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| Meeting of: | CABINET |
| Date of Meeting: | 19 SEPTEMBER 2023 |
| Report Title: | LOCAL AIR QUALITY MANAGEMENT ANNUAL PROGRESS REPORT 2023 |
| Report Owner / Corporate Director: | KELLY WATSON CHIEF OFFICER LEGAL, HR AND REGULATORY SERVICES, CORPORATE POLICY & MONITORING OFFICER |
| Responsible Officer: | JASON BALE OPERATIONAL MANAGER, ENTERPRISE AND SPECIALIST SERVICES, SHARED REGULATORY SERVICES |
| Policy Framework and Procedure Rules: | THERE IS NO EFFECT UPON THE COUNCIL'S POLICY FRAMEWORK OR PROCEDURE RULES AS A RESULT OF THIS REPORT. |
| Executive Summary: | <p>The report provides Cabinet with an update on local air quality monitoring undertaken across Bridgend County Borough Council in 2022.</p> <ul style="list-style-type: none"> • The report shows that only the air quality objective for NO₂ is breached at two locations in the already declared Air Quality Management Area (AQMA) on Park Street. • Whilst exceedances remain the results do show an improvement on 2019 levels when the AQMA was first declared. • The report also provides a brief update on the Air Quality Action Plan (AQAP) for Park Street, but a separate Cabinet Report on the final AQAP will be presented at a separate Cabinet Meeting. |

1 Purpose of report

- 1.1 The purpose of this report is to seek approval for the 2023 Bridgend County Borough Council (BCBC) Local Air Quality Management (LAQM) Annual Progress Report (APR) based upon the air quality datasets obtained in 2022. This report requires Cabinet approval in order to submit a final version to Welsh Government (WG).

- 1.2 The report provides an update on progress towards the Air Quality Action Plan (AQAP) for the Park Street Air Quality Management Area.
- 1.3 The report also provides details of a public health campaign designed to improve awareness of air quality issues and Park Street AQMA. Funding for this project has been approved from Welsh Government through the Local Air Quality Management support fund scheme 2023-24.

2 Background

- 2.1 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.
- 2.2 The Annual Progress Report, attached as **Appendix 1**, provides details on the ratified data for the air quality monitoring undertaken in 2022 within Bridgend County Borough Council area.
- 2.3 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 use when carrying out their air quality functions under the Environment Act 1995, sets out that authorities in Wales must 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.
- 2.4 This Annual Progress Report satisfies the above criteria examining ratified datasets for air quality monitoring undertaken in 2022 within Bridgend County Borough.

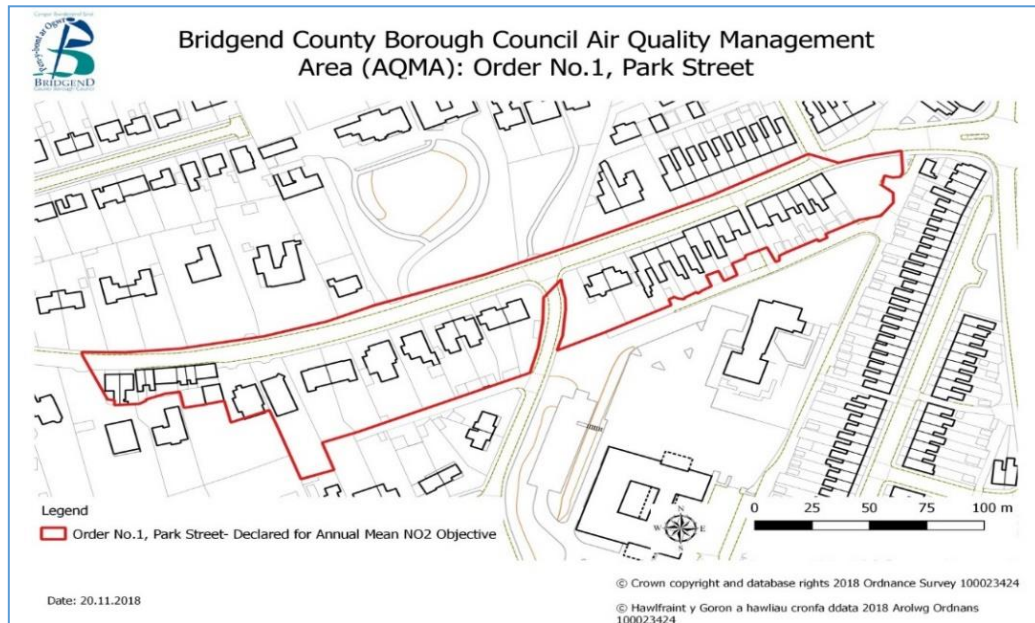
3 Current situation/proposal

- 3.1 The 2023 Annual Progress Report confirms that in 2022, 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 all other relevant air quality objectives.

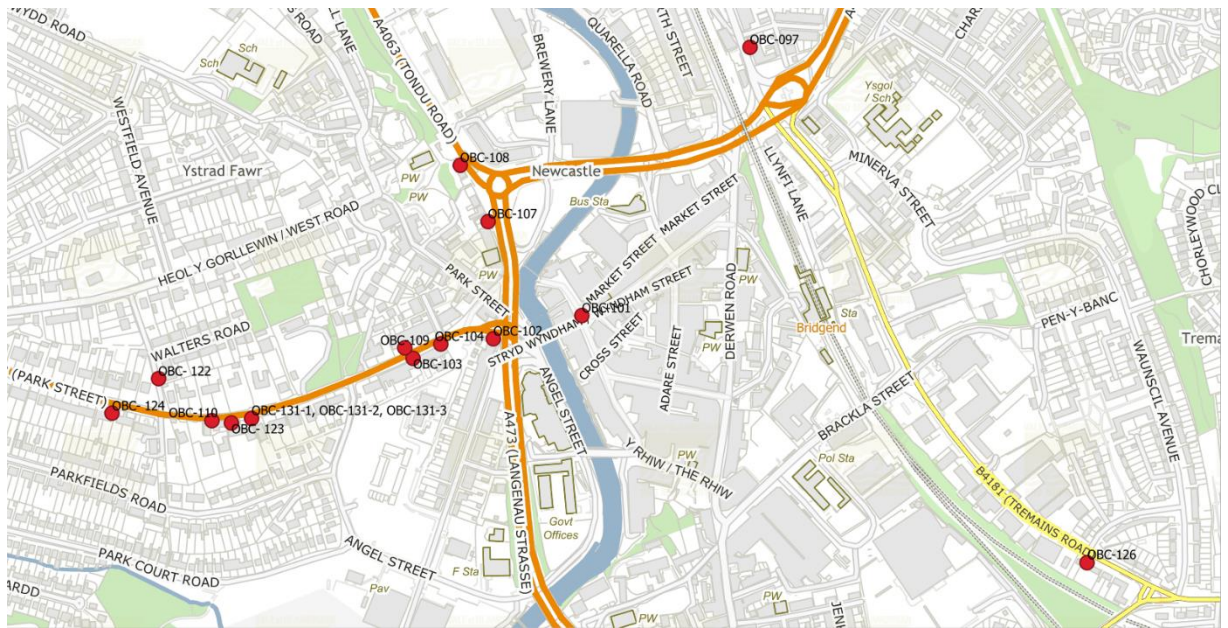
- 3.2 The Park Street, Bridgend Air Quality Management Area Order was raised on the 1st January 2019. The area comprising the Bridgend County Borough Council Air Quality Management Area Order Number 1, Park Street is outlined in Figure 1, below.

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



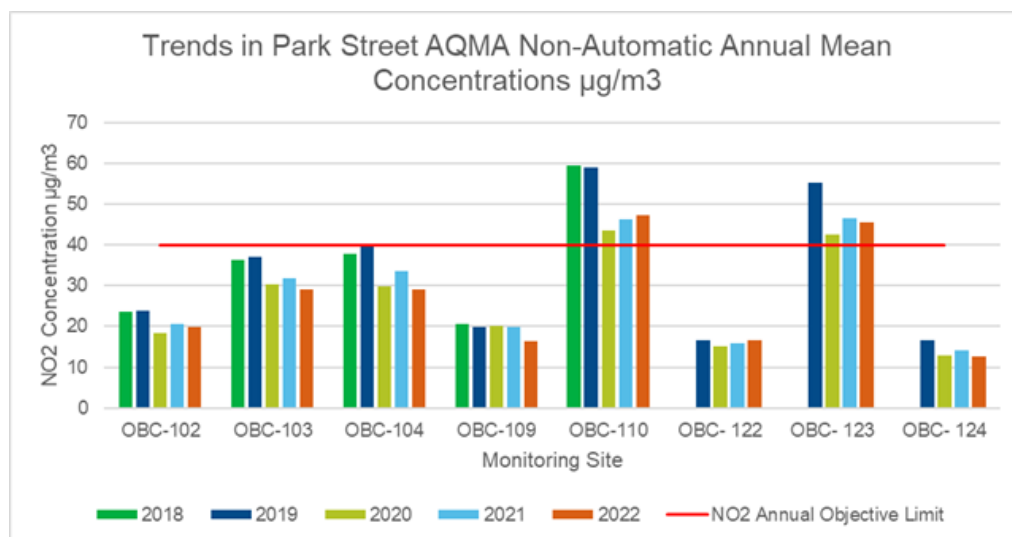
- 3.3 Figure 2 below depicts the non-automated monitoring sites located in and around the Park Street Air Quality Management Area.

Figure 2 - 2022 NO₂ Diffusion Tube Monitoring Locations, Park Street/ Tondu Road/ Bridgend Town Centre



3.4 It is noted that in 2022, monitoring undertaken at sites OBC-110 & OBC-123, located on Park Street residential facades, exceed the annual average air quality objective set at $40\mu\text{g}/\text{m}^3$ for NO_2 . OBC-110 & OBC-123 recorded annual average figures in 2022 of $47.2\mu\text{g}/\text{m}^3$ & $45.5\mu\text{g}/\text{m}^3$ respectively. This represents a reduction in NO_2 concentrations of 12% and 17% at these receptors since 2019, as shown in Figure 3 below.

Figure 3 - Trends in annual mean NO_2 concentrations in the Park Street AQMA



3.5 Sites currently exceeding air quality annual objectives are isolated to one area of Park Street, which experiences higher concentrations of pollutants due to the proximity of houses to a heavily trafficked primary route with congestion issues. These issues are compounded by gradients increasing engine load and poor dispersion caused by

buildings. All other monitoring locations within Park Street AQMA and across Bridgend currently demonstrate compliance with the applicable air quality objectives.

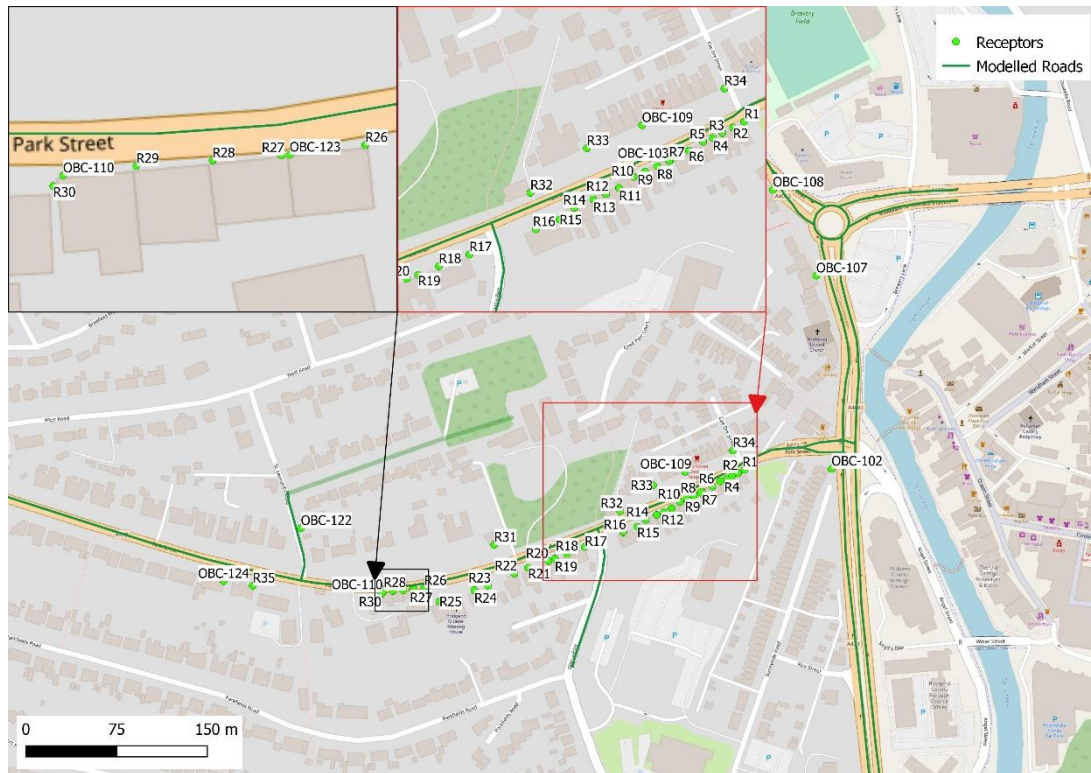
Park Street, AQMA Action Plan Update

- 3.6 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.
- 3.7 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.
- 3.8 In order to develop options 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.
- 3.9 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**.
- 3.10 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).
- 3.11 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.

- 3.12 In the summer of 2022, work was carried out to upgrade the traffic lights located at the junction of Park Street and Angel Street, along the A473. The refurbishment of the existing traffic lights was needed as the traffic light system was over 25 years old and the upgrade was essential to safeguard pedestrians, as well as making sure that traffic is managed in the best way possible on what is one of the county borough's busiest routes. The works follow-on from previous work completed on traffic lights at the A473's junction with Broadlands.
- 3.13 A right turn holding lane at the Junction of Park Street with Heol y Nant was implemented in January 2022. This was to be introduced by the developer (Persimmon) of the former Ysgol Bryn Castell site (Llangewydd Road, Cefn Glas) under the requirement of Condition 27 of Planning consent P/18/1006/FUL.
- 3.14 Both the Park Street/ Angel Street junction, and Heol y Nant right turn holding lane options were assessed by air quality modelling within the Park Street AQAP and were deemed to have a positive effect on traffic flows and air quality within Park Street.
- 3.15 Work has continued for the Park Street AQAP, with the assessment of various options that could improve air quality in the area. These options included investigating the benefits of bus electrification and HGV restrictions using Park Street. Modelling carried out in support of these options has found that the implementation of these measures will have little effect on receptors exceeding the NO₂ annual objective.
- 3.16 In order to fully assess the impacts on air quality, the dispersion model 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
- 3.17
- 3.18 Table 1 and the locations of the modelling points are shown in `Figure 4 below.

Figure 4 - Air Quality Modelling Locations



3.19 As detailed in

3.20

3.21 **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.

3.22 The results of the modelling indicated 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 all measures were fully implemented. 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 |
| 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 |

- 3.23 A 12 week public consultation was undertaken between August and November 2022. BCBC/SRS have reviewed the results of the consultation to enable the completion of the AQAP with a view that a final AQAP is reported to Cabinet for approval in 2023, in advance of the final AQAP being submitted to Welsh Government.
- 3.24 The final AQAP will provide a full implementation timeline of the preferred measures and also a projected year of compliance as this was an exercise requested by Welsh Government when they reviewed the draft AQAP. Final assessment work for the projected year of compliance is nearing completion to enable the AQAP to be finalised. A separate report will therefore be brought to Cabinet in due course so as to ensure Cabinet approve the final AQAP.

Public Health Campaign

- 3.25 One of the 'softer' options detailed in the AQAP, focusses on behaviour change particularly around promoting public health in order to increase awareness of the Park Street AQMA and air quality impacts within the surrounding area. In order to develop such a campaign initial funding has been approved by Welsh Government via the Local Air Quality Management (LAQM) support fund for 2023-24.
- 3.26 The grant funded project will provide ongoing air quality sensor measurements across a 4-year period, during which air quality consultants will provide an evidence-based resource facilitating dataset analysis and reporting to feed into educational and behavioural change messages to be disseminated via websites and social media outlets (Twitter) etc. in combination with the Councils communication team.
- 3.27 The sensors will look to provide evidence to evaluate the success of improving public awareness, improving knowledge, and reducing exposure to air pollution and improving ambient levels of air pollution. NO₂ and Particulate Matter will be measured as the key pollutants of interest.
- 3.28 A Borough wide website resource will provide a focal point and easy access to the monitoring results, associated analysis, and messaging to raise public awareness, and encourage behavioural change to support improvements in air quality. This will be further supported by a social media platform, to facilitate access to a wider audience with regular behavioural change messaging led by the evidence and supported by the Councils local knowledge and Communications team.
- 3.29 Funding of up to £147,141 for the proposed public health campaign and additional modelling work towards the Park Street AQAP has been approved by Welsh Government.

4 Equality implications (including Socio-economic Duty and Welsh Language

- 4.1 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 report is seeking Cabinet approval of the Annual Progress Report which presents the air quality results for 2022 and as such it is considered that there will be no significant or unacceptable equality impacts as a result of this report, and therefore it was not necessary to carry out an Equality Impact assessment in the production of this report.

5 Well-being of Future Generations implications and connection to Corporate Well-being Objectives

- 5.1 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.
- 5.2 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 the Council'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 was subject to public consultation and the Council has ensured that those who have a strong interest in improving air quality have been fully involved and their ideas considered.

- 5.3 In accordance with air quality, as part of the objective for “Healthy Choices in a Healthy Environment”, Bridgend Public Services Board (PSB) outlines that resources are best utilised and collaborative working ensures that the built, cultural, and natural environment remains resilient in future. The priority areas to endorse and encourage the success of the objective will include working together to maximise benefit from cultural, built and natural assets. It will also look at promoting a more resource and energy efficient way of living and working. To measure the success of promoting a more resource and energy way of living, air quality, particularly NO₂ levels will be examined.

6 Climate Change Implications

- 6.1 The Annual Progress Report provides the latest full data set of air quality monitoring data for BCBC. One of the key actions challenges identified in BCBCs Net Zero Carbon Strategy is to reduce emissions from Transport.
- 6.2 Given that road transportation is one of the key contributors to air pollution the ongoing assessment of air quality data trends will assist the Council in assessing the impact of its Climate Change interventions and reductions of transport emissions.

7 Safeguarding and Corporate Parent Implications

- 7.1 Due regard has been paid to the BCBC Safeguarding Policy which seeks to safeguard and promote the wellbeing of children, young people and adults at risk of abuse or neglect and to ensure that effective practices are in place throughout the Council and its commissioned services. Given the subject matter of this report no negative safeguarding implications have been identified.

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.

8.3 Funding of up to £147,141 for the proposed public health campaign and additional modelling work towards the Park Street AQAP has been approved by Welsh Government.

9 Recommendations

9.1 Cabinet is recommended to:

- Note the results of air quality monitoring gathered in 2022 and approve the 2023 Annual Progress Report (attached as **Appendix 1**) for submission as a final version to Welsh Government by 31st December 2023.
- Note the progress made in developing the Air Quality Action Plan for Park Street and that a separate Cabinet report to approve the final AQAP will be brought to Cabinet in due course.

Background documents:

NONE