

Meeting of:	CABINET
Date of Meeting:	16 APRIL 2024
Report Title:	PARK STREET AIR QUALITY ACTION PLAN
Report Owner / Corporate Director:	CHIEF OFFICER LEGAL, HR AND REGULATORY SERVICES & 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 presents to Cabinet the final draft of the Air Quality Action Plan for the Park Street Air Quality Action Plan.</p> <ul style="list-style-type: none"> • The report shows that owing to the implementation of a number of measures modeled in the Action Plan that NO₂ concentrations have seen a significant improvement to NO₂ concentrations at key receptor locations on Park Street. • The report demonstrates that further improvements will be made, by the implementation of Measure 18, (Denying access to St Leonards Road from Park Street) and compliance could be achieved by 2025. However, owing to the timescale for traffic regulation consultation and actual implementation if supported, the implementation of this measure needs to be considered in view that natural compliance has been projected modelled to be achieved in 2026.

1. Purpose of Report

- 1.1 The purpose of this report is to seek approval for the Air Quality Action Plan for the Park Street Air Quality Management Area and for a decision on whether to approve the final measure of the 'do something' scheme - Deny all access onto St Leonards Road from Park Street (Measure 18).

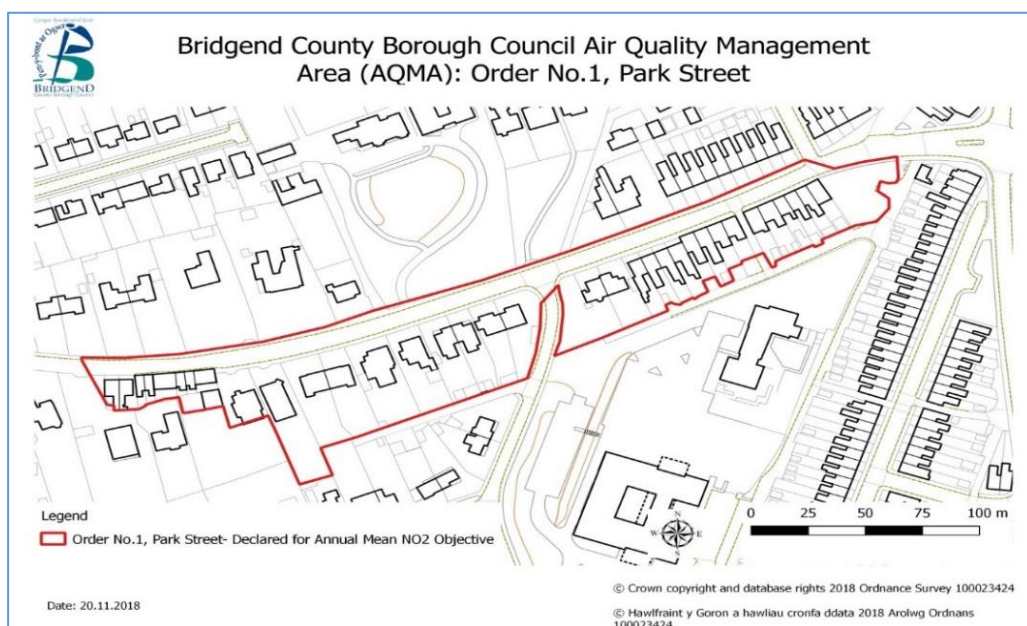
2. Background

- 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 Park Street, Bridgend Air Quality Management Area Order was raised on the 1 January 2019. The area comprising the Bridgend County Borough Council Air Quality Management Area Order Number 1, Park Street is outlined in **Error! Reference source not found.**, below.

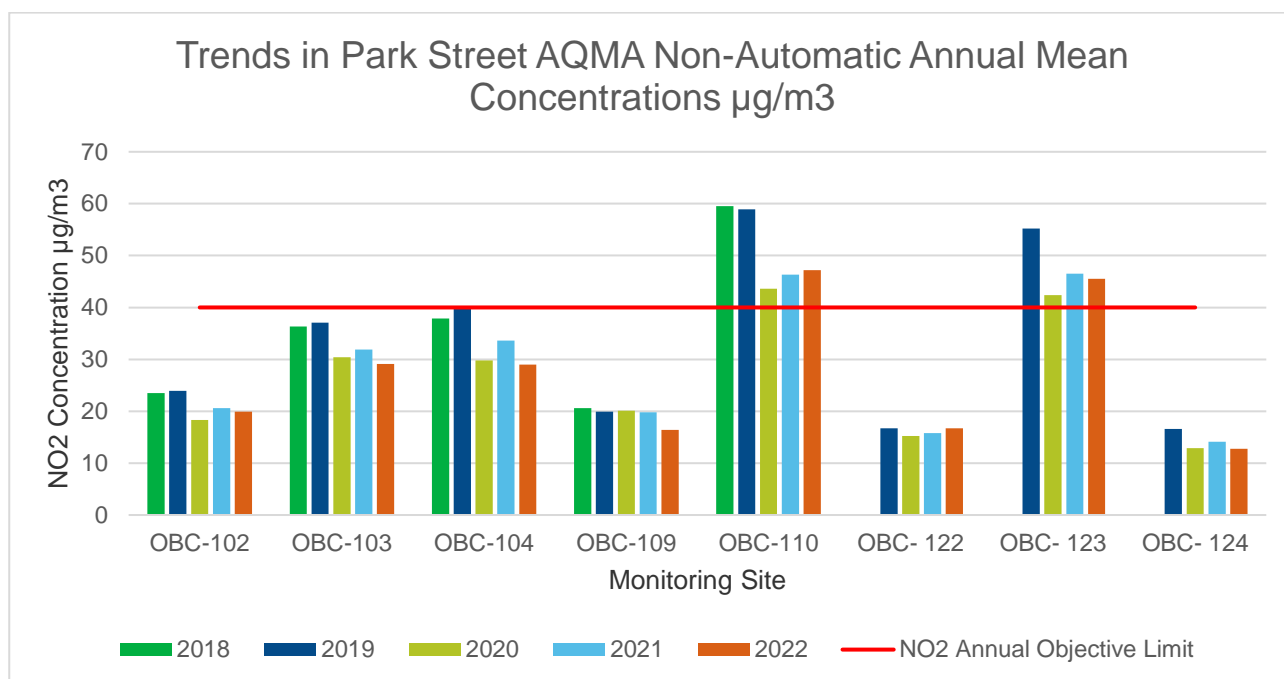
Figure 1 - Park Street AQMA



- 2.3 As part of the Local Air Quality Management statutory duties, from the date of raising the AQMA Order (in this instance 1 January 2019) Shared Regulatory Services (SRS) and Bridgend County Borough Council (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.
- 2.4 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.
- 2.5 Sites exceeding air quality annual objectives are isolated to one area of Park Street. This area of Park Street, between no.91 – 107, experience 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. Figure 2 below displays nitrogen dioxide

concentrations on Park Street since 2018. An improvement is evident since 2018, however, two monitored receptors remain in exceedance of the nitrogen dioxide air quality standard, which is 40µg/m³.

Figure 2 - Trends in Nitrogen Dioxide Concentrations



3. Current situation/proposal

3.1 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.

3.2 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.

3.3 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 from Park Street (measure 18);

- Optimise the Park Street/Angel Street/Tondu Road Junction (measure 20).

- 3.4 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.
- 3.5 In the summer of 2022, work was carried out to upgrade of 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.
- 3.6 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.
- 3.7 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.
- 3.8 Work has continued on 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 as summarised in Table 1 and as such they have therefore been disregarded at this stage.
- 3.9 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. An updated modelling assessment was carried out in 2023, using modelled receptors predicted to remain in exceedance of the air quality standard in 2023 with 'do something' scheme in place. This assessment was provided to predict the date of natural compliance for both 'do minimum' and 'do something' schemes.

Table 1 - 2023 updated modelling results $\mu\text{g}/\text{m}^3$.

Receptor ID	2026 DM	2026 DS	NO ₂ reduction (DM minus DS)	2026 DS with 100% Electric buses	NO ₂ reduction (DS minus electric bus)
R26	35.3	34.7	0.6	34.4	0.3
R27	37.5	36.9	0.6	36.5	0.4
R28	37.7	37.0	0.7	36.6	0.4
R29	36.7	36.1	0.6	35.7	0.4
OBC-123	35.2	34.6	0.6	34.2	0.4

3.10 The results of the natural compliance assessment suggest that without additional measures in place that annual mean NO₂ concentrations will fall below the 40 $\mu\text{g}/\text{m}^3$ threshold in 2026 and that the local authority could start to make a case for revoking the AQMA from 2027 onwards.

3.11 In addition it should also be noted that the local monitoring data has shown significant improvements in 2022 and 2023 to NO₂ concentrations on Park Street, and it is therefore possible that the model is over predicting NO₂ concentrations. The data from monitoring in 2023 has yet to be fully ratified but does show that at the sites exceeding air quality limits significant improvements have been achieved even when compared to 2022 data. Table 2 below displays data from sites exceeding the NO₂ limit within Park Street AQMA. 2023 data includes the addition of a receptor that was included in various modelling assessments within the action plan (97 Park Street).

Table 2 - Park Street NO₂ Measured Exceedance Summary

Diffusion Tube ID	Site name	NO ₂ Annual Mean Concentration ($\mu\text{g}/\text{m}^3$)					
		2018	2019	2020	2021	2022	2023*
OBC- 123	93 Park St		55.2	42.4	46.5	45.5	40.9
OBC-110	101/103 Park St	59.5	58.9	43.6	46.3	47.2	40.7
OBC-140	97 Park Street						40.7

3.12 The only remaining measures in the Do Something scenario is Measure 18 Deny all access onto St Leonards Road from Park Street . In order to progress this measure,

BCBC as the highway authority, would be legally required under the Road Traffic Regulation Act 1984 to undertake formal consultation on the implementation of Measure 18 in order to implement a Traffic Regulation Order (TRO) . Initial discussions with officers from highways has indicated that this process could take up to 18 months, and would be subject to funding of approximately £8,000. Should any objections to this proposal be received , BCBC would then be required to undertake an appeals process in the form of an Appeals Report which will have to be submitted to the appropriate Cabinet member to decide on the way forward, which could impact further on timescales for full implementation.

3.13 In addition to the above, initial comments received from the South Wales Police indicated they would only support a complete no entry from Park Street to St Leonards Road, due to enforcement issues in relation to Access Only or Except for Access TROs.

3.14 Based on the modelling undertaken this measure would provide further improvements to air quality, although it may not necessarily bring forward the compliance date, based on timescales for consultation, appeals process, implementation and current monitoring results. Any decision to move forward with this measure must take into consideration the benefits that further air quality improvements will bring, in balance with the costs and timescales to implement the measure and that it will not necessarily bring forward compliance.

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 is an information report, therefore it is not necessary to carry out an Equality Impact Assessment 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.

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

5.1 SRS and 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 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.

6. Climate Change Implications

6.1 The Air Quality Action Plan provides a positive contribution towards tackling the causes of and adapting to impacts of Climate Change, and links directly to the BCBC's Net Zero Carbon Strategy 2030. NO_x emissions are made up from both primary nitrogen dioxide (NO₂) and nitric oxide (NO), and are formed by the burning of fossil fuels, such as diesel and petrol. NO_x emissions are also associated with industrial and domestic sources such as wood burners.

6.2 The measures assessed and detailed in the plan whilst directly looking to improve NO₂ concentrations in pursuit of compliance of the NO₂ air quality standard within the Park Street AQMA, provide further positive contributions towards achieving Net Zero, by further promoting sustainable transport alternatives and increasing the uptake of EVs.

6.3 As detailed above 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 the AQAP and the Net Zero Carbon Strategy in relation to interventions to increase modal shift. By increasing modal shift to more sustainable forms of transport and the continued progress of the uptake of zero tailpipe emission vehicles, it is anticipated that further improvements to air quality will be achieved and thus future air quality monitoring results will provide supporting evidence on the progression of the Net Zero Carbon Strategy.

7 Safeguarding and Corporate Parent Implications

7.1 There are no Safeguarding or Corporate Parent Implications as a result of this report.

8. Financial implications

- 8.1 SRS has an existing budget to complete a programme of air quality monitoring across Bridgend.
- 8.2 Funding for the consultation and implementation of Measures 18 is not available and would therefore necessitate discussions with the Section 151 Officer as to how the measure could be funded, with one potential source of funding being the Welsh Government's Local Air Quality Management Support Fund.

9. Recommendations

Cabinet is recommended:

- 9.1. To agree to the finalisation of the Air Quality Action Plan (AQAP) (attached as Appendix 1) for submission as a final version to Welsh Government.
- 9.2. To approve the decision not to implement the final measure of the 'do something' scheme – Measure 18 Deny all access onto St Leonards Road, owing to the timescales for TRO consultation, costs and consideration that natural compliance is not likely to be accelerated as a result. This measure will be retained and will be reconsidered dependent on ongoing NO₂ monitoring results in the Park Street AQMA.

Background documents: None