



County Hall
Cardiff
CF10 4UW
Tel: (029) 2087 2000

Neuadd y Sir
Caerdydd
CF10 4UW
Ffôn: (029) 2087 2000

AGENDA

Pwyllgor	PWYLLGOR CRAFFU AMGYLCHEDDOL
Dyddiad ac amser y cyfarfod	DYDD IAU, 7 RHAGFYR 2023, 4.30 PM
Lleoliad	YB 4, NEUADD Y SIR, CYFARFOD AML-LEOLIAD
Aelodaeth	Cynghorydd Owen Jones (Cadeirydd) Y Cynghorwyr Derbyshire, Gibson, Green, Lancaster, Lloyd Jones, Jackie Parry, Proctor a/ac Wood

Tua
Amser.

1 Ymddiheuriadau am Absenoldeb

Derbyn ymddiheuriadau am absenoldeb.

2 Datgan Buddiannau

I'w wneud ar ddechrau'r eitem agenda dan sylw, yn unol â Chod Ymddygiad yr Aelodau.

3 Cofnodion *(Tudalennau 5 - 10)*

Cymeradwyo cofnodion y cyfarfod blaenorol fel rhai cywir.

4 **RNIB - Sefydliad Cenedlaethol Brenhinol Pobl Ddall** *(Tudalennau 11 - 42)* 4.35 pm

Gwybodaeth Briffio

5 **Adroddiad Monitro Blynyddol Ansawdd Aer** *(Tudalennau 43 - 210)* 5.35 pm

Cyn Penderfynu

6 **Busnes y Pwyllgor** *(Tudalennau 211 - 266)* 6.35 pm

7 Y Ffordd Ymlaen

6.45 pm

Adolygu'r dystiolaeth a'r wybodaeth a gasglwyd yn ystod y cyfarfod, cytuno ar sylwadau, arsylwadau a phryderon yr Aelodau i'w hanfon at yr Aelod Cabinet perthnasol gan y Cadeirydd.

8 Eitemau brys (os oes rhai)

9 Dyddiad y cyfarfod nesaf

Dydd Iau 11 Ionawr 2024 am 4:30pm

D Marles

Swyddog Monitro Dros Dro

Dyddiad: Dydd Gwener, 1 Rhagfyr 2023

Cyswllt: Graham Porter, 02920 873401, g.porter@caerdydd.gov.uk

GWE-DARLLEDU

Caiff y cyfarfod hwn ei ffilmio i'w ddarlledu'n fyw a/neu yn olynol trwy wefan y Cyngor. Caiff yr holl gyfarfod ei ffilmio, heblaw am eitemau eithriedig neu gyfrinachol, a bydd y ffilm ar gael ar y wefan am 12 mis. Cedwir copi o'r recordiad yn unol â pholisi cadw data'r Cyngor.

Gall aelodau'r wasg a'r cyhoedd hefyd ffilmio neu recordio'r cyfarfod hwn

Os ydych yn ymddangos gerbron y pwyllgor ystyrir eich bod wedi cydsynio i gael eich ffilmio. Trwy fynd i mewn i gorff y Siambr neu'r ystafell gyfarfod rydych hefyd yn cydsynio i gael eich ffilmio ac i ddefnydd posibl o'r delweddau a'r recordiadau sain hynny ar gyfer gwe-ddarlledu, gwybodaeth gyhoeddus, sylw i'r wasg a/neu ddibenion hyfforddi.

Os oes gennych gwestiynau ynghylch gwe-ddarlledu cyfarfodydd, cysylltwch â'r Gwasanaethau Democrataidd ar 02920 872020 neu e-bost [Gwasanethau Democrataidd](#)

Mae'r dudalen hon yn wag yn fwriadol

ENVIRONMENTAL SCRUTINY COMMITTEE

16 NOVEMBER 2023

Present: Councillor Owen Jones(Chairperson)
Councillors Derbyshire, Gibson, Green, Lancaster, Lloyd Jones,
Jackie Parry, Proctor and Wood

20 : APOLOGIES FOR ABSENCE

No apologies for absence.

21 : DECLARATIONS OF INTEREST

Councillor Owen Jones declared a personal interest in Item 4 as a non-Executive Director of Cardiff Bus.

22 : MINUTES

The minutes of the meeting held on 6 July 2023 were approved by the Committee as a correct record and were signed by the Chairperson.

23 : TRANSPORT FOR WALES - CARDIFF PROJECTS

RESOLVED – That members of the public be excluded during the consideration of the following item at it includes exempt information as defined in described in paragraphs 14 and 21 of parts 4 and 5 of Schedule 12A to the Local Government Act 1972.

RESOLVED: That the Chairperson writes to the Cabinet Member on behalf of the Committee to convey any comments, observations and recommendations made during the way forward.

24 : NATURE EMERGENCY/BIODIVERSITY UPDATE

The Committee received a report providing an update in relation to actions taken to address the nature emergency declared in November 2021 and also progress in relation to the development of the Biodiversity and Resilience of Ecosystems Duty Plan.

Members were advised that Section 6 of the Environment (Wales) Act 2016 requires that public authorities to maintain and enhance biodiversity and promote the resilience of ecosystems. In order to comply with this duty public authorities must prepare and publish a plan setting out what they propose to do to maintain and enhance biodiversity and promote resilience. The first of these plans was required in 2019. The Biodiversity and Resilience of Ecosystems Duty(BRED) report has been delayed for a number of reasons including the Ecologist post being vacant.

Local Nature Partnerships (LNPs) have been established in all Local Authorities and National Parks in Wales through the 'LNP Cymru' project funded by Welsh Government. The Cardiff Local Nature Partnership was formed in 2020 with the appointment of a Local Nature Partnership Coordinator and the creation of a Local Nature Partnership Steering Group. LNPs are an integral element in addressing the nature crisis in Wales, providing biodiversity advice; seeking funding opportunities and collaborations; supporting community groups to take action; and sharing information about nature-based projects, events and activities. LNPs are responsible for producing Local Nature Recovery Action Plans to complement and reinforce national nature recovery efforts at a local level.

The Chairperson welcomed Councillor Caro Wild, Cabinet Member for Climate Change, Steve Ball, Development Manager Strategic and Placemaking, John Maidment, Operational Manager Parks, Sport and Harbour Authority, Justin Groves, County Ecologist and Sam Eaves, Local Nature Partnership Coordinator. The Cabinet Member was invited to make a brief statement.

Following a presentation from officers, the Chairperson then opened the debate on this item. Those discussions are summarised as follows:

- Members noted that most of the funding available to meet the challenges of the Nature Emergency came from Welsh Government. A Member questioned whether the Nature Emergency was received equal prominence with the Climate Emergency. The Cabinet Member for Climate Change accepted the point. It was considered that the Climate Change agenda is universally recognised in a way that the Nature Emergency isn't and this presented a challenge. However, the authority can robustly defend its position in terms of its commitment to the Nature Emergency.
- Members asked whether the authority was confident that the momentum and progress made in terms addressing of the Nature Emergency would continue if grant funding from the Welsh Government was withdrawn. The Cabinet Member was unable to speculate at this time but reiterated the authority's manifesto commitment to the 'green' agenda.
- Members welcomed the partnership working with other public bodies. A Member asked whether more could be done to work jointly with neighbouring local authorities in order to enhance nature at a regional level. The Operational Manager Parks, Sport and Harbour Authority stated that Cardiff is proactive at an operational level in terms of working in partnership with neighbouring local authorities. However, there may be room for improvement at a strategic level. The Green Space Wales network links the 22 local authorities in Wales at an operational level.
- Members asked whether enough was being done to engage with schools and young people in general to formulate strategy. The Development Manager Strategic and Placemaking stated that education was the key to addressing the

Nature Emergency and the authority is always seeking to get young people involved. There is a strong schools workstream within the Coed Caerdydd project but this area needs to be developed further.

- Officers were asked to comment on the revised Local Development Plan and whether the LDP would sufficiently achieve the objectives of protecting and enhancing nature, particularly in around new developments. The Development Manager Strategic and Placemaking stated that the preferred LDP, setting out the long-term strategy, is currently subject to consultation. The Nature Emergency, biodiversity and the importance of green infrastructure forms part of the preferred strategy and are critically to its delivery. The LDP follows Welsh Government policy guidance. Officers were confident that the LDP would strengthen the protection and enhancement of nature in respect of large scale developments.
- A Member considered that the LDP could do more to enhance nature by ensuring that houses in new developments have adequate size gardens and asked whether that provision would be included in the LDP. The County Ecologist stated that gardens are considered in all applications and if the proposed planning application doesn't meet the 'net benefit' test then an objection to the application will be submitted. There may be an argument for having a specific Net Benefit Policy in the LDP but those aspects are covered by existing policies such as the Green Infrastructure Policy. The Development Manager Strategic and Placemaking stated that Planning Policy Wales has a requirement for biodiversity enhancement and this would carry through to the replacement LDP.
- A Member noted a recommendation in the Committee's Biodiversity inquiry report regarding the amount of time resource committed by the County Ecologist to discharge statutory duties under the Planning regime. The County Ecologist was asked to comment on the recommendation and asked whether the appointment of a second County Ecologist would assist. The County Ecologist stated that the intention is to recruit a second ecologist and this would enable him to work on more strategically across the authority. A large amount of time is currently allocated to the consideration planning applications, however it is vital that this work is undertaken in order to enhance biodiversity. The Development Manager Strategic and Placemaking accepted that additional capacity was necessary. The second Ecologist post has been advertised but it did not attract candidates with the qualifications required, so it will be readvertised.
- A Member asked which of the recommendations in the Biodiversity Inquiry Report have been progressed and which are in need of improvement. The Operational Manager Parks, Sport and Harbour Authority considered that good progress has been made against the recommendations set out in the Inquiry Report that fell under the remit of his Service Area. Additional revenue funding was allocated in the 2021/22 and 2022/23 budgets enabled additional Community Park Rangers to be deployed. The Apprenticeship Scheme has also helped.

- A Member asked whether the replacement LDP policies were sufficient to address the conflicting priorities the Council has such as balancing the enhancement of biodiversity and the provision of new housing or transportation projects and whether enforcement was adequate. Officers were asked to comment on what the authority could do in terms of enforcement when developers fall short. The Development Manager Strategic and Placemaking stated that current policies address these issues but they could potentially go further in the replacement LDP. The point regarding conflicting priorities was accepted and this represented to the biggest challenge faced by Planning Officers. Strong enforcement was important in order to identify areas where there are deficiencies in order that these can be addressed with developers.
- A Members asked whether the authority has any powers to ban the installation of artificial grass. Officers confirmed that there are currently no powers to ban the use of artificial grass as no consent is required. A Member questioned whether the installation of 4G grass sports pitches would have an effect. The Development Manager Strategic and Placemaking advised that in any installation of 4G pitches there would be a need to mitigate against any potential impact and biodiversity enhancement measures will be including in order to off-set any impact.
- A Member asked how the protection of SSSI areas are balanced against the need for new developments in the city. The Development Manager Strategic and Placemaking stated that balancing competing interests was challenging. The revised Chapter 6 of the Planning Policy Wales guidance gives much greater weight to the protection of SSSI insofar as new developments affecting SSSI areas should now be avoided. Developments on or affecting SSSI areas will only be permitted in exceptional circumstances.
- Members asked whether consideration has been given to having an officer dedicated seeking sources of grant funding for biodiversity projects. The Operational Manager Parks and Harbour Authority supported the suggestion for a dedicated grants officer. The role is currently integrated into the Community and Conservation Development officer role within the Community Park Ranger Service, the Tree Officer role and the Allotment Officer role.
- A Member questioned whether, in terms of enforcement, a dedicated officer could be deployed to enforce biodiversity policy on new developments.
- Responding to a point raised by a Member, officers advised that Welsh Government 'Greening the Council Estate' funding was used to provide green walls at Kitchener Primary School, Birchgrove Primary School and the Dusty Forge Centre. Regulatory Services air quality monitoring demonstrated a 25% drop in nitrogen oxide levels as well as providing additional privacy and a reduction in traffic noise levels.

- The Committee sought views on the extent to which biodiversity and the nature emergency are embedded into the Council's decision-making processes, for example when disposing of areas of land. The Cabinet Member considered that the BRED plan will require those issues to be incorporated into decision-making. The County Ecologist advised that Section 6 duty training, provided as part of the NOP funding, will target heads of departments and should assist that these issues are embedded into decision-making also.
- Members asked when the BRED plan would be completed. The Cabinet Member stated that the plan would be ready in April 2024.
- A Member asked how the importance of nature and biodiversity has been incorporated into the One Planet Cardiff objectives.
- Members asked what could be done to assist communities to promote biodiversity scheme in their localities. The Operational Manager Parks and Harbour authority advised that there are various mechanisms by which communities can be supported including direct consultation with local members. Partnership working is taking place between Friend of Parks groups/residents groups and the Community Park Rangers team. The Love Where You Live campaign is also another potential avenue.
- The Committee asked for comments on biodiversity regulation in England which requires a net biodiversity gain for planning applications. The County Ecologist considered that there were pros and cons for both regimes. The net gain scheme can become a quantitative exercise whereas the regime in Wales does allow the Ecologist assessing a planning application to 'push-back' and make changes to planning application schemes.

RESOLVED : That the Chairperson writes to the Cabinet Member on behalf of the Committee to convey any comments, observations and recommendations made during the way forward.

25 : URGENT ITEMS (IF ANY)

No urgent items.

26 : WAY FORWARD

27 : DATE OF NEXT MEETING

Members were advised that the next Environment Scrutiny Committee is scheduled for 7 December 2023.

The meeting terminated at 6.40 pm

**CYNGOR CAERDYDD
CARDIFF COUNCIL
ENVIRONMENTAL SCRUTINY COMMITTEE**

16 NOVEMBER 2023

RNIB – Royal National Institute for Blind People

REASON FOR THE REPORT

1. To provide the Committee with a briefing about concerns from the RNIB in relation to changes that are made to the public realm, that support increased use of sustainable transport and active travel methods and the impact on the visually impaired community.

STRUCTURE OF THE PAPERS

2. Attached to this report are:
 - Appendix A – Presentation
 - Appendix B – Accessible Presentation (word document)
 - Appendix C – RNIB: Key Principles of Inclusive Street Design

BACKGROUND

3. Visually impaired people can often experience difficulty navigating urban areas, especially if the location of seats signs and bins etc. is not carefully considered.
4. The use of appropriate tactile paving can assist with orientation and is essential to warn of danger such as flights of steps, as well as indicating road crossings. Warning tactile and signage should always be installed to indicate shared routes with cyclists. The camber of the route is also useful as this helps indicate the centre of the path.
5. Inconsiderate behaviour by some cyclists travelling along community routes can impact on the personal safety of visually impaired people. Cyclists are very hard to hear and can approach very quickly without being detected. It is often impossible for a visually impaired person to know where they are to move out of their way, and feelings of intimidation and danger can result in that individual avoiding the route.

6. [A BBC news article from September 2022](#) notes that changes made in Sheffield creating shared paths for bikes and pedestrians made navigating the city 'hard work' for the visually impaired community. There were also issues noted about getting off buses directly onto cycle paths and not a safe space on the pavement.

ISSUES

7. The Council's Transport White Paper: Transport Vision 2030 – Changing how we move around a growing city, asks 'Why do we need to change that way we travel around Cardiff? With one of the reasons noted as it needs to be 'a city for everyone' and goes on further to say:
 - *Travelling around our city is not always as easy as it should be, especially for people who are often the least mobile in our society. People with disabilities or reduced mobility, those with specific access needs, older people and children and young people should be able to enjoy all our city has to offer and get to the places they need to go easily and affordably. Jobs, training, schools, health-care services, leisure opportunities and childcare facilities should all be connected by our transport network. We need to make sure that everywhere in our city is open and accessible to everyone.*
8. 'Stronger, Fairer, Greener' states that a fairer city '*can be enjoyed by everyone. and where every citizen is valued and feels valued*', and a greener city '*is connected by convenient, accessible, safe sustainable transport options.*' Commitments to achieve this include:
 - Deliver a city that is open and accessible to all, and work towards a transport system that all people have the confidence to use.
 - Develop a city-wide campaign to promote active travel.
9. To ensure that the designs for any new or reconfigured transport infrastructure do not make getting around the city more difficult, we must listen to the concerns being raised.

WAY FORWARD

10. Representatives from the RNIB have been invited to make a presentation to share some of their concerns with the Committee and answer Member's questions.

Legal Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not making policy decisions. As the recommendations in this report are to consider and review matters there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to the Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations.

RECOMMENDATION

The Committee is recommended to:

- i. Consider the information in this report, and the presentation and any further information presented at the meeting; and
- ii. Determine whether they would like to make any comments, observations or recommendations on this matter to the Cabinet Member for Transport & Strategic Planning / Director of Planning Transport & Environment, Head of Planning and Head of Transport.

LEANNE WESTON

Interim Deputy Monitoring Officer

10 November 2023

The Impact of Inaccessibility on Blind and Partially Sighted People in Cardiff: Bus Stop Boarders

**Presentation to Cardiff Council Environmental Scrutiny
Committee, December 2023**

**By Rachel Jones,
Policy & Campaigns Officer, RNIB Cymru**

Blind and Partially Sighted Residents of Cardiff

R N I B
Cymru

Golwg gwahanol
See differently

RNIB Sight Loss Data Tool

- **9,410** people living with sight loss representing about **2.5%** of Cardiff's population.
- **6,080** people living with **mild sight loss**
- **2,100** people living with **moderate sight loss**
- **1,230** people living with **severe sight loss**.
- Of these **1,543** are **registered blind or partially sighted**.

Tudalen 16

Higher proportion of people with sight loss travelling through the city

- RNIB Cymru
- SightLife (formerly Cardiff Institute for the Blind)
- Wales Council of the Blind
- Guide Dogs Cymru

Getting Around with Sight Loss

R N I B

Cymru

Golwg gwahanol

See differently

Sight loss is a **spectrum**, and everyone gets around differently but as a general principle –

Memorise Routes therefore rely on

- what can be **felt underfoot** i.e. tactile paving
- what can be **heard**, i.e. audible signals
- what can be **touched**, i.e. rotating cones
- what can be **seen clearly**, i.e. contrasting colours

Tudalen 17

Use **Mobility Aids**, such as long canes, guide canes, **Guide Dogs**, etc. Canes **detect** obstacles and kerbs. Guide Dogs are **trained** to find features. Vision Rehabilitation Specialists teach skills and build confidence.

Consistency is key to having the **confidence** to travel **safely** and **independently**. **How do you access visual information in the environment without vision?**

Causes for Concern in Cardiff

R N I B

Cymru

Golwg gwahanol

See differently

Cardiff has seen rapid, sudden changes to its streets and is being transformed by different projects, due to both the Covid-19 pandemic and the climate emergency.

Tudalen 18
Changes to streets disrupt memorised routes which cause anxiety and frustration if you cannot navigate around them.

Blind and partially sighted people come to us, and other organisations, to raise their concerns.

One of the biggest cause for concern over the last few years is the pop-up cycleways and how they intersect with bus stops.

Inaccessible Bus Boarder Designs

R N I B
Cymru

Golwg gwahanol
See differently

At **Newport Road, Dumfries Place, Castle Street, and the Kingsway** there are examples of **Bus Stop Boarders**, also called **Shared Use Bus Boarders** – an arrangement whereby the cycleway runs between the passenger waiting area or shelter and the bus. Passengers attempting to board or alight from the bus must cross the cycleway by stepping directly into a live cycle track, which then becomes a shared use area.

Our Accessibility Audit concluded they lack –

- correct tactile paving / tactile in the right places
- enough space in the ‘designated area’ to alight
- a waiting area free from obstructions
- detectable kerbs
- controlled signal crossing points

Examples of Inaccessible Bus Stop Designs

R N I B
Cymru

Golwg gwahanol
See differently



Examples of Bus Boarder Style Stops around Cardiff City Centre.

Why is lack of accessibility so problematic?

R N I B
Cymru

Golwg gwahanol
See differently

The lack of **Accessibility Features** creates a **Shared Use Area** where pedestrians and cyclists/other users mix freely on one level and cause problems for blind and partially sighted people.

Tudalen 21
People with reduced distance vision and Guide Dogs need oncoming traffic to come to a full, reliable stop. With lower levels of vision, you cannot use 'Gap Selection' to judge when to cross.

Cycles are fast, agile and silent and cyclist / other users' behaviour can be unpredictable as they might not notice that a person has sight loss. Danger of collision is higher – the thought can be enough to contribute to anxiety, frustration, and eventual aversion to crossing the cycleways.

What Blind and Partially Sighted People tell us

R N I B

Cymru

Golwg gwahanol

See differently

“The first time I was waiting at this type of stop, I didn't realise that the bus didn't pull up to the shelter, or that there a wide cycle lane, and because the bus is electric, I couldn't hear it. The driver just left without speaking to me. A lady at the stop came up and said, ‘they've just left you, love.’”

“I used to work in the city centre and couldn't use the bus on Newport Road due to this new bus stop – I found I was standing in the road! One time I accidentally missed my stop and had to get off the bus with my baby at Dumfries place – cannot describe the terror I felt. I thought I'm going to get hit. I felt so vulnerable and responsible for my baby.”

What Cardiff Council tell us

R N I B

Cymru

Golwg gwahanol

See differently

How we've engaged so far -

- Wrote officially to the Leader of the Council and the Chief Executive on 3 separate occasions to raise concerns
- Met with Councillor De'Ath and Transport team
- Inputted into Equality Impact Assessments
- Raised this with Cardiff Council's Access and Equalities Group, chaired by Chris Hanson
- Highlighted this issue in the media with BBC Cymru

Tudalen 23

Each time we have been told that the designs are **temporary** and will be changed into permanent designs subject to funding from Welsh Government, with no clear or public timeline. So, how long do blind and partially sighted people have to wait?

Why have they been built?

R N I B

Cymru

Golwg gwahanol

See differently

As we've demonstrated, the stops are not accessible, which breaches the Public Sector Equality Duty.

They contravene Active Travel guidance around implementing designs like this in busy areas.

Remediating them needs to be a priority for the Council.

Poor engagement and lack of understanding and co-production seems to have led to a situation where the needs of blind and partially sighted people are not comprehended fully in the decision-making process.

We don't want to see this happen again.

Our Recommendations

R N I B

Cymru

Golwg gwahanol
See differently

- These designs must be made fully accessible and safe for people with sight loss to use. Publicly commit to prioritising funding to remove them
- Review how they came to be installed. Carry out Road Safety Audits and comprehensive EqIAs on all the bus stops
- Adheres to Active Travel (Wales) guidance and Promotes safer cycling and walking infrastructure
- Propose adopting RNIB's Key Principles of Inclusive Street Design
- Improve understanding of how blind and partially sighted people navigate public spaces, ensuring meaningful engagement and user testing with blind and partially sighted people. This will help planners and designers experience the space as someone with some, low or no vision does and help to inform decision making.



R N I B

Cymru

Golwg gwahanol
See differently

Wood Street cycleway crossing.

The positive is that an accessible bus stop has been created in Cardiff at Wood Street – so it can be done!

How RNIB Cymru can help

R N I B

Cymru

Golwg gwahanol
See differently

We are the largest sight loss charity in Wales, and work in partnership with public, private and third sector bodies across Wales to deliver projects, training, services and give information, advice, and guidance. We can -

- Help with accessible consultations, from comms through to Tactile Maps and Images.
- Host focus groups and workshops with blind and partially sighted residents.
 - Refer to our specialist Inclusive Designs services.

Other organisations such as Guide Dogs Cymru, SightLife and Access Design Solutions are also on hand to engage.



R N I B

Cymru

Golwg gwahanol
See differently

Thank you for your time and
listening to this issue!

Tudalen 28

Rachel Jones,
Policy and Campaigns Officer,
RNIB Cymru

rachel.jones@rnib.org.uk

@RNIBCyrmu



[Slide 01]

**The Impact of Inaccessibility
on Blind and Partially Sighted People in Cardiff:
Bus Stop Boarders**

Presentation to Cardiff Council Environmental Scrutiny Committee,
December 2023

By Rachel Jones,
Policy & Campaigns Officer, RNIB Cymru

[Slide 02]

Blind and Partially Sighted Residents of Cardiff

RNIB Sight Loss Data Tool

- 9,410 people living with sight loss representing about 2.5% of Cardiff's population.
- 6,080 people living with mild sight loss
- 2,100 people living with moderate sight loss
- 1,230 people living with severe sight loss.
- Of these 1,543 are registered blind or partially sighted.

Higher proportion of people with sight loss travelling through the city

- RNIB Cymru
- SightLife (formerly Cardiff Institute for the Blind)
- Wales Council of the Blind
- Guide Dogs Cymru

[Slide 03]

Getting Around with Sight Loss

Sight loss is a spectrum, and everyone gets around differently but as a general principle –

Memorise Routes therefore rely on
what can be felt underfoot i.e. tactile paving
what can be heard, i.e. audible signals
what can be touched, i.e. rotating cones
what can be seen clearly, i.e. contrasting colours

Use Mobility Aids, such as long canes, guide canes, Guide Dogs, etc. Canes detect obstacles and kerbs. Guide Dogs are trained to find features. Vision Rehabilitation Specialists teach skills and build confidence.

Consistency is key to having the confidence to travel safely and independently . How do you access visual information in the environment without vision?

[Slide 04]

Causes for Concern in Cardiff

Cardiff has seen rapid, sudden changes to its streets and is being transformed by different projects, due to both the Covid-19 pandemic and the climate emergency.

Changes to streets disrupt memorised routes which cause anxiety and frustration if you cannot navigate around them.

Blind and partially sighted people come to us, and other organisations, to raise their concerns.

One of the biggest cause for concern over the last few years is the pop-up cycleways and how they intersect with bus stops.

[Slide 05]

Inaccessible Bus Boarder Designs

At Newport Road, Dumfries Place, Castle Street, and the Kingsway there are examples of Bus Stop Boarders, also called Shared Use Bus Boarders – an arrangement whereby the cycleway runs between the passenger waiting area or shelter and the bus. Passengers attempting to board or alight from the bus must cross the cycleway by stepping directly into a live cycle track, which then becomes a shared use area.

Our Accessibility Audit concluded they lack –

- correct tactile paving / tactile in the right places
- enough space in the 'designated area' to alight
- a waiting area free from obstructions
- detectable kerbs
- controlled signal crossing points

[Slide 06]

Examples of Inaccessible Bus Stop Designs

Image Description:

Two Bus Stop Boarder style designs in Cardiff. The left shows a cycleway with a small black and white zebra style crossing leading to a painted designated waiting area. There is a black opaque bus shelter to its right. There is no blister tactile paving by the zebra style crossing. The right shows a red cycleway with yellow corduroy tactile paving between the cycleway and paving. There is a small zebra style crossing leading to a white painted designated waiting area. There is no blister tactile paving and a large post on the pavement in front of the zebra style crossing.

[Slide 07]

Why is lack of accessibility so problematic?

The lack of Accessibility Features creates a Shared Use Area where pedestrians and cyclists/other users mix freely on one level and cause problems for blind and partially sighted people.

People with reduced distance vision and Guide Dogs need oncoming traffic to come to a full, reliable stop. With lower levels of vision, you cannot use 'Gap Selection' to judge when to cross.

Cycles are fast, agile and silent and cyclist / other users' behaviour can be unpredictable as they might not notice that a person has sight loss. Danger of collision is higher – the thought can be enough to contribute to anxiety, frustration, and eventual aversion to crossing the cycleways.

[Slide 08]

What Blind and Partially Sighted People tell us

“The first time I was waiting at this type of stop, I didn't realise that the bus didn't pull up to the shelter, or that there a wide cycle lane, and because the bus is electric, I couldn't hear it. The driver just left without speaking to me. A lady at the stop came up and said, 'they've just left you, love.'”

“I used to work in the city centre and couldn't use the bus on Newport Road due to this new bus stop – I found I was standing in road! One time I accidentally missed my stop and had to get off the bus with my baby at Dumfries place – cannot describe the terror I felt. I thought I'm going to get hit. I felt so vulnerable and responsible for my baby.“

[Slide 09]

What Cardiff Council tell us

How we've engaged so far -

- Wrote officially to the Leader of the Council and the Chief Executive on 3 separate occasions to raise concerns
- Met with Councillor De'Ath and Transport team
- Inputted into Equality Impact Assessments
- Raised this with Cardiff Council's Access and Equalities Group, chaired by Chris Hanson
- Highlighted this issue in the media with BBC Cymru

Each time we have been told that the designs are temporary and will be changed permanent designs subject to funding from Welsh Government but no clear or public timeline. So, how long do blind and partially people have to wait?

[Slide 10]

Why have they been built?

As we've demonstrated, the stops are not accessible, which breaches the Public Sector Equality Duty.

They contravene Active Travel guidance around implementing designs like this in busy areas.

Remediating them needs to be a priority for the Council.

Poor engagement and lack of understanding and co-production seems to have led to a situation where the needs of blind and partially sighted people are not comprehended fully in the decision-making process.

We don't want to see this happen again.

[Slide 11]

Our Recommendations

- These designs must be made fully accessible and safe for people with sight loss. Publicly commit to prioritising funding to remove them.
- Review how they came to be installed. Carry out Road Safety Audits and comprehensive EqIAs on all the bus stops.
- Adheres to Active Travel (Wales) guidance and Promotes safer cycling and walking infrastructure.
- Propose adopting RNIB's Key Principles of Inclusive Street Design

- Improve understanding of how blind and partially sighted people navigate public spaces, ensuring meaningful engagement and user testing with blind and partially sighted people. This will help planners and designers experience the space as someone with some, low or no vision does and help to inform decision making.

[Slide 12]

Wood Street cycleway crossing.

The positive is that an accessible bus stop has been created in Cardiff at Wood Street – so it can be done!

Image Description:

At Wood Street, a dark cycleway contrasts with grey paving and shows a signal controlled crossing point. There is red blister tactile paving at the crossing and white painted lines on the cycleway to indicate a stopping point. The crossing leads to a bus shelter on the right.

[Slide 13]

How RNIB Cymru can help

We are the largest sight loss charity in Wales, and work in partnership with public, private and third sector bodies across Wales to deliver projects, training, services and give information, advice, and guidance. We can -

- Help with accessible consultations, from comms through to Tactile Maps and Images.
- Host focus groups and workshops with blind and partially sighted residents.
- Refer to our specialist Inclusive Designs services.

Other organisations such as Guide Dogs Cymru, SightLife and Access Design Solutions are also on hand to engage.

[Slide 14]

Thank you for your time and listening to this issue!

Rachel Jones,
Policy and Campaigns Officer,
RNIB Cymru
rachel.jones@rnib.org.uk
@RNIBCyrmu

Mae'r dudalen hon yn wag yn fwriadol



R N I B

Cymru

Golwg gwahanol
See differently

Key Principles of Inclusive Street Design

Tudalen 35

Introduction

Walking is key to getting exercise, staying connected with family and community, getting to work, and accessing key services such as healthcare. For those unable to drive, walking is likely to be the main means of transportation, and in combination with public transport is essential for independence.

These Key Principles of Inclusive Street Design will help ensure our streets are as accessible as possible. Inclusive design is better design for everyone: people with sight loss, other disabled people, older people, carers with children, and ultimately for all who wish to use our streets. By working together, we can make our streets truly inclusive.

Supported by:

- Guide Dogs
- Thomas Pocklington Trust
- Visionary
- Macular Society
- Glaucoma UK
- Rehabilitation Workers Professional Network
- Sense
- Scope
- Brake
- Disability Rights UK
- People First



Inclusive street design checklist

Use this quick checklist to test the accessibility of your street designs:

1. Are all pavements, walkways and routes pedestrians would use kept free for pedestrians only – i.e., are they always separated from vehicles by a detectable kerb (minimum 60mm upstand)?
2. Are there enough pedestrian-only routes to take people safely from the start to the end of their walking journeys (for example, from shops or residential areas to public transport)?
3. Do roads and cycleways have accessible, signal-controlled crossings so pedestrians can cross safely?
4. Do all pavements, walkways and routes pedestrians would use have clear and unobstructed pathways at least two metres (6.6 feet) wide?
5. Are transport hubs like train stations, bus stops, and community facilities easily accessible for everyone?
6. Is access for disabled people travelling in cars or taxis maintained on pedestrianised or low-traffic routes?
7. Do new designs or proposed changes comply with existing guidance on accessibility? For example, do they provide good colour contrast and is tactile paving correctly installed in a way that minimises potential negative impact on wheelchair users.

8. Have new designs or proposed changes been consulted on, and undergone Equality Impact Assessments?
9. Have any accessibility issues highlighted in the consultation or Equality Impact Assessment processes been resolved?
10. Have all local people been informed of changes made to their local area, including those who need information in different formats?

If you answered no to any of the questions, your street may exclude some pedestrians. Refer to the Key Principles of Inclusive Street Design below to see what is needed to make your street accessible.



1. Pedestrians and moving vehicles must be kept separate

- Pavements and pedestrian areas must be kept for pedestrian use only. Pedestrians include people walking, wheelchair users and mobility scooter users.
- Mixed-use areas – where pedestrians and vehicles, including bikes and e-scooters, use the same area at the same time – are not inclusive. Any areas where pedestrians and other road users need to negotiate right of way are not inclusive and can be dangerous. Mixed-use areas include shared spaces, toucan crossings, Copenhagen crossings, and bus stops where passengers have to cross a cycle track to access the bus. Pedestrians need enough logical and connected pedestrian-only routes to take them safely from the start to the end of their walking journeys.
- Street designs, including junctions, need to be easy to understand and safe to use for all pedestrians.

2. Crossings must be accessible

- The most accessible crossings are signal-controlled, with push-button boxes allowing pedestrians to request traffic to stop. Dropped kerbs and red blister tactile paving help people with sight loss work out where these crossing points are. Signal – controlled crossings use sight, sound and touch (green man, beeping sound, and rotating cones underneath the push button boxes) to let pedestrians know when it's their turn to cross.
- Zebra crossings and courtesy crossings are much less safe for pedestrians who cannot negotiate with approaching vehicles they may be unable to see, hear, or move away from.



- Crossings which create level surfaces or continuous footways (like Copenhagen crossings) are not safe or accessible. These extend the appearance and feel of a pavement over a road, or a junction where sideroads join onto a main road, creating a level surface by removing detectable tactile features, such as upstanding kerbs, meaning pedestrians cannot always tell when they are in an area where vehicles may be moving.
- There need to be sufficient accessible signal-controlled pedestrian crossings over roads and cycleways in the right places: these are particularly important along key routes to essential services e.g., transport hubs, shops, offices, hospitals, schools, and community facilities such as parks.
- The increase in quiet electric vehicles is creating new challenges for people with sight loss, so accessible crossings are needed in lower traffic flow areas as well as busier areas.

3. Kerbs must be detectable

- Detectable kerbs are needed to separate areas for pedestrians from all areas where vehicles are moving, including cycleways and roads.
- A detectable kerb should have a high contrast to surrounding area so it can be easily seen or recognised by a guide dog.
- Research tells us that the minimum detectable upstand for people with

sight loss to feel underfoot, or with a white cane, is 60mm (2.4 inches), but the more detectable essential safety features are the better they work. The standard upstand height for kerbs in the UK is 120mm (4.7 inches).

- Detectable kerbs need to be lowered to a dropped kerb at all pedestrian crossing points. The kerbs need to be fitted with blister tactile paving in red for controlled crossings and any contrasting colour that's not red for uncontrolled crossing.

4. Pavements must be clear and clutter-free

- Pedestrians need clear uncluttered routes. UK Government guidance (Inclusive Mobility) recommends a clear path two metres (6.6 feet) wide, to allow space for two wheelchair users to pass one another.
- Any obstructions, particularly to the building line or kerbs, should be minimised (e.g. by instead making use of road space).
- The location of any street furniture should also be consistent and in accordance with local licensing, which should be robustly enforced.
- Street furniture or obstructions with sharp edges and irregular shapes are particularly hazardous. Where obstructions cannot be moved, bright colour and high-contrast materials can make them as safe and detectable as possible.
- Don't let vehicles park on pavements or walkways.

- Street designers and national and local policies should prioritise mitigating the negative impact on pedestrians of street obstructions both temporary (such as wheelie bins, pavement furniture and advertising boards) and permanent (like bollards, electric vehicle charging points and benches). For example, bin collectors can be alerted to streets where residents on the sight loss registers live and ensure that bins are returned to specific areas to lessen obstructions or make them more predictable if unavoidable.

5. Transport hubs and community facilities must be accessible

- Pedestrian-only walking routes, detectable kerbs and accessible signal-controlled crossings are important everywhere but should be particularly prioritised along routes to transport hubs and community facilities. Transport hubs include train stations, bus stops, tram stops, and taxi ranks.
- Bus stops that require pedestrians to cross a cycle lane (which go by names including bus stop boarders, Copenhagen bus stops, floating bus stops and bus stop bypasses) render buses inaccessible to many people who otherwise rely on bus travel. Existing bus stops of this design should be redesigned so people have an accessible way to cross live cycleways when getting on and off the bus. RNIB is encouraging and

participating in research and trials to find solutions to this issue.

6. Access must be maintained for people needing to travel by car or taxi

- Some disabled people rely on cars or taxis, so safe access for these needs to be possible, even in low traffic routes and areas which have been pedestrianised. Safe access could include simple and accessible processes for vehicle access exemptions, safe drop-off and pick-up points, and clearly marked taxi ranks.

7. Accessible consultations must be carried out

- Councils have a legal requirement to follow Government guidance on street design and accessibility as it applies in England, Northern Ireland, Scotland and Wales. Any street or public realm designs must fully comply with this guidance in the absence of exceptional circumstances.
- Councils, planners and designers should check thoroughly as to how their new designs or proposed changes align with the Key Principles of Inclusive Street Design in this document before progressing to public consultation and development. This will ensure the designs are as accessible as possible from the beginning.

- It is a legal requirement that public consultations on any new street and public realm proposals run by or on behalf of councils must be accessible.
- An informed understanding of the range of access needs of those with protected characteristics, including age, parenthood and disability – including the distinct needs of blind and partially sighted people – will improve designs at the development stage and help avoid lengthy public consultations and expensive retrofitting at later stages.
- Meaningful engagement with disabled people is not just about meeting minimum accessibility requirements but can include organising site visits and opportunities for feedback from local disabled people from the earliest stage of design.

8. Equality Impact Assessments must be conducted

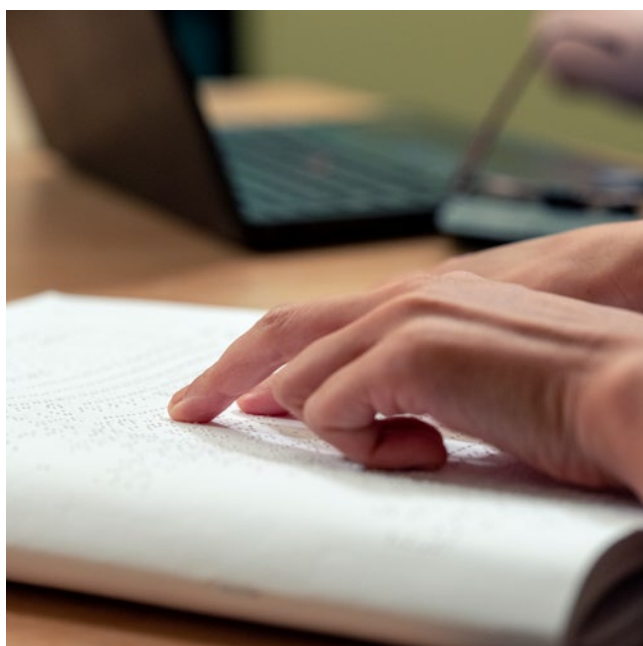
- It is a legal requirement that councils assess the impact of all their schemes, under the Public Sector Equality Duty (Section 75 of the Northern Ireland Act 1998; Equality Act and Scottish Specific Duties in Scotland). Councils can show compliance by completing an Equality Impact Assessment and an accessibility audit.
- It is a legal requirement that any accessibility issues mentioned in consultations or Equality Impact Assessments must be acknowledged

and addressed wherever possible before proposals are implemented.

- Designs or proposals which do not meet the Key Principles of Inclusive Street Design outlined in this document should not be developed.

9. Changes must be communicated to all local people

- It is a legal requirement to consider the accessibility of any notices, newspaper adverts or published plans to inform local people of changes to their area.
- People who live in the local area must be informed of the proposed changes in accessible formats (e.g., audio files, telephone calls, tactile maps, photographs, braille, large print).
- Councils need to liaise with local groups and organisations to inform about and publicise any changes. This includes publicising the availability of consultation documentation in accessible formats.



RNIB

RNIB Helpline 0303 123 9999
helpline@rnib.org.uk

Follow us online:



facebook.com/rnibuk



twitter.com/RNIB

rnib.org.uk

Tudalen 42

**CYNGOR CAERDYDD
CARDIFF COUNCIL
ENVIRONMENTAL SCRUTINY COMMITTEE**

7 DECEMBER 2023

**LOCAL AIR QUALITY MANAGEMENT – CARDIFF COUNCIL AIR QUALITY
ANNUAL PROGRESS REPORT 2023: PERFORMANCE MONITORING
SCRUTINY**

Purpose of the Report

1. To provide Members with background information to aid scrutiny of the report to Cabinet regarding Cardiff Council's Local Air Quality Annual Progress Report, which is due to be considered by Cabinet.

Scope of the Scrutiny

2. At their meeting on 14 December 2023, the Cabinet will consider a report entitled 'Cardiff Council 2023 Air Quality Progress Report' and notes the reason for the report as:
 - Note and accept the monitored results gathered in 2022 and approve the 2023 Annual Progress Report (as attached as Appendix A1) for submission to Welsh Government for approval by the 31st of December 2023.
3. During this scrutiny, Members have the opportunity to explore:
 - The progress and performance of the Council in relation to the national air quality objectives Wales;¹
 - The impact of the Covid-19 pandemic on air quality in Cardiff;
 - The recommendations to Cabinet.

Background

4. Scientific evidence shows that increased risk of heart disease, strokes, respiratory illness and other diseases that reduce life expectancy can be caused by that poor air quality. Therefore, air quality is the biggest environmental risk to public health

¹ [Standards and Objectives | Air Quality In Wales \(gov.wales\)5778](https://gov.wales/standards-and-objectives-air-quality-in-wales)

in the UK ², and Public Health Wales have stated that it is their greatest concern after smoking, and in Wales it is estimated that 1,100 deaths could have been avoided that are linked to NO₂ exposure each year, based on 2011-12 data.

5. The main causes of poor air quality are particulate matter and nitrogen dioxide (NO₂) which are mostly from vehicle emissions.
6. The estimated number of avoidable deaths based on the latest available information from Public Health Wales (2017) for the total number of all cause non-accidental deaths due to long-term mortality attributable to air pollution as between 178 - 227 deaths.
7. There is also a disproportionate impact on vulnerable population groups and dependant on living conditions/location.
8. Local authorities have a statutory duty under Part IV of the Environment Act 1995 & Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 to manage local air quality. Under Section 82 of the Environment Act 1995 the Local Air Quality Management (LAQM) process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not air quality objectives are likely to be achieved.
9. The air quality objectives applicable to LAQM in Wales are set out in the Air Quality (Wales) Regulations 2000, No. 1940 (Wales 138) and Air Quality (Amendment) (Wales) Regulations 2002, No 3182 (Wales 298).
10. *Where the air quality reviews indicate that the air quality objectives may not be met, the local authority is required to designate an Air Quality Management Area (AQMA). Action must then be taken to provide an Air Quality Action Plan (AQAP) for each identified AQMA to ensure that air quality in the identified area improves.*
11. *In 2018, Shared Regulatory Services and Cardiff Council developed a citywide Clean Air Strategy & Action Plan (CASAP) for Cardiff. The strategy coincides with Cardiff's Capital Ambition report and helps to implement and deliver the priorities outlined in the Ambition report with an overarching aim to improve air quality to protect and improve public health in Cardiff.*

² Estimating local mortality burdens associated with particulate air pollution', Public Health England, (2014)

12. The current Air Quality Annual Progress Report for the Council provides details on the ratified data for air quality monitoring undertaken in 2022 within the Cardiff Council area. The report includes 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.
13. Following the Direction received from the Welsh Government in 2020 to address concerns around Castle Street and the submission of a [Full Business Case](#), a number of measures were put in place to improve the local air quality including the following which were due to start before the COVID pandemic in 2020:
- Implementation of Electric Buses – 36 Electric Buses;
 - Bus Retro Fitting Programme;
 - Taxi Mitigation Scheme; and
 - City Centre Transportation Improvements.
14. The City Centre North scheme was constructed on an interim basis following Cabinet approval in June 2021, with the understanding that this would be reviewed following full post COVID recovery. During this time regular monitoring has taken place to ensure air quality compliance. The results for 2022 detailed that compliance was achieved with concentrations of 33.8 µg/m³ recorded.
15. To ensure a permanent solution was introduced a further Directive was issued in September 2022 and assessments and modelling undertaken into the effectiveness of the interim scheme and alternative solutions.
16. In April 2023 Cabinet considered the proposed options and supported the existing scheme being made permanent.
17. A Final Plan for the scheme was submitted to Welsh Government following their initial approval in August 2023 and final approval is awaited.

Structure of the Papers

18. The draft report to Cabinet is attached at **Appendix A** with the 2022 Annual Air Quality Progress Report attached at **Appendix A1**
19. The Progress Report consists of the following sections:

Executive Summary: Air Quality in Our Area	i
1. Actions to Improve Air Quality	1
2. Air Quality Monitoring Data and Comparison with Air Quality Objectives	36
3. New Local Developments	84
4. Policies and Strategies Affecting Airborne Pollution	87
5. Conclusions and Proposed Actions	95
References	97
Appendices	98
Appendix A: Quality Assurance/Quality Control (QA/QC) Data	99
Appendix B: A Summary of Local Air Quality Management	111
Appendix C: Air Quality Monitoring Data QA/QC	113
Appendix D: AQMA Boundary Maps	120
Glossary of Terms	124

20. A full **Table of Contents** can be found on **Page xi** of the Progress Report.

Issues identified in the Cabinet Report

21. The Cabinet report notes that in 2021 following the lifting of COVID-19 restrictions that air quality data collection continued and normal monitoring resumed.

22. **Point 22** of the Cabinet report identifies four Air Quality Management Areas (AQMAs) declared across Cardiff which have all been declared due to exceedances of the annual mean NO₂ Air Quality Standard (40 µg/m³), known to be derived from road transport. These areas are:

- **Cardiff City Centre AQMA** (declared 1/4/13 to incorporate Westgate Street; formerly St Marys St AQMA);
- **Ely Bridge AQMA** (declared 1/2/07);
- **Stephenson Court AQMA** (declared 1/ 12/10); and
- **Llandaff AQMA** (declared 1/4/13).

23. According to the Cabinet report, **points 24 – 33**, Cardiff had four automatic air quality monitoring sites in 2021, located at Frederick Street in the City Centre, Richard's Terrace, just off Newport Road, Castle Street³ and Lakeside Primary School. **The results obtained at 3 of these sites, excluding Lakeside (see point 30 of the Cabinet report) demonstrate compliance with the national air**

³ Installed late summer 2020 and operational from October 2020

quality objectives for both NO₂ and PM₁₀ which are set at 40 µg/m³ as an annual average.

24. **Points 33** – notes information and the indicative monitoring data (**Table 2**) on four additional air monitors sensors located across Cardiff in 2022 and, namely:

- **Lower Cathedral Road**
- **North Road**
- **Lansdowne Road, Canton and**
- **Llandaff**

25. However, this has reduced from seven due to operational issues.

26. The installation of an additional 47 real time analyses is noted in **point 32**, with further details provided in **point 69**

27. Further to this, points **34 – 38** state that **out of the 135** Cardiff Council operated specifically allocated non automatic monitoring sites in Cardiff which monitor levels of Nitrogen Dioxide (NO₂), **none of them recorded exceedances of the annual average objective set for NO₂ (40 µg/m³).**

28. As noted at **point 36**, the concentrations recorded for 2022 are suggestive that air pollution levels across Cardiff have improved and transport patterns are now more stable following previous COVID restrictions

29. **Point 37** comments that the Council will continue to work to reduce air pollution as there is no defined safe level when describing air quality

30. **City Centre AQMA – Point 38 / Figure 1** – Show that air quality has decrease slightly sites, following the re-opening of Castle Street, however NO₂ levels remain below the annual objective limit of 40 µg/m³.

31. **Ely Bridge AQMA - Point 39 / Figure 2** - Sites 117, 192 & 218 recorded annual average levels of NO₂ below the annual objective limit of 40 µg/m³.

32. **Llandaff AQMA – Point 40 - 44 / Figure 3** - Site 212, in 2019 had an annual average reading of 41.3 µg/m³. For 2020, it recorded a concentration of 33 µg/m³, a reduction of 20%. However, this has now increased in 2021 to 37 µg/m³, an increase of 4%, as the number of cars on the road has increased after covid restrictions are lifted In 2022 the concentrations at this location have increased

again, taking them very close to the annual objective limit, and as a consequence, further actions will be required to ensure air quality levels improve.

33. **Stephenson Court, Newport Rd, AQMA – point 45 / Figure 4** - No monitoring sites within the Stephenson Court AQMA (Sites, 81, 131 & 198) recorded concentrations $>30 \mu\text{g}/\text{m}^3$.

34. The work in relation to the introduction of Road User Charging is noted in **point 56**, and the impact that this policy change will have on air quality.

35. **Points 57-63** of the Cabinet report provides detail of the **School Streets Pilot Project (2019)** which involves the temporary closure of road links surrounding an initial 6 specific schools in Cardiff, selected following an assessment and concerns raised, with the idea to encourage parents, staff and children to adopt an alternative mode of travel. The results obtained from each of the school sites indicated **full compliance with the NO₂ annual average objective of 40 $\mu\text{g}/\text{m}^3$ at all sites**, namely:

- Whitchurch High Lower;
- Ysgol Melin Gruffydd;
- Peter Lea Primary;
- Llandaff Church in Wales Primary;
- Pencaerau School; and
- Lansdowne Primary.

36. The air quality in the proximity of 17 schools is currently being monitored.

37. **Cardiff Council Clean Air Plan: Response to the Welsh Government Direction – points 64 and 66** note that following previous temporary work undertaken to improve air quality on **Castle Street** further legal direction under part IV of the Environment act 1995 was issued to the Council by the Welsh Government, requiring the need for maintained compliance with NO₂ limits.

38. Assessments and modelling work was undertaken in 2022 to inform options to improve the air quality and a report taken to Cabinet in April 2023. The Cabinet supported the original scheme and a final plan was submitted to Welsh Government, final approval for the interim scheme to be made permanent is awaited.

39. In January 2022 an EV Taxi Scheme (**point 67**) was launched by the Council in partnership with a local vehicle hire company has acquired five fully electric wheelchair accessible Dynamo Hackney Carriage Taxis, further work needs to be done to incentivise the scheme take up, to support this a report was recently considered by the Licensing Authority in relation to lifting the moratorium on new hackney carriage plates, on the condition that any new plates are issues to EV, wheel chair accessible or Euro 6 emission standards or better.
40. Establishing a real-time city-wide air quality monitoring network (**points 69 - 71**) – was supported by the fitting of an additional 47 indicative real time monitors across the city' s four AQMA's and nears areas of concern i.e., schools and health centres. The results for 2023 monitoring will be published in Annual Monitoring Report in December 2024

Proposed Recommendations to Cabinet

41. The report to Cabinet contains the following recommendations:

- To note and accept the monitored results gathered in 2022 and approve the 2023 Annual Progress Report (as attached at Appendix A1) for submission to Welsh Government for approval by 31st December 2023.

Financial Implications

42. The financial implications noted in **points 73 -77** relate to the SRS's existing budget to carry out air quality monitoring across the city.

43. Also noted is the funding for the permanent Castle Street scheme which is awaiting approval from Welsh Government.

44. A full review of the Clean Air Strategy and Action Plan following the completion of the Castle Street Scheme, and any actions identified to address the decreasing air quality in the Llandaff AQMA

Legal Implications

45. The legal implications noted in **points 78 – 80** relate to the Air Quality Legal Direction and the legislative framework for decision making.

46. The duties in relation to Equalities is noted in **points 81 – 83**.

47. A 'standard' response regarding the Well Being of Future Generations is noted in **points 84 - 86.**

HR Implications

48. None noted in **point 88.**

Property Implications

49. None noted in **point 89.**

Previous Scrutiny

50. The Environmental Scrutiny Committee has been very involved in reviewing the work being undertaken by the Council to improve air quality in the city. Pre decision and update reports were received in March 2018 and March 2019 respectively as well as a Task and Finish Group inquiry in 2017/18 titled 'Improving Cardiff's Air Quality'. The inquiry considered a range of aspects that have an impact on Cardiff's air quality and consulted with a number of industry experts. The report made 31 recommendations and was presented to Cabinet on the 20th September 2018, a response to which was presented to the Scrutiny Committee in January 2020⁴, and resulted in further observations and comments via the Chair's letter⁵.

51. In June 2019, the Committee received and provided comment on a pre-decision item titled 'Air Quality Feasibility Study Final Plan - Full Business Case & City Centre Transport Improvements'⁶ and more recently, in June 2021, a further pre-decision report on City Centre Next Steps – Castle Street and City Centre East (Phase 1 + Canal).

52. The Committee has also examined the subject of air quality during scrutiny of associated topics and Council strategies such as One Planet Cardiff, Active Travel, Cardiff Bus Strategy and the Cardiff Transport White Paper.

⁴ [Agenda item - Cabinet Response to the Environmental Scrutiny Committee Report Titled 'Improving Cardiff's Air Quality' : City of Cardiff Council \(moderngov.co.uk\)](#)

⁵ [\(Public Pack\)Correspondence Following Committee Meeting Agenda Supplement for Environmental Scrutiny Committee, 21/01/2020 16:30 \(moderngov.co.uk\)](#)

⁶ [\(Public Pack\)Correspondence Following the Committee Meeting Agenda Supplement for Environmental Scrutiny Committee, 12/06/2019 16:30 \(moderngov.co.uk\)](#)

Way Forward

53. Councillor Caro Wild, Cabinet Member for Climate Change and Councillor Dan De'Ath, Cabinet Member for Transport & Strategic Planning have been invited to make a statement. Andrew Gregory, Director of Planning, Transport and Environment as well as other representatives from Shared Regulatory Services have also been invited to answer questions and assist the Committee in its consideration of the item.

Legal Implications

54. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters, there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

55. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters, there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations.

RECOMMENDATION

The Committee is recommended to:

- i) Consider the information in this report, its appendices and the information presented at the meeting;
- ii) Determine whether they would like to make any comments, observations or recommendations to the Cabinet on this matter in time for its meeting on 14 December 2023; and
- iii) Decide the way forward for any future scrutiny of the issues discussed.

LEANNE WESTON

Interim Deputy Monitoring Officer

1 December 2023

BY SUBMITTING THIS REPORT TO THE CABINET OFFICE, I, Andrew Gregory, DIRECTOR for Planning Transport and Environment AM CONFIRMING THAT THE RELEVANT CABINET MEMBER(S) ARE BRIEFED ON THIS REPORT

**CARDIFF COUNCIL
CYNGOR CAERDYDD**

CABINET MEETING: 14th December 2023

**LOCAL AIR QUALITY MANAGEMENT – CARDIFF COUNCIL
AIR QUALITY ANNUAL PROGRESS REPORT 2022**

**Climate Change (Cllr Caro Wild)
Transport & Strategic Planning (Cllr Dan De’Ath)**

AGENDA ITEM:

Reason for this Report

1. The purpose of this report is to seek approval for the 2023 Cardiff Council (CC) Local Air Quality Management (LAQM) Annual Progress Report (APR), based upon on air quality datasets obtained in 2022, for submission to Welsh Government for approval.

Background

2. Poor air quality is now considered the largest environmental risk to public health in the UK.¹ There is clear scientific evidence that shows that air pollution exposure reduces life expectancy by increasing mortality and morbidity risk from heart disease, and strokes, respiratory diseases, lung cancer and other conditions.
3. In the UK, in the context of air quality management, the main air pollutants that are the primary public health concern are particulate matter and Nitrogen Dioxide (NO₂). In the UK, it has been estimated that

¹ Estimating local mortality burdens associated with particulate air pollution', Public Health England, (2014)

an equivalent of 23,500 deaths can be attributed to long-term exposure to NO₂ each year.²

4. The principal source of these pollutants is from road transport emissions, particularly from diesel cars. In 2012, the International Agency for Research on Cancer listed diesel exhaust pollution as a Class 1 carcinogen³ and extended this to all ambient air pollution in 2013⁴.
5. Public Health Wales has stated that poor air quality is the second greatest public health concern after smoking and is the most significant environmental determinant of health. In Wales, based on data for the period 2011-2012, it has been estimated that an equivalent of 1,100 avoidable deaths can be linked to NO₂ exposure each year.
6. Poor air quality does not only cause ill health, but it also has a wider societal cost. Accounting for health service costs and reduced productivity through lost workdays in the UK this is significant, standing at around £20bn every year⁵.
7. Some people are more at risk than others. Air pollution can disproportionately affect vulnerable population groups (e.g., children, older people, people with underlying chronic disease), as well as those exposed to higher levels because of living or commuting in urban or deprived locations⁶.
8. Examining the most recent datasets (2017) made available by Public Health Wales for the total number of all-cause non-accidental deaths registered in the Cardiff and Vale University Health Board area, the long-term mortality burden attributable to air pollution (fine particulate matter and nitrogen dioxide combined) is an estimated effect equivalent to 178-227 deaths.
9. 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 Improving air quality in the UK: tackling nitrogen dioxide in our towns and cities: UK overview document' Defra (2015)

³ International Agency for Research on Cancer, (October 2013)

⁴ Every breath we take: the lifelong impact of air pollution', Royal College of Physicians and Royal College of Paediatrics and Child Health (2016).

⁵ National Institute for Health and Care Excellence 2017

⁶ WHO Regional Office for Europe 2016

10. The air quality objectives applicable to LAQM in Wales are set out in the Air Quality (Wales) Regulations 2000, No. 1940 (Wales 138) and Air Quality (Amendment) (Wales) Regulations 2002, No 3182 (Wales 298).
11. The 2023 Annual Progress Report provides details on the ratified data for air quality monitoring undertaken in 2022 within the Cardiff Council area.
12. Welsh Government issue 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 Welsh Government's Well-being for Future Generations legislation, 2015. This guidance, with 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 publish an Annual Progress Report (APRI) by 31st 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.
13. The APR attached in Appendix 1 satisfies the above criteria examining ratified datasets for air quality monitoring undertaken in 2022 within the Cardiff Council area.

Background: Welsh Government Clean Air Direction

14. In 2020 Cardiff Council received a direction from Welsh Government. In response the Council's published [Full Business Case](#) (Final Plan) set out a series of measures not only aimed at ensuring compliance on the A4161 Castle Street could be achieved in the shortest possible time, but provided city wide air quality improvements. The measures set out and approved by Welsh Government included:
 - Implementation of Electric Buses – 36 Electric Buses;
 - Bus Retro Fitting Programme;
 - Taxi Mitigation Scheme; and
 - City Centre Transportation Improvements.
15. A key component of the Clean Air Plan to deliver compliance was the full implementation of the City Centre Schemes, particularly the City Centre North (Castle Street) Scheme. The schemes would establish a high-quality active travel infrastructure for the city and improve connectivity between key developments by strategically aligning bus routes and enhancing links with the new Transport Interchange. These schemes were due to commence in early 2020, prior to the onset of the COVID pandemic.
16. In June 2021 Cabinet approved the construction of the original City Centre North Scheme as detailed in the Clean Air Plan, albeit on an interim basis. This basis of implementing an interim scheme was on the need that any wider impacts following a full post Covid recovery

period could be fully accounted for to ensure that no detrimental impacts in terms of congestion and air quality would result from the Clean Air Scheme.

17. Following implementation of the interim scheme the Council has maintained regular monitoring and assessment of traffic and air quality impacts on Castle Street to demonstrate that compliance is being maintained. The results for 2022 detailed that compliance was achieved with concentrations of 33.8 $\mu\text{g}/\text{m}^3$ recorded.
18. Owing to the decision for an interim scheme being implemented in late 2021, the Council ensured that constant dialogue and ongoing collaboration with Welsh Government officials was maintained to ensure that the Plan remains on course to deliver and maintain compliance.
19. In order to formalise a time period to bring forward a permanent scheme on Castle Street, the Welsh Government have issued the Council with a further legal direction under Part IV of the Environment Act 1995 ⁷ in September 2022. The direction sets out measures the Council needs to implement to ensure that compliance for the NO₂ limit value on Castle Street is maintained.
20. In 2022 in order to comply with the Direction, additional assessment works were commissioned to update the previous air quality and transportation modelling, to account for post COVID traffic flows to be assessed in terms of the impact and effectiveness of the Castle Street Scheme. In addition a further option of removing general traffic from Castle Street was also assessed to provide a possible alternative option for the Council to consider.
21. The modelling works were completed in early 2023, and a report was presented to Cabinet in April 2023, with a view of supporting the original Castle Street Scheme as the preferred option. In August 2023, Welsh Government provided initial approval of the Council's preferred option, subject to the submission of an updated Final Plan. The Council has now submitted this Final Plan and at that the time of writing this report is awaiting final approval from Welsh Government.

Air Quality in Cardiff

22. There are currently four Air Quality Management Areas (AQMAs) declared across Cardiff which have all been declared due to exceedances of the annual mean NO₂ Air Quality Standard (40 $\mu\text{g}/\text{m}^3$), the main source of the pollution being derived from road transport emissions. The established AQMAs are:

- **Cardiff City Centre AQMA** (declared 1/4/13 to incorporate Westgate Street; formerly St Marys St AQMA);

⁷ <https://gov.wales/environment-act-1995-activity-ensure-nitrogen-dioxide-compliance-air-quality-direction-2022-cardiff>

- **Ely Bridge AQMA** (declared 1/2/07);
- **Stephenson Court AQMA** (declared 1/ 12/10); and
- **Llandaff AQMA** (declared 1/4/13).

23. **The 2023 Annual Progress Report presents monitoring data captured in 2022.** In line with the Cardiff Council's (CC) statutory duties under Part IV of the Environment Act 1995, Shared Regulatory Services on behalf of CC undertakes regular air quality monitoring at specifically allocated locations across Cardiff using automated and non-automated principles for ambient air Nitrogen Dioxide (NO₂), Particulate Matter (PM₁₀ & PM_{2.5}), Sulphur Dioxide (SO₂), Carbon Monoxide (CO) & Ozone (O₃).

Automated Monitoring Network

24. In 2022, Cardiff had four automatic air quality monitoring sites located at Frederick Street in the City Centre, Richard's Terrace, just off Newport Road, Castle Street and Lakeside Primary School.

25. The Frederick Street (Urban Background) site monitors on a 24/7 basis measuring levels of NO₂, PM₁₀ & PM_{2.5}, SO₂, CO and O₃ feeding data directly into Defra's Automatic Urban and Rural Network (AURN).

26. The Richard's Terrace site (Urban Traffic/ Roadside monitors on a 24/7 basis measuring levels of NO₂ & PM₁₀ at that location, feeding data directly into Defra's Automatic Urban and Rural Network (AURN).

27. The Castle Street site was installed as part of the Council's Clean Air Plan and the site monitors on a 24/7 basis measuring levels of NO₂, PM₁₀ & PM_{2.5} at that location, forming part of the Welsh Air Quality Network.

28. The 2022 results of the monitoring for NO₂, and PM₁₀, at the above-mentioned stations is presented in Table 1.

Table 1 - Summary of Automated Results for NO₂ , PM₁₀ and PM_{2.5} as annual averages

Site Name	NO₂ Annual Mean Concentration (µg/m³)	PM₁₀ Annual Mean Concentration (µg/m³)	PM_{2.5} Annual Mean Concentration (µg/m³)
Frederick Street City Centre	17	16	11
Richards Terrace Newport Rd	22	18	N/A
Castle Street	34	20	10

29. The results obtained at all 3 sites demonstrate compliance with the national air quality objectives for both NO₂ and PM₁₀ which are set at 40 µg/m³ as an annual average. Full datasets for these monitors are available on the Welsh Air Quality Forum Website <https://airquality.gov.wales/> .
30. Lakeside Primary School (Urban Background) site monitors on a 24/7 basis measuring levels of Polycyclic aromatic hydrocarbons (PAH) at that location, feeding data directly into Defra's PAH Digital (solid phase) Network. SRS serve as a local site operator to this site, however data interpretation is sanctioned by the consultants Ricardo Energy and Environment Ltd. Therefore, the purpose of this site and results derived are not corresponded to any of the limit values outlined for the purposes of LAQM in Wales.
31. In addition to the above monitoring, four additional air monitoring sensors were located across Cardiff during 2022. These monitors provide indicative air quality monitoring data for NO₂, PM₁₀ and PM_{2.5}. The number of sensors operated in 2022 reduced from seven monitors owing to operational issues with some of the sensors and to allow completion of works on Tudor St for one of the monitors.
32. However in 2023 the Council has installed a further 47 real time analysers as detailed in paragraph 69.
33. Results captured from the AQMesh analysers in 2022 are summarised in Table 2 below and shows compliance for the relevant air quality objectives where met.

Table 2 - AQ MESH Data Summary 2022

Site ID	NO ₂ Annual Concentration (µg/m ³)	PM ₁₀ Annual Mean Concentration (µg/m ³)	PM _{2.5} Annual Mean Concentration (µg/m ³)
Lower Cathedral Road AQMesh	27.7	12.7	7.6
North Road AQMesh	26.7	9.2	7.1
Lansdowne Road, Canton AQMesh	30.6	17.2	11
Llandaff AQMA AQmesh	27.5	13.9	8.4

Non-automatic Monitoring Sites

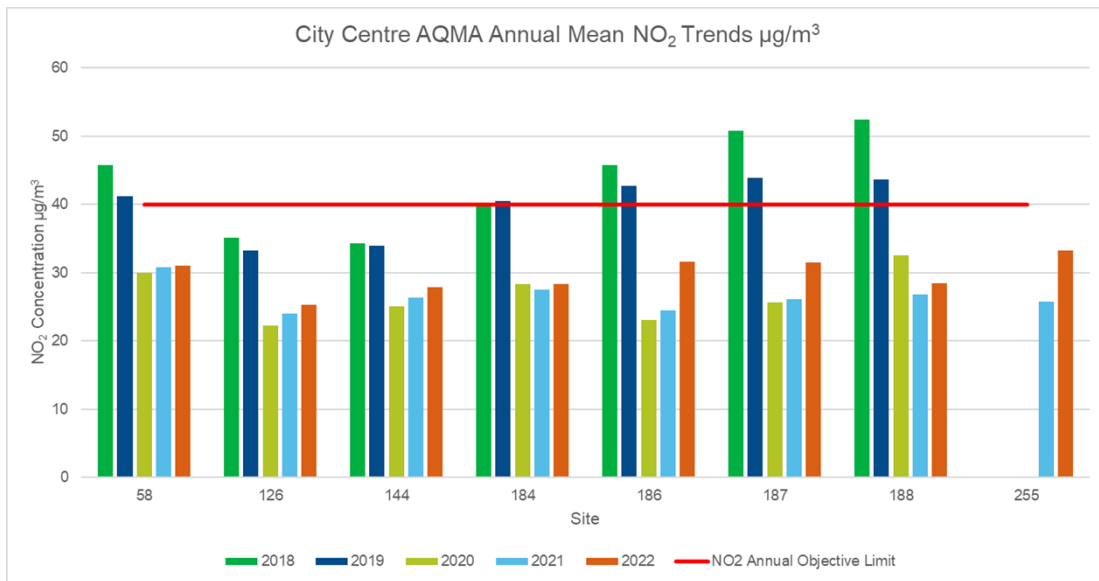
34. In 2022 the Council operated 135 specifically allocated non automatic monitoring sites in Cardiff which monitor levels of Nitrogen Dioxide (NO₂).
35. **In 2022, out of the 135 non automatic monitoring locations across the entire City, no monitoring sites recorded exceedances of the annual average objective set for NO₂ (40 µg/m³).**
36. The results are indicative that the levels of air pollution have improved, across Cardiff compared to pre COVID levels. Given no further COVID restrictions were implemented in 2022, the results from 2022 are likely to be more representative of 'settled' transportation patterns.
37. In accordance with Welsh Government's (WG) Local Air Quality Management Policy Guidance, July 2017, Cardiff Council recognise that there is no defined "safe level" when describing levels of air quality and work remains ongoing to reduce air pollution across Cardiff.

Results in AQMAs

City Centre AQMA

38. Figure 1 displays trends in NO₂ concentrations from non-automatic sites in the Cardiff City Centre Cardiff AQMA. All locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) at all locations in 2022. Improvements in NO₂ concentrations are evident when compared to 2019, although there is a slightly increasing trend in NO₂ concentrations since 2020, reflective of the easing of COVID restrictions and revised transportation behaviours in Cardiff.

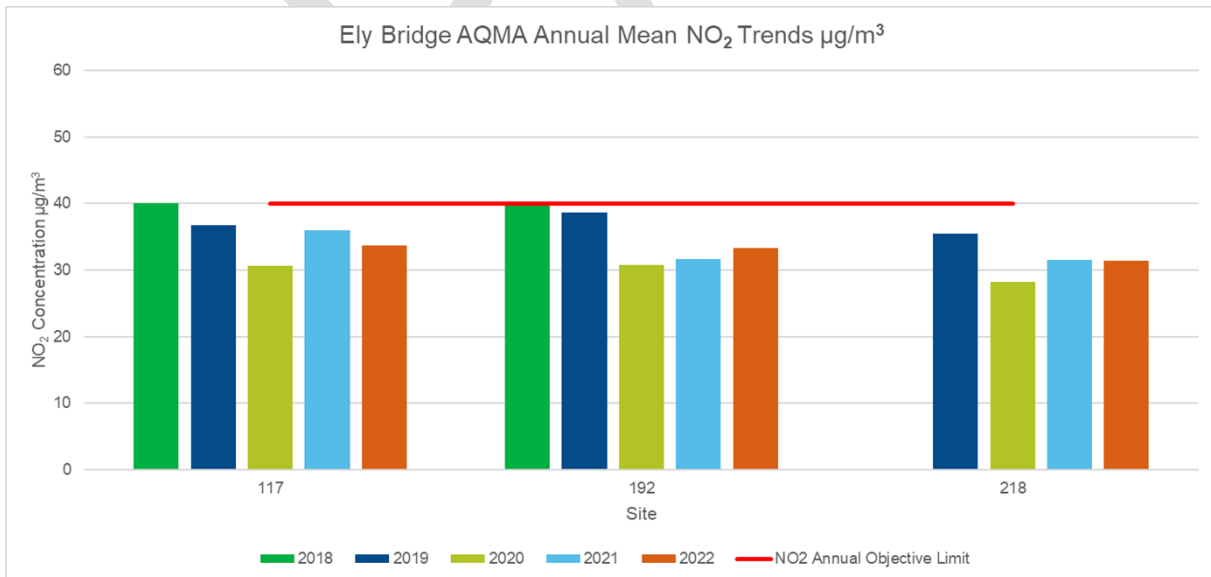
Figure 1 -City Centre AQMA NO₂ Trends



Ely Bridge AQMA

39. Figure 2 displays trends in NO₂ concentrations from non-automatic sites in Ely Bridge AQMA. All locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) at all locations in 2022. Further all locations display compliance with the annual mean NO₂ Air Quality Standard (40 µg/m³) since 2018, and a stable trend in NO₂ concentrations since 2020.

Figure 2 – Ely Bridge AQMA NO₂ Trends

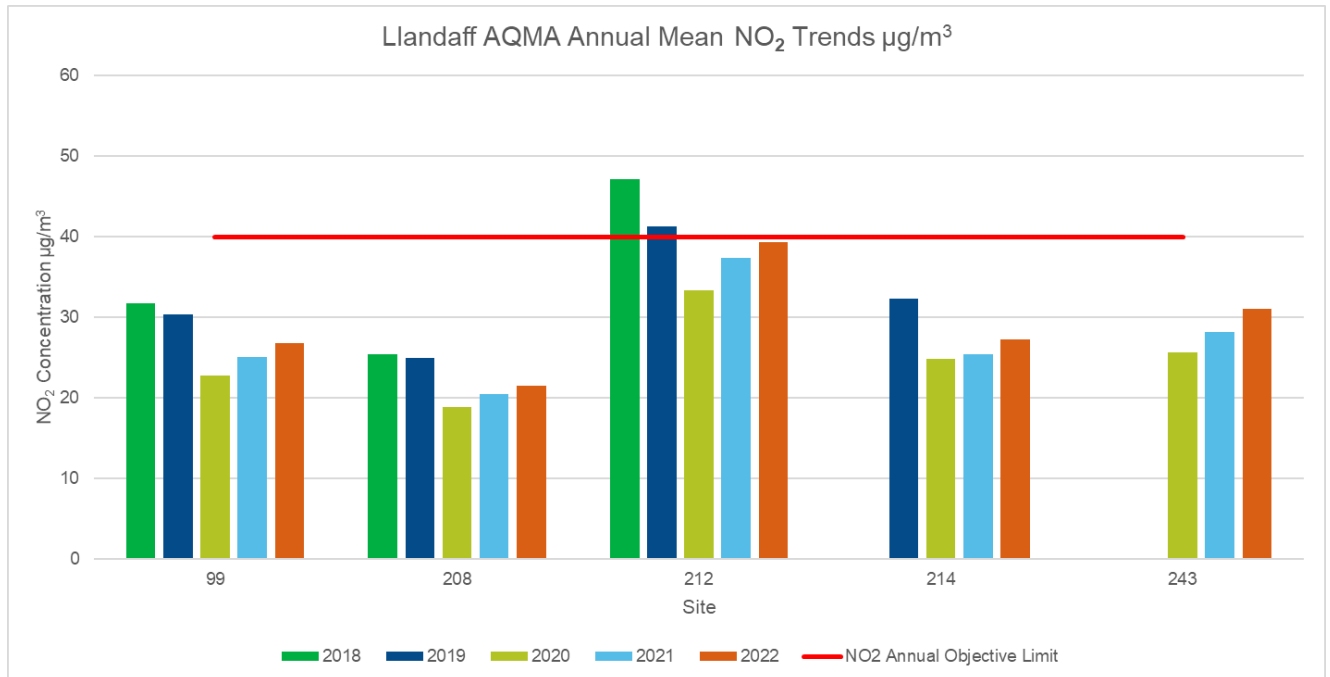


Llandaff AQMA

40. Figure 3 displays trends in NO₂ concentrations from non-automatic sites in Llandaff AQMA. In 2022 all locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³). However, Site 212 is close to exceeding the annual mean NO₂ Air Quality Standard

(40µg/m³) and there is a slight increasing trend in NO₂ concentrations since 2020.

Figure 3 - Llandaff AQMA NO₂ Trends



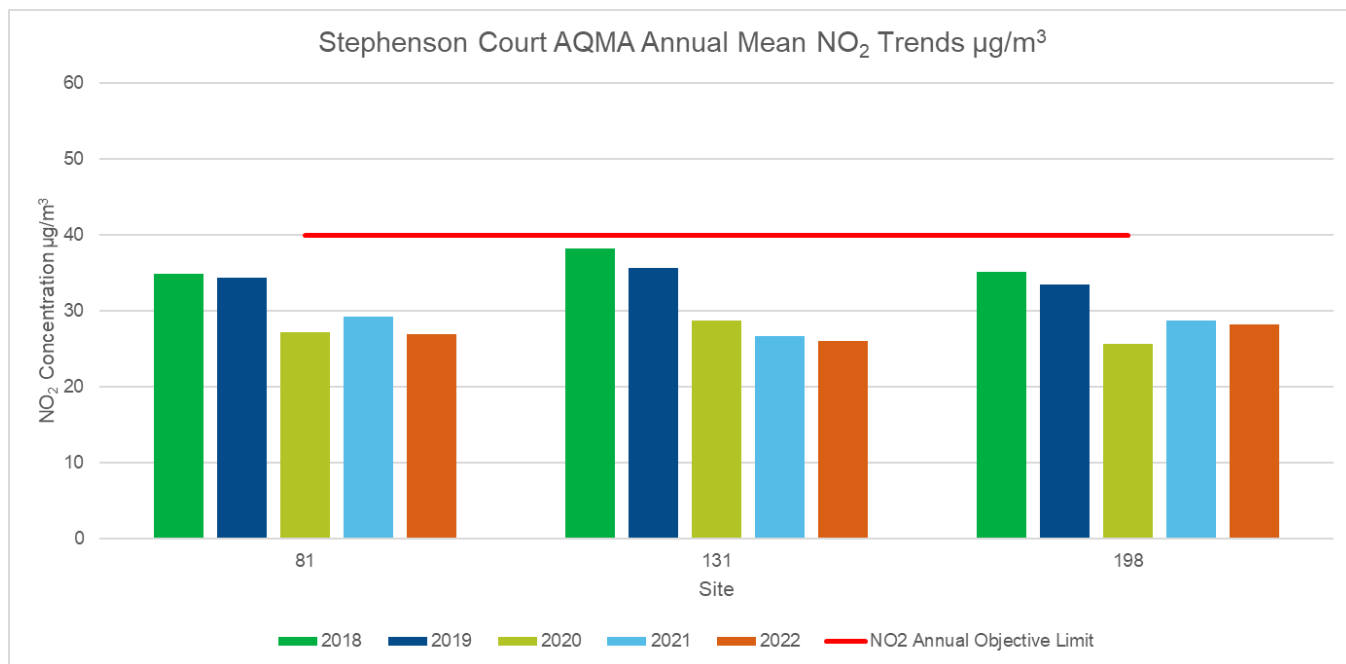
41. Site 212 which did indicate an exceedance of the annual average objective in 2019 with an annual average reading of 41.3 µg/m³ recorded a concentration of 33 µg/m³ in 2020. This increased to 37 µg/m³ in 2021 and has further increased to 39.3 µg/m³ in 2022.
42. Owing to the continued increase of NO₂ concentrations at this location it will be necessary for the Council to consider additional specific actions for the Llandaff AQMA.
43. As part of this work it will be necessary to develop and assess potential options in order to identify appropriate actions that will look to improve air quality in Llandaff to ensure breaches of the air quality standards do not occur, and that levels of NO₂ start to decrease within the AQMA. This work can be included in an updated Clean Air Strategy for Cardiff, which will be progressed once the implementation of the Castle Street scheme has commenced.
44. As detailed in paragraph 69 below the Council has increased its real time monitoring capabilities and this data will be utilised in these assessments.

Stephenson Court AQMA

45. Figure 4 displays trends in NO₂ concentrations from non-automatic sites in Stephenson Court AQMA. In 2022 all locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) Furthermore all locations display compliance with the annual mean

NO₂ Air Quality Standard (40µg/m³) since 2018, and a stable trend in NO₂ concentrations since 2020.

Figure 4 – Stephenson Court AQMA NO₂ Trends



Summary of Results

46. There were no exceedances in either the annual or short-term Air Quality Objectives for NO₂ at any automatic and non-automatic monitoring site during 2022. Results from most monitoring sites in 2022 show slightly increased NO₂ concentrations compared to 2021, but still maintain a reduction compared to 2019 pre-Covid.
47. It is encouraging that for both the Ely Bridge and Stephenson Court AQMAs, concentrations are showing stable and continued compliance with the AQS for NO₂. Whilst monitoring has continued in 2023 and has been enhanced by the expansion of the real time monitors installed in 2023, the Council may wish to consider future actions at these two AQMAs, which could include reviewing the boundaries or indeed revoking the AQMAs. The Technical Guidance document LAQM TG22 document states *The revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring. Where NO₂ monitoring is completed using diffusion tubes, to account for the inherent uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO₂ concentrations being lower than 36µg/m³ (i.e. within 10% of the annual mean NO₂ objective).*
48. However, any decision on the revocation of AQMA will need to consider the potential of any revised air quality targets as a result of the Environment (Air Quality and Soundscapes) (Wales) Bill.

49. The results to date for 2022 are currently suggesting a stabilisation of results owing to the removal of all Covid restrictions. It is therefore imperative that focussed monitoring within the AQMAs continues and the need for any further action reviewed accordingly.
50. In accordance with LAQM best practise guidance, there are no monitoring sites in the district with annual average concentrations above $60 \mu\text{g}/\text{m}^3$ in 2022. This is therefore indicative that it is unlikely that the hourly NO_2 objective was exceeded during this monitoring period.
51. Section 84 of the Environment Act 1995 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. Therefore Cardiff Council has a statutory requirement to produce an Air Quality Action Plan (AQAP) for each identified AQMA.
52. In 2017 the Council gave a commitment to produce a Clean Air Strategy and Action Plan by 2018. This objective of this report was to develop an Action Plan to address air quality issues not only in the AQMAs, but across all of Cardiff.
53. Highlighting this commitment, in 2018, SRS & CC developed a citywide Clean Air Strategy & Action Plan (CASAP) for Cardiff. The strategy coincided with Cardiff's Capital Ambition report and helps to implement and deliver the priorities with an overarching aim to improve air quality to protect and improve public health in Cardiff. The CAS & Action Plan appoints strategic measures that will look to generate a positive impact to citywide air quality levels, in particular traffic derived NO_2 levels. Each measure has endured a cost benefit appraisal procedure by weighting the measures in terms of air quality impact, cost and timescale. The key theme of the strategic measures is to increase the uptake of sustainable modes of transport by influencing a behavioural change in Cardiff.
54. The CASAP fulfils the requirements of the LAQM process to produce an Air Quality Action Plan (AQAP).
55. It will be imperative that the CASAP is reviewed following the full implementation of the Clean Air Plan in order to further prioritise measures, to ensure air quality levels are continuously improved in Cardiff. Therefore, it is likely that the CASAP will need a full review and update in 2024/25, and as detailed earlier specific focus will need to be afforded to improving the NO_2 concentrations in the Llandaff AQMA as a key priority.
56. Cabinet will be aware of the ongoing work on Road User Pricing (RUP) following previous agreement by Cabinet to progress the WelTAG Stage 2 report at the April 2023 meeting of Cabinet. One of the key outcomes of the work will be to provide further improvements to air quality across Cardiff and this will be linked to any updates to the

Clean Air Strategy and Action Plan as detailed above. It should therefore be recognised that the work on RUP will be a major policy intervention to deliver long-term continued improvements to air quality and public health in Cardiff.

School Monitoring - School Streets Project

57. In view of the corporate commitment to deliver active travel plans for all schools, SRS was commissioned by Cardiff Council's Transportation, Policy and Strategy Team to assist with Cardiff Council's Schools Streets pilot project in October 2019, which involves the temporary closure of road links surrounding and initial 6 specific schools in Cardiff.

- Whitchurch High Lower;
- Ysgol Melin Gruffydd;
- Peter Lea Primary;
- Llandaff Church in Wales Primary;
- Pencaerau School; and
- Lansdowne Primary.

58. These initial schools were selected for the pilot project owing to an assessment made by the Road Safety Team following numerous concerns and correspondence received relating to road safety issues at these schools. The road layouts at these schools allowed for the project to be accommodated.

59. The Traffic Regulation Order (TRO) is effective during the schools' morning and afternoon drop-off and pick-up hours. This project is seen as an excellent opportunity to take action to encourage parents, staff and children to adopt an alternative mode of travel.

60. Shared Regulatory Services (SRS) has continued to support this project by providing additional air quality monitoring, with a total of 17 schools now being monitored.

61. SRS gather monthly datasets for NO₂ using non-automated passive diffusion tubes, undertaken at the schools' premises, inside the TRO zone at a residential façade and outside the TRO zone at a residential façade. This strategic placement of monitoring sites allows the examination of potential displacement impacts as a result of the adopted TRO zone.

62. The results obtained from each of the school sites indicated **full compliance with the NO₂ annual average objective of 40 µg/m³ at all sites.**

63. Full details of the results are presented in the Annual Progress Report.

Welsh Government Legal Direction Update

64. Following on from the development of the temporary approach to mitigating poor air quality impacts on Castle St, Welsh Government, working in full partnership with Cardiff Council, issued the Council with a further legal direction under Part IV of the Environment Act 1995.⁸ This direction set out measures the Council needed to implement to ensure that compliance for the NO₂ limit value on Castle Street is maintained.
65. In 2022 additional assessment works were commissioned to update the previous air quality and transportation modelling, to account for post COVID traffic flows to be assessed in terms of the impact and effectiveness of the Castle Street Scheme. In addition a further option of removing general traffic from Castle Street was also assessed to provide a possible alternative option for the Council to consider.
66. The modelling works were completed in early 2023, and a report was presented to Cabinet in April 2023, with a view of supporting the original Castle Street Scheme as the preferred option. In August 2023, Welsh Government provided initial approval of the Council's preferred option, subject to the submission of an updated Final Plan. The Council has now submitted this Final Plan and at that time of writing this report is awaiting final approval and funding commitment from Welsh Government.

EV Taxi Scheme and Taxi Fleet

67. In Q3 of 2021 the Council procured 5 fully electric wheel chair accessible Dynamo Hackney Carriage Taxis. In partnership with a local vehicle hire company the Council launched an EV Taxi Lease Scheme for licensed Cardiff drivers to take up an EV Taxi. This scheme was initially launched in January 2022. Further details for this scheme can be found at <https://www.electrictaxiswales.co.uk/english/cardiff-scheme>.
68. Unfortunately the scheme has not seen the uptake of vehicles that was anticipated, and ongoing discussions with Welsh Government have taken place to identify potential improvements to the scheme. In addition during 2022 Cardiff Council/ SRS as the licensing authority have undertaken further consultation with the Taxi Trade on future licensing amendments. This has resulted in a recent report to the Licensing Authority whereby the committee approved the lifting of the existing moratorium on issuing new hackney carriage plates. The revised agreement will allow new hackney carriage licenses to be issued but only to EVs or Wheelchair Accessible Vehicles with an emission standard of Euro 6 or better. In Q3 of 2021 the Council procured 5 fully electric wheelchair accessible Dynamo Hackney Carriage Taxis. It is hoped this amendment may encourage the uptake of the available lease taxis.

⁸ <https://gov.wales/environment-act-1995-activity-ensure-nitrogen-dioxide-compliance-air-quality-direction-2022-cardiff>

Establishing a real-time city-wide air quality monitoring network

69. In April 2023 the Council completed the installation of a further 47 indicative real time monitors across Cardiff, which monitor for NO₂, PM10 and PM2.5
70. The location of the monitors were selected on a risk based approach in line with government Technical Guidance and where sensitive receptors are likely to be exposed . The monitors were placed in the city's four AQMAs and more widely across the whole of the city, near areas of concern like schools and health centres.
71. The full results from these monitors will be detailed in the Council's 2024 APR, as this report will provide details of monitoring data from 2023. **An initial review of the data from May 2023-September 2023, will shortly be published on the SRS website.**

Local Member consultation (where appropriate)

Reason for Recommendations

72. To enable Cardiff Council to agree a final version of the Annual Progress Report on Local Air Quality Management to Welsh Government to meet statutory reporting requirements.

Financial Implications

73. The Shared Regulatory Service has an existing budget to complete a programme of air quality management and monitoring across Cardiff. This report sets out the annual progress report based on data monitoring undertaken in 2022 for approval and submission to Welsh Government in line with statutory reporting requirements.
74. Welsh Government issued an additional Air Quality Legal Direction in September 2022 setting out measures necessary to ensure ongoing compliance at Castle Street. Modelling works in this regard were completed and a report presented to Cabinet in April 2023. A final scheme plan for Castle Street has been submitted and is awaiting approval from Welsh Government.
75. The report to Cabinet in April identified that funding would be made available from the Welsh Government towards the capital construction costs of any final approved scheme at Castle Street. The Council will need to continue to work with Welsh Government to maximise any financial contribution and to ensure that terms and conditions of any funding made available are met accordingly.
76. Future reports will need to update on the ongoing work regarding the full review of the Clean Air Strategy and Action plan to take place in 2024/25 and following implementation of any approved Castle Street scheme. The

report identifies that consideration will also need to be given to options to address results for the Llandaff AQMA.

77. As part of the development of scheme options, any incremental revenue costs would need to be identified. Where such identified costs cannot be managed within the existing budget framework and/or at the expense of existing maintenance obligations and minimum condition standards set for existing assets, this would need to be considered along with other pressures as part of future medium term budget planning, consistent with an approved asset management plan.

Legal Implications (including Equality Impact Assessment where appropriate)

78. The recommendations in this report are mainly to note the air quality monitoring results, the update to the Air Quality Legal Direction, and to approve the submission of the Annual Progress Report attached to this report as part of the Council's ongoing reporting requirements.
79. The legislative framework is set out in the body of this report. The decision maker needs to be satisfied that it has all the relevant information available before making any decision and have regard to the further general advice set out in these implications.

General Advice

80. Any decision must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. standing orders and financial regulations; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all circumstances and comply with all equalities legislation.

Equality Act 2010

81. In considering this matter the decision maker must have regard to the Council's duties under the Equality Act 2010 (including specific Welsh public sector duties). Pursuant to these legal duties Councils must, in making decisions, have due regard to the need to (1) eliminate unlawful discrimination, (2) advance equality of opportunity and (3) foster good relations on the basis of protected characteristics. Protected characteristics are: (a) Age, (b) Gender reassignment, (c) Sex, (d) Race – including ethnic or national origin, colour or nationality, (e) Disability, (f) Pregnancy and maternity, (g) Marriage and civil partnership, (h) Sexual orientation, (i) Religion or belief – including lack of belief.
82. When taking strategic decisions, the Council also has a statutory duty to have due regard to the need to reduce inequalities of outcome resulting from socio-economic disadvantage ('the Socio-Economic Duty' imposed under section 1 of the Equality Act 2010). In considering this, the

Council must take into account the statutory guidance issued by the Welsh Ministers ([WG42004 A More Equal Wales The Socio-economic Duty Equality Act 2010 \(gov.wales\)](#)) and must be able to demonstrate how it has discharged its duty.

83. The decision maker should be mindful of the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards.

The Well-being of Future Generations (Wales) Act 2015

84. The Well-Being of Future Generations (Wales) Act 2015 ('the Act') places a 'well-being duty' on public bodies aimed at achieving 7 national well-being goals for Wales - a Wales that is prosperous, resilient, healthier, more equal, has cohesive communities, a vibrant culture and thriving Welsh language, and is globally responsible. In discharging its duties under the Act, the Council has set and published well being objectives designed to maximise its contribution to achieving the national well being goals. The wellbeing objectives are set out in Cardiff's Corporate Plan 2023-26.

85. When exercising its functions, the Council is required to take all reasonable steps to meet its wellbeing objectives. This means that the decision makers should consider how the proposed decision will contribute towards meeting the wellbeing objectives and must be satisfied that all reasonable steps have been taken to meet those objectives.

86. The wellbeing duty also requires the Council to act in accordance with a 'sustainable development principle'. This principle requires the Council to act in a way which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. Put simply, this means that Council decision makers must take account of the impact of their decisions on people living their lives in Wales in the future. In doing so, the Council must:

- Look to the long term
- Focus on prevention by understanding the root causes of problems
- Deliver an integrated approach to achieving the 7 national well-being goals
- Work in collaboration with others to find shared sustainable solutions
- Involve people from all sections of the community in the decisions which affect them

87. The decision maker must be satisfied that the proposed decision accords with the principles above; and due regard must be given to the Statutory Guidance issued by the Welsh Ministers, which is accessible on line using the link below: <http://gov.wales/topics/people-and-communities/people/future-generations-act/statutory-guidance/?lang=en>

HR Implications

88. There are no HR Implications as a result of this report.

Property Implications

89. There are no Property Implications as a result of this report

RECOMMENDATIONS

Cabinet is recommended to:

1. Note and accept the monitored results gathered in 2022 and approve the 2023 Annual Progress Report (as attached as Appendix 1) for submission to Welsh Government for approval by the 31st of December 2023.

SENIOR RESPONSIBLE OFFICER	Director Name Andrew Gregory
	Date submitted to Cabinet office 29.11.2023

The following appendices are attached:

Appendix 1: Cardiff Council Annual Air Quality Progress Report 2023.

Mae'r dudalen hon yn wag yn fwriadol



Cardiff Council 2023 Air Quality Progress Report

In fulfilment of Part IV of the Environment Act 1995, as
amended by the Environment Act 2021

Local Air Quality Management

Date: November 2023

Information	Cardiff Council
Local Authority Officer	Adam Spear
Department	Specialist Enterprise Services
Address	Civic Offices, Holton Road, Barry CF63 4RU
Telephone	0300 123 6696
E-mail	aspear@valeofglamorgan.gov.uk
Report Reference Number	SRS/CC/APR2023
Date	November 2023

Executive Summary: Air Quality in Our Area

What has become distinctly apparent is that air Pollution is a local and national problem. Long-term exposure reduces life expectancy by increasing mortality, as well as increasing morbidity risks from heart disease and strokes, respiratory diseases, lung cancer and other effects.

What we know is that poor air quality in Wales poses a significant concern for Public Health and is regarded as the most significant environmental determinant of health. Its associated adverse risk to public health is particularly prevalent within urban areas and near major roads. The pollutants of primary concern for public health are particulate matter and primary/ secondary derived nitrogen dioxide (NO₂). Both pollutants primarily originate from motor vehicles.

The UK expert Committee on the Medical Effects of Air Pollution (COMEAP) estimated that air pollution is responsible for “an effect equivalent of between 28,000 and 36,000 deaths (at typical ages) each year” in the UK. In 2022, the UK Health Security Agency updated this estimate; the burden range is now reported as the equivalent of between 29,000 and 43,000 deaths per year¹.

The burden range does not reflect ‘actual’ deaths from air pollution exposure but is an estimate of the ‘equivalent’ reduced life expectancy, when summed, which everyone experiences because of air pollution exposure (6-8 months on average but could range from days to years).

In Wales – based on modelled air pollution data pre-pandemic – Public Health Wales estimated the burden of long-term air pollution exposure to be around the equivalent of 1,000 to 1,400 deaths each year². This estimate was calculated using a more accurate method that considers the combined effects of different pollutants, meaning that the overlapping effects of PM_{2.5} and NO₂ are accounted for.

¹ <https://airquality.gov.wales/about-air-quality/health-advice>

² <https://phw.nhs.wales/services-and-teams/environmental-public-health/air-quality/air-pollution-and-health-fact-sheet/>

Impact estimates are uncertain, however, which is why they should always be presented as a range of values, rather than a single, central estimate. The estimates are also relevant only to a single time and place and should not be used for comparisons.

Although estimating the burden of air pollution is difficult, there is clear and strong evidence that it does harm health. It is therefore important to take action to reduce air pollution and the harms that go with it.

Pandemic Restrictions and the Impact on Air Quality

The emergency public health restrictions introduced during the pandemic (e.g. lock down and working from home policies) showed just how closely travel, transport and air pollution are connected.

In work commissioned by Welsh Government³, the changes in concentrations of different air pollutants during lock-down phases were assessed. It showed that travel and transport are significant contributors to air pollution, and that changes in the need to travel and mode of travel can improve air quality.

Policies that recognise these changes and aim to support them being adopted in the long-term are likely to benefit air quality and health.

Remote and Hybrid working has remained higher than pre-pandemic levels. These working practices contribute towards decreased traffic and emissions on our roads. Data is presented by the ONS (Office of National Statistics) for the UK Annual Population Survey in 2019⁴. In the 12-month period from January to December 2019, in the UK there were an estimated 1.7 million people who said that they work mainly from home; this represents just over 5% of the total workforce.

Levels of working from home peaked during the pandemic, with almost half of working adults (49%) reporting having worked from home at some point in the past seven days in the first half of 2020 (3 to 13 April and 11 to 14 June 2020). Two years later (27 April to 8 May 2022), when guidance to work from home was lifted in Great Britain, around 38% of working adults reported having worked from home. In the most recent period (25 January

³ <https://airquality.gov.wales/reports-seminars/reports?page=1>

⁴ [Coronavirus and homeworking in the UK labour market - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/peoplepopulationandcommunity/employmentandearnings/articles/coronavirusandhomeworkingintheuklabourmarket)

to 5 February 2023) around 40% of working adults reported having worked from home at some point in the past seven days.

The Environment (Air Quality and Soundscapes) (Wales) Bill

The Environment (Air Quality and Soundscapes) (Wales) Bill⁵ was introduced to the Senedd on Monday 20 March 2023, giving the Welsh Government (WG) greater ability to tackle air and noise pollution.

The new Bill is part of a package of measures to improve the quality of the air environment in Wales. It will give powers to Welsh Government to introduce new long-term targets for air quality under a national framework taking account of the latest scientific knowledge including the World Health Organisation Air Quality Guidelines

The Bill will help create low emission zones on Welsh Government trunk roads where needed and will give local authorities more power to tackle vehicle idling.

Air Quality in Cardiff

Local authorities have a statutory duty under Part IV of the Environment Act 1995 & Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 to manage local air quality. Under Section 82 of the Environment Act 1995 the Local Air Quality Management (LAQM) process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether air quality objectives are likely to be achieved.

The air quality objectives applicable to LAQM in Wales are set out in the Air Quality (Wales) Regulations 2000, No. 1940 (Wales 138) and Air Quality (Amendment) (Wales) Regulations 2002, No 3182 (Wales 298). Where the air quality reviews indicate that the air quality objectives may not be met the local authority is required to designate an Air Quality Management Area (AQMA). Action must then be taken at a local level and outlined in a specific Air Quality Action Plan (AQAP) to ensure that air quality in the identified area

⁵ <https://www.gov.wales/new-powers-tackle-air-and-noise-pollution-will-lead-cleaner-healthier-and-greener-future>

improves. Details for Air Quality Objectives Included in Regulations for the Purpose of LAQM in Wales can be found in Table 12.

In line with the Cardiff Council's (CC) statutory duties under Part IV of the Environment Act 1995, Shared Regulatory Services (SRS) on behalf of Cardiff Council (CC) undertakes regular air quality monitoring at specifically allocated locations across Cardiff using automated and non-automated principles for ambient air Nitrogen Dioxide (NO₂), Particulate Matter (PM₁₀ & PM_{2.5}), Sulphur Dioxide (SO₂), Carbon Monoxide (CO) & Ozone (O₃).

With regards to prioritising ambient air quality sampling locations, the Council adopts a risk-based approach to any allocation of monitoring sites, considering the requirements of The Department for Environment, Food and Rural Affairs' (Defra) Local Air Quality Management Technical Guidance (TG22). The designated monitoring locations are assigned based on relevant exposure and where the certain Air Quality Objective levels for a particular pollutant applies. TG22 states that annual mean objectives should apply at "All locations where members of the public might be regularly exposed. Building facades of residential properties, schools, hospitals, car homes etc."

There are currently four Air Quality Management Areas (AQMAs) within Cardiff. These areas are at locations within Ely Bridge, Llandaff, Stephenson Court on Newport Road, and Cardiff City Centre. In 2022, all monitoring locations within the AQMAs were compliant with the relevant objectives for NO₂. However, one non-automatic monitoring site located within the Llandaff AQMA was close to the annual air quality objective limit of 40µg/m³, with a result of 39.3µg/m³.

In 2022, all other locations monitored locations within Cardiff show concentrations below the relevant objectives for both nitrogen dioxide and particulate matter.

Actions to Improve Air Quality

SRS and CC are very aware of the concerns for air quality impacts. SRS & CC are committed to achieving levels as low as reasonably practicable by demonstrating levels beyond the annual objectives set for pollutants. In order to improve the air quality in Cardiff, action needed to be taken across the city as a whole. The main air pollutants which cause a public health concern and primarily worsen air quality in Cardiff are particulate matter and primary/ secondary derived nitrogen dioxide (NO₂), derived by transport vehicles.

Welsh Government's publication: Local Air Quality Management, Policy Guidance, June 2017⁶ recommended two clear goals:

- (1) achieve compliance with the national air quality objectives in specific hotspots; and
- (2) reduce exposure to pollution more widely, to achieve the greatest public health benefit.

Collective efforts, therefore, should look beyond targeted action in localised air pollution hotspots and do this in parallel with universal action to reduce risks for everyone.

Section 84 of the Environment Act 1995 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. After declaring an AQMA the authority must prepare a **DRAFT** Air Quality Action Plan (AQAP) within 18 months setting out measures it intends to put in place to improve air quality to at least the air quality objectives, if not even better. The AQAP must be **formally** adopted prior to 24 months has elapsed. AQMA(s) are seen by local authorities as the focal points to channel resources into the most pressing areas of pollution as a priority.

In view of the statutory obligation to produce an AQAP for each AQMA, in 2019 SRS & CC developed a citywide Clean Air Strategy & Action Plan (CASAP) for Cardiff. The strategy is an evolving document and coincides with Cardiff's Capital Ambition report, helping to implement and deliver the priorities outlined in the Ambition report with an overarching aim to improve air quality to protect and improve public health in Cardiff. The CAS & Action Plan appoints strategic measures that will look to generate a positive impact to citywide air quality levels, in particular traffic derived NO₂ levels. Each measure has endured a cost benefit appraisal procedure by weighting the measures in terms of air quality impact, cost, and timescale. The key theme of the strategic measures is to increase the uptake of sustainable modes of transport by influencing a behavioural change in Cardiff. The CASAP fulfils the requirements of the LAQM process to produce an Air Quality Action Plan (AQAP).

It will be imperative that the CASAP is reviewed following the full implementation of the Clean Air Plan to further prioritise measures and to ensure air quality levels are

⁶ <https://www.gov.wales/sites/default/files/publications/2019-04/local-air-quality-management-in-wales.pdf>

continuously improved in Cardiff. Therefore, it is likely that the CASAP will need a full review and update in 2024/25.

Local Priorities and Challenges

In addition to Cardiff's four AQMAs and CASAP work, following the formal publication of Defra's UK detailed air quality plan to tackle roadside nitrogen dioxide (NO₂) concentrations in July 2017, it was identified from air quality monitoring undertaken by Cardiff Council (CC) and modelled projections from WG that Cardiff would continue to exceed EU & UK Air Quality Directive Limit Values for NO₂ beyond 2020. The report detailed modelled projections from the Joint Air Quality Unit (JAQU) which showed continued non-compliance of the national annual average NO₂ standard by 2021 along identified road networks. The roads which have been modelled as exceeding the annual limit value are the A4161, the A4232, the A4234, the A470 and the A48. These areas of exceedence are also featured in the CAS & Action Plan document as any mitigation measures implemented on the referenced road links will have an impact on the LAQM AQMAs.

As a result of the detail in the UK Plan, and a subsequent High Court ruling, in March 2018, under Part IV of the Environment Act 1995, Section 85(7), WG issued a formal direction to CC to address its air quality concerns, with particular reference to the specified five road links. The direction has been governed by the Welsh Minister for Environment who has determined that the direction deemed necessary to meet obligations placed upon the United Kingdom under the **EU Ambient Air Quality Directive (2008/50/EC)**.

The Direction specified that CC had to undertake a feasibility study in accordance with the HM Treasury's Green Book approach, to identify the option which will deliver compliance with legal limits for nitrogen dioxide in the area for which the authority is responsible, **in the shortest possible time.**

Cardiff Council has developed a Clean Air Project Team who have met the necessary reporting requirements outlined by the Direction.

The results of the local modelling presented in the Initial Plan, differed to that undertaken by Defra using the Pollution Climate Mapping model. Defra's modelling identified two road links under baseline conditions which were projected to show non-compliance beyond 2021, namely the A48 and the A4232. The localised modelling identified only one road link

under baseline conditions projected to show non-compliance beyond 2021, this being the A4161 Castle Street, in the City Centre.

Within the Initial Plan Report a long list of measures developed from the CASAP were qualitatively assessed against a primary objective of achieving compliance with set air quality objectives in the shortest possible time. The measures were considered against secondary objectives and were subjected to further qualitative assessments against the WelTAG Well-being Aspects.

The Council's published [Full Business Case](#) (Final Clean Air Plan) documents early intervention measures as well as aspired measures the Council are endorsing to improve localised air quality on the outlined A4161 Castle Street with a vision of improving citywide air quality levels. These measures include;

- Implementation of Electric Buses – 36 Electric Buses to be implemented on a number of routes within the City Centre;
- Bus Retro Fitting Programme;
- Taxi Mitigation Scheme;
- City Centre Transportation Improvements; and
- Active Travel Measures.

The Clean Air Plan initially demonstrated that the outlined package demonstrates the greatest level of compliance on Castle Street, with $31.9\mu\text{g}/\text{m}^3$ forecasted in 2021 as a result of the implementation of the measures. In addition to achieving compliance on Castle Street, the impact of the package of measures has also been modelled at local air quality monitoring locations, including those locations within existing Air Quality Management Areas (AQMAs). The results of the modelling indicated that all monitoring locations are expected to have concentrations below the $40\mu\text{g}/\text{m}^3$ which further demonstrates that the package of measures will improve local air quality including within existing AQMAs.

A key component of the Clean Air Plan to deliver compliance was the full implementation of the City Centre Schemes, particularly the City Centre North (Castle Street) Scheme. The schemes would establish a high quality active travel infrastructure for the city and improve connectivity between key developments by strategically aligning bus routes and

enhancing links with the new Transport Interchange. These schemes were due to commence in early 2020, prior to the onset of the COVID pandemic.

In June 2021 Cabinet approved the construction of the original City Centre North Scheme as detailed in the Clean Air Plan, albeit on an interim basis. The decision to install the scheme as an interim measure was done so on the basis it would be necessary to assess any residual impacts following a full post Covid recovery period, to ensure that no detrimental impacts in terms of congestion and air quality would emerge.

Following implementation of the interim scheme the Council has maintained regular monitoring and assessment of traffic and air quality impacts on Castle Street to demonstrate that compliance is being maintained on Castle Street.

Constant dialogue and ongoing collaboration with Welsh Government officials has been to ensure that the Plan remains on course to deliver compliance in the shortest possible time.

In order to formalise a time period to bring forward a permanent scheme on Castle Street, the Welsh Government have issued the Council with a further legal direction under Part IV of the Environment Act 1995 ⁷ in September 2022. This direction sets on measures the Council needs to implement to ensure that compliance for the NO₂ limit value on Castle Street is maintained.

In 2022 additional assessment works were commissioned to update the previous air quality and transportation modelling, to account for post COVID traffic flows to be assessed in terms of the impact and effectiveness of the Castle Street Scheme. In addition a further option of removing general traffic from Castle Street was also assessed to provide a possible alternative option for the Council to consider.

The modelling works were completed in early 2023, and a report was presented to Cabinet in March 2023, with a view of supporting the original Castle Street Scheme as the preferred option. In August 2023, Welsh Government provided initial approval of the Councils preferred option, subject to the submission of an updated Final Plan. The Council has now submitted this Final Plan and at that the time of writing this report is awaiting final approval from Welsh Government.

⁷ <https://gov.wales/environment-act-1995-activity-ensure-nitrogen-dioxide-compliance-air-quality-direction-2022-cardiff>

Electric Buses

Cardiff Council has been successful in supporting the transition of buses on the Cardiff network to becoming fully electric. Cardiff Bus introduced 36 new electric buses into their fleet from January 2022. It was delivered through a collaboration between Cardiff Bus and Cardiff Council after a successful bid for funding from the Department for Transport's (DfT) Ultra-Low Emissions Bus (ULEB) Scheme that received funding of £5.7m.

Bus Retrofit Scheme

Following an open application process which ended on the 31st December 2020, and subsequent review process, two application submissions were deemed successful. Here 80% funding to cover capital costs has been awarded to two bus operators/ companies, a total of £561,612 awarded.

£191,920 has been awarded to Cardiff City Transport Services Ltd (Cardiff Bus) to retrofit 20 buses, and £369,692 has been awarded to Red and White Services Ltd, T/A Stagecoach South Wales to retrofit 29 vehicles.

Both operators completed the programme of works in Q4 of 2021, and have ensured that some of their older buses have improved their NOx emissions by some 90%.

EV Taxi Scheme

In Q3 of 2021 the Council procured 5 fully electric wheel chair accessible Dynamo Hackney Carriage Taxis. In partnership with a local vehicle hire company the Council launched an EV Taxi Lease Scheme with for licensed Cardiff drivers to take up an EV Taxi. This scheme was initially launched in January 2022. Further details for this scheme can be found at <https://www.electrictaxiswales.co.uk/english/cardiff-scheme>.

Unfortunately the scheme has not seen the uptake of vehicles that was anticipated, and ongoing discussions with Welsh Government have taken place to identify potential improvements to the scheme. In addition during 2022 Cardiff Council/ SRS as the licensing authority have undertaken further consultation with the Taxi Trade on future licensing amendments, This has resulted in a recent report to the Licensing Authority whereby the committee approved the lifting of the existing moratorium on issuing new hackney carriage plates. The revised agreement will allow new hackney carriage licenses

to be issued but only to EVs or Wheelchair Accessible Vehicles with an emission standard of Euro 6 or better.

How to Get Involved

CC welcomes any correspondence relating to air quality enquiries or concerns. Shared Regulatory Services (SRS) Specialist Services Team represents CC for local air quality management and therefore is contactable using the following email address AirQuality-SRSWales@valeofglamorgan.gov.uk

For any enquiries surrounding Cardiff's Clean Air Plan, specifically the roll out of mitigation measures please contact Cardiff's Clean Air Team on cleanairproject@cardiff.gov.uk.

Hourly and Monthly average automatic monitoring data for pollutants measured in Cardiff are available to view at <https://airquality.gov.wales/>

Table of Contents

Executive Summary: Air Quality in Our Area	i
Air Quality in Cardiff.....	iii
Actions to Improve Air Quality.....	iv
Local Priorities and Challenges.....	vi
How to Get Involved.....	ix
1 Actions to Improve Air Quality	1
Previous Work in Relation to Air Quality.....	1
Air Quality Management Areas.....	9
Implementation of Action Plans.....	12
2 Air Quality Monitoring Data and Comparison with Air Quality Objectives	36
Summary of Monitoring Undertaken in 2022.....	36
2.1.1 Automatic Monitoring Sites.....	36
2.1.2 Non-Automating Monitoring Sites.....	36
2022 Air Quality Monitoring Results.....	58
Comparison of 2022 Monitoring Results with Previous Years and the Air Quality Objectives.....	81
2.1.3 Nitrogen Dioxide (NO ₂).....	81
2.1.4 Particulate Matter (PM ₁₀).....	81
2.1.5 Particulate Matter (PM _{2.5}).....	82
2.1.6 Other Pollutants Monitored.....	82
Summary of Compliance with AQS Objectives as of 2022.....	82
3 New Local Developments	84
Road Traffic Sources (and Other Transport).....	85
Industrial / Fugitive or Uncontrolled Sources / Commercial Sources.....	85
Other Sources.....	86
4 Policies and Strategies Affecting Airborne Pollution	87
Local / Regional Air Quality Strategy.....	87
Air Quality Planning Policies.....	87
Local Transport Plans and Strategies.....	90
Active Travel Plans and Strategies.....	91
Local Authorities Well-being Objectives.....	92
Green Infrastructure Plans and Strategies.....	93
Climate Change Strategies.....	94
5 Conclusion and Proposed Actions	95
Conclusions from New Monitoring Data.....	95
Conclusions relating to New Local Developments.....	95
Other Conclusions.....	95
Proposed Actions.....	96

References	97
Appendices	98
Appendix A: Quality Assurance / Quality Control (QA/QC) Data	99
Appendix B: A Summary of Local Air Quality Management.....	111
Purpose of an Annual Progress Report	111
Air Quality Objectives	111
Appendix C: Air Quality Monitoring Data QA/QC	113
QA/QC of Diffusion Tube Monitoring.....	113
Diffusion Tube Annualisation.....	113
Diffusion Tube Bias Adjustment Factors	113
NO ₂ Fall-off with Distance from the Road.....	114
QA/QC of Automatic Monitoring	114
PM ₁₀ and PM _{2.5} Monitoring Adjustment	115
Automatic Monitoring Annualisation	115
NO ₂ Fall-off with Distance from the Road.....	115
Appendix D: AQMA Boundary Maps.....	120
Glossary of Terms	124

Tables

Table 1 - Declared Air Quality Management Areas	10
Table 2 - Progress on Measures to Improve Air Quality	13
Table 3 - Details of Automatic Monitoring Sites	40
Table 4 - Details of Non-Automatic Monitoring Sites	45
Table 5 - Annual Mean Automatic NO ₂ Monitoring Results 2022	61
Table 6 - Annual Mean Non-Automatic NO ₂ Monitoring Results 2022	62
Table 7 - 1-Hour Mean NO ₂ Monitoring Results, Number of 1-Hour Means > 200µg/m ³ ...	78
Table 8 - Annual Mean PM ₁₀ Monitoring Results (µg/m ³)	79
Table 9 - 24-Hour Mean PM ₁₀ Monitoring Results, Number of PM ₁₀ 24-Hour Means > 50µg/m ³	82
Table 10 - PM _{2.5} Monitoring Results (µg/m ³)	84
Table 11 - Full Monthly Diffusion Tube Results for 2022 (µg/m ³)	105
Table 12 - Air Quality Objectives Included in Regulations for the Purpose of LAQM in Wales	118
Table 13 - Bias Adjustment Factor	120
Table 14 - Annualisation Summary (concentrations presented in µg/m ³)	122
Table 15 - Local Bias Adjustment Calculations	125

Figures

Figure 1 - Map(s) of Automatic Monitoring Sites	43
Figure 2 - Map(s) of Automatic Monitoring Sites	44
Figure 3 - Map of Non-Automatic Monitoring Sites in Cardiff	56
Figure 4 – Map of Non-Automatic Monitoring Sites in Cardiff City Centre AQMA	57
Figure 5 - Map of Non-Automatic Monitoring Sites in Stephenson Court AQMA	58
Figure 6 - Map of Non-Automatic Monitoring Sites in Llandaff AQMA	59
Figure 7 – Map of Non-Automatic Monitoring Sites in Ely Bridge AQMA	60
Figure 8 - Annual Mean NO ₂ Automatic Monitoring Trends µg/m ³	73
Figure 9 - City Centre AQMA Annual Mean NO ₂ Trends µg/m ³	74
Figure 10 – Stephenson Court AQMA Annual Mean NO ₂ Trends µg/m ³	75
Figure 11 - Llandaff AQMA Annual Mean NO ₂ Trends µg/m ³	76
Figure 12 - Ely Bridge AQMA Annual Mean NO ₂ Trends µg/m ³	77
Figure 13 – Trends in Annual Mean PM ₁₀ Concentrations	81

Figure 14 – Trends in Annual Mean PM _{2.5} Concentrations	85
Figure 15 - Cardiff City Centre AQMA	126
Figure 16 - Stephenson Court AQMA.....	127
Figure 17 - Ely Bridge AQMA	128
Figure 18 - Llandaff AQMA	129

1 Actions to Improve Air Quality

Previous Work in Relation to Air Quality

Phase 1

The Local Air Quality Management regime commenced with the Air Quality Regulations 1997, which came into force in December of that year. These Regulations were revoked and superseded by the current Air Quality (Wales) Regulations 2000 (as subsequently amended in 2002).

The first phase of the review and assessment process concluded that for six of the seven pollutants included in the regulations there was little or no risk of the objectives being breached and that Air Quality Management Areas (AQMAs) for these pollutants were not necessary. Measures taken at the national level would be sufficient to ensure that there would be no local “hot-spots” of these pollutants and therefore local controls in addition to the national measures would not be required.

However, for the seventh of these pollutants, nitrogen dioxide (NO₂), it was concluded that national control measures such as vehicle emission and fuel standards, controls on industrial emissions, etc., would not, of themselves, be sufficient to ensure that the air quality objectives for this pollutant would not be met in all areas of Cardiff.

Whilst the vast majority of the area would meet the objectives, there were predicted to be local “hot-spots” close to heavily-trafficked road junctions where there were buildings close to the road and significant amounts of queuing traffic where the objectives would not be met.

As a result, four AQMAs were declared, each having been declared on the basis of measurements and modelling showing predicted breaches of the annual average objective for NO₂. These AQMAs were known as;

- The Cardiff West AQMA
- The Newport Road AQMA
- The Philog AQMA
- The St Mary Street AQMA

The first three of these came into force on 1st December 2000 and the latter on 1st September 2002. AQAPs the first three were published in November 2002 and for St Mary Street in February 2010.

Phase 2

The Council's 2003 USA concluded that for five of the seven pollutants regulated under the LAQM regime there was no evidence to suggest that local "hot-spots" for these pollutants had been missed in the first phase of the review and assessment process and that there was no need to consider these pollutants further at this time.

The 2003 USA also concluded that no local hot-spots of nitrogen dioxide had been overlooked during the first phase of review and assessment and that further detailed assessment of this pollutant was not necessary.

However, whilst the USA concluded that there was no evidence to suggest a likely breach of the 2004 objective for particulate matter (PM10), there was considerable doubt that the provisional 2010 objectives for PM10 would be achieved.

As a result of the conclusions of the 2003 USA the Council issued Progress Reports in 2004 and 2005.

Phase 3

Following the 2006 USA, the Council published and consulted upon an Air Quality Management Area (AQMA) Review during the autumn of 2006. This concluded that two of the four AQMAs could be revoked and that the then Cardiff West AQMA should be reduced in size and renamed as the Ely Bridge AQMA. Orders making the changes came into force on 1st February 2007.

The 2007 Progress Report highlighted a potential problem with regard to nitrogen dioxide concentrations on Newport Road in the immediate vicinity of Stephenson Court, where concentrations had been marginally, but consistently, above the Air Quality objective for a few years. It was concluded that the possibility of declaring a new AQMA would be assessed in the 2008 Progress Report.

The monitoring data for the Stephenson Court area presented in the 2008 Progress Report led to the conclusion that a further "watching brief" would be kept with a view to reaching a firm conclusion once ratified monitoring data for the 2008 calendar year became available.

The monitoring data for 2007 presented in the 2008 Progress Report provided reassurance that the Council's decisions in respect of the 2006 AQMA Review were soundly based.

Phase 4

The 2009 USA concluded that a Detailed Assessment for the Stephenson Court area of Newport Road was required as the annual mean concentration of nitrogen dioxide at three sites representative of relevant exposure in the area were above the air quality Objective.

A Detailed Assessment for this area was consulted upon during the summer of 2010 and the AQMA came into force on 1st December 2010.

The Council's 2010 Progress Report was submitted in December 2010 and the 2011 Progress Report in June 2011.

The 2011 Progress Report highlighted abnormally high NO₂ 2010 annual mean concentrations across the Council's monitoring network which could not be attributed to a particular source and evidence was presented to show that this was a regional issue probably associated with a prolonged period of unusually cold weather during November and December 2010. After dialogue with Welsh Assembly Government with regard to the conclusions reached about this data it was concluded that the Council would proceed to Detailed Assessments for the Llandaff and Westgate Street areas of the city and review the situation with regard to other exceedences when 2011 data is available and reported in 2012.

A Further Assessment for the Stephenson Court AQMA was submitted to WAG for review in December 2011, i.e. one year after the AQMA was declared, in compliance with Section 84(2)(a) of the Environment Act 1995.

Phase 5

The 2012 USA was the first report in Phase 5 of the review and assessment process. Monitoring data for 2011 largely confirmed that the annual mean concentrations of nitrogen dioxide previously reported for 2010 were unusually elevated, both locally and regionally, and local concentrations had returned to more typical values in 2011. Detailed Assessments in respect of nitrogen dioxide in Westgate Street and for the Llandaff area

were consulted upon during the summer of 2012 and as a result a new AQMA for Llandaff was declared on 1st April 2013 and Westgate Street was incorporated into the St Mary Street AQMA; this latter AQMA is now named Cardiff City Centre AQMA.

The Council's 2013 Progress Report recommended proceeding to a Detailed Assessment for the Fair oak Road Roundabout in the Plasnewydd Ward of the city as monitoring data over previous years indicated the need. This was submitted for review during 2014. The Assessment concluded that, as monitoring data for 2013 had returned to Objective compliance, there was no need to declare an AQMA at that time. It was proposed to continue monitoring in the area and review the results year-on-year.

The Further Assessment for the City Centre AQMA was submitted in April 2014 and the conclusion that the declaration of the AQMA was justified was accepted.

A Further Assessment for the Llandaff AQMA was also submitted for review in 2014. This concluded that the declaration of the AQMA was justified based upon monitoring data available at the time. However, as monitoring data for 2013 showed compliance with the Objective, it was concluded that there was no need to develop an Action Plan at that time. Monitoring would continue and the situation would be reviewed year-on-year.

In summary, there are currently four AQMAs in Cardiff; all have been declared in respect of NO₂ resulting from road-traffic emissions:

- Cardiff City Centre AQMA
- Ely Bridge AQMA
- Stephenson Court AQMA
- Llandaff AQMA

Phase 6

The 2015 USA was the first report in Phase 6 of the review and assessment process. Monitoring data for 2014 largely confirmed that the annual mean concentrations of nitrogen dioxide previously reported for 2010 were unusually elevated, both locally and regionally, and local concentrations had returned to more typical values in 2011.

Monitoring data for 2015 indicated that annual mean concentrations of nitrogen dioxide were not unduly elevated during the year and that in some locations concentrations may

have been lower than expected. The 2016 Progress Report showed a number of sites representative of relevant exposure with exceedences of the $40\mu\text{g}/\text{m}^3$ annual mean objective, however these sites and recorded exceedences were not out of character as were predominantly contained within the declared AQMAs.

2017 Annual Progress Report

There are a number of sites representative of relevant exposure with exceedences of the NO_2 annual mean objective ($40\mu\text{g}/\text{m}^3$). These sites are predominantly contained within the declared AQMAs. However, there are four monitoring locations (Site IDs 172, 180, 181, 185) which are not located within AQMAs.

Site 172 (Ocean Way) is a kerbside location situated up to 650m from any relevant exposure, used to examine potential impacts of traffic resulting from industrial development in the area.

Sites 180 & 181 were implemented due to new developments with the potential for adverse air quality impacting the amenity of future occupants (Windsor House, Windsor Lane & Fitzalan Court, Newport Road). Both developments were under construction in 2016, therefore influencing any datasets recorded. Only recently has the student accommodation at Windsor House been completed and construction still continues at the Fitzalan Court site.

Site 185 is not representative of relevant exposure and does not apply to the annual mean objective set for NO_2 . Therefore, datasets collected at this monitoring location would apply to the 1-hour objective set for NO_2 ($200\mu\text{g}/\text{m}^3$, not to be exceeded more than 18 times per year).

Monitoring for other pollutants did not result in other exceedences of National Air Quality Standards.

Due to technical issues, Cardiff City Centre's AURN site recorded low data capture for PM_{10} measured by a TEOM- FDMS sampler. The total data capture for the year was 47.1%. As outlined in LAQM (TG16) the data from the sampler has been annualised in accordance with Box 7.9 and the 90.4th Percentile value has been given to examine the 24 hour objective.

It was decided not to revoke the Llandaff AQMA. Since the declaration of the Llandaff AQMA in 2013, results have highlighted that levels of NO_2 are generally improving and are

now below the national objective of $40\mu\text{g}/\text{m}^3$ at locations of relevant exposure. Based on recent results the Council could be minded to revoke the AQMA. However, the 2017 APR highlighted that any decision made to revoke the AQMA needs to be mindful of the potential development of the strategic LDP sites to the north of the AQMA, Plasdwr and BBC Studios. Whilst detailed air quality assessments undertaken as part of the planning process have modelled that there is unlikely to be a detrimental impact on air quality levels in the AQMA, this can only be fully verified through on going monitoring.

Therefore, in an effort to reassure local residents and to be totally satisfied that levels will remain compliant with the NO_2 standard, SRS on behalf of CC reviewed the non-automatic monitoring network of NO_2 diffusion tubes for 2018. As a result, new and amended monitoring sites have been allocated. Officers will further assess the potential to implement real-time capabilities in the Llandaff AQMA as part of the Council's statutory duties under Part IV of the Environment Act 1995. There are now four monitoring locations within the Llandaff AQMA.

Monitoring for other pollutants did not result in other exceedences of National Air Quality Standards.

2018 Annual Progress Report

Monitoring data for 2017 indicates that annual mean concentrations of nitrogen dioxide recorded at sites of relevant exposure, within the already established AQMAs, continue to be elevated or exceed the annual mean NO_2 Air Quality Standard ($40\mu\text{g}/\text{m}^3$).

The datasets indicate that the annual average objective for NO_2 was breached at monitoring locations outside of the existing AQMAs (Sites 172, 179, 180 & 181).

It is felt that at this stage no further detailed assessments are required;

Site 172 is placed on Ocean Way to monitor potential impacts of traffic resulting from industrial developments in the area. The site is not representative of relevant exposure, the nearest being $>650\text{m}$ away. For 2018 Site 172 has been revoked from the monitoring network as it is felt that a strong trend of data has been collected at this location.

The 1-hour objective for NO_2 need only apply to site 179.

Sites 180 & 181 were implemented to monitor air quality levels and therefore the potential impacts to future occupants at new development sites. These developments were still under construction in 2017 and therefore datasets collected will be negatively influenced.

The report also documented the works ongoing to produce the CASAP document, as well as outlining the development of the Feasibility Study in line with the Legal Direction received from the Welsh Minister.

2019 Annual Progress Report

Monitoring undertaken in 2018 confirmed annual average NO₂ levels continued to breach or encroach upon set limit values/ air quality standards within already established AQMAs (7 exceedances of the annual mean objective in total).

The report provided an update regarding the completion of the Clean Air Strategy and Action Plan document (CASAP), as well as an update of mitigation measures proposed to address air quality concerns for Cardiff. The report also documented the finalisation of the Full Business Case (FBC) and its outcome in accordance with Welsh Government's issued Legal Direction.

2020 Annual Progress Report

The 2020 reported identified that in 2019, out of the 100 diffusion tube monitoring locations, 6 monitoring sites recorded exceedances of the annual average objective set for NO₂ (40 µg/m³). All 6 monitoring locations were recorded within the already established City Centre and Llandaff air quality management areas (AQMA).

The report provided an update on the monitoring undertaken at 9 schools across Cardiff where previous studies from Client Earth identified the schools to be in close proximity to road links likely to cause exceedances of the NO₂ air quality standards. Monitoring undertaken at the 9 schools fully demonstrated continuous compliance with the annual average air quality standard for NO₂ for two success years. The report also provided an update of monitoring undertaken at a further 6 schools as part of a citizens science project funded by Natural Resources Wales. Again monitoring at these 6 schools demonstrated compliance with the objective for NO₂.

The report documented the approval from Welsh Government of the Final Clean Air Plan and awarding of funding to ensure the Council delivered compliance with the NO₂ limit value under the legal duties of the Ambient Air Quality Directive.

2021 Annual Progress Report

Monitoring data for 2020 indicated that annual mean concentrations of nitrogen dioxide recorded at sites of relevant exposure, within the already established AQMAs, all showed compliance with the annual mean NO₂ Air Quality Standard (40µg/m³). The results are indicative that the impacts of the COVID lockdowns and restrictions therein have had an impact on pollution levels in Cardiff which is likely owing to traffic volumes having decreased. It is therefore likely that the concentrations recorded in 2020 are not representative of a true business as usual scenario and the results have generated a bias/ underestimation of levels of pollution across Cardiff in 2020.

2022 Annual Progress Report

Monitoring data for 2021 indicates that annual mean concentrations of nitrogen dioxide recorded at sites of relevant exposure within the already established AQMAs are compliant with the annual mean NO₂ Air Quality Standard (40µg/m³). The results are indicative that the impacts of the COVID lockdowns and restrictions at the beginning of 2021, and the subsequent behavioural changes once restrictions were lifted, may have influenced pollution levels in Cardiff in 2021. It is therefore likely that the concentrations recorded in 2021 are not representative of a true business as usual scenario and the results have generated a bias/ underestimation of levels of pollution across Cardiff in 2021.

Therefore, monitoring within the AQMAs has continued in 2022, consideration of any future actions for the AQMAs will be assessed by the Council once an assessment of the longer-term recovery from Covid has been determined.

The implementation of COVID measures in the City Centre accelerated the Council's achievement of compliance with limit values for NO₂ under the Ambient Air Quality Directive, on Castle Street. The Interim implementation of the Castle Street Scheme as approved by Welsh Government, was completed at the end of October 2021. The Council has ensured ongoing monitoring has been undertaken. At the time of writing this report further assessments using updated traffic data, collected post Covid, are being undertaken so as the Council can undertake further detailed assessments in order to identify the most suitable permanent solution for Castle Street. The assessments will enable the Council to comply with the most recent legal direction from Welsh Government.

Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when air quality is close to or above an acceptable level of pollution (known as the air quality objective (Please see [Appendix A](#)). After declaring an AQMA the authority must prepare an Air Quality Action Plan (AQAP) within 18 months setting out measures it intends to put in place to improve air quality to at least the air quality objectives, if not even better. AQMA(s) are seen by local authorities as the focal points to channel resources into the most pressing areas of pollution as a priority.

A summary of AQMAs declared by Cardiff Council can be found in Table 1. Further information related to declared or revoked AQMAs, including maps of AQMA boundaries are available online at <https://uk-air.defra.gov.uk/aqma/list>

Table 1 - Declared Air Quality Management Areas

AQMA	Relevant Air Quality Objective(s)	Comments on Air Quality Trend	Description	Action Plan
Cardiff City Centre	NO ₂ annual mean	This year's monitoring results indicate an improvement in air quality compared to pre-covid data obtained in 2019.	Former St Mary Street AQMA with the addition of Westgate Street in Cardiff City Centre	Cabinet 13 June 2019 Clean Air Appendix 1 Clean Air FBC.pdf (modern.gov.co.uk)
Llandaff	NO ₂ annual mean	This year's monitoring results indicate an improvement in air quality compared to pre-covid data obtained in 2019. However, one monitoring locations displays NO ₂ concentrations close to the objective limit	Centre on Cardiff Road through Llandaff village	
Stephenson Court	NO ₂ annual mean	This year's monitoring results indicate an improvement in air quality compared to pre-covid data obtained in 2019.	From NE and NW boundaries of Stephenson Court, NW boundary of Burgess Court, NW and SW boundaries of Four Elms Court, SW corner of Four Elms Court south across Newport road to the junction with Orbit street, West across Newport Road to the SE corner of Stephenson Court	
Ely Bridge	NO ₂ annual mean	This year's monitoring results indicate an improvement in air quality compared to pre-covid data obtained in 2019.	A number of residential premises along the A48 Cowbridge Road West,	

Tudalen 96

AQMA boundary maps within Cardiff can be viewed at https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=394 and are included in Appendix D.

Implementation of Action Plans

Cardiff Council has taken forward several measures in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2. More detail on these measures can be found in the Air Quality Action Plan relating to designated AQMAs.

Air Quality Action Plans are continuously reviewed and updated whenever deemed necessary, but no less frequently than once every five years. Such updates are completed in close consultation with local communities.

Each of the outlined AQMAs were declared as a result of road-traffic derived Nitrogen Dioxide (NO₂).

Section 84 of the Environment Act 1995 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. After declaring an AQMA the authority must prepare a **DRAFT** Air Quality Action Plan (AQAP) within 18 months setting out measures it intends to put in place to improve air quality to at least the air quality objectives, if not even better. The AQAP must be **formally** adopted prior to 24 months has elapsed. AQMA(s) are seen by local authorities as the focal points to channel resources into the most pressing areas of pollution as a priority.

In view of the statutory obligation to produce an AQAP for each AQMA, in 2019 SRS & CC developed a citywide Clean Air Strategy & Action Plan (CASAP) for Cardiff. The strategy is an evolving document and coincides with Cardiff's Capital Ambition report, helping to implement and deliver the priorities outlined in the Ambition report with an overarching aim to improve air quality to protect and improve public health in Cardiff. The CAS & Action Plan appoints strategic measures that will look to generate a positive impact to citywide air quality levels, in particular traffic derived NO₂ levels. Each measure has endured a cost benefit appraisal procedure by weighting the measures in terms of air quality impact, cost and timescale. The key theme of the strategic measures is to increase the uptake of sustainable modes of transport by influencing a behavioural change in Cardiff. The CASAP fulfils the requirements of the LAQM process to produce an Air Quality Action Plan (AQAP).

Table 2 - Progress on Measures to Improve Air Quality

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress in Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Modal Shift & Influencing Travel Choice											
1.1	Increase Bus Use	Alternatives to private vehicle use	Proposals are in place for a park and ride system at Junction 33 which would look to intercept traffic on the A470, north Cardiff.	CC	No definite Start Date		Bus patronage figures produced via telematics	Unknown	The preparation of a draft Park and Ride Strategy for Cardiff has begun, and the Park and Ride at Junction 33 is being planned for delivery by the developer	Ongoing	
1.2	Promotion of cycling and walking	Promoting Travel Alternatives	DRAFT Cycling Strategy sets out to double number of cycling trips by 2026; 9.2%	CC	Ongoing		Cycle trips generated/ questionnaires	Unknown	Draft report and Cabinet Report seeking approval to undertake statutory consultation	Ongoing	

Tudalen 99

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 100			modal share in 2015 to 18.4% in 2026. Five cycleways proposed. The INM prioritises cycling and walking routes over 15 year period.						has been prepared and will be considered by Cabinet in JThe number of responses and technical work required means that it will not be possible to evaluate comments and make appropriate adjustments to draft Map and complete it in time to meet Welsh Government's (WG) 31st December 2021 deadline. WG		

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 101									officers to be informed that Cardiff unable to meet 31st December 2021 deadline and Council officers will seek extension of deadline in light of exceptional level of engagement on Cardiff's Active Travel Network Map		
	1.3	School Travel Plans	CC has engaged with 'Living Streets' charity and have developed a 'WOW' (Walk	CC & Living Streets Charity	Ongoing		Report updates from Living Streets	Unknown	In 2021 this has increased to 43 schools	Ongoing	

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress in Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
1.4			Once a Week) scheme in 7 allocated schools in Cardiff.								
	School Travel Plans		Cardiff Council's Schools Streets Project and its Traffic Regulation Order (TRO) pilot project.	CC	Ongoing		Monthly average NO ₂ levels examined at School property, Inside TRO and Outside TRO zone at residential facades. Questionnaires for school pupils and parents.	Unknown	15 schools assigned to the TRO Zone pilot project.	End of 2022 (Subject to funding, possibly longer)	
1.5	Personalised Travel Planning	Promoting Travel Alternatives	Public Service Board Staff Charter.	Public Health Wales/ Vale and	Working initially through Cardiff Public Services Board, a Healthy Travel Charter for Cardiff has been developed with		Modal shift counts.	Unknown	The Charter was signed by 11 public sector organisations at launch in April 2019, employing over 33,000 staff, with additional public and private sector		

Tudalen 102

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
				Cardiff Health Board	major public sector employers and was launched in April 2019.		Number of participating public sector organisations.		organisations subsequently invited to sign up to the Charter.		
1.6	Increase awareness of air quality concerns	Public Information	Cardiff 'car-free' day	CC	Completed 2019		Air Quality Measurements.	No target	When comparing Sunday 19th May to Car-Free Day event 12th May, the daily average reduction for NO2 is as follows; Duke Street/ Castle Street- 16.11% Stephenson Court on Newport Road- 28.15% Westgate Street- 13.62% Lower Cathedral Road- +9.14%		Try to geographically expand and hold car-free days more regularly in Cardiff.
			Tredegarville CIW Primary School "Green Wall" project.	CC	Complete	August 2019	Air quality levels recorded at the school via non-automated	No target	Successful application under the Landfill Communities Fund to cover the supply and installation of outdoor green walls at Tredegarville CIW Primary	Investigate monthly average diffusion tube results following implementation.	

Tudalen 103

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 104							principle diffusion tubes.		School. Successfully installed August 2019. Additional Schools have been included in further Living Wall Projects in 2022.		
	1.8		Dusty Forge/ Kitchener Primary School/ Birchgrove Primary School. Green Wall Projects	CC	Ongoing	November 2020	Air quality levels recorded via non-automated principle diffusion tubes.	No Target	Welsh Government's 'Local Places for Nature' scheme. In summary it is proposed to install green walls at 2 Council owned buildings in areas of poor air quality and develop a citizen science project with the local community to monitor changes in air quality and biodiversity.		Investigate monthly average diffusion tube results following implementation
Infrastructure											
2.1	Bus Route Improvement	Transport Planning and Infrastructure	City Centre Improvement Schemes (3	CC & WG	2018	2019 (City Centre West Initiated)	FBC	To ensure development does not cause	City Centre West (central Sq Scheme)	2024	

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 105			elements East side/ City Centre North/ City Centre West)			2020 (city centre north and east initiated)		any adverse impact and where possible reduce levels to as low as reasonably practicable. Package of City Centre Schemes deemed to improve air quality levels for Castle Street. Revised modelling shows levels of 28 µg/m ³ will be achieved.	continued construction throughout 2021, with view of completion by 2023 for opening of Bus Interchange in 2023. Castle Street remained closed through most of 2021, with interim scheme installed and opened from bnov 2021. City Centre East scheme commenced site preparation works in		

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress in Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 106 2.2									November 2021, with main works commencing early 2022.		
	Public Cycle hire Scheme		Ovo Bike Hire Scheme	CC	Ongoing		Daily reports on usage provided to CC. 150,000 rentals reported since March 2018.	Unknown	50 docking stations installed providing 500 bicycles for public use. Extra 500 bicycles assigned to Cardiff for the end of Summer 2019. Completion of the rollout of the Ebike fleet by September 2021, delivering a new fleet of	Completed and continues to be expanded and enhanced.	

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress in Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
									125 bikes in up to 15 rental stations. Completion was delayed into Q1/2 of 2022		
2.3 Tudalen 107	Cycle Network		Proposed Cycleways	CC & WG	Ongoing		Cycling trip counts.	3.5% modal shift which aligns with the assumptions derived in the feasibility study.	Cycleway 1 St Andrew's Crescent to Senghennydd Road (works are complete for phase 1 of cycleway 1.Phase 2 constructed in 21/22 Phase 1 between Cowbridge Road and Western Avenue via	Ongoing	

Comments Relating to Emission Reductions	Estimated Completion Date	Progress to Date/ Progress In Last 12 Months	Target Annual Emission Reduction in the AQMA	Indicator	Implementation Phase	Planning Phase	Lead Authority	Focus	Category	Measure	No.
		<p>Sophia Gardens and Pontcanna Fields has been fully delivered and the Council has completed a detailed consultation on the options for Phase 2 which will connect Western Avenue with Llandaff village.</p> <p>Pop Up Cycleways</p> <ul style="list-style-type: none"> •Cross City Scheme complete and ready for 									Tudalen 108

Comments Relating to Emission Reductions	Estimated Completion Date	Progress to Date/ Progress In Last 12 Months	Target Annual Emission Reduction in the AQMA	Indicator	Implementation Phase	Planning Phase	Lead Authority	Focus	Category	Measure	No.
		<p>junction switch on when traffic conditions allow</p> <ul style="list-style-type: none"> •Bay Pop Up complete, now requires new street lighting to be compliant with safety regulations. •Scheme to open officially once the lighting work is complete <p>Hailey Park</p> <ul style="list-style-type: none"> •Scheme awaiting tender following consultation outcome 									Tudalen 109

Comments Relating to Emission Reductions	Estimated Completion Date	Progress to Date/ Progress In Last 12 Months	Target Annual Emission Reduction in the AQMA	Indicator	Implementation Phase	Planning Phase	Lead Authority	Focus	Category	Measure	No.
		<p>Cycleway 5</p> <ul style="list-style-type: none"> •Scheme out to consultation •Scheduled to be on site Q1/2 2022-23 <p>Cycleway 1</p> <ul style="list-style-type: none"> •Scheme entered on site September 2021 •Work progressing well •Controlled Parking Scheme to follow early 2022 									Tudalen 110

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
2.4	Public transport improvements- interchanges stations and services		New Cardiff Central Interchange development	CC	Ongoing		Detailed AQAs quantifying the level of impact to air quality levels.	To ensure development does not cause any adverse impact and where possible reduce levels to as low as reasonably practicable	Construction of the Interchange has continued throughout 2021, and remains on course to be completed in 2023.	S106 funding acquired for the amount of £10,000 to enhance air quality monitoring capabilities.	
	Public transport improvements- interchanges stations and services 20 mph zones		Cardiff Capital Region Metro -Proposed by WG (Rail and bus based rapid transit routes).	CC	Ongoing			Unknown- supporting AQA will be a likely during the design and application stages	Good progress has been made to identify measures to encourage the use of sustainable travel as the economy recovers in partnership with the Welsh Government, the Burns Delivery Unit, Transport for Wales, City Region, public transport operators and key stakeholders. These measures include corridor improvements for Active Travel, bus priority, ongoing financial support for the bus services,	Ongoing	

Tudalen 111

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 112 2.5									integrated ticketing pilot between Cardiff and Newport in 2022, plans for new transport interchanges (Cardiff Central, Waungron and Cardiff Parkway) and study work on new Metro station and line improvements.		
			Implement further speed restrictions and enhance those already established "20mph Zones"	CC & WG	Ongoing		Safety figures & Monthly Average Diffusion tube results.	Unknown	CC has introduced 'signs only' 20mph limits in Cathays and Plasnewydd area. Approach coincides with the Safe Routes to School Programme. Plans are in place to	Ongoing	

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress in Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
									hopefully expand 20mph limit areas in Grangetown. This is complete.		
2.6 Tudalen 113	20 mph Zones	Traffic Management		CC	Implementation		Realtime Monitoring	Unknown	Cardiff North Area has been included as a Pilot Area for WG assessment into 20 mph where existing limits are 30 mph. This study will assist in National roll out of 20 mph as default urban speed limit.	2022	

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
2.7	20 mph Zones	Traffic Management		Welsh Gov	Implementation		Realtime Monitoring	Unknown	Cardiff North Area has been included as a Pilot Area for WG assessment into 20 mph where existing limits are 30 mph. This study will assist	Nationwide September 2023.	
Lower Emission Vehicles											
3.1	Public Vehicle Procurement		Ultra-Low Emission Bus (ULEB) fund made available by the Department		Ongoing	Three year rolling programme 2019- 2021	Improvements to air quality levels (NO ₂) monitored by indicative methods by CC at sensitive receptor	Approximately >2µg/m ³ reductions in NO ₂ sensitive receptor locations along Westgate Street	Application received by DfT and deemed successful. Initial buses delivered in November 2021 and all 36 launched in January 2022.		

Tudalen 114

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
			for Transport (DfT).				locations on specified routes				
3.2	Company Vehicle Procurement- Prioritising uptake of low emission vehicles/ EV recharging	Promoting Low Emission Transport	Sustainable fuels strategy- assessment of Cardiff Council vehicle fleets	CC, DfT & Cardiff Bus	Ongoing	Economic savings and reduced Carbon footprint	Unknown	End of 2021 59 charge points across 7 Council sites fully implemented. 6 Rapid chargers which will support charging for 12 refuse Vehicles. 7 E RCV in service with. 11 EVs on order for purchase or	Ongoing		

Tudalen 115

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 116								being delivered prior 31st March. 1 on pre-order, which will be in by the end of the year. The total will be 37 on fleet by the end of 2022, which are all purchased, owned vehicles.			
	3.3	EV recharging	Increase EV charging points for Cardiff residents/workers.	CC	Ongoing		EV vehicle counts/ EV point usage.	Unknown	Progression of residential EV charging locations has ensured that 15 locations with a total of fast charging points have been	Ongoing	

Comments Relating to Emission Reductions	Estimated Completion Date	Progress to Date/ Progress In Last 12 Months	Target Annual Emission Reduction in the AQMA	Indicator	Implementation Phase	Planning Phase	Lead Authority	Focus	Category	Measure	No.
		<p>installed across the City. Second phase of 5 sites with 1 charge points was being progressed before being impacted by COVID – these are now planned for late August/ early September.</p> <p>6 Rapid Charging stations have been installed with site operator Osprey Charging at</p>									Tudalen 117

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 118									locations in the City Centre and Bay . Two additional schemes looking will increase to increase the number of publicly accessible charging stations in the city from 58 to around 75 before the end 2022.		
	3.4 Taxi incentive to operate cleaner vehicles		Improve the emission standard profile of Cardiff's licensed	CC	Ongoing		Uptake for the funding.	To ensure development does not cause any adverse impact and where possible	Due to COVID-19, the launch of the scheme was impacted and ongoing discussions with WG on use of allocated funding..		To achieve greatest air quality improvements zero emission or ULEV classified

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
3.5			Hackney and Private Hire Vehicles. Clean Air Funding allocated to provide EV grants for taxis.					reduce levels to as low as reasonably practicable			vehicles need to be incentivised.
	Cardiff Clean Bus Retrofit Scheme 2020-21		Improve the emissions profile by improving the euro standard composition of bus fleets operated in Cardiff. Via a competitive tender application process, Cardiff	CC & WG	COMPLETED 2021/22		Number of bus vehicles converted;	FBC identifies that the retrofit alone would achieve compliance on Castle Street 39.6 µg/m ³ with 150 vehicles retrofitted.	Scheme went live on 1 st October 2020 and a total of 49 buses have been retrofitted as of September 2021.		

Tudalen 119

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
Tudalen 120			Council will administer a retrofit scheme aimed at improving the emission output of bus vehicles operated in Cardiff.								
	Policy										
4.1	Citywide strategy to reduce emissions and improve air quality		Cardiff Clean Air Strategy and Action Plan (CASAP)		2018		Recorded Improvements to air quality levels (NO ₂) monitored by indicative methods by CC at sensitive receptor locations	Annual average NO ₂ levels to be recorded at <35µg/m ³ at residential façade locations with specified AQMAs.	Finalised and approved by Cabinet. Submitted to Welsh Government for review.	Ongoing	

No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date/ Progress In Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
4.2	Taxi Licensing Conditions	Policy Guidance and Development Control	Amendments made to Cardiff taxi licensing conditions to promote a cleaner fleet.	CC	2019- 2020		Taxi fleet composition %.		Impacted owing to COVID impacts on Taxi trade during 2020-21	Ongoing and will need to be reviewed in 2023	
4.3	Transport White Paper	Promoting Low Emission Transport	The Transport White Paper was launched on 15 January 2020 and lays out an ambitious 10-year plan to tackle the climate emergency, reduce congestion and improve air quality.	CC	2020- 2030		Improved air quality levels/ journey time. Sustainable modes patronage.	To generate air quality levels as low as reasonably practicable.	Published document 2020.		

Tudalen 121

2 Air Quality Monitoring Data and Comparison with Air Quality Objectives

Summary of Monitoring Undertaken in 2022

2.1.1 Automatic Monitoring Sites

This section sets out what monitoring has taken place and how results compare with the objectives.

SRS on behalf of CC undertook automatic (continuous) monitoring at three sites during 2022. Table 3 presents the details of the sites.

National monitoring results are available at <https://airquality.gov.wales/>.

In addition to the above monitoring, four additional air monitoring sensors were located across Cardiff. These monitors provide indicative air quality monitoring data.

Maps showing the location of the monitoring sites are provided in Figure 1 and Figure 2. Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C.

2.1.2 Non-Automating Monitoring Sites

SRS on behalf of Cardiff Council undertook non- automatic (passive) monitoring of NO₂ at 135 sites during 2022. Table 4 presents the details of the sites.

Maps showing the location of the monitoring sites are provided in Figure 3 to Figure 7. Further details on Quality Assurance/Quality Control (QA/QC) and bias adjustment for the diffusion tubes are included in Appendix C.

Table 3 - Details of Automatic Monitoring Sites

Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Monitoring Technique	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Does this location represent worst-case exposure?
Cardiff City Centre AURN	Urban Background	318416	176525	NO ₂	N	Chemiluminescence	Y (5m)	200m	N
				PM ₁₀ , PM _{2.5}		TEOM- FDMS	Y (5m)	200m	N
				SO ₂		UV Fluorescence	Y (5m)	200m	N
				CO		Infra-Red GFC	Y (5m)	200m	N
				O ₃		UV Absorption	Y (5m)	200m	N
Cardiff Newport Road AURN	Roadside/ Urban Traffic	320095	177520	NO ₂	N	Chemiluminescence	Y (12m)	4.5m	N
				PM ₁₀		Beta Attenuation Monitor with Gravimetric Equivalence	Y (12m)	4.5m	N
Cardiff Castle Street	Roadside/ Urban Traffic	318055,	176459	NO ₂	N	Chemiluminescence	Y(2m)	2m	Y

Tudalen 123

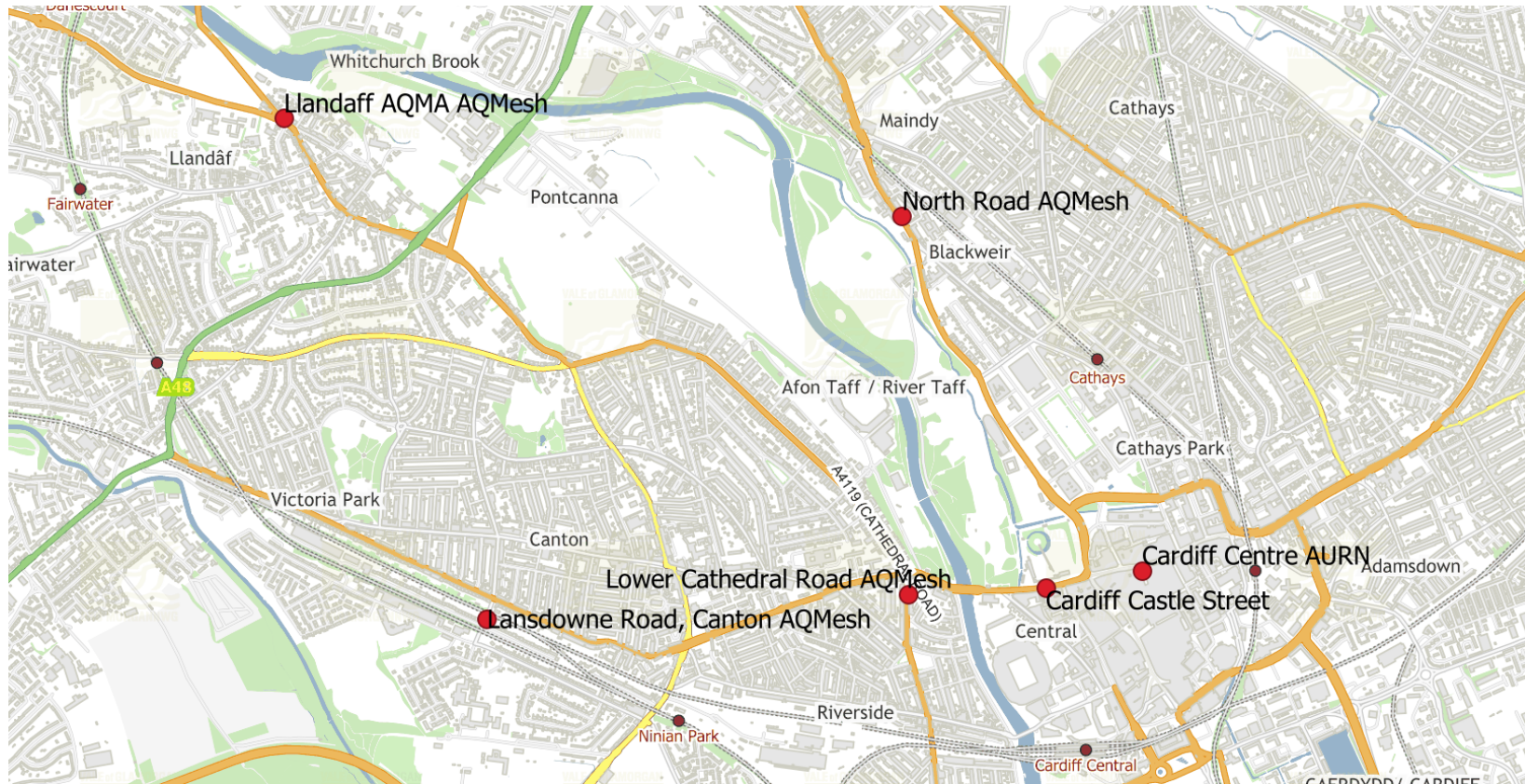
Tudalen 124

Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Monitoring Technique	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Does this location represent worst-case exposure?
				PM ₁₀ , PM _{2.5}	N	Beta Attenuation Monitor with Gravimetric Equivalence	Y(2m)	2m	Y
Lower Cathedral Road AQMesh	Roadside/ Urban Traffic	317540	176437	NO ₂	N	Electrochemical Sensor	Y (0.5m)	1.5m	Y
				PM ₁₀ , PM _{2.5}					
North Road AQMesh	Roadside/ Urban Traffic	317516	177854	NO ₂	N	Electrochemical Sensor	Y (2m)	1.5m	N
				PM ₁₀ , PM _{2.5}					
Lansdowne Road, Canton AQMesh	Roadside/ Urban Traffic	315960	176345	NO ₂	N	Electrochemical Sensor	N (5m)	1.5m	N
				PM ₁₀ , PM _{2.5}					
Llandaff AQMA AQMesh	Roadside/ Urban Traffic	315198	178220	NO ₂	Y	Electrochemical Sensor	Y (0.5m)	1.5m	Y
				PM ₁₀ , PM _{2.5}					

Notes:

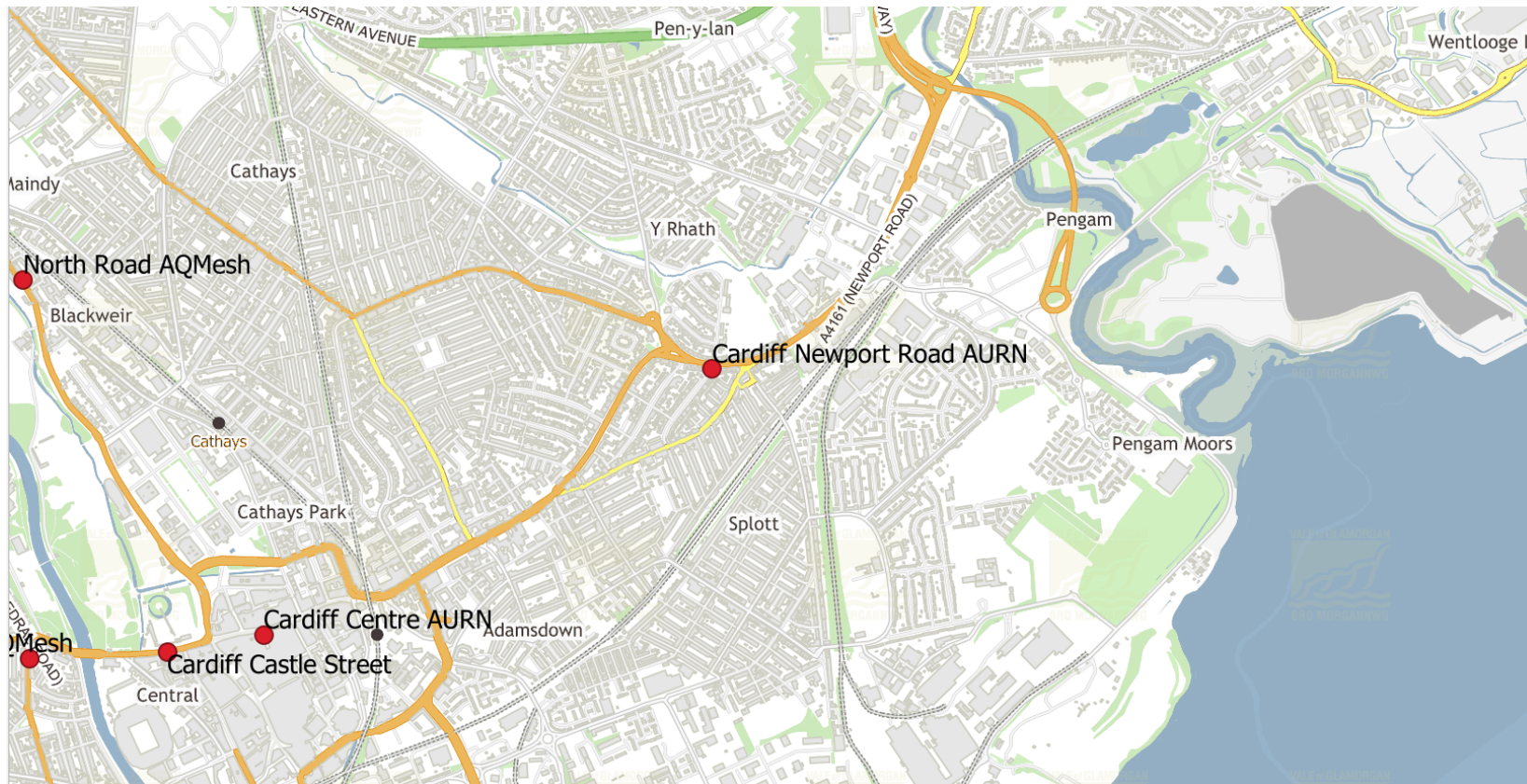
(1) 0m indicates that the sited monitor represents exposure and as such no distance calculation is required.

Figure 1 - Map(s) of Automatic Monitoring Sites



Tudalen 126

Figure 2 - Map(s) of Automatic Monitoring Sites



Tudalen 127

Table 4 - Details of Non-Automatic Monitoring Sites

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
16	167 Ninian Park Road	Roadside	317040	176060	NO2		0.0	5.0
258	Lampost 116 Penarth Road	Roadside	317760	175310	NO2		4.0	2.0
58	Westgate Street	Kerbside	317937	176400	NO2	City Centre AQMA	5.0	0.0
81	Stephenson Court	Roadside	319387	176980	NO2	Newport Road AQMA	0.0	5.0
86	19 Fairoak Road	Roadside	318452	178805	NO2		0.0	10.0
96	Manor Way Junction	Roadside	316601	179653	NO2		0.0	5.0
98	Western Avenue (premises)	Roadside	314805	177345	NO2		0.0	10.0
99	Cardiff Road Llandaff	Roadside	315275	178117	NO2	Llandaff AQMA	0.0	3.0
259	Wellfield Road	Kerbside	319201	178031	NO2		4.0	1.0
260	St Marys Catholic School,Canton	Roadside	316847	176762	NO2		0.0	2.0
261	Caer Ceffyl	Urban Background	311186	180196	NO2		0.0	50.0
106	30 Caerphilly Road	Roadside	316851	179520	NO2		0.0	5.0
112	17 Sloper Road	Roadside	316613	175910	NO2		0.0	5.0

Tudalen 128

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
115	21 Llandaff Road	Roadside	316604	176641	NO2		0.0	3.0
117	25 Cowbridge Road West	Roadside	314458	176735	NO2	Ely Bridge AQMA	0.0	2.0
126	Westgate Street Flats	Roadside	317946	176387	NO2	City Centre AQMA	0.0	5.0
128	117 Tudor Street	Roadside	317540	175979	NO2		0.0	5.0
131	Dragon Court	Roadside	319292	176932	NO2	Newport Road AQMA	0.0	5.0
143	Windsor House	Roadside	318009	176337	NO2		0.0	6.0
144	Marlborough House	Roadside	318046	176307	NO2	City Centre AQMA	0.0	6.0
147	211 Penarth Road	Roadside	317636	175161	NO2		0.0	7.0
148	161 Clare Road	Roadside	317695	175389	NO2		0.0	5.0
149	10 Corporation Road	Roadside	317764	175174	NO2		0.0	5.0
156	2a/4 Colum Road	Roadside	317997	177412	NO2		0.0	5.0
157	47 Birchgrove Road	Roadside	316605	179703	NO2		0.0	8.0
158	64/ 66 Cathays Terrace	Roadside	318093	177716	NO2		0.0	3.0

Tudalen 129

Tudalen 130

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
159	IMO façade replacement	Roadside	320709	177918	NO2		0.0	4.0
166	163 Lansdowne Road	Roadside	315950	176424	NO2		0.0	5.0
168	570 Cowbridge Road East	Roadside	314856	176929	NO2		0.0	5.0
174	76 North Road	Kerbside	317508	177868	NO2		0.0	1.0
179	Altolusso, Bute Terrace	Roadside	318627	176039	NO2		5.0	2.0
183	Station Terrace	Kerbside	318765	176623	NO2		5.0	0.0
184	Hopouse, St Mary Street	Roadside	318335	176074	NO2	City Centre AQMA	0.0	3.0
186	Dempsey's Public House, Castle Street	Roadside	318044	176449	NO2	City Centre AQMA	0.0	3.0
187	Angel Hotel	Roadside	317944	176436	NO2	City Centre AQMA	0.0	3.0
188	Westgate Street (45 Apartments)	Roadside	318229	176154	NO2	City Centre AQMA	0.0	3.0
191	7 Mackintosh Place	Roadside	318724	177776	NO2		0.0	3.0
194	115 Cowbridge Road West	Roadside	313870	176212	NO2		0.0	12.0
195	244 Newport Road	Roadside	320147	177523	NO2		0.0	6.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
196	2 Pencisely Road	Roadside	316223	177305	NO2		0.0	6.0
198	Next Building to Stephenson Court	Roadside	319348	176958	NO2	Newport Road AQMA	0.0	5.0
199	157 Newport Road	Roadside	319599	177174	NO2		0.0	12.0
200	350 Whitchurch Road	Roadside	317038	179073	NO2		0.0	3.0
201	23 Lower Cathedral Road	Roadside	317547	176411	NO2		0.0	3.0
202	22 Clare Street	Roadside	317604	176053	NO2		0.0	3.0
203	10 Fair oak Road	Roadside	318255	178533	NO2		0.0	4.0
204	53 Neville Street	Roadside	317487	176303	NO2		0.0	5.0
207	42 Waungron Road	Roadside	314769	177343	NO2		0.0	7.0
208	2 Llantrisant Road	Roadside	315152	178245	NO2	Llandaff AQMA	0.0	3.0
209	178 North Road	Roadside	317200	178537	NO2		0.0	3.0
210	485 Caerphilly Road	Roadside	316692	181088	NO2		0.0	7.0
211	19 Well Wood Close, Penylan	Roadside	320247	178903	NO2		0.0	28.0

Tudalen 131

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
212	Bridge Road	Kerbside	315197	178221	NO2	Llandaff AQMA	0.0	1.0
214	Mitre Place	Roadside	315254	178153	NO2	Llandaff AQMA	0.0	3.0
218	16-18 Cowbridge Road West	Roadside	314471	176770	NO2	Ely Bridge AQMA	0.0	4.0
254	Girraffe Nusery Cathedral road	Roadside	317529	176340	NO2		0.0	2.0
220	Fitzalan Court Newport Road	Kerbside	318919	176676	NO2		6.0	1.0
221	Stuttgarter Strasse (New student flats)	Kerbside	318530	177468	NO2		8.0	1.0
190	3 Pearson Street	Roadside	319056	177343	NO2		0.0	1.0
224	110 Cardiff Road	Roadside	315714	177740	NO2		0.0	4.0
243	25 Cardiff Road	Kerbside	315318	178042	NO2	Llandaff AQMA	4.0	1.0
244	25 Bridge Road	Roadside	314910	176584	NO2		0.0	4.0
245	47 Willows Ave	Urban Background	321006	179081	NO2		0.0	0.0
263	Pierhead Street	Roadside	319715	174791	NO2		0.0	4.0
247	Radyr Primary school	Roadside	321709	176022	NO2		4.0	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
262	54 Llandaff Road	Kerbside	316593	176728	NO2		2.0	2.0
249	Wentloog Road, Rumney	Roadside	318201	180367	NO2		0.0	3.0
250	Central Square Cardiff, City Centre	Roadside	313244	176769	NO2		4.0	2.0
251	Heol Isaf, Radyr	Kerbside	313244	180367	NO2		0.0	5.0
255, 256, 257	Castle Street Co-Location 3	Roadside	314505	176769	NO2	City Centre AQMA	0.0	1.5
192	3 Cowbridge road West	Roadside	314505	176769	NO2	Ely Bridge AQMA	0.0	3.0
TRO-001	Whitchurch High Lower School	Kerbside	315621	180320	NO2		4.0	5.0
TRO-002	Glan-Y-Nant Terrace (inside)	Roadside	315589	180316	NO2		0.0	2.0
TRO-003	Crossroads of Old Church Rd and Glan-Y-Nant terr (outside)	Kerbside	315548	180315	NO2		5.0	2.0
TRO-004	Ysgol Melin Gruffydd School	Roadside	315620	180360	NO2		0.0	2.0
TRO-005	34 Glan-Y-Nant Rd (inside)	Roadside	315608	180151	NO2		0.0	3.0
TRO-006	36 Old Church Rd (outside)	Roadside	315497	180140	NO2		0.0	2.0
TRO-007	Peter Lea Primary	Roadside	313878	178319	NO2		0.0	3.0

Tudalen 133

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
TRO-008	36 Carter Place	Roadside	313894	178331	NO2		0.0	4.0
TRO-009	3 Carter Place	Roadsie	314022	178334	NO2		0.0	5.0
TRO-010	Llandaff Church in Wales Primary	Kerbside	315274	177784	NO2		5.0	5.0
TRO-011	20 Hendre Rd Llandaff	Kerbside	315279	177750	NO2		0.0	1.0
TRO-012	48 Hendre Rd Llandaff	Roadside	315209	177668	NO2		0.0	3.0
TRO-013	Pencaeru School	Kerbside	312803	175519	NO2		0.0	3.0
TRO-014	16 Cyntwell Avenue	Roadside	312809	175496	NO2		0.0	4.0
TRO-015	6A Cyntwell Avenue	Roadside	312734	175411	NO2		0.0	3.0
TRO-016	29 Norfolk St	Roadside	315811	176555	NO2		0.0	3.0
TRO-017	209 Lansdowne Rd	Roadside	315801	176492	NO2		0.0	4.0
TRO-018	Lansdowne Primary School	Roadside	315801	176492	NO2		0.0	4.0
TRO-019	St Cuthberts Primary School	Kerbside	319027	175493	NO2		0.0	1.0
TRO-020	Letton Road	Kerbside	318910	175456	NO2		2.0	1.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
TRO-021	58 Letton Road	Kerbside	318945	175546	NO2		2.0	1.0
TRO-022	Tredegarville	Roadside	319268	176804	NO2		0.0	4.0
TRO-023	Newport Road School Lane Zone	Kerbside	319228	176777	NO2		0.0	1.0
TRO-024	Glossops Road	Kerbside	319283	176827	NO2		5.0	1.0
TRO-025	St Peters Primary School	Roadside	319394	177096	NO2		0.0	1.0
TRO-026	Southey Street	Kerbside	318378	177086	NO2		2.0	1.0
TRO-027	Wordsworth Avenue	Kerbside	319327	177080	NO2		2.0	1.0
TRO-028	St Monica's / Gladstone Primary School	Roadside	317982	178180	NO2		0.0	3.0
TRO-029	Pentyrch Street	Kerbside	317987	178156	NO2		2.0	1.0
TRO-030	Cwmdare Street	Kerbside	317855	178921	NO2		2.0	1.0
TRO-031	Lakeside Primary School	Roadside	319031	179949	NO2		0.0	1.0
TRO-032	Ontario Way	Kerbside	319012	180050	NO2		2.0	1.0
TRO-033	Woolaston Avenue	Kerbside	318898	180012	NO2		2.0	1.0

Tudalen 135

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
TRO-034	Bryn Hafod Primary School	Roadside	321817	180406	NO2		0.0	1.0
TRO-035	8 Blagdon Close	Kerbside	321847	180402	NO2		2.0	1.0
TRO-036	Uphill Road	Kerbside	321834	180331	NO2		2.0	1.0
TRO-037	Glan Y Afon Primary School	Roadside	321705	181427	NO2		0.0	1.0
TRO-038	Browning Close	Kerbside	321738	181398	NO2		2.0	1.0
TRO-039	Thackerey Crescent	Kerbside	321834	181282	NO2		2.0	1.0
TRO-040	Willow Brook Primary School	Kerbside	324489	180953	NO2		0.0	1.0
TRO-041	Bullrush Close	Kerbside	324519	180949	NO2		2.0	1.0
TRO-042	Sandbrook Road	Kerbside	324529	180975	NO2		2.0	1.0
TRO-043	Creigau Primary School	Kerbside	307904	181561	NO2		0.0	1.0
TRO-044	Tregarth Court	Kerbside	307896	181569	NO2		2.0	1.0
TRO-045	TY-Nant Road	Kerbside	307967	181585	NO2		2.0	1.0
TRO-046	Rhiwbina Primary School	Roadside	315760	181322	NO2		5.0	1.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
TRO-047	Lon-Y-Dail	Roadside	315746	181209	NO2		5.0	1.0
TRO-048	Heol-Y-Deri	Roadside	315825	181374	NO2		5.0	1.0
TRO-049	Fitzalan School	Roadside	315955	175898	NO2		20.0	1.0
TRO-050	Ysgol Gymraeg Pwll Coch	Roadside	316032	175869	NO2		5.0	1.0
TRO-051	Lawrenny Avenue	Roadside	316150	175887	NO2		3.0	2.0
TRO-052	Coed Y Gof	Roadside	313000	178061	NO2		5.0	2.0
TRO-053	Lime Grove	Roadside	312944	178097	NO2		6.0	1.0
TRO-054	Maple Road	Roadside	312883	178154	NO2		5.0	1.0
GW-013	Birchgrove Primary Traffic lights (Outside school)	Kerbside	316720	179799	NO2		4.0	1.5
GW-014	Birchgrove Primary sign (Outside school)	Kerbside	316744	179810	NO2		4.0	1.5
GW-015	Birchgrove Primary Facacde 1	Roadside	316736	179783	NO2		0.0	5.5
GW-016	Birchgrove Primary Façade 2	Roadside	316767	179801	NO2		0.0	5.5
GW-017	Ysgol Mynydd Bychan Signpost (Outside school)	Kerbside	317602	178703	NO2		4.0	1.5

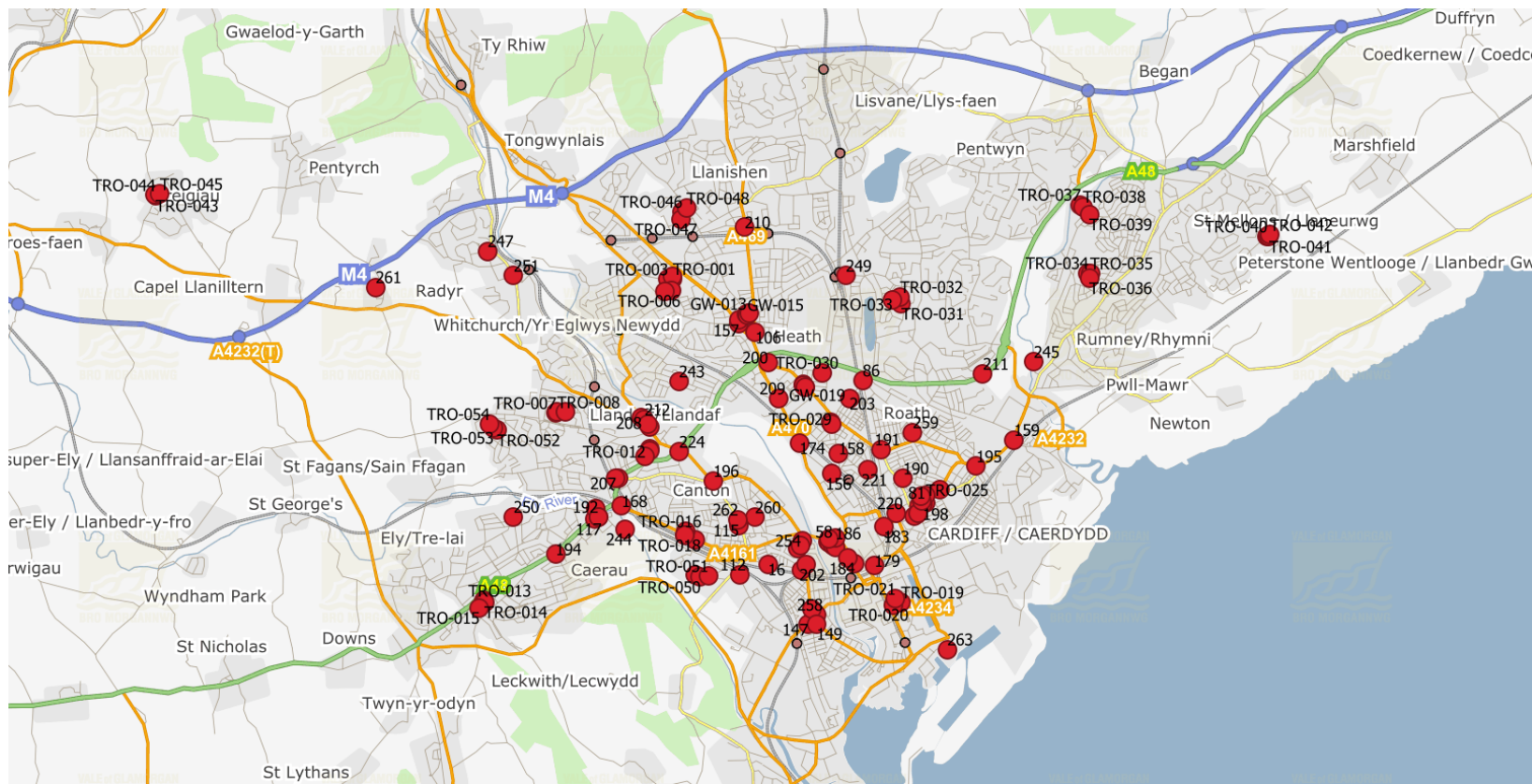
Tudalen 137

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)
GW-018	Ysgol Mynydd Bychan Signpost (Outside school)	Kerbside	317561	178746	NO2		4.0	1.5
GW-019	Ysgol Mynydd Bychan Façade 1	Roadside	317564	178735	NO2		0.0	5.5
GW-020	Ysgol Mynydd Bychan Façade 2	Roadside	317590	178708	NO2		0.0	5.5

Notes:

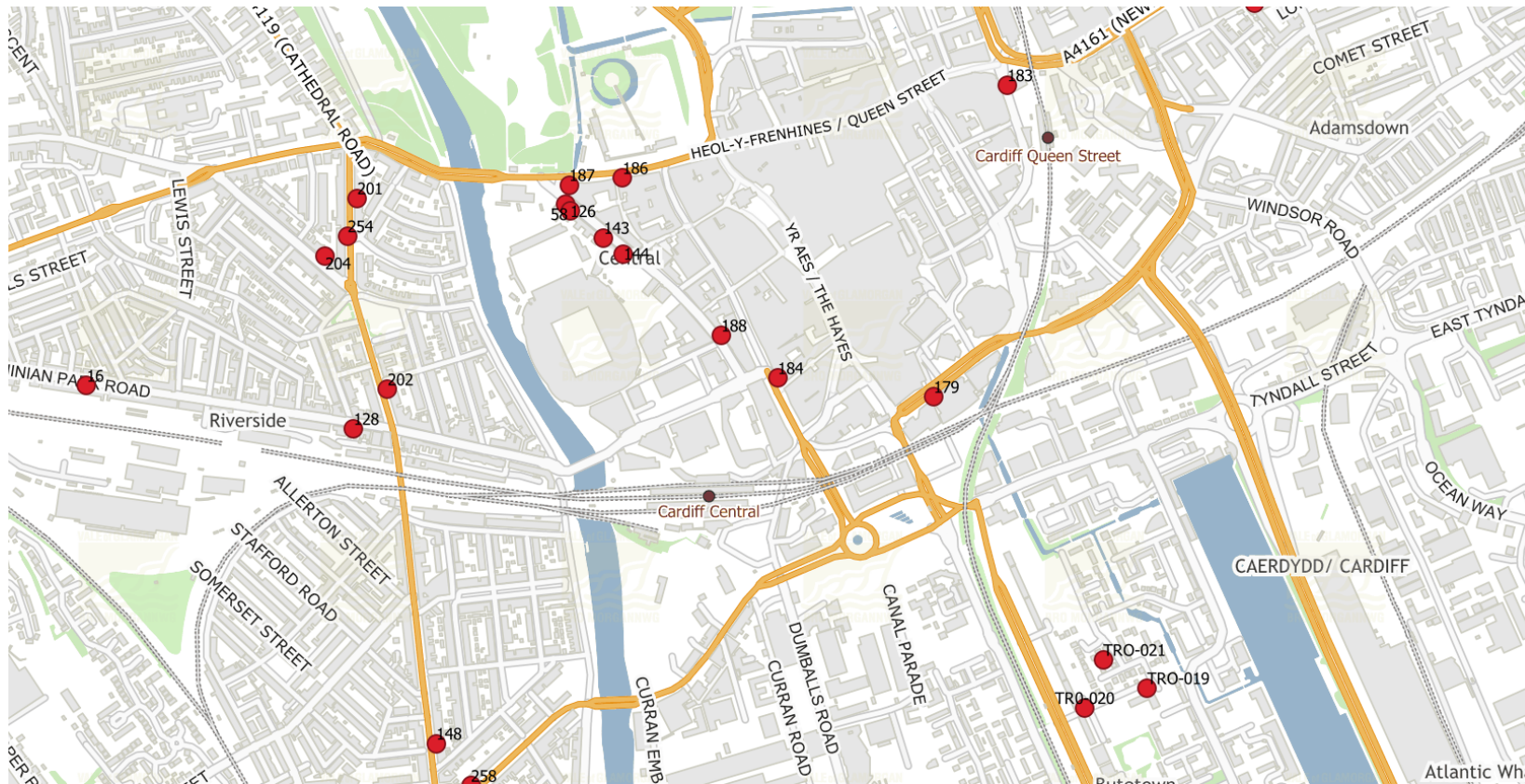
(1) 0m indicates that the sited monitor represents exposure and as such no distance calculation is required.

Figure 3 - Map of Non-Automatic Monitoring Sites in Cardiff



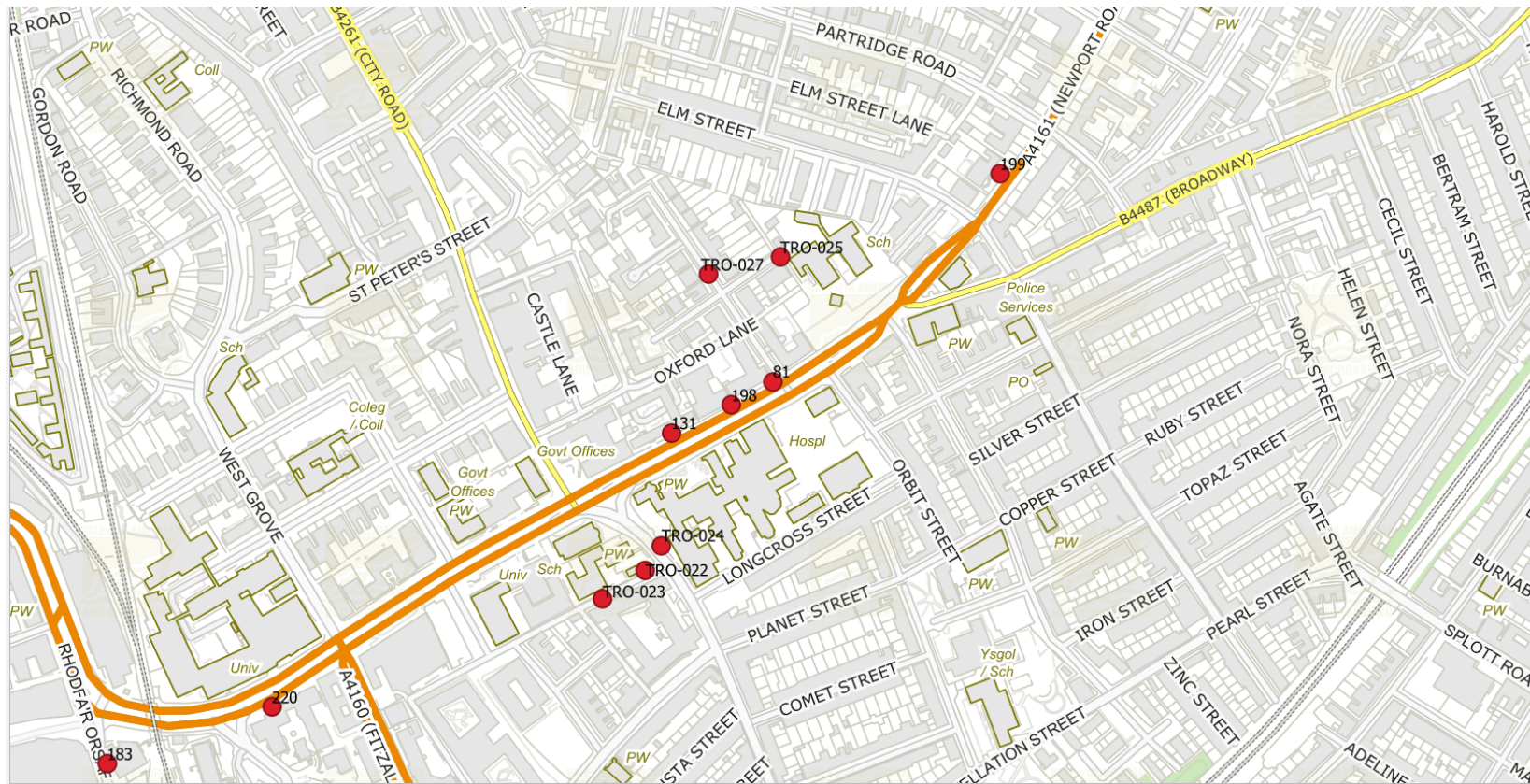
Tudalen 139

Figure 4 – Map of Non-Automatic Monitoring Sites in Cardiff City Centre AQMA



Tudalen 140

Figure 5 - Map of Non-Automatic Monitoring Sites in Stephenson Court AQMA



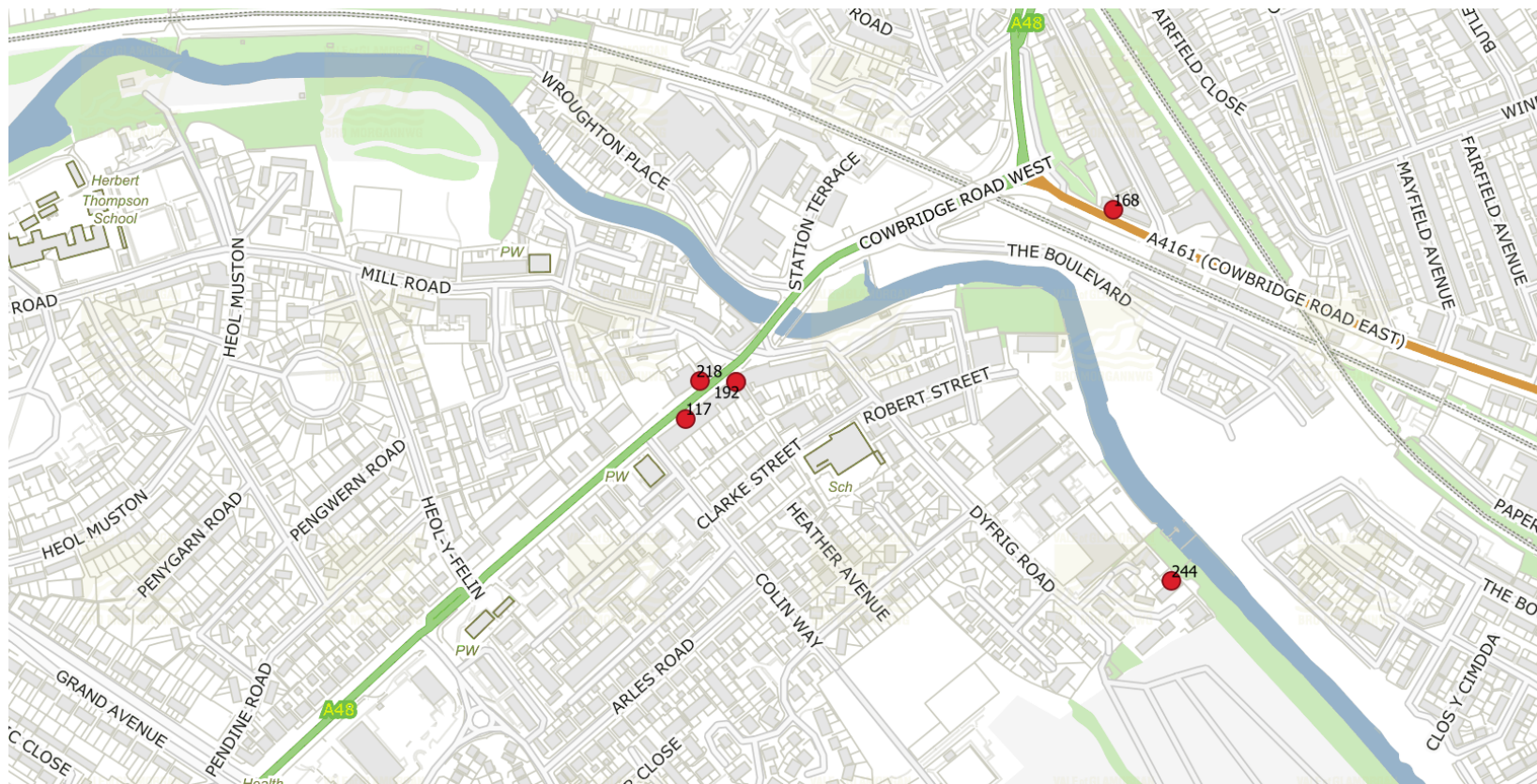
Tudalen 141

Figure 6 - Map of Non-Automatic Monitoring Sites in Llandaff AQMA



Tudalen 142

Figure 7 – Map of Non-Automatic Monitoring Sites in Ely Bridge AQMA



Tudalen 143

2022 Air Quality Monitoring Results

Table 5 - Annual Mean Automatic NO₂ Monitoring Results 2022

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2022 (%) ⁽²⁾	2018	2019	2020	2021	2022
Cardiff City Centre AURN	Urban background	Automatic	88	88	18	12	16	16	17
Cardiff, Newport Road AURN	Roadside	Automatic	97	97		29	19	22	22
Cardiff Castle Street	Roadside	Automatic	100	100				25	34
Lower Cathedral Road AQMesh	Roadside	Indicative Automatic	71	71				19.9	27.7
North Road AQMesh	Roadside	Indicative Automatic	100	100				22.1	26.7
Lansdowne Road, Canton AQMesh	Roadside	Indicative Automatic	100	100				25.6	30.6
Llandaff AQMA AQmesh	Roadside	Indicative Automatic	100	42				25.6	27.5

Tudalen 144

Table 6 - Annual Mean Non-Automatic NO₂ Monitoring Results 2022

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
16	317040	176060	Roadside	100.0	100.0	27.8	27.3	23.6	23.2	24.1
258	317760	175310	Roadside	100.0	100.0				29.4	29.5
58	317937	176400	Kerbside	100.0	100.0	45.8	41.2	30	30.8	31.0
81	319387	176980	Roadside	100.0	100.0	34.9	34.4	27.2	29.3	27.0
86	318452	178805	Roadside	100.0	100.0	33.4	31.7	25.8	27	28.6
96	316601	179653	Roadside	100.0	100.0	31.4	29.4	22.2	24.2	25.2
98	314805	177345	Roadside	100.0	100.0	26.1	24.6	20	20.8	22.0
99	315275	178117	Roadside	100.0	100.0	31.7	30.4	22.8	25.1	26.8
259	319201	178031	Kerbside	100.0	100.0					26.1
260	316847	176762	Roadside	100.0	100.0					20.6
261	311186	180196	Urban Background	100.0	100.0					11.5
106	316851	179520	Roadside	100.0	100.0	27.8	28.3	24.5	23.7	24.5

Tudalen 145

Tudalen 146

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
112	316613	175910	Roadside	92.1	92.1	26.7	25.8	20.7	23.1	22.9
115	316604	176641	Roadside	100.0	100.0	30.0	30.6	25.3	25.6	27.5
117	314458	176735	Roadside	90.4	90.4	40.0	36.8	30.7	36.0	33.7
126	317946	176387	Roadside	92.1	92.1	35.1	33.3	22.3	24.0	25.3
128	317540	175979	Roadside	100.0	100.0	28.3	29.8	25.0	25.0	27.2
131	319292	176932	Roadside	100.0	100.0	38.2	35.7	28.8	26.7	26.0
143	318009	176337	Roadside	92.3	92.3	37.3	35.6	23.5	25.7	25.7
144	318046	176307	Roadside	92.6	92.6	34.3	33.9	25	26.4	27.9
147	317636	175161	Roadside	100.0	100.0	29.3	26.9	20.5	23.8	24.3
148	317695	175389	Roadside	100.0	100.0	26.6	25.6	21.3	23.9	24.0
149	317764	175174	Roadside	100.0	100.0	31.3	30.1	26.8	25.9	27.1
156	317997	177412	Roadside	100.0	100.0	26.8	24.8	17.4	20.1	21.9
157	316605	179703	Roadside	100.0	100.0	25.1	23.6	19.3	19.4	19.3

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
158	318093	177716	Roadside	100.0	100.0	26.2	24.2	17.6	21	22.4
159	320709	177918	Roadside	100.0	100.0	35.6	32.2	26.4	27.4	28.7
166	315950	176424	Roadside	100.0	100.0	30.6	31.4	26.3	26.7	27.1
168	314856	176929	Roadside	100.0	100.0	26	24.7	21.1	22.7	23.6
174	317508	177868	Kerbside	100.0	100.0	28.2	26.8	17.7	20	23.2
179	318627	176039	Roadside	84.9	84.9	43	33.1	32.4	37.6	31.7
183	318765	176623	Kerbside	100.0	100.0	31.1	30.9	23.5	23.7	25.9
184	318335	176074	Roadside	82.5	82.5	39.9	40.5	28.3	27.5	28.3
186	318044	176449	Roadside	66.0	66.0	45.8	42.7	23.1	24.5	31.6
187	317944	176436	Roadside	57.5	57.5	50.8	43.9	25.7	26.1	31.5
188	318229	176154	Roadside	90.4	90.4	52.4	43.7	32.5	26.8	28.5
191	318724	177776	Roadside	100.0	100.0	29.7	27.9	22.5	24.3	25.4
194	313870	176212	Roadside	100.0	100.0	22	20.4	15.8	18.4	20.2

Tudalen 147

Tudalen 148

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
195	320147	177523	Roadside	100.0	100.0	31.6	31.2	24.2	24.6	25.0
196	316223	177305	Roadside	100.0	100.0	24.9	25.2	19.4	22	22.6
198	319348	176958	Roadside	100.0	100.0	35.1	33.5	25.7	28.7	28.3
199	319599	177174	Roadside	100.0	100.0	23.9	25	20.7	20.1	20.1
200	317038	179073	Roadside	100.0	100.0	33.4	31.1	27.4	27.4	27.6
201	317547	176411	Roadside	84.4	84.4	30.3	28.9	22.1	24	27.0
202	317604	176053	Roadside	84.7	84.7	27.8	27.6	23.3	24.5	26.3
203	318255	178533	Roadside	100.0	100.0	21.6	20.6	17.2	17.1	17.6
204	317487	176303	Roadside	100.0	100.0	23.3	22.1	18.7	20.1	20.9
207	314769	177343	Roadside	100.0	100.0	21.7	20.6	16.7	18.3	18.6
208	315152	178245	Roadside	100.0	100.0	25.4	24.9	18.9	20.5	21.5
209	317200	178537	Roadside	100.0	100.0	22.7	22.3	15.2	16.6	19.1
210	316692	181088	Roadside	100.0	100.0	21.7	20.4	16.6	17.5	18.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
211	320247	178903	Roadside	100.0	100.0	21.7	21.8	18.1	19.7	18.4
212	315197	178221	Kerbside	100.0	100.0	47.1	41.3	33.4	37.4	39.3
214	315254	178153	Roadside	100.0	100.0		32.3	24.8	25.4	27.3
218	314471	176770	Roadside	100.0	100.0		35.5	28.2	31.6	31.4
254	317529	176340	Roadside	92.3	92.3				27.7	30.2
220	318919	176676	Kerbside	80.8	80.8		38.4	27.9	30.4	31.3
221	318530	177468	Kerbside	100.0	100.0			30.4	26.9	33.8
190	319056	177343	Roadside	100.0	100.0	23.2	23.4	20.7	20.1	21.1
224	315714	177740	Roadside	100.0	100.0		23.1	18.5	18.8	18.5
243	315712	178789	Kerbside	92.1	92.1			25.7	28.2	31.1
244	314910	176584	Roadside	92.3	92.3			18.2	18	18.7
245	321006	179081	Urban Background	100.0	100.0			14.3	15	15.4
263	319715	174791	Roadside	67.4	67.4					14.4

Tudalen 149

Tudalen 150

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
247	321709	176022	Roadside	100.0	100.0				11.4	12.7
262	316593	176728	Kerbside	42.5	42.5					15.3
249	318201	180367	Roadside	100.0	100.0			17.3	16.5	16.2
250	313244	176769	Roadside	82.2	82.2			26.7	28.4	26.3
251	313244	180367	Kerbside	100.0	100.0			13.5	14.9	15.6
255, 256, 257	314505	176769	Roadside	90.4	90.4				25.8	33.3
192	314505	176769	Roadside	100.0	100.0	39.7	38.6	30.8	31.7	33.3
TRO-001	315621	180320	Kerbside	76.4	76.4			10.9	11.9	12.6
TRO-002	315589	180316	Roadside	100.0	100.0			12.9	13.4	13.6
TRO-003	315548	180315	Kerbside	84.9	84.9			15.6	16	15.0
TRO-004	315620	180360	Roadside	90.4	90.4			9.8	11.9	12.0
TRO-005	315608	180151	Roadside	100.0	100.0			11.5	11.6	12.2
TRO-006	315497	180140	Roadside	77.3	77.3			17	17	19.3

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
TRO-007	313878	178319	Roadside	100.0	100.0			9.4	10.4	11.0
TRO-008	313894	178331	Roadside	100.0	100.0			8.4	8.6	8.6
TRO-0099	314022	178334	Roadsie	100.0	100.0			9.3	9.2	9.8
TRO-010	315274	177784	Kerbside	92.3	92.3			10.5	10.6	12.5
TRO-011	315279	177750	Kerbside	100.0	100.0			12.2	10.9	12.2
TRO-012	315209	177668	Roadside	100.0	100.0			10.6	10.4	11.2
TRO-013	312803	175519	Kerbside	100.0	100.0			9.9	9	9.3
TRO-014	312809	175496	Roadside	67.4	67.4			14.1	13.7	10.3
TRO-015	312734	175411	Roadside	92.1	92.1			11.5	11.8	10.4
TRO-016	315811	176555	Roadside	100.0	100.0			16.9	15.9	16.1
TRO-017	315801	176492	Roadside	92.3	92.3			21.1	16.1	25.1
TRO-018	315801	176492	Roadside	92.3	92.3				23.3	17.1
TRO-019	319027	175493	Kerbside	100.0	100.0				14.5	14.5

Tudalen 152

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
TRO-020	318910	175456	Kerbside	55.6	55.6				14.7	15.3
TRO-021	318945	175546	Kerbside	100.0	100.0				17.2	16.5
TRO-022	319268	176804	Roadside	40.8	40.8				19.3	19.9
TRO-023	319228	176777	Kerbside	77.0	77.0				19.5	19.2
TRO-024	319283	176827	Kerbside	77.3	77.3				29.6	32.4
TRO-025	319394	177096	Roadside	100.0	100.0				15.3	15.5
TRO-026	318378	177086	Kerbside	100.0	100.0				14.8	16.0
TRO-027	319327	177080	Kerbside	100.0	100.0				16.4	18.5
TRO-028	317982	178180	Roadside	90.1	90.1				13.4	16.4
TRO-029	317987	178156	Kerbside	82.5	82.5				14.4	14.6
TRO-030	317855	178921	Kerbside	100.0	100.0				13.8	15.1
TRO-031	319031	179949	Roadside	92.3	92.3				10.5	11.2
TRO-032	319012	180050	Kerbside	92.3	92.3				10	10.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
TRO-033	318898	180012	Kerbside	92.1	92.1				11.1	11.1
TRO-034	321817	180406	Roadside	92.9	92.9				10.3	9.4
TRO-035	321847	180402	Kerbside	100.0	100.0				11.1	11.3
TRO-036	321834	180331	Kerbside	57.5	57.5				11.3	10.6
TRO-037	321705	181427	Roadside	22.5	22.5				4.1	10.6
TRO-038	321738	181398	Kerbside	100.0	100.0				11.8	11.8
TRO-039	321834	181282	Kerbside	100.0	100.0				13.4	13.8
TRO-040	324489	180953	Kerbside	84.7	84.7				13.2	12.2
TRO-041	324519	180949	Kerbside	90.4	90.4				11.5	10.8
TRO-042	324529	180975	Kerbside	100.0	100.0				13.4	12.2
TRO-043	307904	181561	Kerbside	100.0	100.0				7.9	8.6
TRO-044	307896	181569	Kerbside	100.0	100.0				8	8.5
TRO-045	307967	181585	Kerbside	100.0	100.0				10.7	10.3

Tudalen 153

Tudalen 154

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
TRO-046	315760	181322	Roadside	75.0	24.9					10.8
TRO-047	315746	181209	Roadside	100.0	34.8					9.8
TRO-048	315825	181374	Roadside	100.0	34.8					13.0
TRO-049	315955	175898	Roadside	100.0	34.8					11.1
TRO-050	316032	175869	Roadside	75.0	27.4					11.5
TRO-051	316150	175887	Roadside	100.0	34.8					11.4
TRO-052	313000	178061	Roadside	50.0	15.3					-
TRO-053	312944	178097	Roadside	50.0	17.0					-
TRO-054	312883	178154	Roadside	50.0	17.0					-
GW-013	316720	179799	Kerbside	100.0	100.0					20.5
GW-014	316744	179810	Kerbside	100.0	100.0					21.0
GW-015	316736	179783	Roadside	100.0	100.0					16.9
GW-016	316767	179801	Roadside	100.0	100.0					17.9

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2018	2019	2020	2021	2022
GW-017	317602	178703	Kerbside	100.0	77.0					16.5
GW-018	317561	178746	Kerbside	100.0	77.0					18.9
GW-019	317564	178735	Roadside	76.0	59.5					17.4
GW-020	317590	178708	Roadside	100.0	77.0					18.7

Notes:

Exceedances of the NO₂ annual mean objective of 40µg/m³ are shown in **bold**.

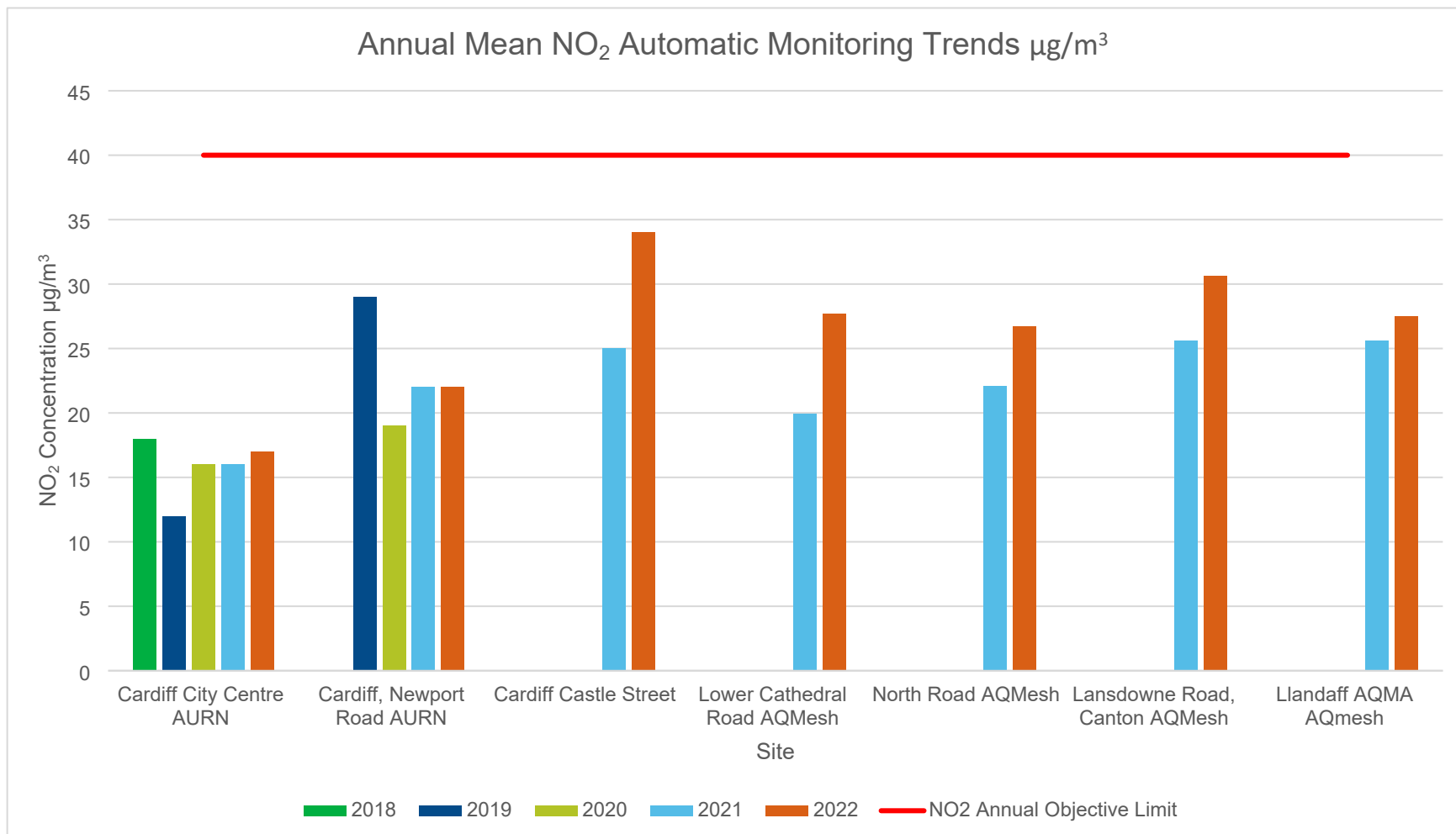
NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

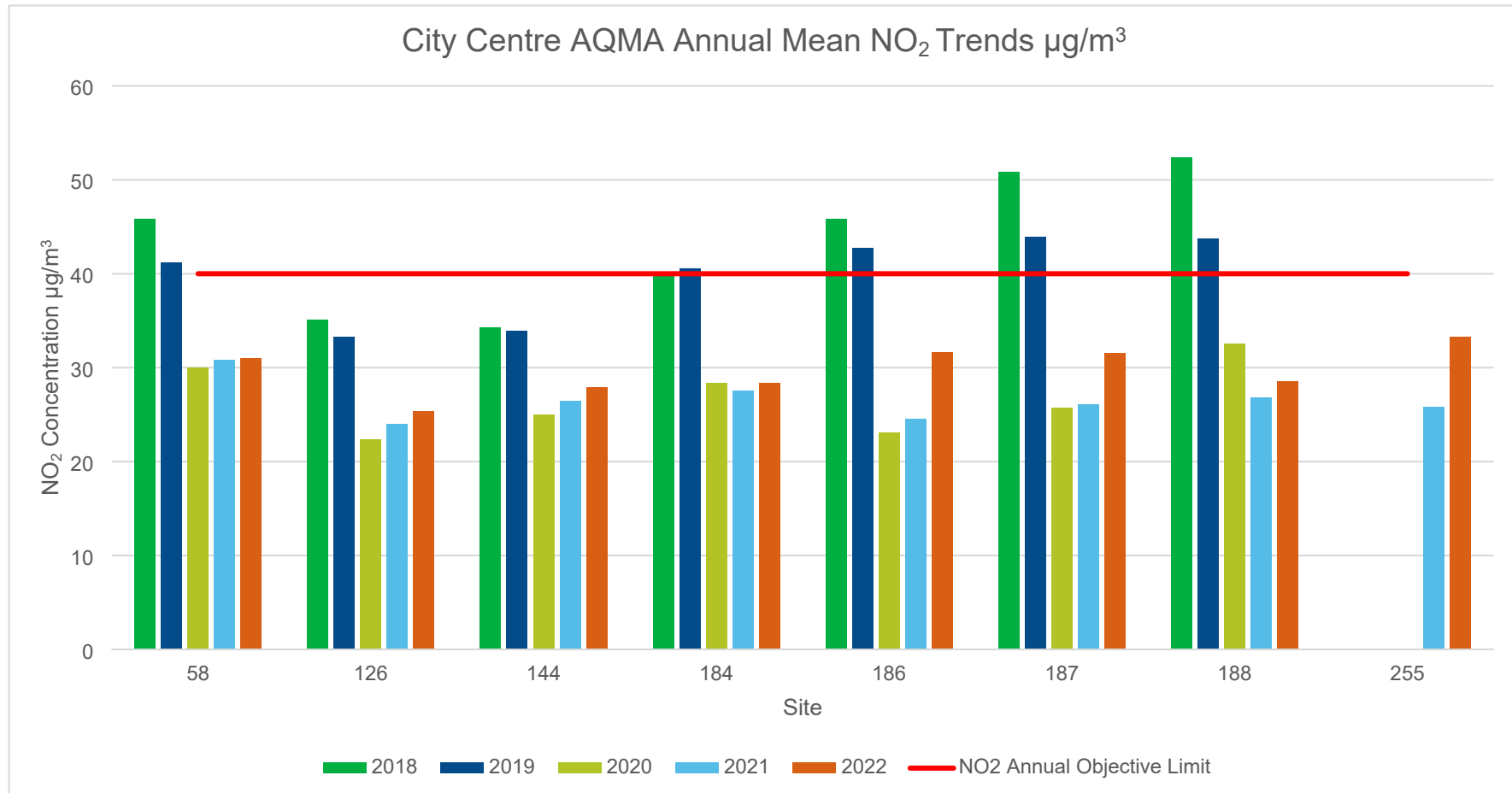
Figure 8 - Annual Mean NO₂ Automatic Monitoring Trends µg/m³



Tudalen 156

Figure 8 displays trends in NO₂ concentrations from automatic monitors in Cardiff. All locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) at all locations in since 2018. There is a slight increasing trend in NO₂ concentrations since 2020.

Figure 9 - City Centre AQMA Annual Mean NO₂ Trends µg/m³

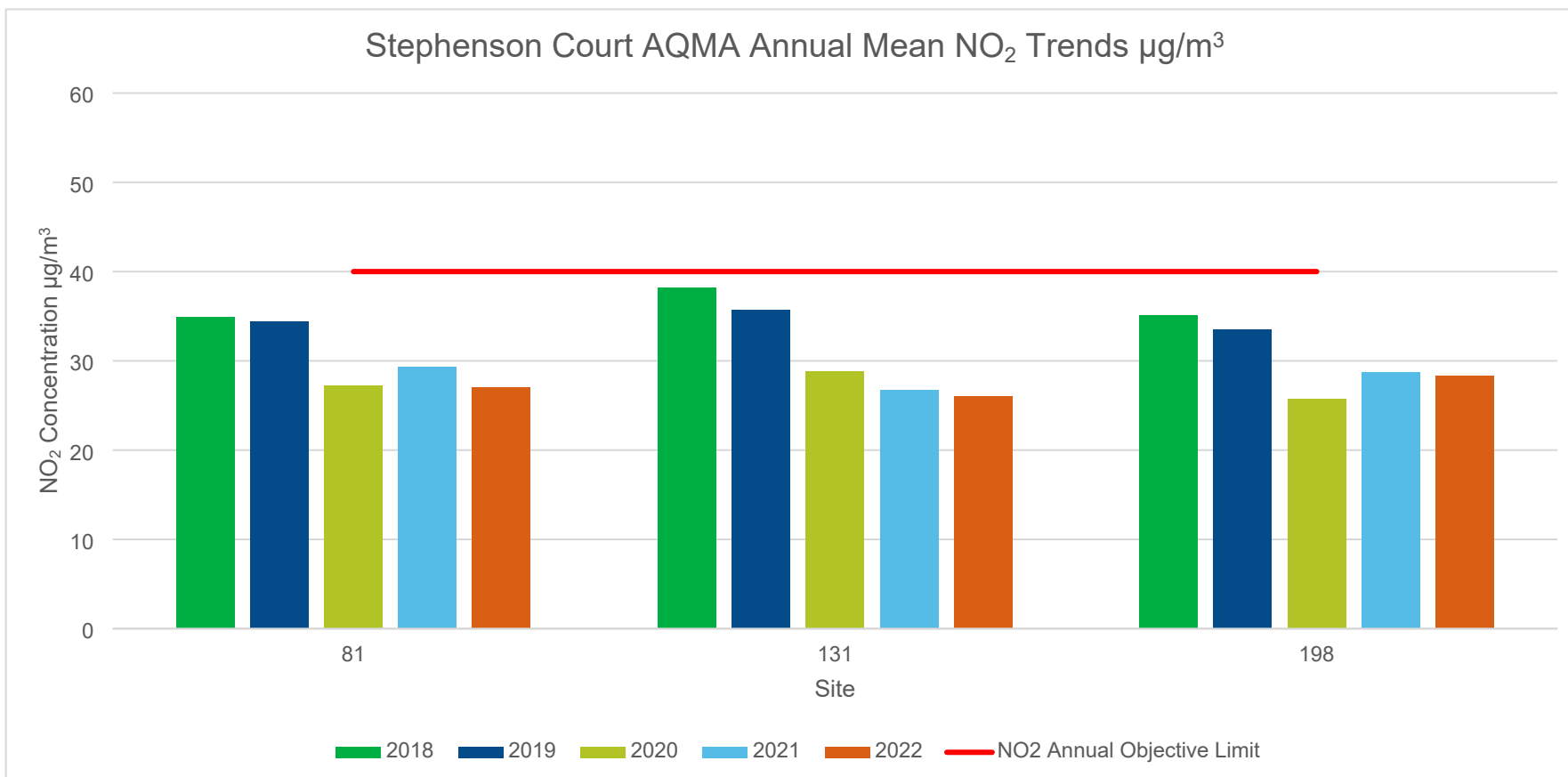


Tudalen 157

Figure 9 displays trends in NO₂ concentrations from non-automatic sites in the Cardiff City Centre AQMA. All locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) at all locations in 2022. Improvements in NO₂ concentrations are

evident when compared to 2019, although there is a slight increasing trend in NO₂ concentrations since 2020, reflective of the easing of COVID restrictions.

Figure 10 – Stephenson Court AQMA Annual Mean NO₂ Trends µg/m³



Tudalen 158

Figure 10 displays trends in NO₂ concentrations from non-automatic sites in Stephenson Court AQMA. All locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) since 2018, and a stable trend in NO₂ concentrations since 2020.

Figure 11 - Llandaff AQMA Annual Mean NO₂ Trends µg/m³

Tudalen 160

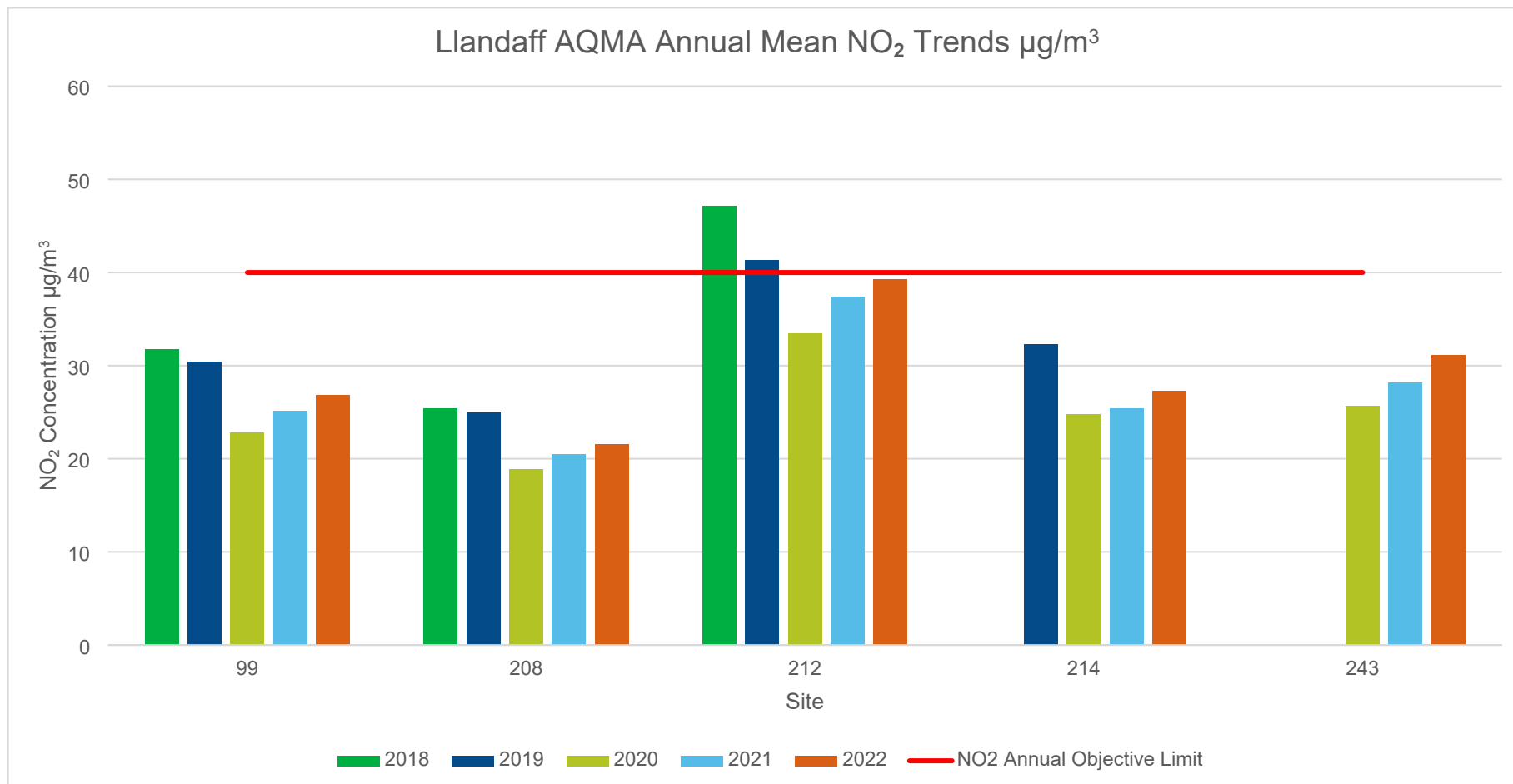
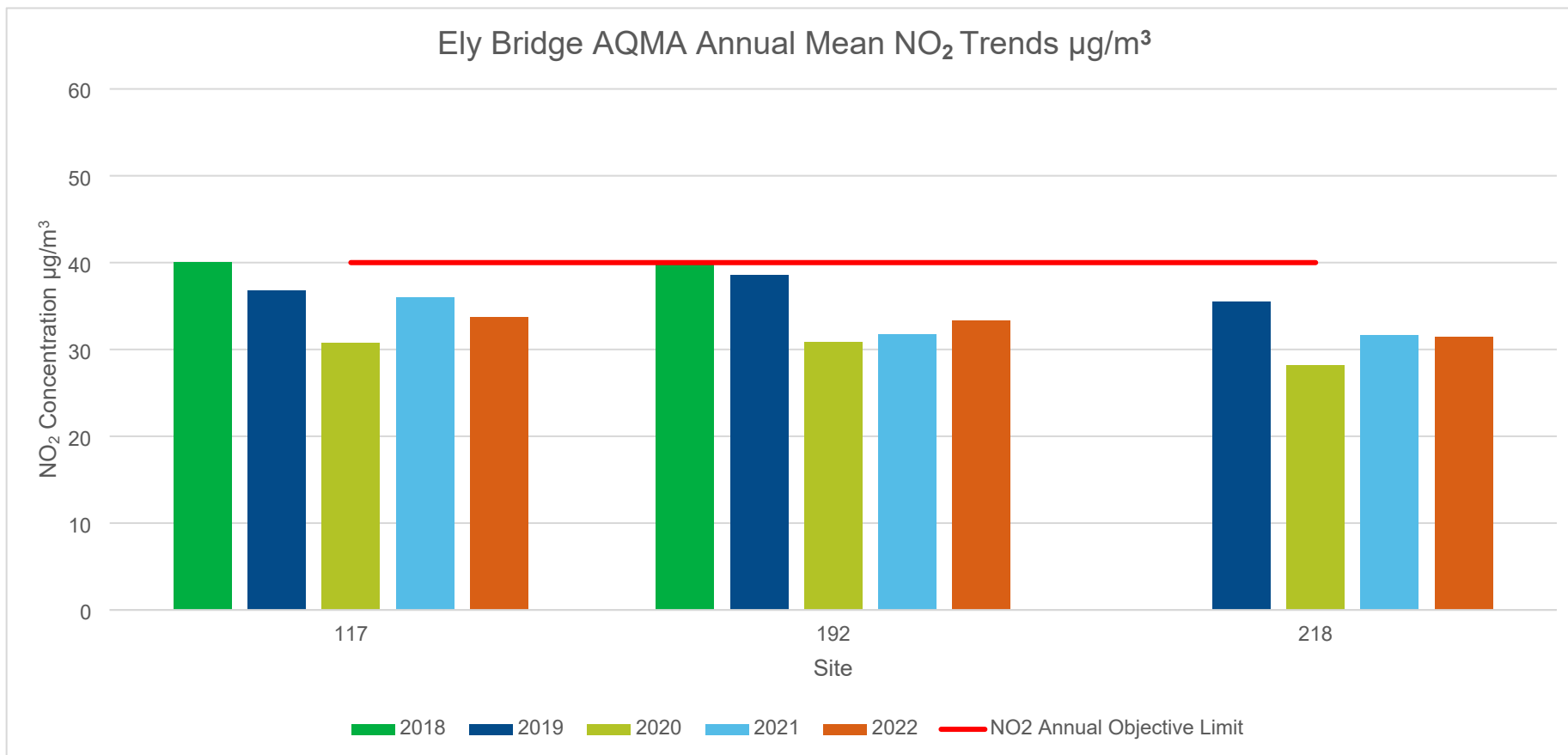


Figure 11 displays trends in NO₂ concentrations from non-automatic sites in Llandaff AQMA. In 2022 all locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³). However, Site 212 is close to exceeding the annual mean NO₂ Air Quality Standard (40µg/m³). There is a slight increasing trend in NO₂ concentrations since 2020.

Figure 12 - Ely Bridge AQMA Annual Mean NO₂ Trends µg/m³



Tudalen 161

Figure 12 displays trends in NO₂ concentrations from non-automatic sites in Ely Bridge AQMA. All locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) since 2018, and a stable trend in NO₂ concentrations since 2020.

Table 7 - 1-Hour Mean NO₂ Monitoring Results, Number of 1-Hour Means > 200µg/m³

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2022 (%) ⁽²⁾	2018	2019	2020	2021	2022
Cardiff City Centre AURN	Urban background	Automatic	88	88	0	0	0	0	0
Cardiff, Newport Road AURN	Roadside	Automatic	97	97	0	0	0	0	0
Cardiff Castle Street	Roadside	Automatic	100	100				0	0

Notes:

Exceedances of the NO₂ 1-hour mean objective (200µg/m³ not to be exceeded more than 18 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table 8 - Annual Mean PM₁₀ Monitoring Results (µg/m³)

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2022 (%) ⁽²⁾	2018	2019	2020	2021	2022
Cardiff City Centre AURN	Urban background	Automatic	88	88	17	23	14	13	16
Cardiff, Newport Road AURN	Roadside	Automatic	97	97		19	17	17	18
Cardiff Castle Street	Roadside	Automatic	100	100				12	20
Lower Cathedral Road AQMesh	Roadside	Indicative Automatic	71	71				11.1	12.7
North Road AQMesh	Roadside	Indicative Automatic	100	100				9.5	9.2
Lansdowne Road, Canton AQMesh	Roadside	Indicative Automatic	100	100				16.6	17.2
Llandaff AQMA AQmesh	Roadside	Indicative Automatic	100	42				9.3	13.9

Tudalen 163

Notes:

Exceedances of the PM₁₀ annual mean objective of 40µg/m³ are shown in **bold**.

All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

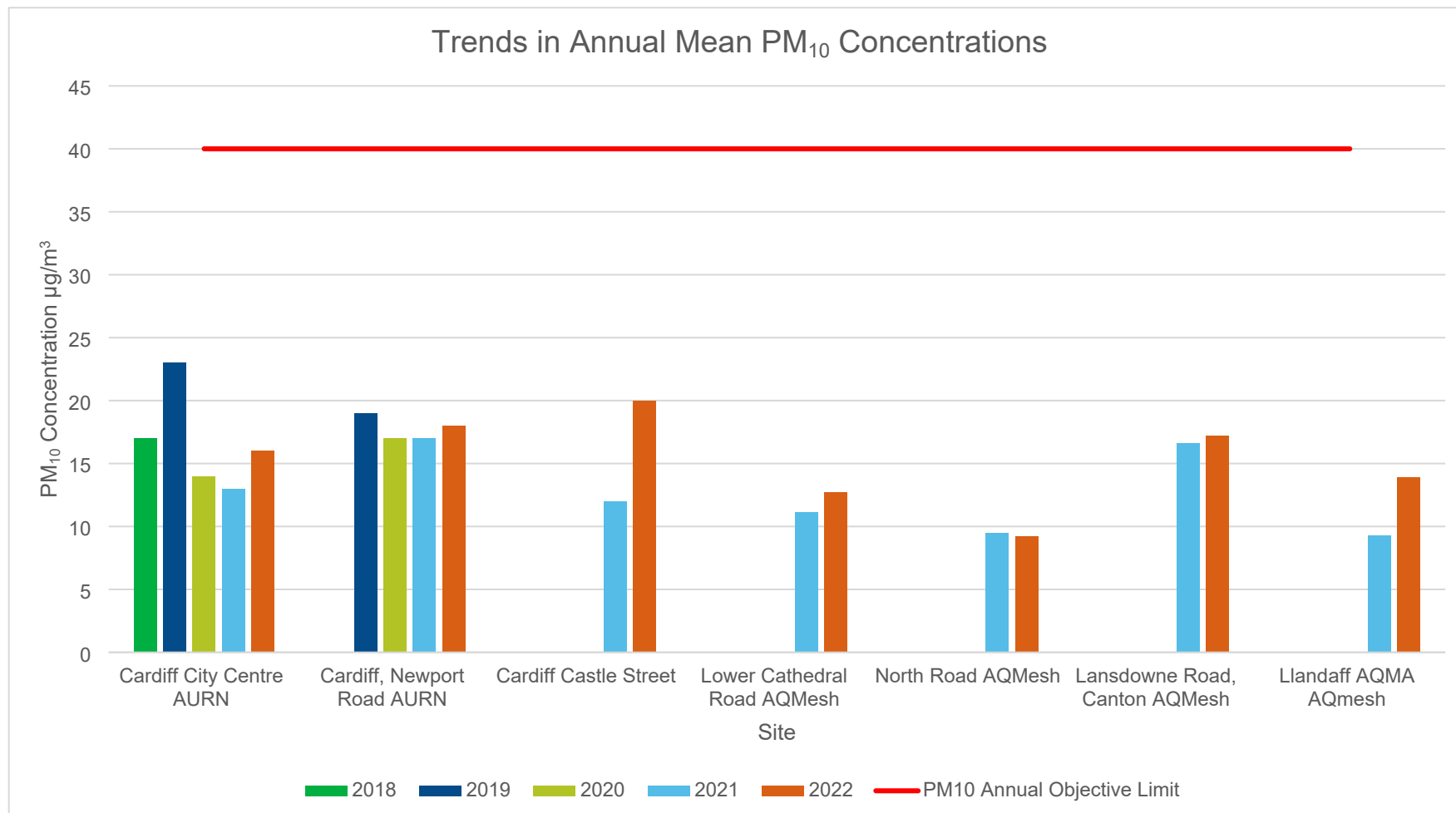


Figure 13 displays trends in PM₁₀ concentrations from automatic sites in Cardiff. All locations display compliance with the annual mean NO₂ Air Quality Standard (40µg/m³) since 2018.

Table 9 - 24-Hour Mean PM₁₀ Monitoring Results, Number of PM₁₀ 24-Hour Means > 50µg/m³

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2022 (%) ⁽²⁾	2019	2020	2021	2022
Cardiff City Centre AURN	Urban background	Automatic	88	88	0	0	0	0
Cardiff, Newport Road AURN	Roadside	Automatic	97	97	0	0	0	0
Cardiff Castle Street	Roadside	Automatic	100	100			0	0

Notes:

Exceedances of the PM₁₀ 24-hour mean objective (50µg/m³ not to be exceeded more than 35 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table 10 - PM_{2.5} Monitoring Results (µg/m³)

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2022 (%) ⁽²⁾	2019	2020	2021	2022
Cardiff City Centre AURN	Urban background	Automatic	88	88	12	7	9	11
Cardiff Castle Street	Roadside	Automatic	100	100			9	10
Lower Cathedral Road AQMesh	Roadside	Indicative Automatic	71	71			8.5	7.6
North Road AQMesh	Roadside	Indicative Automatic	100	100			7.8	7.1
Lansdowne Road, Canton AQMesh	Roadside	Indicative Automatic	100	100			11.4	11
Llandaff AQMA AQmesh	Roadside	Indicative Automatic	100	42				8.4

Tudalen 166

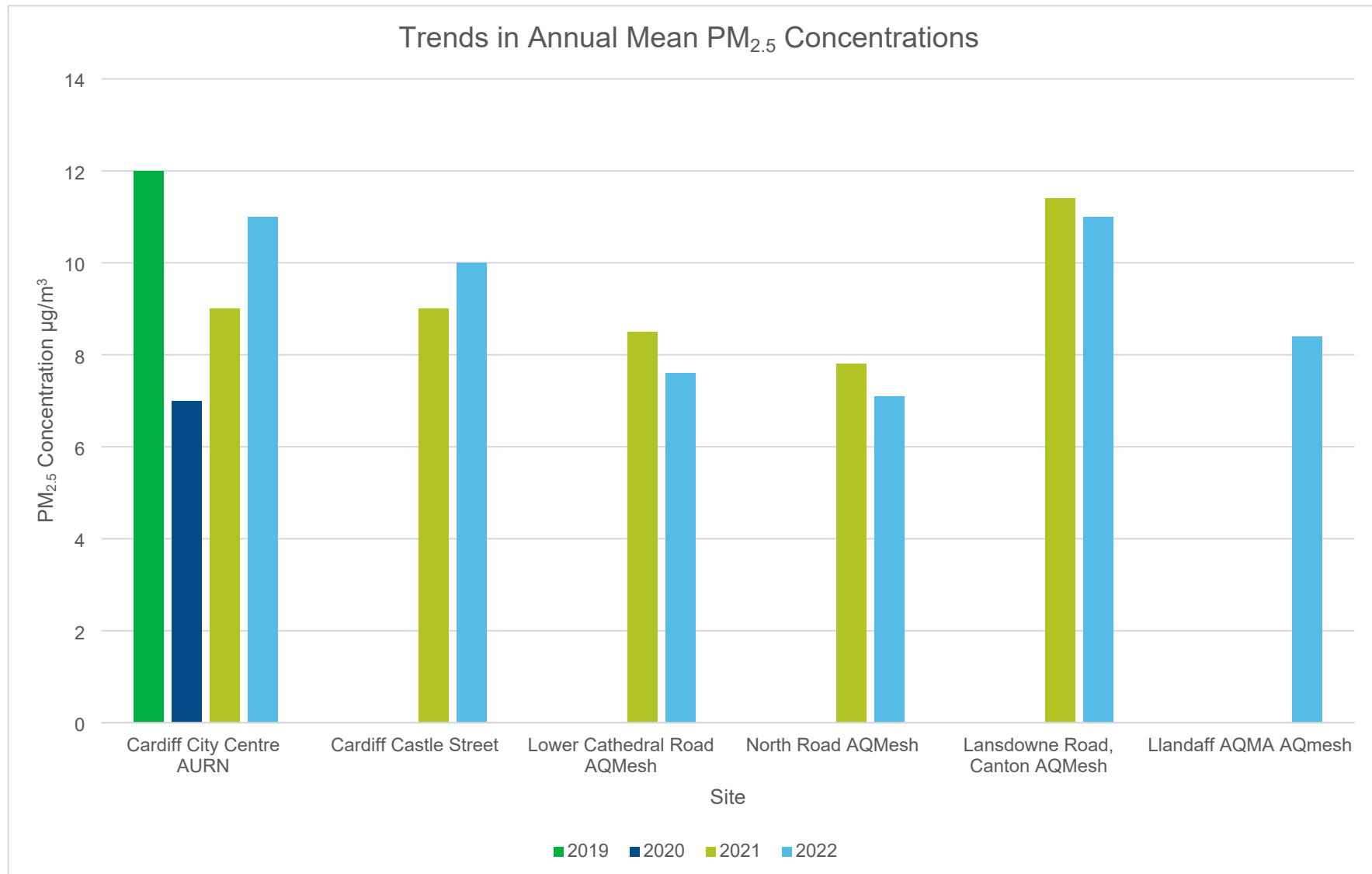
Notes:

All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure 13 – Trends in Annual Mean PM_{2.5} Concentrations



Tudalen 167

Comparison of 2022 Monitoring Results with Previous Years and the Air Quality Objectives

During 2022, monitoring was carried out for nitrogen dioxide (NO₂), particulate matter (PM₁₀), sulphur dioxide (SO₂), carbon monoxide (CO) and ozone (O₃).

2.1.3 Nitrogen Dioxide (NO₂)

Nitrogen dioxide was measured during 2022 at three sites equipped with an automatic NO_x analyser and by a network of 135 diffusion tubes. NO₂ was also measured by four indicative automatic monitors in various locations.

In order to ratify the 2022 diffusion tube dataset, a local bias adjustment factor of 0.79 was applied to the annual average readings. The factor was derived from a co-location study carried out at the Castle Street automatic monitor. The local bias correction factor was utilized as it would provide results representative of a worst-case scenario.

There were no exceedances in either the annual or short-term Air Quality Objectives for NO₂ at any automatic and non-automatic monitoring site during 2022. Results from most monitoring sites in 2022 show slightly increased NO₂ concentrations compared to 2021, but still maintain a reduction compared to 2019 pre-Covid.

2.1.4 Particulate Matter (PM₁₀)

As described in previous sections, monitoring of PM₁₀ has been carried out at the Cardiff Centre AURN, Newport Road AURN and Cardiff Castle Street monitoring sites. PM₁₀ monitoring was also carried out by four indicative automatic monitors. The results of the monitoring indicate that recorded PM₁₀ concentrations at these monitoring stations are compliant with both the annual mean (40µg/m³) and 24-hour mean (>50 µg/m³ not to be exceeded more than 18 times per year) Air Quality Objectives set for PM₁₀.

2.1.5 Particulate Matter (PM_{2.5})

Monitoring for PM_{2.5} was carried out at the Cardiff Castle Street, Cardiff Centre AURN and four indicative monitoring sites. There is no formal Air Quality Objective in Wales for PM_{2.5}, although all concentrations are compliant with the EU target value of 25 µg/m³.

2.1.6 Other Pollutants Monitored

Sulphur Dioxide (SO₂)

Sulphur dioxide was measured at the Cardiff Centre AURN automatic monitoring site during 2022. The site is classified as “Urban Background” and is a relevant location for the 15-minute and 1-hour Objectives. There were no exceedences of the set objectives during 2022.

Ozone (O₃)

Ozone monitoring is useful due to its potential correlations with other pollutants. In 2022, ozone was measured at the Cardiff City Centre AURN site. The results are compared with the running 8-hour mean objective as set by the Expert Panel on Air Quality Standards (EPAQs) which states the running 8-hour mean should not exceed 100µg/m³ on more than 10 days per year. There were no exceedences of the ozone objective in Cardiff in 2022.

Carbon Monoxide (CO)

Carbon monoxide was also monitored at Cardiff City AURN site during 2022. There were no exceedences of the Air Quality Strategy Objective for (CO) 8-hour running mean > 10 mg/m³ during this period.

Summary of Compliance with AQS Objectives as of 2022

SRS on behalf of Cardiff Council has examined the results from monitoring in the Cardiff. Concentrations of NO₂ at site 212 within Llandaff AQMA have been found to be close to the annual mean NO₂ Air Quality Standard (40µg/m³), therefore further investigation and assessment of the local issues in the AQMA is required before deciding on whether further action may be necessary.

SRS will continue to monitor and review results in the Ely Bridge and Stephenson Court AQMAs. It may be feasible to consider revoking the AQMAs due to continued compliance with the annual mean NO₂ Air Quality Standard (40µg/m³). Any such decision to revoke the AQMAs will require statutory consultation and approval from Welsh Government. The Council will need to undertake a detailed assessment to demonstrate that compliance will continue. Any decision on the revocation of AQMA will need to consider the potential of any revised air quality targets as a result of the Environment (Air Quality and Soundscapes) (Wales) Bill.

At all other locations, concentrations are all below the Objectives, therefore no further action is required.

3 New Local Developments

The Council continues to monitor the impact of proposed developments and recent developments already underway or in use.

There have been several planning applications for residential and commercial developments within the last year which required air quality assessments due to the introduction of new receptors or increased emissions due to additional vehicle movements. No air quality assessment received by the council have predicted adverse air quality impacts related to any new developments.

The following developments may either be of significance in respect of local air quality or be a proposed development where air quality is a consideration.

Velindre Cancer Centre

Application was received for the temporary construction access route for the construction of the approved Velindre Cancer Centre, for a period of no more than 48 months following the completion of the related highway improvement works.

A revised air quality assessment (AQA) was undertaken as part of this application to ascertain the likely air quality impacts associated with the amended proposal through its construction phase. The results from the assessment show that the changes in construction traffic on Pendwyallt Road and Park Road from using this access route is expected to have a negligible air quality impact on nearby sensitive human health or ecological receptors. The predicted concentrations of pollutants at receptors also remain well below the air quality objectives and therefore the air quality impacts associated with the southern access route are considered to be not significant in accordance with guidance set out by EPUK and IAQM.

As such no specific planning condition was initially requested for further mitigation in terms of air quality impacts. However the planning committee, took into consideration a number of concerns raised by local residents placed the following condition on the approval notice dated 2nd February 2021:

Condition 11: Prior to commencement of the development hereby approved details of an air monitoring unit and its location shall be submitted to and approved in writing with the Local Planning Authority. The monitoring unit shall be implemented in accordance with the

approved details and remain operational until cessation of the development. Data from the air monitoring unit shall be provided to the Local Planning Authority on request.

Reason: To monitor air quality in accordance with Policy EN13 of the adopted Cardiff Local Plan (2006-2026).

The developer's appointed consultants have now installed automatic air monitoring units at various locations along the access road measuring nitrogen dioxide and particulate matter as well as implementation of a diffusion tube monitoring program. Monthly reports are issued displaying data collected in this area and can be found at the following link, <https://velindre.nhs.wales/transforming-cancer-services/news/tcs-news/air-quality/air-quality-documents/>

Road Traffic Sources (and Other Transport)

Cardiff Council has considered road traffic sources extensively in both this and each year in earlier reports; the monitoring network is very largely focused on measuring concentrations of nitrogen dioxide close to many of them. These have been discussed either in previous reports or earlier in this report.

There are no newly identified road traffic sources which need to be considered.

For 2022 SRS on behalf of Cardiff Council confirms that there are no new/newly identified congested streets with a flow above 5,000 vehicles per day and residential properties close to the kerb, that have not been adequately considered in previous rounds of Review and Assessment.

Industrial / Fugitive or Uncontrolled Sources / Commercial Sources

SRS on behalf of Cardiff Council can confirm that in 2022 there were no new or proposed Industrial / Fugitive or Uncontrolled Sources / Commercial Sources for which an air quality assessment has been carried out.

Other Sources

Domestic Wood Burners

Previous reports have confirmed that there are no known areas in Cardiff where coal or solid fuel burning provides a significant level or primary household heating. Nothing has changed in this regard since the 2018 APR, despite the potential for increasing popularity of solid fuel heating with increased fossil-fuel prices, and there is no need to consider this further at this time.

It should be noted that the Council receives a number of enquiries each year from residents in respect of national or local requirements were they to wish to install log-burners or similar appliances in their homes. There are no smoke control areas in Cardiff and hence no legal requirements with regard to appliances that may be installed.

However, residents are always reminded of the legislation in respect of statutory smoke nuisance and, where they can't be persuaded otherwise for reasons of air quality and health, recommended to seek out an appliance certified for use in a smoke control area.

SRS on behalf of Cardiff Council can confirm that there are no areas of significant domestic fuel use in the Local Authority area.

4 Policies and Strategies Affecting Airborne Pollution

Local / Regional Air Quality Strategy

SRS on behalf of Cardiff Council have coordinated and developed a Clean Air Strategy (CAS) & Action Plan document. The document outlines a citywide approach to mitigate poor air quality in Cardiff and recognises that interventions to address poor air quality cannot be utilised and implemented locally. Therefore, citywide measures need to be put into practise to hopefully provide citywide improvements to air quality.

The document fulfils the requirements of the LAQM process to produce an Air Quality Action Plan (AQAP). The document also captures the Direction given to CC in March 2018 by WG for Cardiff to address its air quality concerns along highlighted major road networks.

Air Quality Planning Policies

Cardiff's LDP 2006-2026, forms the basis for decisions on land use planning in Cardiff up to 2026 and assumes that, within the plan's time frame, approximately 40,000 new jobs and 41,100 new dwellings will be developed in Cardiff as a direct response to Cardiff's role as the economic driver of the City- region.

In addition to its independent examination, the LDP was subject to a Strategic Environmental Assessment (SEA) to ensure that the policies reflect sustainability principles and take into account environmental impacts.

Policy KP2 of the LDP allocates 8 Strategic Sites to help meet the need for new dwellings and jobs. These strategic allocations on both greenfield and brownfield sites will include 500 homes or more and/or include significant employment/mixed uses which will bring significant benefits to the city. The sites are:

- (i) Cardiff Central Enterprise Zone;
- (ii) Former Gas Works, Ferry Road;
- (iii) North West Cardiff;
- (iv) North of Junction 33 on the M4;
- (v) South of Creigiau;

- (vi) North East Cardiff (West of Pontprennau);
- (vii) East of Pontprennau Link Road; and
- (viii) South of St. Mellons Business Park – Employment Only.

The LDP identifies that sustainable transportation solutions are required in order to respond to the challenges associated with new development by setting out an approach aimed at minimising car travel, maximising access by sustainable transportation and improving connectivity between Cardiff and the wider region.

The Plan sets out a strategy to achieve this by making the best use of the current network, managing demand and reducing it where possible by widening travel choices. The aim is to secure a modal split of 50% car and 50% non-car modes.

The following LDP policies are of relevance to air quality;

KP8: SUSTAINABLE TRAVEL

For Cardiff to accommodate the planned levels of growth, existing and future residents will need to be far less reliant on the private car. Therefore, ensuring that more everyday journeys are undertaken by sustainable modes of transport, walking, cycling and public transport, will be essential.

Development in Cardiff will be integrated with transport infrastructure and services in order to:

- i. Achieve the target of a 50:50 modal split between journeys by car and journeys by walking, cycling and public transport.
- ii. Reduce travel demand and dependence on the car;
- iii. Enable and maximise use of sustainable and active modes of transport;
- iv. Integrate travel modes;
- v. Provide for people with particular access and mobility requirements;
- vi. Improve safety for all travellers;
- vii. Maintain and improve the efficiency and reliability of the transport network

- viii. Support the movement of freight by rail or water; and
- ix. Manage freight movements by road and minimise their impacts

KP14: HEALTHY LIVING

Cardiff will be made a healthier place to live by seeking to reduce health inequalities through encouraging healthy lifestyles, addressing the social determinants of health and providing accessible health care facilities. This will be achieved by supporting developments which provide for active travel, accessible and useable green spaces, including allotments.

KP18: NATURAL RESOURCES:

In the interests of the long-term sustainable development of Cardiff, development proposals must take full account of the need to minimise impacts on the city's natural resources and minimise pollution, in particular the following elements.....minimising air pollution from industrial, domestic and road transportation sources and managing air quality.

EN13: AIR, NOISE, LIGHT POLLUTION AND LAND CONTAMINATION

Development will not be permitted where it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the presence of unacceptable levels of land contamination.

C6: HEALTH

Priority in new developments will be given to reducing health inequalities and encouraging healthy lifestyles through:

- i. Identifying sites for new health facilities, reflecting the spatial distribution of need, ensuring they are accessible and have the potential to be shared by different service providers; and*
- ii. Ensuring that they provide a physical and built environment that supports interconnectivity, active travel choices, promotes healthy lifestyles and enhances road safety.*

The LDP also outlines the approach the Council will take to increase the proportion of people travelling by sustainable modes and to achieve the 50:50 modal split target. This will involve:

- enabling people to access employment, essential services and community facilities by walking and cycling through, for example, high quality, sustainable design and measures to minimise vehicle speed and give priority to pedestrians and cyclists;
- developing strategic bus and rapid transit corridor enhancements and facilitating their integration with the wider transport network;
- facilitating the transfer between transport modes by, for example, improving existing interchanges and developing new facilities such as strategically located park and ride facilities; and
- maximising provision for sustainable travel within new developments and securing infrastructure investment which can support modal shift within existing settlements.

4.1.1 Replacement LDP

The Council agreed with Welsh Government in March 2021 a timetable to prepare a Replacement LDP to cover the period 2021 to 2036. The timetable proposes a 3.5-year preparation process with adoption of the Replacement LDP due at the end of 2024.

The first stage in preparation of the Replacement LDP was consultation on the Vision, Issues and Objectives for the plan which was completed in summer 2021. Following this consultation Cabinet and Council agreed a Vision and Objectives for the plan in September 2021. The agreed Vision and Objectives includes a commitment to create healthier environments, reduce inequalities and enhance wellbeing including specifically setting out how air quality can be enhanced. This agreed Vision and Objectives will set the context for the plan as it evolves in more detail through the preparation process over the next few years.

Local Transport Plans and Strategies

The Transport White Paper was launched on 15 January 2020 and lays out an ambitious 10- year plan to tackle the climate emergency, reduce congestion and

improve air quality. It includes proposals for developing the South East Wales Metro, including new Metro lines connecting new and existing communities in the city, Rapid Bus Transport, Active Travel and improvements to our streets and the future of the car, including reducing car ownership through car clubs and greening through the expansion of EV charging infrastructure. Key regional projects are identified, with significant improvements proposed for all the major routes into the city. It also outlines the intention to consider all delivery options and to work with Welsh Government to develop a comprehensive investment plan. The timescale for the White Paper was amended in line with ongoing developments in relation to the Clean Air Plan to ensure alignment. The document is available at;

<https://www.cardiff.gov.uk/ENG/resident/Parking-roads-and-travel/transport-policies-plans/transport-white-paper/Documents/White%20Paper%20for%20Cardiff%20Transport%202019.pdf>

Active Travel Plans and Strategies

The Active Travel Network Map shows existing and future routes for walking and cycling that will help residents travel around the city more easily. We have done this in order to meet the requirements of the Active Travel (Wales) Act 2013.

The future routes shown on the map are proposals to be introduced over the next 15 years. The map will be used to decide which walking and cycling transport schemes will be prioritised for design and implementation.

The existing routes have been audited to show that they meet the standards required by the Welsh Government Active Travel Design Guidance. Other routes for walking and cycling are available in Cardiff but only those which meet these standards are shown on the map.

Following the 2021 public consultation, the council revised the Active Travel Network Map and it was approved by Welsh Government in December 2022.

Further details can be found at the following link

<https://www.cardiff.gov.uk/ENG/resident/Parking-roads-and-travel/transport-policies-plans/Active-Travel-Network-Map/Pages/default.aspx>

Local Authorities Well-being Objectives

In 2015 Welsh Government made a new law called the Well-being of Future Generations (WFG) (Wales) Act. The new law has the sustainable development principle at its heart. This means that we need to work in a way that improves wellbeing for people today without doing anything that could make things worse for future generations. There are seven national well-being goals that form the basis of the Act and five ways of working which support the goals.

CC adopts the principles of The Well-being of Future Generations (Wales) Act 2015. 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.

Under the WFG Act the Cardiff Public Services Board (PSB) has produced its Well-Being Plan for 2018- 2023, which sets out the Cardiff PSB's priorities for action over the next 5 years, and beyond. The Plan contains Well-being Objectives, high-level priorities that the Cardiff PSB have identified as being most important. It also contains 'Commitments,' or practical steps that the city's public services, together, will deliver over the next 5 years. The Well-Being Plan has set out Well-Being Objectives as follows:

- **Objective 1** - A Capital City that Works for Wales;
- **Objective 2** - Cardiff grows in a resilient way;
- **Objective 3** -Safe, Confident and Empowered Communities
- **Objective 4** - Cardiff is a great place to grow up;
- **Objective 5** - Supporting People out of poverty;
- **Objective 6** - Cardiff is a great place to grow older; and
- **Objective 7** -Modernising and Integrating Our Public Services

Within the Well-Being Plan Objective 2 details the following; *Cardiff is one of Britain's fastest growing cities, and is by far the fastest growing local authority area in Wales. Successful cities are those in which people want to live and this growth is welcomed and a*

sure sign of strength for the city. However, this growth will bring challenges too, putting pressure on both the city's physical infrastructures, community cohesion, its natural environment and public services. Managing the impacts of this population growth and of climate change in a resilient and sustainable fashion will be a major long term challenge for Cardiff.

Improving levels of NO₂ and particulate matter (PM_{10, 2.5}) is a City level outcome indicator that the PSB will seek to impact in order to meet this specific Objective. The Plan forecasts a future Cardiff with improved air quality and has committed to taking 'a city-wide response to air pollution through supporting the development and delivery of a Cardiff Clean Air Strategy.

Green Infrastructure Plans and Strategies

Outlined in Cardiff's Local Development Plan (LDP) 2006- 2026, Policy **KP16** focuses upon Green infrastructure.

Policy KP16 Green Infrastructure

The policy aims to ensure that Cardiff's green infrastructure assets are strategically planned and delivered through a green infrastructure network. Other policies in the Plan provide more detailed guidance on aspects of these assets, together with supporting SPG.

Where development is permitted, planning conditions and/or obligations will be used to protect or enhance the natural heritage network.

New developments should incorporate new and / or enhanced green infrastructure of an appropriate size, type and standard to ensure no fragmentation or loss of connectivity.

Where the benefits of development outweigh the conservation interest, mitigation and/or compensation measures will be required to offset adverse effects and appropriate planning obligations sought. The implementation of policies designed to provide and protect public open space throughout Cardiff would also serve to offset any increase in recreational pressure on the Cardiff Beech Woods SAC, thereby helping to avoid likely significant effect upon that site.

Management of Cardiff's green infrastructure network should be in place prior to development, and appropriate planning obligations sought. SPG on this topic will more fully outline the extent of Cardiff's green infrastructure and how this policy can be implemented in more detail.

As previously mentioned a new Supplementary Planning Guidance (SPG) concerning Green Infrastructure was approved in 2017 by CC to provide a detailed understanding to the elements raised in the LDP.

- This document provides planning advice on a number of areas relating to development and the environment, including protection and provision of open space, ecology and biodiversity, trees, soils, public rights of way, and river corridors.
- The new document also differs from previous SPGs by providing more in depth design advice, aimed at giving developers a clearer understanding of the approach expected when submitting designs for new developments. By having this information up-front developers are better able to provide suitable designs to the Council through the planning process.

Climate Change Strategies

Cardiff Council declared a climate emergency in 2019 and has since been preparing the One Planet Strategy which sets out how we will respond and tackle this emergency and become carbon neutral Zero as a Council and a City by 2030. A draft One Planet strategy was published for consultation in October 2020 and public feedback on this, alongside a detailed analysis of the Council and city's current carbon position, have informed and shaped the final 2021 One Planet Cardiff Strategy report and action plan.

In producing the 2021 OPC Strategy the Council has completed a detailed carbon baselining and impact assessment. This key milestone has enabled an understanding of the current carbon position, both of Council operations and also of the wider City.

The OPC Strategy confirms the Council's commitment to ensuring that Cardiff will become a Carbon Neutral Council by 2030. It also confirms the Council's commitment to work in partnership with city wide stakeholders to determine a pathway to achieve a Carbon Neutral City by 2030. Full details of the final strategy are available at

<https://www.oneplanetcardiff.co.uk/>

5 Conclusion and Proposed Actions

Conclusions from New Monitoring Data

Monitoring data for 2022 indicates that annual mean concentrations of nitrogen dioxide recorded at sites of relevant exposure within the already established AQMAs are compliant with the annual mean NO₂ Air Quality Standard (40µg/m³). However, one monitoring location within Llandaff AQMA, site 212, displays an annual result of 39.3µg/m³. Therefore, further mitigation measures will need to be assessed to improve air quality concentrations at this location.

SRS will continue to monitor and review results in the Stephenson Court AQMA. It may be feasible to consider revoking the AQMA due to continued compliance with the annual mean NO₂ Air Quality Standard (40µg/m³).

All other monitoring sites remain compliant with the relevant objectives in 2022.

Conclusions relating to New Local Developments

SRS on behalf of Cardiff Council will continue to monitor data gathered by the developer's air quality consultants for Velindre Construction Access 20/01110/MJR, as part of planning condition 11.

Condition 11: Prior to commencement of the development hereby approved details of an air monitoring unit and its location shall be submitted to and approved in writing with the Local Planning Authority. The monitoring unit shall be implemented in accordance with the approved details and remain operational until cessation of the development. Data from the air monitoring unit shall be provided to the Local Planning Authority on request

Other Conclusions

The implementation of COVID measures in the City Centre accelerated the Council's achievement of compliance with limit values for NO₂ under the Ambient Air Quality Directive, on Castle Street. The Interim implementation of the Castle Street Scheme as approved by Welsh Government, was completed at the end of October 2021. The Council has ensured ongoing monitoring has been undertaken. At the time of writing this report a

Final Plan is being drafted which includes further assessments using updated traffic data, collected post Covid,. The Final Plan will detail that the Councils preferred option will be to install a permanent version of the existing interim scheme, and this will be implemented upon approval from Welsh Government.

Proposed Actions

As a result of the information provided herein it is proposed to

1. Deliver and implement the proposed mitigation measures quantified within the Clean Air Plan;
2. Continue monitoring within and around the existing AQMAs and other areas of concern. The diffusion tube network appointed by SRS on behalf of Cardiff Council will be reviewed and an assessment on locations made;
3. Implementation of the updated Realtime Monitoring Network (completed).
4. Continue to drive Air Quality as a major aspect to be considered during any planning applications, most importantly Cardiff Central Development;
5. Submit an Annual Progress Report (APR) in 2024; and
6. Update the existing Clean Air Strategy and Action Plan to represent most recent actions in 2023/2024.

References

Department for Environment, Food and Rural Affairs, 2003. Part IV of the Environment Act 1995, Environment (Northern Ireland) Order 2002 Part III Local Air Quality Management, Technical Guidance LAQM.TG(22). <https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>

Welsh Government, Local Air Quality Management in Wales, Policy Guidance <https://www.gov.wales/sites/default/files/publications/2019-04/local-air-quality-management-in-wales.pdf>

Cardiff Council 2022 Annual Progress Report <https://www.srs.wales/Documents/Air-Quality/Cardiff/30.01.23-Cardiff-2022-APR-report-V2.pdf>

Cardiff Council Clean Air Plan 2019

<https://cardiff.moderngov.co.uk/documents/s28264/Cabinet%2021%20March%202019%20Clean%20Air%20App%201%20App%20C.pdf>

Appendices

Appendix A: Monthly Diffusion Tube Monitoring Results

Appendix B: A Summary of Local Air Quality Management

Appendix C: Air Quality Monitoring Data QA/QC

Appendix D: AQMA Boundary Maps

Appendix A: Quality Assurance / Quality Control (QA/QC) Data

Table 11 - Full Monthly Diffusion Tube Results for 2022 ($\mu\text{g}/\text{m}^3$)

Tudalen 186

Diffusion Tube ID	NO ₂ Mean Concentrations ($\mu\text{g}/\text{m}^3$)												Simple Annual Mean ($\mu\text{g}/\text{m}^3$)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
16	44.8	28.0	36.8	28.0	26.2	22.9	23.9	23.8	27.1	33.3	33.4	38.0	30.5	24.1	-
258	52.5	34.8	41.4	38.3	31.4	32.3	36.0	36.6	38.5	33.6	25.8	46.6	37.3	29.5	-
58	52.8	38.2	44.8	34.8	38.0	34.0	36.7	38.4	37.2	37.9	35.9	41.7	39.2	31.0	-
81	50.6	35.1	38.0	34.8	30.2	28.0	29.6	29.3	37.2	30.2	29.4	37.8	34.2	27.0	-
86	49.6	41.9	36.0	32.5	33.0	31.8	32.3	28.7	33.3	34.7	39.8	40.1	36.1	28.6	-
96	51.7	27.2	42.0	36.2	25.3	23.8	26.3	28.3	29.8	28.3	27.8	36.6	31.9	25.2	-
98	43.7	24.7	36.7	27.9	23.7	21.2	23.0	24.0	24.6	27.2	23.8	33.0	27.8	22.0	-
99	50.5	22.2	50.9	36.8	24.3	22.9	29.0	35.7	34.9	30.6	31.1	38.9	34.0	26.8	-
259	52.5	26.6	42.7	33.6	24.1	24.1	26.6	30.5	29.2	31.9	34.1	40.2	33.0	26.1	-

Tudalen 187

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
260	44.4	27.0	29.6	23.6	19.6	18.1	22.1	17.9	22.6	27.3	25.2	35.3	26.1	20.6	-
261	26.8	13.3	17.7	14.6	10.3	10.5	13.5	12.2	12.2	11.9	7.9	23.1	14.5	11.5	-
106	46.7	30.5	33.5	27.0	24.5	25.0	27.1	21.4	26.9	32.7	39.1	37.0	31.0	24.5	-
112	44.8	22.9	37.6	30.6	22.2	20.5	26.2	27.9	28.7	25.1		32.2	29.0	22.9	-
115	52.5	33.7	36.4	31.0	29.8	28.6	34.2	29.4	30.6	33.9	39.0	38.2	34.8	27.5	-
117	53.4	32.4	61.1	46.6		33.5	44.1	47.0	41.6	40.9	28.5	40.4	42.7	33.7	-
126	43.3		36.8	30.3	30.6	25.4	31.2	27.9	29.6	29.4	32.4	35.5	32.0	25.3	-
128	46.7	34.2	37.5	31.1	27.8	26.0	33.9	27.9	27.9	37.2	42.6	40.6	34.5	27.2	-
131	51.2	32.7	35.4	32.9	29.5	26.0	30.0	29.4	29.5	29.5	32.7	36.5	32.9	26.0	-
143	44.6	30.4	37.3	31.7	31.4	28.6		28.0	31.8	32.0	26.7	35.4	32.5	25.7	-
144	43.8	34.7	32.5	35.8	37.5	31.3	32.0	31.9		35.0	37.0	37.6	35.4	27.9	-
147	50.1	21.0	42.7	30.3	22.6	21.2	24.5	31.3	28.4	27.9	32.0	36.7	30.7	24.3	-

Tudalen 188

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
148	47.4	20.1	39.2	34.0	22.7	21.8	25.6	30.4	31.8	27.6	29.0	34.5	30.3	24.0	-
149	51.1	33.8	35.0	33.9	30.3	27.5	30.9	28.2	33.1	33.1	32.2	42.1	34.3	27.1	-
156	43.1	19.7	40.9	31.3	19.3	17.4	20.5	26.2	25.9	25.7	27.3	35.8	27.8	21.9	-
157	43.2	26.7	27.9	19.7	20.1	19.6	19.8	17.4	21.4	26.0	20.5	31.1	24.5	19.3	-
158	51.2	28.0	38.5	29.3	18.2	18.0	19.8	20.4	24.1	27.4	29.4	36.3	28.4	22.4	-
159	51.4	31.0	44.7	34.6	29.3	28.5	32.4	34.8	32.9	37.6	37.9	41.1	36.4	28.7	-
166	47.8	36.7	38.1	32.0	30.9	29.8	31.3	28.0	29.5	32.4	35.4	39.4	34.3	27.1	-
168	45.9	24.6	37.7	29.2	23.9	22.3	25.1	30.8	28.9	24.7	32.0	33.0	29.8	23.6	-
174	44.8	21.3	41.1	30.0	19.3	19.5	24.2	28.2	29.5	30.1	26.4	37.5	29.3	23.2	-
179		39.5	48.8	48.6	48.6	32.2	33.8	14.0	43.4	44.5		47.5	40.1	31.7	-
183	45.8	20.7	46.5	35.3	25.4	23.7	27.9	30.7	31.0	31.0	35.4	39.7	32.8	25.9	-
184	51.6	32.2		35.6		24.1	30.3	37.2	34.0	36.1	39.5	37.0	35.8	28.3	-

Tudalen 189

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
186		33.5	46.5	37.5		31.5		35.2	37.5	39.9	47.8		38.7	31.6	-
187	57.9	37.2	48.8	38.6	37.7				39.7		50.2		44.3	31.5	-
188	55.3	29.0	46.7	34.6	32.4	28.6	32.1	34.7	32.4	35.9	35.5		36.1	28.5	-
191	51.2	33.2	37.5	27.7	27.2	24.2	26.8	23.7	30.5	34.7	30.2	39.3	32.2	25.4	-
194	41.2	19.9	33.5	26.4	19.0	18.1	20.3	25.9	22.8	20.0	26.4	33.4	25.6	20.2	-
195	45.1	26.5	39.0	30.2	26.3	25.0	27.6	26.7	26.7	32.5	35.8	39.0	31.7	25.0	-
196	43.1	23.8	36.4	28.6	21.3	20.6	23.3	27.4	27.4	29.6	29.0	32.3	28.6	22.6	-
198	54.2	38.6	37.8	35.2	34.3	30.5	30.8	32.4	33.0	33.8	35.5	33.4	35.8	28.3	-
199	43.4	25.4	29.9	24.8	20.7	18.5	21.7	19.4	21.5	23.9	28.6	27.6	25.5	20.1	-
200	55.6	31.6	40.2	37.6	28.4	26.4	27.5	34.5	33.1	30.7	33.4	40.8	35.0	27.6	-
201	51.6	27.0	45.4	32.4	25.2	24.5		34.5	33.3	33.6		34.5	34.2	27.0	-
202	43.1	25.2	42.2	32.4	28.4	26.1			30.3	34.0	33.7	37.9	33.3	26.3	-

Tudalen 190

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
203	39.3	18.6	30.0	21.3	16.6	14.2	15.9	16.6	17.8	22.1	25.1	29.3	22.2	17.6	-
204	42.7	21.4	35.9	25.6	19.1	17.4	18.7	24.8	24.8	26.5	25.7	35.6	26.5	20.9	-
207	37.7	18.8	32.1	23.6	17.7	17.2	19.1	19.7	20.0	21.4	25.9	28.8	23.5	18.6	-
208	40.6	29.3	28.9	24.4	22.3	21.0	23.3	20.0	23.8	29.1	32.1	32.0	27.2	21.5	-
209	41.4	18.1	30.5	22.6	17.0	15.7	18.0	16.1	23.5	25.2	31.5	29.9	24.1	19.1	-
210	38.6	22.0	28.0	22.0	17.5	16.2	17.3	17.9	20.0	19.6	26.0	31.4	23.0	18.2	-
211	37.5	21.7	28.3	22.7	18.3	18.2	17.6	18.2	21.2	26.1	22.5	27.3	23.3	18.4	-
212	65.4	38.4	65.3	50.2	39.4	37.2	42.3	51.9	50.1	44.4	60.6	51.4	49.7	39.3	-
214	46.3	30.5	45.5	31.3	30.2	29.2	31.5	33.1	32.5	31.8	33.7	39.1	34.6	27.3	-
218	54.4	39.7	43.0	42.3	37.0	32.8	33.9	37.8	38.7	35.0	39.1	43.4	39.8	31.4	-
254	48.1	36.6	47.4	38.9	40.2	32.2		31.8	31.9	33.9	35.0	44.2	38.2	30.2	-
220	51.4	34.0	55.8			28.9	32.7	35.9	34.6	41.4	37.0	45.1	39.7	31.3	-

Tudalen 191

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
221	57.3	43.9	46.7	40.5	37.8	36.3	39.8	39.6	41.7	38.6	45.7	45.5	42.8	33.8	-
190	47.2	27.6	30.2	24.7	21.5	19.7	23.3	20.3	24.5	27.3	27.3	27.2	26.7	21.1	-
224	38.1	19.9	31.3	24.5	18.1	16.2	19.5	22.8	21.6	21.0	15.3	32.7	23.4	18.5	-
243	60.6	39.6		31.6	38.6	35.1	32.8	32.5	36.8	44.1	39.2	42.2	39.4	31.1	-
244	38.4	23.9	23.1	21.4	19.9		19.5	19.1	21.4	21.0	23.5	29.0	23.7	18.7	-
245	32.6	20.0	22.4	16.3	15.3	13.9	14.3	14.0	19.8	20.8	19.3	25.3	19.5	15.4	-
263					16.2	15.7	17.4	17.6	21.6	17.1	21.6	27.7	19.4	14.4	-
247	29.0	12.9	21.2	14.3	10.6	9.3	11.4	17.9	12.9	13.3	17.0	22.7	16.0	12.7	-
262								18.5	19.6	26.3	27.0	26.3	23.5	15.3	-
249	37.5	20.1	27.0	19.0	15.1	13.8	13.7	14.6	15.9	17.5	21.7	29.6	20.5	16.2	-
250	46.4	29.2	44.8	33.6	31.7	27.7	25.4	18.5	30.5			44.5	33.2	26.3	-
251	33.4	14.6	29.1	19.7	14.4	12.6	15.4	14.6	16.6	17.1	22.6	26.8	19.7	15.6	-

Tudalen 192

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
255	53.7	37.7	47.9	41.0	40.8	36.4	39.4	31.7	41.5	46.9	52.6		-	-	-
256	52.4	39.2	49.9	41.4	41.8	36.4	36.9	16.2	40.3	44.0	45.9		-	-	-
257	54.3	41.2	50.8	42.3	41.1	38.0	40.0	40.4	39.6	49.1	40.0		42.1	33.3	-
192	55.8	35.4	41.9	44.2	37.5	35.1	38.7	43.4	41.8	42.6	39.8	49.9	42.2	33.3	-
TRO-001	28.2			14.2	10.6	10.2		9.3	12.2	14.9	17.6	25.9	15.9	12.6	-
TRO-002	31.0	17.2	23.6	15.3	10.3	10.9	11.4	12.2	12.8	15.6	19.7	26.7	17.2	13.6	-
TRO-003		20.0	24.4	19.9	13.6	13.1	14.4	15.6	18.1	20.3		30.9	19.0	15.0	-
TRO-004	29.5	14.7	22.6	14.6	9.3	9.1	10.0	10.9	11.8	13.1	21.5		15.2	12.0	-
TRO-005	28.4	14.7	20.1	13.0	9.7	9.2	9.8	10.1	9.9	13.6	21.9	24.4	15.4	12.2	-
TRO-006	36.9	20.0	30.5	19.6	14.2	14.9				22.3	27.8	33.3	24.4	19.3	-
TRO-007	24.2	13.1	19.4	11.2	8.2	8.2	9.4	9.5	9.4	12.2	19.9	21.8	13.9	11.0	-
TRO-008	20.7	10.7	14.9	8.8	6.3	7.0	7.4	8.3	7.5	9.8	11.9	16.6	10.8	8.6	-

Tudalen 193

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
TRO-0099	23.4	11.1	17.2	11.8	7.6	7.1	8.2	8.4	8.4	11.3	16.9	17.0	12.4	9.8	-
TRO-010	27.4	15.3	20.6	12.4	8.5	9.0	8.8		10.3	15.2	20.2	26.1	15.8	12.5	-
TRO-011	28.0	15.0	21.5	12.4	9.1	8.3	9.6	9.3	10.8	15.5	20.1	25.4	15.4	12.2	-
TRO-012	25.5	12.0	19.1	12.3	8.8	7.7	9.0	9.5	9.9	13.6	18.5	23.7	14.1	11.2	-
TRO-013	17.5	10.9	19.7	11.6	8.4	7.2	8.2	8.4	9.5	8.5	11.7	19.0	11.7	9.3	-
TRO-014					11.0	9.3	10.2	10.6	12.9	12.4	19.7	24.8	13.9	10.3	-
TRO-015	25.2	14.9		10.7	10.2	9.3	10.3	12.4	12.5	11.4	5.3	22.8	13.2	10.4	-
TRO-016	34.8	18.9	21.7	19.0	13.6	13.6	15.3	16.9	16.3	19.4	26.9	28.2	20.4	16.1	-
TRO-017	46.3	33.9	34.1	27.7	27.1	26.1	26.1		25.8	31.2	35.5	36.0	31.8	25.1	-
TRO-018	36.8	21.6	28.3	18.5	13.0	12.9		17.6	16.3	20.0	26.6	26.3	21.6	17.1	-
TRO-019	35.5	17.6	22.4	20.0	12.0	11.9	14.1	13.6	15.6	16.0	16.0	25.5	18.4	14.5	-
TRO-020	34.8	20.0	23.6	17.3		12.6	15.1	15.9					19.9	15.3	-

Tudalen 194

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
TRO-021	39.2	20.7	26.1	19.8	14.6	13.7	15.9	17.2	18.0	18.1	19.6	27.7	20.9	16.5	-
TRO-022		26.5	32.0	25.9		16.6	18.2						23.8	19.9	-
TRO-023	36.4	24.7	28.1	22.9	17.5	16.5		17.4		23.3		32.4	24.4	19.2	-
TRO-024		40.7	46.3	42.7	32.3	33.4		42.7	39.3	39.8		51.6	41.0	32.4	-
TRO-025	36.4	21.0	27.0	18.8	13.0	13.4	14.1	12.1	14.4	18.8	18.3	27.5	19.6	15.5	-
TRO-026	35.2	22.4	27.2	19.0	13.8	12.9	14.3	13.2	14.8	19.0	20.6	30.3	20.2	16.0	-
TRO-027	37.6	24.8	32.3	28.2	16.9	13.8	16.1	15.8	15.5	20.2	26.6	33.7	23.5	18.5	-
TRO-028	38.5	20.9	31.7	17.4	11.5	11.0	13.1	13.4	16.8		21.6	32.5	20.8	16.4	-
TRO-029	31.2	15.8	25.3	20.8	12.3	11.8	15.5	16.4	15.1	20.4			18.5	14.6	-
TRO-030	30.3	18.4	26.3	17.5	12.1	11.6	13.1	14.0	16.3	18.9	22.8	27.8	19.1	15.1	-
TRO-031	29.3	14.3	16.7	13.0	8.5	8.4		8.2	9.8	12.0	13.1	23.1	14.2	11.2	-
TRO-032	28.6	14.3	17.9	13.0	8.4	7.7	1.1		9.1	13.6	11.5	17.1	12.9	10.2	-

Tudalen 195

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
TRO-033	30.5		17.6	12.8	8.5	8.7	9.7	8.7	8.6	12.4	14.8	22.4	14.1	11.1	-
TRO-034		13.0	17.4	12.1	8.2	7.5	8.1	8.3	8.1	12.0	18.3	18.0	11.9	9.4	-
TRO-035	26.3	14.7	19.6	12.4	8.5	8.6	10.2	10.1	8.4	13.1	17.7	22.0	14.3	11.3	-
TRO-036	25.2	13.4	19.4	12.3				9.1	8.9	14.1			14.6	10.6	-
TRO-037	27.8					9.9		9.8					15.8	10.6	-
TRO-038	25.4	16.1	20.1	14.4	9.8	9.5	10.7	9.0	10.6	13.9	19.0	21.4	15.0	11.8	-
TRO-039	32.7	17.6	22.7	15.6	10.4	10.1	12.1	13.0	11.6	15.4	23.0	25.5	17.5	13.8	-
TRO-040	28.4	14.3	22.0	14.4	9.2	9.2			10.1	13.1	12.0	21.7	15.4	12.2	-
TRO-041	26.0	14.6	18.3		7.7	8.0	9.1	11.2	8.8	12.1	14.3	20.8	13.7	10.8	-
TRO-042	28.7	15.8	23.8	15.5	10.4	9.7	12.4	12.1	12.4	14.1	9.7	21.3	15.5	12.2	-
TRO-043	21.9	11.4	13.4	10.0	6.5	6.3	6.8	7.2	6.8	8.2	13.3	18.8	10.9	8.6	-
TRO-044	20.1	10.8	13.1	9.8	7.0	6.4	6.9	6.7	5.5	8.8	16.7	17.8	10.8	8.5	-

Tudalen 196

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
TRO-045	23.8	13.6	15.5	15.0	9.4	8.6	9.8	9.3	8.9	10.6	11.0	21.1	13.1	10.3	-
TRO-046									11.1		21.8	24.7	19.2	10.8	-
TRO-047									10.4	12.0	17.8	24.5	16.2	9.8	-
TRO-048									16.9	18.2	21.5	29.4	21.5	13.0	-
TRO-049									14.9	16.1	15.7	26.7	18.4	11.1	-
TRO-050										14.1	19.3	27.1	20.2	11.5	-
TRO-051									13.3	15.1	21.9	25.2	18.9	11.4	-
TRO-052									8.1		11.1		-	-	-
TRO-053									9.6			19.0	-	-	-
TRO-054									10.0			26.3	-	-	-
GW-013	42.4	25.2	28.0	23.3	18.5	18.6	18.9	20.3	23.2	25.4	31.7	36.3	26.0	20.5	-
GW-014	45.8	25.3	31.8	22.9	19.8	18.8	20.2	20.6	23.8	28.7	33.4	27.6	26.6	21.0	-

Diffusion Tube ID	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.79) and Annualised	Distance Corrected to Nearest Exposure
GW-015	40.2	21.6	27.8	19.3	15.4	14.6	15.2	15.4	17.1	17.8	23.2	28.7	21.4	16.9	-
GW-016	39.6	22.7	29.4	19.9	14.9	13.9	14.6	15.6	18.6	21.8	28.3	32.3	22.6	17.9	-
GW-017				19.5	15.1	14.8	18.7	18.8	21.6	22.3	24.3	33.0	20.9	16.5	-
GW-018				20.9	18.3	18.2	20.7	20.6	24.3	25.6	31.9	34.3	23.9	18.9	-
GW-019				20.0	17.3	15.5	18.3	16.8	20.0	21.8			18.5	17.4	-
GW-020				20.3	21.1	20.8	22.2	19.7	23.7	27.6	25.6	32.2	23.7	18.7	-

Tudalen 197

Notes:

Exceedances of the NO₂ annual mean objective of 40µg/m³ are shown in **bold**.

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

(1) See Appendix C for details on bias adjustment and annualisation.

(2) Distance corrected to the nearest relevant public exposure

Appendix B: A Summary of Local Air Quality Management

Purpose of an Annual Progress Report

This report fulfils the requirements of the Local Air Quality Management (LAQM) process as set out in the Environment Act 1995, as amended by the Environment Act 2021, and associated government guidance. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas and to determine whether or not the air quality objectives are being achieved. Where exceedances occur, or are likely to occur, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) within 18 months of declaration setting out the measures it intends to put in place in pursuit of the objectives. Action plans must then be reviewed and updated no later than every five years; or if a local authority considers there is a need for further or different measures to be taken in order to achieve air quality standards; or if significant changes to sources occur within your local area.

For Local Authorities in Wales, an Annual Progress Report replaces all other formal reporting requirements and have a very clear purpose of updating the general public on air quality, including what ongoing actions are being taken locally to improve it if necessary.

Air Quality Objectives

The air quality objectives applicable to LAQM in Wales are set out in the Air Quality (Wales) Regulations 2000, No. 1940 (Wales 138), Air Quality (Amendment) (Wales) Regulations 2002, No 3182 (Wales 298), and are shown in **Error! Reference source not found.**

The table shows the objectives in units of microgrammes per cubic metre $\mu\text{g}/\text{m}^3$ (milligrammes per cubic metre, mg/m^3 for carbon monoxide) with the number of exceedances in each year that are permitted (where applicable).

Table 12 - Air Quality Objectives Included in Regulations for the Purpose of LAQM in Wales

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as	Date to be achieved by
Nitrogen Dioxide (NO₂)	200µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
Nitrogen Dioxide (NO₂)	40µg/m ³	Annual mean	31.12.2005
Particulate Matter (PM₁₀)	50µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean	31.12.2010
Particulate Matter (PM₁₀)	40µg/m ³	Annual mean	31.12.2010
Sulphur dioxide (SO₂)	350µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
Sulphur dioxide (SO₂)	125µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
Sulphur dioxide (SO₂)	266µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005
Benzene	16.25µg/m ³	Running annual mean	31.12.2003
Benzene	5µg/m ³	Annual mean	31 12 2010
1,3 Butadiene	2.25µg/m ³	Running annual mean	31.12.2003
Carbon Monoxide	10.0mg/m ³	Maximum Daily Running 8-Hour mean	31.12.2003
Lead	0.25µg/m ³	Annual Mean	31.12.2008

Appendix C: Air Quality Monitoring Data QA/QC

QA/QC of Diffusion Tube Monitoring

The diffusion tubes are supplied and analysed by Socotec UK Ltd Didcot, using the 50% triethanolamine (TEA) in water method. Socotec UK Ltd Didcot participates in the Annual Field Inter-Comparison Exercise and Workplace Analysis Scheme for Proficiency (WASP) inter-comparison scheme for nitrogen dioxide diffusion tube analysis. From April 2014 the WASP Scheme was combined with the STACKS scheme to form the new AIR scheme, which Socotec UK Ltd Didcot participates in. The AIR scheme is an independent analytical proficiency testing scheme operated by LGC Standards and supported by the Health and Safety Laboratory (HSL).

The laboratory Socotec UK Ltd Didcot is regarded ranked as the highest rank of satisfactory in relation to the WASP intercomparison scheme for spiked nitrogen dioxide diffusion tubes. Information regarding tube precision can be obtained via <http://laqm.defra.gov.uk/diffusion-tubes/precision.html> Information regarding WASP results can be obtained via <http://laqm.defra.gov.uk/diffusion-tubes/qa-qc-framework.html>

Diffusion Tube Annualisation

16 diffusion tube site required annualisation in 2022. Details for these sites are provided in Table 14. Annualisation is required for any site with data capture less than 75% but greater than 25%.

Diffusion Tube Bias Adjustment Factors

SRS on behalf of BCBC have applied a local bias adjustment factor of 0.79 to the 2022 monitoring data. A summary of bias adjustment factors used over the past five years is presented in Table 13.

Obtaining a local bias adjustment factor was performed by carrying out a co-location study at Castle Street continuous automatic monitor. Triplicate diffusion tubes were sited next to the NOX inlet of the monitoring station. The diffusion tube results are then compared to those measured by the continuous monitor. Once all ratified annual data is obtained, a data check is carried out to check the precision of data. Precision is calculated based on the diffusion tube data only. Tube precision is categorised as good or poor. Good precision applies where the coefficient of variation (CV) of triplicate diffusion tubes for eight or more

periods during the year is less than 20%, and the average CV of all monitoring periods is less than 10%. Poor precision applies where the CV of four or more periods is greater than 20% and/or the average CV is greater than 10%. Details for this co-location study are presented in Table 15.

Table 13 - Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2022	Local	-	0.79
2021	National	03/22	0.78
2020	National	06/21	0.76
2019	National	09/20	0.75

NO₂ Fall-off with Distance from the Road

No diffusion tube NO₂ monitoring locations within Cardiff required distance correction during 2022

QA/QC of Automatic Monitoring

Local Site Operator duties are performed by officers within the Shared Regulatory Services Environment Team. Cardiff Newport Road and Cardiff Centre Automatic Urban Rural Network (AURN) sites are owned by DEFRA and managed by Bureau Veritas. SRS officers are contracted to visit these sites at fortnightly and monthly intervals to carry out calibrations. The AURN is the UK's largest automatic monitoring network and is the main network used for compliance reporting against the Ambient Air Quality Directives.

The Cardiff Castle Street automatic monitor is owned and managed by Cardiff Council. This monitor is calibrated fortnightly by an officer from the Shared Regulatory Services Environment Team.

Automatic monitoring data presented in this APR from the above monitors is ratified by Ricardo. Live and historical data is available at <https://airquality.gov.wales/>.

In addition to the network monitors, four indicative monitors were also used in Cardiff in 2022. These monitors do not form part of the regulated Welsh automated monitoring network, but as specified they are an indicative form of monitoring and a useful tool to look at datasets on a high-resolution basis. The monitors are co-located annually to check accuracy. However, these are not compliant with the standard reference method and should only be used for indicative assessment purposes.

PM₁₀ and PM_{2.5} Monitoring Adjustment

The type of PM₁₀/PM_{2.5} monitors utilised within Cardiff do not require the application of a correction factor.

Automatic Monitoring Annualisation

All regulated automatic monitoring locations within Cardiff recorded data capture of greater than 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

NO₂ Fall-off with Distance from the Road

No automatic NO₂ monitoring locations within Cardiff required distance correction during 2022.

Table 14 - Annualisation Summary (concentrations presented in $\mu\text{g}/\text{m}^3$)

Diffusion Tube ID	Annualisation Factor Cardiff Centre	Annualisation Factor St Julians Newport	Annualisation Factor Bristol St Pauls	Annualisation Factor Site 4 Name	Average Annualisation Factor	Raw Data Simple Annual Mean ($\mu\text{g}/\text{m}^3$)	Annualised Data Simple Annual Mean ($\mu\text{g}/\text{m}^3$)
186	0.9633		1.1040		1.0337	38.7	40.0
187	0.8491		0.9526		0.9009	44.3	39.9
263	0.9539	0.7692	1.1000		0.9410	19.4	18.2
262	0.8314	0.6777	0.9584		0.8225	23.5	19.4
TRO-014	0.9539	0.7692	1.1000		0.9410	13.9	13.0
TRO-020	0.9098		1.0352		0.9725	19.9	19.4
TRO-022	0.9866		1.1277		1.0572	23.8	25.2
TRO-036	0.8602		0.9735		0.9168	14.6	13.4
TRO-037	0.8971	0.6411	1.0011		0.8465	15.8	13.4
TRO-046	0.7235	0.5917	0.8244		0.7132	19.2	13.7
TRO-047	0.7770	0.6407	0.8856		0.7678	16.2	12.4
TRO-048	0.7770	0.6407	0.8856		0.7678	21.5	16.5
TRO-049	0.7770	0.6407	0.8856		0.7678	18.4	14.1
TRO-050	0.7312	0.6127	0.8308		0.7249	20.2	14.6
TRO-051	0.7770	0.6407	0.8856		0.7678	18.9	14.5

Tudalen 203

Diffusion Tube ID	Annualisation Factor Cardiff Centre	Annualisation Factor St Julians Newport	Annualisation Factor Bristol St Pauls	Annualisation Factor Site 4 Name	Average Annualisation Factor	Raw Data Simple Annual Mean ($\mu\text{g}/\text{m}^3$)	Annualised Data Simple Annual Mean ($\mu\text{g}/\text{m}^3$)
GW-019	1.1004		1.2712		1.1858	18.5	22.0

Tudalen 204

Table 15 - Local Bias Adjustment Calculations

	STEP 3a Local Bias Adjustment Input 1
Periods used to calculate bias	11
Bias Adjustment Factor A	0.79 (0.74 - 0.85)
Diffusion Tube Bias B	27% (18% - 35%)
Diffusion Tube Mean ($\mu\text{g}/\text{m}^3$)	42.7
Mean CV (Precision)	5.2%
Automatic Mean ($\mu\text{g}/\text{m}^3$)	33.7
Data Capture	100%
Adjusted Tube Mean ($\mu\text{g}/\text{m}^3$)	34 (32 - 36)
Overall Diffusion Tube Precision	Good Overall Precision
Overall Continuous Monitor Data Capture	Good Overall Data Capture
Local Bias Adjustment Factor	0.79

Notes:

A single local bias adjustment factor has been used to bias adjust the 2022 diffusion tube results.

Appendix D: AQMA Boundary Maps

Figure 14 - Cardiff City Centre AQMA



Tudalen 206

Figure 15 - Stephenson Court AQMA



Tudalen 207

Figure 16 - Ely Bridge AQMA



Tudalen 208

Figure 17 - Llandaff AQMA



Tudalen 209

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the LA intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
APR	Air quality Annual Progress Report
AURN	Automatic Urban and Rural Network (UK air quality monitoring network)
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO ₂	Sulphur Dioxide

**CYNGOR CAERDYDD
CARDIFF COUNCIL**

ENVIRONMENTAL SCRUTINY COMMITTEE

7 DECEMBER 2023

COMMITTEE BUSINESS REPORT

Purpose of the Report

1. This report updates Members on a range of issues relating to the Children & Young People Scrutiny Committee. This report sets out the following:
 - An updated Work Programme 2023/24 for noting. (**Appendix A**).
 - The draft Replacement Local Development Plan (RLDP) Joint Scrutiny Task and Finish Group report for noting (**Appendix B**).

Work Programme 2022/23

2. This Scrutiny Committee agreed its work programme for 2023/24 at its meeting on the 6 July 2023. Since this meeting, further updates have emerged, and the Chair has therefore reviewed the work programme. Any changes are reflected in **Appendix A**.

Replacement Local Development Plan

3. At its meeting on the 11th May 2023, Members considered the Scrutiny Chairs request for expressions of interest to take part in a cross-scrutiny Inquiry as part of the next stage of the RLDP in relation to a consultation on the preferred strategic options.
4. Cllrs Gibson, Lancaster, and Lloyd Jones joined the Chair, Cllr Jones, in representing this committee.
5. The RDLP cross-committee group met on the 7th July 2023 to discuss how it could most effectively scrutinise this issue, given its breadth. The group agreed that prioritising three topics of focus would be most effective; and that smaller sub-groups be established to undertake this work.
6. The three priority topics agreed were:
 - Securing Planning Obligations/s106
 - Transport & Active Travel

- Local and District Centres
7. The timescales to which all three sub-groups worked to were:
 - Evidence Gathering – October 2023
 - Drafting of key findings, recommendations and report – November 2023
 8. The cross-committee Group met on the 30 November 2023 to agree the report, before it is signed off by the Policy Review & Performance Scrutiny Committee (as lead committee) on the 13 December 2023, and prior to its submission to Cabinet on 18th January 2024.
 9. This Committee is recommended to note the contents of the report set out in **Appendix B.**

Way Forward

10. During the meeting members will have an opportunity to consider:
 - the contents of the updated Work Programme in **Appendix A.**
 - the RLDP Joint Inquiry report attached at **Appendix B.**

Legal Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations.

RECOMMENDATION

The Committee is recommended to:

- i. note the contents of the amended Work Programme;
- ii. note the joint RLDP report.

LEANNE WESTON

Interim Deputy Monitoring Officer

1st December 2023

Mae'r dudalen hon yn wag yn fwriadol

ENVIRONMENTAL SCRUTINY COMMITTEE DRAFT INDICATIVE WORK PROGRAMME 2023/24

Please note this work programme is reviewed regularly and is subject to change.

ITEM	07 DECEMBER 2023 [Q3]	11 JANUARY 2024 [Q4]	27 FEBRUARY 2024 [Q4]	14 MARCH 2024 [Q4]	18 APRIL 2024 [Q1]	09 MAY 2024 [Q1] <i>[New MY]</i>	JUNE 2024 [Q1]	JULY 2024 [Q2]
CABINET DATES	14/12/2023	18/01/2024	29/02/2024	21/03/2024		16/05/2024	TBC	TBC
1	RNIB - Sustainable Transport & Active Travel Issues	Re-balancing Recycling	Corporate Plan	Biodiversity & Resilience of Ecosystems Duty (BRED) Forward Plan	Event day traffic management			
2	AQ AMR	City Parking Plan - Cardiff's Parking Action Plan 2023	Budget	Bus Priority Strategy - tbc				
3		TfW - Bus Station Update						
4		One Planet Cardiff - Update						

Committee Business Items	Correspondence & FWP	Recommendations Update	Correspondence & FWP	Recommendations Update	Correspondence & FWP	Recommendations Update	Correspondence & FWP	Recommendations Update
	December	January	February	March	April	May	June	July
Brief/Reports/Update outside Committee								
Task and Finish								
SRS JC [VoG]	13th			20th				
Potential Items - more info needed	Biodiversity /East Cardiff	Community Growing Plan	Audit Wales - Local Work - Transport/Highways	Cleansing, RNS Depot & Infrastructure Restructure [MW]				

Tudalen 215

Mae'r dudalen hon yn wag yn fwiadol



Craffu - Ymgysylltu heddiw, Llunio yfory - Scrutiny - Engaging today, Shaping tomorrow

An Inquiry Report of the:
Joint Scrutiny Committee

DRAFT

REPLACEMENT LOCAL DEVELOPMENT PLAN

December 2023



Cardiff Council

CONTENTS

CONTENTS.....	2
FOREWORD	3
TERMS OF REFERENCE.....	4
CONTEXT FOR INQUIRY	6
HEADLINE FINDINGS	7
KEY FINDINGS	8
SECURING PLANNING OBLIGATIONS	8
TRANSPORT.....	14
DISTRICT & LOCAL CENTRES	17
RECOMMENDATIONS	34
SECURING PLANNING OBLIGATIONS	34
TRANSPORT.....	37
DISTRICT & LOCAL CENTRES	39
BACKGROUND CONTEXT	41
APPROACH TAKEN	43
WITNESSES TO THE INQUIRY	45
FINANCIAL IMPLICATIONS	47
LEGAL IMPLICATIONS	47
COMMITTEE TERMS OF REFERENCE	48

FOREWORD

To be completed

DRAFT



Councillor Joel Williams
Chair, Policy Performance &
Review Scrutiny Committee.



Councillor Owen Jones
Chair, Environmental
Scrutiny Committee.



Councillor Peter Wong
Chair, Economy & Culture
Scrutiny Committee.

December 2023

TERMS OF REFERENCE

1. To harness the power of Scrutiny Member voices and experience to add value and encourage ambition in the RLDP Preferred Strategy, focusing on district and local centres, securing planning obligations, and managing transport impacts, by:
 - a. Understanding national and local policy priorities.
 - b. Engaging expert and stakeholder voices.
 - c. Researching good practice examples, which are capable of being replicated in Cardiff.
 - d. Identifying policy 'hooks' needed in the Replacement Local Development Plan to deliver:
 - i. **Securing Planning Obligations**
 - A strengthened SP6 by:
 - Exploring how current policy and process in respect of planning obligations and section 106 agreements could be strengthened.
 - Exploring how communication and narrative on planning obligations could be simplified, more accessible and transparent.
 - Addressing issues in relation to carbon neutral and biodiversity requirements.
 - Making recommendations on how future/associated SPG could be framed.
 - ii. **Transport & Active Travel**
 - A strengthened T5 that ensures adequate travel infrastructure is proposed in new developments, which fully addresses the needs of communities and transport providers without negatively impacting on biodiversity and nature.
 - iii. **District and Local Centres**
 - Planning Retail Policies that promote and protect vibrant, viable, busy and relevant district and local centres.
 - Planning Retail Policies that enable and support strong SPG that promote and protect district and local centres.

2. To make evidence-based recommendations to shape the RLDP Preferred Strategy.

Output/ Outcomes:

- Gathering additional expert and stakeholder views and good practice evidence.
- Ensure the RLDP Preferred Strategy delivers in accordance with the Well Being of Future Generations Act requirements.
- Recommendations to the Cabinet that shape the RLDP Preferred Strategy.
- Deliver a unified voice across all Scrutiny Committees.

Members of the Task Groups:

Securing Planning Obligations

Councillor Joel Williams (Chair)

Councillor Saleh Ahmed

Councillor Jane Henshaw

Councillor Peter Jenkins

Councillor Margaret Lewis

Councillor Helen Lloyd-Jones

Councillor Peter Wong

Transport & Active Travel

Councillor Owen Jones (Chair)

Councillor Andrea Gibson

Councillor Peter Jenkins

Councillor John Lancaster

Councillor Margaret Lewis

Councillor Helen Lloyd Jones

Councillor Rhys Taylor

Councillor Peter Wong

District & Local Centres

Councillor Peter Wong (Chair)

Councillor Mike Ash-Edwards

Councillor Garry Hunt

Councillor Helen Lloyd Jones

CONTEXT FOR INQUIRY

The Cardiff Local Development Plan (LDP) is the Council's key land use planning document. It will set out policies and proposals for the future development and use of land in Cardiff up to 2036, in line with legislative requirements. When adopted it will replace the existing structure and local plans for the city and form the basis for decisions on individual planning applications.

The LDP Preferred Strategy Report was open for public consultation for a 10-week period from 27 July to 5 October 2023. This consultation is an important stage in the preparation of the plan and offers everyone with an interest in the future development of Cardiff an opportunity to influence the plan before the Council finalises its proposals. As well as an online 'Virtual Consultation Room', the Council arranged a series of public events throughout August and September both community based and drop-in sessions.

A cross-committee Task and Finish group was created under the auspices of PRAP to give a single response from Scrutiny on the LDP preferred strategy as part of the consultation process. Membership of the task group was invited from across the scrutiny committees, with the report going back to the Policy Review and Performance Scrutiny Committee for consideration.

The Preferred Strategy Report is not the full draft plan but sets out the key issues and options within the LDP and the Council's broad proposals for addressing these.

HEADLINE FINDINGS

- HF.1.** The findings and recommendations of the previous Supplementary Planning Guidance Inquiry (October 2022) are relevant to the RLDP Preferred Strategy, particularly:
- a. LDP policies need to be evidence-based, precisely written, detail the Council’s specific requirements, the rationale for these, and the criteria where the Council will make an exception and not apply the policy. They have to contain detailed definitions, thresholds, numbers, percentages, targets and measures as relevant, set out the impact seeking to avoid (harms) and consequences if not avoided.
 - b. SPGs cannot be used to make or amend policy – therefore the LDP policies have to contain wording necessary to ensure requirements met. SPG provide technical guidance to support LDP policy. They must be strongly worded and strongly linked to the LDP, stating which LDP policy and paragraph it is supplementing and that it is a material consideration. They should use positive, precise language, evidence and explain how thresholds, numbers, percentages, targets and measures are calculated, evidence and explain how the impact seeking to avoid is measured and how consequences of not avoiding harm, the harms arising, are measured, and provide details on exceptional circumstances and how these are worked out and applied.
- HF.2.** Local authorities need to conform to the Welsh Government framework and direction as otherwise their LDP will not pass Examination. Therefore, Cardiff Council needs to ensure the RLDP policies and associated SPG incorporate and reflect Welsh Government’s framework and direction.
- HF.3.** Crafting RLDP policies must focus on resisting harmful development and encouraging development that is in the best interests of the people who live and visit the area. Planning policies must ensure appropriate information is provided to planners and planning committee members to enable them to exercise judgement effectively.

KEY FINDINGS

SECURING PLANNING OBLIGATIONS

Existing Policy & Practice

- KF.1** The system of planning obligations is a sound one, delivering benefits for councils and communities. S106 agreements are legally binding, enforceable, fair and relevant to the planning proposal. Clarity of what the Council will seek through planning obligations from developments is set out in Supplementary Planning Guidance (SPG). The SPG also provides detail of thresholds that will be sought for particular requirements, such as affordable housing or education contributions.
- KF.2** S106 agreements must address the impact of a development and not seek to enhance an area. There is a risk of s106 planning obligations becoming a wish list as the list of possibilities keeps growing. The more costs there are to delivering a scheme, the less money is available for affordable housing.
- KF.3** It is unclear which high level Council plans and strategies provide the context and priorities for determining planning obligations. The Cardiff Infrastructure Plan should be a clear, concise and focussed strategic document setting out the whole picture. However, it is difficult to locate, and experienced technical staff employed by developers have difficulty understanding the Councils' aspirations and priorities. The Planning Advisory Service has produced a self-evaluation tool that may prove useful to planners in reflecting on how Cardiff is performing in this area.
- KF.4** S106 contributions agreed with developers are not always index linked currently. It takes up to a year to secure a s106 agreement and therefore the Council should include a clause in all agreements that contribution values are index linked.
- KF.5** There is no interest paid on s106 monies held and no investment gain added to s106 projects. Any interest accrued on invested s106 monies improves the Council's capital financing position.
- KF.6** S106 monies can remain unspent for many years. It is difficult to justify why this is the case and the Council was recently exposed in the press as holding £23.2 million of unspent s106 funds. All s106 agreements have a clause for the developer to request monies back should the Council not use it. Some authorities charge a 5% monitoring fee to facilitate s106 spend.

- KF.7** An alternative to s106 agreements is use of the Community Infrastructure Level (CIL). Some Welsh councils use CIL, as does Bristol City Council. CIL is applied per square metre of development; however, the point of collection does not determine how the money is spent. The Council does not currently apply CIL however Bristol considers it an important source of funding, allocating monies (per £) to strategic infrastructure (80p) local area committees (15p) and administration costs (5p).
- KF.8** There is a clear requirement for a dedicated staffing resource to lead on s106 agreements. S106 lead officers should be clearly identifiable and visible to all stakeholders. Cardiff has such a resource in place however there is an opportunity to raise the profile and co-ordination responsibilities of s106 lead officer(s) both internally and externally.
- KF.9** There is a role for a community engagement officer on large development sites, to ensure effective integration of new and existing communities. Funding for this role should be considered a legitimate s106 request.

Improving Policy & Processes

- KF.10** It appears that currently, Directorates work in silos. The RLDP presents an opportunity to improve round table representation in a joint effort to understand the priorities, particularly for larger developments. Currently no internal cross-cutting meetings take place. Where planning obligations are concerned, issues could be identified early for tackling planning obligation contributions. For example, are roads wide enough for waste removal collections? This also provides a chance for Directorates to develop internal agreements between departments on where the budget line sits.
- KF.11** Whilst individual developers and external witnesses stated that they had a good working relationship with Planning, they suggested that further work on building closer working relationships across developers and commercial agencies could be developed too.
- KF.12** The need for s106 discussions to start earlier in the planning process was highlighted across all witnesses. In trying to make a scheme work, it is important that all services are involved and there is complete transparency early on. There is a need for everyone being in a room together early. Early and positive engagement with officers is key to agreeing off-site alternatives/contributions in lieu.

- KF.13** The Council appears to have a lack of legal resources to draft s106 agreements in a timely manner. Developers would pay their own legal teams to draft the agreement if the Council agreed and thereby speed up the process.
- KF.14** In light of this, it was suggested that there is an opportunity for Cardiff to lead the way on developing a standard S106 template for S106 agreements. The s106 agreement could set out the timescales / phasing of the planning obligations in relation to the development itself. It would also present a clearer picture of what is required from the development, by both the Council and the developers. The section 106 template would also enable improved monitoring of the planned phasing and triggers to ensure the delivery is on track. If it fails to be delivered, planning enforcement can be used to enable delivery.
- KF.15** To improve the current process, there is a need for enhanced monitoring. A review of the annual monitoring report could have a much better monitoring framework within it – how much is being secured? Look at timeliness of spend - how much is the Council spending? Is the Council being negotiated down in certain areas? Where and what is the Council doing about that? Do our policies need reviewing in light of this?
- KF.16** In relation to “green issues” including biodiversity and carbon neutral initiatives, other local authorities stated that many councils were in the same position on this, and not much progress had been made. Further guidance and direction was awaited from Welsh Government on this issue. Stakeholders were generally supportive of the principle of green issues being part of any SPG, but with the caveat that, should the Council wish to adopt this as a priority, it should not simply be added to the list, but be part of any review into priorities – with the council being clear as to why this is now a priority, and what effect this would have on other priorities.

Supplementary Planning Guidance

- KF.17** Much work in this area has been addressed by the SPG Task & Finish Group report of 2022, which can be found in the link here - [Ref: RDB/SW/DB/10 \(modern.gov.co.uk\)](#).
- KF.18** There was clear support for the SPG in this area, with many witnesses stating the policy is robust. However, they suggested that the SPG could be enhanced further – particularly around viability.

- KF.19** Other local authorities' SPGs are a lot more concise, and stakeholders suggested that Cardiff could take the opportunity to revisit the size and length of the document. Stakeholders highlighted that the current SPG document includes a great deal of detail of national and local policy which is arguably beyond what would be expected to be in SPG on S106.
- KF.20** Bristol stated that a SPG document takes a year to secure agreement and therefore it is important to draft a policy as foolproof to change as possible. E.g., ensure it includes clauses to ensure contribution values are index linked.
- KF.21** The SPG should set out clear expectations of what is expected from developments and can deal with specific requirements where off-site mitigation would be more appropriate / feasible for particular sites.
- KF.22** It is critical that the SPG is clear, accurate and there is openness between the developer and the council. Developers will always push barriers and it is only 75% into a project that the developer is in profit.
- KF.23** The SPG can also provide detail of thresholds which will be sought for particular requirements such as affordable housing, or education contributions.
- KF.24** Formulae in the adopted SPG linked to number of dwellings (for things like on-site provision of public open space) can break down when dealing with high-density urban sites.

Viability

- KF.25** Planning obligations policy is robust, however should be enhanced further, particularly around viability. The viability report is a useful tool that provides more information with which the Council can negotiate with developers. Viability assessments allow planners to take a balanced view on s106 contributions, which is particularly important on brownfield sites.
- KF.26** There is a Welsh Government pre-application pack, that now requires greater viability assessment up front, and therefore there should be less challenge expected by developers. Housing officers are of the view the Council is not allowed to publish details of viability assessments.
- KF.27** There is currently no financial involvement of the Council's finance experts at the viability stage. Should there be?
- KF.28** Viability assessments take a very long time to be reviewed, adding more cost to the project and delaying the start of a development. Delays are one of the biggest

issues faced by developers because there are cost implications that need to be addressed.

- KF.29** The viability assessment may need to address a restricted time for the development to be delivered, with clear processes for dealing with the timescales for implementation.
- KF.30** The length of time taken to complete the viability assessment process needs to be reviewed. The Council may need to be more robust about who it appoints to undertake reviews on its behalf. Currently, viability assessments take a very long time to be reviewed as the District Valuer Service used by the Council is over subscribed. There can be conflict between who is writing the viability report on behalf of the developer and who the Council uses to verify the viability report.
- KF.31** There is an opportunity for greater scrutiny of viability assessment reports. Bristol City Council has adopted a full council resolution that viability appraisals be made public and available for scrutiny, and now schemes are always considered by committee.
- KF.32** Bristol City Council also publish its agreed viability assessments on the Council's website (within planning obligations dedicated pages).
- KF.33** The cost of viability assessments is a factor in the affordability of projects. Developers' agents report that care should be given to front-loading obligations that put an additional strain on viability, and a balance may need to be struck between timeliness and the overall cost of the obligations. Where s106 calculations are unrealistic smaller developers must pay for a viability assessment in order to demonstrate that the scheme cannot afford the calculation proposed by the Council. Note that Bristol City Council has its viability appraisals assessed by a third party, with costs charged to the applicant.
- KF.34** The process of viability reporting and assessment would benefit from streamlining. A good way forward would be the production of a standard viability model and template for use across Wales.

Affordable Housing

- KF.35** There is an overwhelming demand for affordable/social housing in Cardiff. This is not an unusual picture in Wales or across the UK and other local authorities are facing the same challenges in this area. There is a need to explore ways in which the Council could “unlock” other available options.

- KF.36** It is important that the Council has a separate, stand-alone affordable housing policy, as the rules change frequently. A stand-alone policy (or a review of this policy if already in place) needs to be regularly reviewed and redrafted as rules change.
- KF.37** Stakeholders highlighted that current policy is less robust on affordable housing and questioned whether S106 is the right vehicle to deliver - could the Council increase affordable housing levels rather than expect a range of S106?
- KF.38** Viability assessments result in affordable housing being challenged, particularly on brownfield sites. Witnesses stated that some small developers may design out affordable housing from their schemes, stating in the viability report that the scheme would pose a management issue. Affordable housing is watered down due to the viability argument put forward by the developer.
- KF.39** Cardiff's 2017 SPG sets out that the Council will pay £60,000 per affordable housing unit, and that this sum will be reviewed annually. However, it has only been reviewed once since 2017. Witnesses stated that this should be reviewed as a matter of priority, and that this be reviewed regularly in line with Council policy.
- KF.40** The use of discounted market rents as a form of affordable housing has been used in areas such as Manchester, Leeds and Birmingham, with a 20% discount to market rent, which is owned and managed by the private sector.
- KF.41** The RLDP provides the potential to revisit/review shared ownership schemes and other measures that allow people to afford to buy/rent properties. One witness suggested that if the affordable housing builds could be levelled up, it may encourage the development of more affordable housing on the same quality standards as a private home. It is acknowledged that WHQS applies to social housing.

Communications, Accessibility & Transparency

- KF.42** Key stakeholders have difficulty accessing information on s106 agreements. There is great public interest in s106 obligations and clarity of communication about what the Council will be seeking through planning obligations is important. Stakeholders must be able to find information easily. Such information needs to be available, publicly communicated and obvious. It is not clear where the public can have sight of Cardiff's s106 planning obligation register.

- KF.43** Members are currently seen as the route to communication with residents on s106 agreements, and it is assumed that members both drive and monitor s106 spend in their wards.
- KF.44** The Council’s website would benefit from a dedicated planning obligations/ s106 page. Evidence gathered suggests the following information is made accessible on these pages: overarching vision (high level Council plans; SPG etc); outcomes of viability assessments; an annual statement of new s106 contributions secured; what these contributions are; what has been spent so far; what the contributions have been spent on; in-year regular updates to include details of how and where s106 (and any other) monies are being spent on a development; details of what these are; what has been requested; a “flow of funds” showing outcomes of what the money has been spent on.
- KF.45** Public opinion would benefit from a better understanding of developer contributions. Developers consider there is little public visibility of which services have been paid for with s106 monies. Therefore, a clearer narrative is required explaining that development generates s106 monies from developers, which in turn pays for improved community services.
- KF.46** To improve community integration, and public understanding of developers funding of s106 agreements, the Council should ensure site boards are erected at an early stage following the granting of planning permission. These boards should state clearly that planning approval has been granted on the basis that the developer will provide X, Y & Z facilities/services (with sums allocated alongside), as set out in the s106 agreement.
- KF.47** Developers consider an online toolkit would be useful, as found in several other authorities. This could be used as an early reference point, to calculate what a developers s106 contributions per square foot might be. The toolkit could also set out the Council’s priorities.
- KF.48** It is acknowledged that in order to deliver improvements in this area, funding would need to be found. Therefore, exploring “other” funding to develop this work is key.

TRANSPORT & ACTIVE TRAVEL

Strategic Direction

- KF.49** Local and national policy has been strengthened to support the development of sustainable transport and active travel. However, the application of these policies in

relation to new developments is variable and the local authority's enforcement of policies/legislation or any planning conditions needs to be strengthened.

- KF.50** Early consultation on design and master planning of new developments, must involve stakeholders and transport providers to ensure that provision/infrastructure meet the needs of the local community.

Location of New Developments

- KF.51** To increase active and sustainable travel uptake, there needs to be a careful planning when developing transport interchanges.
- KF.52** The Council's Active Travel Network map sets out the Council's long-term aspiration for a connected network and it must be taken into consideration when determining the location of new developments (with adequate contributions from the developers to construct those networks as appropriate).
- KF.53** There have been lost opportunities to restore historic travel corridors, with previous sites allowing developers to build houses over them e.g., Ferry Road.

Design Requirements

- KF.54** New developments must have local amenities provided as soon as possible; this will help reduce the need to travel.
- KF.55** Prioritisation of sustainable transport in new developments would be welcomed. This could be achieved through re-allocation of road space for active travel and public transport and bus gates.
- KF.56** Separate pavement and cycle ways are required to avoid conflict between different users and support public safety and confidence.
- KF.57** Secure by Design policy can hinder the opportunity for providing more active travel infrastructure.
- KF.58** New developments must have dedicated parking provisions for those with disabilities and include EV infrastructure.
- KF.59** The separation of walking and cycling means they are of significant width (at least rural road width) impacting on habitat connectivity and general loss of natural areas currently devoid of significant visible urban infrastructure.
- KF.60** There is limited active travel information on new developments regarding active travel routes and distances times to key amenities.

Connectivity

- KF.61** In line with local and national policy, the Replacement Local Development Plan needs to ensure connectivity between sustainable transport and active travel.
- KF.62** Travel infrastructure in new developments must link to existing network infrastructure and community services.

Access to Parking

- KF.63** Secure cycle storage is needed in the city centre and other key locations to address the fear of bike crime and encourage active travel from new developments.

Challenges in providing sustainable transport services

- KF.64** There are inconsistencies in when transport infrastructure is considered within development planning. Providers highlight need for the Council to better engage with transport providers to identify and determine the types of transport infrastructure and services that will need to be provided or made available at new developments.
- KF.65** There is a need to ensure planning conditions that meet the active travel and sustainable transport infrastructure needs of users and providers, are effectively negotiated, and enforced by the local authority.
- KF.66** Section 106 monies from city centre developments are often used to support open spaces, which are very limited. These monies should be used to improve sustainable transport initiatives in the city centre instead.
- KF.67** When designing transport infrastructure, ecological requirements, and any potential ecological implications, need to be included from the outset.

Improving take up of sustainable and active travel

- KF.68** New developments present an opportunity for the local authority to stimulate behaviour change by improving the accessibility of sustainable and active travel, including the provision of discount / incentives to use public transport.
- KF.69** Early provision, and communication, of sustainable transport/active travel and promised local amenities in new developments would potentially reduce private car use.
- KF.70** Provision of uninterrupted bus lanes and buses having priority at junctions may improve travel time and therefore make bus services more reliable.
- KF.71** The local authority must recognise that any changes to policies, which support a modal shift e.g., introduction of road user charging and increased car parking charges, will likely result in public resistance.

Exploring biodiversity issues versus transport need

- KF.72** There must be strong policy that reinforces the protection of green space and reduces the possibility of selling land to developers.
- KF.73** Multiple schemes for active travel and transport can fall under “permitted development”, resulting in concern that relevant environmental considerations are not being made as they would in general planning applications.
- KF.74** Continuous footpaths and cycleways could encourage active travel, they should also be supplemented with wide green verges that support biodiversity.
- KF.75** Provision of lighting on active travel routes has a detrimental impact on ecology and dark corridors for wildlife. If possible active travel routes should not impact negatively on the environment.
- KF.76** New developments when determining transport infrastructure, must fully consider the constraints imposed on existing vegetation and soil and must seek to minimise their loss and detrimental impacts on their functionality.
- KF.77** Inclusion of generous and continuous soft landscape verges in new developments that help mitigate environmental losses and create a more user-friendly environment are preferred but this needs careful forward planning. Often in developments, verges are very narrow (2.0m or less) and not continuous (fragmented by access points and car-parking). Where the width and continuity of verges cannot be optimised due to overriding design considerations, specialised landscaping features can be used to help establish trees.

DISTRICT & LOCAL CENTRES

Retail Planning Policy Framework

- KF.78** Welsh Government sets a clear framework and direction for retail planning policy, based on a Town Centres First policy, with the aim of ensuring centres are viable, vibrant, attractive and accessible by all modes of transport, including public and active travel. Post covid, Welsh Government has stressed the need for planning policy to enable centres to be social and economic hubs, with a range of retail and non-retail uses that serve local communities, including residential and co-working spaces. Welsh Government has also worked with the Welsh Retail Consortium on a plan to support retail in centres, *Together for Retail*, which encourages the use of

vacant units for worthwhile purposes to ensure centres are attractive and have footfall.

- KF.79** The *RLDP Vision, Issues and Objectives* acknowledges the need for greater flexibility in centres, post-covid. The *RLDP Preferred Strategy* reflects the Welsh Government framework, including Building Better Places, with district and local centres referenced in several objectives and strategic policies. It sets out objectives to protect and enhance centres and encourage flexibility. Importantly, it also sets out it is seeking to encourage investment and renewal of the physical fabric of centres.
- KF.80** Members heard from Tom Evans, Vice-Chair Planning Officers Society of Wales, that it is important Councils fully assess and identify within their RLDP those centres considered most appropriate to designate as social and economic hubs. This will assist the Council to focus investment into these chosen locations and will provide a framework to manage applications. Retail Planning Policies and associated SPG should be crafted to encourage vibrant, vital, attractive and accessible centres, enabling an appropriate retail/ non-retail balance and improving the quality of the centre environment.
- KF.81** Members heard that it is important the RLDP provides ‘teeth’ for policy needs across Council Directorates; planning alone cannot achieve everything but the RLDP is at the policy pinnacle and so sets the direction and tone for policies across the Council. Members note the Corporate Plan 2023-24 and Recovery & Renewal Strategy 2021 explicitly set out the Council’s support for district and local centres, with a District and Local Centres Strategy being developed.

Retail Landscape

- KF.82** Members note that there has been transformative change in the retail sector and landscape, with structural change arising due to changes in human behaviour over the last few years. Members heard from Cardiff Council officers that there has been less appetite from retailers for major stores, with a move towards medium-scale provision. Members welcome this, as enabling plurality of provision for local communities is both important and in line with the 15-minute city approach.

Retail Planning Policies

- KF.83** Members note the Council is intending to carry forward existing retail planning policies R1, R6 and R7, with existing retail planning policies R4, R5 and R8 carried

forward with minor amendments to reflect updated evidence and revised policy wording. Members note the findings and recommendations of the Nexus Planning Retail and Leisure Study (January 2023), hereafter referred to as the Nexus Study, and that the Council agrees with the recommendations and will be amending retail planning policies accordingly.

- KF.84** Members heard from Tom Evans, Vice-Chair Planning Officers Society of Wales, that it is important Councils think about the proactive steps they can take to achieve vibrant, vital, attractive and accessible centres and craft planning policies that will encourage this – not just retail development but other development such as health facilities, community facilities, leisure uses and also residential, for example.

Retail Strategy

- KF.85** Members note the Nexus Study (January 2023) highlights the need to ensure the RLDP Retail Strategy wording reflects the greater flexibility required post-covid. Having reviewed other local authority LDP wording, Members offer the following examples for consideration for adaption for use in Cardiff:

- a. Bristol Council¹ - *'aims to support Bristol's network of centres and **secure the sustainable distribution of the diversity of town centre uses**'*

Policy text

Retail development, offices, leisure (including food and drink), entertainment and night-time uses, arts, culture and tourism uses will be primarily located within or, where appropriate, adjoining the centres in the identified network and hierarchy serving Bristol.

*Centres will also be **suitable locations for community uses** including surgeries and public service facilities.*

Light industrial or small-scale distribution uses may also be appropriate in centres where they would contribute to their function and diversity.

*Development will be expected to be of a **scale and intensity appropriate** to the position in the hierarchy and to the character of the centre.*

- b. Kingston Council² - *There is a need to ensure that the borough's town centres remain **resilient and adaptable** to challenges facing the high street. Whilst protecting both the retail and commercial function of the borough's town centres is crucial, we will seek to*

¹ [Bristol Local Plan Review: November 2022](#) Draft Policy SSE1 – Supporting Bristol's Centres – network and hierarchy

² [Kingston's Local Plan 2023-2041 \(amazonaws.com\)](#) Point 8.30

*ensure that centres are able to **evolve and adapt** over time so that they continue to support the communities in which they are situated.*

- c. Vale of Glamorgan³ - *'the Council will adopt a **more flexible** approach to the application of Policies MG14 and 15 to give consideration to the **individual impacts** of the proposals and give weight to **the benefits** that can be secured from other non-A1 uses that can benefit the overall vitality and viability of our retail centres.... due to the current national context and the ongoing impacts of Covid-19 on the retail sector it is considered reasonable and appropriate for Development Management decisions to take a flexible approach to change of use proposals where it is considered the proposal would **benefit the centre** and contribute to the vitality, viability and attractiveness of the centre.'*

KF.86 Members highlighted that Swansea Council's LDP Review Report July 2023⁴ points out the need for local planning authorities to determine what constitutes a development of a '**significant scale**', given that Welsh Government's Future Wales strategy sets out that **significant** new retail facilities must be located within town centres. Members note the response from Cardiff Council officers that '*Significant new retail facilities are large scale retail developments and shopping centres and any new retail developments that because of their popularity/appeal are likely to attract large numbers of customers and have the potential to result in increased travel by unsustainable modes of transport. The first location for 'significant' new retail facilities is the central shopping area, which is at the head of the retail hierarchy, followed by lower order centres, and edge of centre, in line with the 'town centre first' approach.*'

R1- Retail Hierarchy

KF.87 Members reviewed the Nexus Study (January 2023) and agree with the majority of its findings, bar the statement, at point 10.9, that Cardiff is an urban authority. Members believe that Cardiff is a *predominantly* urban authority, which also has important communities in its rural areas, and that this should be acknowledged, with the planning approach taking this into account.

KF.88 In addition to the Nexus Study (January 2023) recommendations, Members heard there is a need for a vision statement for each centre that suits its geography, is realistic and sets out a compelling and fit for purpose approach. These should reflect

³ [Retail Development SPG English - March 2023 \(valeofglamorgan.gov.uk\)](#)

⁴ [Swansea LDP Review Report July 2023.pdf](#) point 4.4.33

the views of local stakeholders, as well as be intelligence-led. Members note this is the approach being adopted by Bristol Council⁵:

A vision statement about each of the identified centres will be included in the next version of the local plan. Your comments about the role of these centres will be taken into account in shaping those statements, along with the outputs of recent community engagement. Local communities, business organisations or neighbourhood plans may have already prepared visions for these locations which can form part of these statements.

KF.89 Members are clear that these vision statements need to be included in the RLDP to enable them to be borne in mind when considering planning applications; therefore, these would be in addition to the District and Local Centres Strategy, which Members were informed would sit below the RLDP, and so would not have the same weight as the RLDP when considering planning applications.

Sequential Approach/ Test

KF.90 This Inquiry's review of other local authorities has identified that it is possible to tighten Cardiff Council's existing sequential approach by strengthening wording, setting thresholds and clarifying that preference will be given to locations that are accessible and well connected to existing centres:

- a. Swansea Council⁶ – existing LDP states that developers must **review all potentially suitable sites, including conversion/ re-modelling, demonstrating flexibility** and that the **onus of proof** that sites within centres have been thoroughly assessed **rests with developer**
- b. Avison Young⁷ - their report reviews existing retail planning policies and recommends making sure planning policies are written to ensure the sequential test **applies to leisure** as well as retail, given interconnectedness of these nowadays, and that they clarify that assessment of edge-of-centre and/ or out-of-centre locations should **give preference to those which are accessible and well connected to town centres**
- c. Bristol Council⁸ –

⁵ [Bristol Local Plan Review: November 2022](#) Draft Policy SSE1 – Point 9.5

⁶ [Swansea Local Development Plan 2010-2025.pdf](#) points 2.8.7 and 2.8.8

⁷ [eb34-retail-and-town-centre-planning-policy-advice_april-2021.pdf](#) ([stroud.gov.uk](#))

⁸ [Bristol Local Plan Review: November 2022](#) Draft Policy SSE1 – Point 9.20

Policy text

The vitality and viability of the defined centres will be supported and enhanced. The network and hierarchy of centres as set out in this local plan will form the focal point for uses, services, and facilities serving the surrounding population.

*In order to safeguard and enhance the network and hierarchy of centres any proposals for additional main town centre uses outside the defined city, town, district and local centres will be **subject to the requirements of the sequential test and where applicable an impact assessment.***

Planning applications for 'main town centre uses' which are not in a defined centre or not in accordance with the policies of this plan will be subject to the following sequential approach to establish that there are no available or suitable sites or premises in sequentially preferable locations. The order of preference for such uses are as follows:

- i. Within designated centres ('in centre')*
- ii. In locations on the edge of designated centres ('edge of centre')*
- iii. **Accessible sites which are well connected to a designated centre***
- iv. **Other locations that are accessible by walking, cycling and public transport***
- v. Out of centre development of main town centre uses will only be acceptable where:*
 - a. It can be demonstrated that there are no available suitable sites or premises in sequentially preferable locations.*
 - b. The proposal is of a small scale (**floorspace no greater than 200m²**) and aimed at providing for local needs.*

The sequential approach applies to new floorspace, extensions to existing floorspace, changes of use and applications seeking to vary previously approved details.

The primary shopping areas as shown on the Policies Map, will continue to be the focus for new retail development.

*Proposals for main town centre uses outside the defined city, town, district or local centres will be subject to an **impact assessment** where the floorspace of the proposed development exceeds the following **thresholds**:*

- i. Outside Bristol city centre: greater than 500m² gross floorspace.*
- ii. Outside a town or district centre: greater than 300m² gross floorspace.*
- iii. Outside a local centre: greater than 200m² gross floorspace.*

The impact assessment thresholds above related to town, district and local centres will be applicable for proposals within 800 metres of the boundary of the relevant centres. Elsewhere the threshold of 500 metres applies.

KF.91 In addition, Swansea Council's existing LDP makes it clear that 'A departure to the defined hierarchy will only be considered if convincing evidence is submitted in support of a proposal to demonstrate that such development is **justified as an exception**, and that there would be no material adverse impact caused by the development to the attractiveness, vitality or viability of any Centre defined in the Retail Hierarchy. The policy identifies a **number of specific exceptional**

*circumstances where, subject to a specific need being identified, an out of centre retail or leisure proposal may be appropriate.*⁹

KF.92 Members are aware from the previous SPG Inquiry (October 2022) that specifying exceptional circumstances strengthens planning policy. However, Members are alert to the need to very carefully craft policies to ensure only development that is of benefit is supported, in particular by ensuring that unacceptable harms are detailed, and that appropriate evidence is required; these factors are considered below.

KF.93 Members sought the views of Cardiff Council planning officers on Swansea Council's existing LDP wording and note their view that it could be possible to adapt and use parts of this policy, with additional criteria.

R4 – District Centres and R5 – Local Centres

KF.94 In addition to the Nexus Study (January 2023) recommendations, Members explored how best to frame policies to promote flexibility, encourage beneficial development and resist harmful development to ensure viable, vibrant, attractive and accessible centres. Drawing on the work of the SPG Inquiry (October 2022), Members looked at the following key mechanisms, which enable a multi-pronged approach to appropriately managing development: use of thresholds; delineating unacceptable harms; and enhancing evidence levels required.

Thresholds

KF.95 Members heard the current LDP R4 and R5 policies do not specify thresholds but the Food, Drink and Leisure Uses SPG (November 2017) specifies that '*within existing District and Local Centres, where the proportion of non-shopping uses exceeds 60%, an application for a change of use of an active A1 retail unit for food, drink and leisure uses will be less favourably considered*' and that the LDP monitoring indicators include less than 40% A1 as a trigger.

KF.96 This Inquiry's review of other local authorities' retail planning policies has identified that some of these specify more detailed thresholds, for example delineating between use classes, primary and secondary frontages and/ or between ground floor and upper floors e.g.

- Swansea¹⁰ – A1 minimum 50% primary frontage, 35% secondary frontage.

⁹ [Swansea Local Development Plan 2010-2025.pdf](#) point 2.8.16

¹⁰ [District Centres, Local Centres and Community Facilities.pdf](#)

- Vale¹¹ – non-A1 ground floor – no more than 35% primary frontage, no more than 50% secondary frontage.
- Pembrokeshire¹² – non-A1 – no more than a third Primary Frontage.
- Bristol¹³ – promotes active ground floor uses.

KF.97 These examples are provided to illustrate the ways other local planning authorities have approached thresholds. Members believe this is an area that warrants consideration: the inclusion of appropriate thresholds in the RLDP, as opposed to solely in SPG, will strengthen the Council’s ability to manage development, as a threshold in an SPG that is not also in an LDP does not carry weight. However considerable thought and evidence is required to ensure thresholds are set an appropriate level and in an appropriate way, to ensure the Council has a flexible approach, whilst managing adverse impacts. In addition, Members are clear that thresholds on their own will not achieve beneficial development and that it is important they are not seen as a target to aim for; there is a need to marry them with clear approaches to unacceptable harm and evidence requirements. However, Members believe that they are an essential component in a multi-pronged approach to managing development.

Unacceptable Harm

KF.98 Members are aware from the previous SPG Inquiry (October 2022) that it is essential that LDP policies set out the impact the policy is seeking to avoid (harms) *and* the consequences if these harms are not avoided, in order for the LDP policy to be as strong as possible. Members note relevant SPG should provide evidence and explain how the impact seeking to avoid is measured and how consequences of not avoiding harm, the harms arising, are measured.

KF.99 The current LDP and Food, Drink and Leisure Uses SPG (November 2017) set out amenity grounds, including noise, disturbance, anti-social behaviour, litter, fumes and smells, as well as unacceptable harms such as dead frontages, crime and fear of crime, overconcentration of similar uses, traffic, parking and access, opening hours and health and wellbeing.

¹¹ [Retail Development SPG English - March 2023 \(valeofglamorgan.gov.uk\)](https://www.valeofglamorgan.gov.uk)

¹² [Interim Advisory Note on Development in Town Centres - Pembrokeshire County Council](#) September 2022

¹³ [Bristol Local Plan Review: November 2022](#)

- KF.100** Having considered the findings from the review of other local authorities' retail planning policies, Members believe there is scope to reflect on and tighten the wording on amenity considerations and unacceptable impacts in the RLDP policies and related SPG. Members note Swansea Council recognises that its criteria need to be reviewed considering the approaches to revitalise town centres set out in Welsh Government guidance, such as Building Better Places, and Members recognise this is also the case in Cardiff.
- KF.101** There is a need for clear and robust development management criteria to deal with important local implications of non-retail use. However, there is a need to ensure these criteria are nuanced to take into account the differing impact of proposals e.g., Members heard from Tom Evans, Vice Chair – Planning Officers Society Wales, that there is a need to think about the size of units and the impact of the proposed use on the centre – a smaller unit would have less impact from 'dead' frontage than a larger unit. This is particularly true for residential proposals, as set out later in these key findings.
- KF.102** Members also note that it is possible to have LDP policies that provide the overarching framework for the retail/ non-retail balance, with further detail provided in a related SPG that can set out in more detail how specific use classes will be viewed, as is currently the case in Swansea¹⁴ and proposed in Bristol¹⁵ and Kingston¹⁶.
- KF.103** Members reviewed the Vale of Glamorgan Council's recent Retail Development SPG and include their wording on unacceptable impact, in the hope this is of use when phrasing the RDLP policies and related SPG:

unacceptable impact¹⁷ - *In this regard considerations would include:*

- *Customer profile / use of the premises and whether it would increase footfall in the centre*
- *Hours of operation / use reflecting the wider function of the centre throughout the day / evening and weekend*
- *Shop frontage and advertising – proposals should have 'active' frontages that enhance the public realm of the centre*
- *External impacts – traffic, congestion, servicing vehicles, noise, pollution, anti-social behaviour*
- *Providing local employment or services*

¹⁴ [Swansea Local Development Plan 2010-2025.pdf](#) RC9 and [District Centres Local Centres and Community Facilities.pdf](#)

¹⁵ [Bristol Local Plan Review: November 2022](#) 9.23

¹⁶ [Kingston's Local Plan 2023-2041 \(amazonaws.com\)](#) Draft Policy KE5

¹⁷ [Retail Development SPG English - March 2023 \(valeofglamorgan.gov.uk\)](#)

- *Enabling the beneficial use of upper floors to the benefit of the wider retail centre*
- *Meeting an evidenced social need not currently met in the locality (e.g., childcare services, health care, leisure activities etc).*

Impacts - *developments will need to satisfy other policy considerations such as design, impact on neighbouring amenity, environmental impacts, traffic, congestion and parking. Furthermore, consideration will need to be given to the context and current state of the retail centre to ensure that a proliferation of a particular use (such as A3 take-away food outlet) does not undermine the overall role and function of the retail centre.*

Evidence Levels

KF.104 Members are aware from the previous SPG Inquiry (October 2022) that it is important relevant SPG set out the methodology used to ascertain thresholds, numbers, percentages, targets and measures and the evidence required for these, including for unacceptable harms and harms arising, and for exceptional circumstances. Swansea Council's relevant SPG provides a useful example of this.¹⁸

KF.105 The other main area where evidence is required, in relation to District and Local Centres, is marketing information required when a change of use from A1 is proposed. Members believe there is scope to tighten the marketing wording in the RLDP policies and related SPG, with the Vale of Glamorgan wording providing a useful example of how this could be achieved:

Marketing¹⁹ - *Applicants should submit a marketing report with such applications outlining the following:*

- *Details the existing use or the previous use of the site / premises if vacant;*
- *The length of time the unit has been vacant for (if applicable);*
- *Details of the marketing strategy employed and its duration, including the type of use the unit was marketed for, the price / contract terms, any incentives offered, details of the site / premises particulars including its condition / state of repair, copies of advertisements placed;*
- *Details of the amount of interest in the unit during the marketing period – this should detail the number of queries, the type of uses sought by potential purchasers, and if known, the reason for not pursuing an initial enquiry.*

To demonstrate the marketing strategy was meaningful and realistic as a minimum the marketing strategy followed should:

- *Have been undertaken for a 12-month continuous marketing period;*
- *Have a sale / rental price that reflects the market conditions for the current use and condition of the site / premises. If the building or site requires extensive conversion/repairs, the price should be based on the unconverted state unless the works are to be undertaken prior to completion. The price should not include any potential residential or other non-A1 use values.*

¹⁸ [District Centres Local Centres and Community Facilities.pdf](#)

¹⁹ [Retail Development SPG English - March 2023 \(valeofglamorgan.gov.uk\)](#)

- Have 'active' marketing on site, be listed on appropriate marketing websites, use a local / regional property agent to market the site, including direct mailing to targeted businesses, and advertised in appropriate marketing literature.
- Applicants should be prepared to offer the property or site on both a leasehold and freehold basis in order to widen appeal and help ascertain the level of interest.

KF.106 Members sought Cardiff Council planning officers' views on the above marketing wording and note their view that this approach is useful in the Cardiff context.

Residential

KF.107 Members recognise the desire to increase densification and footfall in centres and the need to meet housing demand, and that providing homes at or near centres constitutes the most sustainable forms of development, providing access and good connectivity to facilities and services for recreation and meeting day to day needs.

KF.108 There is a need to think about what sort of residential the Council wishes to encourage in centres, as some residential can be appropriate but the juxtaposition of residential and centres' uses needs to be carefully balanced, with amenity considerations.

KF.109 Members heard from Tom Evans, Vice-Chair, Planning Officers Society Wales, that it is very important Councils undertake analysis to reach a position where there is clarity in regard to where residential use can be tolerated within centres. This would include understanding the form and number of units needed to maintain the vibrancy and vitality of a centre. There can be significant variation in this regard, and it is therefore important to look at the characteristics of each centre and to have an analysis of each centre to understand appropriate scale for residential and of conversion of retail to residential.

KF.110 Members heard that, whilst residential is typically on upper floors, there may be opportunities for ground floor uses to co-exist in a retail centre, but this will require a clear policy framework and understanding of the specific character and form of the relevant retail and commercial centre, as there is potential for ground floor residential to cause harm in some locations whilst in other locations, it may be beneficial.

KF.111 Members heard that key issues to consider with regard to residential use are loss and dilution of active frontage, contribution to vitality, viability and attractiveness of centres, compatibility with other uses in the same building as well as neighbouring

properties, as well as unacceptable harms and amenity considerations, as detailed in the section above.

KF.112 Members considered the approach to residential use in the following local authorities: Swansea Council, Pembrokeshire Council, Flintshire Council, Wrexham Council, and Bristol Council, and note Cardiff Council planning officers' view that the Bristol Council approach to residential uses in centres is the most appropriate to Cardiff and a practice that has policy support in the current LDP.

Residential Uses²⁰

New residential development which makes positive use of upper floors of properties and on underused and vacant space away from commercial frontages will be encouraged within centres.

Residential development

Within the primary shopping areas, changes of use of ground floor frontages to residential development (that require planning permission) will not be appropriate.

In wider centre boundaries, changes of use to ground floor residential development in centre boundaries may be acceptable where:

- *It has been demonstrated after a suitable period of appropriate marketing that there is no realistic prospect of securing an active use in the unit; and*
- *where this would not, individually or cumulatively, detrimentally impact the vitality and viability of existing commercial and retail uses through fragmentation of the commercial function.*

Major development proposals will be expected to contribute to environmental enhancement and public realm improvements within the city centre, and town, district and local centres and parades.

Other Non-Retail Uses

KF.113 Members were particularly struck by the work underway by Bristol Council to include the following in their retail planning policies:

- a. Support for the Evening and Night Time Economy²¹.
- b. Support for temporary, meanwhile uses²².
- c. Inclusion of Agent of Change principle²³.

KF.114 Members were interested to understand Cardiff Council planning officers' views on the above and note their response that Cardiff's centres could benefit from the approach set out by Bristol Council, ensuring the vitality of centres extends through the daytime into the evening and night time and increasing viability and diversity of centres.

²⁰ [Bristol Local Plan Review: November 2022](#)

²¹ [Bristol Local Plan Review: November 2022](#) Draft Policy SSE3

²² [Bristol Local Plan Review: November 2022](#) Draft Policy SSE5

²³ [file \(bristol.gov.uk\)](http://file.bristol.gov.uk) [Bristol Local Plan Review: November 2022](#)

KF.115 Members were also interested in Wrexham Council’s policy on loss of local services, which has recently been through Examination:

Policy R7: Loss of Local Services²⁴ *Outside of Wrexham Town Centre, District, Local, Village and Neighbourhood Centres proposals that entail the loss of a community facility, including shops, commercial facilities and public houses and/or non-commercial facilities, including libraries and village halls/community centres ~~shopping, commercial facility or public house~~ will only be supported where:*

○ *The use is no longer viable and all reasonable attempts to sell or let the business have proved unsuccessful; or*

○ *A similar service is available within reasonable walking distance; or*

It can be demonstrated that the existing provision is surplus to the needs of the community. 6.156 It is important that the daily needs of communities both commercial (e.g., shopping and public house) and non-commercial (e.g., library and village hall/community centre) are reasonably met in their locality. Provision of these services locally will reduce the need to travel and help sustain local communities.

KF.116 Members sought the views from internal witnesses and note their response that existing LDP policies (C2 and R5) protect existing community facilities and local shopping facilities, but that Wrexham Council extends this definition to include shops, commercial facilities and public houses and provides criteria that need to be addressed which must be met to support the loss. Members note officers continue that ‘*It can prove extremely difficult to compel such uses to be retained in some cases e.g., business in single ownership difficult where the local shopkeeper/owner or publican chooses to retire and repurposes the use for their own living accommodation*’. However, Members believe this example would not form the majority of instances and so there is merit in exploring how to make the RLDP wording on loss of local services as robust as possible.

KF.117 Members note that Public Health Wales has developed a template²⁵ for local authority planners to use to develop effective development management approaches to hot food takeaways.

KF.118 Members note that Kingston Council has a policy²⁶ restricting the oversaturation of betting shops.

²⁴ [Wrexham County Borough Council - Latest News \(objective.co.uk\)](#) underline is Inspector’s addition; strikethrough is their deletions.

²⁵ [Microsoft Word - Wales HWHW SPG Template_v4.docx \(nhs.wales\)](#)

²⁶ [Kingston’s Local Plan 2023-2041 \(amazonaws.com\)](#) Draft Policy KE9

KF.119 Members asked Adrian Powis and Shelly Lynch, Co-Operative Funeral Services, for their views on how the changing nature of centres affects their services, for example the increase in cafes and restaurants and note their view that these changes have a positive impact with the increasing footfall helping to increase awareness that the Co-Operative Funeral Services is located in the centre and that people remember this when these services are needed.

R6 Out of Centre

KF.120 In addition to the Nexus Study (January 2023) recommendations, and this Inquiry's findings on the Sequential Test, set out above, Members explored how best to manage out of centre developments and avoid the loss of needed industrial land and businesses areas. Members heard from Tom Evans, Vice-Chair, Planning Officers Society Wales, that:

- a. it is important to understand that out-of-centre has a role and a function.
- b. LDPs need to address this and set out the role and function so there is a framework for development.
- c. It is very important to have an up-to-date evidence base on existing landbanks of industrial and business areas and future demand for this, to understand whether there is a surplus.
- d. If there is a surplus, it is important that the planning system ensures the effective utilisation of land that could otherwise remain vacant.
- e. If evidence shows there is a need for specific alternative uses such as residential or certain commercial uses, it is important that policies are clear that the surplus land is being protected for these alternative uses.
- f. If evidence demonstrates that certain existing business and industrial land provides an important role for economic growth (for investment by new business as well as allowing extension of existing enterprises) policies must be clear to protect these areas for existing uses
- g. Where there is no clear evidence available, policies will need to be sufficiently flexible in their approach to the re-use of surplus land, to avoid under-utilisation of land.

KF.121 Members note Cardiff Council officers recognise the need for planning policies to be slightly firmer and more proactive, with plans for existing business and industrial

land, setting out acceptable uses, to ensure these sites are protected and are developed in line with the Council's overall aims.

- KF.122** Members note that Swansea Council's existing LDP²⁷ contains a section on managing development proposals for established out of centre retail developments, which may be of use to Cardiff Council planners when drafting the RDLP policies.
- KF.123** Members note that it is possible to estimate the impact different types of retail stores will have on existing stores. Members found this interesting, that it is possible to differentiate the impact by clientele and distance from existing provision, and pondered whether the methodology would be of assistance to the Council in estimating the impact of proposed out-of-centre provision.
- KF.124** Members highlighted that some existing out-of-centre developments have become integral hubs for their local communities, such as the Pugh's Garden Centre complex in Morganstown. As such, Members wondered whether there is scope for a review of categorisation, to check whether these centres should now be categorised as a local or district centre.

R7 Strategic Sites

- KF.125** In addition to the Nexus Study (January 2023) recommendations, Members note that, going forward, the Council can continue to use its placemaking role to assist in ensuring that new centres are appropriate, e.g., not enabling a large car park, working to promote local character and distinctiveness. Members note that the existing LDP has ensured retail provision is master planned for the strategic sites, with planning agreements capturing the Council's requirements e.g., NE Cardiff planning agreements specify retail floor space of 1,500 sq. metres, which is smaller than large supermarkets, and non-food retail floor space of 1,000 sq. metres.
- KF.126** Members heard the Council is not receiving applications for big box retail parks; instead, it is receiving applications for medium-sized sites. However, Members are mindful that the RLDP runs to 2036 and that the market may shift again; Members therefore believe that it is prudent to phrase retail planning policy to ensure it can deal appropriately with a range of site sizes.

²⁷ [Swansea Local Development Plan 2010-2025.pdf](#)

Relevant Supplementary Planning Guidance

KF.127 Having reviewed the existing Food, Drink and Leisure Uses SPG (November 2017) and taking into consideration the other findings of this Inquiry, it is clear to Members that the existing SPG will need to be significantly amended, in light of

- a. Welsh Government's more recent relevant publications
- b. the findings of the SPG Inquiry (October 2022) and
- c. any changes made to retail planning policies.

KF.128 In particular, Members note the following are required:

- a. Citation of all relevant LDP policies and paragraphs
- b. More precise and positive language and phraseology, as detailed in the SPG Inquiry (October 2022)
- c. Setting out thresholds and the methodology for calculating these
- d. Consistency in terminology for unacceptable harms and clarity about how these are assessed and/ or measured.
- e. Setting out exceptional circumstances and how these are worked out and applied.

Use of Planning Conditions

KF.129 Members note that planning conditions can be used to prevent future, unwanted, changes of use, including sub-division, unification, and restricting types of use to protect existing provision. Members note the current LDP and related SPG highlights planning conditions may be used and Cardiff Council planning officers' response that they have been used to control the types of uses, goods sold, size of unit, operating hours and to prevent sub-division.

Use of Local Development Orders

KF.130 Members are aware that the Welsh Government's Technical Advice Note 4²⁸ sets out that '*local authorities are encouraged to consider how Local Development Orders (LDOs) can assist in the regeneration of retail and commercial centres*'. Members sought witnesses' views on this and note:

- a. Swansea Council does not currently use these but will look at their potential as part of preparing its RLDP; Tom Evans stated that his initial thoughts are that there are concerns with them as they remove the

²⁸ [Technical advice note \(TAN\) 4: retail and commercial development | GOV.WALES](#)

ability of planners and Members to reach a judgement on proposals, as proposals no longer need to go through the Planning Committee route.

- b. Cardiff Council planning officers' view that, whilst LDO's are useful in particular circumstances, there is a reluctance to adopt LDOs due to concerns about loss of control, loss of planning fees, delay, and complication.

DRAFT

RECOMMENDATIONS

Having considered the evidence presented to this Inquiry, the Joint Scrutiny Committee makes the following recommendations to Cabinet:

R1. Utilise the recommendations of the Environmental Scrutiny Committee’s Supplementary Planning Guidance (SPG) Inquiry (October 2022) when drafting RLDP policies and related SPG.

(HFs 1 – 3)

SECURING PLANNING OBLIGATIONS

R2. Develop/invigorate internal processes to co-ordinate s106 activities across the authority.

This should include:

- A review of the Council’s aspirations and priorities in relation to planning obligations and s106 to ensure that priorities are focussed, clear and understood by all. It is important that affordable housing is included as part of this review, and that “wish lists” are minimised – what does the Council NEED in terms of developments? **(KFs2 & 34)**.
- Review and streamline the viability process to speed up this process, which was highlighted as a particular challenge for all **(KF25 - 35)**.
- An appraisal of s106 contributions held by the authority to ensure that they are index linked **(KFs 4 & 5)**; and are spent in a timely manner **(KF6)**.
- Develop and embed a process where s106 discussions can start earlier in the planning process. This was highlighted across all witnesses and across other sub-groups **(KF12)**
- Establish an internal cross-cutting working group to improve round table representation. **(KF10)**
- Ensure that Finance are included in discussions with the internal group and that they are included as experts at the viability stage **(KF26)**.
- Establish a working group with developers and commercial agents to further improve working relationships and dialogue. **(KF11)**
- Consider the development and use of standardised s106 agreements with a view to simplifying the viability process, enable improved monitoring, enforcement etc. **(KF14)**

- Review current monitoring of planning obligations/s106. This includes tightening up of the annual monitoring report framework **(KF15)**

R3. The Council ensures dedicated and identifiable s106 officers are visible and accessible to stakeholders and ensure there is timely periodical monitoring to ensure s106 legal agreements are adhered to. This role should include:

- These officers being clearly identifiable and visible to all stakeholders **(KF8)**.
- Explore whether this officers could act as a community engagement officer on large development sites, to ensure effective integration of new and existing communities. **(KF9)**.
- Be responsible for developing, implementing and monitoring the work highlighted in this report.

R4. The Council revisit Supplementary Planning Guidance to ensure it is concise, robust and evidence based to ensure a seamless planning process. This should include:

- Further enhancements to the SPG, particularly around viability **(KFs 16 & 17)**.
- Revisit the size and length of the current document, with a view to making it more concise; clear, accurate and transparent **(KFs 19 & 22)**.
- Review the document to ensure that it includes clauses to ensure contribution values are index linked **(KF 20)**.
- Set out clear expectations of what is expected from developments **(KF 21)**
- Provide detail of thresholds which will be sought for developments **(KFs 23 & 24)**.

R5. The Council continues to explore the delivery of affordable housing but commits to exploring additional avenues for meeting housing needs. This may include:

- Exploring ways in which the council could unlock other options available to it in relation to affordable housing **(KFs 30, 36, 38 & 41)**.
- Ensure that any affordable housing policy is regularly reviewed **(KF 36)**.
- Review whether s106 is the right vehicle for delivering affordable housing **(KF 37)**.
- Review the current status of affordable housing priority (with a view to giving it a higher status) and adjust the policy accordingly. Review the viability process in relation to affordable housing, with the aim to minimise the “designing out” of affordable housing by developers at this stage **(KF 38)**.

- Undertake a review of the value of affordable housing unit, and adjust the policy accordingly, with regular reviews set out clearly in the monitoring framework **(KF 39)**. This review should take place as a matter of priority, and assurances given that this is reviewed regularly and line with Council policy.

R6. The Council reviews and improves accessibility and transparency of s106 agreements in Cardiff. This should include:

- Easy to find key documents, plans, information on developments and details of s106 commitments and spend **(KFs 3 & 42)**.
- Better access to information for Members and the public, to include a Protocol for communicating with Members, developers etc. **(KFs 43 & 45)**.
- Build on current mechanisms in place to develop further active community involvement and integration **(KF 46)**.
- The Cardiff LDP Website have dedicated planning obligations/ s106 pages **(KF 44)**. Additional funding for this may need to be explored **(KF48)**.

Contents could include.

- Overarching vision (High level plans; SPGs etc).
- Annual statement of new contributions secured; what these contributions are; what has been spent so far; what the contributions have been spent on.
- In-year regular updates to include details of how and where s106 (and any other) moneys are being spent on a development; details of what these are - what has been requested; what has been contributed; what has been spent.
- A “flow of funds” – showing outcomes of what the money has been spent on.
- A “ward search” function be included to enable Members, public and stakeholders to look for what is happening at this level. This should include the data/information available within the “in-year” updates highlighted above. Bristol City Council has an example of this for reference.
- Viability assessments be published on this part of the website **(KF32)**.
- Tools for assisting developers – set out planned phasing and triggers; what the priorities are; greater clarity on/ability to calculate these amounts **(KF 47)**.

TRANSPORT & ACTIVE TRAVEL

R7. The Replacement Local Development Plan's SP5 (Securing New Infrastructure) has specific provisions to ensure that new developments, irrespective of their size, location, or land use, make appropriate provision for infrastructure. In line with recommendations made on the Shaping Cardiff Post Pandemic Recovery Inquiry, SP5 must include clear, concrete conditions negotiated with developers that adequate transport infrastructure i.e., bus stops, turning circle etc, must be in place on developments as soon as they are publicly occupied, to encourage uptake of sustainable transport and active travel routes.

(KFs 49,50, 52, 54, 62, 65, 68 & 69)

R8. The Replacement Local Development Plan's SP3 (Ensuring a Master Planning Approach) must clearly specify that when new developments are agreed, developers must engage and consult with transport providers, and relevant community groups (as directed by the Council) during the master planning stage. This early and consistent consultation will ensure proposals for development sites meets both provider and user needs' and assist the council in delivering the transport modal shift, and ensure any new development is linked to, and contributes to the improvement of, existing developments and infrastructure.

(KFs 49, 50, 52, 54, 61, 62 & 64)

R9. In line with transport legislation and policy in Wales, more emphasis must be put on s106 monies allocated to city centre developments being utilised for improvements to sustainable and active travel corridors, when possible.

(KFs 49, 52, 61, 62, 65, 66, 68 & 69)

R10. The Replacement Local Development Plan's SP19 (Protecting, Compensating and Enhancing Green and Blue Infrastructure and Biodiversity), must ensure that any roads, cycleways and pavements will take into account any existing areas of biodiversity, including how maintenance and management of the areas that remain will be undertaken.

However, the Strategic Policy must remain flexible to local issues and must stipulate that when this work is managed, close working partnership is required with local.

(KFs 57, 67, 72, 73, 74, 75, 76 & 77)

R11. In line with local and national strategic direction, the Replacement Local Development Plan's SP4 (Securing Good Quality & Sustainable Design) must specify that developments must include the following features which any relevant SPG²⁹ will provide further details of :

- Provision of sufficient community EV charging points.
- Active travel signs/way markers, which provide route and distance information to nearest amenities.
- Quality, secure cycle storage at home (particularly for new flats & HMOs) and at local amenities.
- Sufficient road space to accommodate buses passing on main/arterial routes through new developments.
- Protection of historic travel corridors; whether in use or not, to allow their reinstatement at a later date if necessary.

(KFs 50, 58, 60, 62, 63 & 64)

R12. The Replacement Local Development Plan must ensure that cycle solutions on new developments:

- include secure cycle storage that incorporates usability standards, e.g. excluding the use of upright cycling or in hall storage in new flats and HMOs, and is compliant with Shared Regulatory Service guidance.
- have minimum standards on secure cycle storage which need to be absolute in the LDP and not just the SPG and should not be impacted by the proximity of other sustainable or active travel modes but should support connectivity.
- follow Sustrans policy on active travel gates, when possible and not 'secure by design' which can exclude some users e.g. wheelchair users and those with pushchairs.

(KFs 49, 57, 61, 65 & 68)

²⁹ In line with the Welsh Government's LDP Development Manual and Cabinet accepted recommendations from the SPG Task and Finish Inquiry in 2022, the finalised transport policies in the RLDP should provide a clear and strong substantive policy hook to a relevant SPG that will provide specific details on the application of the policy. It is expected that the SPG will specify or cite the specific LDP policy or paragraph that it links (hooks) to and will be expanding on. A strong SPG should specify minimum standards, thresholds, numbers, percentages targets and measures, how these are worked out, and evidence why these are chosen or required. Furthermore, the relevant SPG should provide evidence on the impact that the policy is seeking to avoid and details of harms it will bring if what is required is not followed. A detailed outline checklist on what is required to ensure a relevant SPG that is strongly linked to the RLDP policies is currently being finalised as part of the accepted T&F recommendation.

DISTRICT & LOCAL CENTRES

R13. Accept and implement the recommendations of the Nexus Planning Retail and Commercial Leisure Study (January 2023), as set out in Section 10 of their report, when drafting the RLDP retail planning policies, in particular, but not limited to:

- Nexus’s suggestions to amend the clause in R4 and R5 to resist continuous stretches of 3 or more units to ‘non-retail, leisure or community centre uses’ and, in centres where this is a particular concern, to add a specific clause resisting runs of 3 or more residential units,
- Nexus’s recommendation to reference in R6 the 2,500 sq m (gross) threshold for requiring retail impact assessment (Paragraph 4.3.26 of PPW11, 2021).

(KFs 83, 85, 87, 88, 94, 111, 120 & 125)

R14. Review existing out-of-centre developments to see whether it would be more appropriate for some of these to be categorised as district or local centres, as set out in the Retail Hierarchy, given how some of these have developed over time.

(KF 124)

R15. Use the examples cited in this report’s Key Findings of retail planning policies in other local authorities to robustly word RLDP retail planning policies, including:

- Enabling non-retail uses that achieve similar things for centres that A1 usage does e.g., footfall, active frontage/ window display, vibrancy.
- strengthening the wording of the retail strategy and sequential test.
- setting an appropriate threshold for retail/ non-retail use in centres, as part of a multi-pronged approach to managing development.
- drawing on the Vale of Glamorgan Council’s ‘unacceptable harms’ wording and its’ ‘marketing’ wording.
- framing residential use policy in terms of ‘tolerating’ residential use at appropriate locations if proposal is of an appropriate size and scale and not detrimental to the vitality, viability, attractiveness or accessibility of a centre
- *exploring use of the Public Health Wales template for developing effective development management approaches to hot food takeaways.*

(KFs 78, 81, 85, 86, 90 – 103, 105, - 112, 117 & 119)

R16. Consider whether to include reference to the following areas in the RLDP retail planning policies and, if so, consider the examples of retail planning policies in other local authorities highlighted in this report's Key Findings:

- Evening & Night Time Economy Uses.
- Temporary Uses.
- Agent of Change, and
- Loss of Local Services.

(KFs 113 – 116)

R17. Use the examples cited in this report's Key Findings of retail planning evidence requirements in other local authorities to strengthen the evidence base required, including:

- developing a Vision Statement for each centre, which will be included in the RLDP, that is intelligence-led and includes stakeholder engagement.
- in the RLDP, delineating and evidencing the impact on centres and local communities if unacceptable harms are not avoided, with further technical details and methodology to be contained in relevant SPG.
- undertaking analysis to determine what level and type of residential use is tolerable in centres, to ensure evidence is available to support development control.
- as a minimum, in the RLDP, adopt the Vale of Glamorgan Council's evidence requirements regarding the marketing required when a change of use from A1 is proposed.
- undertaking an analysis of demand for industrial land and business areas and, where this evidence shows there is a surplus, develop plans setting out specific alternative uses to ensure the identified surplus land is protected for these alternative uses and not available for speculative development.

(KFs 88, 89, 98 – 106, 109 & 120)

BACKGROUND CONTEXT

1. The Welsh Government (WG)³⁰ requires all councils to have a Local Development Plan (LDP). The document is the Council's key land use planning document, which sets out policies and proposals for future development and use of land in Cardiff between 2006 - 2026, in line with legislative requirements. Once adopted the LDP will replace the existing structure and local plans for the city and will form the basis for decisions on individual planning applications.
2. The LDP is a statutory requirement which identifies opportunities for investment and regeneration including the provision of new homes, jobs, community facilities and transport infrastructure. The Plan also identifies land that requires protection for its conservation importance and measures necessary for safeguarding our environment. It needs to balance sustainable development and conservation, whilst delivering the community's vision for the future of Cardiff.
3. In preparing the LDP, the Council must take account of a wide range of legislation, policies and other initiatives at European, national and local levels of government, including:
 - The Wales Spatial Plan
 - South East Wales Transport Alliance (SEWTA) Regional Transport Plan
 - South East Wales Regional Waste Plan
 - South East Wales Regional Technical Statement for Aggregates.
4. The LDP is tasked with:
 - Delivering sustainable development
 - Reflecting local aspirations for the city, based on a vision agreed by the local community and other stakeholders.
 - Providing a basis for rational and consistent development control decisions
 - Guiding growth and change, while protecting local diversity, character and sensitive environments
 - Showing how and where change will occur over the plan period.

³⁰ The Planning & Compulsory Order Act 2004

5. The Preferred Strategy therefore aims to give a broad outline of the intended level of growth in Cardiff and how it can be sustainably delivered. The strategy is a result of carefully considering a number of different factors including:
- The national and regional policy framework;
 - A sound understanding of the local context- identifying key data and issues which the plan must take account of from the evidence base;
 - The Council’s Community Strategy and LDP vision and objectives;
 - Considering the merits of different growth options; and
 - Considering the merits of different spatial options- where the best places are to accommodate new development needs.
6. The Scrutiny inquiry final report will be considered by the Policy Review and Performance Scrutiny Committee at its meeting on 13 December 2023 and offered for Cabinet consideration on 14 December 2023. Subject to Council approval, work will continue on developing the Deposit Local Development Plan. The revised timetable is as follows:
- a. Consultation on Deposit Plan – July to September 2024
 - b. Examination – May 2025 to October 2025
 - c. Adoption – November 2025
7. The Local Development Plan regulations require the Council to publish its pre-deposit proposals for public inspection and comment.

APPROACH TAKEN

In March 2023 the Chairs of the five Scrutiny Committees agreed that a cross committee Joint Task & Finish group should be established to scrutinise the Preferred Strategy. Nominations were sought from all committees. In April a session was held between the nominated members and Planners, to ensure everyone's understanding was the same of the process to date and the proposed timeframe going forward. The group next met again in early July after the Preferred Strategy had been agreed by Cabinet in June Council in June 2023, to agree the focus of the work of the Task and Finish Group. At the workshop in July round table discussions were held and the top three issues to consider on more detail being statutory obligations, transport and district and local centers. Councillors were also asked which task group/s they wished to participate in. Following the summer break in September the three subgroups consulted with members regarding the terms of reference for each of the groups and stake holder workshops, evidence gathering, and desktop reviews took place during October. Some of this work was frustrated by the calling of continuous strike action throughout September, October, and November, which impacted on the meetings that were able to be held in a face-to-face context initially. The report was written in November to be agreed by the overarching Task & Finish Group and then by each Scrutiny Committee in December before being presented to Cabinet in December, to allow time for recommendations to be considered for inclusion in the Deposit Plan. Therefore, there was limited time to consider the issues in detail and the work of the task groups needed to be focused.

The **Planning Obligations** task group examined how current policy and process could be strengthened; how communication and narrative on planning obligations could be simplified, more accessible and transparent; and how carbon neutral and biodiversity requirements might need to be addressed. The broad range of external and internal witnesses highlighted many positives about the Council's planning service and how it currently approaches s106 agreements. The evidence has been informed by witnesses' experience of working with many local authorities, both in Wales and England. There were also many observations as to how Cardiff Council could improve policy and process as it moves into the detailed phase of developing the replacement Local Development Plan for deposit.

The **Transport** task group reviewed how transport and active travel infrastructure on new developments (LDP policy T5 Managing Transport Impacts) could be improved without negatively impacting on nature and biodiversity. Witnesses from both transport providers and

community groups were invited to attend focus groups and commented on the lack of engagement and communication from an early, master planning stage to ensure the needs of both groups were considered at the earliest opportunity and to encourage take up of sustainable and active travel opportunities. A desktop review of the policy gaps was also undertaken to support the development of recommendations.

To inform the Inquiry, Members of the **District & Local Centre's** task group were provided with information on the policy framework for retail planning policies in Cardiff, including the policy context from Welsh Government, the existing LDP policies and relevant SPG, the review of the existing LDP and Annual Monitoring Reports, the RLDP Vision, Objectives and Issues, the RLDP Preferred Strategy (consultation draft), the Nexus Retail and Commercial Leisure Study (January 2023), the Corporate Plan 2023-24 and the Cardiff Recovery and Renewal Strategy (2021). Members also considered pertinent findings from the previous Planning Inspectorate Examination of Cardiff's proposed Deposit Plan, 2015. Also, Members were provided with a summary of relevant findings from the recent *Shaping Cardiff's Post Pandemic Economic Recovery Inquiry* (January 2023), which included findings on high streets and district and local centres post-covid, and the previous *Supplementary Planning Guidance Inquiry* (October 2022), which included findings on how to ensure tight LDP policies and strong SPG. In addition, desk-based research was undertaken to identify examples of retail planning policies post-covid from other cities in the UK that meet the Welsh Government's policy direction. A gap analysis was undertaken comparing these examples with the existing LDP retail planning policies, to identify where existing policies could be strengthened and amended in the new RLDP, to meet Welsh Government and Cardiff Council's RLDP policy direction. Members also considered publications from the Welsh Retail Consortium, the Association of Convenience Stores, and the Local Government Association, regarding the role of local authorities in assisting high streets and ensuring access to local services.

The key findings from task group activities have been used to inform the development of the recommendations that have been submitted in this report.

Further details and the evidence gathered during October by the three task groups is available on request.

WITNESSES TO THE INQUIRY

Statutory Obligations Subgroup

External:

- Jim Cliffe, Planning Obligations Manager, Bristol City Council
- Mark Harris, Policy Advisor, House Builders Federation
- Jo Curson, Director of Development, Wales & West Housing Association
- Prof Neil Harris, School of Geography and Planning, Cardiff University
- Andrew Woods, Director, Expedite and Urban Centric
- Tom Evans, Head of Planning, Swansea City Council and Chair of Planning Officers Society Wales

Internal:

- Simon Gilbert, Head of Planning
- Alison Draper, Development & Regeneration Team Leader, Housing
- Brett Andrewartha, School Organisation Planning Manager, E&LL
- Anil Hirani, Operational Manager - Capital, Corporate & Treasury, Financial Services
- Vesna Cole, Solicitor, Governance & Legal Services

Written Responses:

- Caroline Jones and Andrew Weeks, Savills
- Chris Spiteri, Director, Property Index
- Dr Roisin Willmott, Director, Royal Town Planning Institute

Transport Subgroup

External:

- Gareth Stevens – Cardiff Bus
- Alex Corsi – Adventure Travel
- Christian Reed – Stagecoach Bus
- Ryland Jones – Sustrans
- Chris Roberts - Cardiff Cycle City
- Kirsty James – RNIB
- Dan Thomas – RNIB
- Ceri Cryer – Age Cymru
- Mike Jones Pritchard – Tongwynlais Community Council

Internal:

- Jenn Griffiths – Access Forum

Written Responses:

- Kelsey Barcenilla – Transport for Wales
- Justin Groves – County Ecologist
- Ed Baker – County Tree Officer

District & Local Centre's Subgroup

External:

- Carrie McCambridge – Operations Manager, South Wales, Co-Operative Food
- Adrian Powis – Operations Manager, Cardiff, Co-Operative Funeral Services
- Shelly Lewis – Regional Manager, South Wales, Co-Operative Funeral Services
- Tom Evans – Vice-Chair, Planning Officers Society Wales

Internal:

- Cllr De'Ath – Cabinet Member, Transport and Strategic Planning
- Simon Gilbert – Head of Planning
- Stuart Williams - Group Leader – Strategic Policy
- Caren Richards – Team Leader – Strategic Policy
- Jon Day – OM Tourism and Investment

DRAFT

FINANCIAL IMPLICATIONS

The Scrutiny Committee is empowered to enquire, consider, review, and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications.

LEGAL IMPLICATIONS

The Scrutiny Committee is empowered to enquire, consider, review, and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without modification. Any report with recommendations for decision that goes to Cabinet / Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal power of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. standing orders and financial regulations; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

COMMITTEE TERMS OF REFERENCE

The role of the Policy Review & Performance Committee is to scrutinise, monitor and review the overall operation of the Cardiff Programme for Improvement and the effectiveness of the general implementation of the Council's policies, aims and objectives, including:

- Council Business Management and Constitutional Issues
- Cardiff Council Corporate Plan
- Strategic Policy Development
- Strategic Programmes
- Community Planning & Vision Forum
- Voluntary Sector Relations
- Citizen Engagement & Consultation
- Corporate Communications
- International Policy
- Cardiff Local Development Plan
- Equalities
- Finance and Corporate Grants
- Organisational Development
- Cardiff Efficiencies Programme
- E-Government
- Information and Communication Technology
- Council Property
- Commissioning and Procurement
- Carbon Management
- Contact Centre Services and Service Access
- Legal Services
- Public Services Board

To scrutinise, monitor and review the effectiveness of the Council's systems of financial control and administration and use of human resources.

To assess the impact of partnerships with and resources and services provided by external organisations including the Welsh Government, joint local government services, Welsh

Government Sponsored Public Bodies and quasi-departmental non-government bodies on the effectiveness of Council service delivery.

To report to an appropriate Cabinet or Council meeting on its findings and to make recommendations on measures which may enhance Council performance and service delivery in this area.

Policy Review & Performance Scrutiny Committee Membership



Councillor Joel Williams
(Chairperson)



Councillor Mike Ash-Edwards



Councillor Bernie Bowen-Thomson



Councillor Joe Carter



Councillor Jasmin Chowdhury



Councillor Jane Henshaw



Councillor Graham Hinchey



Councillor Garry Hunt



Councillor Leonora Thomson

DRAFT

Cardiff Council Scrutiny Services,

Room 283, County Hall, Atlantic Wharf, Cardiff CF10 4UW

Email: scrutinyviewpoints@cardiff.gov.uk

© 2023