

Report

Cabinet



Part 1

Date: 13 November 2024

Subject **Air Quality Action Plan 2024 to 2029**

Purpose To provide an update on air quality in Newport and seek approval for the Air Quality Action Plan 2024 – 2029 to be taken to Council for a decision on its adoption.

Author Senior Scientific Officer

Ward All Wards

Summary An Air Quality Action Plan for Newport City Council from 2024 to 2029 has been prepared which sets out how Newport City Council will achieve compliance with air quality objectives for nitrogen dioxide levels. Historically these levels have been exceeded. The plan identifies the following as key themes in tackling of air quality in Newport: [1] Emissions from New Development; [2] Emissions from Transport; [3] Education and Awareness; and [4] Active Travel and Green Infrastructure. Continuing compliance will result in eventual revocation of all Air Quality Management Areas and an Air Quality Strategy will then be produced to support Newport City Council in its subsequent air quality actions.

Proposal To approve the Newport City Council 2024-2029 Air Quality Action Plan and to agree for the plan to be taken to Council for a decision on its adoption.

Action by Head of Environment and Public Protection

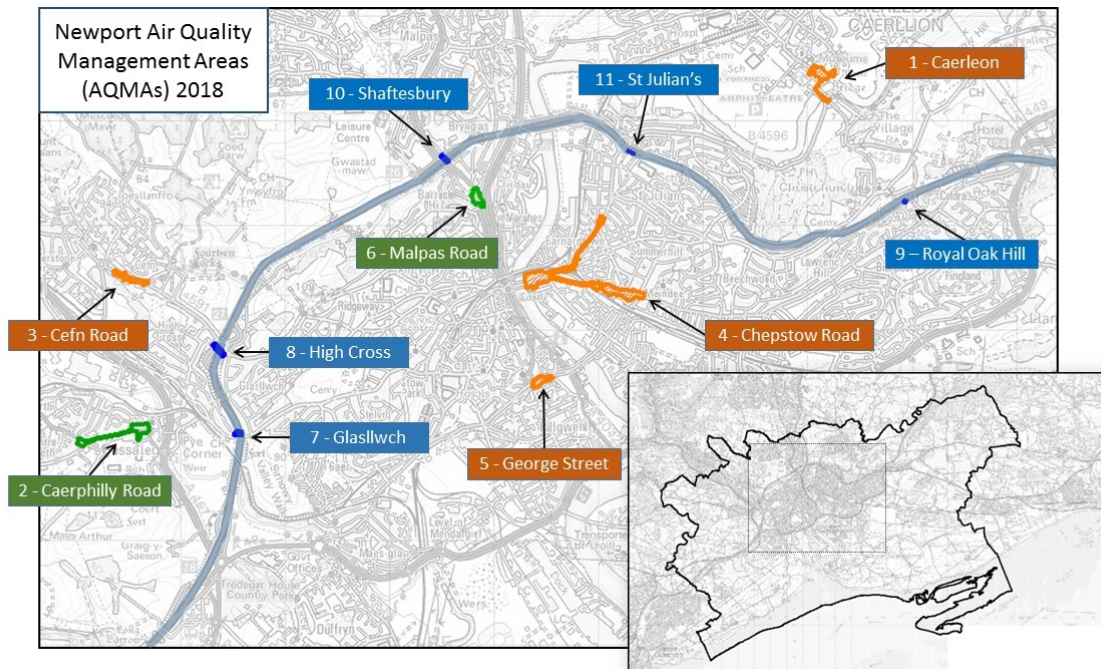
Timetable Immediate

Signed

Background

Newport City Council has a statutory duty to investigate air quality and where it finds breaches of air quality objectives for certain pollutants (nitrogen dioxide) it must declare Air Quality Management Areas (AQMAs).

Newport has done this across 11 different areas historically as shown below:



Where a local authority declares an AQMA it must also prepare an Air Quality Action Plan which identifies how measures will be sought which can bring about air quality compliance.

Newport City Council has an existing Air Quality Action Plan which was produced in 2008.

The 2024-2029 Air Quality Action Plan replaces the 2008 Plan and will include annual data trends and measures that are being taken, that will reduce emissions which contribute towards poor air quality.

The Air Quality Action Plan is broken down into four principal themes which will generate measures to reduce emissions in AQMAs. [1] Emissions from New Development; [2] Emissions from Transport; [3] Education and Awareness; and [4] Active Travel and Green Infrastructure.

The following table demonstrates the measures to be utilised against each theme.

Measure Theme	Measure Approach in all AQMAs
Emissions from Transport	<ul style="list-style-type: none"> • Promoting a cleaner vehicle fleet and alternatives • 100% eBus services • ECO Stars haulage accreditation scheme update • Infrastructure projects where feasible • Green wall road barrier to reduce emissions at premises facade* <p>*Caerphilly Road AQMA only.</p>
Emissions from new development	<ul style="list-style-type: none"> • Encouraging EV charging as part of applications • Encouraging Low Carbon heating as part of applications • Encouraging Green infrastructure as part of applications • Encouraging zero emission public transport access as part of applications • Updating Planning Guidance and Policy on Air Quality
Education & Awareness	<ul style="list-style-type: none"> • Schools air quality monitoring learning initiative • Maintaining AQMA Community Air Quality Groups • Air Quality messaging e.g. ECO Post sensors • Exploring walking hubs at school run times where feasible
Active Travel/Green Infrastructure	<ul style="list-style-type: none"> • Promoting Active Travel opportunities • Facilitating School Travel Plans in AQMAs • Promoting School Street initiative • Promoting green infrastructure and identifying opportunities for it

In preparing the latest Air Quality Action Plan numerous assessments have been required by the statutory guidance that supports air quality in Wales. These have included source apportionment and traffic surveys. Following this and where possible, the service has carried out modelling of the impact of the measures [particularly related to the increases in electric vehicles and electric bus traffic].

As part of air quality action planning three community-based air quality groups have been created and convened for over three years in service of the 11 AQMAs that still exist. These groups have helped trigger many Air Quality projects each year since their advent in 2021, which have been Welsh Government funded to a total of nearly a quarter of a million pounds.

In producing this version of the Air Quality Action Plan, the following were consulted:

- Welsh Government
- Director of Public Health
- Natural Resources Wales
- Newport City Council Infrastructure Services
- Newport City Council Planning & Regeneration Services
- Newport City Council Education Services
- Cardiff City Council

- Caerphilly County Borough Council
- Monmouthshire County Council
- Torfaen County Borough Council
- Public Health Wales
- Asthma and Lung UK
- Welsh Air Quality Forum
- Public Services Board Sustainable Travel Group
- Newport City Council Air Quality Groups
- Gwent Public Services Board
- Members of the Public via Newport Citizens Panel and Newport City Council Website Consultation

Next Steps and Horizon Scanning

Newport City Council has observed compliance with the air quality objective for nitrogen dioxide during the past two reporting years (2022 and 2023). The service’s expectation is that this trend will continue, and compliance will be maintained and air quality improved. When sustained compliance is observed for three years plus, the council will seek to revoke relevant AQMAs. This will be positive news for the people of Newport.

The service has identified several AQMAs for revocation in the near future, one of which should be revoked later this calendar year.

It is hoped, and expected, that improvements in air quality- will see the revocations of each AQMA within the first half of the life span of the five-year plan. At that point the council’s air quality journey will continue beyond revocation towards the production of an Air Quality Strategy to set out the method of sustained and long-term compliance and the best achievable air quality across all of Newport.

Financial Summary (Capital and Revenue)

- The costs and financial implications: All action planning funding is annually sought from Welsh Government through its Local Air Quality Management Monitoring grant programme.
- There are no cost implications for Newport City Council

Risks

If the draft 2024-2029 Air Quality Action Plan is not adopted Newport City Council will continue to have an outdated Air Quality Action Plan from 2008. Where an up-to-date Air Quality Action Plan is not produced as part of an authorities statutory duties the Senedd/Minister may direct the authority to produce one.

Risk Title / Description	Risk Impact score of Risk if it occurs* (H/M/L)	Risk Probability of risk occurring (H/M/L)	Risk Mitigation Action(s) What is the Council doing or what has it done to avoid the risk or reduce its effect?	Risk Owner Officer(s) responsible for dealing with the risk?
Failing to provide an up-to-date AQAP	H	L	Produce up to date AQAP for next 5 years.	Public Protection Services Manager

Links to Council Policies and Priorities

Work to improve air quality, with this action plan at its centre, has strong links to Council Plans and Priorities.

This work compliments the following:

- Sustainable Transport Strategies.
- Climate Change Plan.
- The environment enhancement objective within the Corporate Plan. This includes commitments to environment protection of the city's urban communities and its residents health and well-being and transforming the city's highways and transport system to improve air quality and safety.
- The Welsh Well Being Goals, notably a healthier Wales, a more equal Wales, and a globally responsible Wales.

Options Available and considered

- To approve the Newport City Council 2024-2029 Air Quality Action Plan and to agree for the plan to be taken to Council for a decision on its adoption.
- Not to approve the Newport City Council 2024-2029 Air Quality Action Plan's presentation to council for adoption.

Preferred Option and Why

To adopt the Newport City Council 2024-2029 Air Quality Action Plan as it is required by law and the current plan is redundant. If the plan is not adopted there is the risk that government will direct the council to do so.

Comments of Chief Financial Officer

As outlined in the report, the proposal is to be met from within existing budgets, afforded by a specific grant receipt and is therefore affordable. Any ongoing costs will also be met from within the service's revenue budget.

Comments of Monitoring Officer

Part IV of the Environment Act 1995 requires the Council to produce an action plan in pursuit of the achievement of air quality standards and objectives. The Council may revise its plan and it is appropriate to do so because the current plan is redundant.

It is open to the Cabinet to either approve the plan and make a recommendation to Council, or reject the plan.

Comments of Head of People, Policy and Transformation

This report seeks Cabinet approval of the Council's Air Quality Action Plan 2024-29 and for it to be presented at Council for a decision on its adoption.

The proposal is in line with the Council's Corporate Plan 2022-27 vision of 'an ambitious, fairer, greener Newport for everyone', and supports its four Well-being Objectives, including Environment and Infrastructure, which seeks to protect and enhance our environment whilst reducing our carbon footprint. This also compliments others plans and strategies such as the Council's Climate Change Plan 2022-27

The principles of the Well-being of Future Generations (Wales) Act 2015 and its five ways of working are supported, with the report demonstrating that the updated Air Quality Action Plan looks to improve air quality over the long-term in designated areas, positively impacting on the health and quality of life of residents and visitors. Full collaboration and involvement were sought in developing the plan through engagement with local communities and key stakeholders.

A Fairness and Equalities Impact Assessment was produced for the action plan and to support this report. There are no staffing or HR related issues arising directly from this report.

Scrutiny Committees

Scrutiny Committee were presented with an earlier draft of the AQAP in October 2023 and recommended the following:

- The Committee recommended that a summary document be created that is accessible and understandable for laypeople and includes hyperlinks to other relevant documents for those who wish to read further. The Committee recommended that this is published to the website and alongside the consultation document.

This recommendation was carried out as part of the public consultation phase in producing the finalised document.

Fairness and Equality Impact Assessment

A full Fairness and Equality Impact Assessment (FEIA) was undertaken on this plan and published on the Council's website (available in Welsh [here](#) and English [here](#)).

This FEIA considers our legislative responsibilities under the Equality Act (2010), including the Socio-economic Duty, the Wellbeing of Future Generations (Wales) Act (2015) and the Welsh Language (Wales) Measure (2011).

Wellbeing of Future Generation (Wales) Act

The proposals set out in the report contribute to several the Well-being Goals set out in the Wellbeing of Future Generations (Wales) Act 2015. Relevant goals are "A more equal Wales", "A healthier Wales", "A globally responsive Wales".

The proposal takes account of the sustainable development principle. Planning to improve air quality in this way seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. Future generations will have cleaner air because of actions taken within the plan. The council will ensure that when making this decision it will take into account the impact it will have on people living their lives in Wales in the future.

This proposal and the actions within the plan are also in line with the five ways of working as outlined within the Well-being of Future Generations (Wales) Act 2015

- **Long term** – This is a 5-year plan. The plan covers multiple years and if successful, the plan will no longer be required, and there are contingencies in place to replace it with a strategy.
- **Prevention** – Ensuring the air quality is improved prevents health problems for future years.
- **Integration** – The actions are embedded within the normal work of teams across the council.
- **Collaboration** – Many of the actions can only be done by cross agency/team working.
- **Involvement** - A key component of this proposal has been consultation and engagement. There has been a public consultation and one of the actions is to involve schools and members of the public via AQ Action Groups.

Crime and Disorder Act 1998

Section 17(1) of the Crime and Disorder Act 1998 imposes a duty on the Local Authority to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area.

The action plan has a limited effect on crime reduction.

Consultation

A full public consultation has been undertaken in relation to this Air Quality Action Plan, details of which are provided within the report including numerous examples of comments made by members of the public.

Background Papers

Part IV of the Environment Act 1995; Local Air Quality Management Technical Guidance ([TG16](#)) & ([TG22](#))

Dated: 6 November 2024

Appendix A

Air Quality Action Plan 2024-2029: Summary

What is an Air Quality Action Plan?

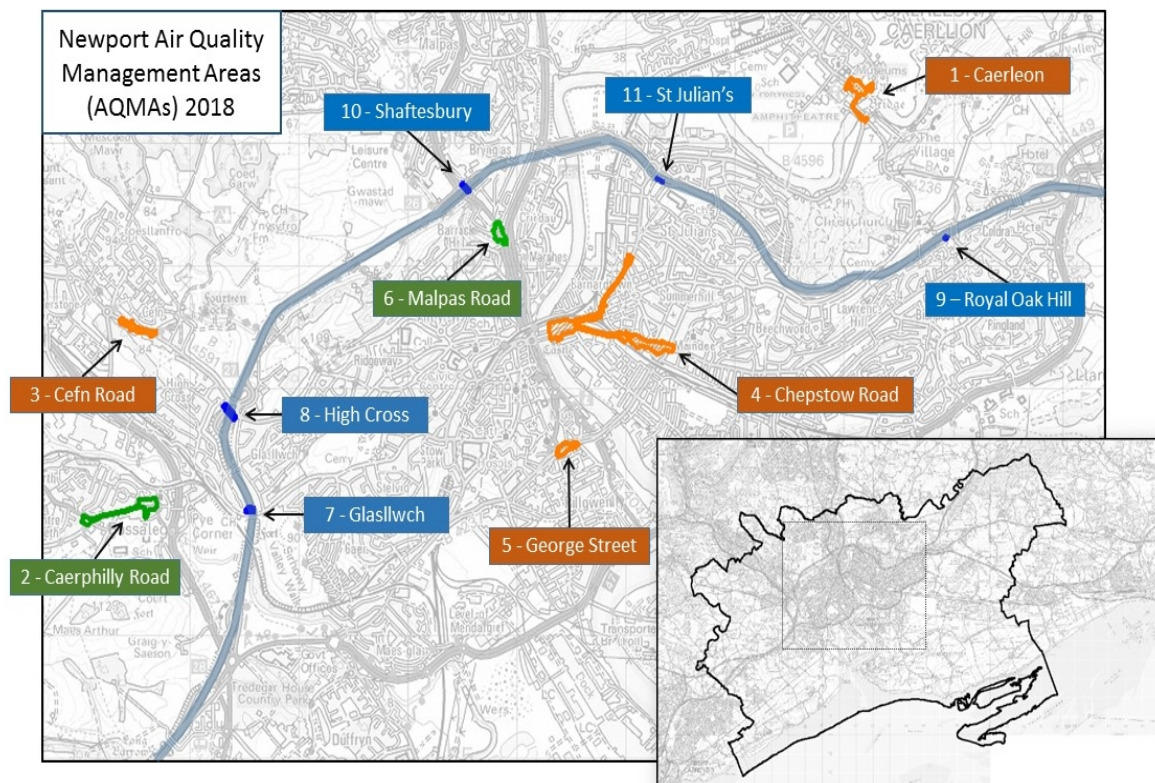
The Air Quality Action Plan (AQAP) has been produced as part of Newport City Council's statutory duties required by the Local Air Quality Management framework. It outlines the actions to be taken to improve air quality in Newport City Council between 2024 and 2029 and it replaces the previous action plan which ran between 2008 and 2013.

It includes a number of actions to address vehicle emissions that contribute towards poor air quality where the authority has observed in the past emission levels that breach government standards in particular areas. In the case of Newport, this relates to levels of the gas nitrogen dioxide which can build up where heavily trafficked areas do not readily disperse exhaust gases e.g., some narrow streets that are heavily trafficked.

What is an Air quality Management Area?

An Air Quality Management Area (AQMA) is an area where air quality objectives are not being met, and it is declared by the local authority as per legal requirements. Where an AQMA is declared, an authority must develop an air quality action plan that considers how poor air quality can be addressed, and quality objective complied with.

Newport currently has 11 AQMAs shown in the figure below, where the council observed nitrogen dioxide levels in breach of the UK air quality standard ($40\mu\text{g}/\text{m}^3$). Community air quality groups have been established in these areas, to work with the council on developing local approaches towards reducing emissions.:



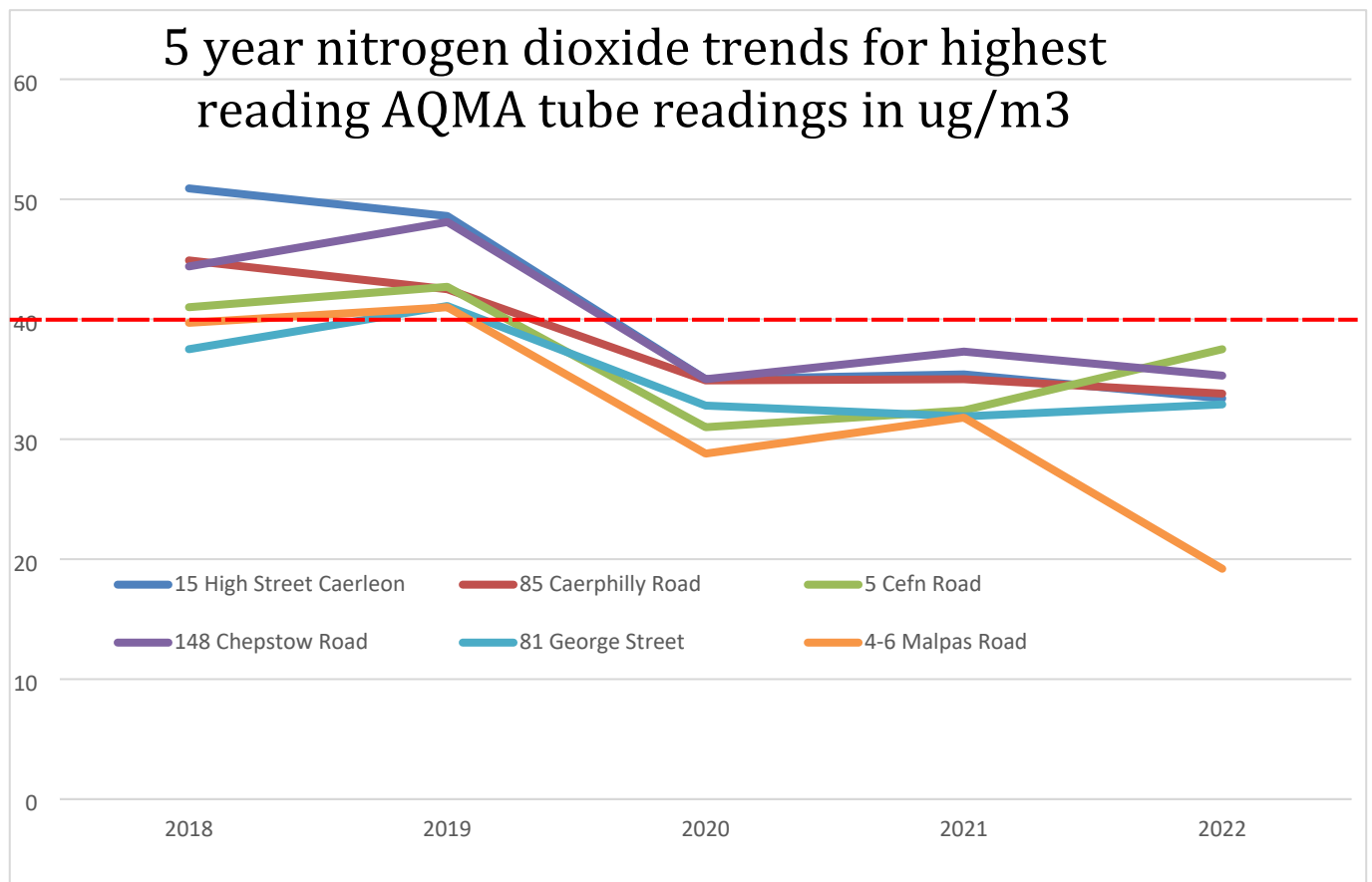
The 5 AQMAs centred around motorway junctions have been compliant for several years now and as such they will be revoked soon and are not included within this air quality action plan.

The remaining six AQMAs of Caerleon, Caerphilly Road, Cefn Road, Caerleon Road and Chepstow Road, George Street and Malpas Road are the subject of the 2024 to 2029 air quality action plan.

What is the current air quality in Newport's Air Quality Management Areas?

Air quality monitoring for the most recent 5 years has been looked at within each AQMA. The Coronavirus Pandemic had an impact on emissions, due to movement restrictions there was less traffic, and this led to improved air quality. It may have been assumed that when the movement restrictions ended, air quality would return to previous levels. However, while 2022 saw a return to conditions more like the pre-pandemic years, monitoring results indicate that some of the trends observed during the pandemic may continue. This suggests the possibility of long-term compliance for nitrogen dioxide. Data collated in future years will provide further insight to determine if this trend continues, also considering factors such as travel alternatives and cleaner vehicles increasing in use.

The graph below shows how the highest reading diffusion tube locations have varied over the past 5 years. The coloured lines indicate the annual average nitrogen dioxide levels between 2018 and 2022 for each AQMA, with the dotted red line indicating the 40ug/m³ air quality objective for nitrogen dioxide. Results show compliance in all AQMAs from 2020 onwards.



What have we looked at in preparing this air quality action plan for the AQMAs concerned?

The AQAP builds upon the gradual progress made towards achieving air quality that does not exceed nitrogen dioxide air quality objectives. The baseline conditions were set against 2022 nitrogen dioxide levels and traffic counts.

In drafting the action plan, we have had regard to the current traffic levels within AQMAs and the contribution each vehicle type makes within the AQMA.

We have also worked together with air quality community groups representing each AQMA, to collate ideas and measures that could be implemented in each of them. These include things like promoting school initiatives for travel to school, encouraging EV charging on new developments, or promoting cleaner council and private vehicles. The preparation of the plan also involved consultation with AQMA-specific groups of stakeholders, including residents, environmental groups, commercial representatives, church representatives, and councillors

Finally, the ability of measures identified by communities and the council to impact NO₂ levels was modelled where possible. We have considered which proposals are the most accessible and effective based upon cost benefit analysis (full detail of the range of measures considered and the result of the cost-benefit analysis can be found in the full Plan)

What will AQMA measures look like?

A list of measures for AQMAs has been identified which can be put under four distinct headings as follows:

Emissions from Transport

This currently includes promoting cleaner vehicles both within Newport City Council's fleet and in private ownership. We are also keen to see Newport Bus reach 100% electric bus services across the city as this contributes to a reduction in emissions. The ECO Stars Fleet accreditation scheme is being refreshed in order to build on the work of accredited operators in reducing their fuel usage and emissions.

Emissions from New Developments

Through the planning process there are opportunities to encourage measures which can have an impact upon air quality. This includes requiring electric vehicle charging points, encouraging low carbon heating and air quality beneficial planting schemes.

Active Travel and Green Infrastructure

This relates to promotion of active travel opportunities such as wheeling, active travel routes and school travel plans. Green infrastructure covers things like air quality green walls and tree planting which can also contribute to cooling our urban areas during hotter weather.

Education and Awareness

Work continues to be done with schools in Newport and has included highlighting students learning on environmental matters including air quality. Forthcoming projects include offering Newport schools a year of air quality monitoring so they can learn about how and why we need to monitor our environment and the contributions we can all make towards keeping it healthy.

Table A – Summary of measures that can be employed within AQMAs

Measure Theme	Measure Approach in all AQMAs
Emissions from Transport	<ul style="list-style-type: none"> • Promoting a cleaner vehicle fleet and alternatives • 100% eBus services • ECO Stars haulage accreditation scheme update • Infrastructure projects where feasible • Green planted panels to reduce vehicle emissions at specific locations* <p>*Caerphilly Road AQMA only.</p>
Emissions from new developments	<ul style="list-style-type: none"> • Encouraging EV charging as part of applications • Encouraging Low Carbon heating as part of applications • Encouraging Green infrastructure as part of applications • Encouraging zero emission public transport access as part of applications • Updating Planning Guidance and Policy on Air Quality
Education & Awareness	<ul style="list-style-type: none"> • Schools air quality monitoring learning initiative • Maintaining AQMA Community Air Quality Groups • Air Quality messaging e.g. ECO Post sensors • Exploring walking hubs at school run times where feasible
Active Travel/Green Infrastructure	<ul style="list-style-type: none"> • Promoting Active Travel opportunities • Facilitating School Travel Plans in AQMAs • Promoting School Streets initiative • Promoting green infrastructure and identifying opportunities for it

More detailed information about the specific measures identified for each AQMA can be found in Appendix 1 and in the full version of the 2023-2028 Air Quality Action Plan, which can be found at this link: [Air quality | Newport City Council](#)

What has been observed?

Air Quality Trends:

Air quality levels from 2019 to 2024 show a trend of sustained compliance with the air quality objective, with NO₂ levels remaining well below the 40µg/m³ threshold

Tables B.1 and B.2 compare real-world NO₂ concentrations with model predictions, indicating similar trends. Whilst variation in results exists, there are signs of sustained compliance emerging.

Table B.1 – Diffusion Tube Recorded NO₂ annual average concentrations (µg/m³) for 2019-2024.

AQMA	Tube location	2019	2020	2021	2022	2023	2024
Caerleon High Street	9 Castle Street	36.7	25.1	25.9	26.4		
Caerphilly Road	85 Caerphilly Road	42.5	34.9	35.0	33.8		
Cefn Road	69 Cefn Road	32.8	23.5	27.5	33.0		
Chepstow Road/Caerleon Road	9 Caerleon Road	41.4	30.2	32.3	28.5		
George Street	73 George Street	36.4	28.1	29.1	30.2		
Malpas Road	4-6 Malpas Road	41	28.8	31.8	19.2		

Table B.2 – Model predicted NO₂ annual average concentrations (µg/m³) for 2019-2024 at selected model locations closest to actual diffusion tube locations in Table A above.

AQMA	Receptor	2019	2020	2021	2022	2023	2024
Caerleon High Street	R9	35.1	33.6	32.2	30.7	29.4	28.2
Caerphilly Road	R60	39.3	35.5	31.7	27.9	26.3	24.6
Cefn Road	R71	39.7	38.2	36.8	35.3	33.6	31.9
Chepstow/Caerleon Road	R31	29.9	29.4	28.9	28.4	27.9	27.4
George Street	R79	37.7	36.9	36.0	35.2	35.0	34.7
Malpas Road	R92	33.2	32.1	31.0	30.0	28.5	27.1

Impact of Measures:

Various measures, including increased EV composition and 100% eBus services, were modelled to assess their impact on air quality. Modelling shows a range of potential benefits associated with those measures where they are implemented or are ongoing. Table C below shows the range of measures we were able to model:

Table C– Measures modelled in AQMAs

Measure	AQMA	Caerleon	Caerphilly Road	Cefn Road	Chepstow Road/Caerleon Road	George Street	Malpas Road
Emissions from Transport		+ 5% increase in EV composition of fleet	+ 5% increase in EV composition of fleet	+ 5% increase in EV composition of fleet	5% increase in EV composition of fleet	+ 5% increase in EV composition of fleet	5% increase in EV composition of fleet
		+ 100% eBus services impact	100% eBus services impact	+ 100% eBus services impact	+ 100% eBus services impact	+ 100% eBus services impact	+ 100% eBus services impact
		+ 20mph impact	+ 20mph impact	+ 20mph impact		+ 20mph impact	+ 20mph impact

	+ combined impact of all measures.	+Green Barrier at 85 Caerphilly Road + combined impact of all measures.	+ combined impact of all measures.	+ combined impact of all measures.	+ combined impact of all measures.	+ combined impact of all measures.
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Tables D and E below show the predicted ranges of air quality changes for each measure in 2022 and 2024:

Table D – Modelling of measures for 2022 Year (ug/m3)

MEASURE MODEL OUTPUTS PER AQMA 2022	5% increase in EV	100% E-Bus services	20mph impact	green panels	combined impact
Caerleon High Street	-0.8 to -0.1	-1.7 to -0.1	n/a	n/a	-1.8 to -0.2
Caerphilly Road	-0.6 to -0.1	-1.1 to -0.1	0.4 to 4.2	-5.2 to -0.1	-0.9 to 2.8
Cefn Road	-2.8 to -0.1	-4.1 to -0.2	-1.6 to 1.4	n/a	-4.5 to 0.2
Caerleon Rd Chepstow Rd	-0.5 to -0.1	-1.6 to -0.2	n/a	n/a	-1.9 to -0.4
George Street	-0.8 to -0.2	-3 to -0.6	0.7 to 3.9	n/a	-0.7 to -0.3
Malpas Road	-0.5 to -0.1	-1.9 to -0.2	0.4 to 2.5	n/a	-0.3 to 0.4

Table E – Modelling of measures for 2024 Year (ug/m3)

MEASURE MODEL OUTPUTS PER AQMA 2024	5% increase in EV	100% E-Bus services	20mph impact	green panels	combined impact
Caerleon High Street	-0.7 to -0.1	-0.7 to -0.1	n/a	n/a	-1.5 to -0.1
Caerphilly Road	-0.1 to -0.5	-0.03 to -0.3	0.3 to 3.5	-0.1 to -4.5	-4.8 to 2.5
Cefn Road	-2.6 to -0.1	-2.5 to -0.1	-2.6 to 1.2	n/a	-3.6 to 0.3
Caerleon Rd Chepstow Rd	-0.5 to -0.1	-0.8 to -0.1	n/a	n/a	-1.6 to -0.4
George Street	-0.8 to -0.2	-1.6 to -0.3	0.7 to 3.9	n/a	-0.5 to 0.3
Malpas Road	-0.5 to -0.1	-1.9 to -0.2	0.4 to 2.5	n/a	-0.1 to 0.5

Where do we go from here?

The elements of the plan which are summarised in the table above will be embedded within the work of Newport City Council and our communities. The plan is a living document and as such the way in which it is applied may be subject to review from time to time e.g. adding new measures and ideas to AQMAs where they are identified and feasible. Matters related to emerging legislation and things such as domestic wood burning will be incorporated as policy develops. Our air quality monitoring programmes will keep an eye on what air quality is doing across Newport whilst the plan is applied, and annual progress reports will continue to be produced on air quality in Newport, including ongoing improvements.