

BRIDGEND COUNTY BOROUGH COUNCIL

REPORT TO CABINET

15 NOVEMBER 2022

REPORT OF THE CHIEF OFFICER LEGAL, HR AND REGULATORY SERVICES

LOCAL AIR QUALITY MANAGEMENT – ANNUAL PROGRESS REPORT 2022

1. Purpose of report

- 1.1 The purpose of this report is to seek approval for the 2022 Bridgend County Borough Council (BCBC) Local Air Quality Management (LAQM) Annual Progress Report (APR) based upon the air quality datasets obtained in 2021. This report requires Cabinet approval in order to submit a final version to Welsh Government (WG).
- 1.2 The report also provides an update on progress towards the DRAFT Air Quality Action Plan for the Park Street Air Quality Management Area.

2. Connection to corporate well-being objectives / other corporate priorities

- 2.1 This report assists in the achievement of the following corporate well-being objectives under the **Well-being of Future Generations (Wales) Act 2015**:-
 1. **Supporting a successful sustainable economy** – taking steps to make the county borough a great place to do business, for people to live, work, study and visit, and to ensure that our schools are focussed on raising the skills, qualifications and ambitions for all people in the county borough.
 2. **Helping people and communities to be more healthy and resilient** - taking steps to reduce or prevent people from becoming vulnerable or dependent on the Council and its services. Supporting individuals and communities to build resilience, and enable them to develop solutions to have active, healthy and independent lives.

3. Background

- 3.1 Under Section 82 of the Environment Act 1995 every local authority has an obligation to regularly review and assess air quality in their areas, and to determine whether or not air quality objectives to protect health are likely to be achieved. Where the air quality reviews indicate that the air quality objectives are not being achieved, or are not likely to be achieved, Section 83 of the 1995 Act requires local authorities to designate an Air Quality Management Area ('AQMA'). Section 84 of the Act ensures that action must then be taken at a local level which is outlined in a specific Air Quality Action Plan (AQAP) to ensure that air quality in the identified area improves.

- 3.2 The Annual Progress Report, attached as Appendix 1, provides details on the ratified data for the air quality monitoring undertaken in 2021 within Bridgend County Borough.
- 3.3 Welsh Government issues statutory policy guidance to Local Authorities under section 88 of the Environment Act 1995 to bring the local air quality management system in Wales into line with the sustainable development principle outlined in the Well-being of Future Generations (Wales) Act, 2015. This guidance, which local authorities must have regard to when carrying out their air quality functions under the Environment Act 1995, sets out that authorities in Wales have to produce a draft Annual Progress Report each year and submit a final version to Welsh Government by the 31st of December at the latest. This report must include monitoring results for the previous calendar year, a progress report on action plan implementation and an update on any new policies or developments likely to affect local air quality.
- 3.4 This Annual Progress Report satisfies the above criteria examining ratified datasets for air quality monitoring undertaken in 2021 within Bridgend County Borough.

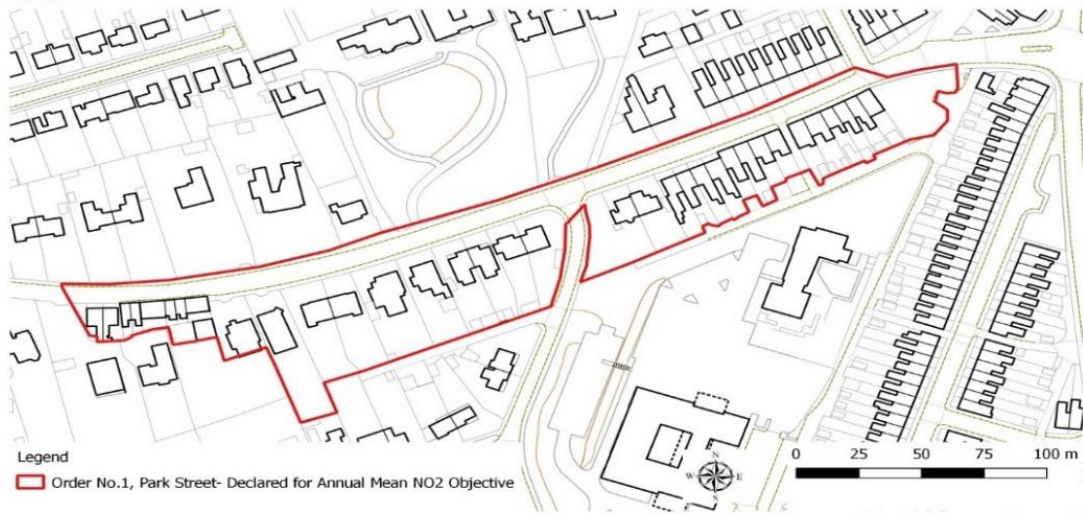
4. Current situation/proposal

- 4.1 The 2022 Annual Progress Report confirms that in 2021, two sites located on Park Street exceed the air quality objective for nitrogen dioxide as prescribed in the Air Quality (Wales) Regulations 2000 and the Air Quality (Amendment) (Wales) Regulations 2002. All other locations within Bridgend County Borough continue to meet the relevant air quality objectives.
- 4.2 The Park Street, Bridgend Air Quality Management Area Order was raised on the 1st January 2019. The area comprising the Bridgend County Borough Council Air Quality Management Area Order Number 1, Park Street is outlined in Figure 1, below.

Figure 1 - Extent of the Park Street Air Quality Management Area



Bridgend County Borough Council Air Quality Management Area (AQMA): Order No.1, Park Street



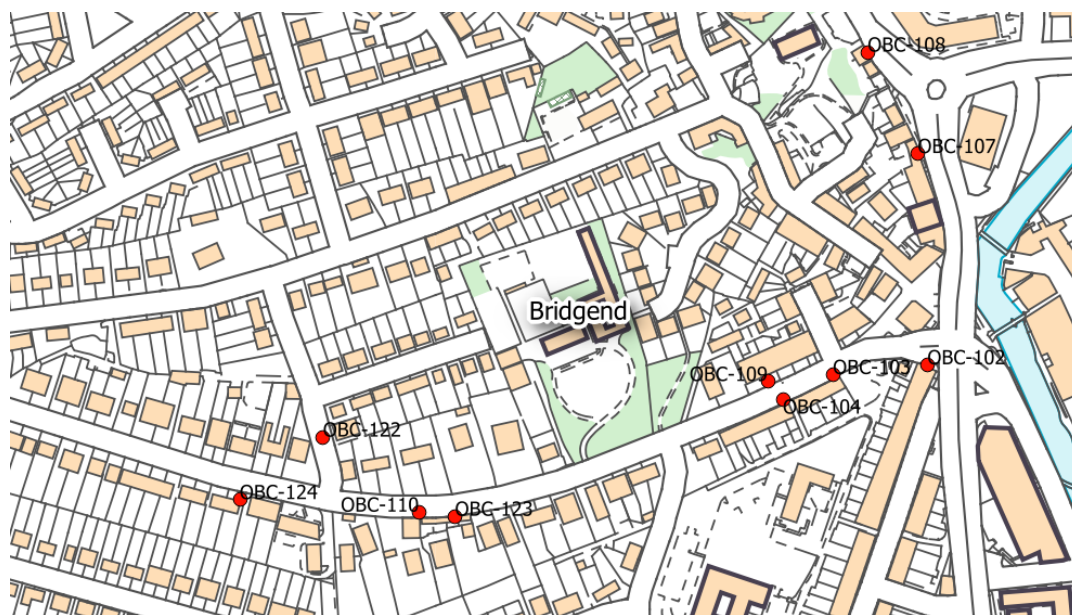
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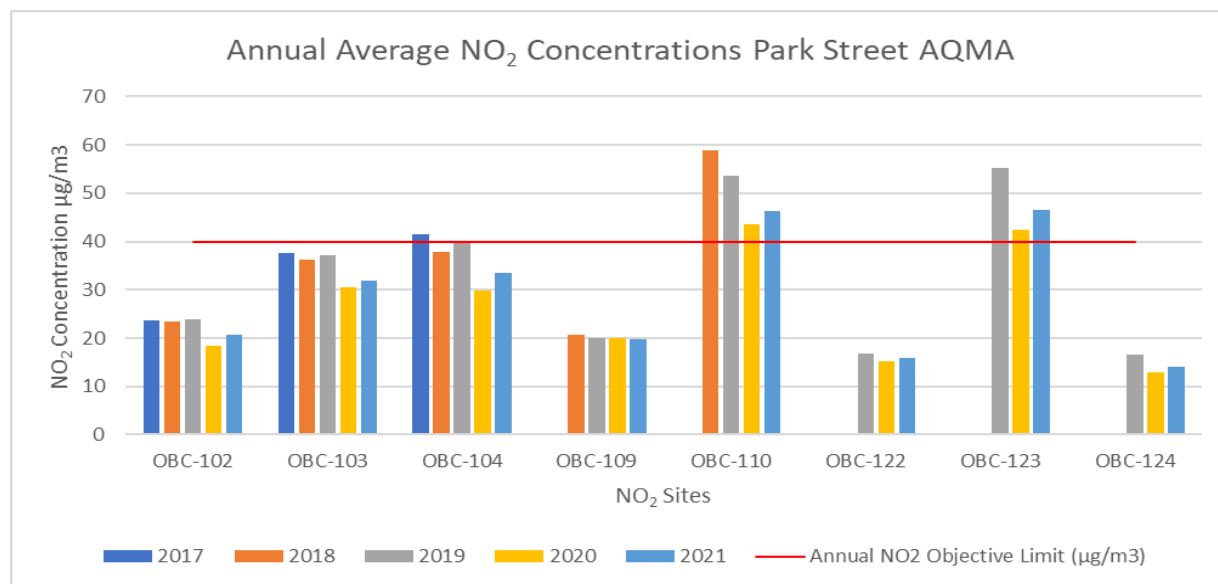
4.3 Figure 2 below depicts the non-automated monitoring sites located in and around the Park Street Air Quality Management Area.

Figure 2 - 2021 NO₂ Diffusion Tube Monitoring Locations, Park Street/ Tondur Road



4.4 It is noted that monitoring undertaken in 2021 at monitoring sites **OBC-110 & OBC-123**, located on Park Street residential facades, still demonstrates annual average levels in exceedance of the annual average air quality objective set at (40 µg/m³) for NO₂, despite the generally lower NO₂ levels experienced in the monitoring period. Thus the annual mean NO₂ concentration for **OBC-110** is calculated at **46.3 µg/m³** while the annual mean NO₂ concentration for **OBC-123** is calculated at **46.5 µg/m³** respectively, as shown in Figure 3 below.

Figure 3 - Trends in annual mean NO₂ concentrations in the Park Street AQMA



- 4.5 An automated air quality monitoring system (AMS) is now located in the grounds of the Quaker Meeting House on Park Street. Following its installation and commissioning in December 2020, the monitoring site measures and records on a 24/7 basis the levels of NO₂ and PM₁₀, and forms part of the Welsh Air Quality Network. This development is over and above the non-automated monitoring network, and the results recorded by the newly installed AMS can be viewed online at <http://www.welshairquality.co.uk>.
- 4.6 Longer term, the AMS will allow for air quality trends to be examined on a high temporal resolution basis and therefore be able to assist with underpinning those short term periods whereby raised levels of NO₂ are particularly prevalent in the area.

Park Street, AQMA Action Plan Update

- 4.7 As part of the Local Air Quality Management statutory duties, from the date of raising the AQMA Order (in this instance 1st January 2019) Shared Regulatory Services (SRS) and BCBC had 18 months in which to prepare a DRAFT Air Quality Action Plan (AQAP) to improve air quality in the area, and once agreed, this plan was to be formally adopted before two years had elapsed.
- 4.8 While SRS and BCBC have made good headway in developing this AQAP in accordance with Welsh Government's Policy Guidance, inevitably the impacts and associated difficulties of the COVID-19 pandemic have meant that the timeline has had to be extended in consultation with Welsh Government.
- 4.9 In order to develop ideas and ensure an effective AQAP which considers all aspects, and prioritising public health, an AQAP Work Steering Group was established, comprising specialists from the various departments of Bridgend County Borough Council, as well as from partner agencies. Collating the ideas and suggestions generated by the AQAP Work Steering Group, a list of proposed mitigation measures has previously been created.
- 4.10 Following the indicative Cost Benefit Analysis on these proposals, detailed air quality and transportation modelling was commissioned on those mitigation options that would manage and improve traffic flows through the Park Street AQMA, and in so doing, likely deliver air quality improvements in the **shortest time possible**, and in line with the ambitions of Welsh Government and BCBC; reduce levels to **as low as reasonably practicable**.

4.11 These options have now been modelled under the following *Do Minimum* and *Do Something* scenarios:

- **Do Minimum - DM**
 - Introduction of a right turn holding lane at the Junction of Park Street with Heol y Nant (measure 21);

- **Do Something - DS (inclusive of the above)**
 - Deny all access onto St Leonards Road (Measure 18);
 - Optimise the Park Street/Angel Street/Tondu Road Junction (Measure 20).

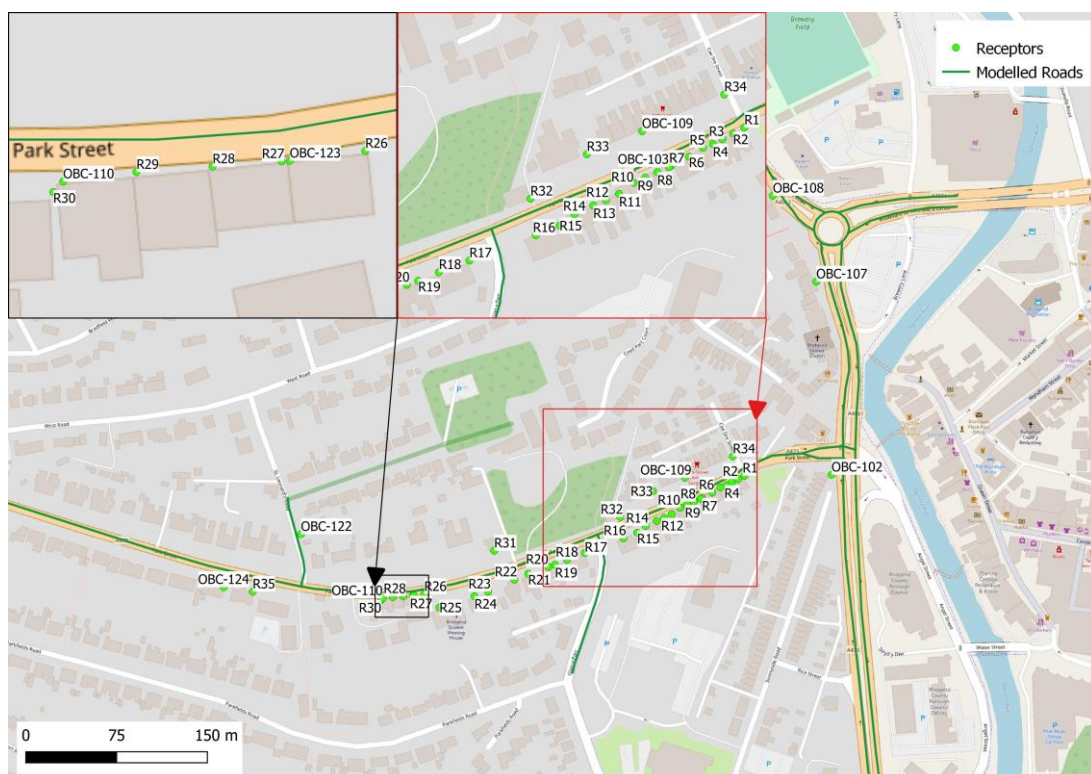
4.12 Under the requirement of Condition 27 of Planning consent P/18/1006/FUL, of the former Ysgol Bryn Castell site (Llangewydd Road, Cefn Glas) there was a requirement to introduce a right turn holding lane at the Junction of Park Street with Heol y Nant. This has been modelled as the **Do Minimum (DM)** scenario in the modelling exercises, as this change has now been implemented. Modelling of the right turning lane demonstrated congestion reduction on Park Street from vehicles turning right onto Heol-y-Nant.

4.13 In order to fully assess the impacts on air quality, the dispersion model has identified 35 receptor points (R1 – R35) along Park Street and surrounding streets in addition to modelling concentrations at the existing monitoring locations on Park Street (designated by the OBC- prefix). These locations allow an assessment of relevant exposure across a wider area to assess the impact of the interventions. The results of analysis are summarised in

4.14

4.15 Table 1 and the locations of the modelling points are shown in Figure 4 below.

Figure 4 - Air Quality Modelling Locations



4.16 As detailed in

4.17

4.18 **Table 1** below, the implementation of the right turn holding lane at the Junction of Park Street with Heol y Nant provides an improvement in NO₂ concentrations along Park Street, when compared to the Base year of 2019. However a number of the modelled receptor locations demonstrate continued exceedances of the air quality objective for NO₂.

4.19 The results indicate that under the **Do Something (DS)** scenario, NO₂ concentrations at the majority of modelled receptor locations would achieve compliance with the annual average air quality objective for NO₂ of 40 µg/m³ by the end of 2023, if implemented in 2022. This includes all currently monitored locations within the AQMA. Only two of the modelled locations indicate marginal exceedance of the air quality object namely locations R27 and R28 where the NO₂ results are currently forecasted to be 41.5 µg/m³ and 41.7 µg/m³ respectively.

Table 1 - Air Quality Results NO₂ µg/m³ Park Street AQMA

Modelling Location Reference	Base 2019	DM 2023	DS 2023
R1	41.6	32.7	31.4
R2	42.0	33.1	31.7
R3	41.1	32.3	31.0
R4	39.9	31.3	30.0
R5	41.5	32.6	31.1
R6	39.0	30.6	29.2
R7	37.0	29.1	27.7
R8	36.2	28.4	27.0
R9	36.2	28.4	27.0
R10	36.2	28.4	27.0
R11	36.3	28.3	27.0
R12	35.2	27.4	26.3
R13	22.1	17.5	16.9
R14	21.6	17.2	16.6
R15	20.3	16.2	15.7
R16	21.4	17.0	16.5
R17	27.5	21.8	20.9
R18	27.5	21.8	20.7
R19	27.1	21.5	20.3
R20	26.9	21.4	20.1
R21	25.4	20.1	18.6
R22	24.1	19.1	17.6
R23	21.8	17.3	16.0
R24	21.5	17.0	15.8

Modelling Location Reference	Base 2019	DM 2023	DS 2023
R25	20.0	15.9	14.8
R26	56.8	44.6	39.2
R27	60.2	47.2	41.5
R28	60.5	47.5	41.7
R29	57.4	44.8	39.1
R30	49.0	38.2	33.4
R31	17.6	14.1	13.3
R32	37.8	29.5	28.1
R33	19.6	15.6	15.1
R34	27.1	21.5	20.7
R35	22.0	14.9	14.8
OBC-103	35.3	27.7	26.4
OBC-123	56.4	44.2	38.8
OBC-124	19.9	13.4	13.3
OBC-110	50.7	39.5	34.6
OBC-122	16.9	12.9	10.9
OBC-107	35.3	29.3	29.1
OBC-108	29.5	23.7	24.8
OBC-104	39.8	31.3	30.0
OBC-109	23.2	18.4	17.7
OBC-102	29.3	23.5	23.1

4.20 The draft AQAP is now subject to an ongoing public consultation, which closes on the 21st November 2022.

4.21 Following completion of the public consultation BCBC/SRS will review the results of the consultation to enable the finalisation of the AQAP with a view that a final AQAP is reported to Cabinet for approval in early 2023 in advance of the final AQAP being submitted to Welsh Government. The final AQAP will provide a full implementation timeline of the preferred measures.

Covid-19 Impacts

4.22 The unprecedented circumstances of the COVID 19 pandemic have impacted on local air quality monitoring and the development of the action plan for the Park Street AQMA, both in terms of its scheduling and delivery. Welsh Government has been kept up to date with the position and inevitable delays in delivering the action plan. Welsh Government recognise the need to allow for a further extension period to facilitate the delivery of the action plan as detailed above.

5. Effect upon policy framework and procedure rules

5.1 The Report does not have any impacts on policy framework and procedure rules.

6. Equality Act 2010 implications

6.1 The protected characteristics identified within the Equality Act, Socio-economic Duty and the impact on the use of the Welsh language have been considered in the preparation of this report. As a public body in Wales, the Council must consider the impact of strategic decisions, such as the development or the review of policies, strategies, services and functions. This is an information report, therefore it is not necessary to carry out an EIA in the production of this report. It is considered that there will be no significant or unacceptable equality impacts as a result of this report.

7. Well-being of Future Generations (Wales) Act 2015 implications

7.1 SRS & BCBC adopt the principles of The Well-being of Future Generations (Wales) Act 2015 (WFGA). The act is a significant enabler to improve air quality as it calls for sustainable cross-sector action based on the principles of long-term, prevention-focused integration, collaboration and involvement. It intends to improve economic, social, environmental and cultural well-being in Wales to ensure the needs of the present are met without compromising the ability of future generations to meet their own needs.

7.2 Subject to approval, declaration of the AQMA on Park Street and the subsequent production of an Action Plan, will ensure that future decision making in terms of air quality complies with the WFGA, and the Council meets the five ways of working, as detailed below:

- Long term – The action plan will balance short-term needs of improving air quality, and will also look at measures to safeguard the ability of meeting long-term needs.
- Prevention – By implementing measures which will be set out in the Action Plan, the Council should ensure improvements in air quality and will be able to prevent air quality deteriorating in the future.
- Integration – SRS will look to ensure that the work undertaken as part of the Action Plan integrates with public body's environmental well-being objectives.
- Collaboration –The Action Plan will be developed in collaboration with many departments within the Council and other external organisations, i.e., Public Health Wales.
- Involvement – The action plan will be subject to public consultation, and will ensure that those who have a strong interest in improving air quality will be fully involved and their ideas considered.

8. Financial implications

- 8.1 SRS has an existing budget to complete a programme of air quality monitoring across Bridgend.
- 8.2 Transport and air quality monitoring within the Park Street AQMA has been completed within the identified budget for this work. Should any further detailed assessments be required, then this would necessitate discussion with the Section 151 Officer as to how that additional work could be funded.

9. Recommendations

Cabinet is requested:

- 9.1. To note the results of air quality monitoring gathered in 2021 and to agree the finalisation of the 2022 Annual Progress Report (attached as Appendix 1) for submission as a final version to Welsh Government by 31st December 2022.
- 9.2. To note the progress made in developing the Air Quality Action Plan for Park Street.

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November 2022

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Background documents:

Appendix 1- Bridgend County Borough Council Local Air Quality Management Annual Progress Report 2022