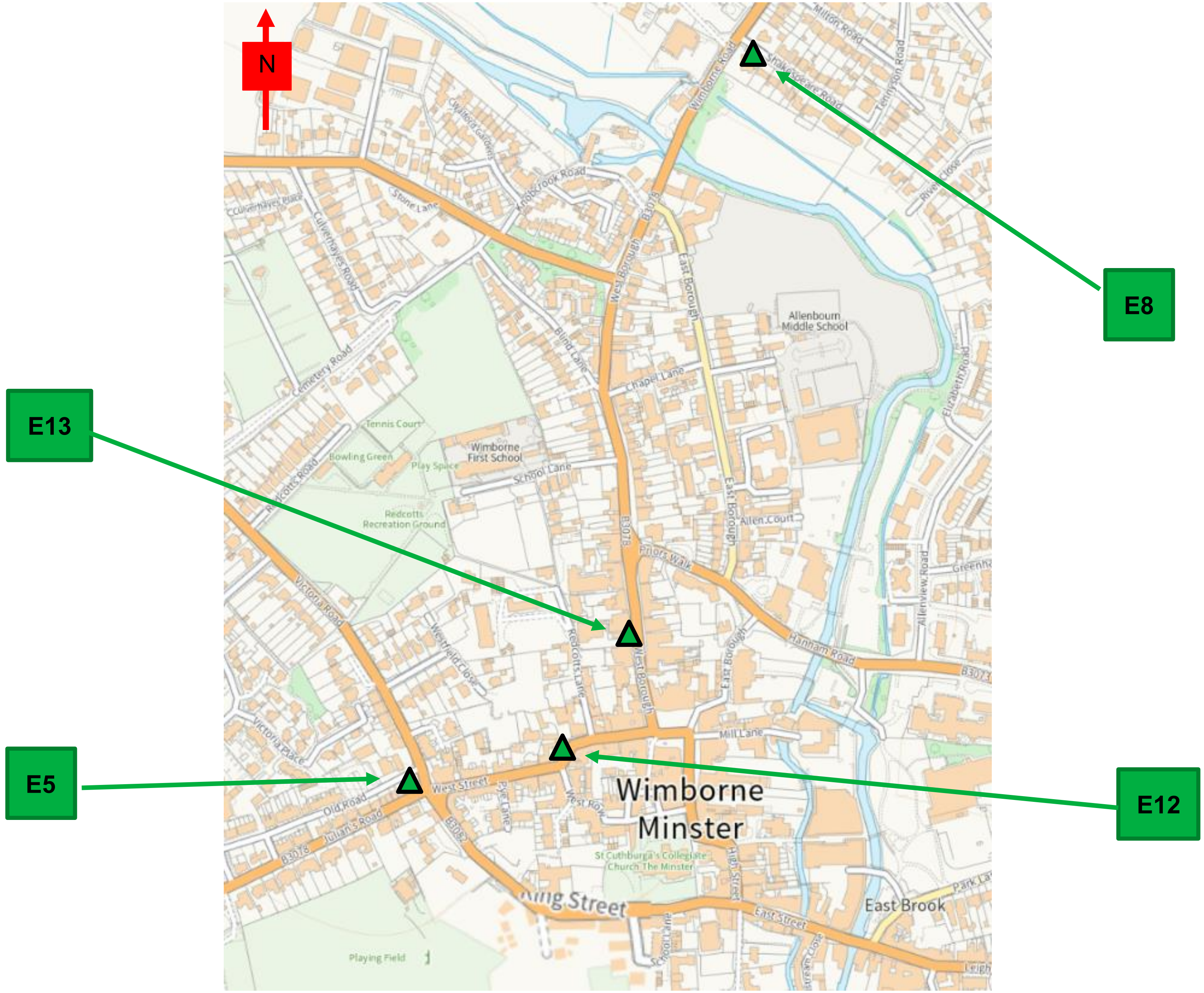

WAREHAM
N
P10
North Bridge
Sluice
Drain
A351
B3070
B3075
Wareham Hospital
Health Centre
Amb Sta
Recreation Ground
Pav
Sch
West Mills Farm
Track
PW
PO
Mus
Coun Offs
F Sta
Castle
South Bridge
Slipway
CG
FB


N
P12
Chalfonts
TCBs
Bank
PH
Town Hall
Mus
The Old Stableyard
Hillyard Court
St Michael's Road
New Street
Cinema
The Cross
B 3070
West Street
7.0m
8.2m
9.1m
4.3m
3.6m
Church Court
Wareham United Reformed Church
Wyatt's Lane
Church Street
Crundale
The House
The Loft
Rempstone Centre
Car Park
Church Street Flats
El Sub Sta
Tennay Court
Club
Hotel
South Street
Graveyard
Factory
Car Park
1 to 22 Fleur De Lis
Saxon Mews
Trinity Lane
River Mews
Hemsbach Court
The Old Police Station
Conniger Lane
4.6m
Pound Lane
Rectory
LB
Seymour Place
St John's Hill
Church Lane
4.9m
War Meml
Trinity Close
Westport Cottages
The Old Brewery
Tanner's Lane
Shelter
Library
Mint House
Gold Court House
Hall
Church Green
Stone
St Mary's Church
Castle Coombe
Abbot's Quay
2.1m
PC
Car Park
Church Green Cottage
Castle Garden
Mud
Pump
The Old Grain Store
Slipway
Quay
Pond
The Priory (Hotel)
South Bridge
Mooring Posts
Riverside Cottage
MLW
Landing Stage
FB
River Frome
MHW


N
Cow Drove
Playing Field
North Street
A35
P12
Bere Regis
Tower Hill
Barrow Hill
Snow Hill Lane
Boswell's Close
Snow Hill
Griffins Gardens
Turberville Road

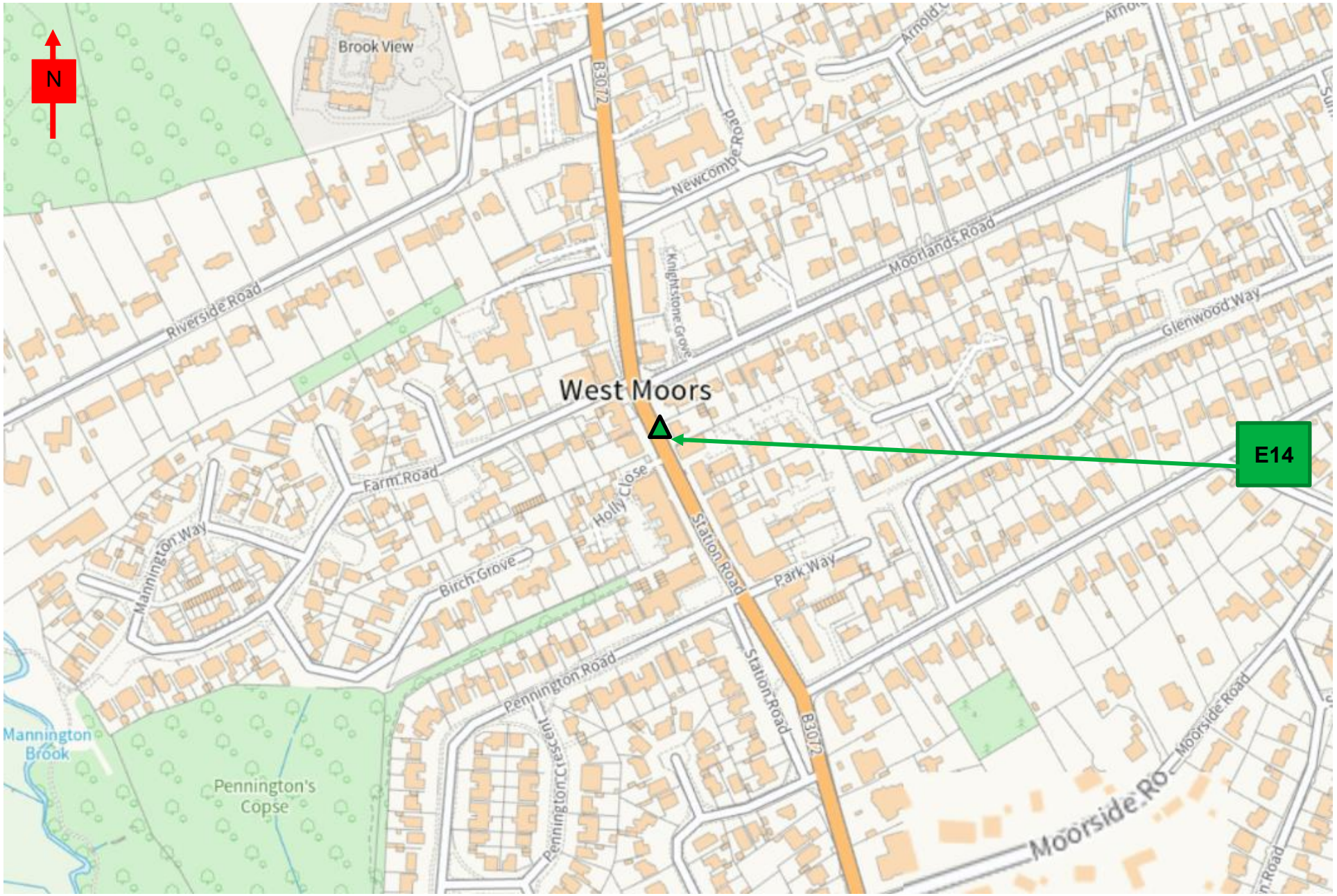

E2
N
The Calf House
Sewage
Ppg Sta
Ppg Sta
Sewage
Ppg Sta
PW
Allot Gdns
Track
Green Acres
Path
Longham
Sewage Works

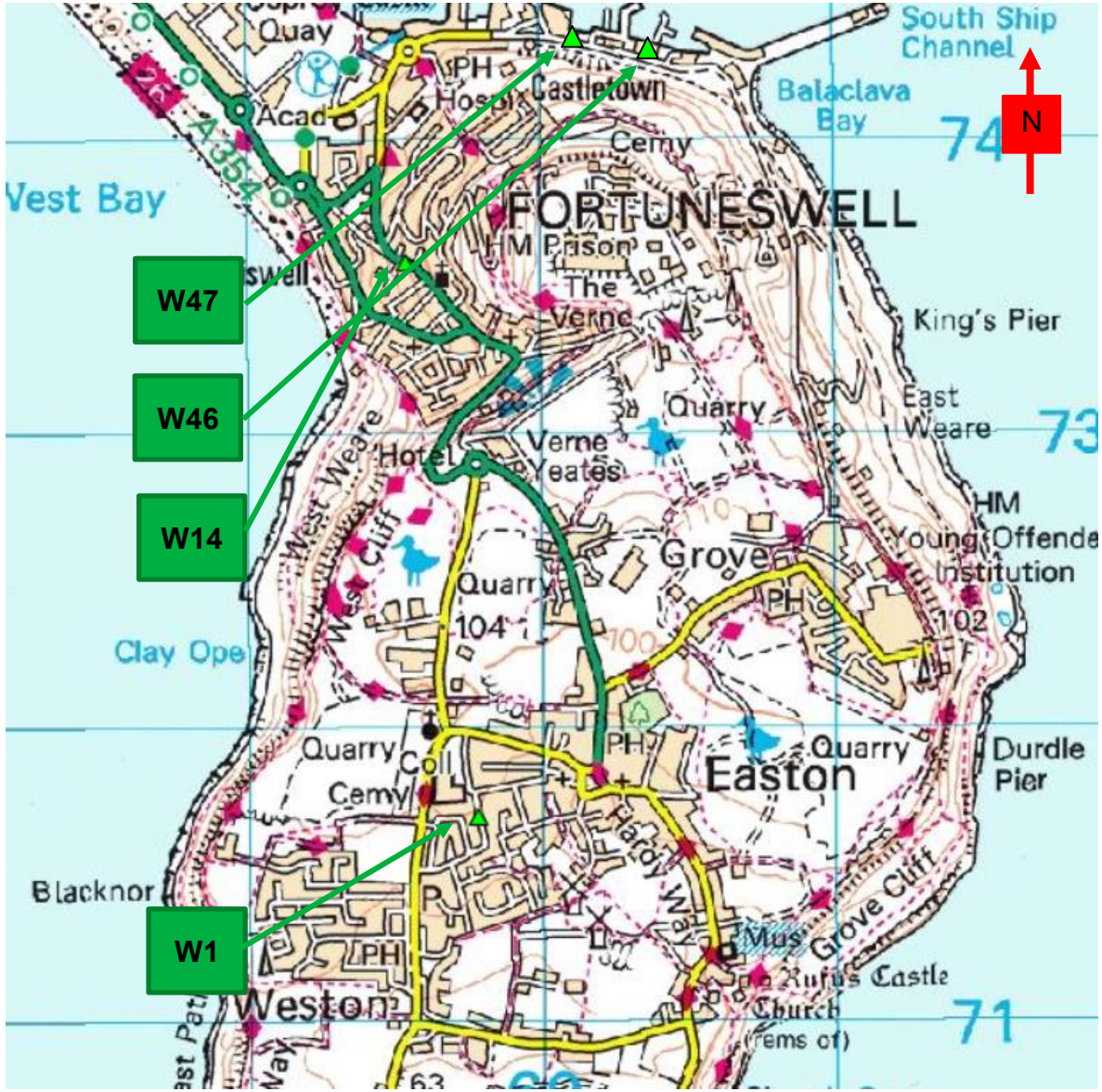

The Sheiling School
Horton Road
Ringwood Road
St Ives House
St Ives Wood
A31
A338
Avon Park
Hurn Road
Hurn Close
Warren Drive
Ashley
Castlemews
Green Acres Close
Warren Lane
David's Lane
The Chase
Ringwood Road
N
E9
E4

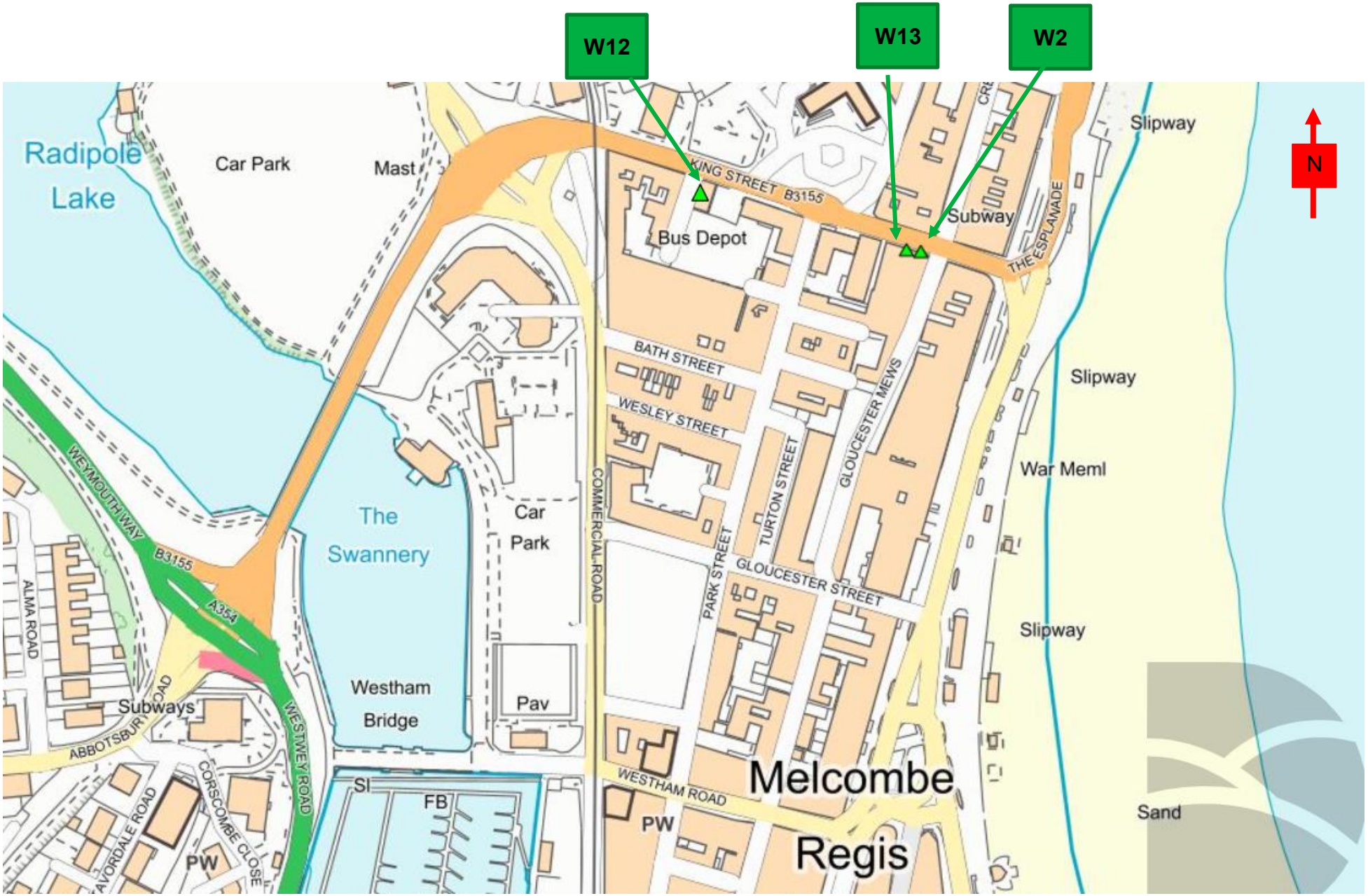

N
E8
E13
E5
E12
Wimborne
Minster
Allenbourn
Middle School
Wimborne
First School
Redcotts
Recreation Ground
East Brook
Playing Field
King Street
West Street
Hanham Road
East Borough
West Borough
Victoria Road

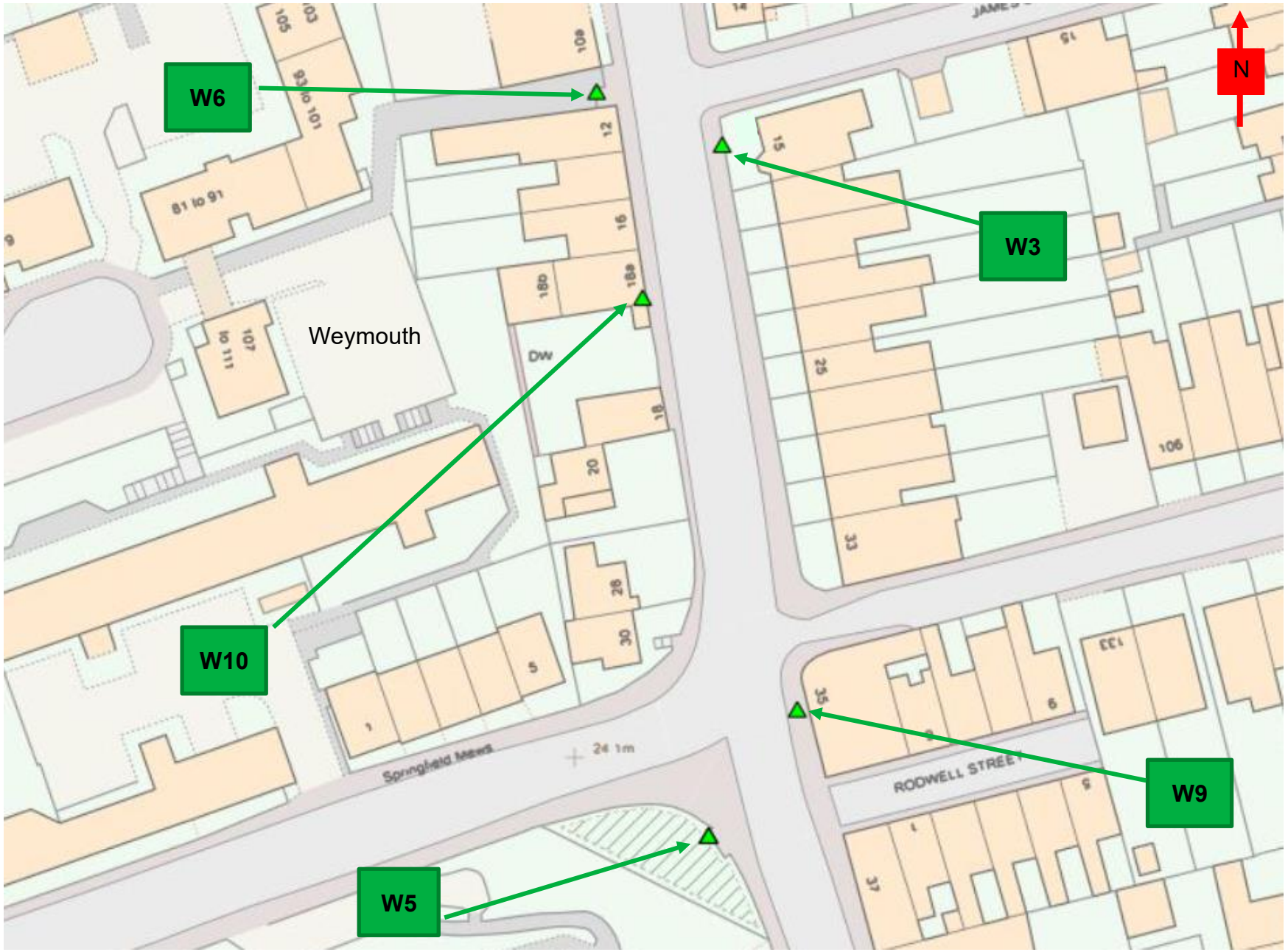

Ferndown Middle School
Ferndown First School
Car Park
PW
Ferndown
Great Barrow
Track
Path
Path
A348
A347
A347
Gas Governor
N
E6

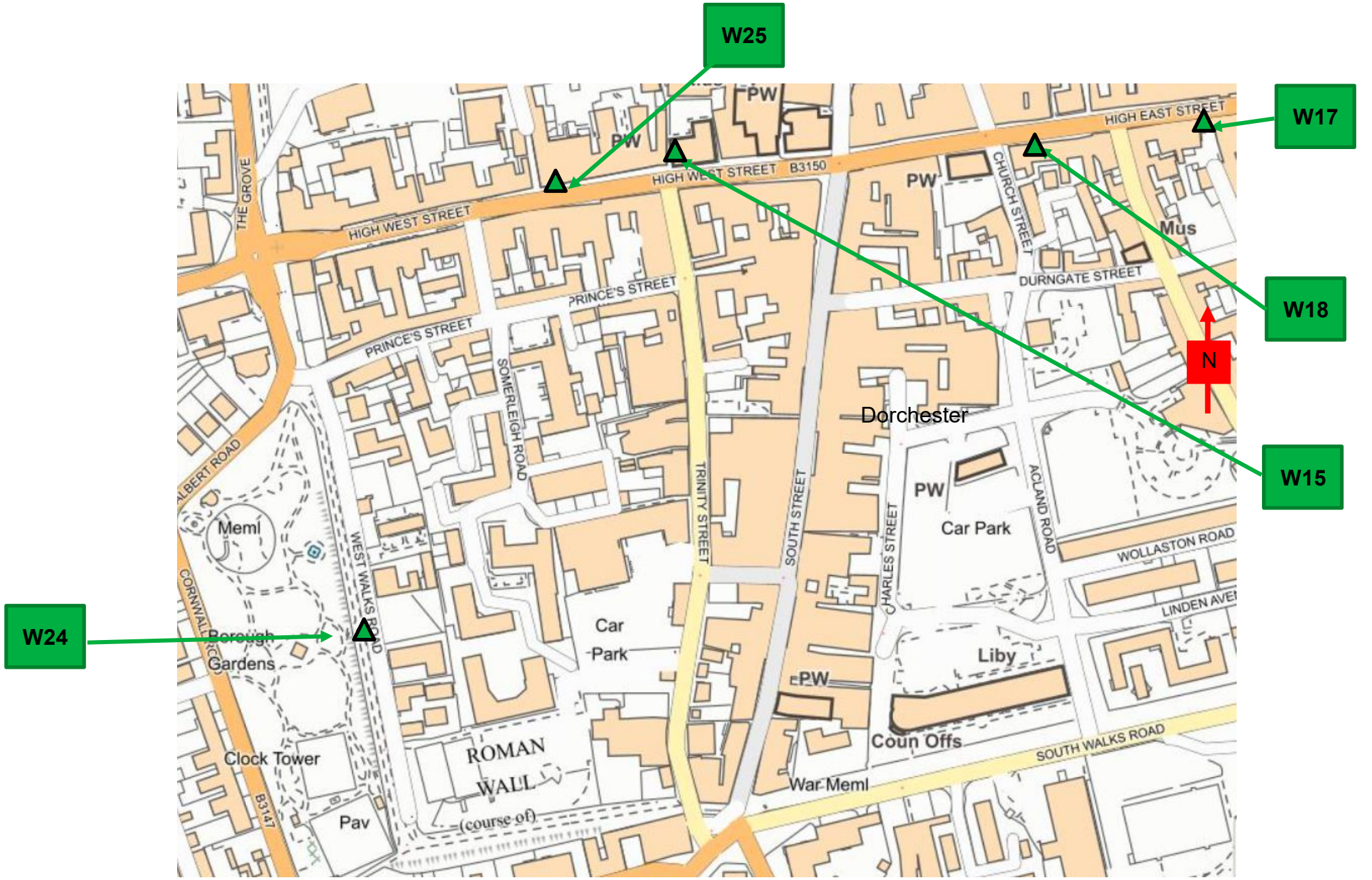

West Parley
Dudsbury
Recreation Ground
CH
Hall
B3073
N
E11
E10

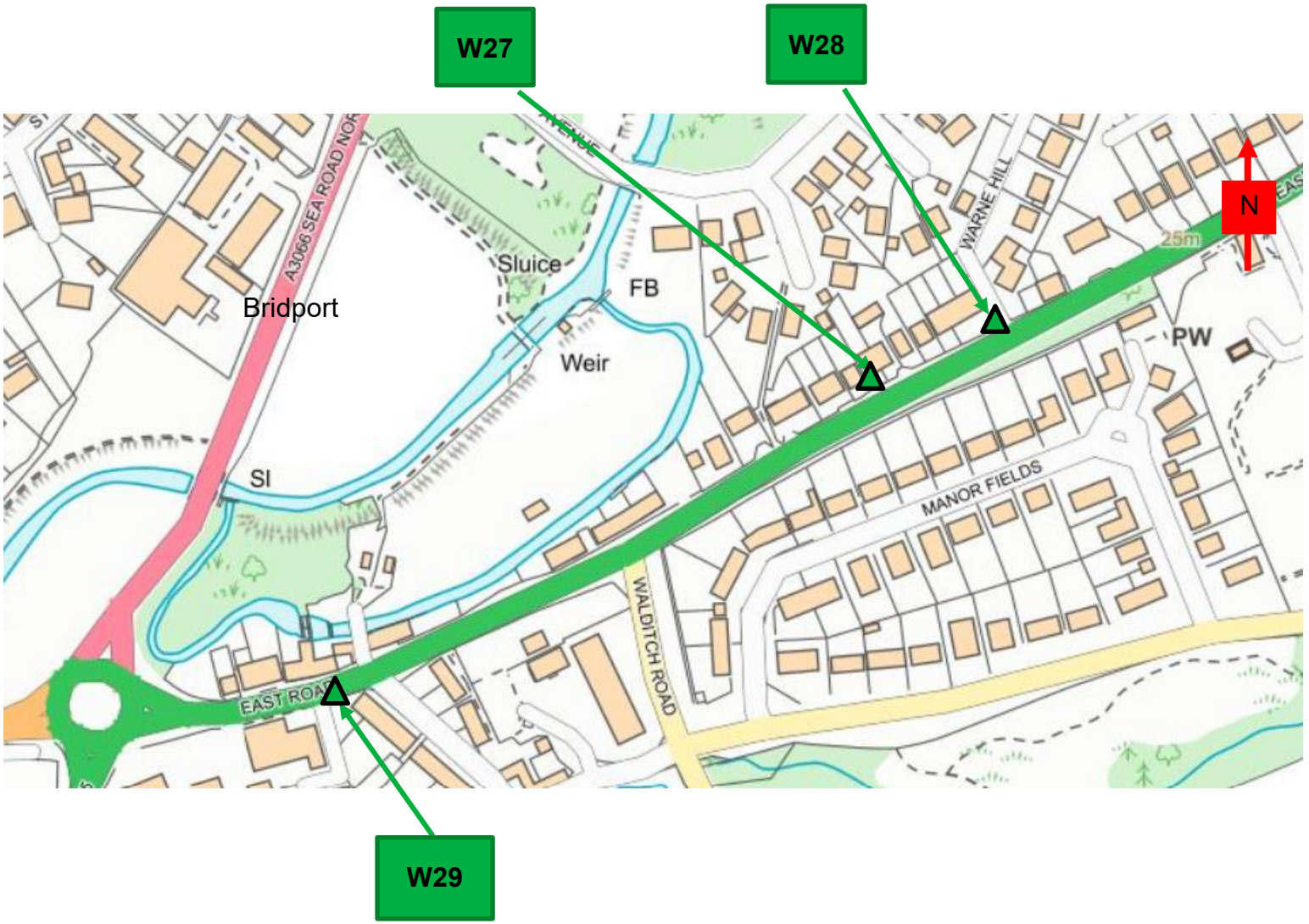

N
Brook View
B3072
Newcombe Road
Moorlands Road
Riverside Road
Knightstone Grove
Glenwood Way
West Moors
E14
Farm Road
Holly Close
Station Road
Park Way
Mannington Way
Birch Grove
Pennington Road
Pennington Crescent
Station Road
B3072
Moorside Road
Mannington Brook
Pennington's Copse

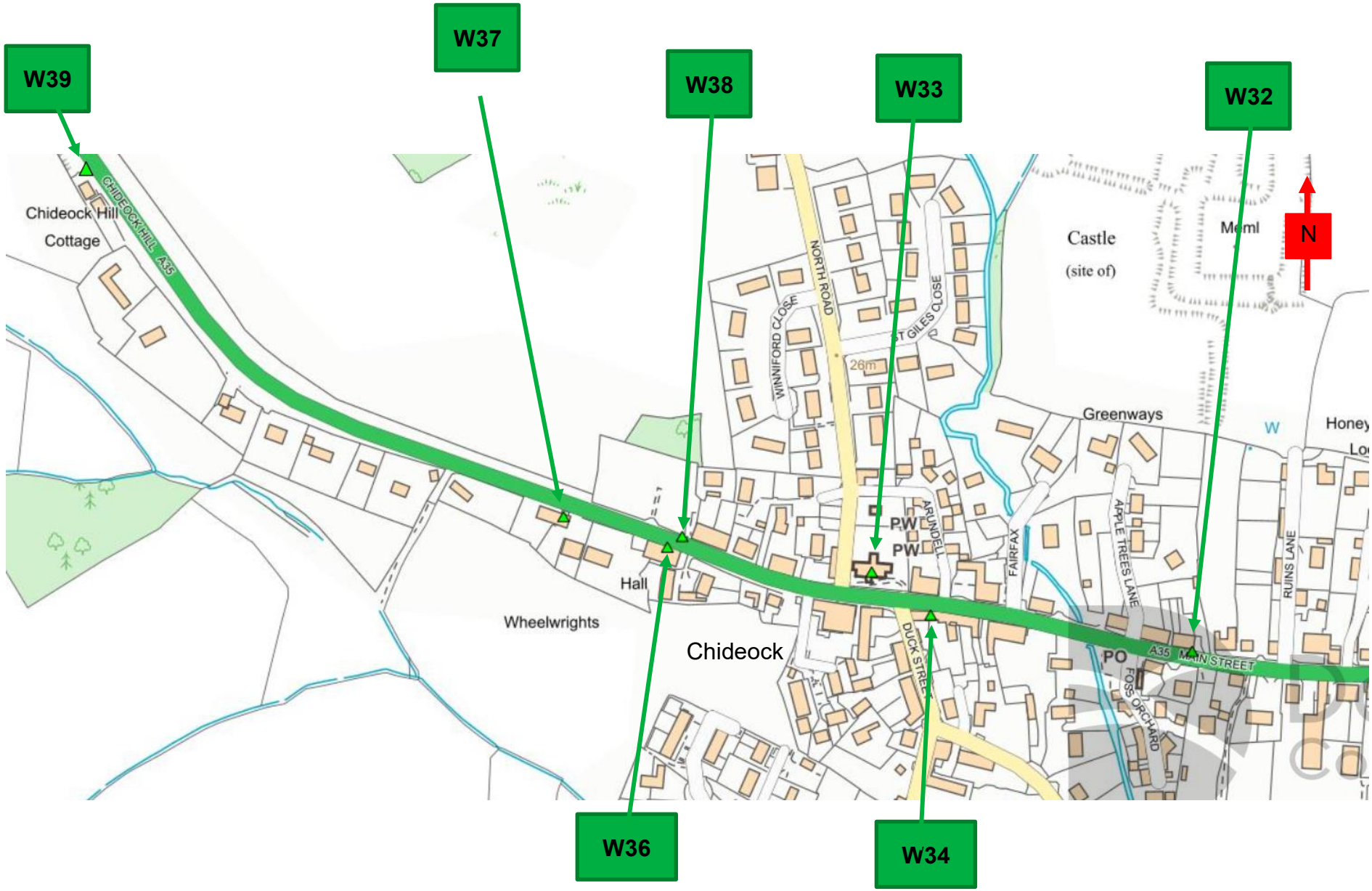

W47
W46
W14
W1
N
South Ship Channel
Balaclava Bay
FORTUNESWELL
HM Prison
The Verne
King's Pier
East Weare
Quarry
Verne Yeates
Hotel
West Weare
Grove
HM Young Offender Institution
Quarry
104
102
Clay Ope
Quarry
Coll
Cemy
Easton
Quarry
Durdle Pier
Blacknor
Weston
Grove Cliff
Rufus Castle
Church
(rems of)
71
73
74

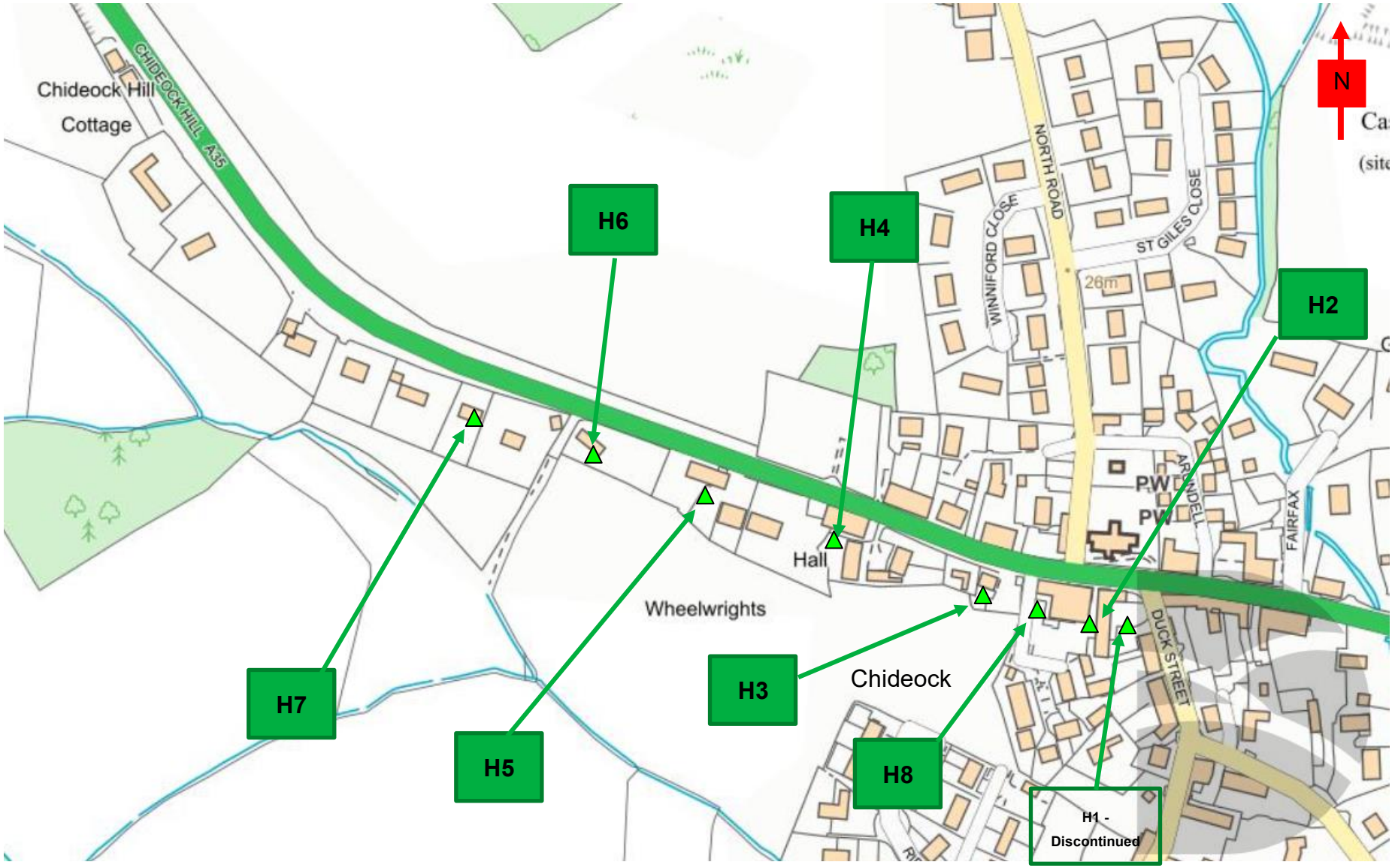

W12
W13
W2
N
Radipole Lake
Car Park
Mast
KING STREET B3155
Bus Depot
Subway
THE ESPLANADE
Slipway
BATH STREET
WESLEY STREET
GLOUCESTER MEWS
TURTON STREET
War Meml
Slipway
The Swannery
Car Park
COMMERCIAL ROAD
PARK STREET
GLOUCESTER STREET
WEYMOUTH WAY
B3155
A354
ALMA ROAD
Subways
ABBOTSBURY ROAD
WESTWEY ROAD
Westham Bridge
Pav
Slipway
SI
FB
WESTHAM ROAD
Melcombe Regis
PW
Sand
CORSCOMBE CLOSE
PW

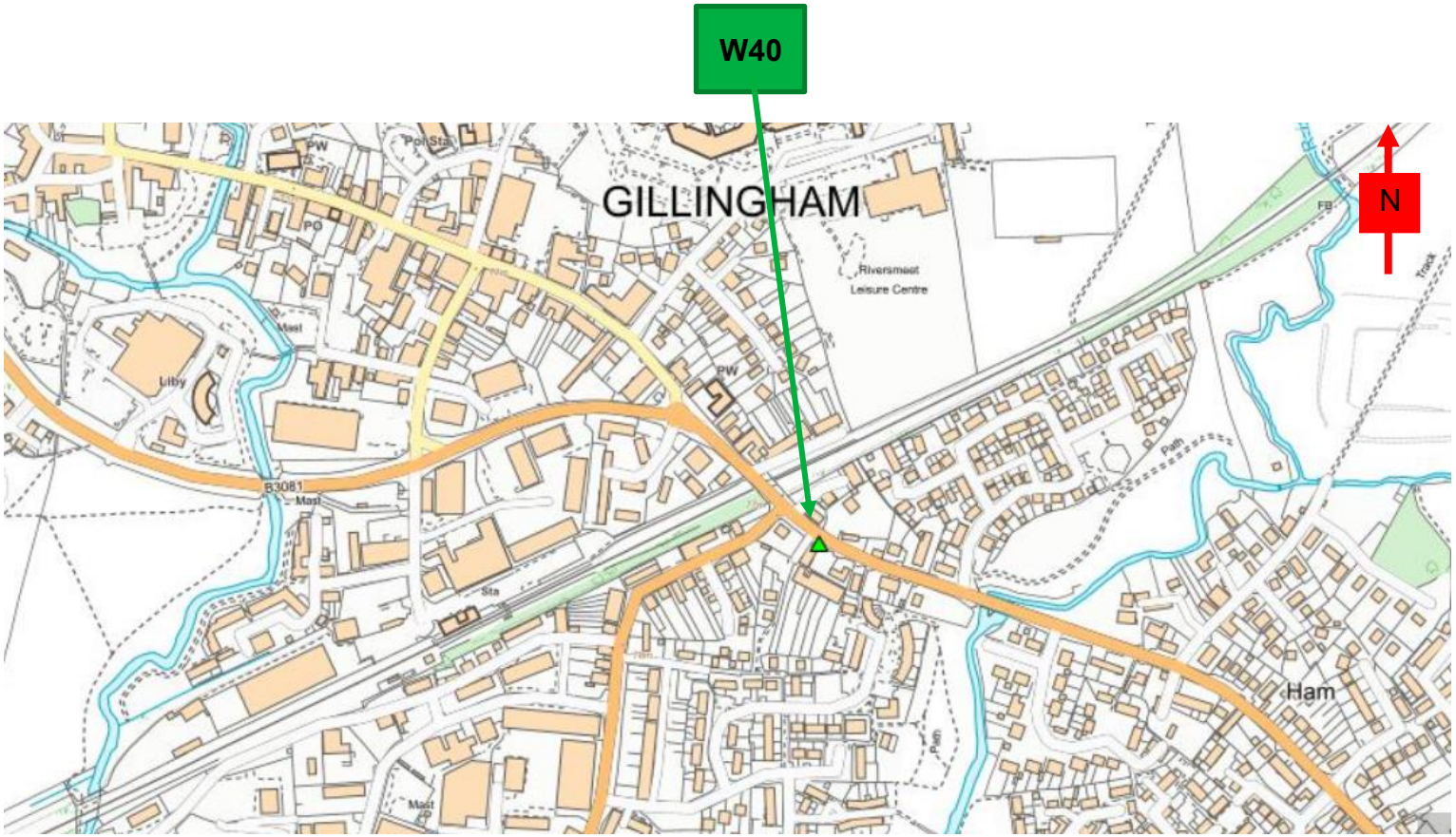

W6
W3
W10
W9
W5
N
Weymouth
Springfield Mews
RODWELL STREET


W25
W17
W18
W15
W24
N
HIGH WEST STREET
HIGH WEST STREET B3150
HIGH EAST STREET
THE GROVE
PRINCE'S STREET
SOMERLEIGH ROAD
TRINITY STREET
SOUTH STREET
CHURCH STREET
DURNGATE STREET
Mus
Dorchester
PW
Car Park
ACLAND ROAD
WOLLASTON ROAD
LINDEN AVE
CHARLES STREET
ALBERT ROAD
WEST WALKS ROAD
CORNWALL ROAD
Meml
Borough Gardens
Car Park
Liby
Coun Offs
SOUTH WALKS ROAD
War Meml
ROMAN WALL
(course of)
Clock Tower
Pav
B3147


W27
W28
W29
N
A3066 SEA ROAD NORTH
Bridport
Sluice
FB
Weir
SI
WARNE HILL
25m
PW
MANOR FIELDS
WALDITCH ROAD
EAST ROAD


W39
W37
W38
W33
W32
Chideock Hill
Cottage
CHIDEOCK HILL
A35
NORTH ROAD
WINNIFORD CLOSE
ST GILES CLOSE
26m
Castle
(site of)
Meml
N
Greenways
Honey
Lo
W
PW
PW
ARUNDELL
FAIRFAX
APPLE TREES LANE
RUINS LANE
Hall
Wheelwrights
Chideock
DUCK STREET
PO
A35
MAIN STREET
FOSS ORCHARD
W36
W34

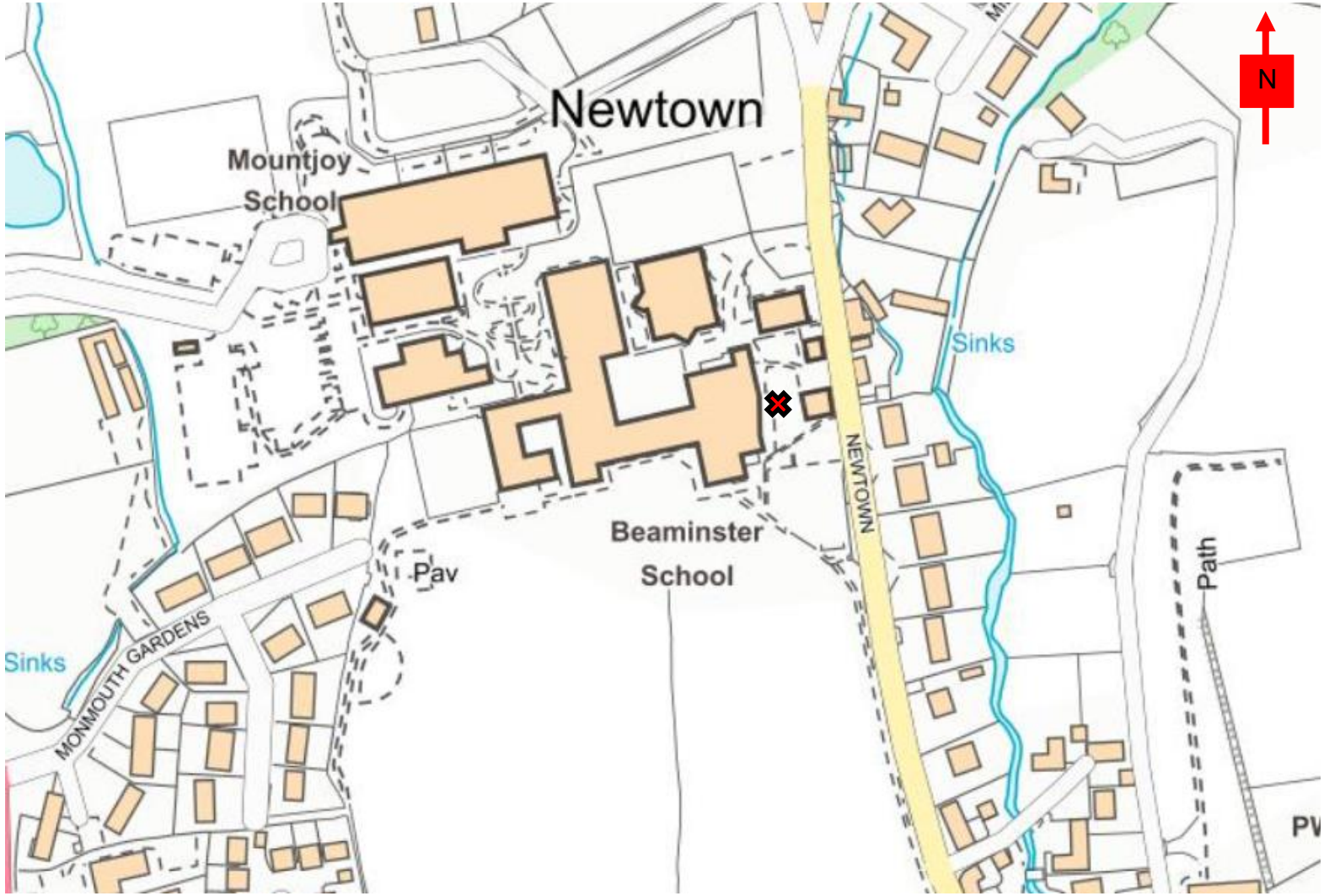

Chideock Hill
Cottage
CHIDEOCK HILL A35
H6
H4
H2
H7
H5
H3
H8
H1 - Discontinued
Hall
Wheelwrights
Chideock
NORTH ROAD
WINNIFORD CLOSE
ST GILES CLOSE
ARUNDELL
FAIRFAX
DUCK STREET
26m
N


W40
GILLINGHAM
N
Riversmeet
Leisure Centre
Liby
B3081
Ham


W42
N
FB
Pol
Liby
Sta
Mem
B3092
PO
Bathing Island
Gotts Corner
Recreation
Ground
PW
PW
Sturminster
Newton
Sch
Track
Sewage

AQMesh continuous analyser positons

Beaminster

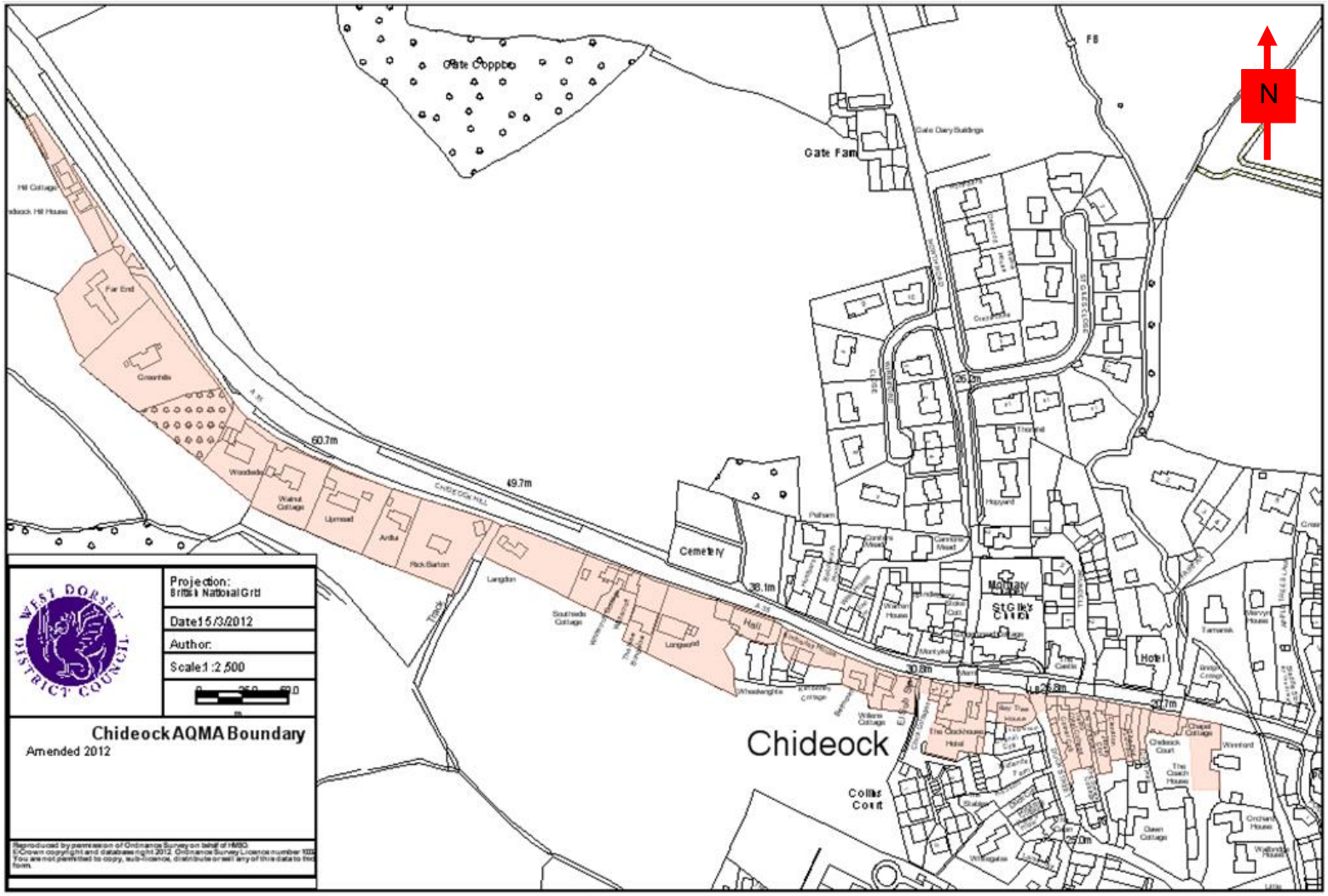


Ferndown

Figure D.2 – Map of AQMAs

AQMA Chideock 2007 Boundary

AQMA Chideock 2012 Amended Boundary



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[2]

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

[2] 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

- 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.