

APPENDIX 2



Part IV Environment Act 1995

Detailed Assessment of nitrogen dioxide – (July 2017)

In fulfillment of Part IV of the
Environment Act 1995
Local Air Quality Management

Date (July 2017)

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Air Quality

DETAILED ASSESSMENT OF NITROGEN DIOXIDE – (xx 2016)

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SUMMARY

This document has been produced in response to the requirements of the Welsh Government for review and assessment of air quality. The 2016 Detailed Assessment of air quality concluded that a Detailed Assessment was necessary at Victoria Gardens, Neath.

Measurements have shown that there were no locations with relevant exposure in Neath Port Talbot where the long-term air quality objective for NO₂ was breached.

A decrease in NO₂ levels has also been observed in continuous measurements made at the junction at Victoria Gardens in recent years.

Introduction

The Government and Devolved Administrations have adopted two Air Quality Objectives for nitrogen dioxide. An annual mean concentration of $40 \mu\text{g}/\text{m}^3$ and a 1-hour mean concentration of $200 \mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times per year. Both objectives were to be achieved by the end of 2005.

In addition, the first Air Quality Daughter Directive also sets limit values for nitrogen dioxide, which have been translated into UK legislation. A 1-hour limit of $200 \mu\text{g}/\text{m}^3$ applies, not to be exceeded by more than 18 times per year. An annual mean limit value of $40 \mu\text{g}/\text{m}^3$ also applies, both were to be achieved by the 1st January 2010.

Summary of recent investigations and developments

The 2010 Air Quality Progress Report identified that a detailed assessment was required for nitrogen dioxide (NO_2) at Pontardawe Post Office and at Victoria Gardens, Neath.

The 2011 detailed assessment was carried out using more diffusion tubes and this confirmed a potential problem at both locations. As a consequence of these findings it was decided that continuous analysers would be deployed to provide more reliable data for a decision on whether a declaration of AQMAs needed to be made. Both analysers were deployed in July 2012.

It was not possible to site the continuous analyser at the frontage of the Post Office due to a lack of space and health & safety considerations. The nearest location where this could be located was the nearby old bus stop, which is less than 5 metres from the diffusion tube on the frontage of the Post Office. It became clear that results at the continuous monitor were significantly lower than those at the frontage of the Post Office. Consequently, diffusion tubes were deployed in triplicate on the monitor.

It was also impossible to locate the analyser at the frontage of 1, Victoria Gardens, given the very narrow pavement. An attempt was therefore made to set up the instrument in the front garden of No. 3 next door. However the owner of the property withdrew permission for use of the garden shortly after the equipment was deployed, so another site had to be found. The location on the pavement near the lights had sufficient room and had no safety issues.

In order to try to avoid the need for declaration of an AQMA at Pontardawe, steps were taken to try to reduce pollution levels at the Post Office. The bus stop was relocated approximately 55 metres further up the hill beyond the houses at 10 & 12 Swansea Road. Pollution from buses can be considerable and there were also reports of buses idling so relocation of the bus stop was aimed at reducing pollution levels at the Post Office.

At the same time, double yellow lines were extended outside the Post Office. The aim was to discourage parking outside, which tends to cause tailbacks and congestion as the road is not wide enough for vehicles to pass parked cars if there is queuing at the lights.

Detailed assessment of nitrogen dioxide

An extra two parking spaces were provided off road at the new bus stop with the further goal of reducing congestion. All of these works were completed in March 2013.

In addition, the sequencing of the traffic lights was reviewed in October 2011 in order to try to reduce queuing up Swansea Road past the Post Office.

The Council has not used modelling to determine pollution levels as it is less accurate than monitoring. Instead diffusion tubes have been deployed at relevant locations and a local bias adjustment factor has been employed based upon three continuous analysers co-located with diffusion tubes.

The interim 2012 detailed assessment showed that neither the annual averaged Air Quality Objective ($40 \mu\text{g}/\text{m}^3$) nor the hourly averaged AQO ($200\mu\text{g}/\text{m}^3$) for nitrogen dioxide were exceeded at sites near Pontardawe Post Office.

Continuous measurements of NO_2 at Victoria Gardens, Neath, showed that the hourly averaged AQO was complied with. The annual averaged AQO was also complied with at all sites where diffusion tubes were deployed. However, a single property at 1 Victoria Gardens ($41.7 \mu\text{g}/\text{m}^3$) was predicted to exceed the annual averaged AQO when NO_2 levels were calculated with the "distance from roads spreadsheet". This exceedance was considered to be quite marginal and was based upon less than a year's worth of data. It was therefore considered that bias adjustment factors would have been less reliable than would have been the case for a full year of data. Consequently an AQMA was not declared at that stage. Rather, a detailed assessment would be repeated with a full year's worth of data.

A detailed assessment for the calendar year of 2014 showed that neither the annual averaged Air Quality Objective ($40 \mu\text{g}/\text{m}^3$) nor the hourly averaged AQO ($200\mu\text{g}/\text{m}^3$) for nitrogen dioxide were exceeded at sites near Victoria Gardens, Neath. Although, a single property at 1 Victoria Gardens ($39.8 \mu\text{g}/\text{m}^3$) was close to, but did not exceed the annual averaged AQO when NO_2 levels when calculated with the "distance from roads spreadsheet".

An Updating and Screening Assessment was reported in 2015. This identified the need to proceed to a Detailed Assessment of nitrogen dioxide at Swansea Road, Pontardawe and Victoria Gardens, Neath.

A Detailed Assessment of PM_{10} was reported in 2015. This examined data from 8 sites in Port Talbot, but none were found to breach air quality objectives. Results at Prince Street were more in line with those at Port Talbot Fire Station.

An Updating and Screening Assessment was reported in 2016. This identified the need to proceed to a Detailed Assessment of nitrogen dioxide at Victoria Gardens, Neath.

Detailed assessment of nitrogen dioxide

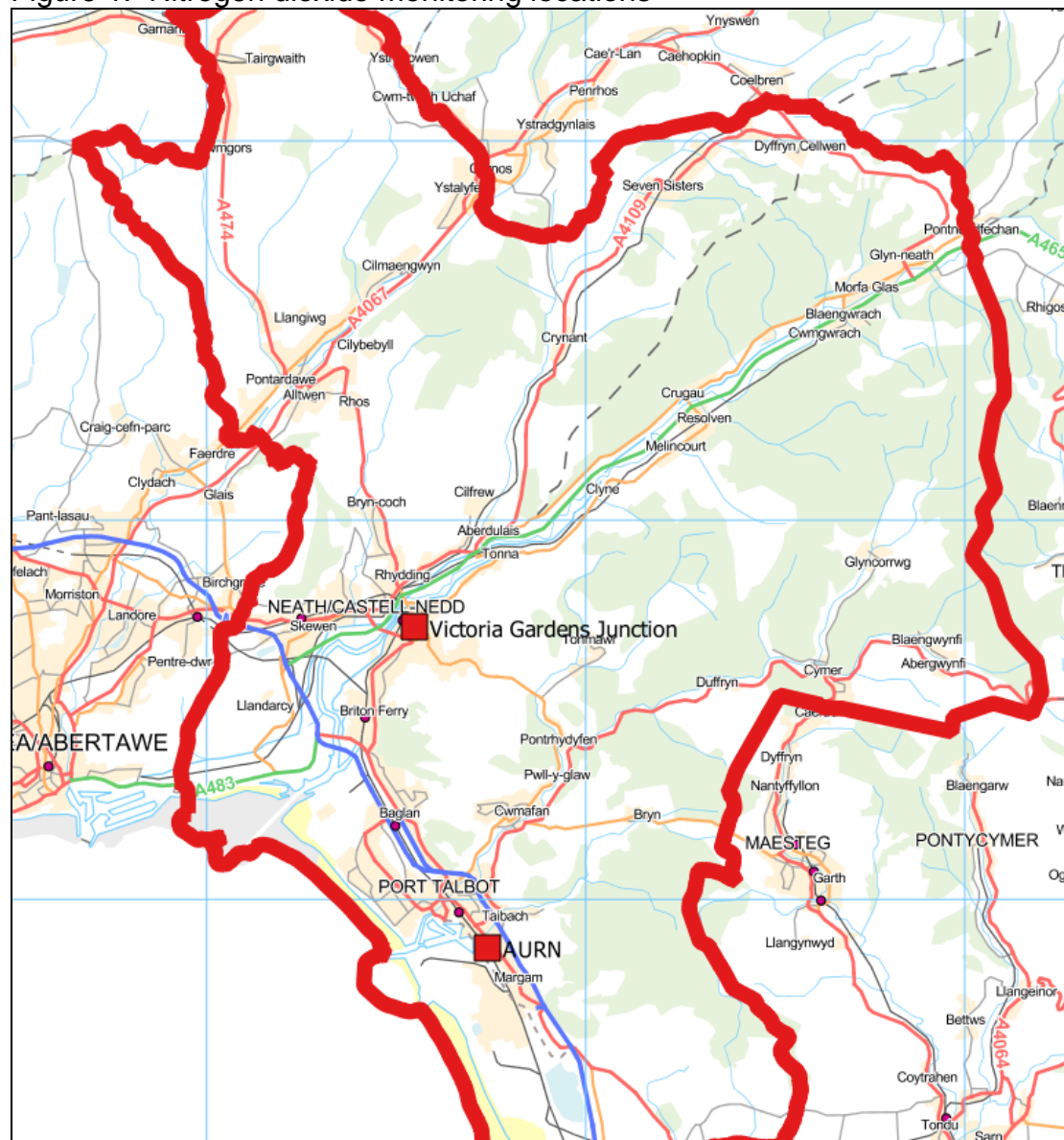
A Detailed Assessment of NO₂ was reported in 2016. This recommended the deployment of diffusion tubes in triplicate at 1, Victoria Gardens, using circular clips. In this way monitoring could be conducted at the location of greatest relevant exposure whilst minimising health and safety risks.

Monitoring sites

Automatic monitoring sites

Nitrogen dioxide is continuously measured at Pontardawe Post Office, at Victoria Gardens in Neath and at Margam Fire Station (AURN).

Figure 1. Nitrogen dioxide monitoring locations



However, this detailed assessment deals only with data from Neath as NO₂ levels at Port Talbot have not necessitated a detailed assessment.

Detailed assessment of nitrogen dioxide

Table 1. NO₂ monitoring station details

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Inlet Height (m)	Pollutants Monitored	In AQMA?	Monitoring Technique	Relevant Exposure? (Y/N with distance (m) from monitoring site to relevant exposure)	Distance to Kerb of Nearest Road (m) (N/A if not applicable)	Does this Location Represent Worst-Case Exposure?
VG2	Victoria Gardens	Roadside	275471	197183	1.4	NO ₂	N	Chemiluminescence	Y (21)	1	N

Detailed assessment of nitrogen dioxide

Figure 2 - NOx analyser on Cimla Road



NOx
analyser

Figure 3 – View across junction to Victoria Gardens



3 Victoria
Gardens

1 Victoria
Gardens

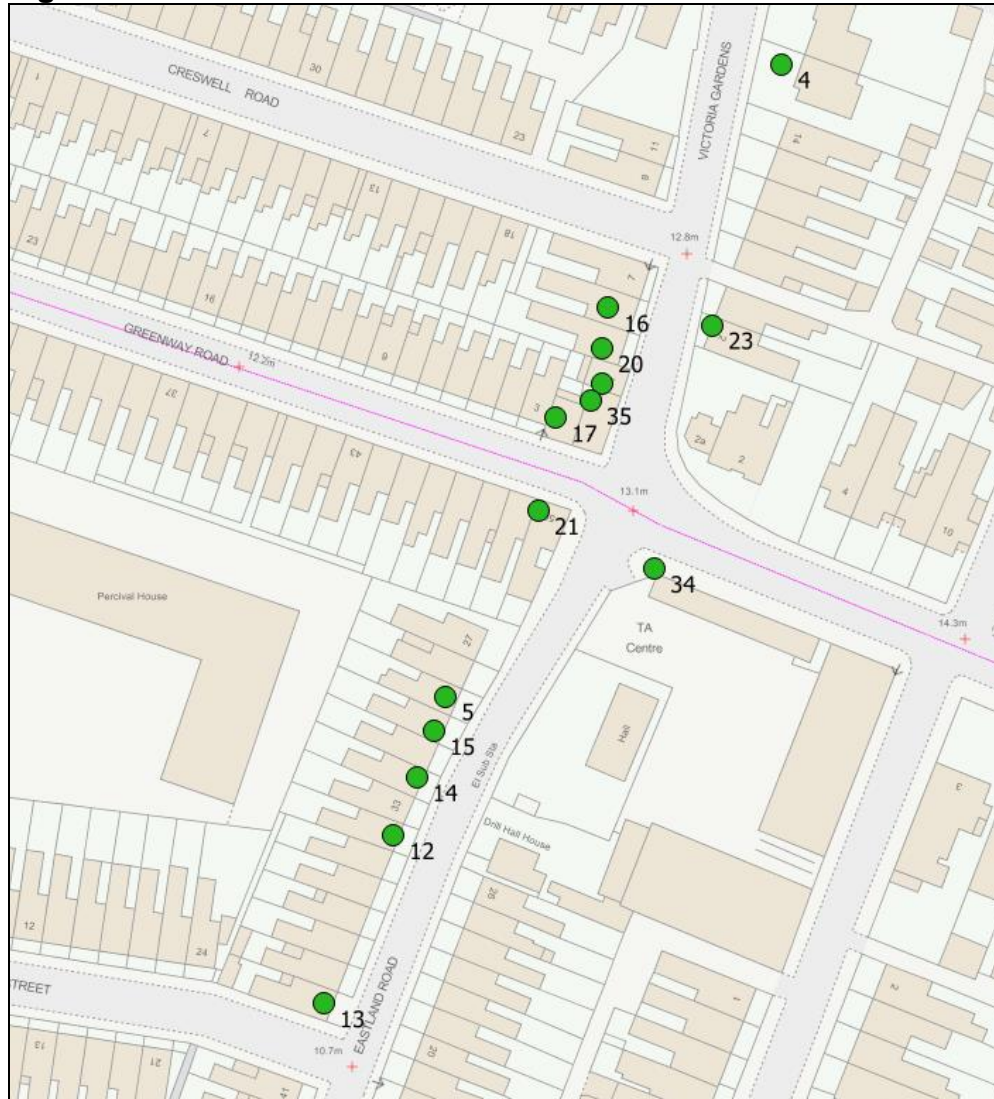
Detailed assessment of nitrogen dioxide

Diffusion tube monitoring sites

Nitrogen dioxide is measured at a variety of locations using passive diffusion tubes. The tubes are exposed for one month and are provided and analysed by ESG at Didcot. The tubes are prepared using acetone:triethanolamine (50:50) and are subject to intercomparison quality assurance tests as part of the Workplace Analysis Scheme for Proficiency (WASP).

This report deals only the sites in the vicinity of Victoria Gardens, Neath.

Figure 4 Location of NO₂ diffusion tubes in Neath



Detailed assessment of nitrogen dioxide

Table 2. Details of Non- Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Site Height (m)	Pollutants Monitored	In AQMA?	Is Monitoring Co-located with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) from monitoring site to relevant exposure)	Distance to Kerb of Nearest Road (m) (N/A if not applicable)	Does this Location Represent Worst-Case Exposure?
1	1 Victoria Gardens, Neath	Roadside	275463	197217	2.0	NO ₂	N	N	Y(0m)	1m	Y
4	8 Victoria Gardens, Neath	Roadside	275494	197272	1.5	NO ₂	N	N	Y (2m)	4.5 m	N
5	28 Eastland Road, Neath	Roadside	275420	197161	1.5	NO ₂	N	N	Y (0m)	4 m	N
12	34 Eastland Road, Neath	Roadside	275427	197139	1.5	NO ₂	N	N	Y (0m)	4 m	N

Detailed assessment of nitrogen dioxide

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Site Height (m)	Pollutants Monitored	In AQMA?	Is Monitoring Co-located with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) from monitoring site to relevant exposure)	Distance to Kerb of Nearest Road (m) (N/A if not applicable)	Does this Location Represent Worst-Case Exposure?
13	40 Eastland Road, Neath	Roadside	275415	197110	1.5	NO ₂	N	N	Y (0m)	4 m	N
14	32 Eastland Road, Neath	Roadside	275431	197149	1.5	NO ₂	N	N	Y (0m)	4 m	N
15	30 Eastland Road, Neath	Roadside	275434	197157	1.5	NO ₂	N	N	Y (0m)	4 m	N
16	5 Victoria Gardens, Neath	Roadside	275464	197230	1.5	NO ₂	N	N	Y (0m)	3.5 m	Y

Detailed assessment of nitrogen dioxide

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Site Height (m)	Pollutants Monitored	In AQMA?	Is Monitoring Co-located with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) from monitoring site to relevant exposure)	Distance to Kerb of Nearest Road (m) (N/A if not applicable)	Does this Location Represent Worst-Case Exposure?
17	1 Greenway Road, Neath	Roadside	275455	197211	2.0	NO ₂	N	N	Y (0m)	1 m	Y
20	3 Victoria Gardens, Neath	Roadside	275463	197223	1.5	NO ₂	N	N	Y (0m)	3.5 m	Y
21	50 Greenway Road, Neath	Roadside	275452	197195	2.0	NO ₂	N	N	Y (0m)	1 m	Y

Detailed assessment of nitrogen dioxide

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Site Height (m)	Pollutants Monitored	In AQMA?	Is Monitoring Co-located with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) from monitoring site to relevant exposure)	Distance to Kerb of Nearest Road (m) (N/A if not applicable)	Does this Location Represent Worst-Case Exposure?
23	4 Victoria Gardens, Neath	Roadside	275482	197227	1.5	NO ₂	N	N	Y (0m)	3.5 m	Y
34	Lights at Cimla Junction	Roadside	275472	197185	1.4	NO ₂	N	Y	Y (20m)	1.5 m	N

Comparison of Monitoring Results with Air Quality Objectives

Table 3 Results of Automatic Monitoring for NO₂: Comparison with Annual Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period % ^a	Valid Data Capture 2015 % ^b	Annual Mean Concentration (µg/m ³)				
					2012* ^c	2013* ^c	2014* ^c	2015 ^c	2016 ^c
VG2	Roadside	N	99	99	51	42	42	40	37

In bold, exceedance of the NO₂ annual mean AQS objective of 40µg/m³

^a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

^b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

^c Means should be “annualised” as in Boxes 7.9 and 7.10 of LAQM.TG16, if valid data capture is less than 75%

* Annual mean concentrations for previous years are optional

Figure 5 – Trends in Annual Mean NO₂ Concentrations Measured at Victoria Gardens Monitoring Site

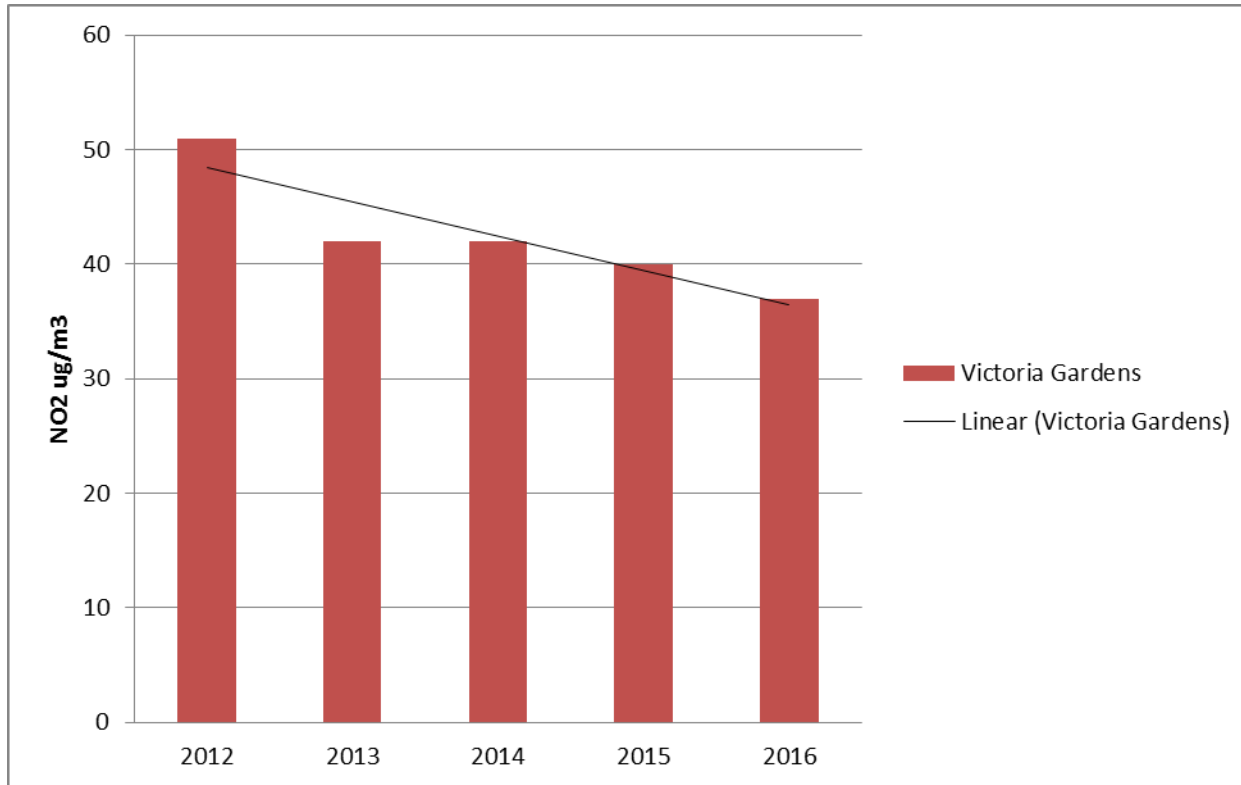


Table 4 Results of Automatic Monitoring for NO₂: Comparison with 1-hour Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period % ^a	Valid Data Capture 2015 % ^b	Number of Hourly Means > 200µg/m ³				
					2012* ^c	2013* ^c	2014* ^c	2015 ^c	2016 ^c
VG2	Roadside	N	99	99	0 (142)	0	0	0	0

In bold, exceedence of the NO₂ hourly mean AQS objective (200µg/m³ – not to be exceeded more than 18 times per year)

^a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

^b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

^c If the data capture for full calendar year is less than 90%, include the 99.8th percentile of hourly means in brackets

* Number of exceedences for previous years is optional

Table 5 Results of NO₂ Diffusion Tubes 2016

Site ID	Location	Site Type	Within AQMA?	Triplicate or Co-located Tube	Full Calendar Year Data Capture 2016 (Number of Months or %) ^a	2016 Annual Mean Concentration ($\mu\text{g}/\text{m}^3$) - Bias Adjustment factor = 0.71 ^b
1	1 Victoria Gardens	Roadside	N	Triplicate	10	35.5
4	8 Victoria Gardens, Neath	Roadside	N	N	11	26.9
5	28 Eastland Road, Neath	Roadside	N	N	11	28.3
12	34 Eastland Road, Neath	Roadside	N	N	11	26.1
13	40 Eastland Road, Neath	Roadside	N	N	11	27.9
14	32 Eastland Road, Neath	Roadside	N	N	9	29.6

Detailed assessment of nitrogen dioxide

Site ID	Location	Site Type	Within AQMA?	Triplicate or Co-located Tube	Full Calendar Year Data Capture 2016 (Number of Months or %) ^a	2016 Annual Mean Concentration ($\mu\text{g}/\text{m}^3$) - Bias Adjustment factor = 0.71 ^b
15	30 Eastland Road, Neath	Roadside	N	N	10	29.4
16	5 Victoria Gardens, Neath	Roadside	N	N	11	28.2
17	1 Greenway Road, Neath	Roadside	N	N	10	36.8
20	3 Victoria Gardens, Neath	Roadside	N	Triplicate	11	31.8
21	50 Greenway Road, Neath	Roadside	N	N	10	33

Detailed assessment of nitrogen dioxide

Site ID	Location	Site Type	Within AQMA?	Triplicate or Co-located Tube	Full Calendar Year Data Capture 2016 (Number of Months or %) ^a	2016 Annual Mean Concentration ($\mu\text{g}/\text{m}^3$) - Bias Adjustment factor = 0.71 ^b
23	4 Victoria Gardens, Neath	Roadside	N	N	11	29.6
34	Lights at Cimla Junction	Roadside	N	Triplicate and Co-located	11	40.3

In bold, exceedence of the NO₂ annual mean AQS objective of 40 $\mu\text{g}/\text{m}^3$

Underlined, annual mean > 60 $\mu\text{g}/\text{m}^3$, indicating a potential exceedence of the NO₂ hourly mean AQS objective

^a Means should be “annualised” as in Boxes 7.9 and 7.10 of LAQM.TG16, if full calendar year data capture is less than 75%

^b If an exceedence is measured at a monitoring site not representative of public exposure, NO₂ concentration at the nearest relevant exposure should be estimated based on the “[NO₂ fall-off with distance](http://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html)” calculator (<http://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html>), and results should be discussed in a specific section. The procedure is also explained in paragraphs 7.77 to 7.79 of LAQM.TG16.

Table 6 Results of NO₂ Diffusion Tubes (2012 to 2016)

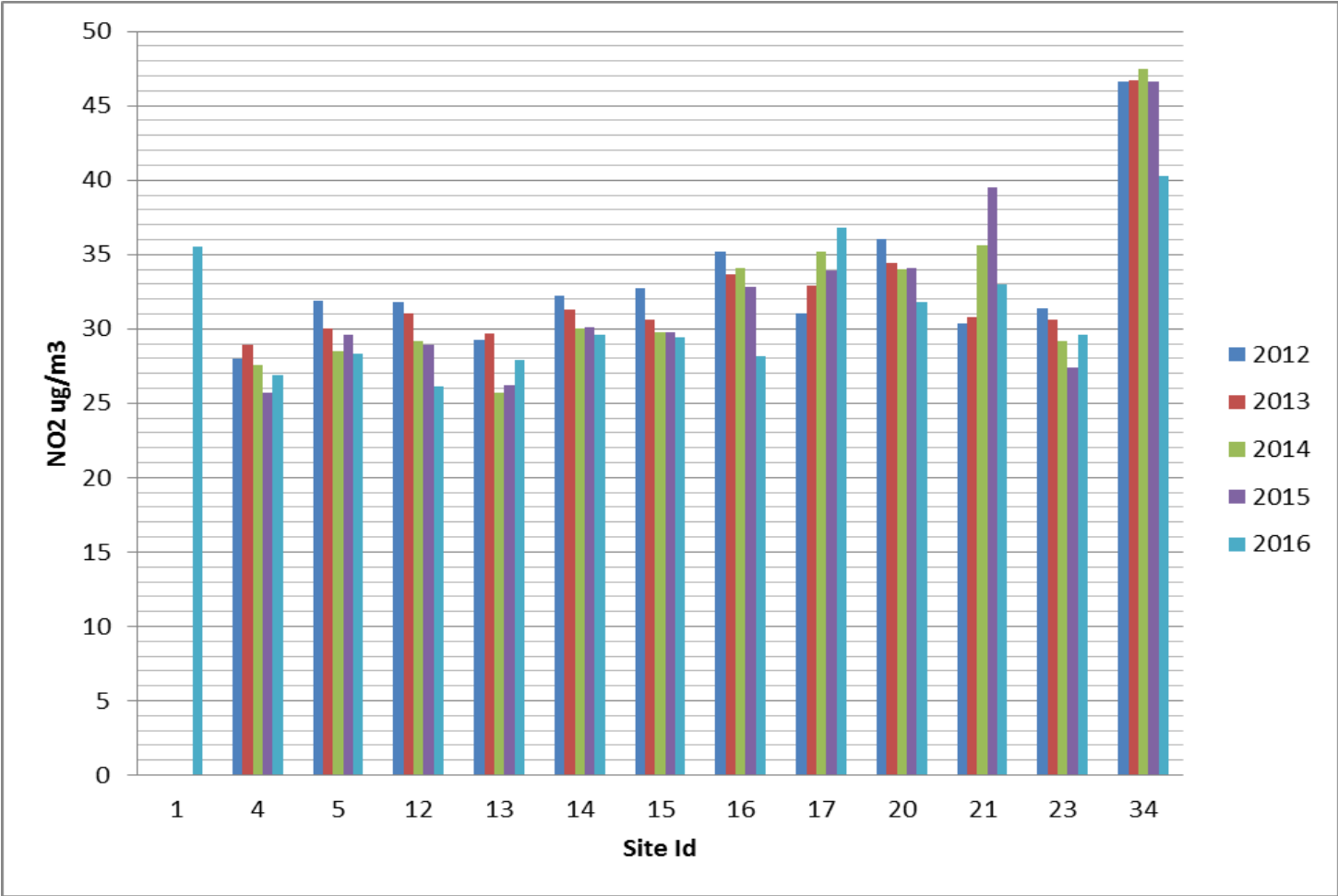
Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m ³) - Adjusted for Bias ^a				
			2012 (Bias Adjustment Factor = 0.79)	2013 (Bias Adjustment Factor = 0.75)	2014 (Bias Adjustment Factor = 0.78)	2015 (Bias Adjustment Factor = 0.80)	2016 (Bias Adjustment Factor = 0.71)
1	Roadside	N	-	-	-	-	35.5
4	Roadside	N	28.0	28.9	27.6	25.7	26.9
5	Roadside	N	31.9	30.0	28.5	29.6	28.3
12	Roadside	N	31.8	31.0	29.2	28.9	26.1
13	Roadside	N	29.3	29.7	25.7	26.2	27.9
14	Roadside	N	32.2	31.3	30.0	30.1	29.6
15	Roadside	N	32.7	30.6	29.8	29.8	29.4
16	Roadside	N	35.2	33.7	34.1	32.8	28.2
17	Roadside	N	31.0	32.9	35.2	33.9	36.8
20	Roadside	N	36.0	34.4	34.0	34.1	31.8
21	Roadside	N	30.4	30.8	35.6	39.5	33
23	Roadside	N	31.4	30.6	29.2	27.4	29.6
34	Roadside	N	46.6	46.7	47.5	46.6	40.3

In bold, exceedence of the NO₂ annual mean AQS objective of 40µg/m³

Underlined, annual mean > 60µg/m³, indicating a potential exceedence of the NO₂ hourly mean AQS objective

^a Means should be “annualised” as in Boxes 7.9 and 7.10 of LAQM.TG16, if full calendar year data capture is less than 75%

Figure 6 – Trends in Annual Mean Nitrogen Dioxide Concentrations Measured at Diffusion Tube Monitoring Sites



Detailed assessment of nitrogen dioxide

The continuous monitor located at the junction of Victoria Gardens and Cimla Road has consistently failed to comply with the long-term Air Quality Objective for NO₂. However this site does not have relevant exposure and has helped to clarify the situation at No. 1 Victoria Gardens, where the deployment of diffusion tubes was previously considered problematic.

The use of the NO₂ with distance calculator spreadsheet was previously used to estimate the NO₂ impact at this location and was typically close to the Air Quality Objective. Indeed, a figure of 40.7 ug/m³ was calculated for this site for monitoring which took place during 2015.

Diffusion tubes were deployed at 1, Victoria Gardens during 2016 using circular clips which did not necessitate the use of a ladder to exchange them. The data showed that NO₂ results complied (35.5 ug/m³) with the long-term Air Quality Objective during 2016. Results at 1, Greenway Road (also at the junction) were very similar (36.8 ug/m³).

The trends in NO₂ concentrations as measured by the continuous analyser at the junction are encouraging as they show a decreasing trend, which was also reflected at Pontardawe Post Office site in the 2017 Progress Report. However, NO₂ levels remain quite high at Victoria Gardens, so monitoring will need to continue at this location for some time.

Conclusion

NO₂ levels appear to be on a decreasing trend as measured by the continuous analyser at Victoria Gardens.

No diffusion tube sites with relevant exposure breached the long-term air quality objective.

Appendix A: QA/QC Data

Diffusion Tube Bias Adjustment Factors

NO₂ diffusion tubes are sourced from the Environmental Scientifics Group and are prepared using 50% TEA in acetone. The bias adjustment factor of 0.71 was used for 2016, as derived from a co-location study at two locations.

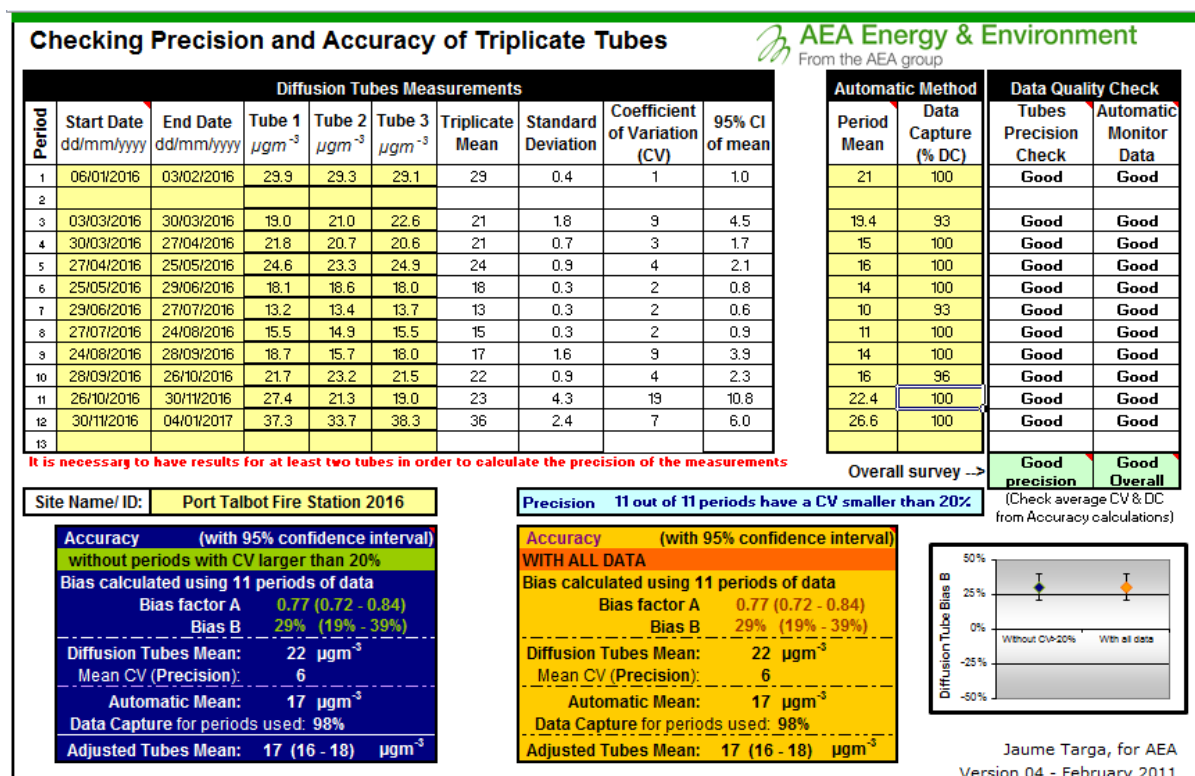
Factor from Local Co-location Studies (if available)

Continuous analysers were co-located with triplicate diffusion tubes at Port Talbot Fire Station and Victoria Gardens.

Defra has provided a spreadsheet to facilitate the calculation of local bias adjustment factors. The spreadsheet used can be found at this location:

<http://laqm.defra.gov.uk/bias-adjustment-factors/local-bias.html>

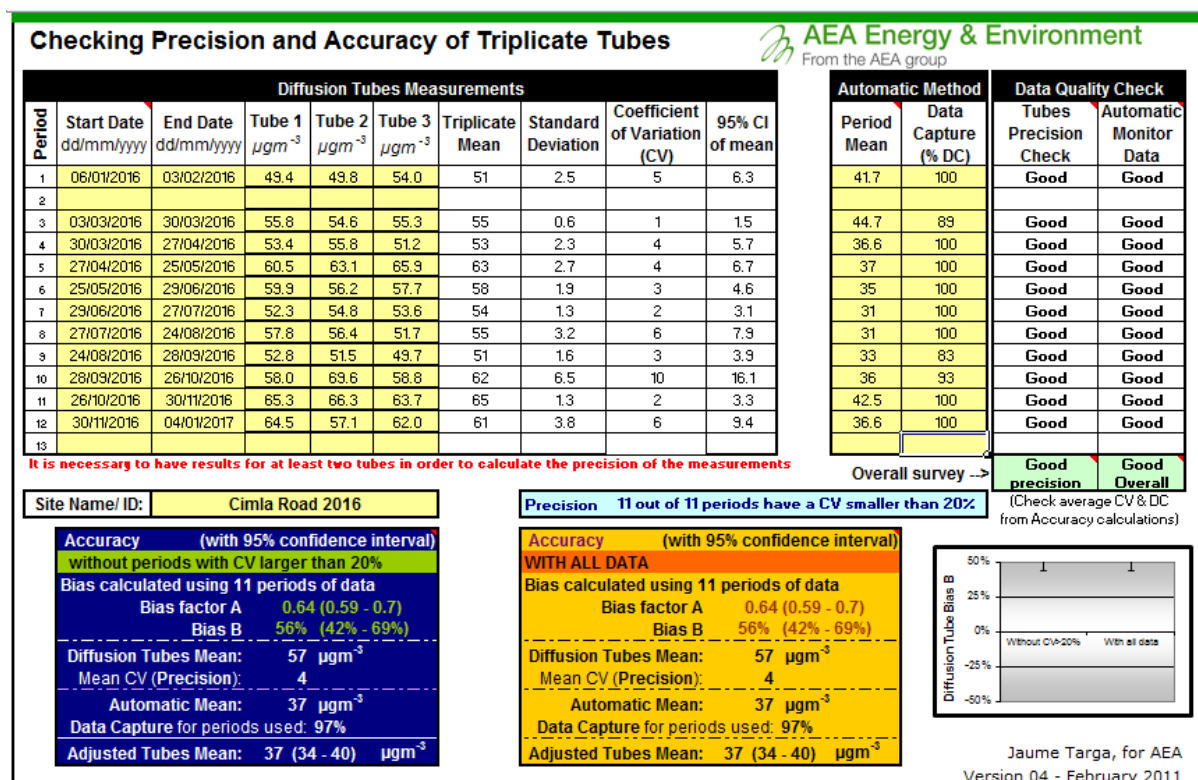
Figure A1 – Port Talbot Fire Station - Bias adjustment spreadsheet -



If you have any enquiries about this spreadsheet please contact the LAQM Helpdesk at: LAQMHelpdesk@uk.bureauveritas.com

Detailed assessment of nitrogen dioxide

Figure A2 – Cimla Road - Bias adjustment spreadsheet -



If you have any enquiries about this spreadsheet please contact the LAQM Helpdesk at: LAQMHelpdesk@uk.bureauveritas.com

The locally derived bias adjustment factor of 0.71 is derived from the average of the two sites e.g. $(0.64 + 0.77) / 2$.

QA/QC of automatic monitoring

The AURN site is subject to the quality control procedures of the network. Neath Port Talbot County Borough Council staff act as Local Site Operator, carrying out calibrations on an approximately fortnightly basis. There are regular site audits and validation and ratification are carried out by AURN staff prior to dissemination of the data via <http://uk-air.defra.gov.uk/>.

Monitoring stations are covered by a QA/QC contract with Ricardo-AEA which provides for two site audits per year and QA/QC of the data which is polled by AEAT and disseminated on the Welsh Air Quality Forum website. Data is subject to a similar QA/QC standard as the AURN.

QA/QC of diffusion tube monitoring

Harwell Scientifics have been shown to have good performance in respect of recent Wasp scheme analyses. Details of the most recent Wasp results can be viewed at the following Internet location:

<https://laqm.defra.gov.uk/diffusion-tubes/qa-qc-framework.html>

Appendix B: Raw NO₂ Data

Site Id	Month-Year	NO ₂ Conc ug
1	Mar-16	42.6
1	Apr-16	47.0
1	May-16	56.8
1	Jun-16	49.7
1	Jul-16	45.5
1	Aug-16	41.7
1	Sep-16	48.6
1	Oct-16	44.5
1	Nov-16	61.2
1	Dec-16	65.1
4	Jan-16	36.3
4	Mar-16	40.7
4	Apr-16	36.1
4	May-16	39.2
4	Jun-16	34.0
4	Jul-16	28.6
4	Aug-16	31.3
4	Sep-16	36.1
4	Oct-16	40.5
4	Nov-16	43.8
4	Dec-16	52.2
5	Jan-16	42.2
5	Mar-16	49.9
5	Apr-16	42.0
5	May-16	35.9
5	Jun-16	38.8
5	Jul-16	33.4
5	Aug-16	29.6
5	Sep-16	33.4
5	Oct-16	39.7
5	Nov-16	52.0
5	Dec-16	43.8
12	Jan-16	41.3
12	Mar-16	43.8
12	Apr-16	37.8
12	May-16	34.9
12	Jun-16	29.6
12	Jul-16	27.6
12	Aug-16	28.6
12	Sep-16	31.9
12	Oct-16	32.6

Detailed assessment of nitrogen dioxide

Site Id	Month-Year	NO ₂ Conc ug
12	Nov-16	50.3
12	Dec-16	48.4
13	Jan-16	39.9
13	Mar-16	39.0
13	Apr-16	39.9
13	May-16	40.7
13	Jun-16	36.7
13	Jul-16	32.3
13	Aug-16	30.9
13	Sep-16	31.7
13	Oct-16	33.6
13	Nov-16	55.1
13	Dec-16	54.9
14	Jan-16	43.6
14	Mar-16	45.7
14	Apr-16	44.4
14	Jul-16	32.1
14	Aug-16	32.8
14	Sep-16	33.6
14	Oct-16	39.0
14	Nov-16	53.6
14	Dec-16	52.8
15	Jan-16	50.7
15	Mar-16	47.6
15	Apr-16	41.7
15	May-16	39.2
15	Jul-16	32.3
15	Aug-16	31.1
15	Sep-16	36.5
15	Oct-16	37.8
15	Nov-16	47.6
15	Dec-16	51.8
16	Jan-16	48.0
16	Mar-16	50.3
16	Apr-16	39.4
16	May-16	47.0
16	Jun-16	32.4
16	Jul-16	27.3
16	Aug-16	29.2
16	Sep-16	33.6
16	Oct-16	38.8
16	Nov-16	47.4
16	Dec-16	45.5

Detailed assessment of nitrogen dioxide

Site Id	Month-Year	NO ₂ Conc ug
17	Jan-16	50.9
17	Apr-16	53.4
17	May-16	55.7
17	Jun-16	50.7
17	Jul-16	48.2
17	Aug-16	49.0
17	Sep-16	48.0
17	Oct-16	50.3
17	Nov-16	50.7
17	Dec-16	64.9
20	Jan-16	49.3
20	Mar-16	48.0
20	Apr-16	39.9
20	May-16	45.3
20	Jun-16	44.5
20	Jul-16	42.0
20	Aug-16	39.2
20	Sep-16	42.2
20	Oct-16	36.3
20	Nov-16	51.8
20	Dec-16	56.1
21	Mar-16	59.5
21	Apr-16	45.3
21	May-16	47.0
21	Jun-16	36.1
21	Jul-16	32.4
21	Aug-16	35.1
21	Sep-16	40.3
21	Oct-16	45.7
21	Nov-16	59.1
21	Dec-16	65.9
22	Jan-16	34.9
22	Mar-16	35.5
22	Apr-16	29.2
22	May-16	30.9
22	Jun-16	29.2
22	Jul-16	24.2
22	Aug-16	22.3
22	Sep-16	27.6
22	Oct-16	29.8
22	Nov-16	42.8
22	Dec-16	46.3
23	Jan-16	39.7

Detailed assessment of nitrogen dioxide

Site Id	Month-Year	NO ₂ Conc ug
23	Mar-16	37.2
23	Apr-16	43.4
23	May-16	46.5
23	Jun-16	36.3
23	Jul-16	41.3
23	Aug-16	40.3
23	Sep-16	41.3
23	Oct-16	38.8
23	Nov-16	50.1
23	Dec-16	45.9
34	Jan-16	50.9
34	Mar-16	55.1
34	Apr-16	53.4
34	May-16	61.1
34	Jun-16	61.8
34	Jul-16	57.8
34	Aug-16	53.6
34	Sep-16	55.3
34	Oct-16	51.3
34	Nov-16	62.0
34	Dec-16	64.9