

## Panel Craffu Perfformiad – Yr Amgylchedd Naturiol

**Lleoliad:** O bell drwy Microsoft Teams

**Dyddiad:** Dydd Mawrth, 29 Mehefin 2021

**Amser:** 10.00 am

**Cynullydd:** Y Cynghorydd Peter K Jones

**Aelodaeth:**

Cynghorwyr: E W Fitzgerald, S J Gallagher, O G James, M H Jones, H Lawson, I E Mann, H M Morris, C Richards, B J Rowlands, M Sherwood, W G Thomas a/ac L J Tyler-Lloyd

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### Agenda

Rhif y Dudalen.

- 1 Ymddiheuriadau am absenoldeb**
- 2 Datgeliadau o fuddiannau personol a rhagfarnol**  
[www.abertawe.gov.uk/DatgeluCysylltiadau](http://www.abertawe.gov.uk/DatgeluCysylltiadau)
- 3 Gwahardd pleidleisiau Chwip a Datgan Chwipiau'r Pleidiau**
- 4 Cofnodion y Cyfarfod(ydd) Blaenorol** **1 - 3**  
Derbyn nodiadau'r cyfarfod(ydd) blaenorol a chytuno eu bod yn gofnod cywir
- 5 Cwestiynau gan y Cyhoedd**  
Rhaid cyflwyno cwestiynau'n ysgrifenedig, cyn hanner dydd ar y diwrnod gwaith cyn y cyfarfod fan bellaf. Rhaid i gwestiynau ymwneud ag eitemau ar yr agenda. Ymdrinnir â chwestiynau o fewn cyfnod 10 munud.
- 6 Rheoli Ansawdd Aer** **4 - 24**
  - i) Cyngor Abertawe*  
Mark Thomas – Aelod y Cabinet - Gwella'r Amgylchedd a Rheoli Isadeiledd  
Tom Price – Arweinydd Tîm Rheoli Llygredd a Thai Sector Preifat
  - ii) Prifysgol Abertawe*  
Victoria Seller – Swyddog Ymchwil

7 Cynllun Gwaith

25 - 26

8 Llythyrau

27 - 30

**Cyfarfod nesaf:** Dydd Mawrth, 31 Awst 2021 ar 10.00 am

*Huw Evans*

**Huw Evans**  
**Pennaeth Gwasanaethau Democrataidd**  
**Dydd Mawrth 22 Mehefin 2021**

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**Cyswllt:** Swyddog Craffu - 01792 636292

# Agenda Item 4



City and County of Swansea

## Minutes of the **Scrutiny Performance Panel - Natural Environment**

Remotely via Microsoft Teams

Wednesday, 19 May 2021 at 10.00 am

**Present:** Councillor P K Jones (Chair) Presided

**Councillor(s)**  
E W Fitzgerald  
M Sherwood

**Councillor(s)**  
L J Tyler-Lloyd  
C Richards

**Councillor(s)**  
M H Jones  
B J Rowlands

### **Other Attendees**

Louise Gibbard  
Andrea Lewis

Cabinet Member - Supporting Communities  
Cabinet Member - Climate Change & Service Transformation (Deputy Leader)

### **Officer(s)**

Emily-Jayne Davies  
Rachel Lewis  
Martin Nicholls  
Suzy Richards  
Deborah Hill

Scrutiny Officer  
Project Manager  
Director of Place  
Sustainable Policy Officer  
Nature Conservation Team Leader

### **Apologies for Absence**

Councillor(s): S J Gallagher, I E Mann, H M Morris and W G Thomas

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## **39 Disclosure of Personal and Prejudicial Interests**

Cllr M. Sherwood declared an interest as an employee of Gower Power Co-Op C.I.C

## **40 Prohibition of Whipped Votes and Declaration of Party Whips**

In accordance with the Local Government (Wales) Measure 2011, no declarations of Whipped Votes or Party Whips were declared

## **41 Minutes of Previous Meeting(s)**

The minutes of the Natural Environment Scrutiny Performance Panel meeting, held on 22 March 2021, were agreed as an accurate record.

## **42 Public Questions**

There were no public questions.

#### **43 Climate Emergency Declaration - Council Action Plan Progress**

The Panel held a discussion on Council progress surrounding the Climate Emergency Declaration. The Panel also heard from the Director of Place regarding the recent public consultation feedback about the Climate Change action plan. Cllr Andrea Lewis and Cllr Louise Gibbard also contributed to discussions and answered questions. It was noted that the Council had received circa 1000 submissions in relation to the public consultation and the Panel expressed their gratitude to all officers involved in the design and implementation of the survey.

Discussions focussed on:

- The ongoing and embedded work already being done by the Council, ahead of the Climate Emergency Declaration in June 2019.
- Progress and actions being implemented towards achieving a 'net zero Council' by 2030, covering points such as electric vehicle fleet, pension fund commitments, street lighting and solar panels.
- Interlinked policies surrounding the Corporate Plan, Sustainable development and the Well-being of Future Generations Act (Wales).
- Draft performance indicators outlined a forecast of year on year reductions.
- Collaborative working and joint commitments, leading by example and challenging others to join.
- By 2050, Swansea as a whole City and County aims to achieve Net Zero carbon emissions.
- Survey results: A diverse and exceptionally high response rate.
- Covid Gaps – more targeted engagement with children, young people, business and face-to-face offline opportunities are planned. Members discussed the ongoing need for better engagement with children and young people, and how the Council can better engage with these groups.

The Panel also took the opportunity to ask about the availability of electric car charging points and developments in this area. Cllr Lewis explained that new points are being installed across the city, which aim to give better access to charging points.

The Panel considered the information provided, asked questions, and gave views on the way forward. The Panel commented on the impressive and informative work presented at the meeting. The Chair thanked all for their input and efforts surrounding this ongoing and cross cutting area of work.

**AGREED** that the Panel write to the Cabinet Members with its views and recommendations.

#### **44 Letters**

The Panel received the correspondence sent by the Panel following the meeting of the Panel held on 22 March 2021.

**45 Work Plan**

The meeting ended at 11.50 am

**Chair**

# Agenda Item 6



## Report of the Cabinet Member for Environment Enhancement and Infrastructure Management

### The Natural Environment Scrutiny Performance Panel 29<sup>th</sup> June 2021

#### An update on Air Quality in Swansea

<b>Purpose</b>	To brief/update the Natural Environment Scrutiny Performance Panel Tuesday 29 <sup>th</sup> June 2021 at 10am
<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
<b>Lead Councillor(s)</b>	Councillor Mark Thomas, Cabinet Member for Environment Enhancement and Infrastructure Management
<b>Lead Officer &amp; Report Author</b>	Tom Price Team Leader Pollution Control and Private Sector Housing Tel: 01792 635600 E-mail: tom.price@swansea.gov.uk

#### 1. Air Quality in Swansea Council

- 1.1 Swansea Council submits 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. Due to the Coronavirus Pandemic, the APR has not been submitted in 2020 and is currently being prepared for submission to WG.
- 1.2 The draft conclusions reached for 2019 & 2020 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 and currently has 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 PM<sub>10</sub>.

- 1.4 There are also three fixed monitoring locations for particulate matter PM<sub>2.5</sub> 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 during 2019 and 2020 indicates that compliance with the annual mean concentration for NO<sub>2</sub> continues.
- 1.7 Acknowledgment is made to the Coronavirus Pandemic and the 'Lock Down' processes and the effects 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. The Council's data can also be viewed and downloaded via the Welsh Air Quality Forum website <https://airquality.gov.wales/>

## **3. Nitrogen Dioxide**

- 3.1 Swansea Council utilises both automatic and non-automatic monitoring methods when undertaking it's Local Air Quality Management duties.
- 3.2 See Appendix A for the map to show the location of the automatic monitoring sites in Swansea.
- 3.3 See Appendix B for the map to show the location of the non-automatic monitoring sites in Swansea.
- 3.4 The ratified 2019 and provisional 2020 datasets show that there continues to be no exceedences of the of the annual mean NO<sub>2</sub> Objective at locations within Swansea Council.
- 3.5 See Appendix C for the annual mean data for the continuous monitoring locations.
- 3.6 See Appendix D for the graphs for the datasets for the following areas, that have previously indicated elevated concentrations of NO<sub>2</sub>:
  - 3.6.1 Hafod
  - 3.6.2 High Street
  - 3.6.3 Sketty
  - 3.6.4 Port Tennant
  - 3.6.5 Fforestfach
  - 3.6.6 Mumbles
  - 3.6.7 City Centre
  - 3.6.8 Gowerton

### 3.6.9 Bevans Row, St. Thomas

## **4. Particulate Matter (PM<sub>10</sub>)**

- 4.1 PM<sub>10</sub> is monitored at 5 locations in Swansea. The map in Appendix A shows their locations.
- 4.2 The National Air Quality Objective Concentration, for PM<sub>10</sub>, is annual mean of 40µgm<sup>-3</sup>.
- 4.3 Monitoring data collected during 2019 and 2020 indicates that compliance with the annual mean concentration for PM<sub>10</sub> continues.
- 4.4 See Appendix C for the annual mean data for the continuous monitoring locations.

## **5. Particulate Matter (PM<sub>2.5</sub>)**

- 5.1 PM<sub>2.5</sub> is monitored at 3 locations in Swansea. The map in Appendix A shows their locations.
- 5.2 Currently, in Wales, there is no Air Quality Objective Concentration for PM<sub>2.5</sub>
- 5.3 The World Health Organisation guideline concentration for PM<sub>2.5</sub> is 10µgm<sup>-3</sup>
- 5.4 See Appendix C for the annual mean data for the continuous monitoring locations.

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

- 6.1 The Pollution Control & Private Sector Housing Team continues to monitor air quality across the authority. During the Coronavirus Pandemic, the demand upon provision of Environmental Health Services has increased dramatically and as we work towards the recovery phase, more resource will be redirected towards collaborative air quality approaches.
- 6.2 Whilst Swansea is currently compliant with Welsh Governments' Air Quality Objectives, in-line with Welsh Government policy, the Council will continue to work towards reducing exposure where possible.
- 6.3 Air quality is considered as part of the Planning Consultation processes by the team on a case by case basis.
- 6.4 Collaboration with the Council's Highways Service takes place to provide input and assessment of air quality impacts for highway schemes. For example, the changes to the layout in Tycoch.



- 6.5** The team continues to respond to complaints regarding burning of waste, domestic combustion appliances and provide advice on the appropriate usage of fuels.
- 6.6** As part of a collaboration with the Nature Conservation Team, the installation of a 'Green Screen' along Fabian Way (junction of Port Tennant Road) took place in March 2020. Analysis of the data will take place to assess whether the installation has had an impact on air quality and noise.
- 6.7** The Nowcaster forecast model continues to operate and future works are being scoped to utilise the output for use on social media platforms.
- 6.8** 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'.
- 6.9** The Team continues to collaborate with outside organisations to look at funding possibilities to carry out research in the air quality field. An example can be seen in Appendix E: Estimation of ambient NO<sub>2</sub> and PM<sub>2.5</sub> concentration change in Wales during the COVID-19 outbreak
- 6.10** Recent Welsh Government consultations, White Paper on a Clean Air (Wales) Bill and Reducing emissions from domestic burning of solid fuels, provided an opportunity for all stakeholders to respond to the questions asked by Welsh Government on their future plans to tackle air quality.
- 6.11** The Team will scope potential interventions to look at 'anti-idling' measures for vehicles in Swansea, implantation of new measures to reduce domestic combustion and approaches to the 'New Ways of Working' that have arisen due to the Coronavirus Pandemic.

## **7. Legal Implications**

- 7.1** None

## **8. Finance Implications**

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

## **9. Equality & Engagement Implications**

- 9.1** TBC

***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

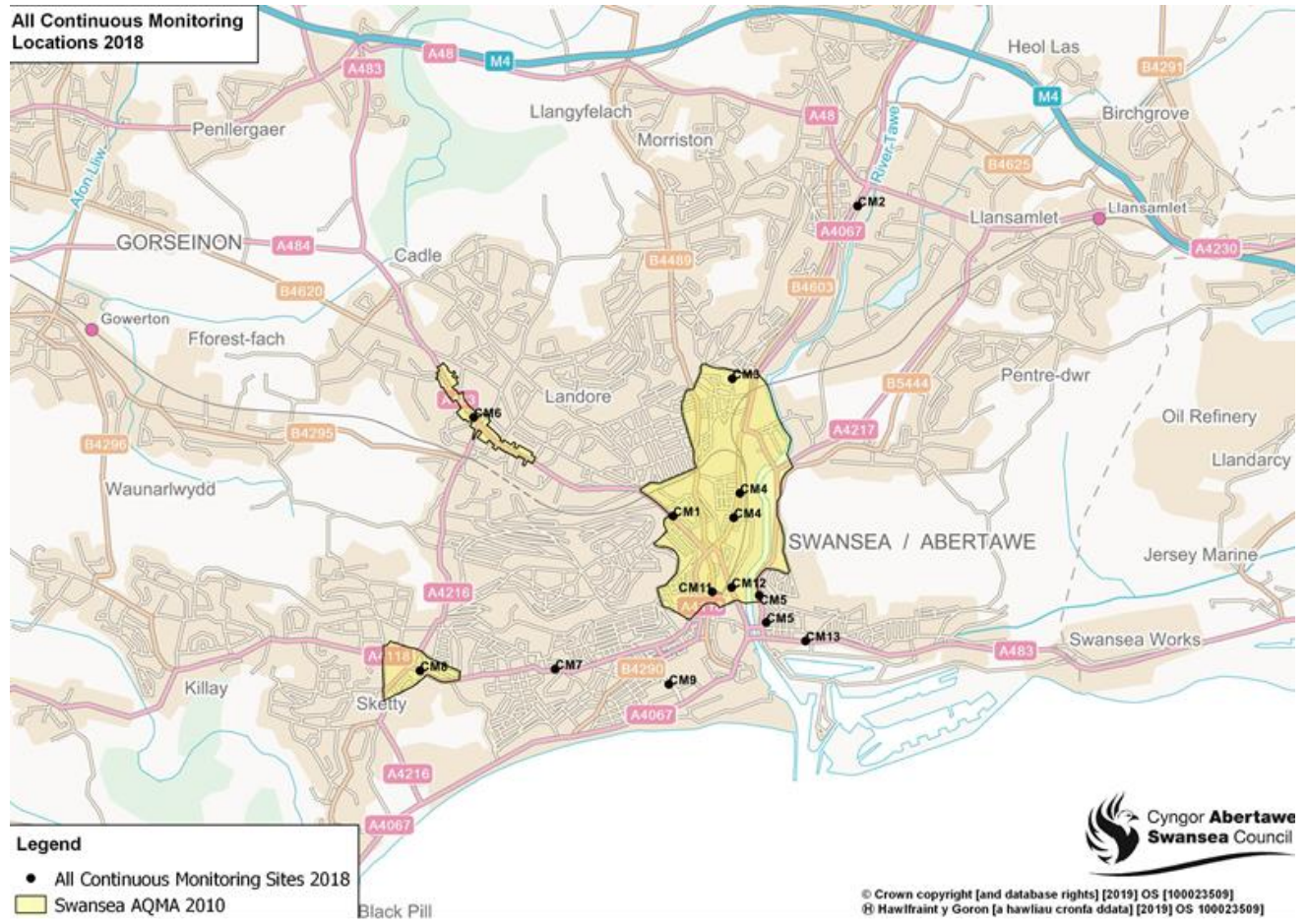
PM<sub>2.5</sub> – Particulate Matter <2.5microns

WAQF – Welsh Air Quality Forum

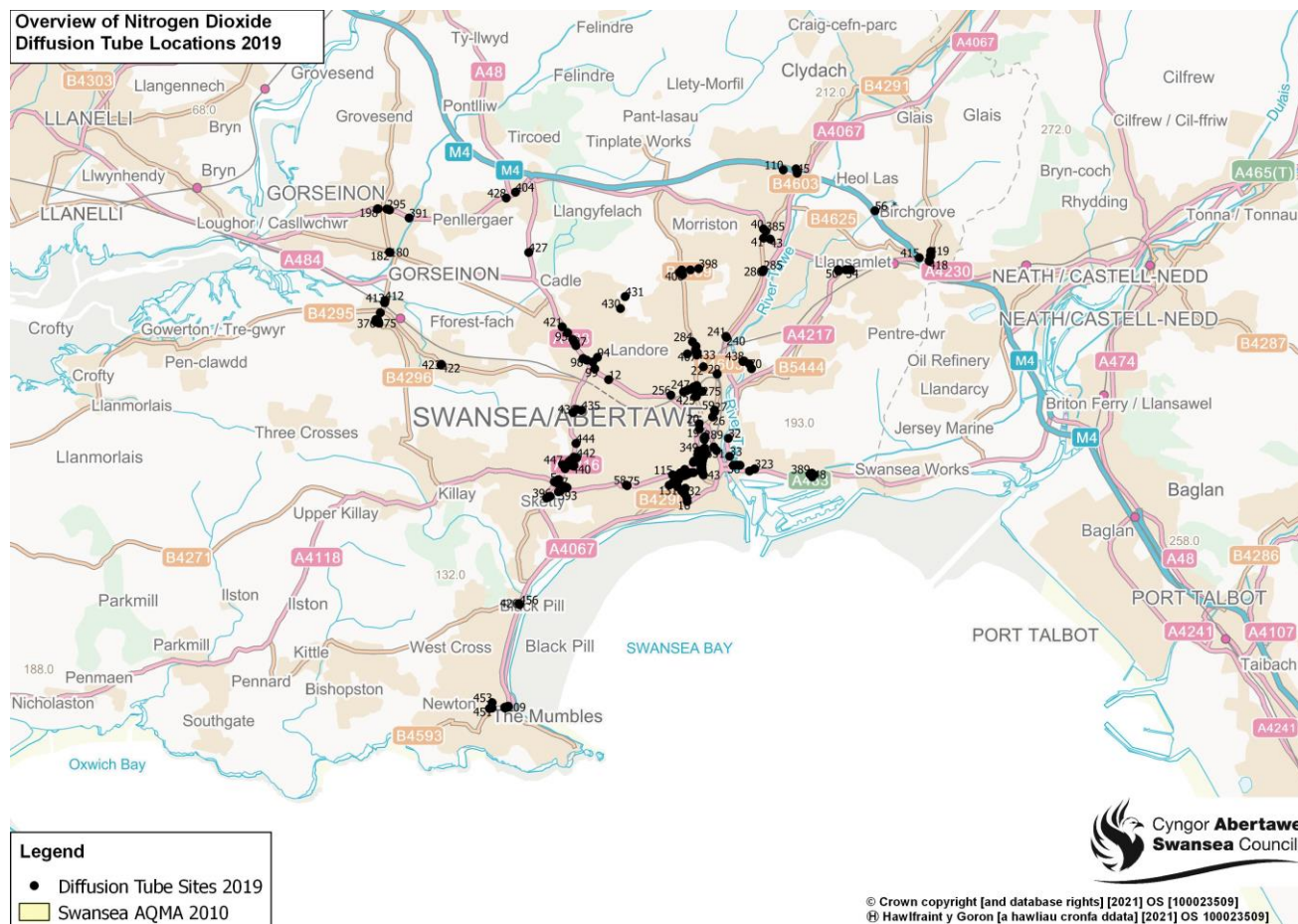
**Background papers:**

None

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



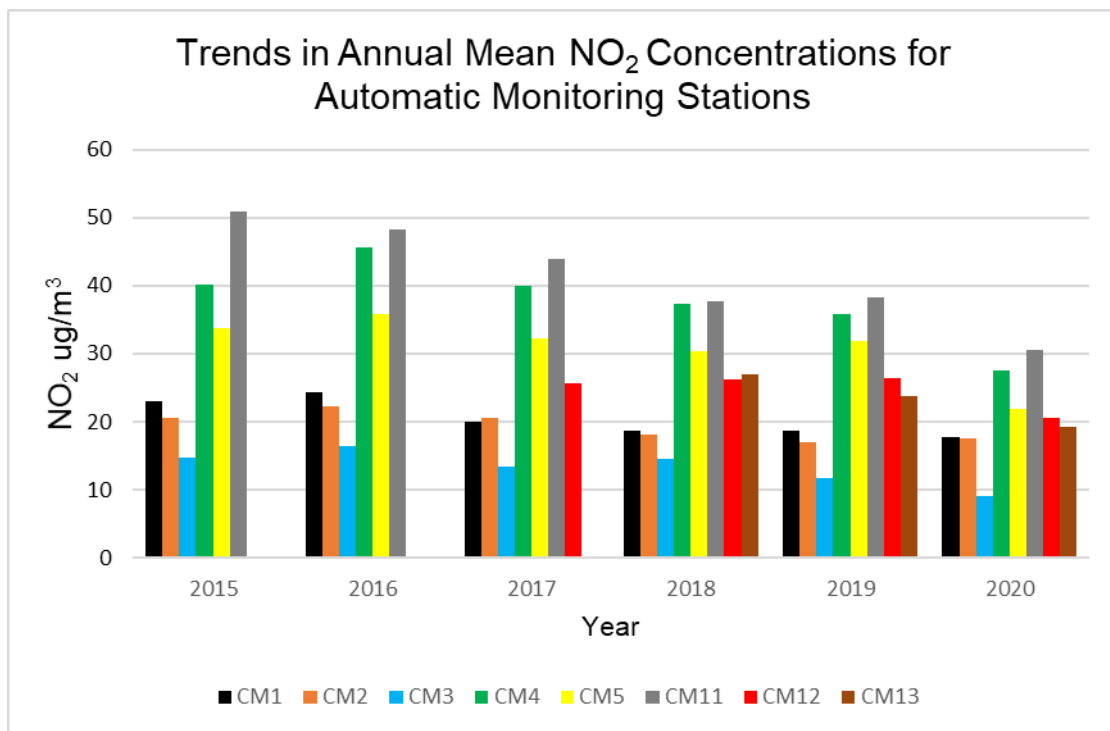
**Appendix B: Map to show the location of the non-automatic monitoring sites in Swansea.**



**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>)**

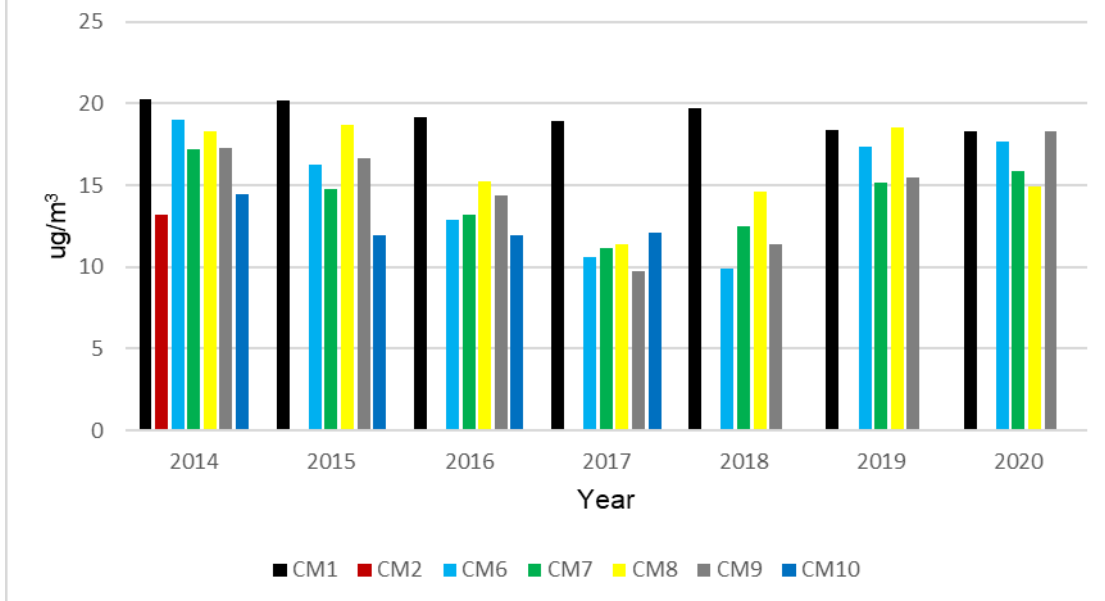
	CM1	CM2	CM3	CM4	CM5	CM11	CM12	CM13
2014	25	21.1	17.08	48.99	35.83	56.85	-	-
2015	23	20.5	14.75	40.24	33.71	50.9	-	-
2016	24.4	22.3	16.39	45.59	35.83	48.3	-	-
2017	20	20.6	13.41	40.04	32.19	44	25.73	-
2018	18.7	18.1	14.46	37.29	30.3	37.7	26.18	27
2019	18.7	16.9	11.72	35.74	31.84	38.2	26.42	23.7
2020	17.67	17.49	9.05	27.59	21.98	30.62	20.6	19.31



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

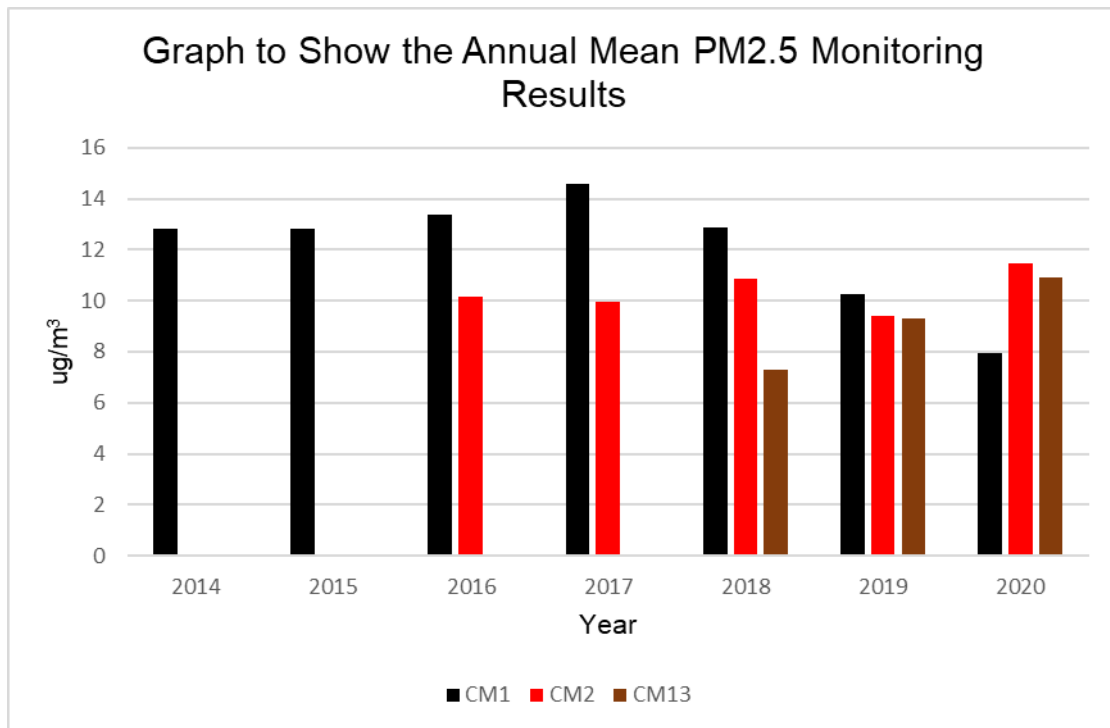
	CM1	CM2	CM6	CM7	CM8	CM9	CM10
2014	20.29	13.18	19.02	17.18	18.28	17.27	14.49
2015	20.2		16.25	14.76	18.72	16.62	11.98
2016	19.14		12.91	13.2	15.28	14.4	11.93
2017	18.9		10.61	11.13	11.43	9.74	12.11
2018	19.69		9.9	12.46	14.65	11.39	
2019	18.38		17.35	15.13	18.55	15.47	
2020	18.28		17.7	15.9	14.9	18.3	

### Graph to Show the Annual Mean PM10 Monitoring Results



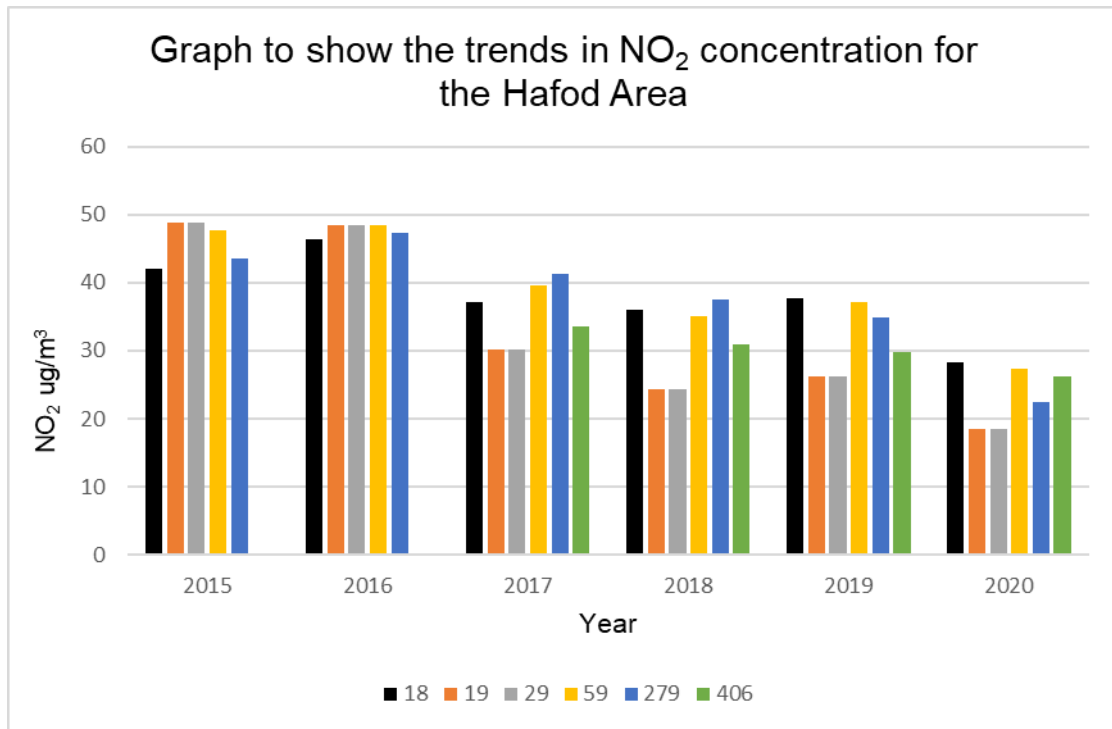
**Table to show annual mean PM<sub>2.5</sub> concentrations ( $\mu\text{g}\text{m}^{-3}$ )**

	CM1	CM2	CM13
2014	12.8		
2015	12.8		
2016	13.37	10.14	
2017	14.6	9.95	
2018	12.86	10.86	7.28
2019	10.27	9.39	9.31
2020	7.97	11.47	10.89

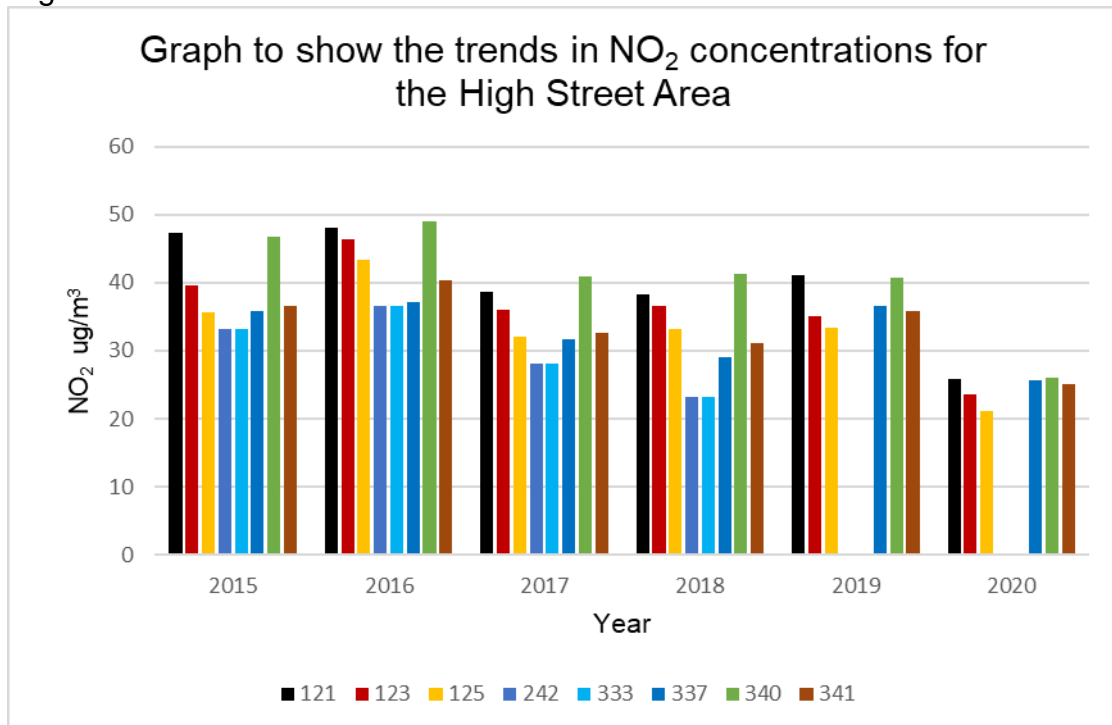


**Appendix D: Extracts from the datasets for the following areas, that have previously indicated elevated concentrations of NO<sub>2</sub>**

Hafod:

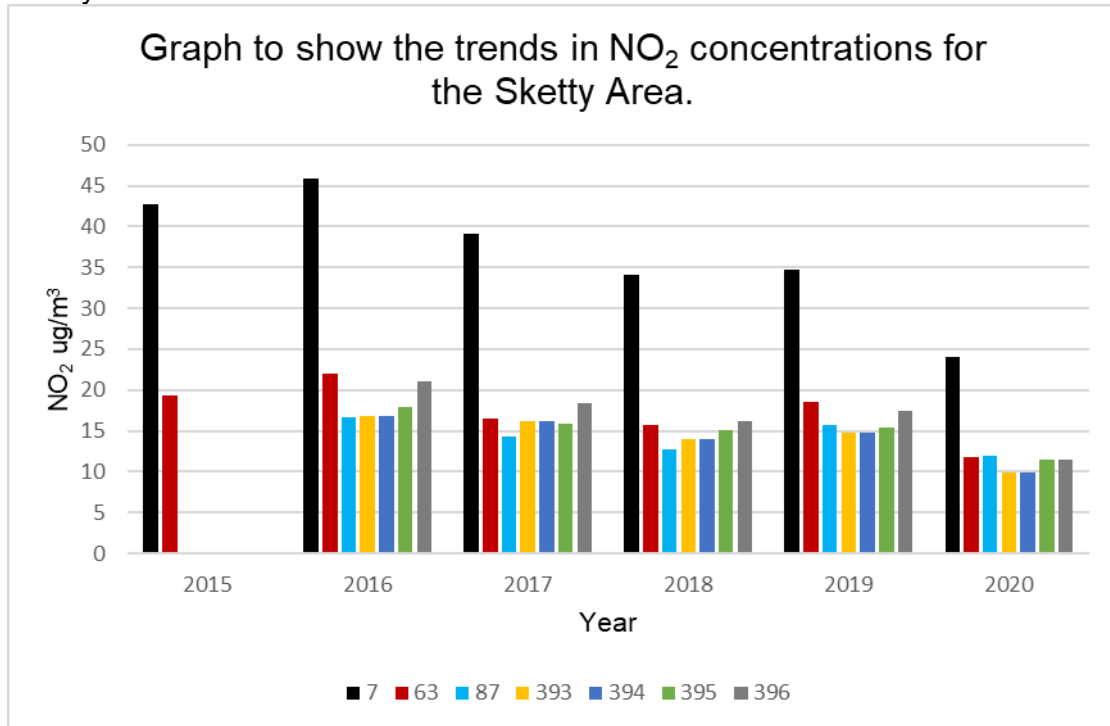


High Street:

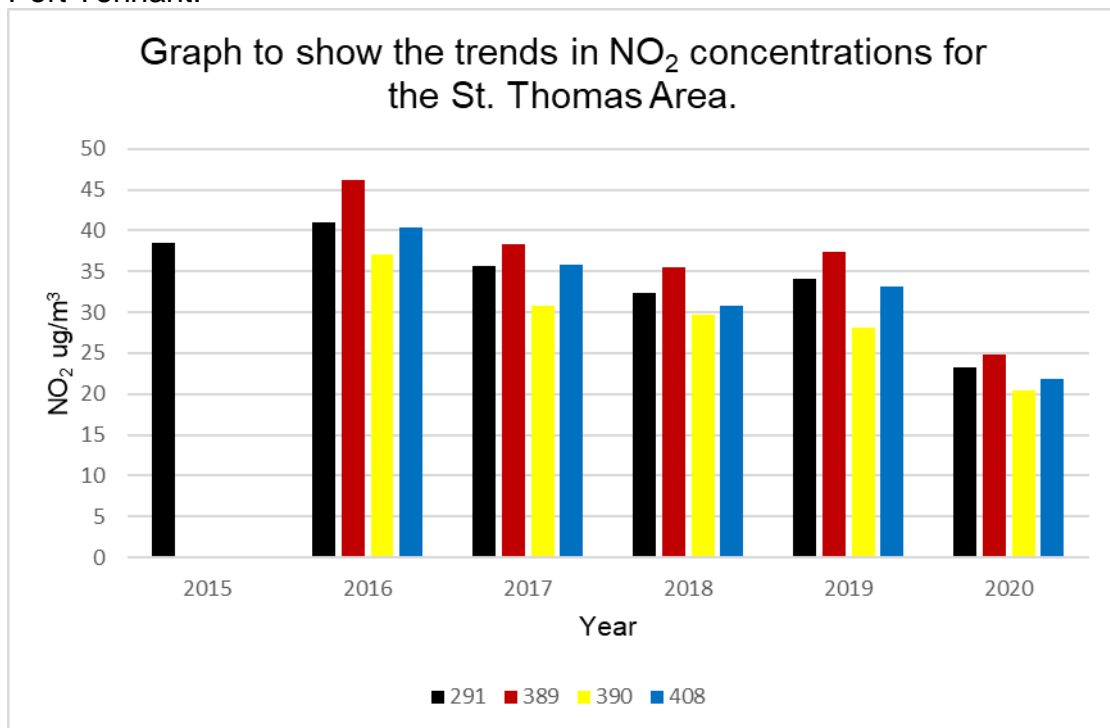




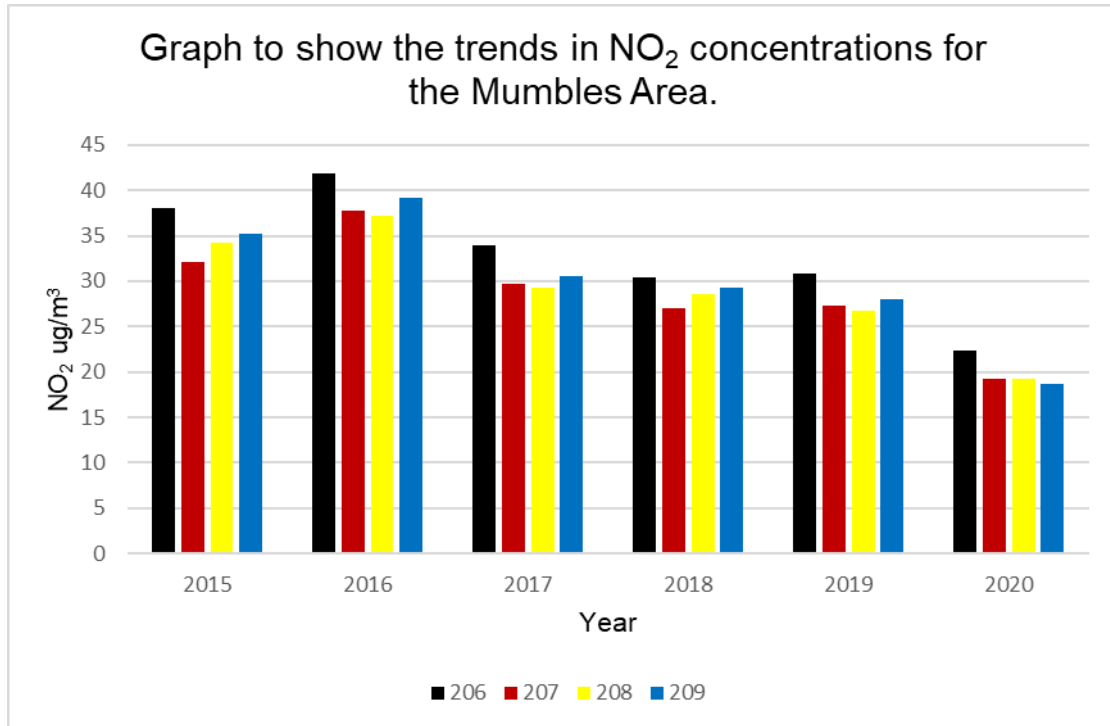
Sketty:



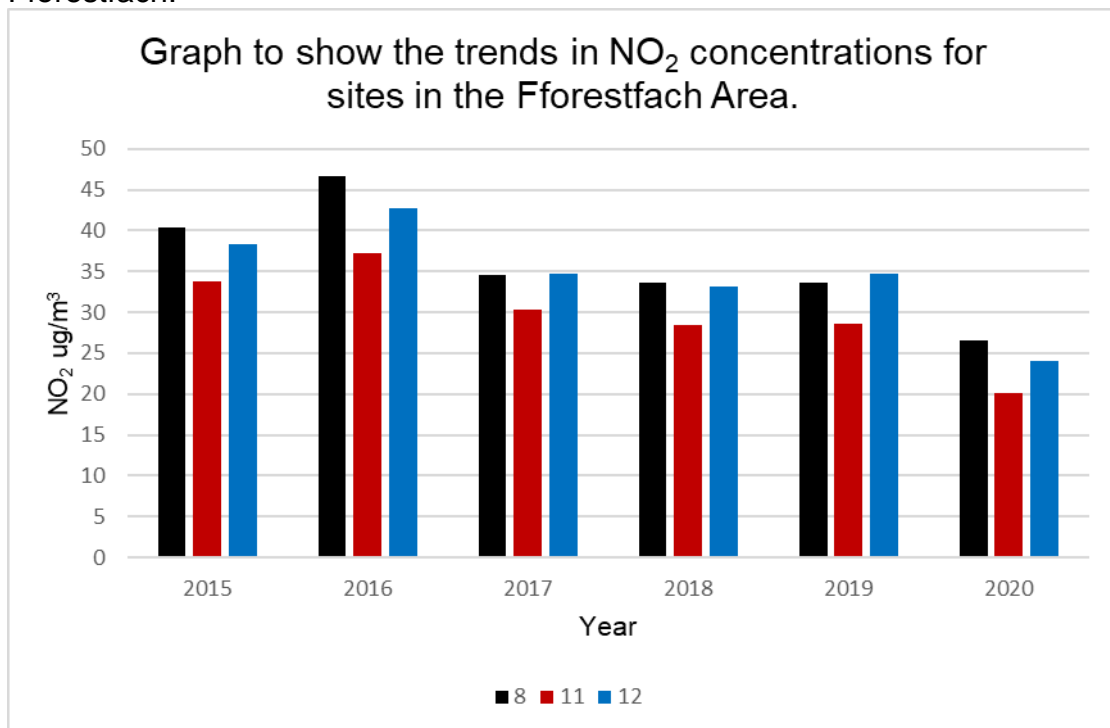
Port Tennant:



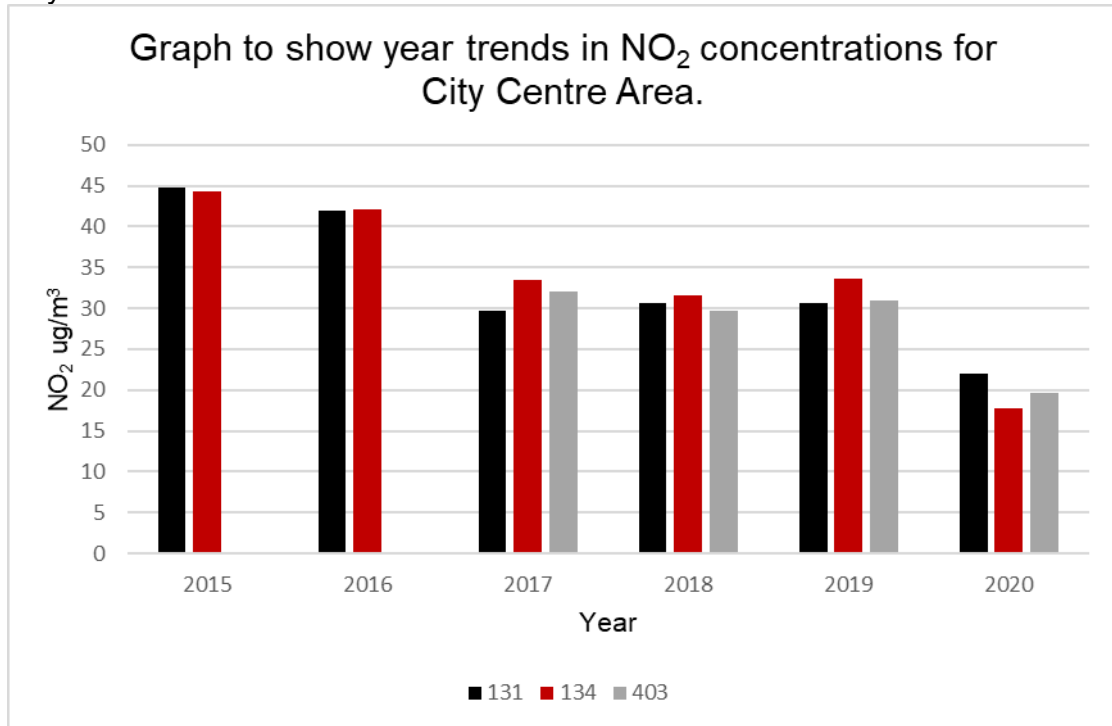
Mumbles:



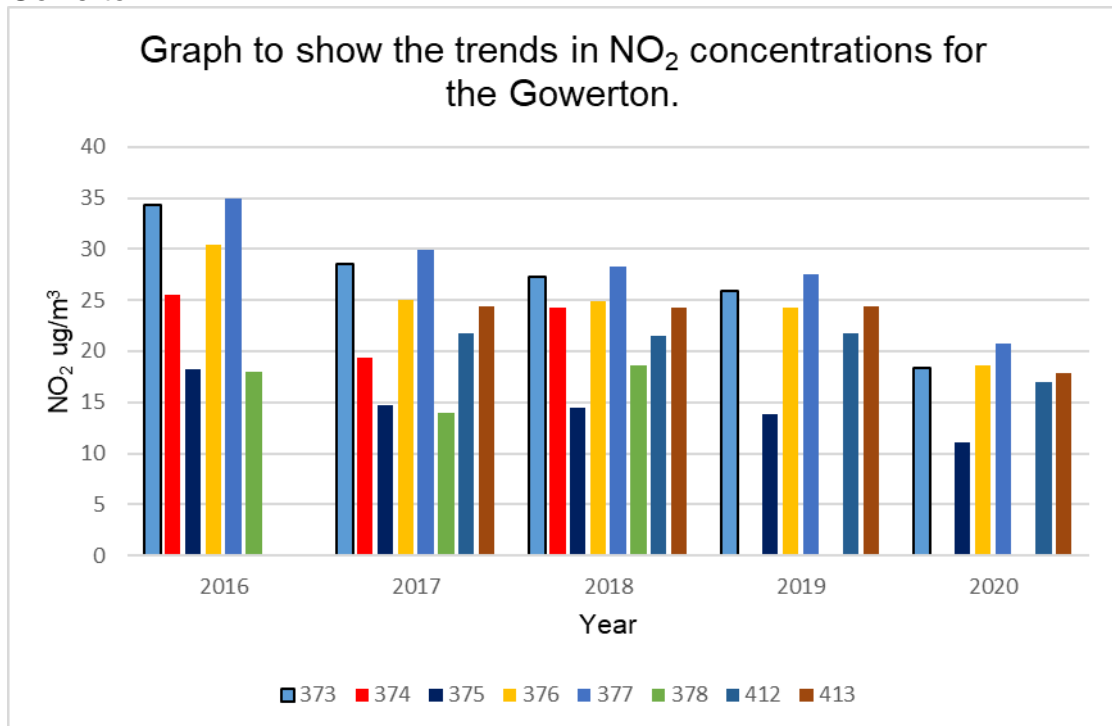
Fforestfach:



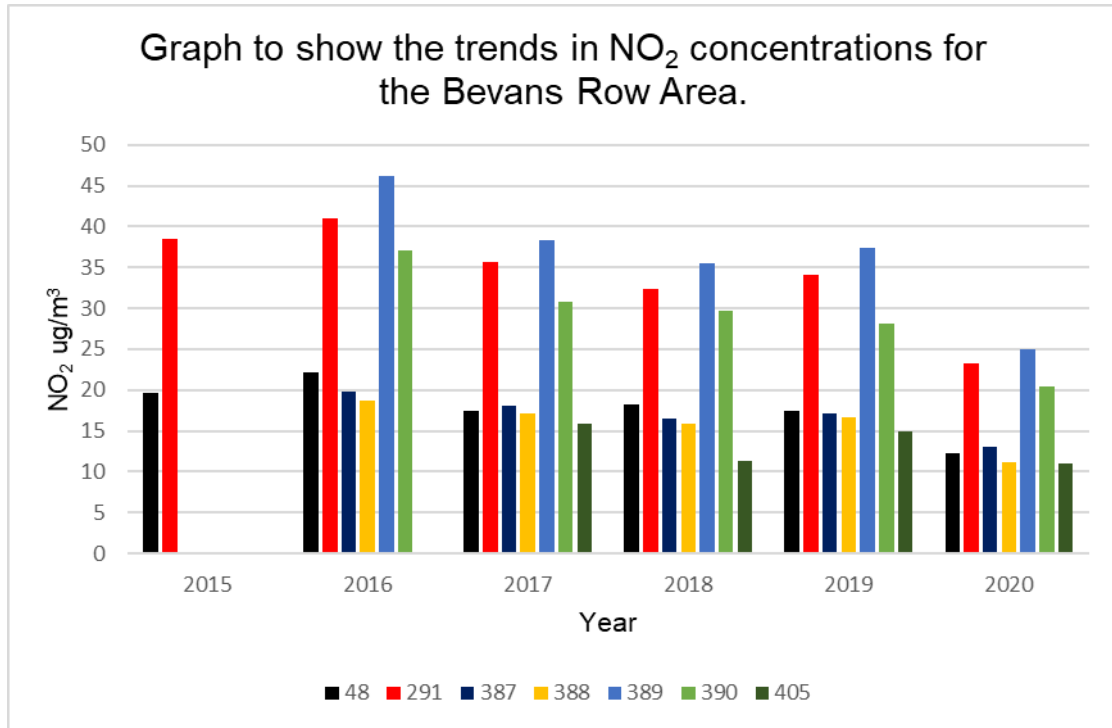
City Centre:



Gowerton:



Bevans Row:



## Appendix E: Estimation of ambient NO<sub>2</sub> and PM<sub>2.5</sub> concentration change in Wales during COVID-19 outbreak



Estimation of  
ambient NO<sub>2</sub> and PI

## Estimation of ambient NO2 and PM2.5 concentration change in Wales during COVID-19 outbreak

Professor Paul D. Lewis<sup>1,2</sup>, Victoria Seller<sup>1</sup>, Tom Price<sup>3</sup>, Hamidreza Eskandari<sup>1</sup>

Centre for Health and Environmental Management Research and Innovation

<sup>1</sup>School of Management; <sup>2</sup>Medical School, Swansea University, SA2 8PP, UK; <sup>3</sup> Pollution Control & Private Sector Housing, Swansea Council

This brief summary provides a brief overview of data and results from a preliminary analysis carried out at Swansea University estimating the ambient reduction in ambient NO2 monitoring stations across Wales since the UK Government introduced restrictions through a ‘lockdown’ on March 23<sup>rd</sup> 2020. The full analysis to date with initial estimates for concentration reductions at 13 roadside, urban background, kerbside, urban centre and urban industrial sites, can be retrieved at: [https://chemri.shinyapps.io/Wales\\_COVID19\\_Evidence/](https://chemri.shinyapps.io/Wales_COVID19_Evidence/)

This research is ongoing and will be updated as more data becomes available during the COVID-19 lockdown period. We have estimated NO2 concentration reductions using a multi-step process. Using trend analysis we are able to determine significant temporal changes in NO2 levels at sites since lockdown. Using random forest (RF) models we are able to predict the expected **meteorologically normalized NO2 levels** per day to compare **against measured daily average NO2 levels** at each location. This permits a comparison of **median residual ambient NO2 differences** (between predicted and measured levels) between pre- (01/01/2020 – 23/03/2020) and post-lockdown periods across monitoring stations. Datasets are described at the end of the summary.

We have developed an online tool, updated daily, using our models to track pollution change in Wales:

<https://chemri.shinyapps.io/upload/>

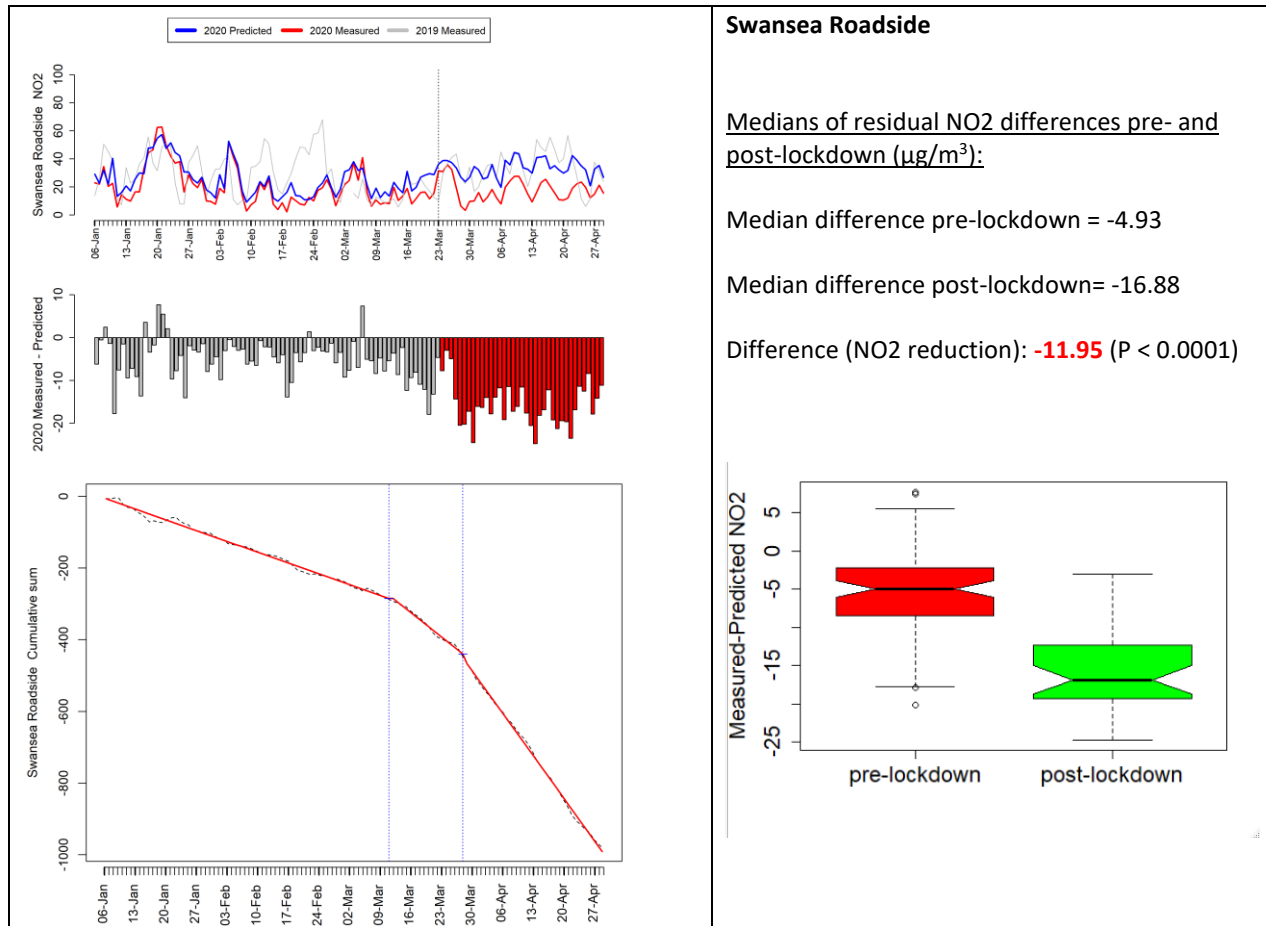
The example plots in Figure 1 are for Swansea Roadside monitoring station and demonstrate the model outputs:

- (i) Measured (red line) and RF model meteorological normalised predicted (blue line) average NO2 levels for each day in 2020. The start of COVID-19 lockdown on March 23<sup>rd</sup> 2020 is highlighted.
- (ii) Daily residual differences between measured and RF weather normalized model predicted average NO2.
- (iii) Estimated significant breakpoints identified by trend analysis (on cumulative sum of residual differences).

Medians of residual differences between model predicted and measured NO2 levels ( $\mu\text{g}/\text{m}^3$ ) and boxplots of residual distributions are also shown alongside each plot for both pre- and COVID-19 post-lockdown. Differences between the median NO2 levels in both these periods are provided along with corresponding p-values. The following table summarises the decrease in median NO2 following lockdown on 23<sup>rd</sup> March relative to all days prior in 2020. The NO2 reductions at the urban industrial site at Port Talbot Margam and the urban background site at St Julian’s Comprehensive School in Newport were not statistically significant. Excluding these sites, the mean difference in NO2 reduction across the remaining 11 sites is  $-8.96 \mu\text{g}/\text{m}^3$  (SE=1.47).

	Swansea Roadside	Swansea Morriston	Hafod DOAS	St Thomas DOAS	Cwm Level Park	Cardiff Centre	Newport St Julians	Newport M4	Hafod-Yr-Ynys	Port Talbot Margam	Chepstow A48	Rhondda Pontypridd	Wrexham
<b>NO2 reduction</b>	-11.9	-7.5	-12.5	-8.8	-4.8	-12.6	-1.4	-7.9	-20.7	-3.4	-9.2	-6.5	-3.4

Figure 1.

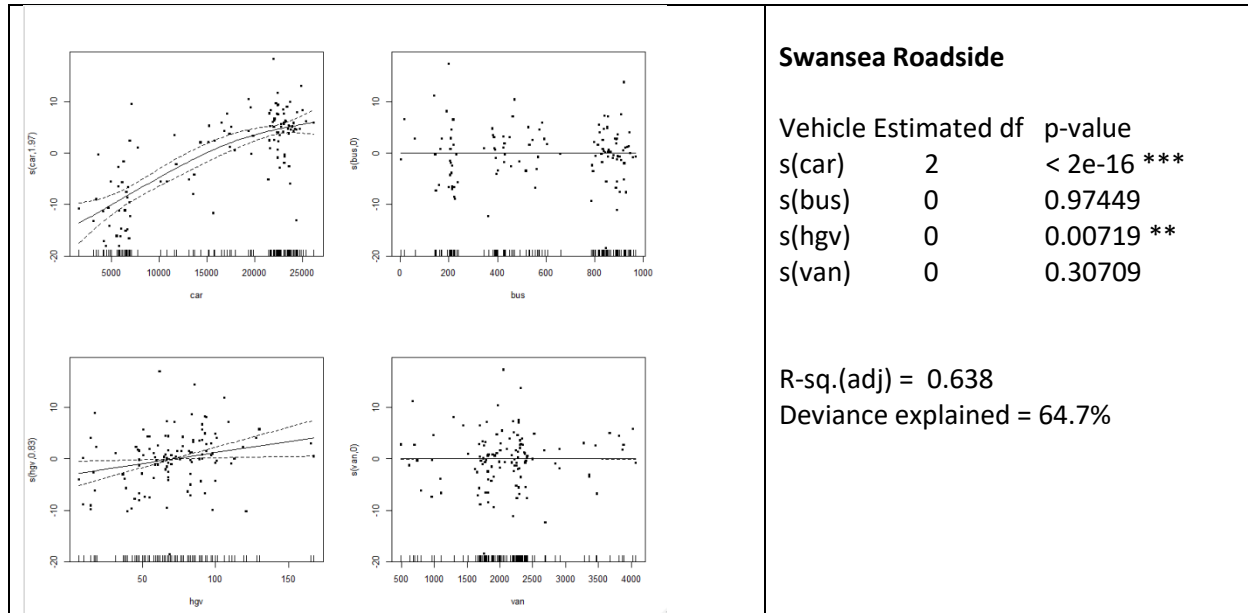


We have further extended our analysis by using generalized additive models to predict the impact of traffic volume change different classes of traffic (car, van, bus and HGV) on the daily average predicted NO2 change at four roadside monitoring stations in the Swansea urban area during this period.

To estimate the relationship between traffic reduction and ambient NO2 levels since COVID-19 lockdown, we calculated the NO2 residual differences between RF model predicted meteorological normalized and measured NO2 data at Swansea Roadside, Swansea Morriston, Swansea Hafod DOAS and Swansea St Thomas DOAS over a ten year period and used as a dependent variable to train GAMS models per site with total daily traffic count data for cars, light vans, HGV vehicles and buses as independent variables. Thus, each GAMS model predicts daily average residual NO2 levels when using daily traffic count data from 2020 as input. Each GAMS model could also reveal whether the change in volume of any vehicle type was significantly associated with change in NO2 levels since COVID-19 lockdown. Non-significant terms were retained in the optimal models to control for those vehicle types when predicting associations of cars with NO2 reduction since COVID-19 lockdown.

The plots in Figure 2 show an example for Swansea Roadside of the linear and non-linear relationships between vehicle type volume and predicted residual change in NO2 models. For all sites, there was a positive and significant linear, or near linear, relationship between the volume of cars and NO2 residual values. There was no similar relationship observed for cars, HGV vehicles or buses at three sites but HGV had a significant relationship at Swansea Roadside.

Figure 2.



The following tables show the daily median counts of vehicle type for pre- and post-lockdown at each of the four monitoring sites. The tables also show the predicted reduction in NO2 from the GAMS models when the volume of cars is entered at median values observed for either the pre- or post-lockdown periods (controlling for vans, HGV and bus volumes). Thus, the models permit the local authority to estimate the median daily reduction in NO2 that could occur by a unit reduction of daily median cars. For example, at Neath Road (corresponding to the Swansea Hafod DOAS) within an existing Air Quality Management Area (AQMA), the model predicts that a 10% reduction in cars (1100) without reducing other vehicle types would lead to approximately a median daily reduction of 2 µg/m<sup>3</sup> in NO2.

Swansea Roadside							
	Daily median volumes				Predicted reduction in NO2 (µg/m <sup>3</sup> )		
	Pre-lockdown	Post-lockdown	Difference	P value	Car volume at Pre-lockdown	Car volume at Post-lockdown	Difference
Cars	22440	6017	16423	<0.0001	-4.23	-13.34	<b>-9.11</b>
Light vans	2280	1694	586	<0.0001			
HGV	82	46	36	<0.0001			
Bus	836	214	623	<0.0001			

Swansea Morryston Roadside							
	Daily median volumes				Predicted reduction in NO2 (µg/m <sup>3</sup> )		
	Pre-lockdown	Post-lockdown	Difference	P value	Car volume at Pre-lockdown	Car volume at Post-lockdown	Difference
Cars	32431	10310	22121	<0.0001	-2.35	-8.40	<b>-6.05</b>
Light vans	2280	1694	586	<0.0001			
HGV	65	24	41	<0.0001			
Bus	110	74	36	<0.0001			



Swansea Hafod DOAS							
	Daily median volumes			P value	Predicted reduction in NO <sub>2</sub> (µg/m <sup>3</sup> )		
	Pre-lockdown	Post-lockdown	Difference		Car volume at Pre-lockdown	Car volume at Post-lockdown	Difference
Cars	15225	4225	11000	<0.0001	-4.63	-24.49	<b>-19.86</b>
Light vans	1316	534	782	<0.0001			
HGV	77	12	65	<0.0001			
Bus	108	38	70	<0.0001			

Swansea St Thomas DOAS							
	Daily median volumes			P value	Predicted reduction in NO <sub>2</sub> (µg/m <sup>3</sup> )		
	Pre-lockdown	Post-lockdown	Difference		Car volume at Pre-lockdown	Car volume at Post-lockdown	Difference
Cars	22774	6046	16728	<0.0001	8.56	-1.54	<b>-10.10</b>
Light vans	1102	545	557	<0.0001			
HGV	70	31	39	<0.0001			
Bus	97	43	54	<0.0001			

Finally, we have also carried out an initial assessment to determine whether ambient reduction had occurred in PM<sub>2.5</sub> levels in South Wales. PM<sub>2.5</sub> have however been increased substantially since lockdown, relative to pre-lockdown levels, at all monitoring stations on four occasions for periods of days. We have further explored whether these regional increases were due to transboundary effects and non-local sources. Using hourly satellite and ensemble modelled PM<sub>2.5</sub> data retrieved from the Copernicus Atmosphere Monitoring Service (CAMS) for North Western Europe we were able to determine that all four temporal episodes of increased PM<sub>2.5</sub> levels were occurring across a wide geographical area extending across the South of England and into France.

**Figure 3.**

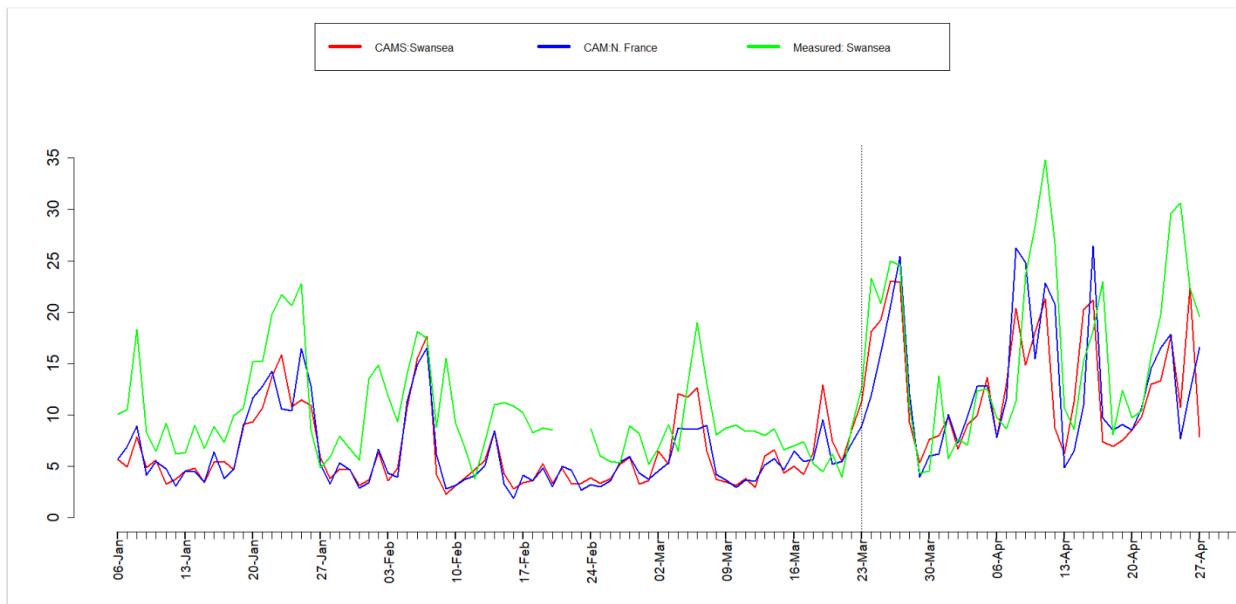


Figure 3 shows daily levels of PM2.5 throughout 2020 for measured data at Swansea Port Tennant monitoring station and CAMS modelled data for a location in the North of France (30km South East from Calais) and Swansea. The CAMS data for Swansea can be considered as urban background over a 10km by 10km area. Whereas, with these transboundary effects, it is difficult to determine change in ambient PM2.5 levels in Wales, the data indicates the need to establish whether the elevated levels of PM2.5 since lockdown have had a detrimental impact on vulnerable people during this period.

We are working with colleagues at the Farr Institute in Swansea University Medical School and SAIL databank to assess potential impacts of increased PM2.5 on vulnerable groups during this period, particularly respiratory and cardiovascular patients, within the Welsh population.

#### **Datasets used:**

**Air pollution and modelled meteorological data:** Hourly measurements for NO<sub>2</sub> ( $\mu\text{g}/\text{m}^3$ ), modelled wind speed (m/s), modelled wind direction ( $^\circ$ ) and modelled temperature ( $^\circ\text{C}$ ) from 01/01/2010 (or 2011) to the current day are retrieved daily for 13 AURN monitoring stations from Air Quality Wales through functions in the R statistical environment 'openair' package. The sites include: Cardiff Centre (Urban centre), Swansea Roadside (Roadside), Swansea Morriston Roadside (Roadside), Swansea Hafod DOAS (Roadside), Swansea St Thomas DOAS (Roadside), Swansea Cwm Level Park (Urban background), Newport St Julians Comp School (Urban background), Newport M4 Junction 25 (Roadside), Hafod-Yr-Ynys (Kerbside), Port Talbot Margam (Urban industrial), Chepstow A48 (Roadside), Rhondda Pontypridd Gelliwastad Road (Roadside), Wrexham (Roadside).

Hourly measurements for PM<sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ ), modelled wind speed, modelled wind direction and modelled temperature ( $\mu\text{g}/\text{m}^3$ ), from 01/01/2019 to the current day are retrieved daily in the same manner for 9 monitoring stations at Cardiff Centre, Swansea Roadside, Swansea Port Tennant Roadside, Newport St Julians Comp School, Port Talbot Margam, Chepstow A48, Wrexham, Caerphilly Fochriw (Roadside), Anglesey Brynteg (Other).

**Measured meteorological data:** Hourly average measured data for wind speed (m/s), wind direction ( $^\circ$ ), temperature ( $^\circ\text{C}$ ) and relative humidity (%) from 01/01/2010 to present day for Cwm Level Park 30m mast (Swansea Council).

**Traffic count data:** Hourly traffic count data from 01/01/2010 to present day (Swansea Council) for 4 automatic traffic counters within the city: Carmarthen Road (4, lanes, adjacent to Swansea Roadside AURN), Fford Cwm Tawe (4 lanes, adjacent to Swansea Morriston Roadside AURN), Neath Road (2 lanes, adjacent to Swansea Hafod DOAS) and Pentreguinea Road (2 lanes, adjacent to Swansea St Thomas DOAS).

# Agenda Item 7

## Natural Environment Scrutiny Performance Panel

### Work Plan 2021-22

<b>Meeting 1</b> 22 <sup>nd</sup> March 2021	<ul style="list-style-type: none"><li>• <b>Confirmation of Convener</b></li><li>• <b>Nature Conservation – Project updates</b> <i>Invited to attend:</i> Deborah Hill – Nature Conservation Team Leader Paul Meller – Natural Environment Section Manager Cllr David Hopkins – Cabinet Member for Delivery and Operations</li><li>• <b>Agree Work Plan topics 2021-22</b></li><li>• <b>For information only - Climate Change Action Plan consultation</b> (<a href="#">link</a> to papers)</li></ul>
<b>Meeting 2</b> Wednesday May 19 <sup>th</sup>	<ul style="list-style-type: none"><li>• <b>Climate Change Action Plan consultation feedback</b></li><li>• <b>Climate Emergency Declaration – Council Action Plan Progress</b> <i>Invited to attend:</i> Cllr Andrea Lewis - Cabinet Member for Homes, Energy and Service Transformation Martin Nicholls – Director of Place Rachel Lewis – Directorate Project Manager Suzy Richards – Sustainable Policy Officer</li></ul>
<b>Meeting 3</b> Tuesday 29 <sup>th</sup> June 2021	<ul style="list-style-type: none"><li>• <b>Air Quality Management</b> <i>Invited to attend:</i> Cllr Mark Thomas – Cabinet Member for Environment Enhancement &amp; Infrastructure Management Tom Price – Team Leader, Pollution Control Victoria Seller - Swansea University, Research Officer</li></ul>
<b>Meeting 2</b> Tuesday 31 <sup>st</sup> August 2021	<ul style="list-style-type: none"><li>• <b>Local Flood Risk Management</b> <i>TBC:</i> Stuart Davies – Head of Highways and Transportation Mike Sweeney – Team Leader, Highways and Transportation Cllr Mark Thomas – Cabinet Member for Environment Enhancement &amp; Infrastructure Management</li><li>• <b>Ash Dieback update</b> <i>TBC:</i> Martin Bignell – Team Leader Tree Services Chris Howell – Head of Waste, Parks and Cleansing Jeremy Davies – Group Leader Parks and Cleansing Bob Fenwick – Group Leader Highways Maintenance Cllr Mark Thomas – Cabinet Member for Environment Enhancement &amp; Infrastructure Management</li></ul>

<b>Meeting 3</b> Wednesday 6 <sup>th</sup> October 2021	<ul style="list-style-type: none"> <li>• <b>Water Pollution</b> (including marine biodiversity)  <i>TBC:</i>            Judith Oakley – Ecologist Planner</li> </ul>
<b>Meeting 4</b> Wednesday 12 <sup>th</sup> January	<ul style="list-style-type: none"> <li>• TBC Management of Green Space / Weed &amp; Verge Management</li> </ul>
<b>Meeting 5</b> Tuesday 15 <sup>th</sup> March	<ul style="list-style-type: none"> <li>• TBC</li> </ul>

**Future topics to schedule:**

- Environmental Tourism
- Monitoring Delivery of Corporate Priority – Update: Maintaining & Enhancing Swansea’s Natural Resources & Biodiversity

# Agenda Item 8



**To:**  
**Councillor Andrea Lewis**  
**Cabinet Member for Climate**  
**Change and Service Transformation**

**BY EMAIL**

*Please ask for:*  
*Gofynnwch am:*

*Direct Line:*  
*Llinell Uniongyrochol:*

*e-Mail*  
*e-Bost:*

*Date*  
*Dyddiad:*

Overview & Scrutiny

01792 637732

scrutiny@swansea.gov.uk

16 June 2021

**Summary:** This is a letter from the Natural Environment Scrutiny Performance Panel to the Cabinet Member for Climate Change & Service Transformation. The letter concerns the meeting held on 19 May 2021 and the updates received regarding the Council's Climate Change Action Plan.

Dear Councillor Lewis,

On 19 May 2021 the Panel met to discuss Council progress surrounding the Climate Emergency Declaration. We are writing to you to reflect on what we learnt from the discussion and to share the observations of the Panel.

The Panel were grateful to all who attended to provide information and answer questions. The Panel also heard from the Director of Place regarding recent public consultation feedback, centred on the Council's Climate Change Action Plan.

We heard that this is a critical area of work as a Local Authority and that you, and officers, appreciated the opportunity to demonstrate the ongoing work and to highlight previous work, since the 2009/10 carbon reduction strategy. You emphasised that this work continues to build upon previous projects, and that the Council's influence continues to make positive differences across Swansea.

The Panel heard that this Action Plan incorporates a cross-Council approach, encompassing past and present administrations, to maximise opportunities and promote a cohesive approach across the Council as a whole.

The Panel heard that, in 2019/20, there had been a 55% reduction in Council emissions since the first carbon reduction plan was developed in 2010. We heard that on-going action points included the commitment to reduce fossil fuel investments in terms of the staff pension fund. Actions also include the roll out of electric vehicle charging points, having regard to the needs for network improvements in relation to purchase and maintenance of electric vehicle fleets. We heard that the current fleet will rise to 51 and officers are evaluating tenders to incorporate more environmentally

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I dderbyn yr wybodaeth hon mewn fformat arall neu yn Gymraeg, cysylltwch â'r person uchod  
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friendly fleet vehicles. Officers explained that the full fleet is circa 700 vehicles and that the commercial (electric) market is not currently in existence for the Heavy Goods Vehicles in the same way as it is for small vans and cars. We understand this presents some challenges in attaining a fully green fleet of Council operated vehicles.

We heard that the Council will explore purchase of gas from renewable resources and that, under the present contract, 100% of electricity comes from renewable sources.

We heard that new Council homes are incorporating solar battery storage and air source heat pumps. The housing strategy is linked to the 'Swansea Standard' for new build homes, and also the decarbonisation of wider housing stock.

Officers explained that some waste and recycling targets were difficult to meet over the lockdown period, with many people at home for longer than usual. This was reflected in the report and is not expected to become a long-term issue.

Other areas touched upon by the report included the 21,000 streetlights upgraded to LEDs and the positive engagement from young people through the Eco Schools programme. Officers outlined the range of policy areas interlinked within this area of work, such as the Local Biodiversity Plan, Local Development Plan and Supplementary Planning Guidance. We also heard that a sustainable transport strategy is currently being developed leading to a coherent countywide sustainable travel solution.

The Panel heard that the main objectives of the Climate Change Action Plan will help to achieve net carbon zero by 2030 for 'in scope' emissions, taking a whole-Council approach, incorporating robust strategies and clear targets. Officers are working to identify where new policies may be required or where updates to current policies are needed. Officers highlighted that this approach aligns the current Corporate Plan with future corporate plans, in addition to the Well-Being of Future Generations Act (Wales).

The Panel heard that officers continue to work on developing measurable and quantitative indicators in order to demonstrate and evaluate outcomes. The report outlined that, for example, energy consumption across building stock carried a target of 3% year on year reductions. Officers also highlighted that, as an example of measurable outcomes, the Council had achieved a 66% reduction over the last 10 years in street lighting CO<sup>2</sup> emissions.

Moving from the 2030 to 2050 target, officers described how the Council could develop longer-term strategies and involve wider stakeholders such as partners, businesses and communities. Officers explained that one such strategy would be the launch of a pledge scheme, where individuals and organisations can pledge to make a difference, thereby creating a critical mass of people to drive objectives forward. Officers acknowledged that this is a long-term strategy and, although the action needed is urgent, it will take time to embed such strategies, open dialogue and empower and enable action.

The Panel heard that, as part of the engagement strategy, a climate change survey was designed and implemented. The Panel received an overview of these key findings and discussed pertinent points. Officers explained that an unprecedented 1000 responses were received, demonstrating high levels of public interest in this topic. The Panel acknowledged the efforts of Council staff and we thank all officers involved for implementing and evaluating this survey.

Officers presented the data, highlighting some gaps due to Covid restrictions, such as face-to-face engagement and school visits. Officers explained that the Council has built upon a strong network of relationships to support responses, using all available mechanisms to publicise the survey and generate a large number of returns. Officers commented on the overwhelmingly positive responses; over 93% of people being concerned about climate change and over 94% indicating commitment to make a change. The Panel noted that 350 responses came from Council employees and you commented on this number being a positive demonstration of the Council's ambition to deliver objectives.

Officers highlighted the impacts of lockdown restrictions on behaviour changes, such as reduced car travel, and how the Council should aim to embed any positive outcomes to propel climate change actions. Officers also commented on the consistent pattern of results; the majority of people agreeing with the strategies being implemented currently.

Common themes within the public feedback included education, agile working, recycling facilities and general support for proposed key actions. Officers acknowledged that to have such feedback and indicators of public endorsement is very encouraging.

The Panel heard that regard should be had to aspects of inequality and fuel poverty; many people want to make changes but their financial circumstances will not easily permit these changes, for example the expensive operation of pre-paid electricity metres.

We asked about the local transport network, buses in particular and the lack of service, especially in outlying areas. We heard that an Active Travel solution is within the scope of the Council's 2050 target and officers expect that discussions on a regional basis will likely address this.

The Panel heard that, building on many years of efforts, officers are using the survey feedback to inform design and delivery of services. Officers explained that an updated report would be published in due course to set out the clear actions arising out of this consultation.

We raised queries over car battery use and sustainability. You explained to us that once a battery depletes to 80% efficiency they are no longer used as car batteries, but may be utilised as storage capacity elsewhere. Officers acknowledged that the proposed banning of sales of petrol / diesel cars is driving forward the technology and market for battery powered vehicles.

We also questioned how changes to housing could be made and officers acknowledge that such changes would not be achieved by homeowners without financial support to bring properties up to standard. Officers explained that Welsh Government is further improving the insulation standards of new homes.

We raised queries over the availability of generic charging points for electric vehicles (EV). You explained to us that the supply for the EV infrastructure is 100% renewable, available 24hours per day, bilingual and is supporting a local company. You expressed your satisfaction with the contracted supplier and emphasised that costs were kept to a minimum where possible.

We heard about the ongoing learning and development being undertaking in this area. Officers explained to the Panel that the Council is working with Gower College to train internal operatives on how to install new technology. Officers are also working with housing staff to develop operating manuals to inform tenants on how to use the new technology. We also heard that the first cohort of Council staff undertook Carbon Literacy training recently and the Council is now exploring options to roll this training out to every Council employee.

We asked questions about the availability of tree mapping and how this may help to monitor maintenance of trees and the underlying land. Officers explained that such a plan relates to Council owned land only, and that private land relies on individual land owners taking responsibility for maintenance.

Finally, we would like to take this opportunity to acknowledge the hard work and efforts of all staff and officers involved in the public consultation exercise, particularly during the challenges of the pandemic restrictions. We greatly valued the input and engagement of all attendees at this meeting.

## **Your Response**

We hope you find this letter useful and informative. We would welcome your comments on any of the issues raised, but in this instance, a formal written response is not required.

Yours sincerely,

**Councillor Peter Jones**

**Convener, Natural Environment Scrutiny Performance Panel**

✉ [cllr.peter.jones@swansea.gov.uk](mailto:cllr.peter.jones@swansea.gov.uk)