



## Report of the Cabinet Member for Corporate Service and Performance

### Climate Change and Nature Scrutiny Performance Panel 19<sup>th</sup> March 2024

#### An update on Air Quality in Swansea

<b>Purpose</b>	To brief the Climate Change and Nature Scrutiny Performance Panel on work related to air quality.
<b>Content</b>	An update on air pollution levels measured across Swansea and policy/practical options for reducing such levels
<b>Councillors are being asked to</b>	Consider the information provided and give views
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#### 1. Air Quality in Swansea Council

- 1.1 Swansea Council is required to submit an Annual Progress Report (APR) to Welsh Government (WG) each year advising upon the assessment of ambient air quality in accordance with the EU objective concentrations. These reports can be viewed via the following link [Swansea Annual Progress Report 2023](#)
- 1.2 The conclusions reached in the 2022 datasets are that the objectives for benzene, lead and sulphur dioxide have been met and that there is no requirement to proceed any further in reporting upon these pollutants. The council no longer monitors for benzene and lead but continues to have two monitoring locations for sulphur dioxide.

- 1.3 All monitoring sites remain compliant with both the annual mean and daily mean exceedance (35 days permitted) for particulate matter PM10.
- 1.4 There are also three fixed monitoring locations for particulate matter PM2.5 in Swansea.
- 1.5 The main pollutant of interest, for exceeding the National Air Quality Objective Concentration in Swansea, is Nitrogen Dioxide (NO<sub>2</sub>), for the annual mean Objective of 40µgm<sup>-3</sup>.
- 1.6 Monitoring data collected for 2022 confirms that compliance with the annual mean concentration for NO<sub>2</sub> continues.
- 1.7 If compliance with the NO<sub>2</sub> annual mean objective is demonstrated for 2023 the Council will look to commence the revocation process for the Air Quality Management Order 2010.
- 1.8 Acknowledgment is made to the Coronavirus pandemic and the effect of lockdown periods upon people's activities.

## **2. Air Pollution Concentrations Measured Across Swansea**

- 2.1 Real-time monitoring data is available via <http://swansea.airqualitydata.com/> and data can be downloaded from this site. This website is currently being reviewed and an update is in progress. The Council's data can also be viewed and downloaded via the Welsh Air Quality Forum (WAQF) website <https://airquality.gov.wales/>
- 2.2 **Nitrogen Dioxide**
  - 2.2.1 Swansea Council utilises both automatic and non-automatic monitoring methods when undertaking its Local Air Quality Management duties. Appendix A includes a map showing the location of the automatic monitoring sites and Appendix B includes a map showing the location of the non-automatic monitoring sites in Swansea.
  - 2.2.2 The ratified 2022 dataset show that there continues to be no exceedances of the annual mean NO<sub>2</sub> Objective at locations within Swansea.
  - 2.2.3 Appendix C includes the annual mean data for the continuous monitoring locations.
- 2.3 **Particulate Matter (PM10)**
  - 2.3.1 PM<sub>10</sub> is monitored at five locations in Swansea. The map in Appendix A shows their locations.

2.3.2 The National Air Quality Objective Concentration, for PM10, is annual mean of  $40\mu\text{gm}^{-3}$ .

2.3.3 Monitoring data collected during 2022 indicates that compliance with the annual mean concentration for PM10 continues. Appendix C shows the annual mean data for the continuous monitoring locations.

## **2.4 Particulate Matter (PM2.5)**

2.4.1 PM<sub>2.5</sub> is monitored at three locations in Swansea. The map in Appendix A shows their locations.

2.4.2 The Environment (Air Quality and Soundscapes) (Wales) Act 2024 received Royal Assent and became law in Wales on 14th February 2024 [Environment \(Air Quality and Soundscapes\) \(Wales\) Act 2024](#) Welsh Government is currently working towards the requirement to set a PM<sub>2.5</sub> air quality target in respect of the annual mean level of PM<sub>2.5</sub> in ambient air in Wales.

2.4.3 The World Health Organisation (WHO) guideline concentration for PM<sub>2.5</sub> is  $5\mu\text{gm}^{-3}$ . These guidelines are of a high methodological quality and are developed through a transparent, evidence-based decision-making process. In addition to the guideline values, the WHO Global air quality guidelines provide interim targets to promote a gradual shift from high to lower concentrations ([https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health))

2.4.4 See Appendix C for the annual mean data for the continuous monitoring locations.

## **3. Policy/Practical Options for Reducing Air Pollution**

3.1 The Pollution Control & Private Sector Housing Team continues to monitor air quality across Swansea.

3.2 Whilst Swansea is currently compliant with WG's Air Quality Objectives, in-line with WG policy, the Council will continue to work towards reducing exposure where possible.

3.3 Air quality is considered as part of the Planning consultation processes by the team on a case-by-case basis.

3.4 Officers continue to respond to complaints regarding burning of waste, domestic combustion appliances and provide advice on the appropriate usage of fuels.

- 3.5 The Council has made a commitment to ‘work with others to provide sustainable and low carbon transport and infrastructure, providing improved and cheaper connectivity and mobility and associated benefits at reduced environmental cost and improved air quality’.
- 3.6 Previous WG consultations, White Paper on a Clean Air (Wales) Bill and Reducing emissions from domestic burning of solid fuels, provided opportunities for all stakeholders to respond to the questions asked by WG on their future plans to tackle air quality. The council are currently involved in working groups providing input into proposed new Clean Air Powers.
- 3.7 The team continues to collaborate with outside organisations to look at funding possibilities to carry out research in the air quality field. Having been awarded financial assistance from the WG Local Air Quality Support Fund, collaborative research work is being carried out with Swansea University, Think Air and Vortex IoT to measure local air quality and noise within the city and to test potential interventions. The outcomes of these projects will be reported to WG and will potentially be submitted to peer reviewed publications.

#### **4. Legal implications**

- 4.1 None

#### **5. Finance Implications**

- 5.1 Revenue to fund the existing monitoring set out in this report is contained within existing budgets. Additional development of interventions would need to be addressed for additional funding opportunities.

#### **6. Integrated Assessment Implications**

- 6.1 The Council is subject to the Equality Act (Public Sector Equality Duty and the socio-economic duty), the Well-being of Future Generations (Wales) Act 2015 and the Welsh Language (Wales) Measure, and must in the exercise of their functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Acts.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.
- Deliver better outcomes for those people who experience socio-economic disadvantage.
- Consider opportunities for people to use the Welsh language.
- Treat the Welsh language no less favourably than English.

- Ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

6.1.1 The Well-being of Future Generations (Wales) Act 2015 mandates that public bodies in Wales must carry out sustainable development. Sustainable development means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the 'well-being goals'.

6.1.2 Our Integrated Impact Assessment (IIA) process ensures we have paid due regard to the above. It also takes into account other key issues and priorities, such as poverty and social exclusion, community cohesion, carers, the United Nations Convention on the Rights of the Child (UNCRC) and Welsh language.

6.2 There are no implications with regards to this report, which is for information and therefore an IIA screening form has not been completed.

### ***Glossary of terms:***

APR – Annual Progress Report

NO<sub>2</sub> – Nitrogen Dioxide

ugm<sup>-3</sup> – micrograms per metre cubed

PM<sub>10</sub> – Particulate Matter <10microns

PM<sub>2.5</sub> – Particulate Matter <2.5microns

WAQF – Welsh Air Quality Forum

WG – Welsh Government

WHO – World Health Organisation

**Background papers:** None

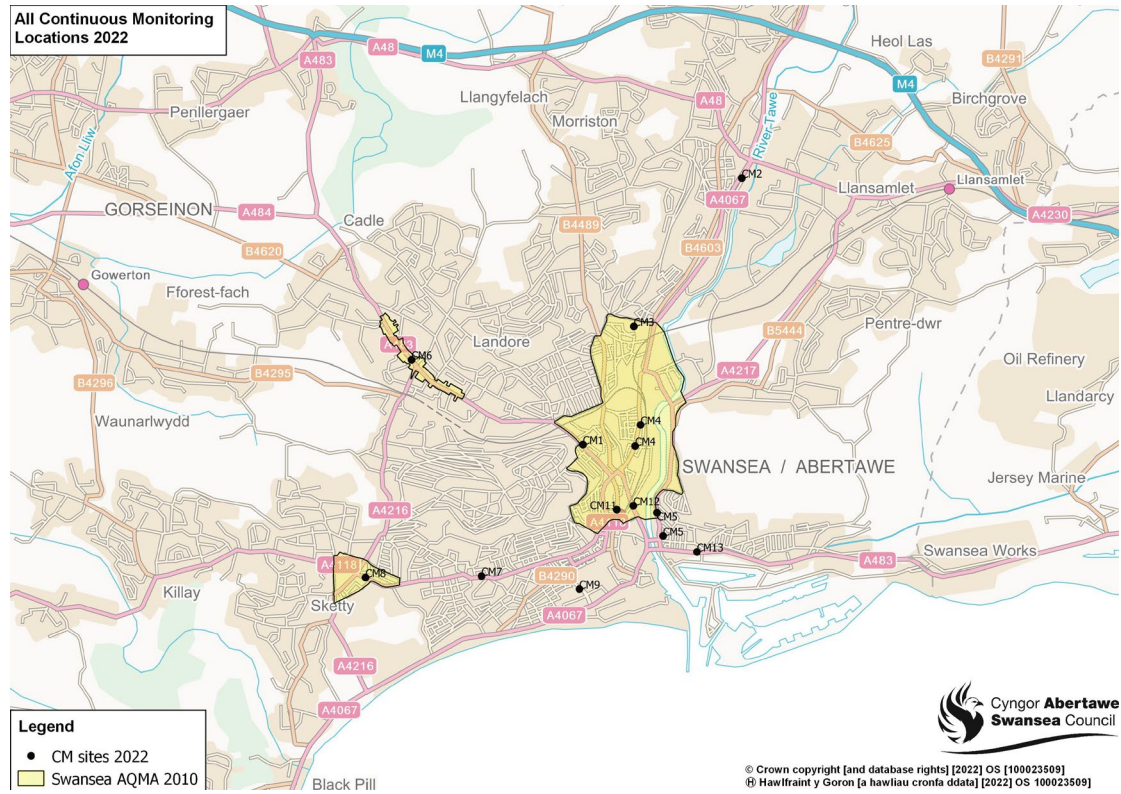
### **Appendices:**

Appendix A - Map to show the location of the automatic monitoring sites in Swansea

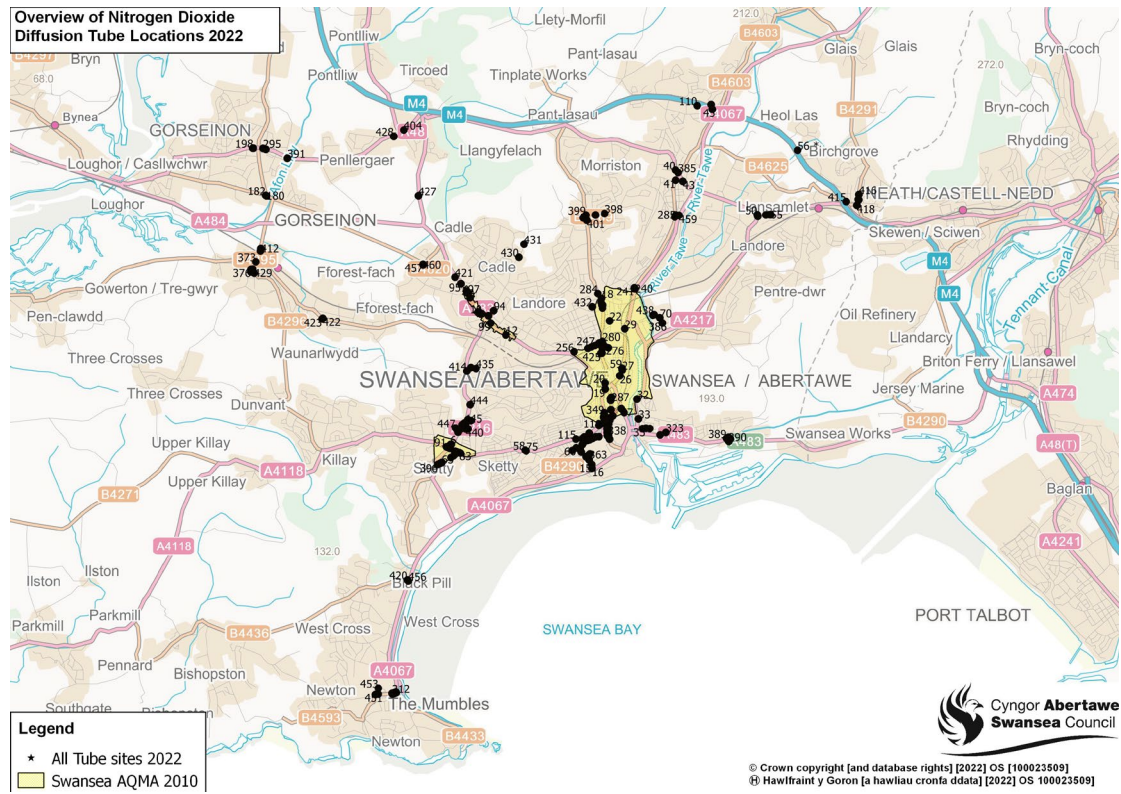
Appendix B: Map to show the location of the non-automatic monitoring sites in Swansea.

Appendix C: The annual mean data for the continuous monitoring locations.

# Appendix A: Map to show the location of the automatic monitoring sites in Swansea



## Appendix B: Map to show the location of the non-automatic monitoring sites in Swansea.

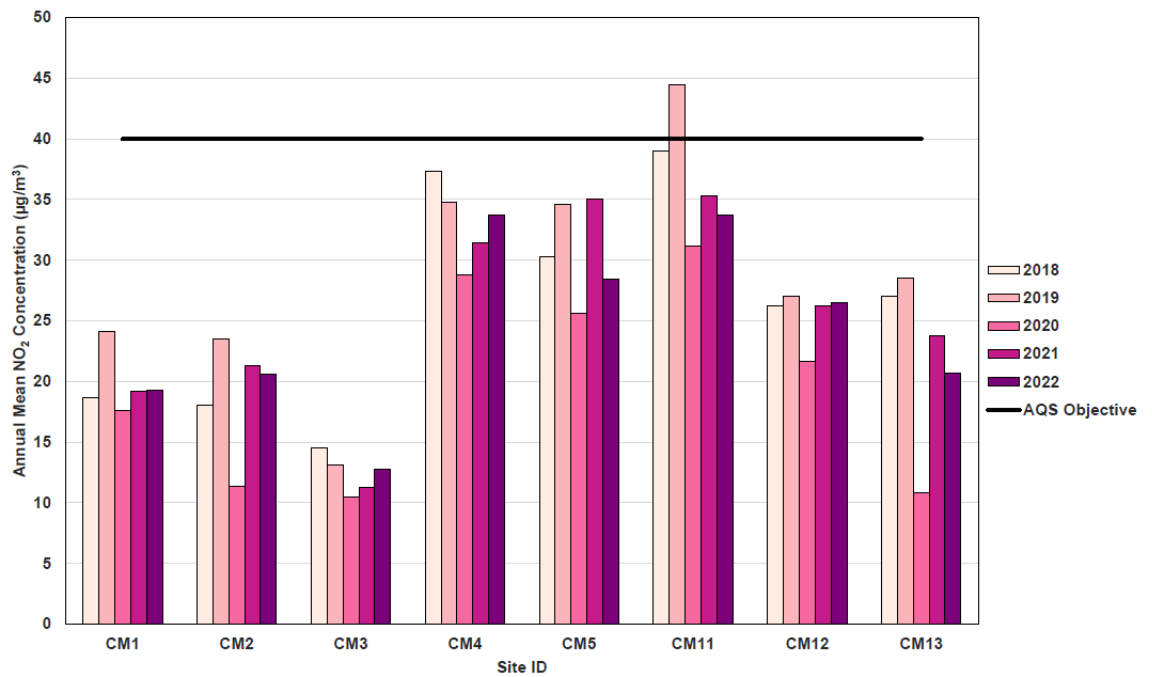


**Appendix C: The annual mean data for the continuous monitoring locations.**

**Table to show annual mean NO<sub>2</sub> concentrations (µgm<sup>-3</sup>)**

	CM1	CM2	CM3	CM4	CM5	CM11	CM12	CM13
2018	18.7	18.1	14.46	37.29	30.3	37.7	26.18	27
2019	24	23.5	13.1	34.8	34.6	44.5	27	28.5
2020	17.6	11.4	10.5	28.8	25.6	31.2	21.7	10.8
2021	19.2	21.3	11.3	31.4	35	35.3	26.2	23.8
2022	19.3	20.6	12.8	36.2	28.4	34.6	26.5	20.7

**Figure 2.11 – Trends in Annual Mean NO<sub>2</sub> Concentrations at Automatic Monitoring Sites**

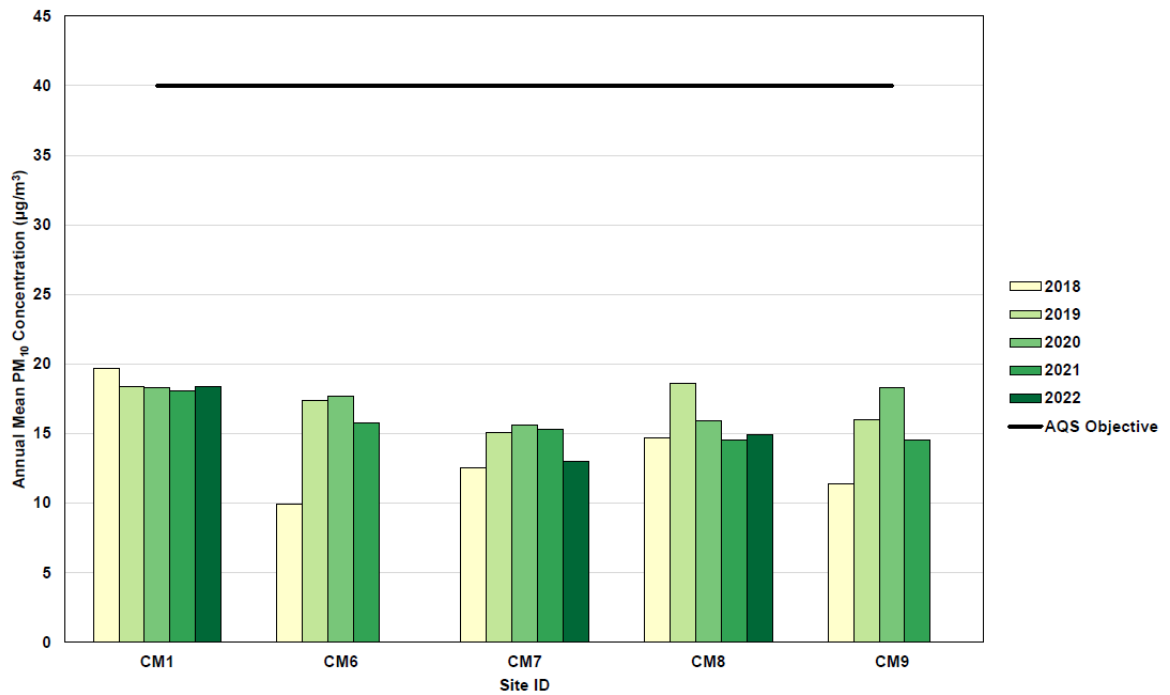




**Table to show annual mean PM<sub>10</sub> concentrations (µgm<sup>-3</sup>)**

	CM1	CM2	CM6	CM7	CM8	CM9
2018	19.69		9.9	12.46	14.65	11.39
2019	18.38		17.35	15.13	18.55	15.47
2020	18.28		17.7	15.9	14.9	18.3
2021	18.1		16.5	14.5	15.2	15.4
2022	18.4			13	14.9	

**Figure 2.1 – Trends in Annual Mean PM<sub>10</sub> Concentrations**



**Table to show annual mean PM<sub>2.5</sub> concentrations (µgm<sup>-3</sup>)**

	CM1	CM2	CM13
2018	12.86	10.86	7.28
2019	10.27	9.39	9.31
2020	7.97	11.47	10.89
2021	9.1	11.8	11
2022	9.9	9.4	11.3

**Figure 2.3 – Trends in Annual Mean PM<sub>2.5</sub> Concentrations**

