

# **Isle of Wight Council**

Annual Status Report 2024
Bureau Veritas
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# 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

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# **Executive Summary: Air Quality in Our Area**

### Air Quality in Isle of Wight

Breathing in polluted air affects our health and costs the National Health Service (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 United Kingdom (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<sup>1</sup>.

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<sup>2</sup>.

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 <sub>2</sub> )	Nitrogen dioxide is a gas which is generally emitted from high- temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO <sub>2</sub> )	Sulphur dioxide (SO <sub>2</sub> ) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	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 <sub>10</sub> refers to particles under 10 micrometres. Fine particulate matter or PM <sub>2.5</sub> are particles under 2.5 micrometres.

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<sup>&</sup>lt;sup>1</sup> UK Health Security Agency. Chemical Hazards and Poisons Report, Issue 28, 2022.

<sup>&</sup>lt;sup>2</sup> Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

The Isle of Wight is an island situated off the south coast of England, approximately 2 miles from mainland Hampshire Coastline. The island is one of Britain's longest established visitor destinations and includes holiday and caravan parks as well as the seasonal day trip influx via ferries. The island is also a popular yachting centre, focused on Cowes and Yarmouth, and seeks to encourage countryside tourism by establishing the Isle of Wight coastal footpath and seven long-distance trails.

The area occupies a key strategic position on the southern England coastline, acting as a gateway for many to mainland British Isles as well as continental Europe with over 100 ferry journeys per day between the island and mainland English ports such as Folkestone, Portsmouth, and Dover that provide onward travel. The island is approximately 147 square miles and boasts a rich variety of charming landscape. Approximately 50% of the island falls within the Isle of Wight Area of Outstanding Natural Beauty (AONB) and there are over 40 Sites of Special Scientific Interest (SSSI).

The island is predominantly a rural environment, with approximately 140,000 people residing there. The largest urban area is the town of Ryde with approximately 32,000 people residing there, followed by Newport where approximately 25,000 people live. Other population centres across the island are Cowes, Yarmouth and Sandown.

The main source of pollution on the island is from road traffic emissions originating from the extensive road network, approximately 513 miles, inclusive of A3021, A3054, A3055, and A3056, with car ownership in households on the Isle of Wight higher than the national average, 75.3% compared to 73.2% respectively, as reported in the Isle of Wight Core Strategy Island Plan. These roads experience increased volumes of traffic as they form the main part of the arterial highway network throughout Isle of Wight. Therefore, these roads have a tendency to become congested, resulting in the stopping and starting of vehicles, which in turns leads to elevated pollutant concentrations.

However, it is noted that major congestion does not occur often on the island, as the majority of the vehicles start and end their journeys on the island and are not through-flow traffic. Furthermore, the ferry port of the island is a gateway to the mainland, with summer season traffic flows on the island significantly changing with the influx of tourist-related traffic. Other pollution sources including commercial, industrial, and domestic sources also contribute to pollutant concentrations on the island.

During 2023, concentrations of NO<sub>2</sub> were monitored passively via a diffusion tube network of 13 sites, with three tubes forming a triplicate location (IOW 1/2/3). An additional two sites were added to the network in 2023, IOW 12 and IOW 13, both kerbside locations.

These tubes were added into the network due to concerns from local residents over increased traffic queuing (IOW 12), and concerns from the Town Council over traffic for ferry queuing in the area (IOW 13).

When compared to the 11 sites that made up the diffusion tube network in the previous reporting year, the NO<sub>2</sub> annual mean concentration decreased at 28% of sites in 2023. It is noted that IOW 4 and IOW 10 did not report annual mean NO<sub>2</sub> concentrations in 2022 due to insufficient data capture, 15.7% and 7.7% respectively and less than 3 months of data for the monitoring year. IOW 12 and IOW 13 were first deployed in 2023, therefore, comparisons are unable to be drawn for these sites. No single diffusion tube site recorded an NO<sub>2</sub> annual mean concentration above the air quality objective of 40  $\mu$ g/m³, with a maximum concentration in 2023 of 33.6  $\mu$ g/m³ at diffusion tube monitoring location IOW 1/2/3, a kerbside site, located along Fairlee Road in Newport. This location also reported the maximum concentrations in the 2022 and 2023 ASRs, 33.1  $\mu$ g/m³ and 29.5  $\mu$ g/m³ respectively. With the exception of the triplicate location (IOW 1, 2, 3) in 2019 which reported an annual mean NO<sub>2</sub> concentration of 36.5  $\mu$ g/m³, within 10% of the Air Quality Standard (AQS) objective, compliance with the annual NO<sub>2</sub> AQS objective has been demonstrated by Isle of Wight since 2019, as such the Council have sufficient monitoring data to support not declaring an Air Quality Management Area (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<sup>3</sup> 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<sub>2.5</sub>), the pollutant of most harmful to human health. The Air Quality Strategy<sup>4</sup> provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

<sup>&</sup>lt;sup>3</sup> Defra. Environmental Improvement Plan 2023, January 2023

<sup>&</sup>lt;sup>4</sup> Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

The Road to Zero<sup>5</sup> 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.

As part of the Isle of Wight Council's commitment to reduce the impacts of, and tackle climate change, the Council declared a climate emergency in July 2019 and continues to progress and aim to hit net-zero carbon emissions by 2040 across the island. In September 2021, Isle of Wight Council developed the Mission Zero Climate and Environment Strategy 2021 – 2040<sup>6</sup>, setting out various actions with 8 core objectives in the environmental chapter, to reduce CO<sub>2</sub> emissions, of which also have shared benefits in improving air quality through reducing both NO<sub>2</sub> and PM emissions.

The Council is developing and has implemented the following measures as part of the strategy in 2023:

- 12 free on-street charge points have been implemented;
- Implementation of 24 charging points within Isle of Wight car parks;
- Ryde Transport Interchange Project is ongoing with extensive remodelling designed to provide better travel connectivity as well as much-improved public space for residents and visitors. Updates include;
  - May 2023 brought the operation of the new Ryde Bus Station, with buses collecting passengers from new stands. Improvements to the bus station have created a better environment for bus users and pedestrians whilst making it easier and safer for vehicles to manoeuvre in and around the station;
  - Removal of all traffic management and the new signal-controlled junction allowing buses to travel directly from the new bus station up George Street has been switched on;

<sup>&</sup>lt;sup>5</sup> DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

<sup>&</sup>lt;sup>6</sup> Isle of Wight Mission Zero Climate and Environment Strategy 2021-2040 https://www.iow.gov.uk/azservices/documents/2570-Mission-Zero-Climate-and-Environment-Strategy-2021-2040-final.pdf

- o Tramway pier has been reinstated for pedestrian use.
- The draft Island Planning Strategy contains policies to promote sustainable and active transport across the island including:
  - Multi-user routes to help facilitate sustainable modes of transport and new cycle routes;
  - Disused rail lines to be used for sustainable travel routes;
  - o Provision of new cycling routes;
  - o Encourage and promote the railway route on the island; and
  - Facilitating introduction of electric vehicle (EV) charging points.
- Local Walking and Cycling Improvements in Ryde and Newport.

The Council continues to promote its Business Engagement Programme which provides companies with an 'Isle of Wight Green Tourism Award' based on the actions they achieve to promote and encourage sustainable transport. The initiative is centred on three core themes: People, place and planet, and there are three levels of the scheme, bronze, silver, and gold, with businesses required to meet specific criteria to acquire points enabling awards. Some examples include 'Gold Award' businesses becoming members of the 'Green Travel Bus Pass Scheme' launched in 2023, with companies given an allocated amount of discount codes allowing groups of up to 5 people to travel on the bus all day for £1, in recognition of sustainable travel across the Island. The campaign is available to review: <a href="https://visitwightpro.com/iow-green-tourism-award/">https://visitwightpro.com/iow-green-tourism-award/</a>

The Council maintains its collaborative relationships with the Isle of Wight Bus and Coach Museum to host active transport events, such as <u>'The WightRider'</u> which promotes the use and benefits of public transport on air quality comparative to private vehicle use. The events include free buses that link various attractions, not only in Ryde, but further afield across the island such as the IW Steam Railway at Wootton station. In addition, park and ride facilities are also available and promoted.

The Isle of Wight encourages active travel across the island, and subsequent reduction in vehicular usage, through its established reputation as the United Kingdom's 'Bicycle Island' and hosting the event 'Walk the Wight', which is the largest sponsored walk of its kind in Europe. Therefore, seeking to reduce vehicle emissions and contribution to air quality by promoting the area as an enabler of active travel.

Isle of Wight Council continue to progress with, alongside development and enhancement of, the <a href="PedalAid">PedalAid</a> app. PedalAid is an app for encouraging cycling on the Isle of Wight and in 2021 recorded 32km of cycling routes but has since been upgraded to report 50km of

cycling routes. The routes covered by PedalAid are mostly off road, including the Red Squirrel trail from Newport to Shanklin, with a circular route from Merstone, and Cowes to Newport. In addition, there are routes from Yarmouth to Freshwater and some other routes to and from Newport. Rides on the PedalAid routes are logged by the PedalAid app and these contribute towards an overall monthly challenge target. A chosen local Isle of Wight charity receives a donation if the target is reached. Therefore, promoting an inclusive community and future collaboration between the Council, local businesses, charities and people by working together to identify opportunities to improve air quality by limiting emission source(s) use whilst encouraging mortality longevity.

The Council have an established Local Cycling and Walking Infrastructure Plan (LCWIP) for 2020 to 2030 with the urban centres of Newport and Ryde being 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 strategic approach to identifying cycling and walking improvements required at the local level, with 16 cycling routes outlined and 24 walking routes established. They enable a long-term approach to developing local cycling and walking networks, ideally over a 10-year period, and form a vital part of the Government's strategy to increase the number of trips made on foot or by cycle. Isle of Wight acknowledge that they are responsible for implementing actions in the LCWIP and proactively seek funding to improve the existing network.

As discussed in the Isle of Wight 2023 ASR, in January, April and June 2022 LCWIPs were created for Bembridge, Brading and St Helens, East Cowes and Whippingham, and Cowes, Northwood and Gurnard, respectively. These LCWIPs were produced by the local parish and town councils in support of the existing LCWIP for Newport and Ryde and extend until 2032. In May 2023, the Isle of Wight Cabinet approved the three LCWIPs in the respective areas of the Island outlined, and confirmed they are to work with key local, regional and national stakeholders to seek funding to deliver the proposed infrastructure improvements. As such, Isle of Wight Council have adopted these documents.

In May 2023 Isle of Wight Council were awarded £700,000 from the UK Government Active Travel Fund. The funding will seek to improve Ryde High Street, making it safer and more pedestrian friendly as well as creating new amenity areas, increase accessibility and emphasise the historic elements of Ryde town centre. These developments supported by the Active Travel Fund are in alignment with the broader Ryde High Street Heritage Action Zone programme being delivered by a partnership of Ryde Town Council, Isle of Wight

Council and Historic England. The project aims to improve the High Street by rationalising and upgrading street furniture; repaving; enhanced planting; new traffic-calming measures to slow permitted vehicles and enhanced cycle parking. The plans also include improvements to Town Square and Minghella Square to create more space for activities and events, seating at regular intervals to improve accessibility and outdoor seating and display areas for cafes and shops. Such developments outline Isle of Wight's commitment to facilitating and encouraging active transportation, through promoting beneficial community uses of the Active Travel Fund. More information is available at: https://www.iow.gov.uk/news/good-news-for-ryde-as-council-secures-active-travel-funding/

The Council actively encourages developers at the planning stage to install electric charging points or consider suitable infrastructure to allow for future cost-efficient installations.

Isle of Wight Council confirms the collaborative relationship with Joju Solar to roll out a programme of charging points for Electrical Vehicles (EV) across the island, resulting in in 24 EV charging points being implemented already in car parks, an increase of 18 since 2022 with a total of 38 EV charging points scheduled to be implemented. Furthermore, the Council is allowing free parking in car parks for vehicles that are using the charging point and is also seeking to acquire investment from the Local Electric Vehicle Infrastructure (LEVI) fund from the UK Government to further enhance its EV charging network. More information regarding the location of EV charging points can be found here: https://iwc.iow.gov.uk/Council/OtherServices/zzzElectric-Vehicle-Chargepoints/Car-Park-Chargepoints

#### **Conclusions and Priorities**

During 2023, the NO<sub>2</sub> annual mean objective was not exceeded at any monitoring location within Isle of Wight. This is a continuing trend that has been observed across the Island 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<sub>2</sub> AQS objectives.

The maximum predicted PM<sub>2.5</sub> background concentration in 2023 is well below the current annual mean AQS objective of 20  $\mu$ g/m³ at 10.07  $\mu$ g/m³, however, it is above the AQS objective of 10  $\mu$ g/m³ that is not to be exceeded at any monitoring station by 31<sup>st</sup> December 2040. Therefore, it is recommended that Isle of Wight Council considers further

actions as well as continuing those implemented already to reduce PM<sub>2.5</sub> across the island.

The following actions are considered to be key priorities in ensuring the air quality conditions within Isle of Wight 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<sub>2</sub> in areas of relevant public exposure;
- Actively engage with 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;
- Implementation of the planned EV charging points in car parks across the island;
- Continue to provide an integrated transport network to facilitate the efficient movement of pedestrian and vehicular traffic, goods, and services across the island;
- Continue to reduce the volume of traffic on the island's roads by encouraging effective active transport methods (e.g. public transport, cycling, and walking);
- Continue to improve the existing walking and cycling network by acquiring funding for development; and
- Implement measures within the Climate and Environment strategy to further reduce concentrations of NO<sub>2</sub> and PM.

## Local Engagement and How to get Involved

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

Isle of Wight 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 Joju Solar to roll out a programme of charging points for Electrical Vehicles (EV) across the island, resulting in 24 EV charging points being implemented already in car parks, an increase of 18 since 2022 with a total of 38 EV charging points scheduled to be implemented;
- Allowing free parking in car parks for vehicles that are using the EV charging points;

- Seeking to acquire investment from the Local Electric Vehicle Infrastructure (LEVI)
   fund from the UK Government to further enhance its EV charging network;
- Promotion of active transport uptake through the business initiative 'Isle of Wight Green Tourism Award';
- Collaboration between local businesses and charities to host events promoting active transport and the benefits, such as 'Walk the Wight';
- Investment into enhancing the existing active travel network for walking and cycling;
   and
- Development of the PedalAid App which enhanced mapping of the Isle of Wight's cycling routes from 32km to 50km.

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

- 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 Isle of Wight are continuously working with local businesses, charities, developers, tourism bodies, schools, local transport operators and more organisations to develop measures to improve air quality across the island.

## **Local Responsibilities and Commitment**

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

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# 1 Local Air Quality Management

This report provides an overview of air quality in Isle of Wight 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 Isle of Wight 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 F.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.

Isle of Wight Council do not have any declared AQMAs. Maps of the monitoring locations within the area are presented in Figure D.1 – Figure D.8.

# 2.2 Progress and Impact of Measures to address Air Quality in Isle of Wight

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 Isle of Wight 2024 ASR:

- Trends have been presented with a robust comparison to air quality objectives. The
  report confirms Isle of Wight Council continues to enjoy good air quality with no
  exceedances of air quality objectives, and thus no requirement for an AQMA or
  formal AQAP.
- 2. Despite not having an AQAP, the Council have outlined measures within their Mission Zero Climate and Environment Strategy 2021 2040 which have cobenefits for both carbon emissions and air quality. This is welcomed.
- 3. The Council do not monitor for PM<sub>2.5</sub>, however they have estimated concentrations using Defra background maps. There is also a reference to Public Health Outcomes Framework and specifically the indicator D01 Fraction of mortality attributable to particulate air pollution, with a comparison to regional and national values.
- 4. The Council have provided clear mapping of the diffusion tube locations, including an overview map of all locations as requested in the comments regarding the previous ASR. This is very welcomed.
- 5. While the Council have clarified which bias adjustment factor they used, they have not included a brief explanation as to why they have used the national instead of the local bias adjustment factor i.e. because the passive monitoring network does not include a co-location with a continuous monitor. This information should be included in future reports.
  - a. Commentary regarding the justification for using a national bias adjustment factor has been provided within the 2024 ASR.
- 6. Diffusion tubes have been deployed in line with the DEFRA calendar in some months and not in others. If possible, diffusion tubes should be deployed following the DEFRA calendar consistently throughout the year.

- a. Diffusion tubes were deployed during the 2023 monitoring year in line with the DEFRA calendar, albeit issues with the acquired monitoring data have been communicated in detail in the 2024 ASR.
- 7. The in-text reference in chapter 3.2.1 is not working. Intext references should be double checked before submitting the ASR.
  - a. In text references have been checked prior to submission of the 2024 ASR.

Isle of Wight 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. Six measures are included within Table 2.1, with the type of measure and the progress Isle of Wight 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:

- May 2023 brought the operation of the new Ryde Bus Station, part of the Ryde
  Transport Interchange Project, with buses collecting passengers from new stands.
  Improvements to the bus station have created a better environment for bus users
  and pedestrians whilst making it easier and safer for vehicles to manoeuvre in and
  around the station;
- The Ryde Transport Interchange Project has also seen the removal of all traffic management in 2023 and the new signal-controlled junction allowing buses to travel directly from the new bus station up George Street has been switched on;
- The tramway pier has been reinstated for pedestrian use in 2023 as part of the Ryde Transport Interchange Project;
- Adoption of LCWIPs for <u>Bembridge</u>, <u>Brading and St Helens</u>, <u>East Cowes and Whippingham</u>, and <u>Cowes</u>, <u>Northwood and Gurnard</u> in May 2023;
- Launch of the 'Green Travel Bus Pass Scheme' in 2023, with companies given an allocated amount of discount codes allowing groups of up to 5 people to travel on the bus all day for £1, in recognition of sustainable travel across the Island;
- Implementation of 24 EV charging points in car parks, an increase of 18 since 2022 with a total of 38 EV charging points scheduled to be implemented alongside Joju Solar; and
- Allowing free parking in car parks for vehicles that are using the EV charging points.

Isle of Wight Council's priorities for the coming year are:

- Complete and publish an Air Quality Strategy for the island before the 2025 ASR is due;
- As part of the Ryde Transport Interchange Project, the Council are committed to completing the highway element, as well as the refurbishment of the train station building and reinstatement of the public toilets in the station. These construction elements are ongoing but anticipated for completion Summer 2024;
- The draft Island Planning Strategy (IPS) is undergoing a period of public representation for 6-weeks commencing early June 2024. Post this period, the Council will seek to submit the final IPS, an evidence base supporting it, and all comments received by the Secretary of State for the public examination by late 2024;
- Continue works on Ryde High Street Heritage Action Zone programme to improve
  the High Street making it safer and more pedestrian friendly whilst creating more
  space for activities and events, and improving accessibility. These developments
  supported by funding from the UK Government Active Travel Fund.

Isle of Wight Council worked to implement measures in partnership with the following stakeholders during 2023:

- Local businesses and charities;
- UK Government (Active Travel Fund);
- Neighbouring local authorities.

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	Zero Emission Bus Regional Area Fund	Promoting Low Emission Transport	Public Vehicle Procurement - Prioritising uptake of low emission vehicles		2026	Isle of Wight Council and Go South Coast Limited	Department for Transport	NO	Partially Funded	>£10 million	Planning	HIGH	Not yet determined or set	Successful funding bid for project. Forming the governance. Zero emission bus demonstrators to test the project and their performance.	Securing electrical capacity in the network. Lead time on manufacture of vehicles as built to order.
2	Local Electric Vehicle Infrastructure	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2022	2027	Isle of Wight Council and local charge point operators	Office for Zero Emission Funding Source	NO	Not Funded	£1 million - £10 million	Implementation	HIGH	Number of charge points delivered	Implemented a 40+ charge points in infrastructure and obtained funding for 500 further charge points	Availability of power connection. Procurement of charge point operators.
3	Promoting active travel (e.g. Isle of Wight Green Link Project)	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2020	2032	Isle of Wight Council	Department for Transport and Active Travel England	NO	Partially Funded	> £10 million	Implementation	HIGH	Not yet determined or set	Implemented four schemes and received funding for significant Island Green Link Project	Land acquisition. Construction costs.
4	Somerton Park and Ride	Alternatives to private vehicle use	Bus based Park & Ride	2012		Isle of Wight Council, Red Funnel and Go South Coast Limited	Isle of Wight Council and Go South Coast Limited	NO	Not Funded		Implementation	Medium			
5	General enforcement of the Environmental Permitting regime	Environmental Permits	Other measure through permit systems and economic instruments			Isle of Wight Council and the Environment Agency	Operators of facilities	NO	Not Funded		Implementation	Low to Medium	Permits meeting BAT and facilities in full compliance	On-going new applications and revocations, and inspections. Enforcement action taken when none compliance identified.	
6	Moving 120 Isle of Wight Council vehicle fleet to EV	Vehicle Fleet Efficiency	Fleet efficiency and recognition schemes	2021	2032	Isle of Wight Council	Isle of Wight Council	NO	Funded	£1 million - £10 million	Implementation	Low	None	28 EV out of 120. 12 EV being delivered 2024 and funding for a further 12 2025	Vehicle availability such as for larger vehicles. Charging infrastructure. Budget availability.

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# 2.3 PM<sub>2.5</sub> – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy<sup>7</sup>, local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter (PM<sub>2.5</sub>). There is clear evidence that PM<sub>2.5</sub> (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

#### PM<sub>2.5</sub> Monitoring:

There is not currently any monitoring of PM<sub>10</sub> or PM<sub>2.5</sub> within Isle of Wight. 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<sub>2.5</sub> concentrations from PM<sub>10</sub> measurements.

#### PM<sub>2.5</sub> Background Concentrations:

The current Defra 2023 background maps for Isle of Wight Council (2018 based)<sup>8</sup> show that all background concentrations of PM<sub>2.5</sub> are significantly below the current annual mean AQS objective of 20 μg/m<sup>3</sup>. The highest background concentration is predicted to be 10.1 μg/m<sup>3</sup> within the grid square (1 km x 1 km) with the centroid grid reference 449500, 95500. This grid square encompasses a largely residential area within Cowes and includes much of the A3020 and connecting junctions, alongside Cowes Chain Ferry Port and Cowes Harbour. The A3020 is a core road within Cowes and broader Isle of Wight, where the PM secondary fraction (formed of gaseous pollutants) constitutes as the key contributor to PM<sub>2.5</sub>.

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  $\mu$ g/m³, it is above the AQS objective of 10  $\mu$ g/m³ that is not to be exceeded at any monitoring station by 31<sup>st</sup> December 2040. Therefore, it is recommended that Isle of Wight Council considers further actions as well as continuing those implemented already to reduce  $PM_{2.5}$  across the island.

<sup>&</sup>lt;sup>7</sup> Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

<sup>&</sup>lt;sup>8</sup> 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 Isle of Wight. 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<sup>9</sup>, compiled by Public Health England quantifies the mortality burden of PM<sub>2.5</sub> within England on a county and local authority scale. The 2022 fraction of mortality attributable to PM<sub>2.5</sub> emissions within Isle of Wight is 4.8%, which is lower than the average for the South-East of England (5.7%) and England as a whole (5.8%).

#### Measures to Improve PM<sub>2.5</sub> Concentrations:

Isle of Wight Council is taking the following measures to address PM<sub>2.5</sub>:

- 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;
- Adoption of LCWIPs for <u>Bembridge</u>, <u>Brading and St Helens</u>, <u>East Cowes and</u>
   <u>Whippingham</u>, and <u>Cowes</u>, <u>Northwood and Gurnard</u> to encourage uptake of active transportation;
- Implementation of 24 EV charging points in car parks, an increase of 18 since 2022 with a total of 38 EV charging points scheduled to be implemented alongside Joju Solar;
- Allowing free parking in car parks for vehicles that are using the EV charging points encouraging the adoption of cleaner vehicle use;
- Launch of the 'Green Travel Bus Pass Scheme' in 2023, with companies given an allocated amount of discount codes allowing groups of up to 5 people to travel on the bus all day for £1, in recognition of sustainable travel across the Island;

<sup>&</sup>lt;sup>9</sup> Public Health England – Public Health Outcomes Framework. Available at: <a href="https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/1/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000043/pat/6/ati/501/are/E06000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/fip/0/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/gid/1000046/iid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/age/230/sex/4/cat/-1/ctp/-1/cid/93861/sex/4/cat/-1/ctp/-1/cid/93861/sex/4/cat/-1/ctp/-1/ctp/-1/ctp/-1/ctp/-1/ctp/-

- Promotion of the Local Cycling and Walking Infrastructure Plan (LCWIP) for
   Newport and Ryde to reduce the number of vehicle trips generated by these areas
   and subsequent pollutant emission release, due to the high population
   concentrations and hierarchical positions in the district's settlements;
- Promotion of the Active Travel Fund awarded to Isle of Wight in May 2023. The
  grant supports local authorities with the development of cycling and walking
  facilities, promoting active travel and supporting the reduction in vehicle volume and
  associated emission releases.

The Council acknowledge that the move to electric vehicles is not the only solution for air quality and associated heath concerns due to particulate matter, including  $PM_{2.5}$ , being sourced from break and tyre wear. As such, the Council have also implemented alternate initiatives with active travel at the forefront:

- Promotion of active transport uptake through the business initiative 'Isle of Wight Green Tourism Award';
- Investment into enhancing the existing active travel network for walking and cycling, promoting active travel and supporting the reduction in vehicle volume and associated emission releases;
- Development of the draft Island Planning Strategy which contains policies to promote sustainable and active transport across the island;
- Progression of the Ryde Transport Interchange project with extensive remodelling designed to provide better travel connectivity as well as much-improved public space for residents and visitors. Inclusive of:
  - May 2023 Operation of the new Ryde Bus Station, which has created a better environment for bus users and pedestrians whilst making it easier and safer for vehicles to manoeuvre in and around the station;
  - Removal of all traffic management in 2023 and the new signal-controlled junction allowing buses to travel directly from the new bus station up George Street has been switched on;
  - Reinstatement of the tramway pier for pedestrian use in 2023.
- Continual implementation of the Local Cycling and Walking Infrastructure Plan
   (LCWIP) to reduce the number of vehicle trips generated by Newport and Ryde
   areas and subsequent pollutant emission release, due to the high population
   concentrations and hierarchical positions in the district's settlements;

- Adoption of LCWIPs for Bembridge, Brading and St Helens, East Cowes and Whippingham, and Cowes, Northwood and Gurnard by the Isle of Wight Council; and
- Development of the PedalAid App which enhanced mapping of the Isle of Wight's cycling routes from 32km to 50km thus continuing to promote alternative forms of travel and reduce emissions.

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

This section sets out the monitoring undertaken within 2023 by Isle of Wight 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

Isle of Wight Council did not undertake any automatic (continuous) monitoring during 2023.

#### 3.1.2 Non-Automatic Monitoring Sites

Isle of Wight Council undertook non-automatic (i.e. passive) monitoring of NO<sub>2</sub> at 13 sites during 2023, inclusive of a triplicate site with tubes IOW 1/2/3. 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 Figure D.1 – Figure D.8. 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: Supporting Technical Information / Air Quality Monitoring QA/QC.

During 2023, the diffusion tube network was not well maintained, with an average data capture of approximately 44.8%, within the threshold for annualisation with each site requiring it. All of the diffusion tube sites had six months or more of data missing during the entire monitoring period. It is acknowledged that low data capture is due to the tubes not being not returned correctly to SOCOTEC laboratory and exclusion of data from calculations due to significantly low concentrations and confirmation from the laboratory that the diffusion tube caps had been left on during the deployment periods. Thus, providing erroneous results.

#### 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: Supporting Technical Information / Air Quality Monitoring QA/QC.

#### 3.2.1 Nitrogen Dioxide (NO<sub>2</sub>)

Table A. 2 compares the ratified and adjusted monitored  $NO_2$  annual mean concentrations for the past five years with the air quality objective of  $40\mu g/m^3$ . 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 11 sites that made up the diffusion tube monitoring network in 2022, the NO<sub>2</sub> annual mean concentration decreased at three sites in 2023, equating to a reduction in pollutant concentration at 28% of sites. The maximum decrease in NO<sub>2</sub> concentration between the two reporting years was 1.7  $\mu$ g/m³ at IOW 9, located on Lake Hill, outside Tesco Express, in Lake. This is unlike the previous reporting year, where concentrations decreased between 2021 and 2022 at 54% of sites, with the maximum decrease 7.9  $\mu$ g/m³ at IOW 9 again.

All monitoring sites within the Isle of Wight continue to report annual mean  $NO_2$  concentrations below the annual AQS objective of 40  $\mu g/m^3$ , 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 to the island.

Due to the low monitored concentrations, fall-off with distance correction was not required. Following bias adjustment and annualisation, the maximum reported concentration in 2023 was 33.6  $\mu g/m^3$  at diffusion tube monitoring location IOW 1/2/3, a kerbside site, located along Fairlee Road in Newport. This location also reported the maximum concentrations in the 2021 and 2022 ASRs, 33.1  $\mu g/m^3$  and 29.5  $\mu g/m^3$  respectively.

Figure A.1 – Figure A.2 present the 2023 annual mean NO<sub>2</sub> concentrations at Isle of Wight Council's monitoring sites. Concentrations at three sites decreased slightly during 2023 in comparison to 2022, IOW 6 (1.2  $\mu$ g/m³), IOW 7 (1.2  $\mu$ g/m³), and IOW 9 (1.7  $\mu$ g/m³). Whereas in 2023 IOW 1/2/3 increased by 4.1  $\mu$ g/m³, IOW 5 showed an increase of 1.2  $\mu$ g/m³, IOW 8 outlines an increase of 1.3  $\mu$ g/m³, and IOW 11 increased by 0.8  $\mu$ g/m³. IOW

4 and 10 which did not report an annual mean NO<sub>2</sub> concentration in 2022 due to insufficient data capture, 15.7% and 7.7% respectively, and less than 3 months of data for the monitoring year, and IOW 12 and 13 first deployed in 2023. The increases at IOW 1/2/3 and 11 are most likely attributable to their positioning on Fairlee Road (A3054), a core road into Newport Centre which joins the A3020, thus the route lends itself to potential increased vehicular traffic and subsequent emissions, particularly during the spring/ summer periods with 'coastal tourism.' The tubes may also be susceptible to increased annual NO<sub>2</sub> concentrations through contribution of transboundary pollution migration from broader destinations, as Isle of Wight is an island, as well as from boat emissions due to IOW 1/2/3 and IOW 11 geolocalities within approximately 170m and 250m of the Newport Harbour for the River Medina respectively. Increases reported at IOW 5 and IOW 8 are most likely attributable to the locations where the tubes are positioned with IOW 5 on Coppins Bridge in Newport with various routes linking into the bridge, A3020, A3054, B3323 as well as more localised roads such as Barton Road and IOW 8 is on a centralised road through Wootton Bridge, High Street (A3054), as such the areas lend themselves to potential increased vehicular traffic and subsequent emissions.

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 includes distance corrected values, only where relevant. The monitoring dates coincide with the Defra calendar dates for the year however, it is acknowledged that between January 2023 and April 2023 the tubes were not returned correctly to SOCOTEC Didcot laboratory, thus these months are missing from the 2023 monitoring year. Furthermore, May 2023 and June 2023 were excluded from calculations due to significantly low concentrations and confirmation from the laboratory that the diffusion tube caps had been left on during the deployment periods. Thus, providing erroneous results. As such, the exclusion of data from January 2023 to June 2023 (inclusive) and overall limited data capture for 2023 may be indicative of the decrease in concentrations yielded in 2023.

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  $60\mu g/m^3$ . Given that the highest recorded annual mean concentration at any of the diffusion tube monitoring sites is  $33.6 \mu g/m^3$  in 2023, and  $36.5\mu g/m^3$  since 2019, it is possible to conclude that there have been no exceedances of the hourly mean  $NO_2$  objective at all monitoring locations in the last five years.

#### 3.2.2 Particulate Matter (PM<sub>10</sub>)

Particulate Matter (PM<sub>10</sub>) is not monitored on the Isle of Wight.

#### 3.2.3 Particulate Matter (PM<sub>2.5</sub>)

Particulate Matter (PM<sub>2.5</sub>) is not monitored on the Isle of Wight.

#### 3.2.4 Sulphur Dioxide (SO<sub>2</sub>)

Sulphur Dioxide (SO<sub>2</sub>) is not monitored on the Isle of Wight.

# **Appendix A: Monitoring Results**

Table A. 1 – Details of Non-Automatic 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) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube Co- located with a Continuous Analyser?	Tube Height (m)
IOW 1, IOW 2, IOW 3	Newport 49 Fairlee (3)	Kerbside	450377	89557	NO <sub>2</sub>	No	8.0	0.5	No	3.0
IOW 4	Brading 22 High Street	Roadside	460613	87197	NO <sub>2</sub>	No	0.0	3.0	No	3.0
IOW 5	Coppins Bridge Newport	Kerbside	450297	89227	NO <sub>2</sub>	No	0.0	1.0	No	3.0
IOW 6	East Cowes Waitrose	Kerbside	450277	95678	NO <sub>2</sub>	No	0.0	0.5	No	3.0
IOW 7	Wootton 120 Crossway	Roadside	453959	91937	NO <sub>2</sub>	No	13.0	4.0	No	3.0
IOW 8	Wootton 119 High Street	Kerbside	454098	91982	NO <sub>2</sub>	No	0.0	1.0	No	3.0
IOW 9	Lake Tesco	Roadside	459008	83715	NO <sub>2</sub>	No	23.0	2.0	No	3.0
IOW 10	St Johns Road Ryed	Kerbside	459193	92154	NO <sub>2</sub>	No	3.0	1.0	No	3.0
IOW 11	30 Fairlee Road Newport	Roadside	450419	89646	NO <sub>2</sub>	No	0.0	5.0	No	3.0
IOW 12	Horsebridge Hill Newport	Kerbside	449225	91348	NO <sub>2</sub>	No	5.0	1.0	No	3.0
IOW 13	Clarence Road / York Ave Junction East Cowes	Kerbside	450317	95580	NO <sub>2</sub>	No	5.0	5.0	No	3.0

#### Notes:

(2) N/A if not applicable.

<sup>(1) 0</sup>m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

Table A. 2 – Annual Mean NO<sub>2</sub> Monitoring Results: Non-Automatic Monitoring (μg/m³)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2023 (%) <sup>(2)</sup>	2019	2020	2021	2022	2023
IOW 1, IOW 2, IOW 3	450377	89557	Kerbside	50.0	50.0	36.5	29.0	33.1	29.5	33.6
IOW 4	460613	87197	Roadside	50.0	50.0	20.2	15.7	17.5	-	14.9
IOW 5	450297	89227	Kerbside	50.0	50.0	33.2	21.5	19.0	27.8	29.0
IOW 6	450277	95678	Kerbside	50.0	50.0	22.3	18.0	21.5	17.5	16.3
IOW 7	453959	91937	Roadside	32.7	32.7	30.9	29.0	31.3	29.1	28.0
IOW 8	454098	91982	Kerbside	50.0	50.0	33.2	31.8	29.4	28.3	29.6
IOW 9	459008	83715	Roadside	34.9	34.9	20.7	19.9	24.8	16.9	15.2
IOW 10	459193	92154	Kerbside	50.0	50.0	-	18.2	20.8	-	23.4
IOW 11	450419	89646	Roadside	25.3	25.3	-	24.3	27.7	25.4	26.2
IOW 12	449225	91348	Kerbside	50.0	50.0	-	-	-	-	20.8
IOW 13	450317	95580	Kerbside	50.0	50.0	-	-	-	-	10.9

<sup>☑</sup> 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 NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

<sup>☑</sup> Diffusion tube data has been bias adjusted.

<sup>⊠</sup> 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.

 $NO_2$  annual means exceeding  $60\mu g/m^3$ , 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<sub>2</sub> – Diffusion Tubes (Sites 1 – 7)

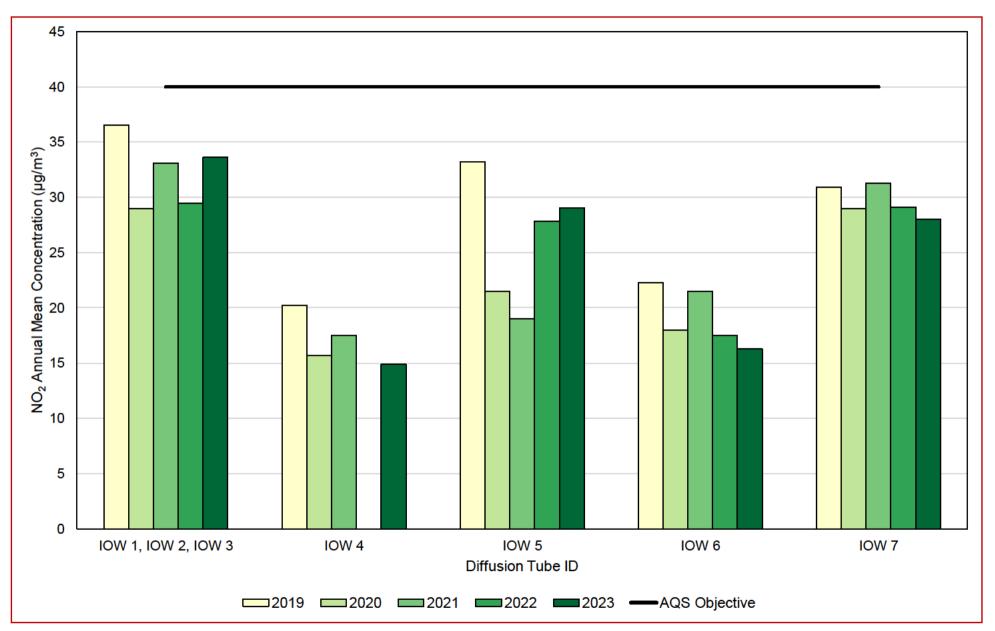
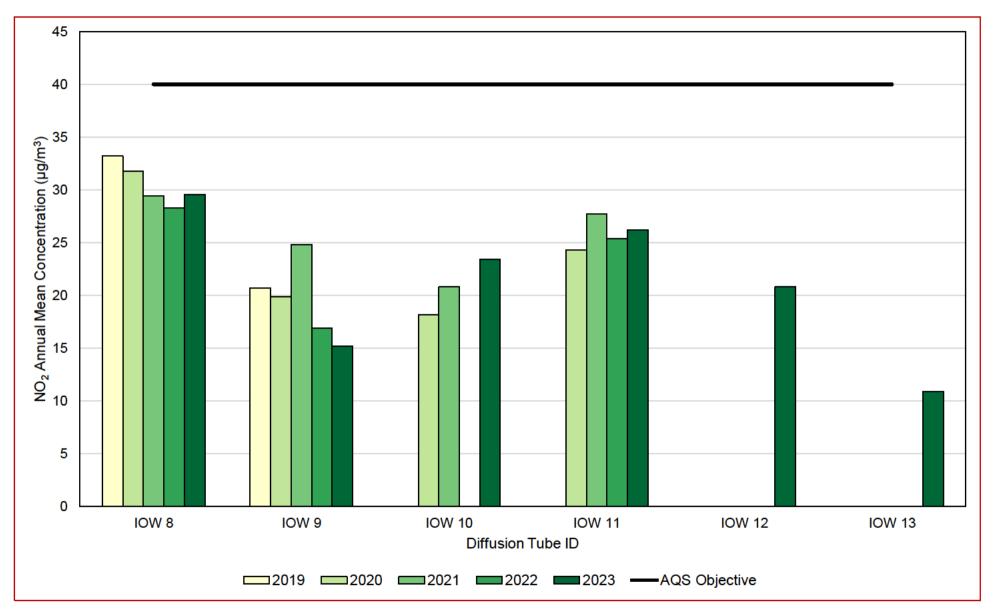


Figure A.2 – Trends in Annual Mean NO<sub>2</sub> – Diffusion Tubes (Sites 8 – 13)



# **Appendix B: Full Monthly Diffusion Tube Results for 2023**

Table B.1 – NO<sub>2</sub> 2023 Diffusion Tube Results (μg/m<sup>3</sup>)

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
IOW 1	450377	89557							36.0	44.5	47.1	46.3	42.3	32.4	-	-		Triplicate Site with IOW 1, IOW 2 and IOW 3 - Annual data provided for IOW 3 only
IOW 2	450377	89557							41.8	40.7	49.0	50.0	46.2	38.0	-	-		Triplicate Site with IOW 1, IOW 2 and IOW 3 - Annual data provided for IOW 3 only
IOW 3	450377	89557							30.8	38.0	45.9	50.1	41.5	33.2	41.9	33.6		Triplicate Site with IOW 1, IOW 2 and IOW 3 - Annual data provided for IOW 3 only
IOW 4	460613	87197							16.9	20.6	18.4	20.4	18.7	16.1	18.5	14.9		
IOW 5	450297	89227							29.9	37.2	41.4	40.9	40.5	27.2	36.2	29.0		
IOW 6	450277	95678							14.6	22.5	25.0	22.2	23.5	13.8	20.3	16.3		
IOW 7	453959	91937							29.3	30.1	33.6	36.9			32.5	28.0		
IOW 8	454098	91982							29.4	37.4	42.2	44.4	38.3	29.2	36.8	29.6		
IOW 9	459008	83715								21.1		23.9	18.5	16.3	20.0	15.2		
IOW 10	459193	92154							27.0	35.8	26.2	27.8	33.0	25.0	29.1	23.4		
IOW 11	450419	89646							21.4	28.0	36.6				28.7	26.2		
IOW 12	449225	91348							24.0	26.4	31.6	35.7	16.5	21.3	25.9	20.8		
IOW 13	450317	95580							11.3	12.5	12.9	13.3	18.2	13.2	13.6	10.9		

- ☑ All erroneous data has been removed from the NO₂ 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.
- ☑ Isle of Wight Council confirm that all 2023 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.

#### Notes:

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

NO<sub>2</sub> annual means exceeding  $60\mu g/m^3$ , indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**. See Appendix C for details on bias adjustment and annualisation.

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

## New or Changed Sources Identified Within Isle of Wight During 2023

Isle of Wight Council has confirmed that there are no new or changed sources within the area comparative to those reported in the 2022 ASR, of which remain valid. As such, there are at least 24 potential sources relating to air quality within the reporting year of 2023. A summary of these proposed and planned developments has been provided in Appendix E: Summary of Ongoing Developments. Further investigation has identified 4 applications that have continued since 2022 with planning permission approved, detailed below in Table C. 1, with associated Air Quality Assessments (AQAs) undertaken outlining that they are not expected to significantly impact the air quality objectives within the island.

Table C. 1 – 2023 Continued Planned Developments in Isle of Wight

Application Number	Location	Proposal	Status
22/00733/FUL	Land At Scotland Farm West Street Godshill Isle Of Wight	Demolition of Agricultural Building; Proposed Residential Development of 107 Dwellings or 102 Residential Dwellings and Doctors Surgery/Medical Centre; Proposed Means of Access from Yarborough Close and from West Street/Whitwell Road, Associated Highway Network Improvements, Public Rights of Way Improvements, Public Open Space, Associated Landscaping and Ancillary Infrastructure.	Approved
22/00291/FUL	The West Bay Club Halletts Shute Yarmouth Isle Of Wight PO41 0RJ	Creation of four units of holiday accommodation on existing bases, creation of new car parking spaces and areas, demolition of part of existing sports hall, provision of new internal roads, creation of singlestorey residential unit, erection of two-storey residential unit for managers accommodation, provision of new grounds maintenance area, construction of two-storey building containing 4no. residential apartments, construction of 22no. residential units with associated car parking.	Approved
22/00209/FUL	Four Lakes Country Park Staplers Road Newport Isle Of Wight	Proposed holiday accommodation to include 6x lodges; 2x safari tents & associated facilities including a	Approved

Application Number	Location	Proposal	Status
		building for bathrooms, laundry room, honesty shop, office and store (for site guests only), parking & associated external works/landscaping (revised plans)(readvertised application).	
22/00032/FUL	Land Adjacent Former Newport Football Grounds And To The West Of Pan Lane And North Of Godric Road Newport Isle Of Wight	Proposed builders yard with B8 (storage and distribution), ancillary building(s) and associated landscaping(revised location)(revised description)(readvertised application).	Approved

## Additional Air Quality Works Undertaken by Isle of Wight Council During 2023

During 2023, Isle of Wight Council deployed two new passive NO<sub>2</sub> monitoring locations, IOW 12 and 13. These new sites were added into the network due to concerns from local residents over increased traffic queuing (IOW 12), and concerns from the Town Council over traffic for ferry queuing in the area (IOW 13). Concentrations at these two new locations will continue to be monitored into the 2024 monitoring year as well as at existing sites.

#### **QA/QC** of Diffusion Tube Monitoring

Isle of Wight 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 NO2 tube analysis and the Annual Field Inter-Comparison Exercise. These provide strict performance criteria for participating laboratories to meet, thereby ensuring NO2 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 completed in adherence with the 2023 Diffusion Tube Monitoring Calendar, whereby all changeovers were completed within ±2 days of the specified date. However, it is acknowledged that between January 2023 and April 2023 the tubes were not returned correctly to SOCOTEC laboratory, thus these months are missing from the 2023 monitoring year. Furthermore, May 2023 and June 2023 were excluded from calculations due to significantly low concentrations and confirmation from the laboratory that the diffusion tube caps had been left on during the deployment periods. Thus, providing erroneous results. As such, the exclusion of data from January 2023 to June 2023 (inclusive) and overall limited data capture for 2023 may be indicative of the decrease in concentrations yielded in 2023.

It is noted that the Isle of Wight Council previously had diffusion tubes supplied by Gradko International Ltd, until 2021, using the method of preparation: 50% TEA v/v in Acetone and the Analytical Method: U.V. Spectrophotometry.

#### **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, all diffusion tube sites required annualisation, owing to the fact that between January 2023 and April 2023 the tubes were not returned correctly to SOCOTEC laboratory, with May 2023 and June 2023 excluded from calculations due to significantly low concentrations and confirmation from the laboratory that the diffusion tube caps had been left on during the deployment periods. Thus, providing erroneous results. In order to complete the annualisation process, the following background monitoring station part of the AURN were considered; Brighton Preston Park, Chilbolton Observatory, Portsmouth and Southampton Centre. This is in line with Box 7-9 of LAQM.TG(22), which states to annualise data:

"Identify two to four nearby, long-term, continuous monitoring sites, ideally those forming part of the national network. The data capture for each of these sites should be at least 85%. These sites should be background (Urban Background, Suburban or Rural) sites to

avoid any very local effects that may occur at Urban Centre, Roadside or Kerbside sites, and should, wherever possible lie within a radius of about 50 miles".

It is noted that AURN Chilbolton Observatory did not achieve ≥85% data capture in 2023, therefore this site was not used for annualisation.

Table C. 2 – Annualisation Summary (concentrations presented in μg/m³)

Site ID	Annualisati on Factor Brighton Preston Park	Annualisati on Factor Portsmouth	Annualisati on Factor Southampt on Centre	Average Annualisati on Factor	Raw Data Annual Mean	Annualised Annual Mean	Comment
IOW 1	1.0937	1.0684	0.9658	1.0426	-	-	Triplicate Site with IOW 1, IOW 2 and IOW 3 - Annual data provided for IOW 3
IOW 2	1.0937	1.0684	0.9658	1.0426	ı	-	Triplicate Site with IOW 1, IOW 2 and IOW 3 - Annual data provided for IOW 3 only
IOW 3	1.0937	1.0684	0.9658	1.0426	41.9	43.7	Triplicate Site with IOW 1, IOW 2 and IOW 3 - Annual data provided for IOW 3
IOW 4	1.0937	1.0684	0.9658	1.0426	18.5	19.3	
IOW 5	1.0937	1.0684	0.9658	1.0426	36.2	37.7	
IOW 6	1.0937	1.0684	0.9658	1.0426	20.3	21.1	
IOW 7	1.1505	1.1356	1.0779	1.1213	32.5	36.4	
IOW 8	1.0937	1.0684	0.9658	1.0426	36.8	38.4	

Site ID	Annualisati on Factor Brighton Preston Park	Annualisati on Factor Portsmouth	Annualisati on Factor Southampt on Centre	Average Annualisati on Factor	Raw Data Annual Mean	Annualised Annual Mean	Comment
IOW 9	1.0529	1.0050	0.9157	0.9912	20.0	19.8	
IOW 10	1.0937	1.0684	0.9658	1.0426	29.1	30.4	
IOW 11	1.1827	1.2169	1.1619	1.1872	28.7	34.0	
IOW 12	1.0937	1.0684	0.9658	1.0426	25.9	27.0	
IOW 13	1.0937	1.0684	0.9658	1.0426	13.6	14.1	

#### **Diffusion Tube Bias Adjustment Factors**

The diffusion tube data presented within the 2023 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<sub>x</sub>/NO<sub>2</sub> continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Isle of Wight Council have applied a national bias adjustment factor of 0.77 to the 2023 monitoring data. A summary of bias adjustment factors used by Isle of Wight Council over the past five years is presented in

.

No co-location studies are carried out by Isle of Wight 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.

It is noted that the Isle of Wight Council previously had diffusion tubes supplied by Gradko International Ltd, until 2021, using the method of preparation: 50% TEA v/v in Acetone and the Analytical Method: U.V. Spectrophotometry.

Table C. 3 – 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	04/22	0.83
2020	National	04/22	0.84
2019	National	09/20	0.87

#### NO<sub>2</sub> Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the  $NO_2$  concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/ $NO_2$  fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean  $NO_2$  concentrations corrected for distance are presented in Table B.1 –  $NO_2$  2023 Diffusion Tube Results ( $\mu$ g/m³). No diffusion tube monitoring location within Isle of Wight Council required distance correction during 2023.

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

<b>National Diffusion Tube</b>	Bias Adjust	ment Fa	acto	r Spreadsheet			Spreads	heet Ver	sion Numbe	er: 03/24
Follow the steps below <u>in the correct order</u> to Data only apply to tubes exposed monthly and Whenever presenting adjusted data, you show This spreadsheet will be updated every few m	fare not suitable for o	correcting indivent factor used	vidual s I and th	short-term monitoring periods ne version of the spreadsheet	their imme	diate use.		updated	s spreadshe d at the end M Helpdesi	of June 2024
The LAQM Helpdesk is operated on behalf of D partners AECOM and the National Physical Lab		Administration	is by Bu	ureau Veritas, in conjunction with contract		et maintained by Air Quality Co		Physical I	Laboratory.	Original
Step 1:	Step 2:	Step 3:				Step 4:				
Select the Laboratory that Analyses Your Tubes from the Drop-Down List	Select a Preparation.  Method from the  Drop-Down List	Select a Year from the Drop Down List	from the Drop caution. Where there is more than one study, use the overall factor shown in blue at the foot of the final							
If a laboratory is not shown, we have no data for this laboratory.	If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data	wn, we have no If you have your own co-location study then see footnote. If uncertain what to do then contact the Local Air Quality Management							
Analysed By¹  ✓	Method a unda yaurzoloctian, chaaro (All) fram tho pap-up list	Year <sup>5</sup> To undo your zoloction, chance (All)	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (μg/m³)	Monitor Mean Conc. (Cm)	Bias (B)	Tube Precisio n <sup>6</sup>	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didoot	50% TEA in Acetone	2023	R	East Suffolk Council	12	29	21	38.9%	G	0.72
SOCOTEC Didoot	50% TEA in Acetone	2023	R	Wrexham County Borough Council	11	17	14	25.2%	G	0.80
SOCOTEC Didoot	50% TEA in Acetone	2023	R	Horsham District Council	12	21	17	23.5%	G	0.81
SOCOTEC Dideot	50% TEA in Acetone	2023	R	Horsham District Council	10	25	17	43.5%	G	0.70
SOCOTEC Didoot	50% TEA in Acetone	2023	R	Horsham District Council	10	23	24	-5.4%	G	1.06
SOCOTEC Didoot	50% TEA in Acetone	2023	UI	North Lincolnshire Council	10	14	11	26.2%	G	0.79
SOCOTEC Dideot	50% TEA in acetone	2023	R	Bridgend Council	11	32	27	20.8%	G	0.83
SOCOTEC Didoot	50% TEA in acetone	2023	R	Cambridge City Council	12	22	18	24.8%	G	0.80
SOCOTEC Didoot	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	ÚĊ	Leeds City Council	11	26	19	40.0%	G	0.71
SOCOTEC Didoot	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 Didoot	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 <sup>3</sup> (28 studies)					Jse	0.77

### **Appendix D: Maps of Monitoring Locations**

Figure D.1 – All Non-Automatic Monitoring Locations: Isle of Wight



Figure D.2 – Non-Automatic Monitoring Locations: Newport

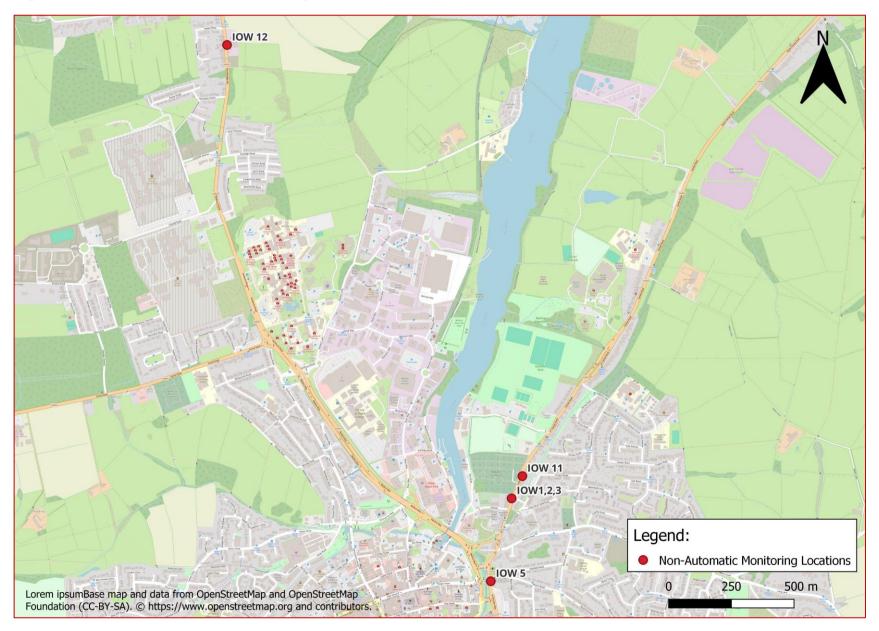


Figure D.3 – Non-Automatic Monitoring Locations: East Cowes

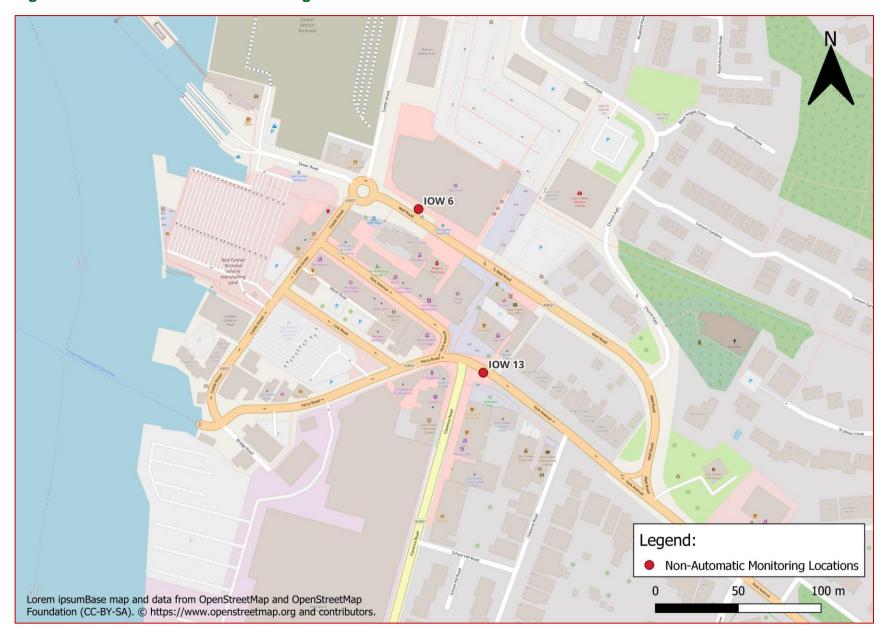


Figure D.4 – Non-Automatic Monitoring Locations: Wootton



Figure D.5 – Non-Automatic Monitoring Locations: Brading



Figure D.6 – Non-Automatic Monitoring Locations: Ryde

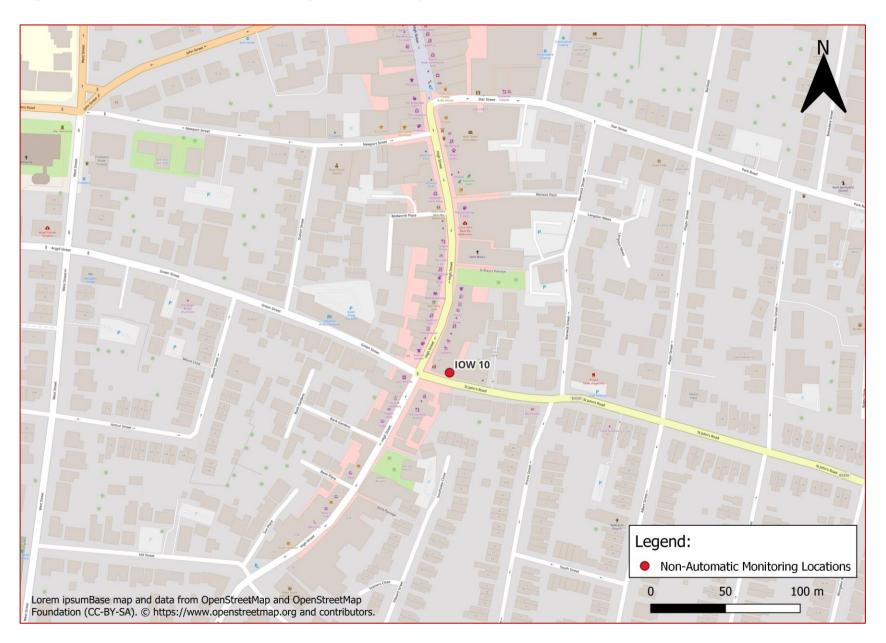
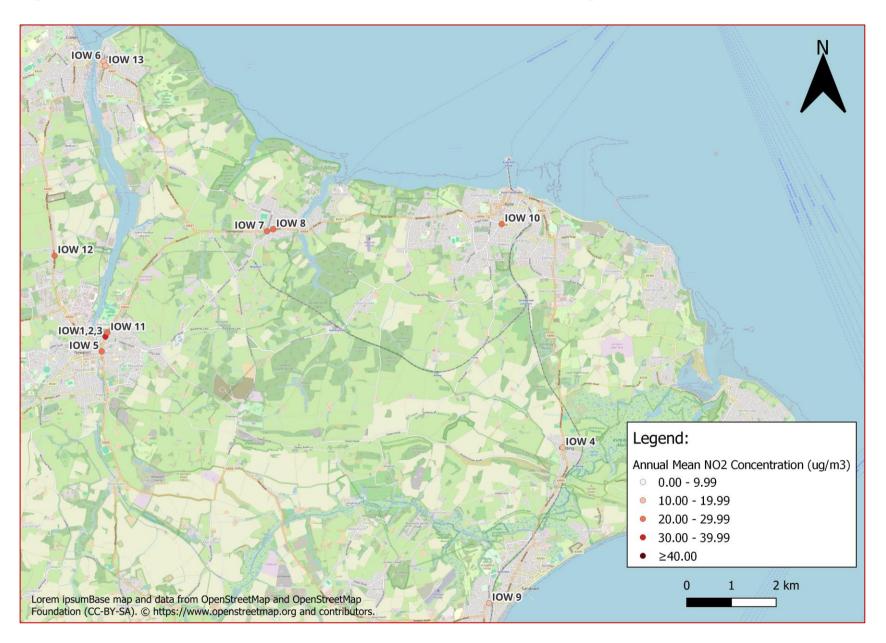


Figure D.7 – Non-Automatic Monitoring Locations: Lake



Figure D.8 – 2023 Annual NO<sub>2</sub> Concentrations All Non-Automatic Monitoring Locations



### **Appendix E: Summary of Ongoing Developments**

Table E.1 – Summary of Ongoing Developments

Application Number	Location	Proposal	Status
22/00733/FUL	Land At Scotland Farm West Street Godshill Isle Of Wight	Demolition of Agricultural Building; Proposed Residential Development of 107 Dwellings or 102 Residential Dwellings and Doctors Surgery/Medical Centre; Proposed Means of Access from Yarborough Close and from West Street/Whitwell Road, Associated Highway Network Improvements, Public Rights of Way Improvements, Public Open Space, Associated Landscaping and Ancillary Infrastructure.	Approved
22/00291/FUL	The West Bay Club Halletts Shute Yarmouth Isle Of Wight PO41 0RJ	Creation of four units of holiday accommodation on existing bases, creation of new car parking spaces and areas, demolition of part of existing sports hall, provision of new internal roads, creation of singlestorey residential unit, erection of two-storey residential unit for managers accommodation, provision of new grounds maintenance area, construction of two-storey building containing 4no. residential apartments, construction of 22no. residential units with associated car parking.	Approved
22/00209/FUL	Four Lakes Country Park Staplers Road Newport Isle Of Wight	Proposed holiday accommodation to include 6x lodges; 2x safari tents & associated facilities including a building for bathrooms, laundry room, honesty shop, office and store (for site guests only), parking & associated external works/landscaping (revised plans)(readvertised application).	Approved
22/00032/FUL	Land Adjacent Former Newport Football Grounds And To The West Of Pan Lane And North Of Godric Road Newport Isle Of Wight	Proposed builders yard with B8 (storage and distribution), ancillary building(s) and associated landscaping(revised location)(revised description)(readvertised application).	Approved
22/00654/FUL	Land At Palmers Farm Brocks Copse Road Wootton Ryde Isle Of Wight PO33 4NP	"Proposed extraction of sand and gravel and restoration to agriculture	Registered
22/00660/FUL	The Esplanade Hotel 40 - 44 High Street Sandown Isle Of Wight PO36 8AE	Proposed conversion of hotel into 14 residential apartments and 6 holiday apartments	Registered
22/00629/OUT	Land West Of 40 - 48 & 37 To 47 Broadwood Lane 17 & 24 Forest Hills 2-20 & 28 -	Outline for residential development comprising 113 dwellings, access from Arthur Moody Drive and Ash	Registered

Application Number	Location	Proposal	Status
	36 Arthur Moody Drive Carisbrooke Isle Of Wight	Lane, roads, footways, landscaping, open space and upgrading of footpath N151 to allow shared pedestrian/cycle use (revised scheme)	
22/00672/FUL	Broadfields Farm Chapel Lane Merstone Arreton Newport Isle Of Wight PO30 3DA	Full planning consent for: Retrospective infilling of a redundant farm irrigation pond; proposed development of two industrial buildings (one B8 (Storage or distribution) use, one B2 (General industrial) and B8 use); and proposed hardstanding and parking (readvertised application)	Registered
22/00713/FUL	Land At Lucketts Farm And Woodland South Of Main Road Yarmouth Isle Of Wight	Proposed Woodlands tourism and leisure project consisting of Proposed Means of Access (and bus stop improvements), Car Park, Reception, Cafe, Restaurant, Wellbeing Buildings (spa/treatment room and sauna pods), Staff Welfare Barn, 15 treehouses, 8 safari lodges, 8 tiny homes, associated infrastructure, amphitheatre landscaped zone and wider site landscaping.	Registered
22/00631/FUL	Land West Of 40 - 48 & 37 To 47 Broadwood Lane 17 & 24 Forest Hills 2-20 & 28 - 36 Arthur Moody Drive Carisbrooke Isle Of Wight	Proposed 2 detached house with garage; 17 pairs of semi detached houses (36 Dwellings in total); with access from Forest Hills, Arthur Moody Drive and Ash Lane; associated roads, footways, landscaping, open space and 2 dry ponds (Phase 1)(revised scheme)	Registered
22/00918/FUL	Polars Residential Home Staplers Road Newport Isle Of Wight PO30 2DE	Demolition of care home and outbuilding; Proposed redevelopment comprising 20 units (24 person) of specialised supported living units including a 2/3 storey block of 12 self-contained apartments, 2 shared apartments and six self-contained bungalows (Use Class C3(b)); 24 open market residential dwellings; formation of new access, roadways and landscaping (further ecological information)(re-advertised application).	Awaiting Decision
22/00989/FUL	Land Adjacent Warlands Lane Off Burt Close Shalfleet Isle Of Wight PO30	Redevelopment of Site to provide 70 residential dwellings including 27 affordable units to include associated roads, landscaping (Revised plans relating to the layout of housing, design of housing, and location of balancing pond) (Updated supporting information)(readvertised application).	Registered
22/01405/RVC	Land Between Nettlestone Hill And Seaview Lane Nettlestone Isle Of Wight	Variation of condition 15 on P/00496/18 to allow use of 20 parking spaces for school and general community.	Awaiting Decision

Application Number	Location	Proposal	Status
22/01362/RVC	Isle Of Wight Self Catering Ltd Salterns Road Seaview Isle Of Wight PO34 5AS	Variation of condition 2 on TCP/5981/C to allow 19 of the 41 units on site to have a 12 month trading period.	Registered
22/01369/ARM	Rosemary Vineyard Smallbrook Lane Ryde Isle Of Wight PO33 4BE	Approval of Reserved Matters on P/01218/16 relating to appearance, landscaping, layout and scale for development of 140 dwellings; formation of vehicular access.	Registered
22/01307/FUL	Land To The Rear Of The Heritage To Shepards Hay Tuttons Hill And Fronting Place Road Cowes Isle Of Wight	Proposed development of 37 dwellings, garages with associated landscaping and formation of new access road.	Registered
22/01720/OUT	Land South Of Somerton Industrial Park Newport Road Cowes Isle Of Wight	Outline for a mix of residential and employment related development including two access points onto Newport Road.	Registered
22/01931/FUL	Tapnell Farm Newport Road Freshwater Isle Of Wight PO41 0YJ	32 tourism pods & associated landscaping.	Awaiting Decision
22/02032/OUT	Land Adjacent Hill Top Dairy Long Lane Access Off Buckbury Lane Newport Isle Of Wight	Outline for residential development and means of access.	Registered
22/02149/RVC	Newport (IW) Football Club St Georges Way Newport Isle Of Wight PO30 2QH	Variation of condition 2 on 21/00682/FUL to allow re-organised internal arrangement with associated external window/door re-positioning for drive-through restaurant (Unit 4) and minor changes to site layout.	Registered
22/02279/FUL	Gurnard Pines Country Club Gurnard Pines Cockleton Lane Gurnard Cowes Isle Of Wight PO31 8QE	Proposed construction of 36 zero- carbon holiday lodges with associated parking and access roads, a multi-function event barn, a visitor reception building that comprises a cafe/restaurant and a 2 bedroom apartment for the site manager, a workshop and a natural swimming pond; cycle and electric car hire facilities.	Registered
22/02293/OUT	Land Adjacent Osborne Works, Whippingham Technology Park Whippingham Road East Cowes Isle Of Wight	Outline for B8 Distribution Building.	Registered
22/02249/FUL	The East Dene Centre Bonchurch Village Road Ventnor Isle Of Wight PO38 1RQ	Proposed restoration of East Dene as boutique hotel including partial demolition of glazed link; proposed single storey spa pavilion; 16 eco holiday lodges and parking.	Registered
22/02272/FUL	Land At And Adjacent Whitecroft Park (former Whitecroft Hospital) Sandy Lane Newport Isle Of Wight PO30	Proposed development of 10 houses with parking.	Registered

## Appendix F: Summary of Air Quality Objectives in England

Table F.1 – Air Quality Objectives in England<sup>10</sup>

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO <sub>2</sub> )	200μg/m³ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO <sub>2</sub> )	40μg/m³	Annual mean
Particulate Matter (PM <sub>10</sub> )	50μg/m³, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM <sub>10</sub> )	40μg/m³	Annual mean
Sulphur Dioxide (SO <sub>2</sub> )	350μg/m³, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO <sub>2</sub> )	125μg/m³, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO <sub>2</sub> )	266μg/m³, not to be exceeded more than 35 times a year	15-minute mean

-

 $<sup>^{10}</sup>$  The units are in microgrammes of pollutant per cubic metre of air ( $\mu g/m^3$ ).

## **Glossary of Terms**

Abbreviation	Description
AONB	Area of Outstanding Natural Beauty
AQA	Air Quality Assessment
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQS	Air Quality Standard
ASR	Annual Status Report
CO <sub>2</sub>	Carbon Dioxide
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
EU	European Union
EV	Electric Vehicle
FDMS	Filter Dynamics Measurement System
IPS	Island Planning Strategy
LAQM	Local Air Quality Management
LCWIP	Local Cycling and Walking Infrastructure Plan
LEVI	Local Electric Vehicle Infrastructure
NHS	National Health Service
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>x</sub>	Nitrogen Oxides
PG	Policy Guidance

PM <sub>10</sub>	Airborne particulate matter with an aerodynamic diameter of 10µm or less
PM <sub>2.5</sub>	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SCA	Smoke Control Area
SO <sub>2</sub>	Sulphur Dioxide
SSSI	Sites of Special Scientific Interest
TEA	Triethanolamine
TG	Technical Guidance
UK	United Kingdom

#### References

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