Agenda

Climate and Environment Panel (Panel of the Scrutiny Committee)

This meeting will be held on:

Date: **Tuesday 10 September 2024**

Time: **5.00 pm**

Place: **Zoom - Remote meeting**

For further information please contact:

Alice Courtney, Scrutiny Officer

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Members of the public can attend to observe this meeting and.

- may register in advance to speak to the committee in accordance with the committee's rules
- may record all or part of the meeting in accordance with the Council's protocol

Information about speaking and recording is set out in the agenda and on the website

Please contact the Committee Services Officer to register to speak; to discuss recording the meeting; or with any other queries.

Committee Membership

Councillor Emily Kerr (Chair)

Councillor Judith Harley

Councillor Jemima Hunt

Councillor Katherine Miles

Apologies received before the publication are shown under *Apologies for absence* in the agenda. Those sent after publication will be reported at the meeting.

Agenda

		Pages
1	**Apologies**	
2	**Declarations of Interest**	
3	**Chair's Announcements**	
4	**Notes of the previous meeting**	9 - 14

The Panel is asked to **agree** the notes of the meeting held on 11 June 2024 as a true and accurate record.

5	**Climate and Environment Panel Work Plan**	15 - 18

The Panel is asked to consider the Work Plan and agree any amendments.

6	**Report back on recommendations**	19 - 60

At its meeting on 12 June 2024, Cabinet considered the following reports from the Climate and Environment Panel and made responses to the recommendations:

- Tree Management Policy 2024-2032
- Framework for the Installation of Renewable Technologies in Council-Owned Properties
- Biodiversity Net Gain
- Citywide Retrofit Strategy
- Tree Planting
- Energy Generation/Solar Potential on Council Buildings

Cabinet's responses to recommendations were presented to the Scrutiny Committee at its informal remote meeting on 02 July 2024 for noting.

The Panel is asked to:

1. **Note** Cabinet's responses to its recommendations.
2. **Note and comment on** the recommendation tracker.

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7 Net Zero Masterplan

61 - 66

The Environmental Sustainability Lead has submitted the Net Zero Masterplan 2023-25 which sets out Oxford City Council's actions over the next two years to achieve its two carbon targets: a Net Zero Estate and Operations by 2030 and a Net Zero City by 2040.

The Panel is asked to consider the Net Zero Masterplan and agree any recommendations.

8 Annual Air Quality Status Report

67 - 162

The Principal Air Quality Officer has submitted the Annual Air Quality Status Report, including the Executive Summary recommended by the Climate and Environment Panel following consideration of last year's report. Cllr Anna Railton, Deputy Leader (Non-Statutory) and Cabinet Member for Zero Carbon Oxford and Pedro Abreu, Principal Air Quality Officer have been invited to present the report and answer questions. The Panel is asked to consider the report and agree any recommendations.

9 Local Area Energy Planning and Mitigation Measures Regarding Local Grid Constraints [presentation]

At its meeting on 27 February 2024, the Climate and Environment Panel requested that a more detailed item on local area energy planning and mitigation measures regarding local grid constraints be submitted to the Panel at a future meeting at the appropriate time.

The Panel is asked to receive a presentation followed by an opportunity for discussion; and to agree any recommendations.

Note: The presentation will not be available to review before the meeting; any slides will be published with the minutes of the meeting.

10 Zero Carbon Oxford Partnership (ZCOP) Expansion

163 - 168

The Head of Corporate Strategy has submitted a report setting out the work of the Zero Carbon Oxford Partnership (ZCOP) and ambition of its corporate members to expand focus from a City to an Oxfordshire scale. Cllr Anna Railton, Deputy Leader (Non-Statutory) and Cabinet Member for Zero Carbon Oxford and Mish Tullar, Head of Corporate Strategy have been invited to present the report and answer questions. The Panel is asked to consider the report and agree any recommendations.

11 Dates of future meetings

The Panel is asked to note the dates and times of future meetings of the Climate and Environment Panel.

- 20 November 2024, 6pm
- 26 February 2025, 6pm
- 27 March 2025, 6pm

Meetings will take place remotely via Zoom.

Information for those attending

Recording and reporting on meetings held in public

Members of public and press can record, or report in other ways, the parts of the meeting open to the public. You are not required to indicate in advance but it helps if you notify the Committee Services Officer prior to the meeting so that they can inform the Chair and direct you to the best place to record.

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- To follow the protocol which can be found on the Council's website
- Not to disturb or disrupt the meeting
- Not to edit the recording in a way that could lead to misinterpretation of the proceedings. This includes not editing an image or views expressed in a way that may ridicule or show a lack of respect towards those being recorded.
- To avoid recording members of the public present, even inadvertently, unless they are addressing the meeting.

Please be aware that you may be recorded during your speech and any follow-up. If you are attending please be aware that recording may take place and that you may be inadvertently included in these.

The Chair of the meeting has absolute discretion to suspend or terminate any activities that in his or her opinion are disruptive.

Councillors declaring interests

General duty

You must declare any disclosable pecuniary interests when the meeting reaches the item on the agenda headed "Declarations of Interest" or as soon as it becomes apparent to you.

What is a disclosable pecuniary interest?

Disclosable pecuniary interests relate to your* employment; sponsorship (ie payment for expenses incurred by you in carrying out your duties as a councillor or towards your election expenses); contracts; land in the Council's area; licenses for land in the Council's area; corporate tenancies; and securities. These declarations must be recorded in each councillor's Register of Interests which is publicly available on the Council's website.

Declaring an interest

Where any matter disclosed in your Register of Interests is being considered at a meeting, you must declare that you have an interest. You should also disclose the nature as well as the existence of the interest. If you have a disclosable pecuniary interest, after having declared it at the meeting you must not participate in discussion or voting on the item and must withdraw from the meeting whilst the matter is discussed.

Members' Code of Conduct and public perception

Even if you do not have a disclosable pecuniary interest in a matter, the Members' Code of Conduct says that a member "must serve only the public interest and must never improperly confer an advantage or disadvantage on any person including yourself" and that "you must not place yourself in situations where your honesty and integrity may be questioned". The matter of interests must be viewed within the context of the Code as a whole and regard should continue to be paid to the perception of the public.

Members Code – Other Registrable Interests

Where a matter arises at a meeting which directly relates to the financial interest or wellbeing** of one of your Other Registerable Interests*** then you must declare an

interest. You must not participate in discussion or voting on the item and you must withdraw from the meeting whilst the matter is discussed.

Members Code – Non Registrable Interests

Where a matter arises at a meeting which ***directly relates*** to your financial interest or wellbeing (and does not fall under disclosable pecuniary interests), or the financial interest or wellbeing of a relative or close associate, you must declare the interest.

Where a matter arises at a meeting which affects your own financial interest or wellbeing, a financial interest or wellbeing of a relative or close associate or a financial interest or wellbeing of a body included under Other Registrable Interests, then you must declare the interest.

You must not take part in any discussion or vote on the matter and must not remain in the room, if you answer in the affirmative to this test:

> "Where a matter affects the financial interest or well-being:
>
> a. to a greater extent than it affects the financial interests of the majority of inhabitants of the ward affected by the decision and;
>
> b. a reasonable member of the public knowing all the facts would believe that it would affect your view of the wider public interest You may speak on the matter only if members of the public are also allowed to speak at the meeting."

Otherwise, you may stay in the room, take part in the discussion and vote.

*Disclosable pecuniary interests that must be declared are not only those of the member her or himself but also those member's spouse, civil partner or person they are living with as husband or wife or as if they were civil partners.

** Wellbeing can be described as a condition of contentedness, healthiness and happiness; anything that could be said to affect a person's quality of life, either positively or negatively, is likely to affect their wellbeing.

*** Other Registrable Interests: a) any unpaid directorships b) any Body of which you are a member or are in a position of general control or management and to which you are nominated or appointed by your authority c) any Body (i) exercising functions of a public nature (ii) directed to charitable purposes or (iii) one of whose principal purposes includes the influence of public opinion or policy (including any political party or trade union) of which you are a member or in a position of general control or management.

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Minutes of a meeting of the Climate and Environment Panel (Panel of the Scrutiny Committee) on Tuesday 11 June 2024

Committee members present:

Councillor Kerr (Chair)
Councillor Harley
Councillor Hunt
Councillor Miles

Officers present for all or part of the meeting:

Tom Bridgman, Executive Director (Development)
Tina Mould, Environmental Sustainability Lead
Juliet Nicholas, Energy and Sustainability Manager
Chris Leyland, Tree Officer
Giles Mercer, External Consultant
Dealga O'Callaghan, External Consultant
Alice Courtney, Scrutiny Officer

Also present:

Councillor Nigel Chapman, Cabinet Member for Citizen Focused Services and Council Companies
Councillor Anna Railton, Deputy Leader, Cabinet Member for Zero Carbon Oxford
Councillor Ed Turner, Deputy Leader (Statutory) - Finance and Asset Management

Apologies:

None.

1. Declarations of Interest

None.

2. Chair's Announcements

None.

3. Notes of the previous meeting

The Panel agreed the notes of the meeting held on 20 March 2024 as a true and accurate record.

Cllr Miles joined the meeting.

The Panel agreed to consider items 7 (Tree Management Policy 2024-2032), 8 (Framework for the installation of renewable technologies in Council owned properties) and 9 (HRA Energy Efficiency Projects 2024/25) next on the agenda, followed by items 5 (Climate and Environment Panel Work Plan), 6 (report back on recommendations) and 10 (dates of future meetings).

4. Tree Management Policy 2024-2032

Cllr Nigel Chapman, Cabinet Member for Citizen Focused Services and Council Companies introduced the report. The report set out an updated Tree Management Policy which detailed the Council's policy regarding management of its tree stock and sought to align the Council's approach to tree management with current standards and good practice.

Tom Bridgman, Executive Director (Development) added that this policy formed part of a wider ongoing piece of work around the Council ensuring it had a clear clienting position with Oxford Direct Services.

In response to questions, the Panel was advised that:

- The policy aimed to emphasise the need to maintain trees at all costs, however the wording could be reviewed to see if it could be strengthened. Cllr Hunt had some suggested amendments to the wording which would be sent to the Cabinet Member and officers after the meeting.
- The decision as to whether to grind a tree stump out would be down to the contractor (ODS) on a case-by-case basis; there was not a standard approach set out in the policy.
- When surveys were undertaken on City Council owned trees, consideration would be given as to the impact of the tree on hard surfaces (e.g. pavements).
- Replacement trees could not always be planted in the exact same location as trees that had been felled.
- Trees with a circumference of 16-18cm established more quickly than more mature trees, which was why smaller trees were planted to replace mature trees.
- Oxford Direct Services was contractually required to care for new trees which it planted.
- Oxford Direct Services needed to be commissioned by the relevant body (namely Oxfordshire County Council) to plant trees in empty tree pits; it could not plant trees of its own accord.
- The Tree Management Policy was designed to have a very narrow, specific scope.
- The Cabinet Member and officers could further consider how the previous recommendation of the Panel could be further embedded into the policy. The previous recommendation was *'that the Council, when it reviews its policies, explores how it could incentivise, promote and encourage the planting, retention and renewal of trees through those policies – particularly within Planning and Licensing'.*
- In relation to the recommendation: *'that the Council, when it reviews its policies, explores how it could incentivise, promote and encourage the planting, retention and renewal of trees through those policies – particularly within Planning and Licensing'*, this would be considered at the next review of the Urban Forest Strategy; it would not be considered through the Tree Management Policy as the draft Cabinet response suggested.

- In the event that an individual/group was dissatisfied with tree management activity, the usual Council complaints process should be followed.
- The relevant Cabinet Member would be kept appraised of reporting on tree felling and maintenance; other Members could ask questions related to tree management at Full Council meetings if they wished.
- The Tree Management Policy could not supersede Planning documents such as the Local Plan.

The Panel agreed to recommend to Cabinet that:

1. The Council makes an explicit commitment within Policy ST8 of the Tree Management Policy 2024-2023 that it will plant replacement trees in the same location as the tree that was felled wherever possible and/or practicable to do so.
2. The Council ensures clarity within the Tree Management Policy 2024-2032 on why it plants trees in the way that it does – including cross-referencing with other documents to ensure the broad rationale is articulated within the Tree Management Policy 2024-2032 for context.
3. The Council, within Policy TP5 of the Tree Management Policy 2024-2032, clarifies its approach to managing conflicts between existing trees and hard surfaces (in addition to its approach to managing conflicts between new trees and hard surfaces), including specific reference to standard proactive methodologies used to address those conflicts.
4. The Council explicitly recognises the need to work in partnership with the County Council and/or Highways on street tree issues and includes a reference to this within the Tree Management Policy 2024-2032.
5. The Council contextualises the number of street trees it owns within the Tree Management Policy 2024-2032.
6. The Council expands section 6 of the Tree Management Policy 2024-2032 (communication with the public, stakeholders and Members) to set out the Council's commitment to encouraging local residents and groups to come forward with proposals related to tree planting and maintenance and the Council's approach to facilitating and responding to such proposals.
7. The Council explores how other local authorities have sought to incentivise, promote and encourage the planting, retention and renewal of trees on private land through their policies, particularly in relation to HMOs and Selective Licensing, to inform future updates to the Council's Urban Forest Strategy.
8. The Council explicitly recognises the importance of mature trees within the Tree Management Policy 2024-2032 and highlights the need for the Planning process to be sympathetic to mature and existing trees.

Cllr Nigel Chapman, Cabinet Member for Citizen Focused Services and Council Companies, Tom Bridgman, Executive Director (Development), Chris Leyland, Tree Officer, Giles Mercer, External Consultant and Dealga O'Callaghan, External Consultant left the meeting and did not return.

5. Framework for the Installation of Renewable Technologies in Council Owned Properties

Cllr Ed Turner, Deputy Leader (Statutory) and Cabinet Member for Finance and Asset Management introduced the report, which sought Cabinet approval to establish a Framework for the provision and installation of renewable technologies to Council owned properties. The aim of the Framework was to ensure efficient procurement

processes which remained open and transparent, while enabling the Council to procure quickly.

In response to questions, the Panel was advised that:

- There was confidence that there would be enough interest from providers for the Framework; and the market continued to grow.
- The contract award criteria had not yet been finalised, consideration could be given to the weightings afforded to suppliers (e.g. for local suppliers versus national suppliers) in line with the legal requirements which applied to procurement processes.
- Existing HRA energy efficiency projects would not be delayed as a result of establishing the Framework; the Framework would allow for projects to be progressed more quickly.
- The Framework budget had an upper ceiling of £30m.
- The Framework proposal was effectively in response to a previous recommendation of the Panel: *'That the Council explores the full range of procurement options for the delivery of the projects, including alternative suppliers and the possibility of establishing medium-to-long term relationships with suppliers, contractors and sub-contractors.'*
- The Council was on track to achieve its aim of having 95% of Council housing stock at EPC C or better by 2030.

The Panel agreed to recommend to Cabinet that:

1. Through the Framework and more broadly across the Council's procurement processes, the Council encourages the submission of bids from suppliers which are representative of the local population of Oxford, particularly those with strong female and ethnic minority representation, to ensure that 'green growth' is as inclusive as possible.

Cllr Ed Turner, Deputy Leader (Statutory) and Cabinet Member for Finance and Asset Management left the meeting and did not return.

6. HRA Energy Efficiency Projects 2024/25

Cllr Anna Railton, Deputy Leader (Non-Statutory) and Cabinet Member for Zero Carbon Oxford introduced the report, which sought Cabinet approval for HRA Energy Efficiency projects for the 2024/25 financial year and delegated authority to award the necessary contracts. Juliet Nicholas, Energy and Sustainability Manager added that this report went hand-in-hand with the preceding report on the Framework.

In response to questions, the Panel was advised that:

- The timetable for achieving a full set of EPCs for Council owned properties was still under development; it was confirmed that an update on the timetable would be provided at the Panel's next meeting in September 2024.
- An Equalities Impact Assessment would be completed for each individual project; however the assessment would primarily consider the property rather than people. Where residents had particular vulnerabilities, these would be considered in the usual way.
- There had been instances of residents refusing access to their properties; it was hoped that these issues could be addressed by establishing show homes and via education and resident liaison.

- The additional budget required for ground source heat pumps in the additional block of flats would be funded by budget rollover from 2023/24.
- It was deemed that a risk register was not necessary for this report.
- The impact of installing energy efficiency on residents would be assessed through looking at the impact on their bills prior to installation; a monitoring mechanism would be installed when the energy efficiency measures were installed to ensure systems performed as they should and to inform advice to residents on usage.

The Panel requested that an update on the timetable for achieving a full set of EPCs on Council owned properties be provided at the Panel's next meeting in September 2024.

The Panel noted the contents of the report; no recommendations were agreed.

Cllr Anna Railton, Deputy Leader (Non-Statutory) and Cabinet Member for Zero Carbon Oxford and Juliet Nicholas, Energy and Sustainability Manager left the meeting and did not return.

7. Climate and Environment Panel Work Plan

The Scrutiny Officer introduced the item; a provisional Work Plan and suggestions for the longlist of Scrutiny-commissioned reports for 2024/25 were included within the agenda pack. A number of items from the longlist had already been scheduled into the Work Plan, along with a number of items arising from the Panel's work in the previous year.

The Panel requested that the Scrutiny Officer explore with officers the feasibility of scheduling in the following additional items to the Work Plan for 2024/25:

- Loss and Damage to the Council as a result of climate change (e.g. costs incurred by the Council as a result of recent flooding) and how this could be addressed/funded.
- Energy efficiency in the Council's commercial property portfolio, including potential for repurposing Council car parks (e.g. as active travel hubs).

In relation to the 'loss and damage' item suggested, Tina Mould, Environmental Sustainability Lead advised that the County Council was doing a piece of work around climate adaptation; when that had concluded then officers would do some work from a City Council perspective, however this was unlikely to be until 2025. The Panel requested that an update be provided to the Panel at its meeting in September 2024 as to the County Council's progress and a timeline for when a more detailed update including the City Council's work could be presented to the Panel as a substantive item.

The Panel was of the view that the 'loss and damage' suggestion was separate to the work being carried out by the County Council on climate adaptation and requested that the Scrutiny Officer still explore the feasibility of an item on this matter being considered by the Panel in 2024/25.

Tina Mould, Environmental Sustainability Lead advised that the energy efficiency in the Council's commercial property portfolio and potential for repurposing Council car parks would likely sit under the Council's Asset Management Strategy.

The Panel agreed the Work Plan as set out in the agenda pack, noting that the Scrutiny Officer would seek to schedule in additional items as detailed above.

8. Report back on recommendations

Cabinet had not considered or made responses to any Climate and Environment Panel recommendations since the previous report back on recommendations on 27 February 2024. All outstanding responses to recommendations would be reported on at a future Panel meeting.

The Scrutiny Officer introduced the recommendation tracker, which set out all Panel recommendations to date since the Panel was first established, Cabinet responses to recommendations and whether or not the Panel was continuing to monitor recommendations. The Panel noted that it may be necessary to move the recommendations which were no longer being monitored into a different tab within the document to avoid the tracker becoming too long, but the Panel agreed to keep this under review at subsequent meetings.

The Panel noted the recommendation tracker.

9. Dates of future meetings

The Panel noted the dates and times of future meetings.

The Panel agreed, subject to Cllr Harley confirming her availability after the meeting, to move the meeting scheduled for 05 September to 10 September and requested that the Scrutiny Officer make the relevant arrangements.

The meeting started at 6.00 pm and ended at 7.44 pm

Chair …….. **Date: Tuesday 10 September 2024**

When decisions take effect:
Cabinet: after the call-in and review period has expired
Planning Committees: after the call-in and review period has expired and the formal decision notice is issued
All other committees: immediately.
Details are in the Council's Constitution.

Climate and Environment Panel Work Plan

NB This work plan is provisional and is subject to change. Changes made outside meetings are agreed between the Scrutiny Officer and the Chair.

Cabinet items beyond two months in advance are not included on the work plan owing to the greater potential they will move or alternative items of higher priority arise in the meantime.

10 September 2024 – confirmed reports

Agenda item	Cabinet item	Description	Cabinet portfolio	Lead officer
Net Zero Masterplan	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
Annual Air Quality Status Report	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
Local Area Energy Planning and Mitigation Measures Regarding Local Grid Constraints	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
ZCOP Expansion Plans	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy

20 November 2024 – provisional reports

Agenda item	Cabinet item	Description	Cabinet portfolio	Lead officer
Net Zero Masterplan	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy

Eco-moorings Project Update [presentation]	No	To receive a presentation followed by an opportunity for discussion; and to agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
High-level challenges and constraints impacting on the deliverability of solar opportunities at Council car parks	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
Local Nature Recovery Strategy	No	To consider the item and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy

26 February 2025 – provisional reports

Agenda item	Cabinet item	Description	Cabinet portfolio	Lead officer
Net Zero Masterplan	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
Update/overview of work on the Waste Review	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
Heat Networks & Zoning	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy
Development of a Biodiversity Strategy Update	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford	Mish Tullar, Head of Corporate Strategy

27 March 2025 – provisional reports

Agenda item	Cabinet item	Description	Cabinet portfolio	Lead officer
Net Zero Masterplan	No	To consider the report and agree any recommendations.	Cabinet Member for Zero Carbon Oxford and Climate Justice	Mish Tullar, Head of Corporate Strategy
2024-25 Year in Review	No	To consider the report, reflect on the Panel's work and assess impact during 2024/25 and consider where the Panel could add more value going forward.	N/A	N/A

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To:	**Cabinet**
Date:	**12 June 2024**
Report of:	**Climate and Environment Panel**
Title of Report:	**Tree Management Policy 2024-2032**

Summary and recommendations	
Purpose of report:	To present Panel of the Scrutiny Committee recommendations for Cabinet consideration and decision
Key decision:	Yes
Scrutiny Lead Member:	Councillor Emily Kerr, Panel Chair
Cabinet Member:	Councillor Nigel Chapman, Cabinet Member for Citizen Focused Services and Council Companies
Corporate Priority:	Support Thriving Communities
Policy Framework:	Council Strategy 2020-24
Recommendation(s): That the Cabinet states whether it agrees or disagrees with the recommendations in the body of this report	

Appendices	
Appendix A	Draft Cabinet response to Scrutiny recommendations

Introduction and overview

1. The Climate and Environment Panel met on 11 June 2024 to consider a report on the Tree Management Policy 2024-2032. The report, which is due for Cabinet consideration on 12 June 2024, recommends that Cabinet adopts the Tree Management Policy 2024-2032 and delegates authority to the Executive Director (Development) in consultation with the Cabinet Member for Citizen Focused Services and Council Companies to make any minor, non-substantive changes to the policy.

2. The Panel would like to thank Councillor Nigel Chapman (Cabinet Member for Citizen Focused Services and Council Companies), Tom Bridgman (Executive Director (Development)), Chris Leyland (Tree Officer), Tina Mould (Environmental Sustainability Lead), Dealga O'Callaghan (External Consultant) and Giles Mercer (External Consultant) for attending the meeting to answer questions.

Summary and recommendations

3. Councillor Nigel Chapman, Cabinet Member for Citizen Focused Services and Council Companies introduced the report. The report set out an updated Tree Management Policy which detailed the Council's policy regarding management of its tree stock and sought to align the Council's approach to tree management with current standards and good practice.

4. The Panel asked a range of questions, including questions relating to recognising the importance of mature trees; the Council's approach in relation to tree stumps and roots; the intersection between the City Council and County Highways in relation to certain tree-related issues; replacement trees when trees were felled; resourcing, particularly in relation to caring for newly planted trees; street trees; how the policy related to previous recommendations made by the Panel; the Urban Forest Strategy; and monitoring and reporting against the proposed policy.

5. The Panel noted that the draft Cabinet response to its recommendation dated 20 March 2024: *'that the Council, when it reviews its policies, explores how it could incentivise, promote and encourage the planting, retention and renewal of trees through those policies – particularly within Planning and Licensing'* was that this recommendation would be considered as part of the Council's review and updating of the Tree Management Policy. In response to questions as to how this recommendation had been addressed in the revised policy, the Panel was informed that this would in fact be considered through the Urban Forest Strategy when it was next updated.

6. During discussion, the Panel raised concerns that when trees were felled, a replacement tree was not necessarily planted in the same location. While noting that sometimes it was not possible to plant a replacement tree in the exact same location as the tree that was felled, the Panel agreed that the Council should state its commitment within the policy to planting replacement trees in the same location wherever possible/practicable to do so.

Recommendation 1: That the Council makes an explicit commitment within Policy ST8 of the Tree Management Policy 2024-2023 that it will plant replacement trees in the same location as the tree that was felled wherever possible and/or practicable to do so.

7. The Panel also noted the importance of tree absorption in terms of roots absorbing water, which helped to alleviate flooding and drainage issues. While the Panel recognised that the policy referenced the need to utilise linear planting pits to enable sustainable urban drainage systems (policy TP6), it felt that the policy would benefit from clarifying why the Council chooses to plant trees in the way that it does – for example if tree planting was to support sustainable urban drainage systems, or if planting trees with a circumference of 16-18cm was due to the fact that they establish much better than more mature trees, then this should be drawn out more clearly within the policy. The Panel understood that some of this was articulated in separate documents, but agreed that cross-referencing between those documents and the policy would be useful for the average reader of the policy as it would add useful context.

Recommendation 2: That the Council ensures clarity within the Tree Management Policy 2024-2032 on why it plants trees in the way that it does – including cross-referencing with other documents to ensure the broad rationale is articulated within the Tree Management Policy 2024-2032 for context.

8. The Panel highlighted that policy TP5 related to management of conflicts between new trees and hard surfaces, but there was no reference within the policy to the management of conflicts between *existing* trees and hard surfaces. Members noted that there were a number of such conflicts between existing trees and hard surfaces across the City which the policy did not address. The Panel agreed that policy TP5 should be expanded to also address conflicts involving existing trees and set out standard proactive methodologies for addressing such conflicts. The Panel was of the view that standard methodologies could be incorporated in such a way that still allowed for a degree of flexibility in the management of conflicts.

   Recommendation 3: That the Council, within Policy TP5 of the Tree Management Policy 2024-2032, clarifies its approach to managing conflicts between existing trees and hard surfaces (in addition to its approach to managing conflicts between new trees and hard surfaces), including specific reference to standard proactive methodologies used to address those conflicts.

9. The Panel appreciated that the scope of the policy was narrow and focused primarily on trees owned and controlled by the City Council. However, it noted that some tree issues, particularly street tree issues, required an element of partnership working with the County Council and/or Highways which was not currently recognised in the policy. For example, where a City Council owned tree's roots were causing issues with paving, there was an intersection between City and County Council responsibilities that required collaboration. The Panel agreed that this appeared to be a significant omission and it would be beneficial for explicit reference to partnership working to be included within the policy.

   Recommendation 4: That the Council explicitly recognises the need to work in partnership with the County Council and/or Highways on street tree issues and includes a reference to this within the Tree Management Policy 2024-2032.

10. During discussion, the Panel was informed that the Council owned very few street trees; the majority of street trees were owned by the County Council. The Panel noted that there were policies within the Tree Management Policy 2024-2032 which related specifically to street trees and was of the view that it would be helpful if the number of street trees owned by the City Council was contextualised within the policy. The Panel did not necessarily think an exact number was required, as it recognised that the number could change and become out of date very quickly, but it agreed that the Council could include a range (e.g. 1-5, 1-20, 1-50, 1-100).

    Recommendation 5: That the Council contextualises the number of street trees it owns within the Tree Management Policy 2024-2032.

11. The Panel referenced a recommendation made at its previous meeting on 20 March 2024: *'that the Council, when it reviews its policies, explores how it could incentivise, promote and encourage the planting, retention and renewal of trees through those policies – particularly within Planning and Licensing'*. The draft Cabinet response stated that this recommendation would be considered as part of

the Tree Management Policy 2024-2032; but in discussion the Panel was informed that the recommendation would in fact be considered through the next update of the Urban Forest Strategy. The Panel accepted this, however noted that section 6 of the policy related to communication with the public, stakeholders and Members – and recognised that there was an opportunity to expand that section to include explicit information on the Council's commitment to encouraging local residents and groups to come forward with proposals and the Council's approach to facilitating and responding to those proposals.

12. In relation to the same recommendation previously made by the Panel on 20 March 2024 (*referenced in paragraph 11 above*), the Panel discussed that the recommendation was made, in part, in relation to HMOs and Selective Licensing as these were policies that the Council had control over. The Panel agreed that it would be useful for the Council to explore how other local authorities had sought to incentivise, promote and encourage the planting, retention and renewal of trees on private land through their policies, particularly in relation to HMOs and Selective Licensing. The Panel was of the view that the findings could usefully feed into the next update of the Urban Forest Strategy.

    Recommendation 6: That the Council expands section 6 of the Tree Management Policy 2024-2032 (communication with the public, stakeholders and Members) to set out the Council's commitment to encouraging local residents and groups to come forward with proposals related to tree planting and maintenance and the Council's approach to facilitating and responding to such proposals.

    Recommendation 7: That the Council explores how other local authorities have sought to incentivise, promote and encourage the planting, retention and renewal of trees on private land through their policies, particularly in relation to HMOs and Selective Licensing, to inform future updates to the Council's Urban Forest Strategy.

13. The Panel considered that references to Planning appeared to be missing from the policy and was concerned that there was no reference to the importance of mature trees – nor the need for Planning to be sympathetic to mature and existing trees. The Panel recognised that the policy could not supersede other documents (e.g. the Local Plan), but agreed that the policy could address these two points without superseding other documents or shifting the focus of the policy.

    Recommendation 8: That the Council explicitly recognises the importance of mature trees within the Tree Management Policy 2024-2032 and highlights the need for the Planning process to be sympathetic to mature and existing trees.

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Appendix A
Draft Cabinet response to recommendations of the Climate and Environment Panel of the Scrutiny Committee

The document sets out the draft response of the Cabinet Member to recommendations made by the Climate and Environment Panel on 11 June 2024 concerning the Tree Management Policy 2024-2032. The Cabinet is asked to amend and agree a formal response as appropriate.

Recommendation	***Agree?***	***Comment***
1) That the Council makes an explicit commitment within Policy ST8 of the Tree Management Policy 2024-2023 that it will plant replacement trees in the same location as the tree that was felled wherever possible and/or practicable to do so.	Yes	Yes, although it needs to be both possible and practicable, so we propose to remove to "or", so it would read "wherever possible and practicable to do so".
2) That the Council ensures clarity within the Tree Management Policy 2024-2032 on why it plants trees in the way that it does – including cross-referencing with other documents to ensure the broad rationale is articulated within the Tree Management Policy 2024-2032 for context.	Yes	Agreed.
3) That the Council, within Policy TP5 of the Tree Management Policy 2024-2032, clarifies its approach to managing conflicts between existing trees and hard surfaces (in addition to its approach to managing conflicts between new trees and hard surfaces), including specific reference to standard proactive methodologies used to address those conflicts.	Yes	Agreed. Where the Council owns existing street trees the assessment of any conflicts with hard surfaces will be picked up proactively as part of cyclical surveying. We will refer to the standards for doing this.

4) That the Council explicitly recognises the need to work in partnership with the County Council and/or Highways on street tree issues and includes a reference to this within the Tree Management Policy 2024-2032.	No	The City Council will always work in partnership with relevant statutory undertakers. However, we need to be clear that this policy is focused on trees within the City Council's ownership, and not trees that the County Council is responsible for. There is a danger that a reference to the County Council would confuse this matter.
5) That the Council contextualises the number of street trees it owns within the Tree Management Policy 2024-2032.	Yes	Agreed.
6) That the Council expands section 6 of the Tree Management Policy 2024-2032 (communication with the public, stakeholders and Members) to set out the Council's commitment to encouraging local residents and groups to come forward with proposals related to tree planting and maintenance and the Council's approach to facilitating and responding to such proposals.	Yes	Agreed.
7) That the Council explores how other local authorities have sought to incentivise, promote and encourage the planting, retention and renewal of trees on private land through their policies, particularly in relation to HMOs and Selective Licensing, to inform future updates to the Council's Urban Forest Strategy.	Yes	Agreed.
8) That the Council explicitly recognises the importance of mature trees within the Tree Management Policy 2024-2032 and highlights the need for the Planning process to be sympathetic to mature and existing trees.	In Part	The policy will be updated to recognise the importance of mature trees. However, it is for planning policy to set out how trees are dealt with through the planning process, not this tree management policy, so this element cannot be agreed.

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To:	**Cabinet**
Date:	**12 June 2024**
Report of:	**Climate and Environment Panel**
Title of Report:	**Framework for Installation of Renewable Technologies for Council Owned Properties**

Summary and recommendations	
Purpose of report:	To present Panel of the Scrutiny Committee recommendations for Cabinet consideration and decision
Key decision:	Yes
Scrutiny Lead Member:	Councillor Emily Kerr, Panel Chair
Cabinet Member:	Councillor Linda Smith, Cabinet Member for Housing and Communities Councillor Ed Turner, Deputy Leader (Statutory) and Cabinet Member for Finance and Asset Management
Corporate Priority:	Pursue a Zero Carbon Oxford; Support Thriving Communities
Policy Framework:	Council Strategy 2020-24; Housing, Homelessness and Rough Sleeping Strategy 2023-2028
Recommendation(s): That the Cabinet states whether it agrees or disagrees with the recommendations in the body of this report	

Appendices	
Appendix A	Draft Cabinet response to Scrutiny recommendations

Introduction and overview

1. The Climate and Environment Panel met on 11 June 2024 to consider a report on the Framework for installation of renewable technologies for Council owned properties. The report, which is due for Cabinet consideration on 12 June 2024, recommends that Cabinet grants approval for the Council to establish a Renewable Technologies Framework under the Public Contracts Regulations 2015 (or successor legislation) for the installation of renewable technologies in Council owned properties and delegates authority to the Executive Director (Communities and People) to agree the final structure of the Framework, appoint successful suppliers

to all lots on the Framework and procure and award contracts over £1m procured through the Framework.

2. The Panel would like to thank Councillor Ed Turner (Deputy Leader (Statutory) and Cabinet Member for Finance and Asset Management), Juliet Nicholas (Energy & Sustainability Manager) and Tina Mould (Environmental Sustainability Lead) for attending the meeting to answer questions.

Summary and recommendations

3. Councillor Ed Turner, Deputy Leader (Statutory) and Cabinet Member for Finance and Asset Management introduced the report. The report sought Cabinet approval to establish a Framework for the provision and installation of renewable technologies to Council owned properties and relevant delegations of authority to the Executive Director (Communities and People). The establishment of a Framework was intended to enable the Council to procure in a more efficient manner in relation to provision and installation of renewable technologies in Council owned properties, while also ensuring that the procurement process remained open and transparent.

4. The Panel asked a range of questions, including questions relating to whether there was sufficient supply of providers to meet demand; whether local suppliers would be given additional weight within the procurement process; diversity and inclusion; whether establishment of the Framework would cause delay in projects already underway or committed to; whether the Framework's upper ceiling of £30m was accounted for in the Council's budget; how previous Panel recommendations had fed into the Framework proposal; and whether the Council was on track to achieve its target of getting 95% of its housing stock to an EPC C or above by 2030.

5. In particular, the Panel was interested to understand whether there was sufficient supply of providers to meet demand. The Panel was advised that there were providers within Oxford and nationally; the intention was that the Framework would go out to the open market to attract as many providers as possible. Assurance was provided that the renewable market was growing and so there was confidence that there would be enough interest from providers for the Framework. In response to further questions, the Panel was informed that the award criteria for the Framework had not yet been finalised; consideration could be given as to whether local suppliers should be afforded additional weight in the procurement process. The Panel was assured that requirements related to the Oxford Living Wage and social value would be included as standard.

6. The Panel discussed the need to ensure that 'green growth' was as inclusive as possible, both through the Framework and more broadly across the Council's procurement processes. While recognising that there were legal restrictions around how the Council's procurement processes were put into practice, the Panel was of the view that the Council should be aiming to actively encourage the submission of bids from suppliers who represented the local population, including suppliers with strong female and ethnic minority representation.

Recommendation 1: That, through the Framework and more broadly across the Council's procurement processes, the Council encourages the submission of bids from suppliers which are representative of the local population of Oxford, particularly those with strong female and ethnic minority representation, to ensure that 'green growth' is as inclusive as possible.

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Appendix A
Draft Cabinet response to recommendations of the Climate and Environment Panel of the Scrutiny Committee

The document sets out the draft response of the Cabinet Member to recommendations made by the Climate and Environment Panel on 11 June 2024 concerning the Framework for the Installation of Renewable Technologies in Council Owned Properties. The Cabinet is asked to amend and agree a formal response as appropriate.

Recommendation	***Agree?***	***Comment***
1) That, through the Framework and more broadly across the Council's procurement processes, the Council encourages the submission of bids from suppliers which are representative of the local population of Oxford, particularly those with strong female and ethnic minority representation, to ensure that 'green growth' is as inclusive as possible.	Yes	Consideration will be made when creating the Framework with criteria included around social value and equality but keeping within the legal requirements which apply to procurement processes and the principal aim of procuring high-quality goods and services at best value to the taxpayer.

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To:	**Cabinet**
Date:	**17 April 2024**
Report of:	**Climate and Environment Panel**
Title of Report:	**Biodiversity Net Gain**

Summary and recommendations	
Purpose of report:	To present Panel of the Scrutiny Committee recommendations for Cabinet consideration and decision
Key decision:	No
Scrutiny Lead Member:	Councillor Alex Hollingsworth, Panel Chair
Cabinet Member:	Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice
Corporate Priority:	Pursue a Zero Carbon Oxford
Policy Framework:	Council Strategy 2020-24
Recommendation: That the Cabinet states whether it agrees or disagrees with the recommendations in the body of this report.	

Appendices	
Appendix A	Draft Cabinet response to recommendations of the Scrutiny Committee

Introduction and overview

1. The Climate and Environment Panel met on 27 February 2024 to consider a Scrutiny-commissioned item on Biodiversity Net Gain. It was recommended that the Panel receive a presentation followed by an opportunity for discussion; and agree any recommendations.

2. The Panel would like to thank Councillor Anna Railton (Cabinet Member for Zero Carbon Oxford and Climate Justice) and Tristan Carlyle (Ecology Officer) for attending the meeting to present and answer questions.

Summary and recommendations

3. Tristan Carlyle, Ecology Officer delivered a presentation which set out an overview of Biodiversity Net Gain, including the statutory regulations and

national guidance; monitoring arrangements; Biodiversity Gain Plans; and identification of Council land for Biodiversity Net Gain purposes.

4. The Panel asked a range of questions, including questions relating to the development of the offsite Biodiversity Net Gain market; monitoring guidance; responsibility for monitoring of offsite arrangements; 'stacking' of biodiversity and carbon offsetting on the same site; the scope of the project to identify Council land for Biodiversity Net Gain purposes; and the interaction of statutory credits with viability calculations during the Planning process.

5. The presentation highlighted that the monitoring arrangements in relation to Biodiversity Net Gain were not well established, with DEFRA and Natural England deliberately avoiding being prescriptive. The Panel was advised that a great deal of the monitoring arrangements would be left to the discretion of Local Planning Authorities (i.e. individual councils). During discussion on this matter, the Panel queried whether or not the Council intended to produce monitoring guidance and, if so, the timetable for producing such guidance.

6. In response, the Panel was informed that there was no requirement for the Council to produce guidance on monitoring and it could prove quite difficult as there was a need to ensure there was flexibility to account for different approaches to Biodiversity Net Gain. However, it was noted that there may be scope to produce limited guidance in relation to onsite Biodiversity Net Gain, which would be more beneficial if agreed on a countywide basis. In addition, the Panel sought clarity on responsibility for monitoring offsite Biodiversity Net Gain in terms of whether the local authority where the development was located was responsible for monitoring, or whether it was the local authority area which hosted the offsite biodiversity unit(s); the Panel suggested that this could be incorporated into guidance.

7. Following discussion, the Panel was of the view that, despite there being no formal requirement for the Council to produce monitoring guidance, it would be useful for guidance to be established. In order to enable consistency across Oxfordshire in terms of type and frequency of monitoring, the Panel agreed it would be of benefit for countywide guidance to be produced.

   Recommendation 1: That the Council coordinates with the other Oxfordshire Districts to establish basic Biodiversity Net Gain monitoring guidance for certain habitats to ensure a consistent set of principles and processes across the county.

8. The presentation also highlighted the slow and patchy development of offsite biodiversity units, which was as a result of the nature of biodiversity offsetting model required under the statutory regulations. The regulations required that any offsite biodiversity offsetting must specify what the offsetting would provide at the point at which the money was paid for the biodiversity unit. The Panel noted that a project was underway to identify Council-owned land with the potential to provide biodiversity units. The Panel sought clarification of the scope of this project in terms of size of land being considered and current use (e.g. was wall and roof potential in scope, for instance) and was advised that, in theory, biodiversity units could be delivered on any type of land. Size of land was, however, an important consideration and the aim would be to first identify larger

sites as it would be more difficult to deliver biodiversity units across a large number of smaller sites. Land was currently being identified by the Corporate Assets team.

9. During discussion, the Panel agreed that the Council had a role to play in developing and being a key provider within the offsite biodiversity offsetting market locally, as this would help ensure that biodiversity units were available in Oxford or close to Oxford. Much of this could be done through the existing land identification project.

   Recommendation 2: That the Council, through its project to identify Council-owned land with the potential to provide biodiversity units, seeks to identify sufficient sites so as to establish itself as a key provider of biodiversity units locally, thus strongly encouraging the uptake of biodiversity units in Oxford or as close to Oxford as possible.

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Appendix A
Draft Cabinet response to recommendations of the Climate and Environment Panel of the Scrutiny Committee

The document sets out the draft response of the Cabinet Member to recommendations made by the Climate and Environment Panel on 27 February 2024 concerning the Biodiversity Net Gain item presented at the meeting. The Cabinet is asked to amend and agree a formal response as appropriate.

Recommendation	***Agree?***	***Comment***
1) That the Council coordinates with the other Oxfordshire Districts to establish basic Biodiversity Net Gain monitoring guidance for certain habitats to ensure a consistent set of principles and processes across the county.	Yes	There is no statutory requirement for the Council to produce guidance on Biodiversity Net Gain monitoring and this area of policy and practice is still in early stages of development. However, when resources allow, officers will seek to work with the other Oxfordshire local authorities to produce limited guidance on this.
2) That the Council, through its project to identify Council-owned land with the potential to provide biodiversity units, seeks to identify sufficient sites so as to establish itself as a key provider of biodiversity units locally, thus strongly encouraging the uptake of biodiversity units in Oxford or as close to Oxford as possible.	In Part	Officers are currently taking through internal project governance a proposal for funding that will assess the feasibility of using a number of Council-owned land assets to provide Biodiversity Net Gain units. This would involve baseline ecological assessments. If feasible, it is expected agreement will be sought to designate the land for this purpose, which would need to involve a conservation covenant or planning obligation for at least 30 years, to meet statutory requirements. However, the initial focus would be on demonstrating BNG delivery for the Council's own development needs and for that of its wholly-owned housing company OX Place. Only then would consideration be given to whether the Council should seek

		to expand the scale of its BNG work to establish itself as a provider of biodiversity units for other developers.

To:	**Cabinet**
Date:	**17 April 2024**
Report of:	**Climate and Environment Panel**
Title of Report:	**Citywide Retrofit Strategy**

Summary and recommendations	
Purpose of report:	To present Panel of the Scrutiny Committee recommendations for Cabinet consideration and decision
Key decision:	No
Scrutiny Lead Member:	Councillor Alex Hollingsworth, Panel Chair
Cabinet Member:	Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice
Corporate Priority:	Pursue a Zero Carbon Oxford
Policy Framework:	Council Strategy 2020-24
Recommendation: That the Cabinet states whether it agrees or disagrees with the recommendations in the body of this report.	

Appendices	
Appendix A	Draft Cabinet response to recommendations of the Scrutiny Committee

Introduction and overview

1. The Climate and Environment Panel met on 27 February 2024 to consider an item on the Citywide Retrofit Strategy. It was recommended that the Panel receive a presentation followed by an opportunity for discussion; and agree any recommendations.

2. The Panel would like to thank Councillor Anna Railton (Cabinet Member for Zero Carbon Oxford and Climate Justice), Mish Tullar (Head of Corporate Strategy), Tina Mould (Environmental Sustainability Lead) and Vikki Robins (Carbon Reduction Team Manager) for attending the meeting to present and answer questions.

Summary and recommendations

3. Tina Mould, Environmental Sustainability Lead delivered a presentation which set out an overview of work to date in relation to the development of a Citywide Retrofit Strategy and Action Plan and sought the Panel's feedback.

4. The Panel asked a range of questions and raised a number of points, including those relating to whether non-residential Council-owned buildings were in scope; the retrofit 'efficiency paradox'; the importance of having a trackable action plan to sit alongside the strategy; and whether the strategy focus should be on areas where the Council had control versus influence alone.

5. During discussion, the Panel noted that the Council's 2030 net zero ambitions included emissions relating only to non-residential Council-owned buildings where the Council paid the energy bill. This meant that non-residential buildings which formed part of the Council's commercial property portfolio were not in scope. Emissions relating to non-residential Council-owned buildings were in scope of the 2040 net zero ambitions for the City more broadly. The Panel agreed that any citywide retrofit strategy should incorporate all non-residential Council-owned buildings, even where the Council did not pay the energy bill.

   Recommendation 1: That the Council incorporates all non-residential Council-owned buildings within the scope of the Citywide Retrofit Strategy and includes an approach within the strategy and associated action plan to ensure improvements in energy efficiency of all non-residential Council-owned buildings regardless of whether or not the Council pays the energy bill.

6. In addition, the Panel discussed the limited amount of resource within the Environmental Sustainability team to directly deliver and provide expertise on the range of projects and actions that the Council was driving forward. The Panel was of the view that specialist expertise should exist within specific service areas where the Council had control over those projects and actions (e.g. Housing Services should have its own expertise in relation to decarbonisation of social housing, for example), rather than being drawn from the expertise of the Environmental Sustainability team. The Panel agreed that this approach would free-up some capacity within the Environmental Sustainability team to drive forward areas of work where the Council had influence, but not direct control. This would enable the Environmental Sustainability team to continue shaping and enabling collaboration across the City in the interests of achieving net zero ambitions.

   Recommendation 2: That the Council ensures appropriate internal expertise in relevant service areas to drive forward projects and actions to achieve the Council's net zero ambitions where it has direct control in order to release additional capacity and resource within the Environmental Sustainability team to enable the continuation of its transition towards driving forward areas of work where the Council has influence and can shape and enable collaboration across the City to facilitate the achievement of the City's broader net zero ambitions.

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Appendix A
Draft Cabinet response to recommendations of the Climate and Environment Panel of the Scrutiny Committee

The document sets out the draft response of the Cabinet Member to recommendations made by the Climate and Environment Panel on 27 February 2024 concerning the Citywide Retrofit Strategy item presented at the meeting. The Cabinet is asked to amend and agree a formal response as appropriate.

Recommendation	***Agree?***	***Comment***
1) That the Council incorporates all non-residential Council-owned buildings within the scope of the Citywide Retrofit Strategy and includes an approach within the strategy and associated action plan to ensure improvements in energy efficiency of all non-residential Council-owned buildings regardless of whether or not the Council pays the energy bill.	In Part	Officers are currently assessing the value in creating a Citywide Retrofit Strategy, incorporated under the Council itself or the Zero Carbon Oxford Partnership. Action planning associated with such a strategy would need to include all non-residential Council-owned buildings regardless of whether or not the Council pays the energy bill. However, the significant uncertainty over the retrofit methodologies, financing and timelines for works – in particular those required for the Council's commercial and community assets - mean it will be some time before such an action plan could be developed.
2) That the Council ensures appropriate internal expertise in relevant service areas to drive forward projects and actions to achieve the Council's net zero ambitions where it has direct control in order to release additional capacity and resource within the Environmental Sustainability team to enable the continuation of its transition towards driving forward areas of work where the Council has influence and can shape and enable	Yes	Officers in Environmental Sustainability, Corporate Property, Property Services and OX Place – are working closely together and with other teams to ensure retrofit is built into the Council's 'business as usual' maintenance and property improvement works, and that zero carbon approaches will be applied where possible across new build.

collaboration across the City to facilitate the achievement of the City's broader net zero ambitions.		

To:	**Cabinet**
Date:	**17 April 2024**
Report of:	**Climate and Environment Panel**
Title of Report:	**Tree Planting**

Summary and recommendations	
Purpose of report:	To present Panel of the Scrutiny Committee recommendations for Cabinet consideration and decision
Key decision:	No
Scrutiny Lead Member:	Councillor Alex Hollingsworth, Panel Chair
Cabinet Member:	Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice
Corporate Priority:	Pursue a Zero Carbon Oxford
Policy Framework:	Council Strategy 2020-24
Recommendation: That the Cabinet states whether it agrees or disagrees with the recommendations in the body of this report.	

Appendices	
Appendix A	Draft Cabinet response to recommendations of the Scrutiny Committee

Introduction and overview

1. The Climate and Environment Panel met on 20 March 2024 to consider a Scrutiny-commissioned item on Tree Planting. It was recommended that the Panel receive a presentation followed by an opportunity for discussion; and agree any recommendations.

2. The Panel would like to thank Councillor Anna Railton (Cabinet Member for Zero Carbon Oxford and Climate Justice) and Mish Tullar (Head of Corporate Strategy) for attending the meeting to present and answer questions.

Summary and recommendations

3. Mish Tullar, Head of Corporate Strategy delivered a presentation which provided an update on tree planting, specifically in relation to the planting of new trees.

4. The Panel asked a range of questions, including questions relating to the availability of guidance on the process for planting new trees; how various Council strategies and policies aligned and avoided duplication or inconsistencies; the Council's 'Treemail' campaign; urban heat island effect; the costs of planting and maintaining new trees; how the Council could incentivise tree planting; the locations of existing empty tree pits; and the definition of a tree (i.e. did it includes hedges).

5. In particular, the Panel highlighted that the process surrounding tree planting was complicated and difficult; the need to ensure a clear and easily understandable process for Members, community groups and individuals was emphasised, so that they could get involved in the process. The Panel agreed that it would be useful for the Council to produce guidance documents in relation to tree planting which set out the process from start to finish, including the identification of existing empty tree pits, costings and how organisations, groups and individuals could contribute towards costs and/or ongoing maintenance. The Panel agreed that having two sets of guidance would be appropriate – one in relation to public land and in relation to private land.

   Recommendation 1: That the Council produces a guidance document and accompanying flow chart which clearly sets out the process for the planting of new street trees on public land, including but not limited to the mapping of existing empty tree pits within the City; responsibility for the replacement of dead or damaged trees; and a breakdown of the costs for planting and maintaining new street trees, with information as to how those costs might be met by different organisations, groups and/or individuals.

   Recommendation 2: That the Council produces a guidance document for the planting of new trees, and associated costs, on private land which is aimed at a diverse audience, including community groups, schools, private landowners and landlords.

6. In addition, the Panel noted that the Council, through its policies, should look to incentivise tree planting, retention and renewal. During discussion, it was agreed that particular attention should be paid to how this could be facilitated through Planning and Licensing policies, as these were areas where the Council had more direct influence.

   Recommendation 3: That the Council, when it reviews its policies, explores how it could incentivise, promote and encourage the planting, retention and renewal of trees through those policies – particularly within Planning and Licensing.

7. The Panel noted that there were a number of new community buildings and spaces in development across the City and agreed that there should be a focus on ensuring trees were incorporated into their design so as to support the City's wider environmental agenda. The Panel agreed that the Council should take an active role in encouraging tree planting in respect of these projects, including communicating with those developing the spaces to advise how they could contribute to the success of the Council's tree policies and strategies.

Recommendation 4: That the Council actively encourages tree planting within and around new community buildings and spaces to ensure alignment of these new projects and developments with the City's wider environmental policies.

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Appendix A
Draft Cabinet response to recommendations of the Climate and Environment Panel of the Scrutiny Committee

The document sets out the draft response of the Cabinet Member to recommendations made by the Climate and Environment Panel on 20 March 2024 concerning the Tree Planting item presented at the meeting. The Cabinet is asked to amend and agree a formal response as appropriate.

Recommendation	***Agree?***	***Comment***
1) That the Council produces a guidance document and accompanying flow chart which clearly sets out the process for the planting of new street trees on public land, including but not limited to the mapping of existing empty tree pits within the City; responsibility for the replacement of dead or damaged trees; and a breakdown of the costs for planting and maintaining new street trees, with information as to how those costs might be met by different organisations, groups and/or individuals.	In Part	The creation of a simple guidance document that explains how groups and individuals could support the funding of new trees on public land, including new street trees would be welcomed. However, such work should be taken forward in partnership with Oxfordshire County Council, which has overall responsibility for street trees and empty tree pits. Officers will engage with colleagues at the County Council to discuss how such a guidance document could be commissioned.
2) That the Council produces a guidance document for the planting of new trees, and associated costs, on private land which is aimed at a diverse audience, including community groups, schools, private landowners and landlords.	Yes	An accessible guidance document for others to use to inform tree planting on their own land will be created as part of a suite of Council communications around the 2024/25 tree planting season.

3) That the Council, when it reviews its policies, explores how it could incentivise, promote and encourage the planting, retention and renewal of trees through those policies – particularly within Planning and Licensing.	Yes	This will be considered as part of the Council's review and updating of its existing Tree Management Policy.
4) That the Council actively encourages tree planting within and around new community buildings and spaces to ensure alignment of these new projects and developments with the City's wider environmental policies.	Yes	The Council's draft Local Plan 2040 will require that all major developments should plant more trees, hedges and other greenery to meet new minimum standards. It also increases the level of Biodiversity Net Gain for new housing and business development from 5% to 10%.

To:	**Cabinet**
Date:	**17 April 2024**
Report of:	**Climate and Environment Panel**
Title of Report:	**Energy Generation/Solar Potential on Council Buildings**

Summary and recommendations	
Purpose of report:	To present Panel of the Scrutiny Committee recommendations for Cabinet consideration and decision
Key decision:	No
Scrutiny Lead Member:	Councillor Alex Hollingsworth, Panel Chair
Cabinet Member:	Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice
Corporate Priority:	Pursue a Zero Carbon Oxford
Policy Framework:	Council Strategy 2020-24
Recommendation: That the Cabinet states whether it agrees or disagrees with the recommendations in the body of this report.	

Appendices	
Appendix A	Draft Cabinet response to recommendations of the Scrutiny Committee

Introduction and overview

1. The Climate and Environment Panel met on 20 March 2024 to consider a Scrutiny-commissioned item on Energy Generation/Solar Potential on Council Buildings. It was recommended that the Panel receive a presentation followed by an opportunity for discussion; and agree any recommendations.

2. The Panel would like to thank Councillor Anna Railton (Cabinet Member for Zero Carbon Oxford and Climate Justice), Mish Tullar (Head of Corporate Strategy), Vikki Robins (Carbon Reduction Team Manager) and Juliet Nicholas (Energy and Sustainability Manager) for attending the meeting to present and answer questions.

Summary and recommendations

3. Mish Tullar, Head of Corporate Strategy delivered a presentation which provided an overview of energy generation and solar potential on Council buildings.

4. The Panel asked a range of questions, including questions relating to local grid constraints; the optimal scale of solar installations (i.e. a small number of large sites versus a larger number of small sites); the scale of solar potential on Council assets; solar canopies on Park & Rides; and opportunities for innovation.

5. During discussion, the Panel noted the operational and commercial constraints in relation to the installation of solar canopies at Park & Rides, however highlighted that other areas had overcome those challenges and managed to install the solar canopies on car parks. The Panel noted capacity constraints within the Council to look into this in great detail, however agreed that a high-level briefing setting out the challenges would be useful, along with a commitment that the Council would continue to horizon scan and take note of any developments which could support deliverability of solar canopies at Park & Rides locally.

   Recommendation 1: That the Council produces a high-level summary of current challenges and constraints impacting on the deliverability of solar opportunities at Council car parks and keeps a watching brief on how similar issues have been overcome in other areas so that any learning could be identified to support delivery in Oxford.

6. In addition to the Panel's first recommendation and recognising the limited financial and human resources across the Council to take projects forward, the Panel agreed that there should be a focus on allocating resources to projects which were the most deliverable and would have the most impact.

   Recommendation 2: That the Council prioritises projects on the basis of deliverability and impact when allocating financial and human resources.

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Appendix A
Draft Cabinet response to recommendations of the Climate and Environment Panel of the Scrutiny Committee

The document sets out the draft response of the Cabinet Member to recommendations made by the Climate and Environment Panel on 20 March 2024 concerning the Energy Generation/Solar Potential on Council Buildings item presented at the meeting. The Cabinet is asked to amend and agree a formal response as appropriate.

Recommendation	***Agree?***	***Comment***
1) That the Council produces a high-level summary of current challenges and constraints impacting on the deliverability of solar opportunities at Council car parks and keeps a watching brief on how similar issues have been overcome in other areas so that any learning could be identified to support delivery in Oxford.	Yes	Officers will produce a high-level summary of current considerations, challenges and constraints impacting on the deliverability of PV canopies at Council car parks. Officers will keep a watching brief on such developments in other areas and over time will seek learnings as appropriate.
2) That the Council prioritises projects on the basis of deliverability and impact when allocating financial and human resources.	Yes	

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Ref	Date	Report	Recommendation	Agreed?	Response	Continue to monitor?	Update Scheduled
0001	09-Mar-23	Development of a Biodiversity Strategy for Oxford	That the Council seeks to ensure that, amongst others, Oxford University's Biodiversity Network and the HERO project are represented on the steering group.	In Part	We will take into account these recommendations when setting up the steering group.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25
0002	09-Mar-23	Development of a Biodiversity Strategy for Oxford	That the Council, in conducting the baseline exercise, takes account of shifting baseline syndrome.	In Part	Historic data for the sites in question may be impossible / impractical to recover, and we may not be able to do so in a consistent way that offers meaningful insights.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25
0003	09-Mar-23	Development of a Biodiversity Strategy for Oxford	That the Council considers how best to move away from the use of chemicals in land maintenance as a matter of urgency.	In Part	A further review of the use of herbicides and pesticides by ODS on behalf of the Council will be undertaken this year which will explore the costs and efficacy of the Council ending the use of glyphosates including assessing the alternatives used by other Councils in England. It would not be appropriate to pre-determine the outcome of that review.	No - separate report on use of glyphosate by ODS on behalf of OCC went to Scrutiny and Cabinet in December 2023; further monitoring not required following outcome of that report.	
0004	09-Mar-23	Development of a Biodiversity Strategy for Oxford	That the Council commissions or conducts its own audits of the eight Sites of Special Scientific Interest in the near future in order to understand their current condition.	In Part	We will evaluate the optimal approach to assessing the SSSIs in conjunction with the Steering Group.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25
0005	09-Mar-23	Development of a Biodiversity Strategy for Oxford	That the Council ensures that the protection of mature trees is prioritised wherever possible.	Yes	The Council has a range of policies in place to ensure the protection of mature trees. However, the council also has a liability to ensure dangerous trees are felled promptly. Where this is necessary, they will be offset with new trees in the same location if suitable, or an alternative location with a greater viability to support a healthy trees. Protection of trees is also considered within planning alongside other local planning priorities including housing delivery within the city.	No - already a Council policy	
0006	09-Mar-23	Development of a Biodiversity Strategy for Oxford	That the Council commits to ensuring that the Biodiversity Strategy is developed in line with the Kunming-Montreal Global Biodiversity Framework and, also, at least in alignment with Government targets to halt decline of species under the Environment Act 2021.	Yes	No commentary provided.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25
0007	09-Mar-23	Development of a Biodiversity Strategy for Oxford	That the Council takes account of the interconnectedness between the policies in the Local Plan and the Biodiversity Strategy when developing both documents and ensures that these links are emphasised and appropriately cross-referenced.	Yes	No commentary provided.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25
0008	09-Mar-23	Fleet Decarbonisation	That the Council should commit to working with ODS to explore how ODS could include electric cargo bicycles in its fleet.	Yes	These discussions are already taking place.	Yes - Panel to request update on fleet decarbonisation, including an update in relation to the recommendation made on 09 March 2023. **Update will not be available until 2025 calendar year at the earliest.**	
0009	27-Jun-23	DRAFT Carbon Reduction and Sustainable Retrofit Guidance for Historic Buildings Technical Advice Note	That the Council reviews the language used in the TAN to ensure it is accessible to residents and incorporates a glossary to explain technical terms.	Yes	The policy team will review the wording in the TAN and implement a simple glossary in line with the recommendations. The topic of retrofitting heritage assets in itself can be very technical, as is the legislation and guidance within national policy, not only because of the fast evolving nature of retro-fit technologies and practices but also because of the additional sensitivities that come with redevelopment associated with our most special heritage assets. As such, it will invariably require some level of technical expertise to fully address certain elements when it comes to this type of development. Whilst we have made every effort to explain the terminology and concepts in plain English within the text, we would agree that a glossary could be a helpful addition and are happy to add this in. The objective of the guidance in the TAN is to convey simple advice to assist applicants in approaching the design of retrofit projects for historic buildings so that their application has the best chances of success and we want to ensure that this is as effective as possible.	No - glossary implemented in TAN, which has now been published.	
0010	27-Jun-23	DRAFT Carbon Reduction and Sustainable Retrofit Guidance for Historic Buildings Technical Advice Note	That the Council includes more examples of successful domestic scale retrofit projects, including for non-listed buildings in conservation areas, as well as in listed buildings.	Yes	The original intention of this updated TAN was to be published as an interim measure that could help address a gap in guidance on our website and to better align this with the city's net zero objectives. The TAN currently references a variety of best practice guidance in the appendix to provide further information and flags that this would then be supported by additional guidance including specific case studies from the city that could help illustrate best practice in an Oxford context. In order to not unnecessarily delay the publishing of the helpful information within the TAN we propose to progress with the examples in the draft, and update the document in the future with useful and illustrative case studies, noting that the range of different sensitivities within the city will mean that they will only be able to indicate possible solutions rather than provide a blue print for other applicants.	Yes - update to be requested in due course.	
0011	27-Jun-23	DRAFT Carbon Reduction and Sustainable Retrofit Guidance for Historic Buildings Technical Advice Note	That the Council challenges its existing assumptions around customer experience in relation to retrofit applications and seeks to engage with organisations and individuals who have gone or are currently going through the retrofit process to understand their experiences and feed those into the TAN and the broader planning process to improve usability and overall customer experience.	Yes	The policy team and planning services more widely will continue to do its part in critically assessing its own performance and interactions with our broad customer base. Where there is scope to improve our services and the support we can provide, we will endeavour to incorporate this into our work. This may include future updates to the TAN as well as our wider resources and processes where appropriate.	Yes - update to be requested in due course.	
0012	27-Jun-23	DRAFT Carbon Reduction and Sustainable Retrofit Guidance for Historic Buildings Technical Advice Note	That the Council reviews its existing Article 4 Directions to see whether they create unnecessary obstacles to applicants wanting to install carbon retrofit measures.	No	Whilst it is accepted that the Article 4 Directions were set up at a time predating the current net zero objectives in the city, a review of these is an extensive piece of work which will need to be considered in the longer term alongside other commitments, such as the extensive work related to the production of the 2040 Local Plan. Such commitment is beyond the scope of this TAN.	Yes - although in the long term	
0013	27-Jun-23	DRAFT Carbon Reduction and Sustainable Retrofit Guidance for Historic Buildings Technical Advice Note	That the Council, looking at the approach taken by the Royal Borough of Kensington and Chelsea, considers using Local Development Orders to make clear that certain low carbon approaches will be approved by the Council.	No	We are aware of the approach undertaken by the Royal Borough of Kensington and Chelsea and will consider the pros and cons of this and other approaches in liaison with key stakeholders such as heritage colleagues and Historic England in due course. The current priority is the new Local Plan and we have set out our intention to try to go further than current policy as part of our preferred options consultation, though the final approach is still under consideration and will need to align with national policy to be found sound by the inspector and pass examination.	Yes - although in the long term	
0014	27-Jun-23	DRAFT Carbon Reduction and Sustainable Retrofit Guidance for Historic Buildings Technical Advice Note	That the Council makes it clear in the TAN and broader messaging that it supports retrofit applications in heritage and conservation areas and will actively support applicants to go through that process.	Yes	The genesis of this TAN was to more clearly support applicants in making the right choices when it comes to retrofitting their properties. The review agreed to in Recommendation 1 will help to amplify this. It is important to note that Technical Advice Notes have no statutory powers unlike the Local Plan. The role of these documents is only to provide additional guidance that supports interpretation of existing policies in the Local Plan - they are unable to go as far as establishing new policy for the city which is not in the Local Plan 2036. Ensuring we get the right balance between what can be set out in the TAN at present, what can help us move towards net zero objectives and support applicants, as well as what is required of us more broadly under national policy (including our statutory duty for conserving our important heritage assets as much as securing reductions in carbon dioxide emissions) is a challenging issue we have sought to address. The planning service provides a channel for actively supporting applicants as part of its pre-application service and through this service they are able to benefit from the advice of planning officers but also colleagues in the heritage team – we flag this clearly in the TAN in a couple of places as well as on our website.	No - TAN states in several places the Council's support for retrofit measures (as well as referencing a policy within the Local Plan 2036 which supports this), plus pre-application services helps to support this.	
0015	27-Jun-23	DRAFT Carbon Reduction and Sustainable Retrofit Guidance for Historic Buildings Technical Advice Note	That the Council takes a much clearer approach to setting out for householders and applicants what its response will be to proposals for specific retrofit measures, being clear about how that might vary from conservation area to conservation area.	Yes	The policy team will explore how we can be clearer in the guidance set out in the TAN, however there are limits to how simplified any high-level guidance such as the TAN can provide, especially in a city that has such a rich and varied historical context.	No - this topic is covered in section 2 of the published TAN	
0016	27-Jun-23	Biodiversity Update	That the Council ensures the inclusion of its function as both a residential and institutional landlord within the biodiversity baseline assessment exercise.	Yes	It is vital that when considering the Council's duty to conserve and enhance biodiversity that its function as a landowner forms part of that consideration. This must extend to all property owned; while it may be easier to consider in relation to large plots of green space or agricultural land, biodiversity should be considered in all contexts.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25
0017	27-Jun-23	Biodiversity Update	That the Council seeks to collaborate and exchange knowledge with other local landowners and institutions in the interests of promoting biodiversity citywide.	Yes	The Biodiversity Strategy will be a key vehicle for knowledge exchange, both the production of the document - which will require extensive engagement - and also likely its implementation.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25
0018	27-Jun-23	Biodiversity Update	That the Council suggests a dedicated biodiversity workstream be added to the Zero Carbon Oxford Partnership's existing workstreams.	Yes	N/A	No - Cllr Brown updated at Cabinet in July 2023: The question was asked on 11 July, but ZCOP felt quite strongly that it didn't want to have a biodiversity workstream because it felt that would be duplicating existing work elsewhere, which ZCOP is very keen not to do. However ZCOP has undertaken to go ahead and convene a meeting of biodiversity leads across the main institutions that are part of ZCOP to see if there are ways in which people could work more closely together; so there won't be a workstream as such, but ZCOP will facilitate people getting together to liaise as much as possible around biodiversity.	
0019	27-Jun-23	Biodiversity Update	That the Council continues to seek out emerging biodiversity best practice in other local authorities.	Yes	All councils are experiencing the same shifts in how to consider biodiversity, deriving form new responsibility relating to biodiversity net gain, an enhanced biodiversity duty, and new reporting requirements. Sharing and understanding best practice will be important to maximising the most of limited ecological resources at all Councils.	Yes - Panel to request update on the development of the Biodiversity Strategy more generally, including an update in relation to recommendations made on 09 March 2023 and 27 June 2023.	26-Feb-25

0020	12-Sep-23	HRA Energy Efficiency Projects 2023/24	That the Council explores the full range of procurement options for the delivery of the projects, including alternative suppliers and the possibility of establishing medium-tolong term relationships with suppliers, contractors and sub-contractors.	Yes	A procurement route has not yet been determined for these works and a full range of procurement options will be explored in line with the constitution.	No - Scurtiny Officer requested update on process/outcome of the procurement exercise undertaken on behalf of the Panel and the Energy and Sustainability Manager advised that the Council is planning to establish a framework for procuring installation of renewable technologies. It is proposed that works for both 2023/24 and 2024/25 projects will be procured via this framework when it is operational. The Panel considered the report on 'Framework for the installation of renewable technologies in Council owned properties' at its meeting on 11 June 2024; the establishment of the Framework was (in part) in response to this recommendation, so no further monitoring required.	
0021	12-Sep-23	HRA Energy Efficiency Projects 2023/24	That the Council sets a timetable for achieving a full set of EPCs for its HRA properties.	Yes	The Council has a modelled EPC for all HRA properties; however, part of the delivery plan development is to quantify these with EPC surveys (where access is possible) and to update lodged EPCs where energy improvement works have been carried out. A timetable for EPC surveys beyond 2023/24 will be developed with a completion date set.	Yes - Panel requested at its meeting on 11 June 2024 for an update on development of this timetable to be provided at its next meeting in September 2024.	10-Sep-24
0022	12-Sep-23	Citywide Smoke Control Area Declaration	That the Council ensures clear messaging in its publicity campaign that moored vessels are exempt from the Smoke Control Area, and communicates the rationale for the exemption.	Yes	Paragraph 33 of the Cabinet report already refers to moored vessels and explains one of the main reasons why they are exempt from this Smoke Control Area expansion. However, we will ensure that if this proposal is approved, our communication strategy to members of the public will include specific elements about moored vessels to make it clear that they are exempt for the time being and why.	Yes - awaiting implementation of SCA; Head of Corporate Strategy approved the making of the under under delegated authority on 13 March 2024 (no call in received), once the order is made it will need to be submitted to the Secretary of State for final approval. SCA due to come into effect on 01 December 2024 (see comms here: https://www.oxford.gov.uk/news/article/1486/oxford-s-smoke-control-area-expansion-to-start-on-1-december-2024)	
0023	12-Sep-23	Citywide Smoke Control Area Declaration	That the Council commits to working with the various boating communities (e.g. boaters living on permanent moorings and visiting boaters) to identify and address the barriers to these communities adopting cleaner fuel types; and explores grant funding opportunities to support the work to address these issues.	Yes	The Council already expects to be developing work in this area through the Department for Environment, Food & Rural Affairs (DEFRA) Grant funding that has been recently awarded to the City Council, for the installation of ecomoorings at the visitor's moorings in Aristotle Lane. The eco-moorings project will see allocated specific funding for a Community Engagement Officer who will be expected to work together with the various boating communities on education, raising awareness, and on exploring future grant opportunities and/or retrofitting schemes that may become available to boaters to support their transition to cleaner and more sustainable sources of heating.	Yes - report updating on eco-moorings project and other fuel-related issues in relation to boating communities scheduled in for CEP meeting 20 November 2024.	20-Nov-24
0024	12-Sep-23	Air Pollution	That the Council produces an accessible and easily digestible executive summary to sit alongside the Annual Air Quality Status Report in future years; to include what the Council has done, next steps and any issues which are likely to delay progress on particular actions.	Yes	A simplified one pager capturing actions and progress on tackling air quality will be produced alongside the existing Annual Air Quality Status Report and press release materials. At the point the Council's existing Air Quality Action Plan needs to be updated in 2025, officers will review the format of the report to consider further design changes to improve accessibility.	Yes - Panel to monitor when report is submitted to Panel from 2023 onwards (annual report).	10-Sep-24
0025	12-Sep-23	Air Pollution	That the Council considers how to identify and promote the broader benefits of action to improve air quality.	Yes	There is an extensive ongoing programme of communications around actions to improve air quality, and why this is important. Videos were created and posted featuring a consultant at the John Radcliffe Hospital specifically highlighting the health benefits of cleaner air. Last winter's Do You Fuel Good campaign targeting the use of wood burning stoves will be reprised this heating season. A full public consultation and engagement programme is also planned in support of the Council's proposal to create a citywide smokeless controlled area (SCA), as approved by September Cabinet. While boaters will be exempt under the proposed new SCA, further communications are planned to support the Council's introduction of ecomoorings along the Oxford Canal, which will also highlight the broader benefits of action to improve air quality.	Yes - update to be requested as part of Annual Air Quality Status Report 2023.	10-Sep-24
0026	29-Nov-23	Biodiversity Action Plan for Oxford City Council Parks and Nature Areas – September 2023 Review	That the Council, in collaboration with partners who hold relevant data, maps data relating to landscape and habitat type onto a centralised system (e.g. GIS) and populates with information about particular sites or projects which require funding; and makes this publicly accessible so that Members, community groups and the general public can find and support local projects near to them.	No	We recognise the benefits of this in line with the Scrutiny recommendation, however it would unfortunately require a significant amount of specialist officer time to coordinate, design, deliver and for ongoing review which is currently not budgeted or has identified officer capacity for. An option might be linked to the recent introduction of Biodiversity Net Gain (BNG) and this might be able to provide funding for much of the habitat enhancement projects required in future years.	No - broader work around Council-wide data/mapping exercise added to Scrutiny Committee longlist 2024/25 for consideration.	
0027	29-Nov-23	Biodiversity Action Plan for Oxford City Council Parks and Nature Areas – September 2023 Review	That the Council explores how volunteer coordination could be delivered within existing resource as part of the Council's core 'business as usual'.	In Part	There will be ongoing work by the ODS Countryside Team to facilitate volunteering opportunities where possible as part of their day-to-day work, and also through the City Council's Green Spaces team with Friends of park groups. It would be challenging to expand this further without additional resource as the majority of people tend to volunteer at the weekends when there isn't dedicated resource. Officers would be able to continue to explore external funding opportunities that may link to this.	No - response cites resourcing issues to do more than is already being done.	
0028	29-Nov-23	Biodiversity Action Plan for Oxford City Council Parks and Nature Areas – September 2023 Review	That the Council reviews the structure of its contracts with Oxford Direct Services in relation to parks and green space management in the longer-term, to ensure that there is clarity within those contracts as to whether the management of parks and green spaces is led by prescriptive inputs (certain amount of work over a defined period of time) or outputs (supporting, protecting and enhancing biodiversity).	No	There is a high level of commitment and expertise within ODS around the management of the green spaces for biodiversity. The OCC Biodiversity Review for its green spaces provides the Council's agreed approach and highlights the many habitat improvement projects and other conservation work successfully delivered over recent years. Whilst creating or completely renewing detailed specification contracts requires a significant amount of resource which isn't currently in place, the Council does have an OCC/ODS Client officer review meeting which might be appropriate to discuss key strategic areas within this.	Yes - there is a review of commissioning of services provided by ODS (linked to Budget and MTFS); in light of this the Panel was of the view that this recommendation should have perhaps been accepted by Cabinet. Panel to request update in due course as to the outcome of the review in relation to parks and green space management contracts with ODS **(review anticipated to conclude September 2024)**.	
0029	29-Nov-23	Biodiversity Action Plan for Oxford City Council Parks and Nature Areas – September 2023 Review	That the Council ensures the most appropriate approach for enhancing biodiversity is taken in its parks and nature areas according to environment on a site-by-site basis – with a focus on the right approach in the right place, rather than a uniform approach across all sites.	Yes	This is very much already in place for the many habitats and other non-recreation and sports areas in OCC's parks and nature areas. This is particularly important in a location like Oxford where there is a significant variation in geology, hydrology and soil types. If managed empathetically these different topographies develop their own distinct habitats, flora and fauna, and thereby increase the overall range of biodiversity.	No - already a Council policy	
0030	29-Nov-23	Retrofit	That the Council, through its current Retrofit campaign and any future initiatives, ensures a focus on simplification and demystification of retrofit so that the options and processes are easily digestible by the public – thus encouraging uptake at scale.	Yes	The Council is delivering projects that aim to test retrofit solutions and give the public the opportunity to experience 'living examples' via open house events to see heat pumps and other retrofit solutions in situ. Two particular projects of note are: The Clean Heat Streets project seeks to install up to 90 Air Source Heat Pumps in Rose Hill and Iffley. The project offers residents the opportunity to see heat pump installations and interact with heat pump 'champions' in the local community. The project also works with a 'local convenor' who offers one-on-one support for residents through their retrofit journey, and provides clear, simple advice. The House Like Mine Project focusses on supporting residents, those on low income, and both Council and private tenants. The project also supports private landlords who house 32.2% of those that live in Oxford and therefore are a key stakeholder group to encourage retrofit solutions. The Council has created a webpage specifically to help these groups access advice and support for different types of retrofitting and grant opportunities, short films showcasing work already completed and actionable support to find an installer. The Council joint funds the Better Housing Better Health (BHBH) service with Oxfordshire County Council and the other districts. BHBH is a one-stop shop for energy advice. BHBH help us to administer and promote energy efficiency upgrade grants such as the Energy Company Obligation (ECO) scheme and the Great British Insulation Scheme (GBIS). We work together as a partnership to create useful materials on how to access grant funding and they offer support to residents with the grant application process. The Council is severely constrained in terms of funding and resource to offer deeper engagement in these areas. To combat these limitations, the Council leverages information and advice compiled by others via national entities such as the Energy Saving Trust, and at a local level, groups such as Low Carbon Hub, and other likeminded groups to disseminate information and offer support and advice.	No - as Council already doing what it can with limited resource and leverages other sources of information.	
0031	29-Nov-23	Retrofit	That the Council ensures an emphasis on two-way communication in relation to retrofit and maintains a list of interested community groups and areas of the city where residents are interested in community retrofit schemes, so that relevant information, intelligence and opportunities can be shared.	Yes	Community engagement does take place via project work and in our work with several community groups who have an interest in community retrofit schemes. These groups include: Communities for Zero Carbon, Oxford Local Carbon, Low Carbon Oxford North, Local Environmental Action Florence Park, Rose Hill & Iffley Low Carbon, Low Carbon Oxford South, Low Carbon West Oxford, Friends of the Earth Oxfordshire. The Council has engaged with these groups and provided advice and support to community-based retrofit initiatives in the following ways: Helped secure funding for community-based retrofit projects - e.g. Eco Open Doors event, which allows people to find and visit their neighbours to see what retrofit means in a local context; assisted with promotion of community-based events and projects that focus on retrofit; assisted with dissemination of the Housewarming Guides – simplified and easy to use handbooks for retrofitting in Oxford, produced by Low Carbon Oxford North. Clean Heat Streets has worked closely with the Rose Hill and Iffley Low Carbon Group to provide a targeted community-based approach and keep retrofit knowledge at the centre of the community. Engagement work to promote grant funding is ongoing and includes staff presentations at community outreach events such as the 50+ Network event and the Community Links Oxfordshire event. Staff also work in partnership with BBC Radio Oxford on their cost-of-living clinics in-person at Templars Square and attend food larders to talk to residents about grants.	Yes - update to be requested in due course.	
0032	29-Nov-23	Retrofit	That the Council compiles a list of local retrofit suppliers/installers to share publicly so that residents can see which suppliers are in the retrofit market.	No	The Council works with Low Carbon Hub who in turn work with CosyHomes who offer a number of retrofit services in Oxfordshire. More information is available here. Additionally, the Council's website gives signposted service to organisations who assess installers such as TrustMark, and the MCS certified installers list, where one can search via one's region to locate a suitable installer. Oxford City Council works in partnership with Better Housing Better Health to provide energy efficiency advice and access to grant funding for retrofit works. BHBH is run by the National Energy Foundation (NEF). NEF has a supplier network where TrustMark registered installers can be linked up to residents who qualify for funding such as ECO. The Council works with NEF to encourage suppliers to work with NEF and has requested NEF make this list public. A countywide source is the Climate Action Oxfordshire website offering a range of carbon cutting solutions including retrofit – it too signposts visitors to the site to local suppliers/organisations – e.g. this webpage for loft insulation or this webpage for energy assessments. The main energy homepage offers other options too.	No - as not something the Council will compile.	

0033	27-Feb-24	Biodiversity Net Gain	That the Council coordinates with the other Oxfordshire Districts to establish basic Biodiversity Net Gain monitoring guidance for certain habitats to ensure a consistent set of principles and processes across the county.	Yes	There is no statutory requirement for the Council to produce guidance on Biodiversity Net Gain monitoring and this area of policy and practice is still in early stages of development. However, when resources allow, officers will seek to work with the other Oxfordshire local authorities to produce limited guidance on this.	Yes - update to be requested in due course.	
0034	27-Feb-24	Biodiversity Net Gain	That the Council, through its project to identify Council-owned land with the potential to provide biodiversity units, seeks to identify sufficient sites so as to establish itself as a key provider of biodiversity units locally, thus strongly encouraging the uptake of biodiversity units in Oxford or as close to Oxford as possible.	In Part	Officers are currently taking through internal project governance a proposal for funding that will assess the feasibility of using a number of Council-owned land assets to provide Biodiversity Net Gain units. This would involve baseline ecological assessments. If feasible, it is expected agreement will be sought to designate the land for this purpose, which would need to involve a conservation covenant or planning obligation for at least 30 years, to meet statutory requirements. However, the initial focus would be on demonstrating BNG delivery for the Council's own development needs and for that of its wholly-owned housing company OX Place. Only then would consideration be given to whether the Council should seek to expand the scale of its BNG work to establish itself as a provider of biodiversity units for other developers.	Yes - update to be requested in due course. Officer decision re: feasibility study made 30 April 2024: https://mycouncil.oxford.gov.uk/ieDecisionDetails.aspx?ID=2513	
0035	27-Feb-24	Citywide Retrofit Strategy	That the Council incorporates all non-residential Council-owned buildings within the scope of the Citywide Retrofit Strategy and includes an approach within the strategy and associated action plan to ensure improvements in energy efficiency of all non-residential Council-owned buildings regardless of whether or not the Council pays the energy bill.	In Part	Officers are currently assessing the value in creating a Citywide Retrofit Strategy, incorporated under the Council itself or the Zero Carbon Oxford Partnership. Action planning associated with such a strategy would need to include all non-residential Council-owned buildings regardless of whether or not the Council pays the energy bill. However, the significant uncertainty over the retrofit methodologies, financing and timelines for works – in particular those required for the Council's commercial and community assets - mean it will be some time before such an action plan could be developed.	Yes - update to be requested in due course.	
0036	27-Feb-24	Citywide Retrofit Strategy	That the Council ensures appropriate internal expertise in relevant service areas to drive forward projects and actions to achieve the Council's net zero ambitions where it has direct control in order to release additional capacity and resource within the Environmental Sustainability team to enable the continuation of its transition towards driving forward areas of work where the Council has influence and can shape and enable collaboration across the City to facilitate the achievement of the City's broader net zero ambitions.	Yes	Officers in Environmental Sustainability, Corporate Property, Property Services and OX Place – are working closely together and with other teams to ensure retrofit is built into the Council's 'business as usual' maintenance and property improvement works, and that zero carbon approaches will be applied where possible across new build.	Yes - update to be requested in due course.	
0037	20-Mar-24	Tree Planting	That the Council produces a guidance document and accompanying flow chart which clearly sets out the process for the planting of new street trees on public land, including but not limited to the mapping of existing empty tree pits within the City; responsibility for the replacement of dead or damaged trees; and a breakdown of the costs for planting and maintaining new street trees, with information as to how those costs might be met by different organisations, groups and/or individuals	In Part	The creation of a simple guidance document that explains how groups and individuals could support the funding of new trees on public land, including new street trees would be welcomed. However, such work should be taken forward in partnership with Oxfordshire County Council, which has overall responsibility for street trees and empty tree pits. Officers will engage with colleagues at the County Council to discuss how such a guidance document could be commissioned.	Yes - update to be requested in due course.	
0038	20-Mar-24	Tree Planting	That the Council produces a guidance document for the planting of new trees, and associated costs, on private land which is aimed at a diverse audience, including community groups, schools, private landowners and landlords.	Yes	An accessible guidance document for others to use to inform tree planting on their own land will be created as part of a suite of Council communications around the 2024/25 tree planting season.	Yes - update to be requested in due course.	
0039	20-Mar-24	Tree Planting	That the Council, when it reviews its policies, explores how it could incentivise, promote and encourage the planting, retention and renewal of trees through those policies – particularly within Planning and Licensing.	Yes	This will be considered as part of the Council's review and updating of its existing Tree Management Policy.	No - response from Head of Planning and Regulatory Services: We've investigted how policies within the service can promote and encourage the planting, retention and renewal of trees, with particular reference to licensing schemes. As a regulatory service there are limitations in how we can contribute to this work in relation to licensing. The legislation which governs licensing restricts what Local Housing Authorities can include in the conditions we attach to a licence. For HMOs the conditions are restricted to the management, use, occupation, condition and contents of the house. For non-HMOs, conditions are restricted to the management, use or occupation of the property. Furthermore, there has been case law that confirms it is unlawful to include conditions which improves or upgrades houses or to install new facilities and equipment. Case law has also determined that we could not offer incentives, for example offering a reduced fee for planting a tree, because as the scheme is cost neutral it would lead to an increase in the fees of other landlords. The team have investigated whether any councils in this country include the planting, retention, and renewal of trees within their regulatory service policies and have not been able to identify any.	
0040	20-Mar-24	Tree Planting	That the Council actively encourages tree planting within and around new community buildings and spaces to ensure alignment of these new projects and developments with the City's wider environmental policies.	Yes	The Council's draft Local Plan 2040 will require that all major developments should plant more trees, hedges and other greenery to meet new minimum standards. It also increases the level of Biodiversity Net Gain for new housing and business development from 5% to 10%.	No - as more tree planting to be a policy under the Local Plan 2040.	
0041	20-Mar-24	Energy Generation/Solar Potential on Council Buildings	That the Council produces a high-level summary of current challenges and constraints impacting on the deliverability of solar opportunities at Council car parks and keeps a watching brief on how similar issues have been overcome in other areas so that any learning could be identified to support delivery in Oxford.	Yes	Officers will produce a high-level summary of current considerations, challenges and constraints impacting on the deliverability of PV canopies at Council car parks. Officers will keep a watching brief on such developments in other areas and over time will seek learnings as appropriate.	Yes - update on car parks/solar canopies included in Work Plan for 20 November 2024.	20-Nov-24
0042	20-Mar-24	Energy Generation/Solar Potential on Council Buildings	That the Council prioritises projects on the basis of deliverability and impact when allocating financial and human resources.	Yes	N/A	Yes - ongoing through Scrutiny of climate and environment issues.	
0043	11-Jun-24	Tree Management Policy 2024-2032	That the Council makes an explicit commitment within Policy ST8 of the Tree Management Policy 2024-2023 that it will plant replacement trees in the same location as the tree that was felled wherever possible and/or practicable to do so.	Yes	Yes, although it needs to be both possible and practicable, so we propose to remove to "or", so it would read "wherever possible and practicable to do so".	Yes - to be checked once policy published.	
0044	11-Jun-24	Tree Management Policy 2024-2033	That the Council ensures clarity within the Tree Management Policy 2024-2032 on why it plants trees in the way that it does – including cross-referencing with other documents to ensure the broad rationale is articulated within the Tree Management Policy 2024- 2032 for context.	Yes	Agreed.	Yes - to be checked once policy published.	
0045	11-Jun-24	Tree Management Policy 2024-2034	That the Council, within Policy TP5 of the Tree Management Policy 2024-2032, clarifies its approach to managing conflicts between existing trees and hard surfaces (in addition to its approach to managing conflicts between new trees and hard surfaces), including specific reference to standard proactive methodologies used to address those conflicts.	Yes	Agreed. Where the Council owns existing street trees the assessment of any conflicts with hard surfaces will be picked up proactively as part of cyclical surveying. We will refer to the standards for doing this.	Yes - to be checked once policy published.	
0046	11-Jun-24	Tree Management Policy 2024-2035	That the Council explicitly recognises the need to work in partnership with the County Council and/or Highways on street tree issues and includes a reference to this within the Tree Management Policy 2024-2032.	No	The City Council will always work in partnership with relevant statutory undertakers. However, we need to be clear that this policy is focused on trees within the City Council's ownership, and not trees that the County Council is responsible for. There is a danger that a reference to the County Council would confuse this matter.	No - as recommendation not accepted.	
0047	11-Jun-24	Tree Management Policy 2024-2036	That the Council contextualises the number of street trees it owns within the Tree Management Policy 2024- 2032.	Yes	Agreed.	Yes - to be checked once policy published.	
0048	11-Jun-24	Tree Management Policy 2024-2037	That the Council expands section 6 of the Tree Management Policy 2024-2032 (communication with the public, stakeholders and Members) to set out the Council's commitment to encouraging local residents and groups to come forward with proposals related to tree planting and maintenance and the Council's approach to facilitating and responding to such proposals.	Yes	Agreed.	Yes - to be checked once policy published.	

0049	11-Jun-24	Tree Management Policy 2024-2038	That the Council explores how other local authorities have sought to incentivise, promote and encourage the planting, retention and renewal of trees on private land through their policies, particularly in relation to HMOs and Selective Licensing, to inform future updates to the Council's Urban Forest Strategy.	Yes	Agreed.	No - response from Head of Planning and Regulatory Services: We've investigted how policies within the service can promote and encourage the planting, retention and renewal of trees, with particular reference to licensing schemes. As a regulatory service there are limitations in how we can contribute to this work in relation to licensing. The legislation which governs licensing restricts what Local Housing Authorities can include in the conditions we attach to a licence. For HMOs the conditions are restricted to the management, use, occupation, condition and contents of the house. For non-HMOs, conditions are restricted to the management, use or occupation of the property. Furthermore, there has been case law that confirms it is unlawful to include conditions which improves or upgrades houses or to install new facilities and equipment. Case law has also determined that we could not offer incentives, for example offering a reduced fee for planting a tree, because as the scheme is cost neutral it would lead to an increase in the fees of other landlords. The team have investigated whether any councils in this country include the planting, retention, and renewal of trees within their regulatory service policies and have not been able to identify any.	
0050	11-Jun-24	Tree Management Policy 2024-2039	That the Council explicitly recognises the importance of mature trees within the Tree Management Policy 2024- 2032 and highlights the need for the Planning process to be sympathetic to mature and existing trees.	In Part	The policy will be updated to recognise the importance of mature trees. However, it is for planning policy to set out how trees are dealt with through the planning process, not this tree management policy, so this element cannot be agreed.	Yes - to be checked once policy published.	
0051	11-Jun-24	Framework for the Installation of Renewable Technologies in Council Owned Properties	That, through the Framework and more broadly across the Council's procurement processes, the Council encourages the submission of bids from suppliers which are representative of the local population of Oxford, particularly those with strong female and ethnic minority representation, to ensure that 'green growth' is as inclusive as possible.	Yes	Consideration will be made when creating the Framework with criteria included around social value and equality but keeping within the legal requirements which apply to procurement processes and the principal aim of procuring high-quality goods and services at best value to the taxpayer.	Yes - update to be requested in due course.	

To:	**Climate and Environment Panel**
Date:	**10 September 2024**
Report of:	**Environmental Sustainability Lead**
Title of Report:	**Net Zero Masterplan**

Summary and recommendations	
Purpose of report:	To present an update on progress in relation to the Net Zero Masterplan.
Key decision:	No
Cabinet Member with responsibility:	Councillor Anna Railton, Cabinet Member for Zero Carbon Oxford
Corporate Priority:	Zero Carbon Oxford
Policy Framework:	Council Strategy 2024-28
Recommendation(s): That the Panel resolves to:	
1. Consider the Net Zero Masterplan and agree any recommendations.	

Appendices	
Appendix A	Net Zero Masterplan

Updates (see Appendix A)

1. **2030 Actions**

   Completed Actions: *Nil for September 2024*

   No update:

   10. Develop a new strategy for Oxford City Council own waste.

   No change: *Nil*

   Progress & updates on actions in these areas, shown in accompanying appendix:

   4. Commission feasibility studies to assess land assets for sustainability measures.

   3. Climate Literacy

   1. Impacts (resourcing, costs, funding ops) for commitments made for NZ targets.

   6. Salix Funded project updates

   7. Completion of Power Purchase Agreements options.

   9. Decarbonisation of Fleet.

2. **2040 Actions**

Completed Actions*: Nil for September 2024*

No update:

20. Commence proactive enforcement of properties with EPCs of F and G

21. Continue the additional licensing scheme for HMOs including proactive enforcement of F&G EPC properties

23. OX Place will scope out approach to Embodied and/ or whole life carbon in new build homes.

No change:

18. Develop a comms and engagement to increase uptake of energy efficiency for SH.

27. Review and update the draft Oxford City Waste Strategy.

Progress & updates on actions in these areas, shown in accompanying appendix:

16. Legislative duty under Environment Act

12. 5 x Community Employment & procurement Plans have been agreed at 3 development sites.

13. Investing Council's Shared Prosperity Funding to increase retrofit skills.

15. Supporting SMEs with Net Zero Transition

14. Test and develop processes for net zero Local Plan

17. Longer term strategy for Housing Stock – progress update on information systems.

22. Notes on potential impact of grid constraints for zero carbon aspirations for new private homes.

24. Eco-moorings update.

26. GULO P2 update.

3. **Note:** Actions shown as completed are removed from subsequent updates of the Net Zero tracker, while new ones may be added on.

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Service area or department	Environmental Sustainability
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	A	B	C	D	E	F	G	H	I	J	M
1	**2030 LIVE ACTIONS**										
2		**Priority level (emissions reduction, climate change resilience and / or biodiversity benefits)**	**Action**	**Resources**	**Milestones**	**Outcome**	**Delivery lead (one name only - for internal progress tracking)**	**Due date**	**RAG (progress against due date)**	**Comment on RAG status**	**Aug'24**
3	**Overarching actions**										
4	4	HIGH	Commission feasibility study to assess land assets for sustainability measures [Carbon Management Plan; Leaders briefing April '22]	£TBC (Net Zero Transition Fund)	BNG project has set milestones. Renewables/other sustainabiltiy measures project needs to be set up	1. Feasibility for City Council BNG provision. 2. Business cases for potential projects that will reduce energy bills/ generate income and reduce carbon.	Mish Tullar	6/25/2025 (revised date)		Waiting for April' 24 and additional staff	An 18 month project examining BNG potential on @10 plots of City owned land started in May 2024. Ecological consultants are currently establishing the biodiversity baseline and potential for gain. if viable, the outcome is to provide BNG options for Council developments only. Renewables feasibility study not currently resourced.
5	3	MEDIUM	Develop and schedule delivery of Carbon Literacy training, including key areas such as procurement. [Carbon Management Plan; Environment Audit]	Staff time (ES for develoment) All Staff attending training	September 2023 roll out of training	Improved baseline knowledge of all staff helping the council meet Net Zero targets	Tina Mould	01/05/2024 [revised date from June 2023]		Roll out in progress	Officer now appointed and training programme in delivery.
6	1	LOW	Produce detail costings for commitments made in the Carbon Management Plan and Zero Carbon Oxford Action plan including resourcing, costs (known and unknown), and current/ future funding streams. Include a log of funding applied for. [Environment Audit response 2022]	Staff time (ES, Finance)	1. 2030 costings and plan. 2. 2040 costings and plan. .	Understand funding received and potential gaps	Nigel Kennedy	10/1/2025 (date for 2030 plan update)	Not possible currently to meet Env audit requirements	Impacted by lack of data and systems to capture this information.	NZ Steering group agreed that a paper should be compiled for early 2025 outlining the Council's ability to achieve its 2030 NZ targets, including EPC-C on Social Housing and Carbon Management Plan targets. This will provide more information on what is affordable by 2030.
9											
10	**Council building decarbonisation**										
11	6	HIGH	Progress Salix pipeline project priorities including Leys lighting and low emissivity ceiling for the Ice Rink [Carbon Management Plan; Leaders briefing April '22]		Revised - projects completed and installed	Council energy bill reduction and carbon reduction	Vikki Robins	Aug-24 Leys) Revised dates Aug-24 (Ice Rink)		90% completed	Leys lighting project required some revision to light placement (brightness required for swimming events) and now assessing for final suitability. Ice Rink low emissivity ceiling in place and fully operational since 26/7/24
12	7	HIGH	Provide best value for Council energy management. Including scoping options/ opportunities for Power Purchase Agreements with the Low Carbon Hub and ZCOP Partners. Managing Council energy usage well and obtaining best value sustainable utility purchasing. [Carbon Management Plan; Leaders briefing April '22]	Staff time (Environment Sustainability)	Outcome of energy review planned for 2024.	Energy usage well controlled and continue to explore opportunities for reducing energy costs to the Council.	Vikki Robins	Dec'24.		Current utilities procurement completed. Work is now focussed on cost effective Council utility usage.	A Energy Procurement Review has been agreed to be undertaken in 2025 - which will look at PPA's and other methods of best value green energy purchasing. Current energy contract expires Oct 2026 with an option to extend to 2028.
14											
15	**Council fleet decarbonisation**										
16	9	MEDIUM	Develop an options paper setting out routes towards the full decarbonisation of fleet vehicles, with full sustainability impacts considered). [Carbon Management Plan]	Staff time (ODS and Environment Sustainability)	25% fleet EV by 2023. Net Zero Fleet by 2030.	Plan setting out different technology options, timescales, impacts and costs to support full fleet decarbonisation.	Simon Howick	Nov -24 (revised)		The Council achieved 25% fleet electrification by 2023. in 2024 it is at @35%. The next target is defining what is achievable and affordable by 2030,which will be included as part of the 2030 NZ review for Jan '25.	Fleet has been reduced by c. 10% in year - aiding in overall emission reductions. The use of HVO as an alternative to diesel is being revisited as the market offering for zero emission HGV and commercial vehicles matures. Extended operating lives of RCVs are evaluated on a vehicle by vehicle basis beyond depreciation i.e 7 years up to 10 years. A more detailed assessment of fleet options will be included as part of the update assessment of the Council achieving its 2030 net zero target that will be produced in early 2025.
17											
18	**Council waste reduction**										

	A	B	C	D	E	F	G	H	I	J	M
1	**2030 LIVE ACTIONS**										
2		**Priority level (emissions reduction, climate change resilience and / or biodiversity benefits)**	**Action**	**Resources**	**Milestones**	**Outcome**	**Delivery lead (one name only - for internal progress tracking)**	**Due date**	**RAG (progress against due date)**	**Comment on RAG status**	**Aug'24**
19	10	LOW	Develop a revised strategy for Oxford City Council own waste to reflect changes to City Council buildings and ODS buildings (SAC to the Town Hall, other Council work places, ODS Depots.	Staff time (ODS and OCC)	New baseline data Discussion prior to the move to Town Hall to understand arrangements	Ensure an internal resource and recycling plan that aligns with Oxfordshire Resource and Waste Partnership objectives	David Hunt & Ollie Hearn	Dec-24			

	A	B	C	D	E	F	G	H	I	J	M
1	**2040 LIVE ACTIONS**										
2		**Priority level (emissions reduction, climate change resilience and / or biodiversity benefits)**	**Action**	**Resources**	**Milestones**	**Outcome**	**Delivery lead (one name only - for internal progress tracking)**	**Due date**	**RAG (progress against due date)**	**Comment on RAG status**	**Aug-24**
3	**Overarching actions**										
4	16	HIGH	Legislative duty to conserve and enhance biodiversity introduced by Environment Act. Review what this will mean and who it will impact. Plan for additional reporting requirements. [New / amended action]	Staff time (biodiversity officer plus all Council functions)		Council needs to publish a report in 2025, confirming how it is meeting the requirements and duties placed on it under Env Act.	Tina Mould	Jan'25		In progress, slightly delayed due to lack of resource.	It was agreed in 2023, that a Biodiversity Strategy would be the tool to meet these legisaltive requirements under Env Act. The scope of the Biodiversity Strategy is being collated. Work is delayed, due to resourcing challenges (unable to recruit a permanent Ecology Officer).
6	13	MEDIUM	Use the Council's Shared Prosperity Funding to invest in skills provision and increase take up for building retrofit across council and subsidiary owned buildings. This will require engagement and potentially commissioning with local Training Providers, as well as work with main contractors and sub-contractors to ensure sufficient capacity and local labour market benefits. [New / amended action]	Staff time (Economic Development and Environment Sustainability)	SPF Programme delivery 2024/25	Increased number of local people trained in energy efficient construction and retrofit methods and increased number of local companies offering these services	Mish Tullar/Carolyn P	Mar-25		Env Sustainability have taken on this work stream. A new staff member was appointed in June to work on matching employers to retrofit skills courses to build knowledge and skills	SPF funding is being used through OCCs Green Skills Fund to increase the local skill base by funding courses and qualifications for retrofit applications and net zero practices. The funding is £60,000 split over 3 application windows where eligible applicants can apply and if successful will have a course spot funded for them with a local training provider. The scheme started later than planned as staff weren't in post until 17th June 2024, however we are moving ahead with a revised schedule with the first round beginning in August 24 and the final funding round will end in March 25.
8	15	MEDIUM	Work with external partners, including OxLEP, the Zero Carbon Oxford Partnership, and Oxfordshire Greentech to develop best approach to work with SMEs to support the Net Zero transition. [New / amended action]	Staff Time (Economic Development, Environment Sustainability)	ZCOP Expansion to include SME provision ZCOPID project outcomes	Make sure that there are mechanisms in place to support SME NZ transition	Mish Tullar/Carolyn P	Ongoing		Discussions ongoing with OxLEP (via Economic Development)and ZCOP (via Environmental Sustainability).	Greentech membership has been extended for an additional year. Greentech also working with OCC to ensure SMEs are aware of free green skills training, and to help us in distributing 8-10 free site energy audits (worth ~£1,500) with concrete low cost energy saving actions for the SME. We are developig an action plan under the ZCOP ID project that will consider how industrial SMEs can be supported to decarbonise in a more strategic way (Economic development are involved in this project).
10											
11	**Residential buildings (existing)**										
12	17	HIGH	OCC to develop a longer-term strategy and programme of decarbonisation works for own housing stock building on the condition survey report findings including delivery options through voids. [New / amended action]	Staff time (Property team); HRA and SHDF funded		Full strategy and programme in place for housing stock decarbonisation. Improved energy efficiency of council housing stock to achieve EPC C target by 2030	Malcolm Peek	TBC		Progressing	The 5 year plan is currently being developed which is part of planned works delivery. This includes EPC below C properties. Stock condition surveys are currently underway and include EPCs for below C properties to determine current rating ensuring improvements are captured.
13	18	HIGH	Develop a communications and engagement plan to increase uptake of energy efficiency improvements in Council - owned properties, supporting tenants where appropriate. This will include retrofitting champions. This will inform bid and delivery of SHDF [New / amended action]	Staff time (landlord services)	Engagement plan developed as part of SHDF wave 2.1. bid	Uptake of retrofit measures is increased.	Nerys Parry	Mar-23		Engagement plan developed	Engagement plan in place and being used for delivery of SHDF and tweaked as necessary
15	20	HIGH	Commence proactive enforcement of properties with EPCs of F and G [Cabinet decision March 2021]	Fully self-funded	Scheme start Sept 1 2022 Proactive enforcement from Jan 2023	Improve energy efficiency of private rented sector in Oxford, using EPC ratings of D to G to prioritise inspections	David Butler	Ongoing from Q4 22-23			No update
16	21	HIGH	Continue the additional licensing scheme for HMOs including proactive enforcement of F&G EPC properties [Cabinet decision March 2021]	Fully self-funded	Started 10 June 2021 with proactive, immediate enforcement.	Improve energy efficiency of HMOs in Oxford, using EPC ratings of D and G to prioritise inspections	David Butler	Ongoing from 2021			No update
17											
18											
19	**Residential buildings (new build)**										
20	23	HIGH	OX Place will scope out approach to Embodied and/ or whole life carbon in new build homes. [New / amended action]	Staff time (OX Place)	HRG to agree approach and pricing mechanism	Clarify OX Place intermediary approach to embodied energy/whole life carbon prior to likely new Building Regulation in 2025	Helen Horne	Sep-23		On Hold	No update
21	22	HIGH	The Council has adopted an aspirational target that all private homes built through the Council's companies are electrically heated and built with a 'fabric -first' approach. OCHL and HRA new builds are currently working to a minimum carbon reduction target of 40% below the new 2021 Building Regulations; which will be exceeded where financially viable. A longer term target is to be zero carbon for regulated energy by 2030 as required by Planning. [New action]	Staff time (OX Place) Additional build costs where the statutory requirement is exceeded.	Started 1 June 2022. Some zero carbon buildings completed or in progress. Ability to exceed target is site cost dependant	Progression to net zero for operational regulated energy to 2030. Homes will be net zero for all operational energy once the electricity grid has decarbonised (estimated 2035).	Helen Horne	Ongoing from June 2022		The Council is committed to meeting the targets, however it may be challenged by grid capacity constraints.	Work ongoing with SSEN and via new Local Area Energy Planning (LAEP) exercise to understand energy constraints and seek resolution. Council also lobbying government over utility constraint as they start to impact on economic and residential strategic delivery
22											
23	**Transport**										

	A	B	C	D	E	F	G	H	I	J	M
1	**2040 LIVE ACTIONS**										
2		**Priority level (emissions reduction, climate change resilience and / or biodiversity benefits)**	**Action**	**Resources**	**Milestones**	**Outcome**	**Delivery lead (one name only - for internal progress tracking)**	**Due date**	**RAG (progress against due date)**	**Comment on RAG status**	**Aug-24**
24	24	MEDIUM	Delivery of electric infrastructure that could accelerate the uptake of electric boats and reduce their reliance on fossil fuel use for domestic heating.	£193,000 DEFRA's AQ Grant scheme for the installation of eco-moorings at the towpath moorings of Aristotle Lane. Results of this bid will be known in March 2023)	DEFRA's Quarterly grant status reports – if the bid is successful	Installed electric hook ups by Jan 2025. 12 month engagement programme to support boating communities living along Oxford's waterways to reduce emissions.	Tina Mould	Jun-25		In progress	Installation of the electric boat charging facility now proceeding and due to be completed in Nov'24.
26	26	MEDIUM	GULO P2 rollout	Staff time (Environment Sustainability) & County	Tender to be put out by 20/10/23	Deliver a further 100+ charging sockets across Oxford to meet the needs of residents without acess to home charging.	Tina Mould	May-23		Formal handover due to be completed by Oct '24.	Discussions under way with County over transfer of GULO P2 funding and duties to them to align with LEVI delivery
27											
28	**Waste**										
29	27	LOW	Review and update the draft Oxford City Waste Strategy 21 – 23 that sets out ODS plans to meet Waste Partnership commitments. [New / amended action]	Staff time (ODS and OCC)	N/A	Strategy updated until 2024 This will include, updated performance	Mish Tullar	TBC following publication of statutory guidance			Decision to rollover existing Waste & Recycling Strategy due to significant changes pending in the waste system remains.
30		The Waste Strategy continues to be under review, primarily due to the delay in Government releasing the statutory guidance and consultation outcome regarding the DRS (Deposit Return Scheme and EPR Regulations (Extended Producer Responsibilities) regarding packaging. Once published we will discuss and formulate a partnership strategy through the ORWP, in addition to considering what if any actions we may need to be considered for Oxford City to maximise the benefit and minimise the impact of any requirements set out within these regulations.Since the original Draft report was produced, coffee pod kerbside collections have been introduced. Recently, through the ORWP, an application has been made for funding to introduce a trial on the collection of single-use vapes from deposit locations. Single use vapes are a concern due to their construction being primarily that of a lithium battery. This is not only a valuable resource but poses fire risks if disposed of incorrectly.A waste composition study took place in November 2022, taking a sample of 500 properties across the 5 "Acorns" associated with levels of affluence. While recycling rates in the city are good, the key point to note was the improvements that can be made which would affect overall recycling and contamination results. From the sample, 45% of properties did not present a kerbside food caddy, 45% of the waste in residual bins was recyclable and of the recyclable waste in residual bins, food waste was the greatest proportion of this recyclable waste. This is to be the primary focus in the coming months.In addition to the composition study, the waste processed by N&P is analysed and the percentage of contamination recorded. The below graph shows the % of contamination each year and shows that the first month of this year has reached 11.84%. This is not the full picture as it is a drop compared to February and March in which both months exceeded 15%.In terms of performance, following the notable increase of household waste during the early stages of COVID lockdown, the subsequent 2 years have seen positive improvements in almost all areas. Domestic food waste saw a notable increase in tonnage in 2022/23, but this is still lower than 2019/20. The focus on food waste as highlighted above will hopefully influence a reduction in this going forward.								
31											

Climate & Environment Panel - Air Quality Annual Status Report 2024

Background

- In Oxford, Nitrogen dioxide (NO_2) is still the pollutant of most concern, and the entire city has been a designated Air Quality Management Area (AQMA) for NO_2 since 2010
- Transport is by far the most significant source of emissions of oxides of nitrogen in the city, accounting for 68% of emissions, 19% of emissions come from commercial and residential heating, 12% from industry and services, and 1% from a wider mix: waste, agriculture, solvents.
- There is a requirement for Oxford City Council to report annually to Defra on air quality in the city.
- The annual report combines information on monitoring undertaken in the city, trends in air quality and progress with the delivery status of the 30 measures that the city and its partners have committed to deliver in the city's current Air Quality Action Plan (AQAP).

Annual Status Report (2023)

- In 2023 air quality levels were monitored at 128 locations within the city.
- In 2023, NO_2 levels decreased (on average) by 14% across the city, when in comparison with the previous reporting year of 2022. This compares against an average UK reduction of 9% in 2023.
- NO_2 levels are now (on average) 33% below 2019 levels (the last pre-pandemic year).
- Only 2 sites out of the 128 were found to be in breach of the UK's legal annual mean limit value (40ug/m^3) for this pollutant: Headington Hill and Southern Bypass, at Oxford's ring road[1].
- Only nine of the 128 sites were in breach of Oxford's local annual mean target for NO_2 (30 µg/m^3) – a commitment laid out in the city's AQAP, and which is expected to be achieved across the city by 2025. Those locations are St Aldates, St Clements (2x), High Street, Holloway Road, Headington Hill, and Oxford's ring road (3x).
- PM_{10} and $PM_{2.5}$ were both monitored by automatic continuous monitors at AURN St Ebbes (urban background) and Oxford High Street (roadside) in 2023.
- The PM_{10} annual means obtained for these sites were of 9 and 14 µg/m^3 respectively. These values are both below the current UK legal annual mean limit of this pollutant (40 µg/m^3) and of the WHO recommended annual mean (15 µg/m^3).
- These PM_{10} measurements represent reductions of 25% and 12.5% when compared with the levels measured at these sites in 2022.These reductions are much more pronounced than the overall average PM_{10} decrease seen in the UK in 2023 (equivalent to 10%).
- The $PM_{2.5}$ annual means obtained for these sites were of 6 and 8 µg/m^3 respectively. These values are below the current UK legal annual mean limit of this pollutant (10 µg/m^3) and just slightly above (at Oxford High Street) the WHO recommended annual mean (5 µg/m^3)
- These $PM_{2.5}$ measurements represent a reduction of 14% (at AURN St Ebbes) and an increase of 33% (at Oxford High Street) when compared with the levels measured at these sites in 2022.However, it is important to consider that $PM_{2.5}$ data capture was relatively poor at Oxford High Street in 2022 (only 41%), as the $PM_{2.5}$ monitor had only been installed in May. This is likely to be the reason that explains the slight discrepancy in the $PM_{2.5}$ levels measured at this location between 2022 and 2023.
- $PM_{2.5}$ measurements obtained at AURN St Ebbes in Oxford are aligned with the UK's national trend for this pollutant: average $PM_{2.5}$ concentrations have reduced in the UK on average by 12%.
- Ozone measurements obtained from the automatic monitor at AURN St Ebbes exceeded the legal air quality objectives for this pollutant 113 times, during a total of 19 days in 2023.

1 Although in breach of the UK's annual mean limit value for this pollutant (40µg/m^3), none of these sites is particularly relevant to LAQM: Headington Hill is not considered a location of relevant exposure (i.e., a location where members of the public are likely to be regularly present for a period of time appropriate to the averaging period of the annual mean limit value; and Southern bypass does not form part of Oxford City Council's jurisdiction). The purpose of monitoring at these locations relates solely with the evaluation of the possible impacts' future interventions (traffic filters) can cause in terms of traffic displacement in those areas.

Zero Emission Zone Pilot (ZEZ)

- The UK's first ZEZ was launched in February 2022.The monitoring results obtained in 2023 from all the locations in the ZEZ area show that:

  - NO2 levels have continued to reduce overall within the ZEZ.
  - New Inn Hall St, Cornmarket St and Bonn Square all had reductions of 2µg/m3 (or 13%, 11% and 9% respectively).
  - St Michaels St and Queen St had marginal reductions of 1 µg/m3 (7% and 5%).
  - George St (Magdalen St) saw a slight increase of 2 µg/m3 (or 9%).
  - The highest reduction was seen at New Road (7 µg/m3 or 24%). However, this relates with the interference of scaffolding works at St Peter's college, which have limited the effectiveness of the diffusion tube measurement.
  - Overall, NO2 annual mean measurements have varied from a minimum of 13 µg/m3 (New Inn Hall St, S Michaels St) to a maximum of 21 µg/m3 (Queen St) in all the areas covered by the zone.
  - The measurement obtained at Queen St is the highest within the zone, due to this street being part of the city's bus route – however, this measurement is still 47.5% below the UK legal limit and 30% below the city's local target for this pollutant.

- A significant reduction of NO_2 levels is expected on Queen St and more widely across the city in 2024, due to the recent delivery of 159 fully electric buses from the Zero Bus Regional Areas (ZEBRA) scheme. The arrival of these buses will mean that 69% of the total bus mileage operating in the city will be electric.

Low Traffic Neighbourhoods (LTNS)

On the 17th October Oxfordshire County cabinet decided that the East Oxford LTNs located at St Marys, St Clements and Divinity Road would remain in place. An Oxfordshire County cabinet decision was also made on the 22nd June 2023 to approve proposals to remove LTN bollards on three roads in Cowley (Littlemore Road, Crescent Road and Littlehay Road) and to enforce the traffic restrictions using Automatic Number Plate Recognition (ANPR) cameras.

<u>Air Quality on LTN boundary roads</u>

- Holloway road (DT80) -boundary road for Temple Cowley LTN, saw NO2 reductions of 3 µg/m3 (from 34 to 31 µg/m3). This matches the concentration obtained in 2020 (the year of the lockdowns) and represents a reduction of 6 µg/m3 (or 16%) in relation to the NO2 levels obtained in 2019 (pre-pandemic).
- DT8 (Oxford Road/Cowley), DT7 (Oxford Road/In Between Towns Road) and TF32 (Garsington Road/St Lukes Road -boundary roads for Temple Cowley and Florence Park LTNs, saw NO2 reductions of 4, 2 and 3 µg/m3 (or 14%, 7% and 15%) respectively.
- Diffusion tube TF38 on Church Cowley Road (boundary road for Florence Park and Church Cowley LTNs) measured an annual mean NO2 of 21 µg/m3. NO2 monitoring was only conducted at this location for the first time in 2023, reason why there is no element of comparison with 2022. The measurement obtained in 2023 is 48% below the UK legal limit for this pollutant and 30% below Oxford's local NO2 annual mean target.
- Iffley Road/Henley Avenue/A4158 (boundary road with St Marys, Florence Park, and Church Cowley LTNs) saw NO2 reductions of 4 µg/m3 (or 15%) at the cross with Boundary brook road (DT4), of 6 µg/m3 (or 23%) at the cross with Stanley Road (TF17) and of 8 µg/m3 (or 23%) at the cross with Newmans Road (TF34).
- St Clements Street saw NO2 reductions of 5 µg/m3 (or 12%) at DT55, 1 µg/m3 (3%) at DT77 and of 2 µg/m3 (7%) at DT85.

- Morrel Avenue (boundary road for St Clements and Divinity Road LTNs) saw NO2 reductions of 3 µg/m3 (19%) at monitoring location TF18 and of 1 µg/m3 (8%) at LT4.
- Cowley road (boundary road for St Clements, St Marys and Divinity Road LTNs) saw NO2 reductions of 4 µg/m3 (15%) at the cross with James Street (DT72) and of 3 µg/m3 (16%) at DT81 (cross with Union Street).

Air Quality Inside LTNs

- St Marys LTN saw NO2 reductions of 2 µg/m3 (15%) at both Howard St and Hurst St;
- St Clements LTN saw an NO2 reduction of 2 µg/m3 (15%) on Prince St and of 1 µg/m3 (8%) at East Oxford Primary school.
- Divinity Road (within Divinity Road LTN) saw an NO2 reduction of 2 µg/m3 (17%).
- Diffusion tube LT6, located at St Christophers School (within Temple Cowley LTN), saw an NO2 reduction of 2 µg/m3 (17%).

All the monitoring locations both inside and on the boundary roads of Oxford's LTNS showed a decrease in NO2 levels measured in 2023, when in comparison with the previous year (2022).

None of the NO2 levels measured both inside and on the boundary roads of Oxford's LTNS was above the UK legal limit value for this pollutant, and only 3 monitoring locations (St Clements: DT55 - 38 µg/m3 and DT77 – 34 µg/m3), and Holloway Road (DT80 - 31 µg/m3) showed NO2 levels above the city's local annual mean target for NO2 (30 µg/m3).

Summary of some of the most relevant air quality measures delivered in 2023/2024

September 2023 – A new Oxfordshire air quality website was launched, to provide air quality guidance and resources for all residents and visitors in Oxfordshire. The development of the new website (www.oxonair.uk) was led by Oxford City Council using £162,500 of DEFRA Air Quality Grant funding, and delivered in partnership with all the local authorities in Oxfordshire – link to press release:

January 2024 – The first electric buses from a total of 159 buses which had been partly secured by the government's Zero Emission Bus Regional Areas (ZEBRA) have arrived in Oxford. The full delivery of all the 159 buses (which will represent 69% of all the bus mileage of the city) will be delivered by June 2024. Once delivered, Oxford City will have one of the biggest UK fleets of electric buses outside London - link to press release;

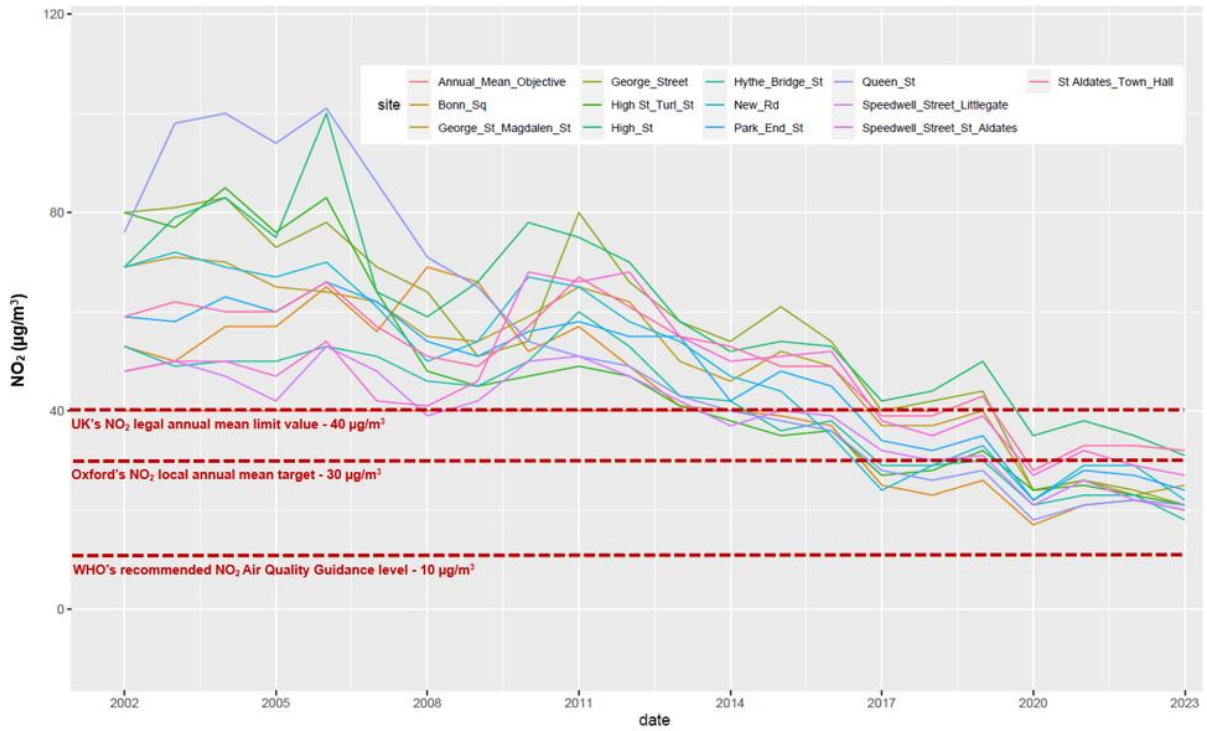
February 2024 – Oxford City Council decided to move ahead with its plans to expand Oxford's Smoke Control Area, after the plans to consult on the matter had been approved by Oxford City Council's cabinet meeting in September 2023, and following the results of its public consultation. Oxford currently has 23 Smoke Control Areas, which cover about 48% of the Oxford area. The plans for having a city-wide Smoke Control Area constitute an effort to try to reduce $PM_{2.5}$ emissions in the city. The final decision is currently pending formal approval by the Secretary of State -link to press release;

March 2024 – Oxford City Council launched a new e-cargo bike delivery trial to support businesses operating in Oxford City Centre. The project is being delivered in partnership with local cargo bike delivery company Velocity Cycle Couriers and allows participating businesses to offer same day and next day zero emission deliveries to their customers – link to press release;

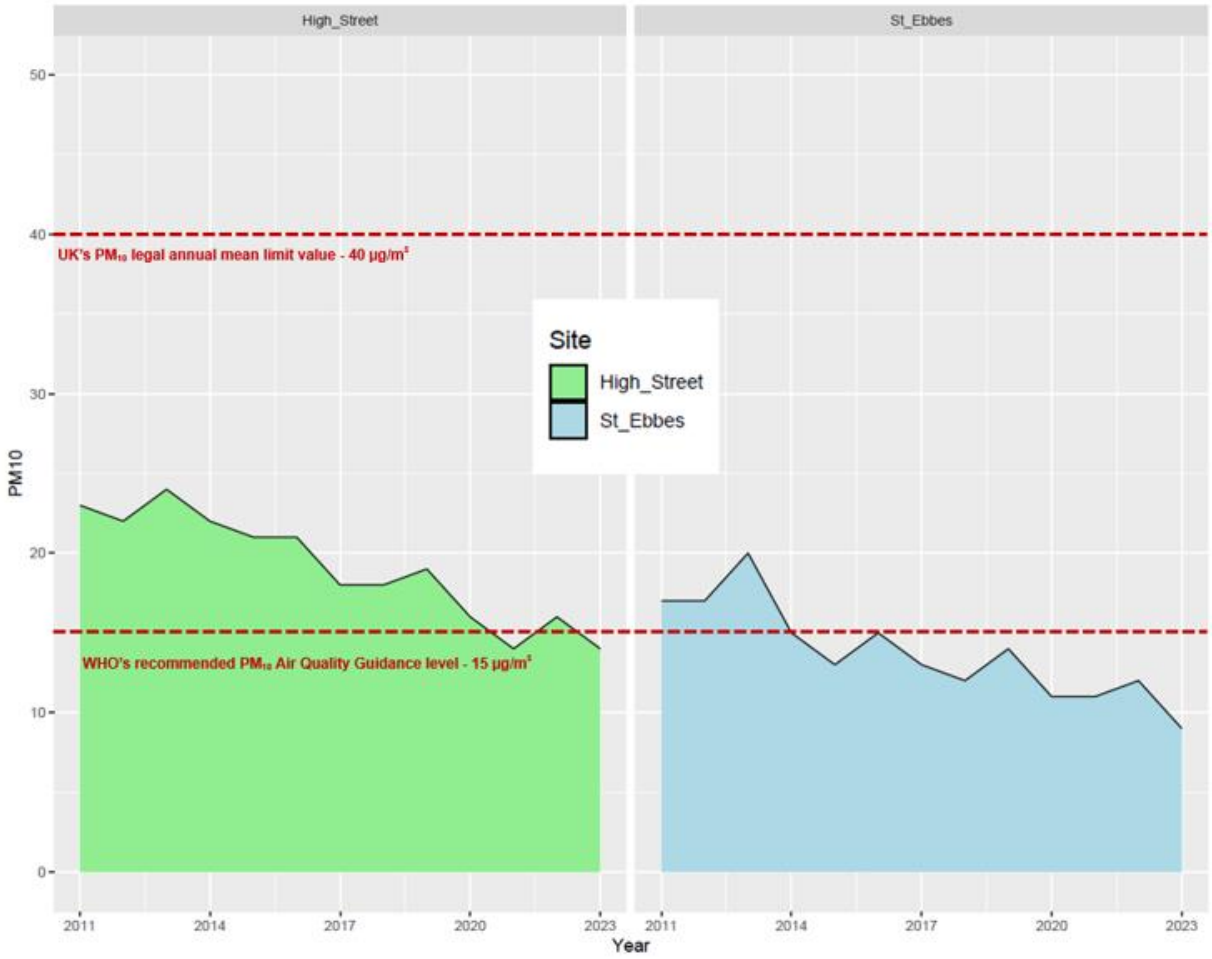
Priorities for 2024

In the next reporting year, Oxford City Council and its partners will continue to progress delivery of the air quality measures committed to in on our Air Quality Action Plan 2021-2025 and will also initiate work to develop a new AQAP for the city (a document that will need to be finalised and approved by December 2025).

Oxford City Centre historic annual mean nitrogen dioxide levels (2022-2023)



Oxford's long-term trends in annual mean PM10 levels (2011-2023)


High_Street
St_Ebbes
50
40
30
20
10
0
PM10
UK's PM10 legal annual mean limit value - 40 µg/m³
WHO's recommended PM10 Air Quality Guidance level - 15 µg/m³
Site
High_Street
St_Ebbes
2011
2014
2017
2020
2023
Year

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OXFORD CITY COUNCIL

2024 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management, as amended by the Environment Act 2021

Date: June 2024

Information	Oxford City Council Details
Local Authority Officer	Pedro Abreu
Department	Environmental Sustainability
Address	Town Hall, St Aldates Oxford (OX1 1BX)
Telephone	01865 249811
E-mail	airquality@oxford.gov.uk
Report Reference Number	ASR2024
Date	June 2024

Executive Summary

The Impacts of poor Air Quality

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in hospital admissions and mortality. In the UK, it is estimated that the reduction in healthy life expectancy caused by air pollution is equivalent to 29,000 to 43,000 deaths a year[1].

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Additionally, people living in less affluent areas are most exposed to dangerous levels of air pollution[2].

Table 1 provides a brief explanation of the key pollutants relevant to Local Air Quality Management and the kind of activities they might arise from.

Table 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO_2)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM_{10} refers to particles under 10 micrometres. Fine particulate matter or $PM_{2.5}$ refers to particles under 2.5 micrometres.
Ozone (O_3)	Ozone (O_3) is not emitted directly into the atmosphere in significant quantities, but is a secondary pollutant produced by reaction between nitrogen dioxide (NO_2) and hydrocarbons, in the presence of sunlight. Peak O_3 episodes are therefore strongly linked to typical summer weather conditions (high temperatures, sunny weather), giving rise to the so called "summer smog".

1 UK Health Security Agency. Chemical Hazards and Poisons Report, Issue 28, 2022.

2 Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

Air Pollution sources in Oxford

The city of Oxford, as with many urban areas throughout the United Kingdom, is subject to poor air quality, particularly in areas with high levels of road traffic. In Oxford, Nitrogen dioxide (NO_2) is still the pollutant of most concern, and the entire city has been a designated Air Quality Management Area (AQMA) for NO_2 since 2010.

According to Oxford's most recent source apportionment study, the transport sector continues to be by far the largest contributor (68%) to total emissions of Nitrogen Oxides (NO+ NO_2) in the city, followed by domestic combustion (19%), combustion from industry and services (12%) and others: waste, agriculture, solvents, nature (<1%).

The city's current Air Quality Action Plan (AQAP) sets out a list of actions that the city council and its partners have committed to deliver during the period 2021-2025 in pursuit of an improvement of Nitrogen Dioxide (NO_2) levels in the city. The city's action plan seeks to go further than the current UK legal annual mean limit value for NO_2 of 40 µg/m^3, by establishing a much more stringent local annual mean NO_2 target of 30 µg/m^3 to be achieved by 2025 in recognition that there's no safe level of air pollution.

Current status of air pollution in the city

Air pollution levels have significantly improved in the city of Oxford over the last few years.

Since 2021 (the year the city launched its current Air Quality Action Plan 2021-2025), we have seen an average reduction of 18% of Nitrogen Dioxide (NO_2) across the city, and in 2023 we have seen no exceedances of any of the UK legal limits[3] of this pollutant (annual mean and hourly mean). This is a very important milestone, if we remember that being in breach of these legal limits in the past, was what led to the designation of the entire city of Oxford an Air Quality management Area (AQMA).

However, despite the good news, the City Council is aware that there's still much more to be done. We all know that there is no safe level for air pollution, so we need to continue to bring NO_2 to the lowest and safest possible levels. Our commitment to deliver on our annual mean local target across the city by 2025 is a real testimony that the city of Oxford

3 In 2023 there have been no exceedances of the legal limits within Oxford city's jurisdiction in all places considered of relevant exposure (i.e. all locations where members of the public are likely to be regularly present for a period of time appropriate to the averaging period of the annual mean limit value);

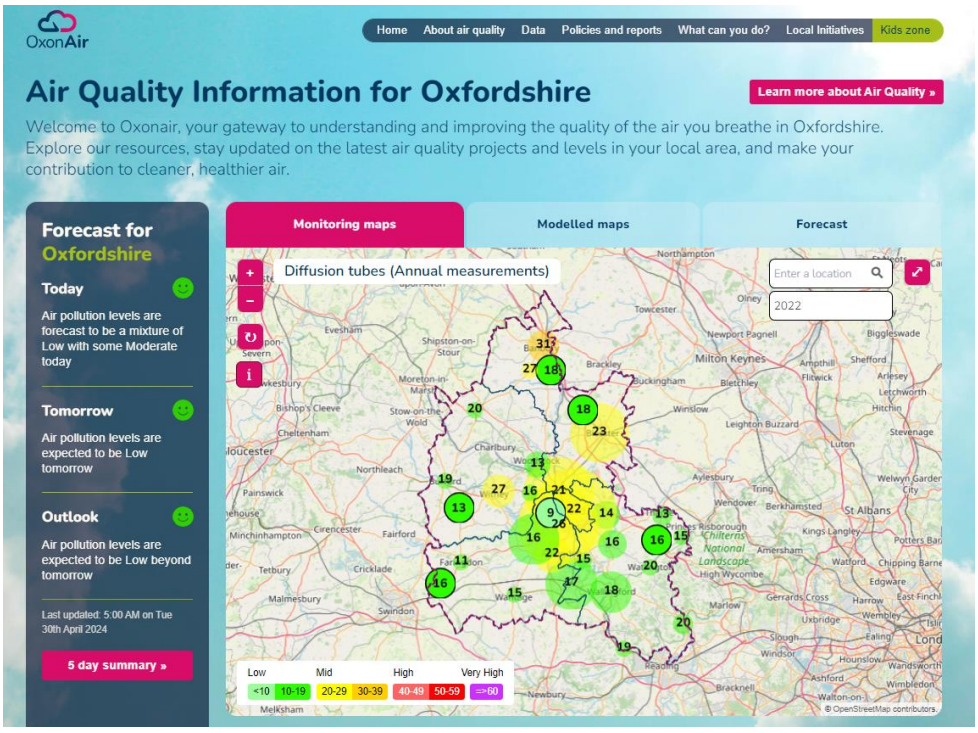
takes the health of its residents and visitors very seriously and of the commitment to improve health outcomes for all.

Actions to Improve Air Quality

Oxford's Air Quality Action Plan 2021-2025 focusses on measures the City Council can address, but also includes measures that we can influence, or work in partnership with others to deliver.

The following are actions that Oxford City Council and its partners have taken over the last reporting year to improve air quality in the city. This AQ ASR reports on all the measures that were delivered by Oxford City Council and its partners, covering the period that goes from May 2023 to May 2024, as the report is prepared and submitted for appraisal to DEFRA every year in June. The list below is presented in chronological order:

September 2023 – A new Oxfordshire air quality website was launched, to provide air quality guidance and resources for all residents and visitors in Oxfordshire.
The development of the new website (www.oxonair.uk) was led by Oxford City Council using £162,500 of DEFRA Air Quality Grant funding, and delivered in partnership with all the local authorities in Oxfordshire (Cherwell, West Oxfordshire, South Oxfordshire, Vale of White Horse, and Oxfordshire County Council) – link to press release:



October 2023 - The 2023's edition of the EV Summit took place at the Said Business School on the 30th and 31st October in Oxford. The event was run in partnership between Green TV, Oxford City Council, Oxfordshire County Council, Oxford University and Oxford Brookes University. This year's focus was on investment and growth in decarbonised e-mobility;

January 2024 – The first electric buses from a total of 159 buses which had been partly secured by the government's Zero Emission Bus Regional Areas (ZEBRA) have arrived in Oxford. The full delivery of all the 159 buses (which will represent 69% of all the bus mileage of the city) is still on schedule and is occurring gradually until June 2024. Once delivered, Oxford City will have one of the biggest UK fleets of electric buses outside London - link to press release;

January 2024 – Oxford City Council has provided an official letter of intent signed by the Leader of the Council (Cllr Susan Brown) in support of a major grant fund bid to the Green Heat Network Fund by 1Energy to create a privately funded District Heat Network in Oxford. If the grant bid is successful, it could provide zero carbon heat to major heat users

in Oxford including: both universities; colleges; hospitals; City and County Council etc, providing a key deliverable of the Zero Carbon Oxford Action Plan – link to website.

February 2024 – The planning and design stages of the eco-moorings project at Aristotle Lane were finalised in February 2024. The Canal & River Trust (Oxford City Council's delivery partner) is now expected to appoint a developer to deliver the work in June 2024. The project's delivery phase is expected to be concluded by November 2024. In February 2023, Oxford City Council has been granted £192,993 from DEFRA's Air Quality Grant to deliver six "eco-moorings" at the towpath visitors' moorings of Aristotle Lane, on the Oxford Canal, to provide electrical power for up to six visiting boaters to reduce their reliance on diesel engines, generators and wood burners for their day-to-day energy needs -link to press release;

March 2024 – Oxford City Council launched a new e-cargo bike delivery trial to support businesses operating in Oxford City Centre. The project is being delivered in partnership with local cargo bike delivery company Velocity Cycle Couriers and allows participating businesses to offer same day and next day zero emission deliveries to their customers – link to press release;

May 2024 – Oxford City Council decides to move ahead with its plans to expand Oxford's Smoke Control Area, after the plans to consult on the matter had been approved by Oxford City Council's cabinet meeting in September 2023, following the results of its public consultation, and confirmation of the Secretary of State by official letter sent to the City Council on the 21st May. Oxford currently has 23 Smoke Control Areas, which cover about 48% of the Oxford area. The plans for having a city-wide Smoke Control Area constitute an effort to try to reduce $PM_{2.5}$ emissions in the city -link to press release;

Conclusions and Priorities

Oxford's 2023 air quality monitoring results show the following:

Nitrogen Dioxide (NO_2)

- NO_2 was monitored at a total of 128 sites in the city in 2023.
- Only two of the 128 sites were in breach of the UK's legal annual mean limit value for this pollutant: Headington Hill (TF19) and Southern Bypass (TF35), at Oxford's ring road[4]
- None of the 128 sites is likely to have been in breach of the hourly mean objective for NO_2 (200µg/m^3)[5] – this was the case for the seventh consecutive year.
- Only nine of the 128 sites were in breach of Oxford's local annual mean target for NO_2 (30 µg/m^3) – a commitment laid out in the city's AQAP, and which is expected to be achieved across the city by 2025. Those locations are St Aldates, St Clements (DT55 and DT77), High Street (DT56), Holloway Road (DT80), Headington Hill (TF19), and Oxford's ring road (TF27, TF31, TF35).
- In 2023, NO_2 levels decreased (on average) by 14% across the city[6], when in comparison with the previous reporting year of 2022. For comparison purposes, the NO_2 concentrations at all UK's AURN Roadside and Urban Background automatic monitoring sites have decreased (on average) by 8% and 9% in 2023.
- In 2023, NO_2 levels are (on average) 33% below the levels in 2019 (the last pre-pandemic year).
- In April 2023 Botley road was closed to traffic due to the wider improvements to the western side of Oxford Railway station. NO_2 levels are currently being measured at

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4 Although in breach of the UK's annual mean limit value for this pollutant (40µg/m^3) , none of these sites is particularly relevant to LAQM: Headington Hill is not considered a location of relevant exposure (i.e., a location where members of the public are likely to be regularly present for a period of time appropriate to the averaging period of the annual mean limit value; and Southern bypass does not form part of Oxford City Council's jurisdiction). The purpose of monitoring at these locations relates solely with the evaluation of the possible impacts' future interventions (traffic filters) can cause in terms of traffic displacement in those areas.

5 According to LAQM TG22, only annual means NO_2 that are equal or above 60 µg/m^3 represent locations where exceedances of the hourly mean of this pollutant are likely.

6 According to traffic data provided by Oxfordshire County Council, traffic levels have decreased (on average) within the city of Oxford by 8% in 2023. The closure of Botley road from April 2023 is most likely the main factor that helps explaining this reduction.

4 different locations in Botley Road (DT33, DT35, DT36 and DT84). In 2022, the average NO_2 level measured at these locations was 19 µg/m^3. In 2023, the average NO_2 level measured was of 15.8 µg/m^3. This means that the closure of Botley road led to a 17% reduction of NO_2 levels in this road. Botley is expected to remain closed until October 2024.

Impacts of Zero Emission Zone Pilot (ZEZ)

The UK's first ZEZ was launched in February 2022.The monitoring results obtained in 2023 from all the locations in the ZEZ area show that:

- NO_2 levels have continued to reduce overall within the ZEZ.
- New Inn Hall St, Cornmarket St and Bonn Square all had reductions of 2µg/m^3 (or 13%, 11% and 9% respectively).
- St Michaels St and Queen St had marginal reductions of 1 µg/m^3 (7% and 5%).
- George St (Magdalen St) saw a slight increase of 2 µg/m^3 (or 9%).
- The highest reduction was seen at New Road (7 µg/m^3 or 24%). However, this relates with the interference of scaffolding works at St Peter's college, which have limited the effectiveness of the diffusion tube measurement.
- Overall, NO_2 annual mean measurements have varied from a minimum of 13 µg/m^3 (New Inn Hall St, S Michaels St) to a maximum of 21 µg/m^3 (Queen St) in all the areas covered by the zone.
- The measurement obtained at Queen St is the highest within the zone, due to this street being part of the city's bus route – however, this measurement is still 47.5% below the UK legal limit and 30% below the city's local target for this pollutant.

A significant reduction of NO_2 levels is expected on Queen St and more widely across the city in 2024, due to the recent delivery of the 159 fully electric buses from the Zero Bus Regional Areas (ZEBRA) scheme. The arrival of these buses will mean that 69% of the total bus mileage operating in the city will be done in electric mode.

Impacts of Low Traffic Neighbourhoods (LTNS)

On the 17th October 2023 Oxfordshire County cabinet decided that the East Oxford LTNs located at St Marys, St Clements and Divinity Road would remain in place. An Oxfordshire County cabinet decision was also made on the 22nd June 2023 to approve proposals to remove LTN bollards on three roads in Cowley (Littlemore Road, Crescent Road and Littlehay Road) and to enforce the traffic restrictions using Automatic Number Plate Recognition (ANPR) cameras.

Air Quality on LTN boundary roads

- Holloway road (DT80) - boundary road for Temple Cowley LTN, saw NO_2 reductions of 3 µg/m^3 (from 34 to 31 µg/m^3). This matches the concentration obtained in 2020 (the year of the lockdowns) and represents a reduction of 6 µg/m^3 (or 16%) in relation to the NO_2 levels obtained in 2019 (pre-pandemic).
- DT8 (Oxford Road/Cowley), DT7 (Oxford Road/In Between Towns Road) and TF32 (Garsington Road/St Lukes Road -boundary roads for Temple Cowley and Florence Park LTNs, saw NO_2 reductions of 4, 2 and 3 µg/m^3 (or 14%, 7% and 15%) respectively.
- Diffusion tube TF38 on Church Cowley Road (boundary road for Florence Park and Church Cowley LTNs) measured an annual mean NO_2 of 21 µg/m^3. NO_2 monitoring was only conducted at this location for the first time in 2023, reason why there is no element of comparison with 2022. The measurement obtained in 2023 is 48% below the UK legal limit for this pollutant and 30% below Oxford's local NO_2 annual mean target.
- Iffley Road/Henley Avenue/A4158 (boundary road with St Marys, Florence Park, and Church Cowley LTNs) saw NO_2 reductions of 4 µg/m^3 (or 15%) at the cross with Boundary brook road (DT4), of 6 µg/m^3 (or 23%) at the cross with Stanley Road (TF17) and of 8 µg/m^3 (or 23%) at the cross with Newmans Road (TF34).
- St Clements Street saw NO_2 reductions of 5 µg/m^3 (or 12%) at DT55, 1 µg/m^3 (3%) at DT77 and of 2 µg/m^3 (7%) at DT85.
- Morrel Avenue (boundary road for St Clements and Divinity Road LTNs) saw NO_2 reductions of 3 µg/m^3 (19%) at monitoring location TF18 and of 1 µg/m^3 (8%) at LT4.
- Cowley road (boundary road for St Clements, St Marys and Divinity Road LTNs) saw NO_2 reductions of 4 µg/m^3 (15%) at the cross with James Street (DT72) and of 3 µg/m^3 (16%) at DT81 (cross with Union Street).

Air Quality Inside LTNs

- St Marys LTN saw NO_2 reductions of 2 µg/m^3 (15%) at both Howard St and Hurst St;
- St Clements LTN saw an NO_2 reduction of 2 µg/m^3 (15%) on Prince St and of 1 µg/m^3 (8%) at East Oxford Primary school.
- Divinity Road (within Divinity Road LTN) saw an NO_2 reduction of 2 µg/m^3 (17%).
- Diffusion tube LT6, located at St Christophers School (within Temple Cowley LTN), saw an NO_2 reduction of 2 µg/m^3 (17%).

All the monitoring locations both inside and on the boundary roads of Oxford's LTNS showed a decrease in NO_2 levels measured in 2023, when in comparison with the previous year (2022).

None of the NO_2 levels measured both inside and on the boundary roads of Oxford's LTNS was above the UK legal limit value for this pollutant, and only 3 monitoring locations (St Clements: DT55 - 38 µg/m^3 and DT77 – 34 µg/m^3), and Holloway Road (DT80 - 31 µg/m^3) showed NO_2 levels above the city's local annual mean target for NO_2 (30 µg/m^3).

Particulate Matter (PM_{10} and $PM_{2.5}$)

- PM_{10} and $PM_{2.5}$ were both monitored by automatic continuous monitors at AURN St Ebbes (urban background) and Oxford High Street (roadside) in 2023.
- The PM_{10} annual means obtained for these sites were of 9 and 14 µg/m^3 respectively. These values are both below the current UK legal annual mean limit of this pollutant (40 µg/m^3) and of the WHO recommended annual mean (15 µg/m^3).
- These PM_{10} measurements represent reductions of 25% and 12.5% when compared with the levels measured at these sites in 2022.
- These reductions are much more pronounced than the overall average PM_{10} decrease seen at all Urban Background and Roadside monitoring sites across the UK in 2023 (equivalent to 10%).
- The $PM_{2.5}$ annual means obtained for these sites were of 6 and 8 µg/m^3 respectively. These values are below the current UK legal annual mean limit of this pollutant (10 µg/m^3) and slightly above (at Oxford High Street) the WHO recommended annual mean (5 µg/m^3).
- These $PM_{2.5}$ measurements represent a reduction of 14% (at AURN St Ebbes) and an increase of 33% (at Oxford High Street) when compared with the levels measured at these sites in 2022.However, it is important to consider that $PM_{2.5}$ data capture was relatively poor at Oxford High Street in 2022 (only 41%), as the new FIDAS instrument had only been installed in May. As a result, the annual mean $PM_{2.5}$ had to be annualised in 2022. This is likely to be the reason that explains the slight increase in the $PM_{2.5}$ levels measured at this location.
- $PM_{2.5}$ measurements obtained at AURN St Ebbes in Oxford are aligned with the UK's national trend for this pollutant. Analysis of the UK's $PM_{2.5}$ national trend show that average concentrations have reduced in 2023 on average by 12%, from 2022 levels.

Ozone

Ozone measurements obtained from the automatic monitor at AURN St Ebbes exceeded the legal air quality objectives for this pollutant 113 times, during a total of 19 days in 2023.

Priorities for 2024

Oxford City Council's priorities for the next reporting year are well defined.

Overall, during the course of the next reporting year, Oxford City Council and its partners will continue to progress delivery of the air quality measures committed in our Air Quality Action Plan 2021-2025 and will also initiate work to prepare a new AQAP for the city.

Local Engagement and How to get Involved

One key to changing the current threat of air pollution is educating the communities most impacted by it, providing them with the knowledge that allows them to make informed choices on how they can reduce their personal exposure to air pollution, and how they can contribute to the reduction of air pollution levels in the city.

Oxford City Council has taken significant action in recent years in raising air quality awareness in our communities and in primary schools, with several projects being delivered with that purpose, such as air quality anti-idling campaigns, air quality banner competitions, STOP, and the *Do You Fuel Good?* Campaign, on the negative impacts of wood burning.

This past year we have also launched (in partnership with all the Districts in Oxfordshire and Oxfordshire County Council OXONAIR: a new air quality website for Oxfordshire, where residents and visitors are provided with lots of useful information and advice related with Oxford's air quality (including amongst other useful tools, things like latest levels measured, air quality forecast and latest projects being delivered).

Oxford City Council's communication team also regularly publishes press releases and social media contents which relate to air quality news and projects that are being delivered in the city to raise awareness. We also seek to ensure that the implementation of any major air quality management scheme in the city provides the public with opportunity to have their say and contribute with their own ideas and suggestions.

However, air pollution is not a problem that the City Council and its partners can solve alone - everyone deserves to breathe clean air, but it is important to highlight that

everyone also has a role to play in improving air quality levels, as our everyday decisions can have an impact on the air we breathe. Some of the questions to ask ourselves are:

- Do I burn inappropriate fuels or use inappropriate appliances at home?
- Do I take the car when I could have cycled or used public transport?
- Do I drive my children to school when I could have walked?

We all have a huge role to play, and we can all be part of the solution. Encouraging walking and cycling in the city not only has a positive impact on air quality levels, but it also has multiple other benefits, including increasing the health of wellbeing of all those who live, work and visit Oxford.

Do you want to get involved?

- If you are a science teacher or a person responsible for running an environment club at your primary school, please have a look at our Air Quality Toolkit which contains a series of interesting scientific air quality activities, (linked with the national curricula), and which promote an understanding of the causes and impacts of air pollution with the aim to reduce children's exposure to air pollutants, within the school and through their travel;
- If you live in an area where idling of car engines is a concern, please have a look at the design resources that Oxford City Council has made available to the general public, and which you can download and use to run anti-idling campaigns in your local area;
- Do you have a wood burner or thinking of getting one? please have a look at our advice and our "Do You Fuel Good?" campaign materials, available here;
- If you are considering buying an Electric Vehicle and need to find out where to charge it, please register your interest in Oxford City Council's Go Ultra Low website (or if you are interested in a cable gully solution anywhere in Oxford register it at www.gul-e.co.uk/);
- Look out within your local communities for active groups which have specific interest in air quality matters (ex: Local Friends of the Earth);
- You can also contact Oxford City Council's air quality team directly at any time for any air quality related matter via the following email: airquality@oxford.gov.uk;

Full details of all of Oxford's air quality monitoring results, including real time data on pollutant levels and annual diffusion tube data, reference to the city's daily Air Quality Index (AQI), a metric on the daily levels of air pollution, together with recommended actions, health and/or air quality forecast advice are available on the new Oxfordshire Air Quality website OXONAIR.

Local Responsibilities and Commitment

This ASR was prepared by members of the Environmental Sustainability Team of Oxford City Council with the support and agreement of Oxfordshire County Council colleagues.

This ASR has been approved by:

Cllr Anna Railton

(Oxford City Council's Cabinet Member for Zero Carbon Oxford and Climate Justice)

Dr Rosie Rowe

(Healthy Place Shaping Lead for Oxfordshire with the responsibility within the Public Health team for Air Quality)

Ansaf Azhar

(Director of Public Health & Communites, Oxfordshire County Council)

If you have any comments on this ASR, please send them to the Environmental Sustainability team at:

Town Hall, St Aldates – OX1 1BX (Oxford)

01865 249811 or email us at: airquality@oxford.gov.uk

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1 Local Air Quality Management

This report provides an overview of air quality in Oxford during 2023. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

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 likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Oxford City Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented on Table 16

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 18 months. The AQAP should specify how air quality targets will be achieved and maintained and provide dates by which measures will be carried out.

A summary of AQMAs declared by Oxford City Council can be found on Table 2. The table presents a description of the AQMA that is currently designated within Oxford City Council. Appendix D: Map of the City's AQMA, provides a map of this AQMA and a link to the recently launched OXONair, an air quality website for Oxfordshire, where all the air quality monitoring locations in relation to this AQMA and latest values measured can be found. The air quality objectives pertinent to the current AQMA designation are as follows:

- NO_2 annual mean.
- NO_2 hourly mean.

Table 2 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
The city of Oxford	Declared 2010	NO_2 annual and hourly mean	The whole of the administrative area of Oxford City Council	YES	78 µg/m^3	38 µg/m^3	NO_2 hourly mean: 7 years NO_2 annual mean: 1 year	AQAP (2021-2025) January 2021	Visit the AQAP for Oxford's city-wide AQMA here

☒ **Oxford City Council confirm the information on UK-Air regarding their AQMA is up to date.**

☒ **Oxford City Council confirm that all current AQAPs have been submitted to Defra.**

2.2 Progress and Impact of Measures to address Air Quality in Oxford

Oxford City Council has taken forward a number of direct measures during the current reporting year of 2023 in pursuit of improving local air quality. A complete list of thirty measures is included on Table 3, together with an update on the progress Oxford City Council and its partners have made during the reporting year of 2023 to deliver them.

Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within this table. More detail on these measures can be found in Oxford City Council's current Air Quality Action Plan (2021-2025).

Oxford City Council's key completed measures since last year's ASR can be found in more detail in this report's section "Actions to Improve Air Quality" (pages iii-v above).

Oxford City Council expects the following measures to be completed or progressed over the course of the next reporting year:

- ✓ To fully deliver a £192,993 DEFRA Air Quality Grant funded project for the delivery of six eco-moorings at the towpath visitors' moorings of Aristotle Lane, on the Oxford Canal to reduce boater's reliance on diesel engines, generators and wood burners for their day-to-day energy needs -delivery expected for November 2024.
- ✓ To continue the expansion of the City Council's fleet of electric vehicles.
- ✓ To progress the delivery of the traffic filters trials, which are expected to start in November 2024;
- ✓ To progress the preparation of ZEZ expansion, with the development of a comprehensive engagement programme with a wide range of stakeholders and resident groups across the city -a public consultation is expected for autumn 2024.
- ✓ To continue the roll out of EV chargers across the city, as part of the GULO project
- ✓ To progress with the delivery of Clean Heat Streets, project to install up to 150 heat pumps in Rose Hill and Iffley, aiming to help residents in these areas to make the switch from polluting gas boilers to modern, energy saving, clean and sustainable heat pumps.

Oxford City Council's priorities for the next reporting year are well defined.

Overall, during the course of the next reporting year, Oxford City Council and its partners will continue to progress delivery of the air quality measures committed in our Air Quality Action Plan 2021-2025 and will also initiate work to prepare a new AQAP for the city.

Oxford City Council has worked to implement the air quality measures highlighted in this report, in partnership with the following stakeholders in 2023/2024:

- ✓ Neighbouring local authorities (South, Vale, Cherwell, and West Oxfordshire District Councils);
- ✓ Oxfordshire County Council (The Highways Authority);
- ✓ Canal & River Trust;
- ✓ Birmingham University;
- ✓ Oxford University;
- ✓ Oxford Direct Services;
- ✓ Green TV;
- ✓ Local Friends of the Earth;
- ✓ Ricardo Energy & Environment.
- ✓ Velocity Cycle Couriers Ltd

The potential challenges and barriers to implementation that Oxford City Council and its partners anticipate facing are:

- ✓ The closure of Botley Road (at the point the rail bridge crosses the road near Oxford station) to traffic from 11 April 2023 until the end of October 2024, to enable station and track improvements and highways redevelopment. This will cause a significant impact in the way traffic moves around the city and has already resulted on traffic displacement to other entry points of the city, also producing direct changes on air quality levels in various area of the city as a result.
- ✓ Potential lack of central government funding to help local authorities implementing future air quality measures – the fact that the air quality minister decided to withhold DEFRA's Air Quality grant 2023/2024 (Around £6m in funding promised to local authorities to help tackle air pollution) is a motive of concern.

Table 3 - Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1	Work with schools, vulnerable groups and hard to reach communities to raise awareness of air pollution and promote Active Travel	Public Information/ Promoting Travel Alternatives	Student Assemblies/ Air Quality campaigns/ Promotion of Cycling and Walking	2021	Annually 2021-2025	Oxford City Council + Oxfordshire County Council + Friends of the Earth	Active Travel Fund, LAs annual budget	NO	Fully Funded	< 5k (Per year)	**Completed**	NOx reduction not estimated, but increase of up to 23% in walking rates and reduction of up to 30% car journeys was observed with the delivery of the active travel programme WOW + communication campaigns can increase awareness of up to 12% and behaviour change of up to 6% (Clean Air Day)	Number of walking, cycling, scooting, car, and park & stride trips, Number of participating schools and deprived areas and of activities delivered	Oxford City Council's STOP Project remains active and is being delivered to Primary school upon request of teachers	Primary schools are very busy, and it is difficult for teachers sometimes to find the time to embrace new projects. Support is on-going and delivered on an annual basis.
2	Support city-wide events that aim to accelerate the uptake of sustainable transport	Public Information/ Promoting Low Emission Transport/ Freight and Delivery Management	Webinars/ Summits Physical Events	2021	Annually 2021-2025	Oxford City Council + Other Partners (ex :Green TV)	Sponsorship	NO	Fully Funded	Not estimated	**Completed**	NOx reduction not estimated, but communication campaigns can increase awareness of up to 12% and behaviour change of up to 6% (Clean Air Day)	Total amount of attendees and Businesses participating, number of business adopting sustainable delivery options, number of business compliant with the ZEZ	The 2023's edition of the EV Summit took place at the Said Business School on the 30th and 31st October in Oxford. The event was run in partnership between Green TV, Oxford City Council, Oxfordshire County Council, Oxford University and Oxford Brookes University. This year's focus was on investment and growth in decarbonised e-mobility	Support is on-going and delivered on an annual basis.
3	Support projects that increase Oxford's Air Quality/AQ & Health evidence base	Public Information	Other	2021	Annually 2021-2025	Oxford City Council + Oxfordshire County Council (Public Health/Innovation Teams)	Several types of funding possible (Innovate UK, DEFRA AQ Grant, UKRI)	NO	Partially funded	Not estimated (Successful bids and projects will be added on a regular basis)	**Completed**	Not directly applicable – NOx reduction not estimated	Total amount of partnerships created; number of AQ/health studies delivered	Oxford City and County Councils continue to be active partners of the TRANSITION Clean Air Network undertaking innovative research to address emerging indoor/outdoor air quality challenges across UK surface transport. In 2023 the network has contributed to the delivery of several toolkits and briefing notes A partnership between County and City Council and the University of Birmingham also allowed to publish a study on the impacts of ambient air quality on acute asthma hospital admissions during the COVID-19 pandemic in Oxford City, UK; a time series study (January 2024)	Find out more by visiting The Clean Air Transition Network here Support is on-going and delivered on an annual basis.
4	Develop partnership work with NHS, commissioners, and providers to increase awareness of air pollution amongst patients and	Public Information	Via the Internet/ Via other mechanisms	2021	2021-2025	Oxford City Council + Oxfordshire County Council (Public Health Team)	LAs annual budget	NO	Not funded yet	Not estimated	Implementation	NOx reduction not estimated, but communication campaigns can increase awareness of up to 12% and behaviour change of up to 6% (Clean Air Day)	Number of workshops /training sessions delivered, reduction in number of hospital admissions for COPD patients	Implementation on-going	Engagement with NHS professionals will continue throughout the still ongoing development of the OXONair website

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
	reduce their personal exposure to air pollution														
5	Improve air quality communication on our website and associated websites to assist the public in accessing reliable information about air pollution	Public Information	Via the Internet	2021	Q1 2023	Oxford City Council + all other DCs in Oxfordshire + Oxfordshire County Council	DEFRA AQ Grant	YES	Fully Funded	£162,500	**Completed**	NOx reduction not estimated, but communication campaigns can increase awareness of up to 12% and behaviour change of up to 6% (Clean Air Day)	Number of website visitors, Number of website downloads, Reduction of public requests for AQ information,	OXONair website was launched in September 2023 Up until mid-April 2024 we had the following user stats for OXONair: total amount of user views since launch – 27,073 total amount of users since launch – 6,625	Oxford City Council and all the other local authorities in Oxfordshire are still actively working with Ricardo to improve some of the tools within the website
6	Explore opportunities to use green infrastructure to reduce exposure to poor AQ levels	Public Information	Other	2021	2021-2025	Oxford City Council + Oxfordshire County Council + Highways England	LA annual budget + Other sources of funding (still to be identified)	NO	Partially funded	Not estimated (Successful bids and projects will be added on a regular basis)	Planning	Reduction of up to 50% in exposure to air pollution levels where green infrastructure is installed (Greater London Authority)	Air Quality data, number of species planted	Oxford City Council has published its Urban Forest Strategy in November 2021 Oxfordshire County Council promotes (on its Tree Policy Planting 21) the use of tree planting and recognises the impact of correct choice of species to maximise air pollution improvements.	Defra acknowledges that vegetation can help to reduce air pollution in cities. However, they state this is primarily by affecting how these pollutants are dispersed and not by the removal of pollution. The delivery of the Urban Forest Strategy for Oxford, is likely to bring opportunities for the use of vegetation as air quality buffer which will contribute to a reduction of human exposure to air pollution.
7	Delivery of city-wide campaign on how to implement DEFRA's best practice on the use of open fires and wood burning stoves, and on how to reduce burning of inappropriate fuel	Public Information	Via Leaflets/ Via the Internet/ Via other mechanisms	2021	2022	Oxford City Council + Friends of the Earth+ River Trust	DEFRA AQ Grant	YES	Fully Funded	£45,000	**Completed**	NOx reduction not estimated, but communication campaigns can increase awareness of up to 12% and behaviour change of up to 6% (Clean Air Day)	Reduction of nuisance complaints, Reduction of NOx, PM_{10} and $PM_{2.5}$ concentrations	This campaign has been relaunched on social media during wintertime 2023/2024 Further developments and campaign materials are expected to be developed upon formal confirmation (by the secretary of state) of Oxford City Council's proposals for the creation of a city-wide Smoke Control Area	Oxford's "Do You Fuel Good?" campaign website available here
8	Work with the District and County Councils on a co-ordinated approach to public awareness and education	Public Information	Via Leaflets/ Via the Internet/ Via other mechanisms	2021	Annually 2021-2025	Oxford City Council + all other DCs in Oxfordshire + Oxfordshire County Council	LAs annual budget + Other sources of funding if required	NO	Fully Funded	Not estimated	Planning	NOx reduction not estimated, but communication campaigns can increase awareness of up to 12% and behaviour change of up to 6% (Clean Air Day)	Number of comms and other campaigns run together between all the District Councils in Oxfordshire	All the 4 District Councils in Oxfordshire together with Oxfordshire County in the improvement of some of the existing tools of OXONAIR We are also at the moment trying to explore ways to increase the evidence of public health impacts of future Air quality measures and interventions	The Air Quality Officers of all the DCs in Oxfordshire and a representative from Oxfordshire County Council already met regularly to discuss air quality projects and opportunities for future partnership work and will continue to do so in 2023/2024 as and when required
9	Introducing a Euro VI LEZ for buses in Oxford	Promoting Low Emission Transport	Low Emission Zone (LEZ) or Clean Air Zone (CAZ)	2021	2022	Oxford City Council + Oxfordshire County Council + local bus operators	LAs annual budget, CBTF	NO	Fully Funded	Staff time only	On hold	Estimated reductions of between 5% to 12.8% of total city Road NOx emissions (Ricardo's Source Apportionment Study)	LEZ Euro VI Approved bus database	This measure has been superseded by AQAP measure 15 (ZEBRA scheme)	

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10	Introducing Ultra Low emission standards for Hackney Carriage Vehicles	Promoting Low Emission Transport	Taxi Licensing conditions	2021	2025	Oxford City Council	LAs annual budget	NO	Fully Funded	Staff time only	**Completed**	Up to 0.2% total city Road NOx emissions (Ricardo's Source Apportionment Study)	Amount of New HCV Applications, enforcement stats	Delivery already in progress	
11	Delivery of Zero Emission Zone (measures to incentivise zero emission vehicles or place restrictions on other vehicles in Oxford)	Promoting Low Emission Transport/ Traffic Management	Low Emission Zone (LEZ) or Clean Air Zone (CAZ) / Road User Charging (RUC)/ Congestion charging	2021	2021-2025	Oxford City Council + Oxfordshire County Council	LAs annual budget, DEFRA AQ Grant and other sources of funding	YES	Partially Funded	ZEZ Pilot - £267,400	**Completed**	By 2035 (after ZEZ wider implementation), up to 66% reduction in city-wide transport NOx emissions and of 100% transport NOx emissions in the city centre are expected	Behavioural responses, AQ monitoring, ANPR counts	The city centre ZEZ Pilot was launched on 28th February 2022. Details of this now active scheme can be found here A report with the evaluation of the 1st Year of the ZEZ Pilot is available here	Expansion of the ZEZ is subject to further assessments, stakeholder engagement, consultation, and funding. Below is the current timeline: Winter/Spring 2024 – Pre-consultation engagement with stakeholders Autumn 2024 – Consultation on the wider ZEZ 2025 – Cabinet decision on whether to proceed with the wider ZEZ 2026 – go live if approved by cabinet
12	Increase the amount of EV charging infrastructure in the City	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging,	2021	2021-2025	Oxford City Council + Oxfordshire County Council	Innovate UK, AQ DEFRA Grant, OLEV Grant scheme, LAs budget	YES	Fully Funded	Not estimated	**Completed**	NOx reduction not estimated	Number of EV Chargers Installed	The GULO Taxi project is now completed offering 18 rapid charging sockets and 6 fast sockets in the city for taxi use. The Energy super hub completed 2022 hosts 42 chargers for general use which are used by Taxi drivers and in 2023 car clubs cars too. Via the ESO programme, 22 grant were given to taxi drivers towards the purchase of ULEV e-Taxi resulting in 26 out of 107 (@25%) Hackney carriages going electric. Lastly 38 charge points were installed across 4 ODS depots (as well as 5 for home charging of fleet vehicles).	A map of all EV charging point locations in Oxford can be found here The EST case study for the Gul-e project can be found here
13	Expansion of City Council's EV Fleet (Electrification of 25% of vehicle fleet)	Promoting Low Emission Transport	Company Vehicle Procurement -Prioritising uptake of low emission vehicles	2021	2023	Oxford City Council	Innovate UK, LAs annual budget	NO	Fully Funded	Not estimated	**Completed**	NOx reduction not estimated	Number of Electric vehicles purchased	20 cars, 64 vans, 11 tippers and 8 specialist EVs (including a sweeper, a milk float, a digger and a refuse collection vehicle).	By March 2024, 30% of Oxford City Council's fleet was EV (103 out of 338 vehicles)
14	Development of an EV Strategy for Oxfordshire	Policy Guidance and Development Control	Other Policy	2021	2021	Oxfordshire County Council + other DCs	LAs own budget	NO	Fully Funded	Not estimated	**Completed**	NOx reduction not estimated	Publication of EV strategy and adoption of Strategy by all District Councils	Oxfordshire EV Infrastructure Strategy (OEVIS) was adopted and published on March 21	Oxford City Council has also published in July 2022 an EV strategy specific for the city of Oxford, which sets out EV infrastructure targets for 2026, 2030, and 2040 to meet our Net Zero targets. This includes metrics for ensuring car clubs are situated in city car parks to encourage the move away from car ownership, residential

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															electric charging to stay in step with the increase in EV ownership and the move to electric for the council fleet.
15	Work with bus operators on the electrification of Oxford's Bus fleet	Promoting Low Emission Transport	Company Vehicle Procurement -Prioritising uptake of low emission vehicles	2021	2030 or sooner	Department for Transport + Oxfordshire County Council + local bus operators	Zero Emissions Buses Regional Area (ZEBRA) scheme: £32.8m Bus operators: £43.7m Oxfordshire CC: £6m	NO	Partly funded	No specific scheme estimates for complete electrification. ZEBRA: £82.5m	**Completed**	Up to 32% of the city's total road NOx emissions (Ricardo's Source Apportionment Study)	% of bus fleet ZEV	The ZEBRA project is practically delivered. Last new electric buses are expected to arrive by June 2024	The entire fleet of 159 electric buses corresponds to 69% of the entire bus mileage of Oxford City
16	Delivery of Oxford's Energy Super Hub	Promoting Low Emission Transport/ Promoting Low Emission Plant	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV charging. Replacement of combustion sources	2021	2022	Oxford City Council + Partners	Innovate UK	NO	Fully Funded	£41 million	**Completed**	10,000 tonnes of CO_2 per year saving by 2021, rising to 25,000 tonnes per year by 2032 + up to 22% reduction of NO2 emissions from transport by 2032	Number of EV chargers and Ground Source Heat Pumps (GSHP) installed, number of EVs purchased, AQ monitoring	Oxford City Council delivered 42 new fast and ultra-rapid charging points (powered entirely by renewable energy). .	All relevant info about this project can be found at the ESO website here
17	Delivery of Air Quality Benefits through Planning System (Reduce amount of car parking in the city + increase EV charging infrastructure + require more efficient/less pollutant domestic heating technologies)	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance/ Other Policy	2021	Annually 2021-2036	Oxford City Council	LAs own budget	NO	Fully Funded	Not estimated	**Completed**	NOx and PM reductions not estimated	Number of developments with EV chargers /number of EV chargers installed number of Planning conditions discharged	Already being delivered through Oxford's Local Plan New air quality policies under Oxford's proposed new local plan 2040 include the obligation of developers to comply with the city's current and future local annual mean targets for NO_2	The draft Oxford Local Plan 2040 was submitted to the Secretary of State for Levelling Up, Communities and Housing on 28 March 2024 More information here
18	Explore opportunities for the delivery of electric infrastructure that could accelerate the uptake of electric boats and reduce their reliance on fossil fuel use for domestic heating	Promoting Low Emission Transport/ Promoting Low Emission Plant	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Replacement of combustion sources	2021	2025	Oxford City Council + Oxfordshire County Council +River trust + Environment Agency	DEFRA Air Quality Grant	YES	Fully Funded	£192,993	Implementation	NOx and PM reductions not estimated	Number of installations delivered, number of boats relying on energy sources that are locally emissions free	Design stage and planning permission finalised in February 2024 Canal & River Trust to appoint developer to deliver the work in early June 2024 Delivery phase expected to be concluded in November 2024	In February 2023, Oxford City Council, in partnership with the Canal & River Trust, was granted £192,993 from DEFRA's Air Quality Grant to deliver six "*eco-moorings*" at the towpath visitors' moorings of Aristotle Lane, on the Oxford Canal. The power points at these moorings will provide electrical power for up to six visiting boaters to reduce their reliance on diesel engines, generators and wood burners for their day-to-day energy needs –link to press release
19	Upgrade Energy Efficiency of City Council's Housing stock	Promoting Low Emission Plant	Other Policy	2021	Annually 2021-2025	Oxford City Council	LAs own budget	NO	Partially funded	Not estimated	Implementation	NOx and PM reductions not estimated	Number of boiler upgrades, insulations and high efficiency storage heaters installed per year	Implementation on-going	In 23/24 one Air Source Heat pump (ASHP) was completed as part of Clean Heat Streets in the Council's own housing stock. The Social Housing Decarbonisation Fund (SHDF) has been secured for 2023-25, with 316 properties due to be upgraded to an EPC C in 24/25, with further plans to install Heat pumps
20	Provide Energy advice services: employ Energy	Promoting Low Emission Plant	Other Policy	2021	Annually 2021-2025	Oxford City Council	LAs own budget	NO	Fully Funded	Not estimated	Implementation	NOx and PM reductions not	Total amount of home visits and	As Warm Housing Scheme (WHD) has been changed by the central government for the season	

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	advice Officers to visit Council homes and advise tenants, whilst also identifying energy saving improvements to the properties											estimated	of energy savings per year	2023/2024, most tenants who were previously eligible were awarded with WHD automatically. For those who missed from the scheme, even if they were eligible before, we offered our expertise to appeal WHD decision – in total, 30 consultations on the subject have been provided. We issued 32 emergency fuel vouchers, providing £1,447 towards energy costs.	
21	Use of central government's ECO Flexible Eligibility funding to identify and designate households as eligible under the Affordable Warmth Scheme	Promoting Low Emission Plant	Other Policy	2021	Annually 2021-2025	Oxford City Council	ECO Flexible Eligibility funding	NO	Partially funded	Not estimated	Implementation	NOx and PM reductions not estimated	Total amount of households being granted with energy efficiency improvements	This year Oxford City Council published an updated Statement of Intent relating to the provision of ECO Flex and Great British Insulation Scheme (GBIS) funding. 15 properties have been through the declaration stage of ECO Flex with support from the National Energy Foundation (we do not hold local data on number of GBIS referrals because most of these go directly via ofgem or energy supplier). Since June 23 across Oxfordshire, the following have been completed: Warm and well assessments: 1496 Partner referrals into BHBH: 386 BHBH + visits: 152 New incomes identified: 700 Energy Efficiency Referrals: 259 PSR sign-ups: 314 Energy supplier/tariff enquiries: 284	Uptake of ECO Flex has been slow due to lack of installers and overly complicated application processes. Oxford City Council is actively trying to overcome barriers to uptake of grant funding. Oxford City Council has been actively promoting funding schemes such as ECO Flex, ECO4, GBIS and HUG2 to encourage uptake of retrofit measures. Marketing activities this year have included: social media campaigns, attendance at events, the creation and dissemination of marketing materials, and internal and external training of partners and colleagues on eligibility and funding criteria. Partnership work continues with Better Housing Better Health (BHBH) to support those in fuel poverty in Oxford. Since 1st November 2023, BHBH have also issued 281 emergency fuel vouchers worth £49 each, 22 households were provided with supermarket vouchers and 261 energy efficiency items have been given out. We are also now able to issue £50 energy cards following home visits to anyone struggling to pay their energy bill but not on a pre-payment meter and this has been well received by residents
22	Review of Smoke Controlled Zones and implementation of revised government legislation for smoke nuisance	Promoting Low Emission Plant	Other Policy	2021	2021-2025	Oxford City Council	LAs own budget	NO	Internal funding	Not estimated	**Completed**	NOx and PM reductions not estimated	Implementation of new enforcement methods/ reduction of the amount of nuisance complaints	Formal request submitted to the secretary of state in March 2024 to revoke Oxford's current 23 Smoke Control Areas and to replace them by a single (city-wide) smoke control area, covering the entire city. Colleagues from Environment Health that deal with enforcement are	Official approval of the new city-wide SCA was granted by the Secretary of State on the 21st May 2024. The new SCA is expected to be in place from 1st December 2024

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														currently updating regulatory and enforcement guidance as a result of these plans	
23	Encourage the development of local heat networks	Promoting Low Emission Plant	Other Policy	2021	Annually 2021-2025	Oxford City Council	LAs own budget	NO	Fully Funded	Not estimated	Implementation	NOx and PM reductions not estimated	Number of planning applications using heat networks	Already being encouraged and delivered (when feasible) through Oxford's Local Plan and Planning System A letter of intent was signed in January 2024 by the Leader of the Council in support of a grant fund bid to the Green Heat Network Fund by 1Energy to create a privately funded District Heat Network in Oxford.	If the grant bid is successful, it could provide zero carbon heat to major heat users in Oxford including: both universities; colleges; hospitals; City and County Council etc, providing a key deliverable of the Zero Carbon Oxford Action Plan
24	Delivery of Oxford Core Transport Schemes (explore opportunities for implementation of Workplace Paring levy + introduction of Traffic Filters)	Traffic Management	Workplace Parking Levy/ Traffic Filters	2021	2023-2024	Oxford City Council + Oxfordshire County Council	LAs own budgets, Bus Service Improvement Plan (BSIP), future income raised by the WPL	NO	Partially funded	£5-8m (excludes funding for complimentary bus and walking and cycling improvements)	Planning	NOx and PM reductions have been estimated here	Traffic counts, numbers of people travelling by bus, cycling, or walking, number of businesses enrolled, enforcement stats. Reduction of NOx, PM_{10} and $PM_{2.5}$ concentrations	The traffic filters were approved in November 2022 and are due to be implemented in November 2024 (once Botley Road reopens).	More details on our traffic filters page.
25	Delivery of sustainable transport measures such as cycling improvements and bus priority lanes	Transport Planning and Infrastructure/ Traffic management	Cycle network/ Bus priority	2021	2021-2025	Oxford City Council + Oxfordshire County Council	DfT Active Tranche 2 & Growth Deal	NO	Fully funded	£44m approx. for sustainable transport schemes on three Oxford radial routes and other locations	Implementation	NOx and PM reductions not estimated	Local cycling and walking infrastructure plans (LCWIP) 50% increase by 2030 (Active Lives Survey)	Updates in 2023: New/enhanced and retained bus services, provision of combined park 7 ride discounted fares, progress towards the central Oxford traffic filters **Update on schemes (due to be implemented by April 2025)** **Woodstock Road -** bus lane alterations, due to be implemented prior to the traffic filters trial going live) **Safer Roads Oxford: Banbury Road and Iffley Road –** includes provision of better pedestrian and cycle facilities. Construction in 2025. Further details on the scheme webpage**:** Safer Roads Oxford: Banbury Road and Iffley Road | Oxfordshire County Council	**Oxford City Quickways**: various schemes implemented as follows. Further details on the scheme webpage (Oxford City quickways | Oxfordshire County Council) - 20mph speed limits - Cowley Road/Oxford Road - Iffley Road/Henley - Avenue/Rose Hill - MorrellAvenue/ Warneford Lane - Marston Road - Donnington Bridge Road

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26	Roll-out of Controlled Parking Zones (CPZ) and Low Traffic Neighbourhoods (LTN)	Traffic Management	Traffic reduction	2021	2021-2023	Oxfordshire County Council	Department for Transport (Emergency Active Travel Fund); LAs own budget	NO	Fully Funded	£1m approx. for CPZs £311,000 for LTNs	**Completed**	NOx and PM reductions measured	Implementation of the new CPZs and LTNs	Most of the city now covered by a CPZ; recently introduced schemes include Upper Wolvercote, South Oxford Extension and Marston North. New controlled parking zones for remaining parts of Oxford are planned - officers are currently working on the latest programme, and once agreed, a new timetable of priority zones will be published. Full Evaluation reports for LTN East Oxford and LTN Cowley are available here	On the 17th October 2023 Oxfordshire County cabinet decided that the East Oxford LTNs located at St Marys, St Clements and Divinity Road would remain in place A cabinet decision was made on 22 June 2023 to approve proposals to remove LTN bollards on three roads in Cowley (Littlemore Road, Crescent Road and Littlehay Road) and to enforce the traffic restrictions using Automatic Number Plate Recognition (ANPR) cameras.
27	Work with businesses to explore the inclusion of innovative sustainable travel modes into their current business models	Freight and Delivery Management	Delivery and Service plans Freight Partnerships for city centre deliveries	2021	Annually 2021-2025	Oxfordshire County Council + Oxford City Council	DEFRA AQ Grant; LAs own budget, Energy Saving Trust	YES	Partially funded	Not estimated	Implementation	NOx and PM reductions not estimated	Number of businesses adopting sustainable travel modes	Oxford city Council launched in March 2024 and in partnership with Velocity Cycle Couriers, a sustainable delivery trial where all the parcels prepared by covered market and city centre traders can be picked up and delivered (same day or next day) by e-cargo bike to all their customers who live in postcode areas within the city ring road. Joining the trial is free to covered market traders, as Oxford City Council subsidises 100% of the cost of these deliveries.	The trial is expected to last at least until August 2024 23 businesses have signed up so far to the trial.
28	Explore opportunities for implementation of consolidation centre to address city centre freight emissions	Freight and Delivery Management	Freight Consolidation Centre	2021	2026	Oxfordshire County Council + Oxford City Council+ Oxford University	LAs annual budget, and other sources of funding, Horizon Europe/Innovate UK	NO	Partially funded	Not estimated (pending feasibility)	Planning/Implementation	NOx reduction not estimated	Number of businesses enrolled to be developed	Oxfordshire County Council is partner in the GreenLog project along with local patterns Pedal & Post, FEED, and University of Wolverhampton. The project will trial an e-commerce platform in which covered market traders can offer their most popular products and local customers can pick and choose items from multiple traders in one purchase and one delivery fee through Pedal & Post. Purchases will be consolidated into a single delivery—which will be completed by cargo bike and EV across Oxfordshire. Joining the platform will be free to covered market traders.	Timeline: first demonstration—Sept/Oct 2024 through December 2024 (there will be a second demonstration 1 year later)
29	Work with schools to reduce exposure to air pollution by reducing the need to travel during drop off/pick up	Alternatives to private vehicle use/ Promoting Travel Alternatives	Other	2021	2025	Oxfordshire County Council	Active Travel fund for LAs in England	NO	Partially funded	£60,000 approx. for School Streets	Implementation	NOx reduction not estimated	Number of streets closed; schools enrolled	School Street updates 2023: Windmill Primary School – permanent school street	

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
	times (ex: School Streets)													St Ebbe's Primary School – permanent school street Larkrise Primary School – permanent school street St Mary and St John CE Primary School - due to commence school street trial in April/ May. Following the trial (approx. 6 weeks) there will be a public consultation to determine whether to make the school street permanent. Sandhills Community Primary School - due to commence school street trial in April/ May. Following the trial (approx. 6 weeks) there will be a public consultation to determine whether to make the school street permanent. Tyndale Community School - due to commence school street trial in April/ May. Following the trial (approx. 6 weeks) there will be a public consultation to determine whether to make the school street permanent. New Hinksey CE Primary School - due to commence school street trial in April/ May. Following the trial (approx. 6 weeks) there will be a public consultation to determine whether to make the school street permanent.	3 schools with permanent road closures during pick up and drop off times, and 4 being trialled.
30	Support Bikeability (free cycling lessons provided to pupils)	Promoting Travelling alternatives	Promotion of Cycling	2021	2021-2025	Oxfordshire County Council	DfT via The Bikeability Trust charity	NO	Partially funded	Not estimated	Implementation	NOx reduction not estimated	Number of schools enrolled	Implementation (On-going)	The complete Bikeability figures for the entire Oxfordshire in 2023/2024 are of 6124 children trained. This represents an increase of 33% in comparison with the previous reporting year.

2.3 $PM_{2.5}$ – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy[7], local authorities are also expected to work towards reducing emissions and/or concentrations of fine particulate matter ($PM_{2.5}$)). There is clear evidence that $PM_{2.5}$ (particulate matter with an aerodynamic diameter of 2.5 micrometres or less) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

The Public Health Outcomes is a framework to set out a vision for public health. The framework develops a list of indicators that provide useful insight on how well public health is being improved and protected and concentrates on two high-level outcomes (healthy life expectancy and differences in life expectancy and healthy life expectancy between communities) to be achieved across the public health system.

The latest version of this framework present useful metrics for the year 2022. It estimates that in Oxford, 6,3% of deaths from all causes in those aged 30+ are attributable to $PM_{2.5}$ alone.

Figures 1 and 2 below show the existing relationship between the level of mortality attributed to $PM_{2.5}$ and life expectancy at birth for females and males in Oxford. A comparison is also made between Oxford's data and the data obtained for other District Councils (DCs) in Oxfordshire and for England.

7 Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

Figure 1– Mortality attributable to $PM_{2.5}$ vs female's life expectancy at birth

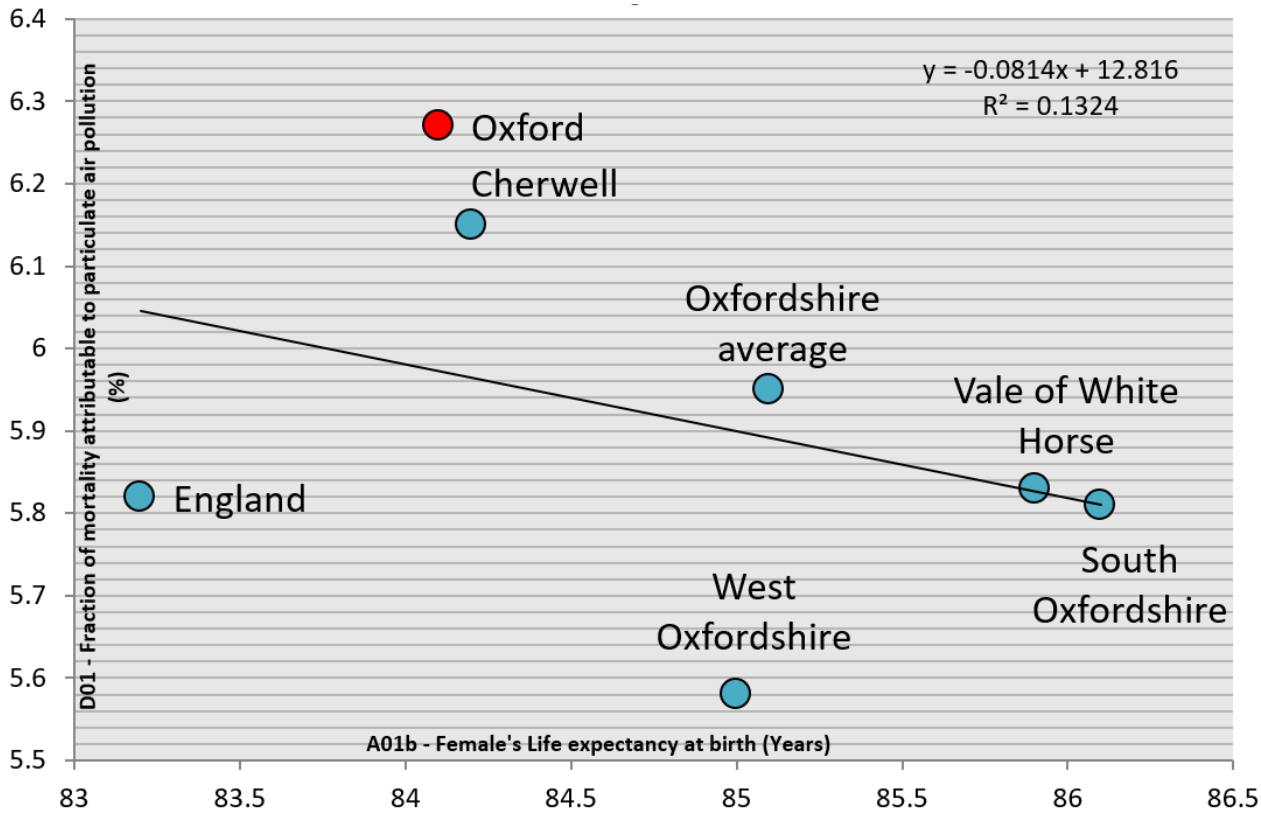
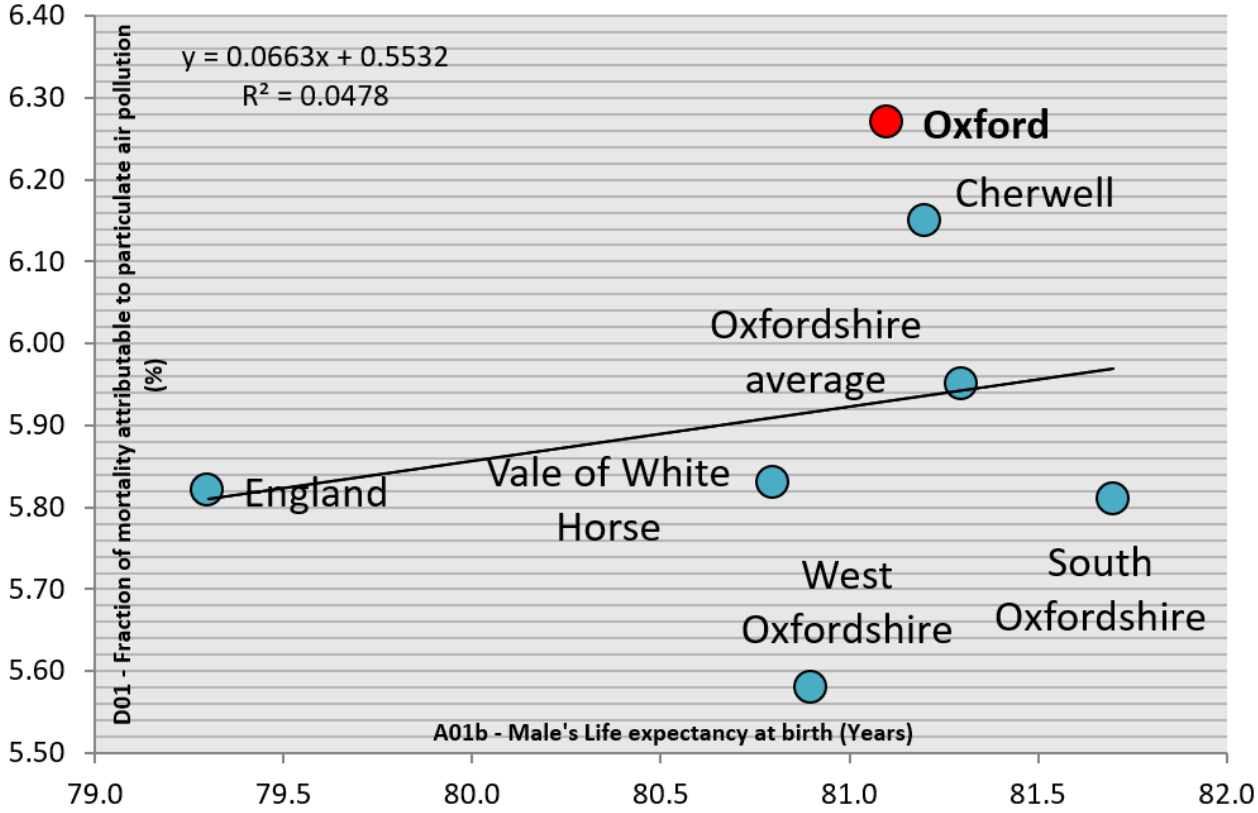


Figure 2 - Mortality attributable to $PM_{2.5}$ vs male's life expectancy at birth



Similar to what has been observed in previous years, Oxford's performance is, in general, worse when compared with the other DCs in Oxfordshire for these types of indicators, which is not a surprise, given that air pollution tends to be typically much higher in highly urbanised areas (city), when in comparison with the rest of Oxfordshire which is much more rural in nature.

In March 2024, Oxford City Council submitted to the Secretary of State a formal application to see Oxford's current 23 Smoke Control Areas revoked and replaced by a single (city-wide) Smoke Control Area, covering the entire administrative area of the city.

The proposals were accepted by the Secretary of State on the 21st May 2024. Oxford will now have its new city-wide Smoke Control Area in place from the 1st of December 2024. This is an important step for the reduction of local $PM_{2.5}$ emissions associated to uncontrolled burn of wood from stove appliances and fireplaces.

Other measures under the city's current AQAP that will also contribute to a reduction of local $PM_{2.5}$ are:

- ✓ Introducing Ultra Low emission standards for Hackney Carriage Vehicles
- ✓ Delivery of city-wide campaign on how to implement DEFRA's best practice on the use of open fires and wood burning stoves, and on how to reduce burning of inappropriate fuel.
- ✓ Increase the amount of EV charging infrastructure in the city.
- ✓ Expansion of City Council's EV Fleet (Electrification of 25% of vehicle fleet by 2023)
- ✓ Development of an EV Strategy for Oxford City
- ✓ Work with bus operators on the delivery of ZEBRA (electrification of Oxford's Bus fleet)
- ✓ Delivery of Oxford's Energy Super Hub
- ✓ Delivery of Air Quality Benefits through Planning System (Reduce amount of car parking in the city + Increase EV charging infrastructure + require more efficient/less pollutant domestic heating technologies)
- ✓ Upgrade Energy Efficiency of City Council's Housing stock and provision of energy advice services to city council's tenants, whilst identifying energy saving improvements to the properties
- ✓ Encourage the development of local heat networks.
- ✓ Delivery of sustainable transport measures such as cycling improvements and bus priority lanes
- ✓ Roll-out of Controlled Parking Zones (CPZ) and Low Traffic Neighbourhoods (LTN)
- ✓ Work with businesses to explore the inclusion of innovative sustainable travel modes into their current business models and explore opportunities for implementation of consolidation centre to address city centre freight emissions.
- ✓ Work with schools to reduce exposure to air pollution by reducing the need to travel during drop off/ pick up times (ex: School Streets)
- ✓ Support Bikeability (free cycling lessons provided to pupils)
- ✓ Expansion of Oxford's ZEZ, delivery of the Traffic filter trials and implementation of a workplace parking levy (WPL)

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

This section sets out the monitoring undertaken within 2023 by Oxford City Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2019 and 2023 to allow monitoring trends to be identified and discussed.

Maps covering current and historic air quality monitoring locations and levels measured are provided in OXONAIR, the new Oxfordshire Air Quality website. Further details on Quality Assurance/Quality Control (QA/QC), how the monitors are calibrated, how the data has been adjusted and the bias adjustment factors used for the diffusion tubes are included in Appendix C.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Oxford City Council undertook automatic (continuous) monitoring at three sites during 2023. Table 4 (Annex A) shows the details of the automatic monitoring sites. The OXONAIR website also presents the monitoring results and stats (current and historic) for all of Oxford City Council's automatic monitoring sites.

3.1.2 Non-Automatic Monitoring Sites

Oxford City Council undertook non- automatic (i.e., diffusion tubes) monitoring of NO_2 at 127 sites during 2023. Table 5 (Annex A) presents the details of the non-automatic sites.

For the purposes of deciding which locations to monitor, the City Council considers in the first instance locations where there is relevant public exposure. It is important that assessments focus on locations where members of the public are likely to be regularly present for a period of time appropriate to the averaging period of the objective. Monitoring is carried out in line with DEFRA's Technical Guidance LAQM.TG22.

Approximately half of the monitoring locations are within central Oxford at locations where the City Council believes relevant exposure is most likely to be significant. The remaining

locations are outside of the central area, again prioritised by locations where relevant exposure is most likely.

Monitoring of NO_2 cannot be undertaken at every location on a continuous basis. The City Council therefore makes the most efficient use of available resources by implementing a rotational system on a percentage of monitoring sites every year, ensuring such sites are covered on average every 2 to 3 years.

One important aspect of monitoring is to be able to demonstrate trends in air quality over long time periods. In order to do so, the City Council continues monitoring at a number of the same sites year on year, so that the results reported can provide a strong basis for showing trends that are independent of location.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, annualisation (where the annual mean data capture is below 75% and greater than 25%), and distance correction. Further details on adjustments are provided in Appendix C. Details of the UK air quality objectives for protection of human health, as well as of the WHO recommended guideline levels can be found in Appendix E.

3.2.1 Nitrogen Dioxide (NO_2)

In 2023, NO_2 was monitored at three locations in Oxford using automatic continuous monitors and at 127 locations using passive monitoring (diffusion tubes).

The annual mean air quality objective for NO_2 is 40 µg/m^3. In 2023, Oxford High Street measured annual mean for NO_2 was of 27 µg/m^3 and of 31 µg/m^3 at AURN Oxford Centre Roadside. At AURN St Ebbes, the NO_2 annual mean was 9 µg/m^3. This objective was therefore met at all automatic monitoring stations in 2023.

Table 6 in Appendix A compares all the monitored NO_2 annual mean concentrations obtained for the past five years from our 3 automatic monitoring sites with the air quality objective of 40µg/m^3. Figure 3 (below) shows the 19-year long term trend for levels of measured NO_2 at Oxford's three automatic monitoring stations. The results are expressed in µg/m^3.

Figure 15 on Appendix F shows the historic annual mean concentrations of NO_2 in the UK, between 1990 and 2023 for comparison purposes with Figure 3.

Figure 3- Long term trends of annual mean NO_2 of Oxford's automatic monitoring sites, 2004-2023.

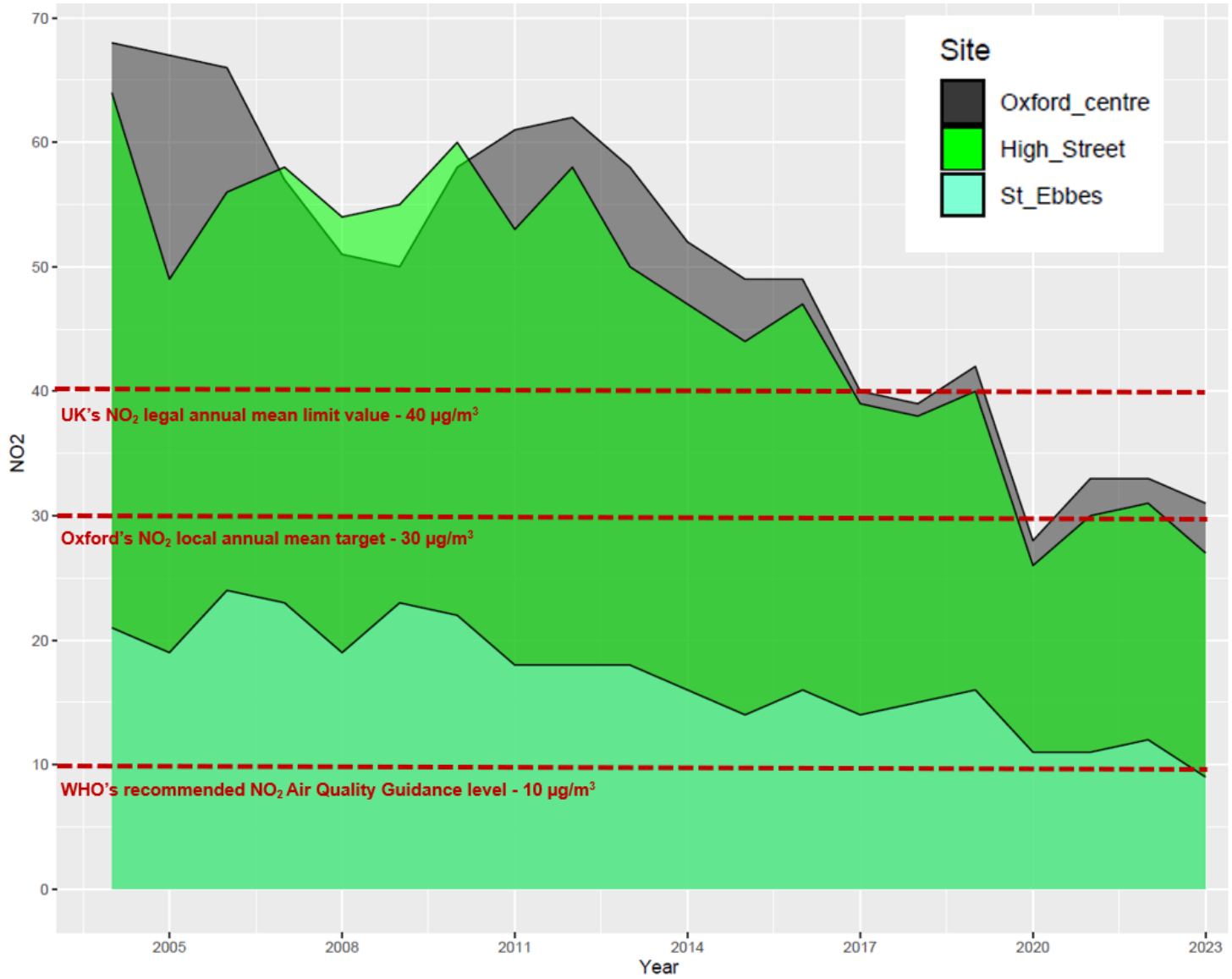


Figure 3 shows that the NO_2 levels measured in Oxford at the locations of our automatic monitoring sites have generally been decreasing since 2004.

A significant reduction of NO_2 levels at all our automatic monitoring stations can be seen in 2020, as a result of the successive restrictions of movements caused by the COVID-19 pandemic, and which had a direct effect on the reduction of traffic levels in the city.

In 2021 we saw an increase of NO_2 concentrations as a result of the lifting of those restrictions and of the recovery of the economy. After a period of short stabilisation in 2022, we now see that in 2023, NO_2 levels seem to be realigning again with the historic decreasing trajectory that we have seen in recent years.

For detailed information on time variations, daily means, and basic statistics of NO_2 at Oxford's three automatic monitoring stations please refer to Appendix F.

The AQ objective for hourly mean NO_2 concentration is 200 $\mu g/m^3$ and may be exceeded up to 18 times per calendar year. The time series of hourly averaged concentrations of NO_2 for the 3 automatic monitoring sites is compared against the UK's hourly mean limit value (dashed red line) in Figure 4 below. The results are expressed in $\mu g/m^3$.

Table 8 (Appendix A) compares the ratified continuous monitored NO_2 hourly mean concentrations for the past five years with the air quality objective of 200$\mu g/m^3$, not to be exceeded more than 18 times per year.

Figure 4 –Time series of hourly averaged concentrations of NO_2 at Oxford's automatic monitoring sites, 2023.

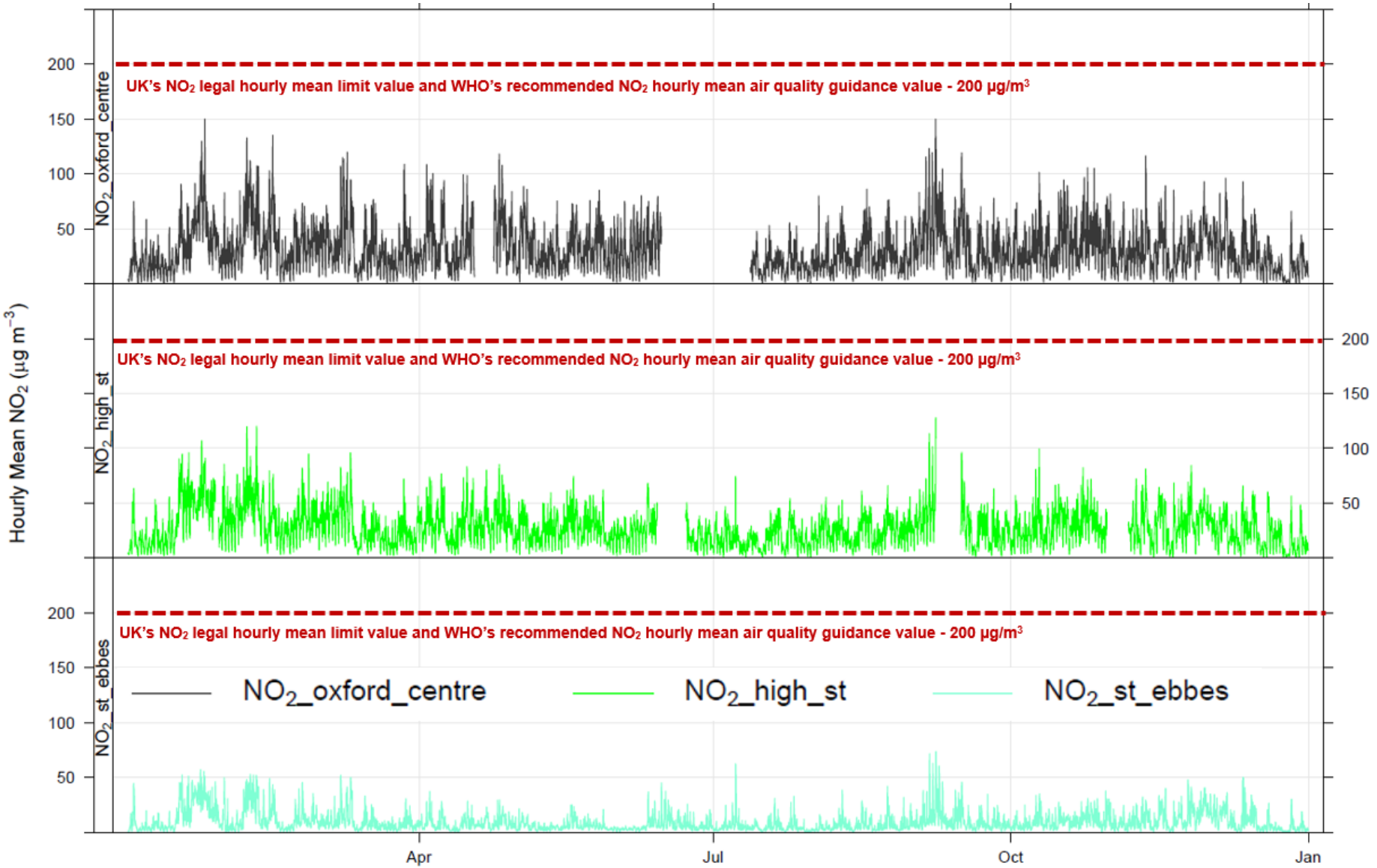


Figure 4 shows that there were no hourly mean NO_2 measurements exceeding 200 µg/m^3 in 2023. The highest hourly mean NO_2 measured was of 150 µg/m^3 and was registered twice: on the 24th of January 19:00 and on the 07th of September 18:00, both at AURN Oxford Centre Roadside.

The threshold of the "Moderate" air quality index band as set out by DEFRA for the NO_2 hourly mean ranges from 201 to 400 µg/m^3. NO_2 levels at all 3 sites were always recorded within the DEFRA "Low" Air Quality band in 2023. As none of the automatic monitoring sites have registered more than 18 exceedances of the AQ hourly objective for NO_2, this objective was therefore fully met in 2023.

Non-automatic monitoring using diffusion tubes took place at 127 Oxford locations in 2023.

The main observations of the monitoring carried out in 2023 using non-automatic monitoring are as follow:

- For the seventh consecutive year, none of the city's NO_2 diffusion tube monitoring sites located in areas considered of relevant exposure, presented an annual mean NO_2 equal or above 60 µg/m^3. According to LAQM (TG22), this is an indication that exceedances of the hourly mean objective for NO_2 are also not likely to have occurred in the city in 2023;
- The legal NO_2 annual mean objective of 40 µg/m^3 was exceeded at only two (2) of the 127 diffusion tube monitoring locations that formed part of the City Council's air quality network. From those:
    - One tube, (TF35) was installed at the residential properties located by the ring road, on the Southern Bypass - south of Botley Interchange. This tube measured a concentration of 42 µg/m^3. However, this location falls outside the City Council's jurisdiction, and forms part of an existing AQMA that is being managed by Vale of the White Horse District Council;
    - One tube (TF19) is located on the kerb at Headington Hill, a non-residential area, directly on the road. This location is far from relevant exposure, and where members of the public are not expected to be present at any time. The NO_2 annual mean concentration measured at this location was of 53 µg/m^3, (the highest NO_2 measurement of 2023);
- Nine locations within the city, were shown to be still above Oxford's local annual mean target of 30 µg/m^3 for NO_2 (a commitment laid out in the city's recent AQAP, and which is expected to be achieved across the city by 2025). Those locations are:

Holloway Road, High Street, St Clements (2x), St Aldates, Headington Hill, Oxford Ring Road (3x -Northern, Eastern and Southern bypasses). In 2022 **18** locations were in breach of this target.

- In 2023, NO_2 levels decreased (on average) by 14% across the city[8], when in comparison with the previous reporting year of 2022. For comparison purposes, NO_2 concentrations at all UK's AURN Roadside and Urban Background automatic monitoring sites have decreased (on average) by 8% and 9% in 2023.
- In 2023, NO_2 levels are (on average) 33% below the levels in 2019 (the last pre-pandemic year).
- In April 2023 Botley road was closed to traffic due to the wider improvements to the western side of Oxford Railway station. NO_2 levels are being measured in 4 different locations in Botley Road (DT33, DT35, DT36 and DT84). In 2022, the average NO_2 level measured at these locations was 19 µg/m^3. In 2023, the average NO_2 level measured was of 15.7 µg/m^3. This means that the closure of Botley road led to a 17% reduction of NO_2 levels in this road. Botley is expected to remain closed until October 2024.

Impacts of Zero Emission Zone Pilot (ZEZ)

The UK's first ZEZ was launched in February 2022.The monitoring results obtained in 2023 from all the locations in the ZEZ area show that:

- NO_2 levels have continued to reduce overall within the ZEZ.
- New Inn Hall St, Cornmarket St and Bonn Square all had reductions of 2µg/m^3 (or 13%, 11% and 9% respectively).
- St Michaels St and Queen St had marginal reductions of 1 µg/m^3 (7% and 5%).
- George St (Magdalen St) saw a slight increase of 2 µg/m^3 (or 9%).
- The highest reduction was seen at New Road (7 µg/m^3 or 24%). However, this relates with the interference of scaffolding works at St Peter's college, which have limited the effectiveness of the diffusion tube measurement.

8 According to traffic data provided by Oxfordshire County Council, traffic levels have decreased (on average) within the city of Oxford by 8% in 2023. The closure of Botley road from April 2023 is most likely the main factor that helps explaining this reduction.

- Overall, NO_2 annual mean measurements have varied from a minimum of 13 µg/m^3 (New Inn Hall St, S Michaels St) to a maximum of 21 µg/m^3 (Queen St) in all the areas covered by the zone.
- The measurement obtained at Queen St is the highest within the zone, due to this street being part of the city's bus route – however, this measurement is still 47.5% below the UK legal limit and 30% below the city's local target for this pollutant.

A significant reduction of NO_2 levels is expected on Queen St and more widely across the city in 2024, due to the recent delivery of the 159 fully electric buses from the Zero Bus Regional Areas (ZEBRA) scheme. The arrival of these buses will mean that 69% of the total bus mileage operating in the city will now be electric.

Impacts of Low Traffic Neighbourhoods (LTNS)

On the 17th October Oxfordshire County cabinet decided that the East Oxford LTNs located at St Marys, St Clements and Divinity Road would remain in place. An Oxfordshire County cabinet decision was also made on the 22nd June 2023 to approve proposals to remove LTN bollards on three roads in Cowley (Littlemore Road, Crescent Road and Littlehay Road) and to enforce the traffic restrictions using Automatic Number Plate Recognition (ANPR) cameras.

Air Quality on LTN boundary roads

- Holloway road (DT80) -boundary road for Temple Cowley LTN, saw NO_2 reductions of 3 µg/m^3 (from 34 to 31 µg/m^3). This matches the concentration obtained in 2020 (the year of the lockdowns) and represents a reduction of 6 µg/m^3 (or 16%) in relation to the NO_2 levels obtained in 2019 (pre-pandemic).
- DT8 (Oxford Road/Cowley), DT7 (Oxford Road/In Between Towns Road) and TF32 (Garsington Road/St Lukes Road -boundary roads for Temple Cowley and Florence Park LTNs, saw NO_2 reductions of 4, 2 and 3 µg/m^3 (or 14%, 7% and 15%) respectively.
- Diffusion tube TF38 on Church Cowley Road (boundary road for Florence Park and Church Cowley LTNs) measured an annual mean NO_2 of 21 µg/m^3. NO_2 monitoring was only conducted at this location for the first time in 2023, so there is no comparison with 2022. The measurement obtained in 2023 is 48% below the UK legal limit for this pollutant and 30% below Oxford's local NO_2 annual mean target.
- Iffley Road/Henley Avenue/A4158 (boundary road with St Marys, Florence Park and Church Cowley LTNs) saw NO_2 reductions of 4 µg/m^3 (or 15%) at the cross with

Boundary brook road (DT4), of 6 µg/m^3 (or 23%) at the cross with Stanley Road (TF17) and of 8 µg/m^3 (or 23%) at the cross with Newmans Road (TF34).

- St Clements Street saw NO_2 reductions of 5 µg/m^3 (or 12%) at DT55, 1 µg/m^3 (3%) at DT77 and of 2 µg/m^3 (7%) at DT85.
- Morrel Avenue (boundary road for St Clements and Divinity Road LTNs) saw NO_2 reductions of 3 µg/m^3 (19%) at monitoring location TF18 and of 1 µg/m^3 (8%) at LT4.
- Cowley road (boundary road for St Clements, St Marys and Divinity Road LTNs) saw NO_2 reductions of 4 µg/m^3 (15%) at the cross with James Street (DT72) and of 3 µg/m^3 (16%) at DT81 (cross with Union Street).

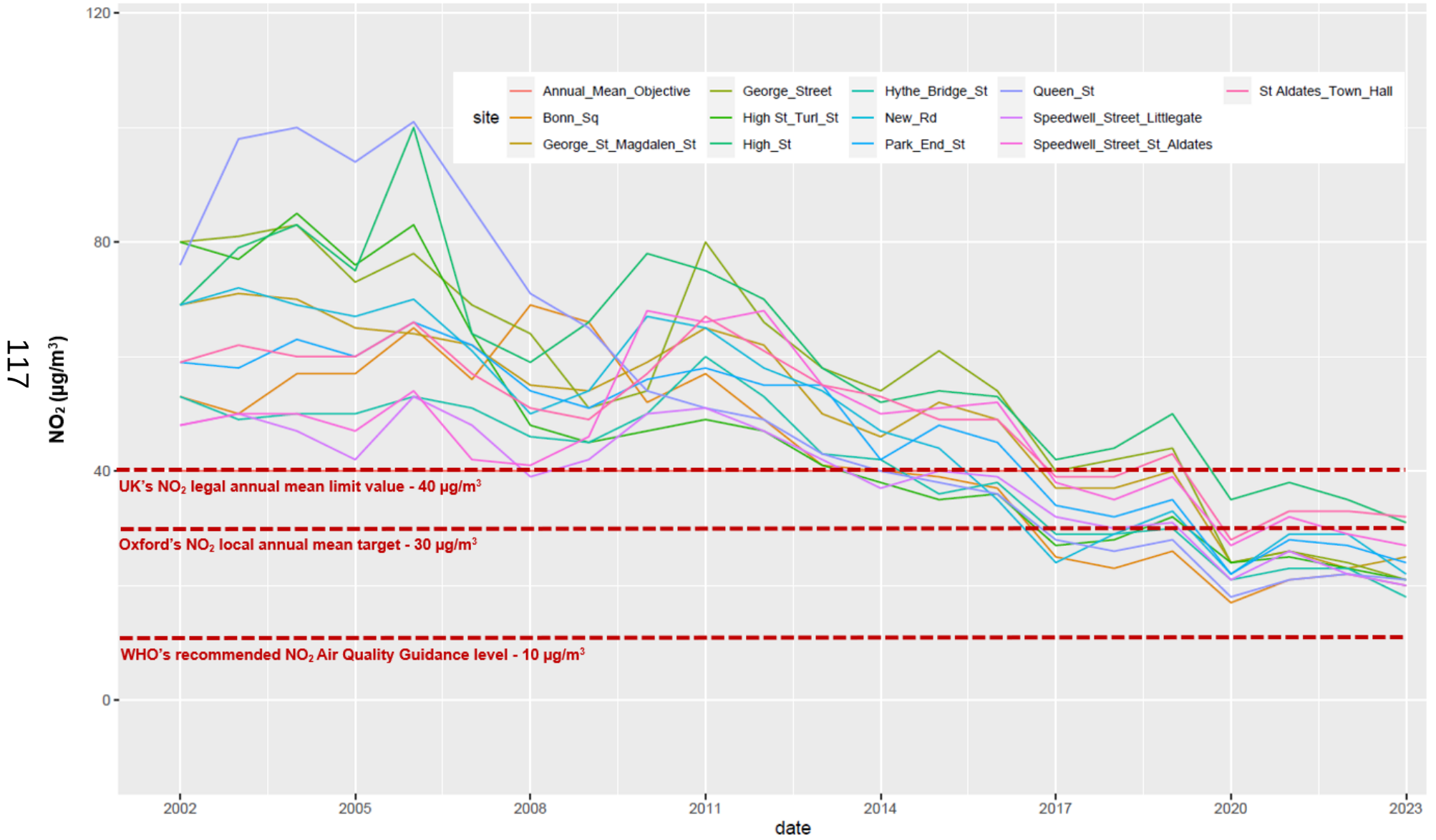
Air Quality Inside LTNs

- St Marys LTN saw NO_2 reductions of 2 µg/m^3 (15%) at both Howard St and Hurst St;
- St Clements LTN saw an NO_2 reduction of 2 µg/m^3 (15%) on Prince St and of 1 µg/m^3 (8%) at East Oxford Primary school.
- Divinity Road (within Divinity Road LTN) saw an NO_2 reduction of 2 µg/m^3 (17%).
- Diffusion tube LT6, located at St Christophers School (within Temple Cowley LTN), saw an NO_2 reduction of 2 µg/m^3 (17%).

<u>All the monitoring locations both inside and on the boundary roads of Oxford's LTNS showed a decrease in NO_2 levels measured in 2023, when in comparison with the previous year (2022).</u>

None of the NO_2 levels measured both inside and on the boundary roads of Oxford's LTNS was above the UK legal limit value for this pollutant, and only 3 monitoring locations (St Clements: DT55 - 38 µg/m^3 and DT77 – 34 µg/m^3), and Holloway Road (DT80 - 31 µg/m^3) showed NO_2 levels above the city's local annual mean target for NO_2 (30 µg/m^3).

Figure 5 - Long term trends of annual mean NO_2 at Oxford's diffusion tube monitoring locations, 2002-2023.



3.2.2 Particulate Matter (PM_{10} and $PM_{2.5}$)

In 2023, PM_{10} and $PM_{2.5}$ data were monitored by automatic continuous monitors at AURN St Ebbes and Oxford High Street.

In 2023, Oxford High Street (roadside) registered a PM_{10} annual mean of 14 µg/m^3. AURN St. Ebbes (urban background) of 9 µg/m^3. The annual mean PM_{10} concentration tends to be higher at roadside sites, when compared to urban background sites, due to the contribution of PM_{10} emissions from road transport sources, predominantly from non-exhaust sources (brakes, tyres, and road wear), as well as the impact of resuspension due to vehicle movements.

This objective was fully met at both these monitoring sites in 2023. These levels also show full compliance with the WHO recommended guidelines for this pollutant (15 µg/m^3.).

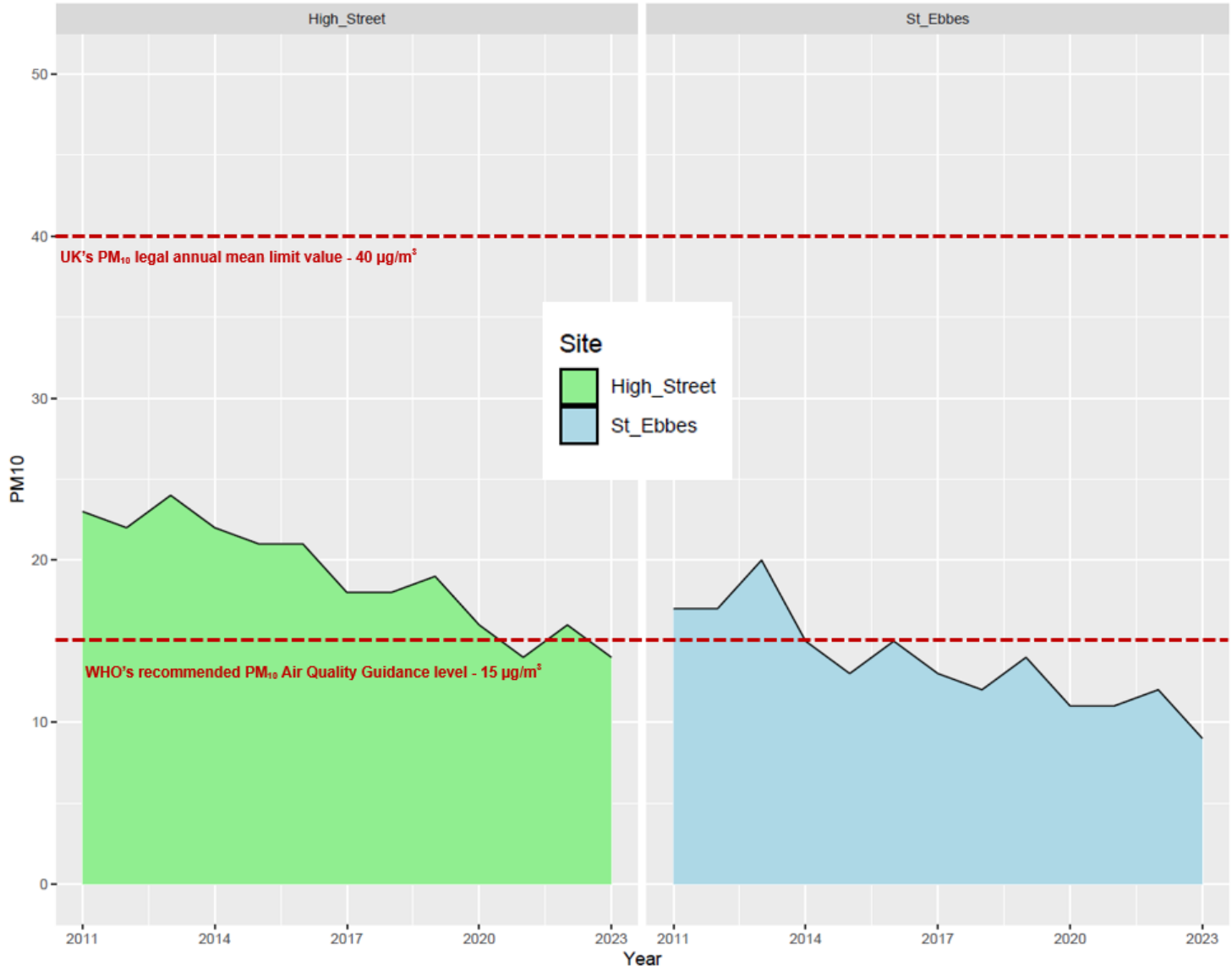
The annual mean AQ objective for PM_{10} is 40 µg/m^3. Table 9 (Appendix A) compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past five years with the air quality objective of 40 µg/m^3.

Figure 6 below show the 12-year long term trend for levels of measured PM_{10} at continuous monitoring stations in Oxford, along with the current recommended WHO guideline value for this pollutant, which is significantly lower than the current UK legal limit value. The overall trend of PM_{10} levels measured at our 2 automatic monitoring sites has been generally going downward since 2011.

In 2023 we can see important decreases in the levels measured at both AURN St Ebbes and High Street (3 and 2 µg/m^3 respectively, the equivalent to 25% and 12.5%), when in comparison with the previous year.

These decreases are much more pronounced than the overall average PM_{10} decrease seen at all Urban Background and Roadside monitoring sites across the UK for this pollutant in 2023, which both saw average reductions of 1.7 µg/m^3, the equivalent to 10%.

Figure 6 - Long Term Trends in Annual Mean PM_{10} ($\mu g/m^3$) at Oxford's continuous monitoring locations, 2011-2023.



A new UK air quality target now exists for $PM_{2.5}$, as a result of the Environmental Improvement Plan's (EIP) official publication on the 31st of January 2023. The legal target requires for a maximum annual mean concentration of 10 µg/m^3 to be achieved by 2040, with a new interim target of 12 µg/m^3 expected to be achieved by the end of January 2028.

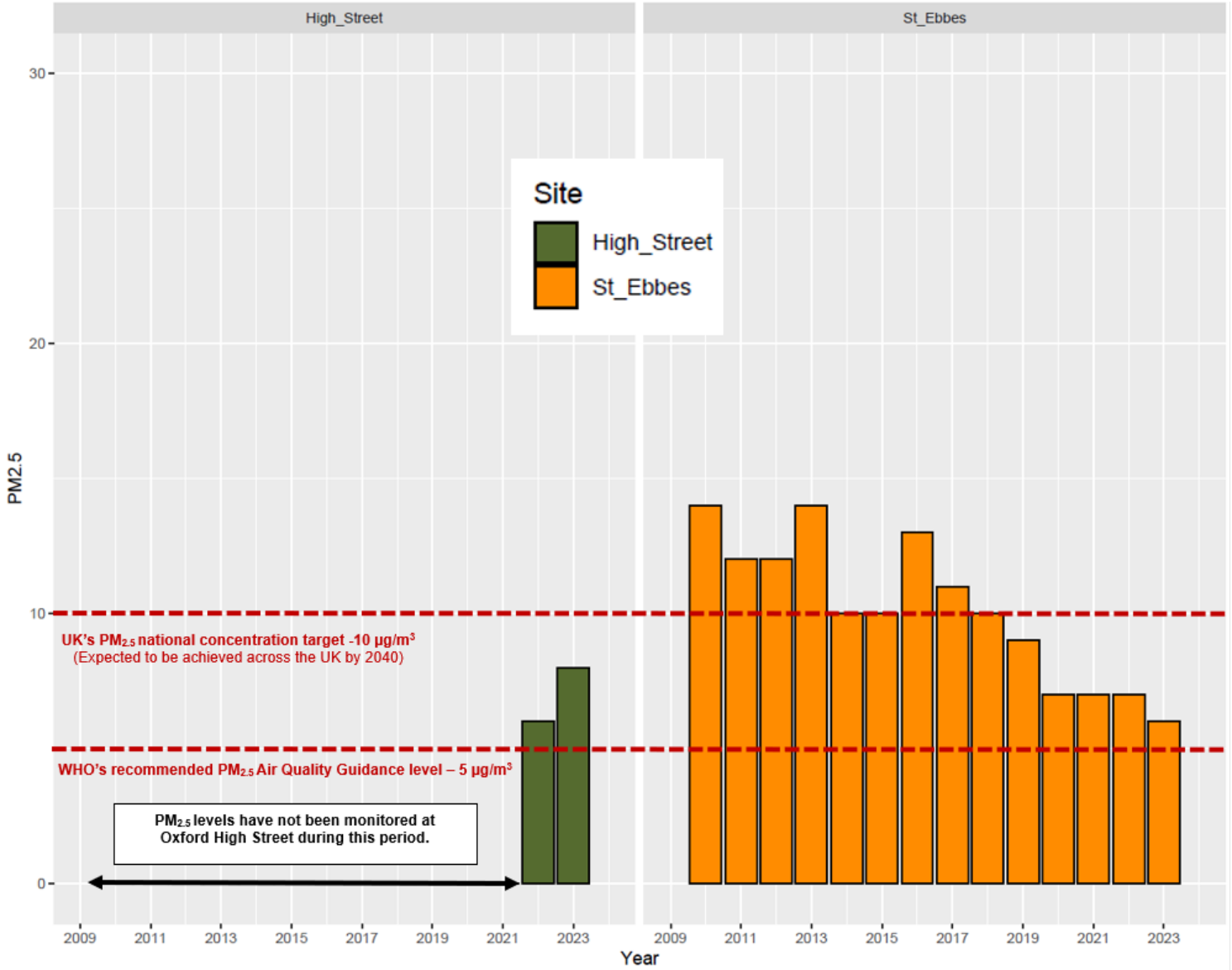
The monitored annual mean of $PM_{2.5}$ that was obtained in 2023 was of 6 µg/m^3 at AURN St. Ebbes and of 8 µg/m^3 at Oxford High Street. These annual means are very similar, both of them are in compliance with the new UK air quality target and relatively close to the annual mean of the 5 µg/m^3 which is recommended by WHO guidelines for this pollutant.

$PM_{2.5}$ measurements obtained in at AURN St Ebbes in Oxford are aligned with the UK's national trend for this pollutant. Analysis of the $PM_{2.5}$ UK national trend show that average concentrations have reduced in 2023 by 1.02 µg/m^3, (the equivalent to 12%), from 2022 levels. In 2023, $PM_{2.5}$ levels have reduced by 14% at AURN ST Ebbes (from 7 to 6 µg/m^3)

This is officially the second year we report an annual mean $PM_{2.5}$ measurement for Oxford High Street (roadside). In 2022 Oxford High Street reported an annual mean $PM_{2.5}$ of 6 ug/m^3, in 2023 of 8 µg/m^3. This slight increase seems to go against the general trend observed at AURN St Ebbes and which is also replicated nationally. However, it is important to consider that $PM_{2.5}$ data capture was relatively poor at Oxford High Street in 2022 (only 41%), as the FIDAS had only been installed in May. As a result, the annual mean $PM_{2.5}$ had to be annualised in 2022. This is likely to be the reason for the slight increase in the levels between 2022 and 2023.

Figure 7 below shows the long-term trends of $PM_{2.5}$ concentrations measured at Oxford's AURN St Ebbes and (more recently) Oxford High Street. Table 11 (Appendix A) presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations at these sites for the past five years.

Figure 7-Long term trends of annual mean $PM_{2.5}$ ($\mu g/m^3$) at Oxford's continuous monitoring stations, 2009-2023



3.2.3 Ozone

In Oxford, O_3 is measured at AURN St. Ebbes. The AQ objective for daily maximum on an 8-hour running mean is 100 µg/m^3 not to be exceeded more than 10 days a year.

The data capture of O_3 at AURN St. Ebbes in 2023 was only of 72.9%, due to several problems identified and related with the instrument's *autocal* system, faulty display and blown fuses.

In 2023, this site exceeded the AQ daily objective for ozone 113 times, during a total of 19 days during the year. AURN St. Ebbes has not met the AQ objectives for this pollutant in 2023.

Appendix A: Monitoring Results

Table 4 - Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
CM1	AURN Oxford Centre	Roadside	451359	206157	NO_2	Yes/Oxford city-wide AQMA	Chemilumine scence	1	3	2.5
CM2	Oxford High Street	Roadside	451677	206272	NO_2; PM_{10}; $PM_{2.5}$	Yes/Oxford city-wide AQMA	Chemilumine scence and Mass spectrometry	1	2	1.5
CM3	AURN St Ebbes	Urban Background	451118	205353	NO_2; PM_{10}; $PM_{2.5}$; O_3	Yes/Oxford city-wide AQMA	Chemilumine scence, Mass spectrometry and UV Absorption	10	2	2.5

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable

Table 5 - 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) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
DT1	St Ebbe's	UB	451118	205353	NO_2	YES/Oxford city-wide AQMA	10	2	YES	2.5
DT2	Weirs Lne./Abingdon Rd. LP1	RS	451904	204215	NO_2	YES/Oxford city-wide AQMA	2	2	NO	3
DT3	LP 52 Abingdon Rd.	RS	451914	204154	NO_2	YES/Oxford city-wide AQMA	3	2	NO	3
DT4	Boundary Brook Rd/ Iffley Rd	RS	452961	204662	NO_2	YES/Oxford city-wide AQMA	3	2	NO	3
DT5	Lenthall Rd Allotments	UB	452818	203448	NO_2	YES/Oxford city-wide AQMA	5	N/A	NO	1.5
DT7	Oxford Rd/ Between Towns Rd	RS	454472	204246	NO_2	YES/Oxford city-wide AQMA	3	2	NO	3
DT8	Oxford Rd(Cowley) LP13	RS	454355	204296	NO_2	YES/Oxford city-wide AQMA	3	1	NO	3
DT14	Windmill Rd. W	RS	454554	207102	NO_2	YES/Oxford city-wide AQMA	0	2.5	NO	3
DT15	London Rd./BHF	RS	454433	207058	NO_2	YES/Oxford city-wide AQMA	0	2.5	NO	3
DT16	Headley Way/London Rd. LP2	RS	453982	206817	NO_2	YES/Oxford city-wide AQMA	1	2	NO	3
DT18	The Roundway	RS	455596	207367	NO_2	YES/Oxford city-wide AQMA	0	5	NO	3
DT20	Barton Lane LP2	RS	454999	207759	NO_2	YES/Oxford city-wide AQMA	3	1	NO	3
DT25	Cuttleslowe Rbout 3 Elsfield Rd.	RS	450419	210256	NO_2	YES/Oxford city-wide AQMA	5	2	NO	3
DT26	Cuttleslowe 3 Summers Place	RS	450389	210189	NO_2	YES/Oxford city-wide AQMA	1	2	NO	3
DT27	Wolvercote 78 Sunderland Ave.	RS	449824	210198	NO_2	YES/Oxford city-wide AQMA	1	1	NO	3
DT28	Wolvercote 51 Sunderland Ave	RS	449856	210162	NO_2	YES/Oxford city-wide AQMA	1	1	NO	3
DT29	Pear Tree P&R N Gateway	RS	449530	210734	NO_2	YES/Oxford city-wide AQMA	10	4	NO	3
DT30	Osney Lne/Hollybush Row	RS	450668	206053	NO_2	YES/Oxford city-wide AQMA	2	2	NO	3
DT31	Beckett St.	RS	450566	206227	NO_2	YES/Oxford city-wide AQMA	5	2	NO	3
DT32	Royal Oxford Hotel	RS	450674	206273	NO_2	YES/Oxford city-wide AQMA	0	2.5	NO	3
DT33	Botley RD/ Mill St	RS	450409	206224	NO_2	YES/Oxford city-wide AQMA	1	1	NO	3
DT35	Botley Rd /Hillview Rd	RS	450029	206207	NO_2	YES/Oxford city-wide AQMA	1	2	NO	3
DT36	Botley Rd N (Prestwich Place)	RS	449657	206245	NO_2	YES/Oxford city-wide AQMA	1	2	NO	3
DT39	St Aldate's	RS	451359	206157	NO_2	YES/Oxford city-wide AQMA	0	2	YES	2.5
DT40	Queen St.	RS	451270	206144	NO_2	YES/Oxford city-wide AQMA	0	2	NO	3
DT41	Bonn Square	RS	451216	206133	NO_2	YES/Oxford city-wide AQMA	0	2	NO	3
DT42	New Rd.	RS	451073	206191	NO_2	YES/Oxford city-wide AQMA	2	3.5	NO	3
DT43	Park End St.	RS	450885	206275	NO_2	YES/Oxford city-wide AQMA	2	1	NO	3
DT44	Hythe Bridge St.	RS	450795	206343	NO_2	YES/Oxford city-wide AQMA	0	2	NO	3
DT45	Worcester St.	RS	450942	206424	NO_2	YES/Oxford city-wide AQMA	2	2	NO	3

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) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
DT46	Beaumont St.	RS	451167	206519	NO_2	YES/Oxford city-wide AQMA	2	1	NO	3
DT47	George St. / Magdalen St.	RS	451222	206387	NO_2	YES/Oxford city-wide AQMA	2	0.5	NO	3
DT48	George St.	RS	450981	206344	NO_2	YES/Oxford city-wide AQMA	1	0.5	NO	3
DT49	Cornmarket St.	RS	451322	206242	NO_2	YES/Oxford city-wide AQMA	0	2	NO	3
DT50	High St. / Turl St.	RS	451467	206222	NO_2	YES/Oxford city-wide AQMA	1	2.5	NO	3
DT51	50 High St.	RS	451900	206250	NO_2	YES/Oxford city-wide AQMA	0	2.5	NO	3
DT52	Longwall St.	RS	451972	206283	NO_2	YES/Oxford city-wide AQMA	1	1	NO	3
DT53	Magdalen Bridge	RS	452099	206117	NO_2	YES/Oxford city-wide AQMA	10	2	NO	3
DT55	St Clements	RS	452326	205992	NO_2	YES/Oxford city-wide AQMA	2	0.5	NO	3
DT56	High St.	RS	451576	206232	NO_2	YES/Oxford city-wide AQMA	2.5	0.2	NO	3
DT57	Speedwell St. / St. Aldate's	RS	451407	205807	NO_2	YES/Oxford city-wide AQMA	1	3	NO	3
DT58	Folly Bridge	RS	451437	205529	NO_2	YES/Oxford city-wide AQMA	1	1	NO	3
DT59	Thames St.	RS	451353	205643	NO_2	YES/Oxford city-wide AQMA	1	3	NO	3
DT60	New Butterwyke P./ Thames St.	RS	451248	205710	NO_2	YES/Oxford city-wide AQMA	5	2	NO	3
DT64	Thames St. / Oxpens Rd.	RS	450887	205825	NO_2	YES/Oxford city-wide AQMA	5	1	NO	3
DT65	Speedwell St. / Littlegate	RS	451206	205780	NO_2	YES/Oxford city-wide AQMA	1	2	NO	3
DT68	Norfolk St.	RS	451030	205962	NO_2	YES/Oxford city-wide AQMA	0	1.5	NO	3
DT69	Paradise Square	RS	450982	205973	NO_2	YES/Oxford city-wide AQMA	0	1	NO	3
DT70	Castle St.	RS	451062	206067	NO_2	YES/Oxford city-wide AQMA	0	1.5	NO	3
DT71	BP City Motors	RS	449617	210216	NO_2	YES/Oxford city-wide AQMA	5	5	NO	3
DT72	Cowley Rd./ James Street	RS	452761	205745	NO_2	YES/Oxford city-wide AQMA	1	1	NO	3
DT73	Walton Street LP18	RS	450960	206590	NO_2	YES/Oxford city-wide AQMA	1	1	NO	3
DT76	St Gilles	RS	451226	206504	NO_2	YES/Oxford city-wide AQMA	0	2	NO	3
DT77	St Clements 2	RS	452451	205999	NO_2	YES/Oxford city-wide AQMA	0	1	NO	3
DT79	Old Abingdon Rd.	RS	451908	203919	NO_2	YES/Oxford city-wide AQMA	5	1.5	NO	3
DT80	Hollow way Road	RS	454651	204270	NO_2	YES/Oxford city-wide AQMA	4	1	NO	3
DT81	Cowley Rd/ Union Street	RS	452805	205731	NO_2	YES/Oxford city-wide AQMA	0	2	NO	3
DT82	Summertown Parade	RS	450806	208978	NO_2	YES/Oxford city-wide AQMA	2	1	NO	3
DT83	A44 Woodstock Rd.	RS	449681	210263	NO_2	YES/Oxford city-wide AQMA	8	0.5	NO	2
DT84	226 Botley Rd.	RS	449273	206274	NO_2	YES/Oxford city-wide AQMA	10	1.5	NO	3
DT85	St Clements 3	RS	452625	206068	NO_2	YES/Oxford city-wide AQMA	2.5	1	NO	3
DT86	72 Blackbird Leys	RS	455134	202841	NO_2	YES/Oxford city-wide AQMA	6	1.5	NO	2
DT87	New Inn Hall St	RS	451164	206246	NO_2	YES/Oxford city-wide AQMA	0	0.5	NO	2
DT88	St Michaels St	RS	451205	206341	NO_2	YES/Oxford city-wide AQMA	0	0.5	NO	2
DT89	Turl St/Market St	RS	451439	206330	NO_2	YES/Oxford city-wide AQMA	1	0.5	NO	2
DT90	Rose Hill (Ashhurst Way)	RS	453368	203323	NO_2	YES/Oxford city-wide AQMA	7	2	NO	2.5

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) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
DT91	Garsington Rd (Premier Place)	RS	455267	203719	NO_2	YES/Oxford city-wide AQMA	2	0.5	NO	2
DT92	BB Leys (Cuddesdon Way)	RS	455702	203062	NO_2	YES/Oxford city-wide AQMA	6	3	NO	2.5
DT93	Marston Ferry Rd	RS	451363	208785	NO_2	YES/Oxford city-wide AQMA	15	1	NO	2.5
DT94	Broad St LP6	RS	451360	206427	NO_2	YES/Oxford city-wide AQMA	4	0.1	NO	2.2
DT95	Broad S -Lbay	RS	451433	206438	NO_2	YES/Oxford city-wide AQMA	4	0.1	NO	2.2
DT96	45 Oxford Road	RS	453698	203059	NO_2	YES/Oxford city-wide AQMA	1	1.5	NO	2.6
DT97	14 Green Road flats	RS	455540	207352	NO_2	YES/Oxford city-wide AQMA	0	5.5	NO	2.4
TF1	Oxey Mead Lake 1	UB	447817	210695	NO_2	NO	(2) (3)	19	NO	1.5
TF2	Oxey Mead Lake 2	RS	447945	210710	NO_2	NO	(2) (3)	6	NO	1
TF3	Oxey Mead Lake 3	RS	448247	210661	NO_2	NO	(2) (3)	1	NO	2
TF4	Wolvercote Village	RS	449145	209732	NO_2	YES/Oxford city-wide AQMA	10	2	NO	3
TF5	Wolvercote Primary School	RS	449740	209866	NO_2	YES/Oxford city-wide AQMA	8	2	NO	2.5
TF6	306 Woodstock Road	RS	450300	209379	NO_2	YES/Oxford city-wide AQMA	10	2	NO	3
TF7	339 Banbury Road	RS	450602	209634	NO_2	YES/Oxford city-wide AQMA	10	2	NO	3
TF8	191 Woodstock Road	RS	450695	208278	NO_2	YES/Oxford city-wide AQMA	9	2	NO	2.5
TF9	48 Woodstock Road	RS	451009	207199	NO_2	YES/Oxford city-wide AQMA	6	2	NO	2.5
TF10	99 Banbury Road	RS	451035	207953	NO_2	YES/Oxford city-wide AQMA	10	2	NO	2.5
TF11	9 S. Park Road	RS	451626	206893	NO_2	YES/Oxford city-wide AQMA	5	1	NO	2.5
TF12	15 Banbury Road	RS	451170	207087	NO_2	YES/Oxford city-wide AQMA	10	2	NO	3
TF13	Walton Street 76	RS	450625	207212	NO_2	YES/Oxford city-wide AQMA	2	1	NO	3
TF14	69 Kingston Road	RS	450545	207728	NO_2	YES/Oxford city-wide AQMA	3	1	NO	2.5
TF15	Park End Street	RS	450789	206269	NO_2	YES/Oxford city-wide AQMA	2	1	NO	2.5
TF16	St Aldates 61	RS	451420	205729	NO_2	YES/Oxford city-wide AQMA	1	0.5	NO	2
TF17	23 Iffley Rd/Stanley Rd	RS	452718	205090	NO_2	YES/Oxford city-wide AQMA	6	1	NO	2.5
TF18	143 Morrell Avenue	RS	453263	205962	NO_2	YES/Oxford city-wide AQMA	6	1	NO	2.5
TF19	Headington Hill	RS	453248	206468	NO_2	YES/Oxford city-wide AQMA	(2) (3)	0.5	NO	2
TF20	Marston Rd/St Michaels Primary	RS	452853	206925	NO_2	YES/Oxford city-wide AQMA	10	1.5	NO	2.5
TF21	189 Headley Way	RS	453795	207074	NO_2	YES/Oxford city-wide AQMA	10	1	NO	2.5
TF22	255 London Rd/Gladstone Rd	RS	455154	207362	NO_2	YES/Oxford city-wide AQMA	10	1.5	NO	2.5
TF23	JR Hospital	RS	453861	207513	NO_2	YES/Oxford city-wide AQMA	5	1	NO	2
TF24	Marston Ferry Rd/Cherwell Drive	RS	452739	208351	NO_2	YES/Oxford city-wide AQMA	(2) (3)	1	NO	2.5
TF25	39 Marsh Lane	RS	453186	208209	NO_2	YES/Oxford city-wide AQMA	10	1.5	NO	2.5
TF26	Northway/Cutteslowe Park	RS	451091	210175	NO_2	YES/Oxford city-wide AQMA	(2) (3)	1	NO	1.5
TF27	Northern Bypass/Phillips Tyres	RS	452691	209225	NO_2	YES/Oxford city-wide AQMA	(2) (3)	0.5	NO	1.5
TF28	Horspath Driftway	RS	455454	205164	NO_2	YES/Oxford city-wide AQMA	10	1	NO	2
TF29	109 Old Road	RS	455138	206375	NO_2	YES/Oxford city-wide AQMA	9	2	NO	2.5

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) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
TF30	99 Oliver Road	RS	455405	204262	NO_2	YES/Oxford city-wide AQMA	10	2.5	NO	2.5
TF31	Brasenose Farm/Eastern Bypass	RS	455602	204986	NO_2	YES/Oxford city-wide AQMA	(2) (3)	1	NO	2
TF32	22 Garsington Road	RS	454690	204160	NO_2	YES/Oxford city-wide AQMA	9	2	NO	3
TF33	119 Barns Road	RS	454490	203748	NO_2	YES/Oxford city-wide AQMA	4	1.5	NO	2.5
TF34	Oxford Road/Newmans Road	RS	453717	203250	NO_2	YES/Oxford city-wide AQMA	10	1	NO	2.5
TF35	67 Southern Bypass Rd	RS	448957	205761	NO_2	NO	(2) (3)	2.5	NO	2.5
TF36	Wolvercote Meadows 1	RS	448095	208830	NO_2	NO	(2) (3)	1	NO	1.5
TF37	Wolvercote Meadows 2	RS	448688	210123	NO_2	NO	(2) (3)	1.5	NO	2
TF38	Church Cowley Rd	RS	453417	204026	NO_2	YES/Oxford city-wide AQMA	4	2.5	NO	2
LT1	26 Prince St	RS	452786	205860	NO_2	YES/Oxford city-wide AQMA	4	0.5	NO	2.5
LT2	1A Woodlands Rd	RS	453927	207068	NO_2	YES/Oxford city-wide AQMA	2	0.5	NO	2.5
LT3	47 Quarry Rd	RS	455310	206681	NO_2	YES/Oxford city-wide AQMA	4	2	NO	2.5
LT4	138-146 Morrell Av	RS	453575	206037	NO_2	YES/Oxford city-wide AQMA	4	2	NO	2.5
LT5	189 Divinity Rd	RS	453576	205938	NO_2	YES/Oxford city-wide AQMA	2	1	NO	2.5
LT6	St Christophers school	UB	454473	204588	NO_2	YES/Oxford city-wide AQMA	4	3	NO	2.5
LT7	126 The Slade	RS	454930	206287	NO_2	YES/Oxford city-wide AQMA	3	0.5	NO	2.5
LT8	East Oxford Primary School	UB	452903	205776	NO_2	YES/Oxford city-wide AQMA	3	12	NO	2.5
LT9	4 Quarry school	RS	455447	206966	NO_2	YES/Oxford city-wide AQMA	4	1	NO	2.5
LT10	23 Gladstone Rd	RS	455243	207170	NO_2	YES/Oxford city-wide AQMA	6	1	NO	2.5
LT11	19 Wharton Rd	RS	454918	207054	NO_2	YES/Oxford city-wide AQMA	6	2.5	NO	2.5
LT12	Ruskin Hall	RS	454260	207741	NO_2	YES/Oxford city-wide AQMA	0	1	NO	2.5
LT13	21 Latimer Rd	RS	454221	206796	NO_2	YES/Oxford city-wide AQMA	6	2	NO	2.5
LT14	94 Howard St	RS	453138	204917	NO_2	YES/Oxford city-wide AQMA	3	1	NO	2.5
LT15	96 Valentia Rd	RS	454013	206437	NO_2	YES/Oxford city-wide AQMA	3	1	NO	2.5
LT16	103-139 Hurst St	RS	452985	205185	NO_2	YES/Oxford city-wide AQMA	4	1	NO	2.5

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable

(3) These sites have not been put in place to directly assess the level of human exposure to air pollution, but instead to measure the potential impact of future transport schemes on traffic displacement. They are located in isolated areas, (mostly around Oxford's ring road), at a considerable distance from residential zones, and hence they are not relevant for the direct purposes of the LAQM regime.

Table 6 - Annual Mean NO_2 Monitoring Results: Automatic Monitoring (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2019	2020	2021	2022	2023
CM1	451359	206157	Roadside	90.8	90.8	**42**	28	33	33	31
CM2	451677	206272	Roadside	93.2	93.2	40	26	30	31	27
CM3	451118	205353	Urban Background	99.8	99.8	16	11	11	12	9

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

☒ **Reported concentrations are those at the location of the monitoring site (annualised, as required), i.e. prior to any fall-off with distance correction.**

☒ **Where exceedances of the NO_2 annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2023.**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 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.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(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 7 - Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3)

Diffusion Tube ID	Site name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
DT1	St Ebbes	451118	205353	UB	100	100	16	11	11	11	9
DT2	Weirs Lne./Abingdon Rd. LP1	451904	204215	RS	83	83	29	23	25	21	18
DT3	LP 52 Abingdon Rd.	451914	204154	RS	100	100	34	26	27	27	24
DT4	Boundary Brook Rd/ Iffley Rd	452961	204662	RS	92	92	28	23	26	27	23
DT5	Lenthall Rd Allotments	452818	203448	UB	100	100	14	10	11	10	8
DT7	Oxford Rd/ Between Towns Rd	454472	204246	RS	83	83	32	27	30	30	28
DT8	Oxford Rd(Cowley) LP13	454355	204296	RS	92	92	31	24	29	29	25
DT14	Windmill Rd. W	454554	207102	RS	100	100	35	28	30	28	27
DT15	London Rd./BHF	454433	207058	RS	100	100	27	21	23	23	21
DT16	Headley Way/London Rd. LP2	453982	206817	RS	100	100	27	19	22	21	18
DT18	The Roundway	455596	207367	RS	100	100	28	22	24	23	20
DT20	Barton Lane LP2	454999	207759	RS	100	100	28	22	23	20	18
DT25	Cuttleslowe Rbout 3 Elsfield Rd.	450419	210256	RS	92	92	35	26	28	25	24
DT26	Cuttleslowe 3 Summers Place	450389	210189	RS	100	100	**40**	31	34	32	28
DT27	Wolvercote 78 Sunderland Ave.	449824	210198	RS	100	100	29	22	22	20	19
DT28	Wolvercote 51 Sunderland Ave	449856	210162	RS	92	92	26	22	24	20	20
DT29	Pear Tree P&R N Gateway	449530	210734	RS	100	100	26	20	21	21	18
DT30	Osney Lne/Hollybush Row	450668	206053	RS	100	100	27	19	22	20	17
DT31	Beckett St.	450566	206227	RS	100	100	32	21	25	23	17
DT32	Royal Oxford Hotel	450674	206273	RS	92	92	32	24	27	25	21
DT33	Botley RD/ Mill St	450409	206224	RS	100	100	24	19	22	18	16
DT35	Botley Rd /Hillview Rd	450029	206207	RS	100	100	34	23	26	24	19
DT36	Botley Rd N (Prestwich Place)	449657	206245	RS	100	100	25	17	19	16	13
DT39	St Aldate's	451359	206157	RS	100	100	**43**	28	33	33	32
DT40	Queen St.	451270	206144	RS	100	100	28	18	21	22	21
DT41	Bonn Square	451216	206133	RS	92	92	26	17	21	22	20
DT42	New Rd.	451073	206191	RS	92	92	33	22	29	29	22
DT43	Park End St.	450885	206275	RS	92	92	35	22	28	27	24
DT44	Hythe Bridge St.	450795	206343	RS	100	100	30	21	23	23	18
DT45	Worcester St.	450942	206424	RS	92	92	**40**	26	29	31	25

Diffusion Tube ID	Site name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
DT46	Beaumont St.	451167	206519	RS	92	92	31	20	24	22	18
DT47	George St. / Magdalen St.	451222	206387	RS	83	83	**40**	24	26	23	25
DT48	George St.	450981	206344	RS	83	83	**44**	24	26	24	21
DT49	Cornmarket St.	451322	206242	RS	100	100	26	18	21	18	16
DT50	High St. / Turl St.	451467	206222	RS	92	92	32	24	25	23	21
DT51	50 High St.	451900	206250	RS	100	100	37	25	35	31	25
DT52	Longwall St.	451972	206283	RS	92	92	**41**	30	34	32	26
DT53	Magdalen Bridge	452099	206117	RS	100	100	23	16	19	17	16
DT55	St Clements	452326	205992	RS	100	100	**53**	36	39	**43**	38
DT56	High St.	451576	206232	RS	100	100	**50**	35	38	35	31
DT57	Speedwell St. / St. Aldate's	451407	205807	RS	100	100	39	27	32	29	27
DT58	Folly Bridge	451437	205529	RS	100	100	34	24	27	23	23
DT59	Thames St.	451353	205643	RS	100	100	26	18	22	19	17
DT60	New Butterwyke P./ Thames St.	451248	205710	RS	83	83	33	22	27	23	20
DT64	Thames St. / Oxpens Rd.	450887	205825	RS	100	100	23	15	18	16	13
DT65	Speedwell St. / Littlegate	451206	205780	RS	100	100	31	21	26	22	20
DT68	Norfolk St.	451030	205962	RS	75	75	27	19	24	22	22
DT69	Paradise Square	450982	205973	RS	100	100	26	18	20	18	16
DT70	Castle St.	451062	206067	RS	100	100	29	22	27	22	18
DT71	BP City Motors	449617	210216	RS	100	100	**40**	28	28	27	
DT72	Cowley Rd./ James Street	452761	205745	RS	100	100	31	22	20	27	23
DT73	Walton Street LP18	450960	206590	RS	100	100	24	15	18	18	15
DT76	St Gilles	451226	206504	RS	100	100	35	23	24	22	23
DT77	St Clements 2	452451	205999	RS	100	100	**42**	28	30	35	34
DT79	Old Abingdon Rd.	451908	203919	RS	100	100	24	17	20	18	17
DT80	Holloway Road	454651	204270	RS	92	92	37	31	35	34	31
DT81	Cowley Rd/ Union Street	452805	205731	RS	92	92	22	19	30	19	16
DT82	Summertown Parade	450806	208978	RS	92	92	27	20	21	17	17
DT83	A44 Woodstock Rd.	449681	210263	RS	100	100	**40**	30	32	30	27
DT84	226 Botley Rd.	449273	206274	RS	100	100	27	18	20	18	15
DT85	St Clements 3	452625	206068	RS	92	92	36	26	29	30	28
DT86	72 Blackbird Leys	455134	202841	RS	100	100	NM	16	18	16	15
DT87	New Inn Hall St	451164	206246	RS	100	100	NM	15	17	15	13
DT88	St Michaels St	451205	206341	RS	100	100	NM	15	17	14	13
DT89	Turl St/Market St	451439	206330	RS	92	92	NM	17	19	15	13
DT90	Rose Hill (Ashhurst Way)	453368	203323	RS	92	92	NM	NM	20	19	17
DT91	Garsington Rd (Premier Place)	455267	203719	RS	100	100	NM	NM	36	28	25

Diffusion Tube ID	Site name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
DT92	BB Leys (Cuddesdon Way)	455702	203062	RS	100	100	NM	NM	19	16	14
DT93	Marston Ferry Rd	451363	208785	RS	100	100	NM	NM	15	13	11
DT94	Broad St LP6	451360	206427	RS	92	92	NM	NM	NM	14	13
DT95	Broad S -Lbay	451433	206438	RS	75	75	NM	NM	NM	14	16
DT96	45 Oxford Road	453698	203059	RS	92	92	NM	NM	NM	NM	25
DT97	14 Green Road flats	455540	207352	RS	100	100	NM	NM	NM	NM	18
TF1	Oxey Mead Lake 1	447817	210695	UB	100	100	NM	NM	NM	9	11
TF2	Oxey Mead Lake 2	447945	210710	RS	92	92	NM	NM	NM	13	14
TF3	Oxey Mead Lake 3	448247	210661	RS	100	100	NM	NM	NM	25	21
TF4	Wolvercote Village	449145	209732	RS	100	100	NM	NM	NM	13	11
TF5	Wolvercote Primary School	449740	209866	RS	100	100	NM	NM	NM	14	12
TF6	306 Woodstock Road	450300	209379	RS	100	100	NM	NM	NM	15	13
TF7	339 Banbury Road	450602	209634	RS	100	100	NM	NM	NM	23	21
TF8	191 Woodstock Road	450695	208278	RS	100	100	NM	NM	NM	20	17
TF9	48 Woodstock Road	451009	207199	RS	100	100	NM	NM	NM	20	18
TF10	99 Banbury Road	451035	207953	RS	75	75	NM	NM	NM	19	18
TF11	9 S. Park Road	451626	206893	RS	83	83	NM	NM	NM	17	15
TF12	15 Banbury Road	451170	207087	RS	100	100	NM	NM	NM	17	14
TF13	Walton Street 76	450625	207212	RS	92	92	NM	NM	NM	20	16
TF14	69 Kingston Road	450545	207728	RS	100	100	NM	NM	NM	15	11
TF15	Park End Street	450789	206269	RS	83	83	NM	NM	NM	36	29
TF16	St Aldates 61	451420	205729	RS	100	100	NM	NM	NM	28	21
TF17	23 Iffley Rd/Stanley Rd	452718	205090	RS	100	100	NM	NM	NM	26	20
TF18	143 Morrell Avenue	453263	205962	RS	100	100	NM	NM	NM	16	13
TF19	Headington Hill	453248	206468	RS	75	75	NM	NM	NM	**70**	**53**
TF20	Marston Rd/St Michaels Primary	452853	206925	RS	100	100	NM	NM	NM	16	12
TF21	189 Headley Way	453795	207074	RS	100	100	NM	NM	NM	22	18
TF22	255 London Rd/Gladstone Rd	455154	207362	RS	100	100	NM	NM	NM	25	21
TF23	JR Hospital	453861	207513	RS	100	100	NM	NM	NM	23	20
TF24	Marston Ferry Rd/Cherwell Drive	452739	208351	RS	100	100	NM	NM	NM	16	12
TF25	39 Marsh Lane	453186	208209	RS	100	100	NM	NM	NM	17	15
TF26	Northway/Cutteslowe Park	451091	210175	RS	100	100	NM	NM	NM	23	19
TF27	Northern Bypass/Phillips Tyres	452691	209225	RS	75	75	NM	NM	NM	**42**	32
TF28	Horspath Driftway	455454	205164	RS	100	100	NM	NM	NM	22	18
TF29	109 Old Road	455138	206375	RS	100	100	NM	NM	NM	15	13
TF30	99 Oliver Road	455405	204262	RS	92	92	NM	NM	NM	34	25

Diffusion Tube ID	Site name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
TF31	Brasenose Farm/Eastern Bypass	455602	204986	RS	100	100	NM	NM	NM	**43**	34
TF32	22 Garsington Road	454690	204160	RS	100	100	NM	NM	NM	20	17
TF33	119 Barns Road	454490	203748	RS	92	92	NM	NM	NM	16	16
TF34	Oxford Road/Newmans Road	453717	203250	RS	100	100	NM	NM	NM	35	27
TF35	67 Southern Bypass Road	448957	205761	RS	100	100	NM	NM	NM	**57**	**42**
TF36	Wolvercote Meadows 1	448095	208830	RS	100	100	NM	NM	NM	36	29
TF37	Wolvercote Meadows 2	448688	210123	RS	83	83	NM	NM	NM	**42**	26
TF38	Church Cowley Rd	453417	204026	RS	75	75	NM	NM	NM	NM	21
LT1	26 Prince St	452786	205860	RS	83	83	NM	NM	17	13	11
LT2	1A Woodlands Rd	453927	207068	RS	100	100	NM	NM	12	10	10
LT3	47 Quarry Rd	455310	206681	RS	83	83	NM	NM	15	13	12
LT4	138-146 Morrell Av	453575	206037	RS	100	100	NM	NM	16	13	12
LT5	189 Divinity Rd	453576	205938	RS	92	92	NM	NM	18	12	10
LT6	St Christophers school	454473	204588	UB	100	100	NM	NM	13	12	10
LT7	126 The Slade	454930	206287	RS	100	100	NM	NM	26	22	19
LT8	East Oxford Primary School	452903	205776	UB	100	100	NM	NM	15	13	12
LT9	4 Quarry school	455447	206966	RS	82	82	NM	NM	13	13	11
LT10	23 Gladstone Rd	455243	207170	RS	100	100	NM	NM	13	13	10
LT11	19 Wharton Rd	454918	207054	RS	92	92	NM	NM	13	11	11
LT12	Ruskin Hall	454260	207741	RS	100	100	NM	NM	18	16	15
LT13	21 Latimer Rd	454221	206796	RS	100	100	NM	NM	13	12	11
LT14	94 Howard St	453138	204917	RS	100	100	NM	NM	16	13	11
LT15	96 Valentia Rd	454013	206437	RS	100	100	NM	NM	16	12	10
LT16	103-139 Hurst St	452985	205185	RS	92	92	NM	NM	16	13	11

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

☒ **Diffusion tube data has been bias adjusted.**

☒ **Reported concentrations are those at the location of the monitoring site (bias adjusted and annualised, as required), i.e. prior to any fall-off with distance correction.**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 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.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(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 - 1Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2019	2020	2021	2022	2023
CM1	451359	206157	Roadside	90.8	90.8	3	0	0	1	0
CM2	451677	206272	Roadside	93.2	93.2	2	1	0	0	0
CM3	451118	205353	Urban Background	99.8	99.8	0	0	0	0	0

Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m^3 have been recorded.

Exceedances of the NO_2 1-hour mean objective (200µg/m^3 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 9 - Annual Mean PM_{10} Monitoring Results ($\mu g/m^3$)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2019	2020	2021	2022	2023
CM2	451677	206272	Roadside	99.3	99.3	19	16	14	16	14
CM3	451118	205353	Urban Background	99.9	99.9	14	11	11	12	9

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

Notes:

The annual mean concentrations are presented as $\mu g/m^3$.

Exceedances of the PM_{10} annual mean objective of 40$\mu g/m^3$ 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%).

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Table 10 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2019	2020	2021	2022	2023
CM2	451677	206272	Roadside	99.3	99.3	7	0	0	2	0
CM3	451118	205353	Urban Background	99.9	99.9	5	0	1	0	0

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m^3 have been recorded.

Exceedances of the PM_{10} 24-hour mean objective (50µg/m^3 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 11 – Annual Mean $PM_{2.5}$ Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2019	2020	2021	2022	2023
CM2	451677	206272	Roadside	99.3	99.3	NM	NM	NM	6	8
CM3	451118	205353	Urban Background	99.9	99.9	9	7	7	7	6

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

Notes:

The annual mean concentrations are presented as µg/m^3.

All means have be6en "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%).

NM – Not Monitored

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Appendix B: Full Monthly Diffusion Tube Results for 2023

Table 12 - NO_2 2023 Diffusion Tube Results (µg/m^3)

DT ID	Site Name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.75)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT1	St Ebbes	451118	205353	17.4	16.5	11.7	9.9	9.2	9.4	8.1	9.5	14.3	13.2	15.6	8.2	11.9	9		
DT2	Weirs Lne./Abingdon Rd. LP1	451904	204215	22.7	27.9	27.2	25.2	24.9	22.2	M	20.1	27.5	27.1	M	19.8	24.5	18		
DT3	LP 52 Abingdon Rd.	451914	204154	39.8	37.0	33.4	32.6	25.3	26.3	27.4	26.6	41.0	34.6	40.6	25.8	32.5	24		
DT4	Boundary Brook Rd/ Iffley Rd	452961	204662	35.2	33.7	32.4	30.9	M	29.8	26.2	24.2	38.2	29.4	32.1	28.5	31.0	23		
DT5	Lenthall Rd Allotments	452818	203448	17.2	14.4	12.0	9.3	8.8	7.8	6.8	8.7	13.8	10.3	12.2	10.3	11.0	8		
DT7	Oxford Rd/ Between Towns Rd	454472	204246	43.5	42.6	38.7	36.7	25.9	30.1	M	33.2	M	39.9	40.9	38.4	37.0	28		
DT8	Oxford Rd(Cowley) LP13	454355	204296	39.2	24.0	37.8	36.4	29.0	28.2	22.3	31.0	48.4	M	40.3	31.8	33.5	25		
DT14	Windmill Rd. W	454554	207102	34.0	43.7	36.3	31.5	24.3	28.6	35.9	32.0	43.9	40.5	44.0	37.8	36.0	27		
DT15	London Rd./BHF	454433	207058	30.7	31.8	29.9	31.7	24.9	27.1	21.7	27.5	37.8	35.3	17.2	22.5	28.2	21		
DT16	Headley Way/London Rd. LP2	453982	206817	27.1	27.2	23.9	28.0	26.7	25.7	16.5	24.0	27.0	22.3	28.8	16.9	24.5	18		
DT18	The Roundway	455596	207367	30.4	29.0	28.1	26.1	26.7	24.9	18.5	23.2	31.0	26.4	31.0	20.0	26.3	20		
DT20	Barton Lane LP2	454999	207759	28.9	26.9	25.3	29.7	26.5	23.6	12.6	21.2	22.9	20.8	28.2	18.0	23.7	18		
DT25	Cuttleslowe Rbout 3 Elsfield Rd.	450419	210256	40.6	M	34.1	33.4	30.6	26.5	27.0	27.3	35.8	34.9	31.9	31.8	32.2	24		
DT26	Cuttleslowe 3 Summers Place	450389	210189	40.6	43.3	37.3	46.8	41.0	41.4	22.3	34.9	42.5	36.5	41.6	25.3	37.8	28		
DT27	Wolvercote 78 Sunderland Ave.	449824	210198	30.8	32.1	25.2	24.3	16.1	28.6	20.9	21.4	29.5	26.5	31.3	22.8	25.8	19		
DT28	Wolvercote 51 Sunderland Ave	449856	210162	30.3	28.5	28.3	28.4	25.0	24.0	M	25.1	29.4	26.3	30.4	21.3	27.0	20		
DT29	Pear Tree P&R N Gateway	449530	210734	29.3	31.8	28.5	20.6	15.8	16.3	19.5	22.2	27.6	28.7	25.5	29.9	24.6	18		
DT30	Osney Lne/Hollybush Row	450668	206053	25.0	29.6	27.4	24.4	21.6	19.1	18.9	19.4	25.3	25.6	27.9	14.6	23.2	17		
DT31	Beckett St.	450566	206227	31.0	23.8	27.2	20.8	18.2	18.8	17.5	19.6	22.8	23.3	31.4	15.1	22.5	17		
DT32	Royal Oxford Hotel	450674	206273	32.4	35.3	31.4	30.4	22.0	M	19.6	25.2	32.8	28.4	29.0	14.7	27.4	21		
DT33	Botley RD/ Mill St	450409	206224	26.7	28.1	25.7	24.8	20.6	19.0	11.5	14.7	22.3	21.3	20.5	14.8	20.8	16		
DT35	Botley Rd /Hillview Rd	450029	206207	34.7	30.8	28.4	24.4	18.7	21.0	19.6	21.3	29.9	27.6	32.2	20.2	25.7	19		
DT36	Botley Rd N (Prestwich Place)	449657	206245	26.1	20.8	19.7	18.9	12.4	11.9	11.0	13.5	19.4	16.6	22.2	13.2	17.1	13		
DT39	St Aldate's	451359	206157	48.6	42.7	41.7	49.7	40.9	41.3	31.7	39.9	51.9	46.3	39.6	30.3	42.1	32		
DT40	Queen St.	451270	206144	28.6	22.7	27.8	34.3	26.2	29.1	20.5	28.6	35.5	26.3	34.2	25.3	28.3	21		
DT41	Bonn Square	451216	206133	33.9	32.5	27.2	29.4	23.2	22.5	19.8	26.2	M	28.1	34.8	20.8	27.1	20		
DT42	New Rd.	451073	206191	32.7	38.1	19.6	36.7	30.5	32.0	20.1	27.8	M	32.1	37.8	17.7	29.6	22		

DT ID	Site Name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.75)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT43	Park End St.	450885	206275	36.1	39.5	33.2	33.6	25.4	28.2	24.7	29.9	36.7	M	35.8	23.3	31.5	24		
DT44	Hythe Bridge St.	450795	206343	28.3	26.8	28.0	25.2	22.2	23.8	18.6	22.5	30.2	25.7	29.7	11.3	24.4	18		
DT45	Worcester St.	450942	206424	40.3	30.7	24.6	36.3	29.9	34.6	24.3	33.0	38.7	M	39.3	30.9	33.0	25		
DT46	Beaumont St.	451167	206519	24.6	30.3	18.6	23.6	21.3	20.2	20.6	M	29.0	30.5	26.9	22.7	24.4	18		
DT47	George St. / Magdalen St.	451222	206387	M	23.7	32.1	37.3	29.3	31.5	29.0	35.7	M	35.3	42.4	35.7	33.2	25		
DT48	George St.	450981	206344	36.1	37.3	32.2	28.6	20.1	24.4	23.0	25.2	M	34.0	M	25.1	28.6	21		
DT49	Cornmarket St.	451322	206242	25.7	26.2	9.2	22.0	15.9	18.5	15.5	18.2	26.3	28.3	26.9	16.8	20.8	16		
DT50	High St. / Turl St.	451467	206222	32.0	29.4	30.9	31.9	26.8	29.3	18.9	25.2	36.3	M	30.9	22.5	28.6	21		
DT51	50 High St.	451900	206250	37.6	44.1	35.4	39.2	34.3	34.4	22.2	25.0	37.8	36.9	36.9	23.3	33.9	25		
DT52	Longwall St.	451972	206283	36.0	40.6	18.6	34.8	25.2	31.5	26.9	M	48.4	43.1	46.7	35.6	35.2	26		
DT53	Magdalen Bridge	452099	206117	25.1	15.8	37.3	25.0	19.8	17.9	12.0	18.8	23.1	21.2	18.6	15.4	20.8	16		
DT55	St Clements	452326	205992	42.7	44.4	52.4	55.2	41.7	53.2	46.2	47.2	67.3	59.6	52.8	48.0	50.9	**38**	31	NO_2 Fall off With Distance Calculator used (Please see Table 15 -Appendix C)
DT56	High St.	451576	206232	45.1	51.2	44.5	36.5	36.5	37.8	35.2	41.7	40.0	43.4	47.2	40.0	41.6	31		
DT57	Speedwell St. / St. Aldate's	451407	205807	41.2	45.1	35.4	33.4	35.3	32.6	29.1	33.1	39.3	38.2	35.7	29.5	35.7	27		
DT58	Folly Bridge	451437	205529	36.1	34.3	29.2	32.5	31.6	31.9	23.5	26.7	36.6	30.8	31.2	24.8	30.8	23		
DT59	Thames St.	451353	205643	24.5	24.7	22.9	30.2	30.5	26.7	13.9	18.9	24.3	20.0	27.1	15.1	23.2	17		
DT60	New Butterwyke P./ Thames St.	451248	205710	30.0	28.1	27.1	37.8	30.8	M	18.1	22.7	27.8	25.0	M	18.7	26.6	20		
DT64	Thames St. / Oxpens Rd.	450887	205825	19.6	20.5	20.2	17.1	18.8	17.7	11.7	17.1	18.9	18.1	20.6	10.9	17.6	13		
DT65	Speedwell St. / Littlegate	451206	205780	30.2	31.7	28.2	32.4	25.3	23.9	16.1	23.5	28.2	31.5	28.1	18.7	26.5	20		
DT68	Norfolk St.	451030	205962	38.4	40.2	35.9	32.5	M	23.3	21.8	24.1	30.4	22.5	M	M	29.9	22		
DT69	Paradise Square	450982	205973	26.7	26.2	18.7	21.6	17.5	17.3	16.0	18.5	27.1	25.9	24.9	15.6	21.3	16		
DT70	Castle St.	451062	206067	30.1	23.6	25.4	29.5	25.9	23.3	17.2	23.8	27.5	25.7	17.1	15.3	23.7	18		
DT71	BP City Motors	449617	210216	26.8	36.6	31.9	32.5	29.4	31.2	22.6	31.5	46.0	34.2	36.1	27.3	32.2	24		
DT72	Cowley Rd./ James Street	452761	205745	33.0	35.0	30.5	35.2	29.1	32.4	20.0	26.5	37.3	28.4	28.8	26.2	30.2	23		
DT73	Walton Street LP18	450960	206590	22.4	22.5	22.0	21.2	17.1	14.3	14.8	18.3	16.8	25.5	21.1	16.4	19.4	15		
DT76	St Gilles	451226	206504	35.1	35.3	29.7	24.8	20.9	23.1	25.6	30.5	37.4	43.0	32.5	36.2	31.2	23		
DT77	St Clements 2	452451	205999	44.2	44.2	46.1	46.1	34.3	39.8	40.4	43.4	61.9	51.8	49.9	41.3	45.3	34		
DT79	Old Abingdon Rd.	451908	203919	27.3	25.6	22.7	23.1	17.8	20.5	16.6	20.3	26.8	26.6	26.4	20.9	22.9	17		
DT80	Holloway Road	454651	204270	51.3	45.4	40.9	37.2	34.1	M	37.8	45.5	51.8	37.0	42.3	34.3	41.6	31		
DT81	Cowley Rd/ Union Street	452805	205731	M	25.7	20.1	21.4	17.1	16.5	16.3	17.4	25.2	23.9	26.2	19.3	20.8	16		
DT82	Summertown Parade	450806	208978	27.4	25.5	23.0	16.8	M	15.4	15.9	19.4	27.5	26.0	30.8	22.5	22.7	17		
DT83	A44 Woodstock Rd.	449681	210263	43.5	41.0	37.4	31.7	27.1	27.8	29.3	32.8	42.1	39.0	37.8	37.3	35.6	27		

DT ID	Site Name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.75)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT84	226 Botley Rd.	449273	206274	28.0	29.6	22.9	19.5	12.3	14.4	14.6	17.1	22.3	21.1	21.1	18.3	20.1	15		
DT85	St Clements 3	452625	206068	42.0	34.3	38.0	M	41.6	39.2	25.9	33.9	44.5	37.3	43.3	29.7	37.2	28		
DT86	72 Blackbird Leys	455134	202841	26.2	25.0	19.9	18.3	15.4	16.1	13.5	14.6	22.3	21.0	26.1	18.0	19.7	15		
DT87	New Inn Hall St	451164	206246	24.6	24.3	20.5	16.2	14.5	13.2	11.1	14.6	18.4	20.2	23.7	11.6	17.7	13		
DT88	St Michaels St	451205	206341	24.3	25.3	17.5	14.4	15.1	12.4	9.9	13.7	17.5	20.6	13.5	15.8	16.7	13		
DT89	Turl St/Market St	451439	206330	22.6	21.5	18.0	18.2	13.7	12.6	10.8	13.3	M	20.2	14.9	18.0	16.7	13		
DT90	Rose Hill (Ashhurst Way)	453368	203323	25.7	27.5	24.3	19.8	M	18.3	15.6	19.6	26.6	25.6	28.3	14.2	22.3	17		
DT91	Garsington Rd (Premier Place)	455267	203719	46.4	32.4	37.6	33.7	27.4	31.1	29.1	28.6	40.8	33.9	28.4	34.2	33.6	25		
DT92	BB Leys (Cuddesdon Way)	455702	203062	25.8	16.5	16.8	19.3	18.1	16.2	12.2	15.7	21.1	20.9	27.9	17.6	19.0	14		
DT93	Marston Ferry Rd	451363	208785	18.5	20.6	14.5	12.8	11.7	11.7	9.6	12.8	20.2	15.8	18.7	12.9	15.0	11		
DT94	Broad St LP6	451360	206427	M	16.5	20.4	10.1	14.4	11.2	13.3	17.0	23.3	20.7	30.1	18.7	17.8	13		
DT95	Broad S -Lbay	451433	206438	26.9	M	21.2	22.2	M	14.3	13.3	M	22.5	28.1	16.9	23.3	21.0	16		
DT96	45 Oxford Road	453698	203059	33.2	43.0	32.6	36.5	M	31.3	24.1	30.7	36.6	33.7	36.3	21.7	32.7	25		
DT97	14 Green Road flats	455540	207352	32.0	26.5	21.0	24.9	24.7	22.6	20.4	19.7	23.1	23.2	25.7	16.2	23.3	18		
TF1	Oxey Mead Lake 1	447817	210695	16.7	12.2	10.0	13.0	10.8	6.4	5.6	7.9	11.1	10.8	57.6	17.9	15.0	11		
TF2	Oxey Mead Lake 2	447945	210710	19.5	17.4	14.4	17.3	15.8	18.4	8.4	11.5	14.8	13.4	57.3	M	18.9	14		
TF3	Oxey Mead Lake 3	448247	210661	30.8	32.1	22.8	31.3	35.1	30.1	18.9	27.5	35.9	31.6	26.5	15.6	28.2	21		
TF4	Wolvercote Village	449145	209732	20.5	15.7	13.6	14.3	13.7	10.4	9.6	10.4	15.7	14.7	17.4	12.1	14.0	11		
TF5	Wolvercote Primary School	449740	209866	21.8	18.8	15.1	17.6	16.7	10.8	8.6	12.4	20.4	16.1	21.0	11.5	15.9	12		
TF6	306 Woodstock Road	450300	209379	20.4	18.2	14.9	17.9	15.2	12.0	11.5	15.6	24.3	20.2	21.7	15.9	17.3	13		
TF7	339 Banbury Road	450602	209634	36.1	21.7	28.5	26.4	26.4	19.8	19.9	24.1	34.2	30.1	33.5	27.7	27.4	21		
TF8	191 Woodstock Road	450695	208278	29.3	14.6	22.9	23.7	18.5	18.0	17.8	21.3	29.2	27.6	29.8	23.2	23.0	17		
TF9	48 Woodstock Road	451009	207199	27.3	27.2	24.1	25.0	20.1	18.8	19.3	19.7	26.2	27.7	31.1	22.4	24.1	18		
TF10	99 Banbury Road	451035	207953	24.0	M	23.6	21.0	21.8	M	M	20.5	26.2	25.6	29.8	21.3	23.8	18		
TF11	9 S. Park Road	451626	206893	23.1	23.1	17.8	20.3	17.8	14.1	13.5	M	M	23.7	23.8	19.9	19.7	15		
TF12	15 Banbury Road	451170	207087	24.1	22.0	16.1	20.6	16.4	13.7	11.5	14.8	21.3	21.3	22.0	15.9	18.3	14		
TF13	Walton Street 76	450625	207212	29.9	30.0	21.1	18.6	13.6	12.7	15.5	16.8	24.4	22.8	25.3	M	21.0	16		
TF14	69 Kingston Road	450545	207728	18.1	18.5	15.4	13.3	10.8	9.4	9.5	12.6	18.5	17.9	18.4	14.1	14.7	11		
TF15	Park End Street	450789	206269	43.7	47.5	39.2	40.6	31.4	M	M	35.1	43.2	37.9	39.1	26.1	38.4	29		
TF16	St Aldates 61	451420	205729	37.9	32.6	29.8	27.9	23.3	19.0	19.7	26.1	30.2	30.1	32.6	26.6	28.0	21		
TF17	23 Iffley Rd/Stanley Rd	452718	205090	32.5	30.8	26.2	26.6	22.5	21.2	21.9	25.2	35.3	30.1	30.7	24.7	27.3	20		
TF18	143 Morrell Avenue	453263	205962	21.1	22.5	17.8	19.1	15.6	16.7	11.9	13.6	17.0	18.0	22.2	15.1	17.6	13		

DT ID	Site Name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.75)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
TF19	Headington Hill	453248	206468	M	71.0	69.7	68.0	71.3	77.6	68.4	73.4	72.5	M	58.4	M	70	**53 (*)**	**53 (*)**	Monitoring not for LAQM (assessing human exposure) purposes but to assess potential AQ impacts from traffic displacement that result from future transport schemes
TF20	Marston Rd/St Michaels Primary	452853	206925	23.7	19.0	16.8	21.6	10.1	9.7	10.8	12.5	17.8	16.1	20.6	11.9	15.9	12		
TF21	189 Headley Way	453795	207074	34.0	24.5	23.6	27.0	18.7	18.5	14.6	18.1	32.4	25.3	28.4	23.8	24.1	18		
TF22	255 London Rd/Gladstone Rd	455154	207362	41.3	24.1	29.8	30.4	22.2	22.9	21.6	25.7	35.9	31.1	31.0	27.7	28.6	21		
TF23	JR Hospital	453861	207513	32.8	26.6	24.2	28.7	23.3	24.1	19.6	24.5	34.1	31.4	31.4	21.0	26.8	20		
TF24	Marston Ferry Rd/Cherwell Drive	452739	208351	22.4	13.2	17.9	15.5	9.1	10.7	12.7	12.9	22.0	19.4	23.1	17.4	16.4	12		
TF25	39 Marsh Lane	453186	208209	28.8	24.7	19.9	19.3	17.4	14.2	14.8	16.0	23.6	22.1	26.2	16.0	20.3	15		
TF26	Northway/Cutteslowe Park	451091	210175	32.5	30.7	25.9	30.1	27.2	26.6	17.2	23.8	26.0	24.6	25.8	18.1	25.7	19		
TF27	Northern Bypass/Phillips Tyres	452691	209225	57.2	43.5	42.4	42.2	M	M	M	36.8	43.7	46.2	48.5	28.5	43.2	32		
TF28	Horspath Driftway	455454	205164	29.6	26.1	23.4	25.2	18.8	17.9	19.7	19.7	27.6	31.8	29.0	20.8	24.1	18		
TF29	109 Old Road	455138	206375	21.1	24.4	16.3	17.1	13.3	10.7	13.2	14.4	20.1	20.8	22.0	14.0	17.3	13		
TF30	99 Oliver Road	455405	204262	M	40.2	37.4	43.3	36.1	20.4	21.9	26.2	41.1	37.2	37.1	28.7	33.6	25		
TF31	Brasenose Farm/Eastern Bypass	455602	204986	53.5	51.6	44.0	45.9	53.4	48.7	35.2	42.4	45.7	43.7	45.2	36.9	45.5	34		
TF32	22 Garsington Road	454690	204160	29.6	27.7	18.6	26.1	20.5	18.1	13.2	19.3	27.3	26.5	25.2	17.1	22.4	17		
TF33	119 Barns Road	454490	203748	28.6	25.4	18.2	21.5	17.2	11.6	M	21.2	21.8	17.5	26.4	19.6	20.8	16		
TF34	Oxford Road/Newmans Road	453717	203250	44.7	43.7	35.2	37.6	38.3	38.0	30.9	32.9	M	34.8	M	23.5	36.0	27		
TF35	67 Southern Bypass Road	448957	205761	61.6	64.0	63.7	67.6	48.9	47.2	50.2	59.6	65.9	55.3	47.7	48.1	56.7	**42 (*)**	**42 (*)**	Monitoring not for LAQM (assessing human exposure) purposes but to assess potential AQ impacts from traffic displacement that result from future transport schemes
TF36	Wolvercote Meadows 1	448095	208830	25.6	46.6	42.9	38.1	38.5	42.3	32.8	41.3	52.1	46.2	34.8	29.4	39.2	29		
TF37	Wolvercote Meadows 2	448688	210123	28.4	38.5	33.7	32.1	M	22.1	65.1	M	38.2	35.3	25.3	28.0	34.7	26		
TF38	Church Cowley Rd	453417	204026	NM	NM	NM	30.1	25.6	24.2	24.2	25.4	28.1	30.2	34.8	23.9	27.4	21		
LT1	26 Prince St	452786	205860	20.5	18.5	12.8	M	11.9	9.5	9.5	10.2	15.8	16.3	19.2	M	14.4	11		
LT2	1A Woodlands Rd	453927	207068	21.7	16.7	12.8	12.8	11.8	6.7	M	9.4	13.7	14.7	16.9	11.4	13.5	10		
LT3	47 Quarry Rd	455310	206681	22.8	21.3	14.3	14.5	M	9.7	8.6	11.1	16.7	16.1	18.5	M	15.4	12		
LT4	138-146 Morrell Av	453575	206037	18.3	23.5	15.3	18.4	14.1	13.2	9.7	12.7	19.8	16.0	17.5	14.4	16.1	12		
LT5	189 Divinity Rd	453576	205938	22.4	13.7	13.5	11.6	M	7.8	7.5	9.0	14.3	14.0	19.8	11.8	13.2	10		
LT6	St Christophers school	454473	204588	24.2	17.7	13.7	12.5	9.5	7.0	8.5	9.3	17.7	14.2	12.9	14.0	13.4	10		
LT7	126 The Slade	454930	206287	34.2	31.2	26.5	29.1	23.4	20.9	16.6	22.3	26.8	22.5	26.6	23.2	25.3	19		

DT ID	Site Name	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.75)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
LT8	East Oxford Primary School	452903	205776	26.3	20.9	14.7	13.8	11.4	9.8	9.1	10.4	18.4	16.5	21.0	14.9	15.6	12		
LT9	4 Quarry school	455447	206966	21.1	21.1	17.2	M	11.6	10.4	7.5	11.1	14.3	17.1	19.2	M	15.1	11		
LT10	23 Gladstone Rd	455243	207170	23.8	12.5	14.0	13.6	9.7	10.1	7.4	9.2	14.3	14.9	18.9	13.6	13.5	10		
LT11	19 Wharton Rd	454918	207054	26.1	15.7	13.0	M	10.8	9.4	7.7	9.7	14.9	14.2	18.1	14.9	14.0	11		
LT12	Ruskin Hall	454260	207741	29.5	19.4	22.6	21.3	16.3	13.8	16.4	14.6	23.0	21.1	26.9	8.6	19.5	15		
LT13	21 Latimer Rd	454221	206796	22.0	19.3	14.5	14.5	12.4	9.8	7.7	10.6	14.9	14.1	19.4	14.3	14.5	11		
LT14	94 Howard St	453138	204917	22.2	19.3	13.7	14.1	11.2	8.6	9.3	10.1	16.2	16.8	18.4	11.8	14.3	11		
LT15	96 Valentia Rd	454013	206437	20.0	17.3	10.9	16.0	10.7	7.4	8.8	8.6	14.1	14.3	18.0	10.4	13.0	10		
LT16	103-139 Hurst St	452985	205185	22.0	21.5	M	13.1	12.0	9.3	9.2	10.8	15.8	17.3	20.6	14.5	15.1	11		

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table B.1.**

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

☒ **Local bias adjustment factor used.**

☐ **National bias adjustment factor used.**

☒ **Where applicable, data has been distance corrected for relevant exposure in the final column.**

☒ **Oxford City Council confirm that all 2023 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

(*) According to paragraph 7.84 of the LAQM TG (22), considerations should be given to distance correct all the diffusion tubes that are not representative of human exposure, and whose concentrations fall within 10% of the NO2 annual mean objective (i.e. > 36µgm^3), to account for the inherent uncertainty in diffusion tube monitoring concentration data. In 2023, only 3 of the diffusion tube monitoring results showed NO2 concentration levels > 36µgm^3 (Diffusion tubes DT55; TF19; and TF35).

Diffusion tubes TF19 and TF35 have been installed not to directly assess relevant human exposure to air pollution, but instead to assess the potential air quality impacts from traffic displacement, that may occur in these areas, as a result of future traffic schemes that are being considered for implementation in Oxford city. As such, these tubes have not been corrected for distance.

The only tube that was corrected for distance in this AQ AS Report was DT 55 – St Clements.

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

New or Changed Sources Identified Within Oxford City Council During 2023

Oxford City Council has not identified any new sources relating to air pollution within the reporting year 2023.

Additional Air Quality Works Undertaken by Oxford City Council During 2023

One extra monitoring location was added to the network in 2023, to increase our knowledge of air pollution across the city. Oxford City Council is now monitoring air quality at a total of 128 locations (127 with diffusion tubes, 3 with automatic monitors and 2 locations where both techniques are used simultaneously).

QA/QC of Diffusion Tube Monitoring

Oxford's diffusion tubes were supplied and analysed in 2023 by the accredited laboratory (SOCOTEC), using a 50% Triethanolamine (TEA) in Acetone method, and using a standard operating procedure (ANU/SOP/1015) that meets the guidelines set out in DEFRA's Diffusion Tubes for Ambient NO_2 Monitoring: Practical Guidance.

SOCOTEC is subject to quality assurance testing as part of their accreditation. This involves an independent comparison to other laboratories, under the independent AIR-PT scheme. The results of the latest inter-comparisons are publicly available for scrutiny here.

All the diffusion tubes used in the 2023 monitoring campaign were replaced according to DEFRA's 2023 diffusion tube monitoring calendar and within the ± 2 days due date tolerance.

Diffusion Tube Annualisation

All diffusion tube monitoring locations within Oxford City Council recorded data capture of 75%, which is equivalent to a minimum of 9 or more valid monthly averages throughout the 12-month calendar year. Therefore, it was not required to annualise any monitoring data.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference *chemiluminescence* analyser. LAQMTG22 provides guidance regarding the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO_2 continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Oxford City Council have applied a local bias adjustment factor of **0.75** to the 2023 monitoring data. This factor was obtained from the local co-location study conducted at AURN Oxford Centre Roadside.

The average of the national bias correction factor for diffusion tubes from all the 28 studies tested at national level by SOCOTEC Didcot (the laboratory used by Oxford City Council) and using the same Acetone method (50% TEA) in 2023 (as of March 2024) was of **0.77**

Although recognising that this figure is slightly higher than our local one (by 0.2), Oxford City Council decided to still use its local bias adjustment factor in this report, for a question of methodology and consistency with previous AQ ASRs, and also due to the fact that our local co-location study at AURN Oxford Centre Roadside has presented again "good" diffusion tube precision in 2023, together with high quality chemiluminescence results, and high data capture rate for NOx (>90%).

A summary of bias adjustment factors used by Oxford City Council over the past five years is presented in Table 13.

Table 13 - Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor	Laboratory Associated
2023	Local	NA	0.75	SOCOTEC
2022	Local	NA	0.74	SOCOTEC
2021	Local	NA	0.98/0.98	South Yorkshire Samplers
2020	Local	NA	0.96/0.97	South Yorkshire Samplers
2019	Local	NA	0.94/1.05	South Yorkshire Samplers

Table 14 (below) shows the accuracy of the local bias adjustment factor used in 2023, as well as the most relevant figures resulting from the calculation of the bias adjustment factor, and which have been obtained using DEFRA's approved bias adjustment factor spreadsheet.

Table 14 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1
Periods used to calculate bias	10
Bias Factor A	0.75 (0.7-0.8)
Bias Factor B	34% (25% - 44%)
Diffusion Tube Mean (µg/m^3)	43
Mean CV (Precision)	8
Automatic Mean (µg/m^3)	32
Data Capture for periods used (%)	98
Adjusted Tube Mean (µg/m^3)	32 (30 – 35)

Notes:

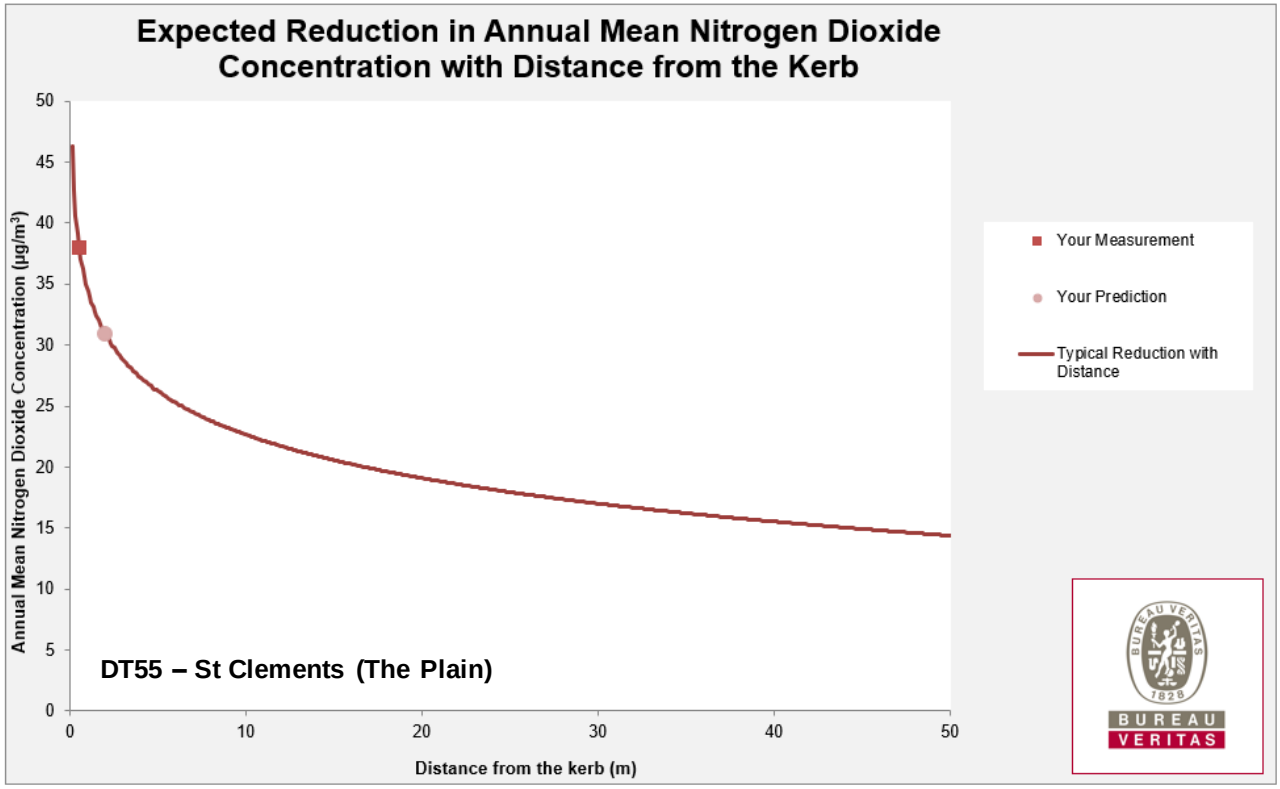
A single local bias adjustment factor has been used to bias adjust the 2023 diffusion tube results.

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO_2 concentrations corrected for distance are presented on Table 15.

Table 15 – Non-Automatic NO_2 Fall off With Distance Calculations (concentrations presented in µg/m^3)

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted	Background Concentration	Concentration Predicted at Receptor	Comments
DT55	0.5	2	38	9	30.9	The Urban background concentration value for this correction was obtained from AURN St Ebbes



Note:

According to paragraph 7.84 of the LAQM TG (22), considerations should be given to distance correct all the diffusion tubes that are not representative of human exposure, and whose concentrations fall within 10% of the NO_2 annual mean objective (i.e. > 36µgm^3), to account for the inherent uncertainty in diffusion tube monitoring concentration data.

In 2023, only 3 of the diffusion tube monitoring results showed NO_2 concentration levels > 36µgm^3 (Diffusion tubes DT55; TF19; and TF35). These tubes have been installed not to directly assess relevant human exposure to air pollution, but instead to assess the potential air quality impacts from traffic displacement, that may occur in these areas, as a result of future traffic schemes that are being considered for implementation in Oxford city. As such, these tubes have not been corrected for distance.

The only tube that was corrected for distance in this AQ AS Report was DT 55 (St Clements).

QA/QC of Automatic Monitoring

Oxford City Council currently operates three automatic monitoring sites. All routine calibrations and maintenance are carried out by members of Oxford City Council's Environmental Quality team and performed in accordance with manufacturers' and Automated Urban Monitoring Network site operators' manual. Instrument drift is routinely checked by:

- a daily internal instrument calibration which is carried out automatically using an electronic calibration check;
- every two to four weeks a manual external instrument calibration is carried out by Oxford City Council using gas cylinders that can be traced back to reference standards for each pollutant;
- every six months an audit of instrument response is carried out by an external organization using independent gas calibration standards.

The above checks enable data to be examined subsequently for instrument drift, which is expected, or for faulty data which is usually not expected. Before final publication of the air quality annual monitoring results for comparison against current legislation, the air quality data needs to be ratified.

Data Ratification is a detailed manual check of the data set carried out on a quarterly basis in all our automatic monitoring stations covered by the full QA/QC process. It requires a longer-term view of the dataset, incorporating the results from the independent QA/QC audits of the monitoring stations.

All the automatic monitoring data obtained in 2023 and presented within this ASR has been fully ratified by Ricardo Energy & Environment, following in full all the national AURN QA/QC procedures[9]**.** Live and Historic data from our 3 automatic monitoring sites can be found on the following websites:

- OXONair
- UK-Air
- AQ England

9 QA/QC Procedures for the UK Automatic Urban and Rural Air Quality Monitoring Network (AURN)

PM_{10} and $PM_{2.5}$ Monitoring Adjustment

The instruments used at AURN St Ebbes and Oxford High Street to measure PM_{10} and $PM_{2.5}$ data (FIDAS), do not require the application of any correction factor.

$PM_{2.5}$ data reported by the FIDAS instrument is automatically corrected to gravimetric equivalent by Ricardo Energy & Environment using the procedure described in TG22.

Automatic Monitoring Annualisation

All automatic monitoring locations within Oxford City Council recorded data capture of greater than 75% for all pollutants in 2023. Annualisation was therefore not required.

NO_2 Fall-off with Distance from the Road

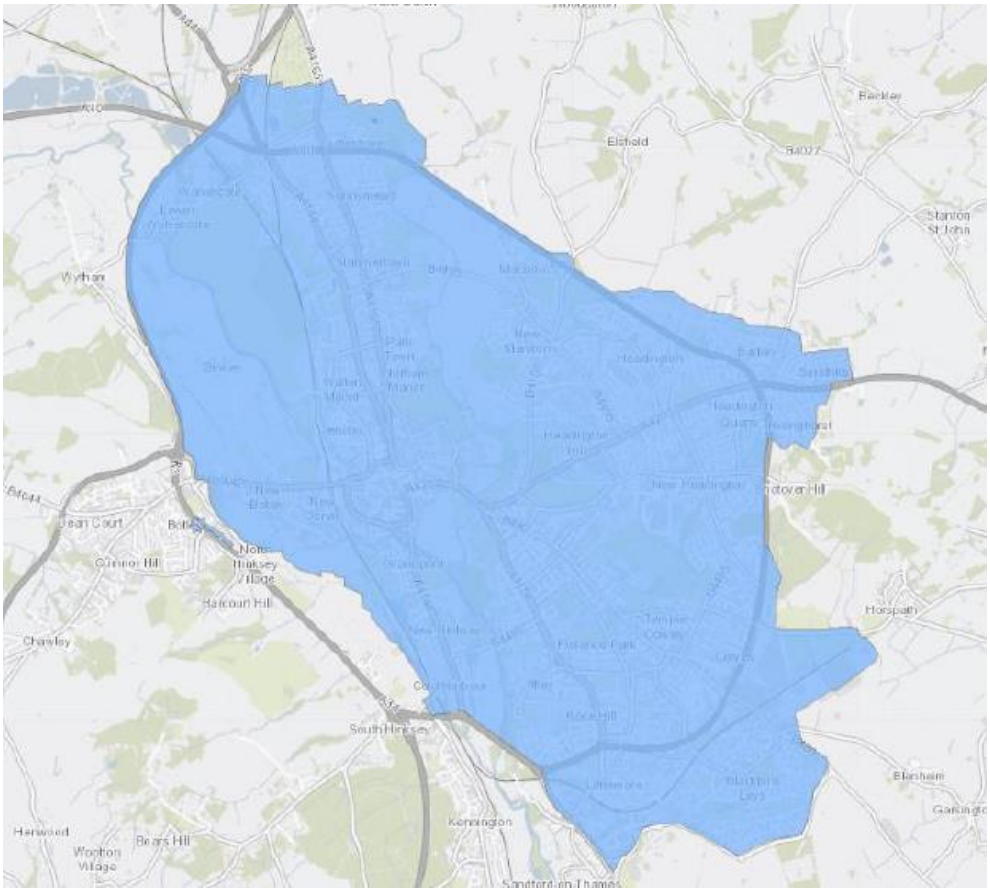
No automatic NO_2 monitoring locations within Oxford City Council required distance correction during 2023.

Appendix D: Map of the City's AQMA

The Council previously declared Air Quality Management Areas (AQMA's) in central Oxford (2003) and at Green Road roundabout (2005), as those were the locations where the UK nitrogen dioxide objectives were not being met at the time. Following further detailed assessments (2008 and 2009); several additional areas were identified where the nitrogen dioxide objectives were being breached.

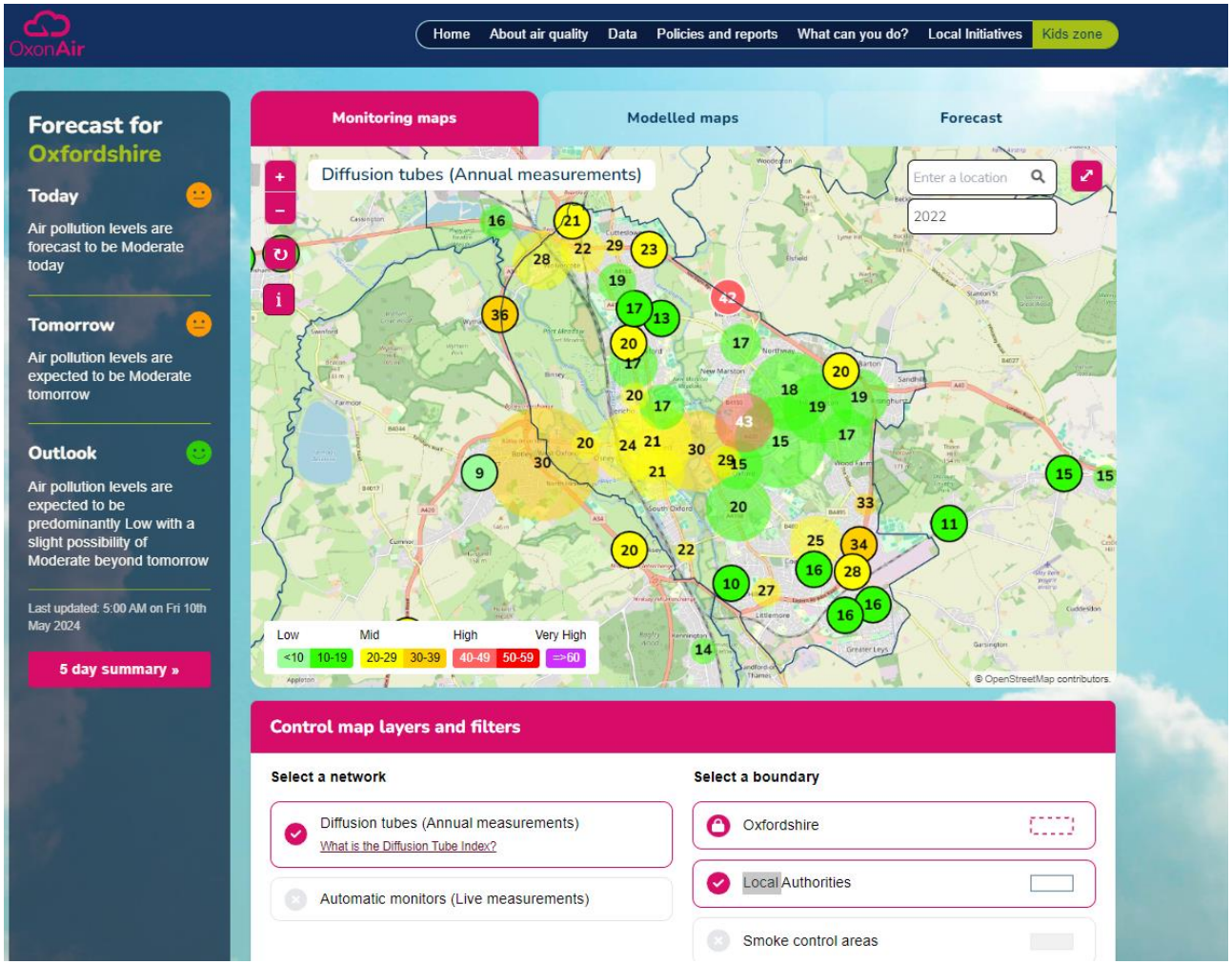
As such, in September 2010 the City Council made an Air Quality Management Order declaring the whole city an AQMA for NO_2. Figure 8 below shows (in blue) the area of the city covered by the current AQMA for NO_2 and its boundaries. Figures 9 shows a print screen of OXONAir's interactive map a resource where residents can identify all the locations where air quality monitoring was conducted throughout 2023 and the levels of NO_2 measured. All the monitoring locations are within Oxford's current AQMA, apart from the locations of diffusion tubes TF1, TF2, TF3 and TF35.

Figure 8-Boundary of Oxford's current city-wide AQMA for NO_2



Source: Defra's national AQMA Interactive map

Figure 9 – Landing page and Mapping tool of OXONAir's Website



All of Oxford City Council's diffusion tube locations and concentrations measured for the year 2023 can be consulted at Oxfordshire's new air quality website OXONAIR (oxonair.uk).

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Appendix E: Air Quality Objectives and WHO recommended guidelines

Table 16 – Air Quality Objectives in England[10]

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO_2)	200µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO_2)	40µg/m^3	Annual mean
Particulate Matter (PM_{10})	50µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM_{10})	40µg/m^3	Annual mean
Particulate Matter ($PM_{2.5}$)	10µg/m^3	Annual mean
Ozone (O_3)	100 µg/m^3 not to be exceeded more than 10 times a year	8-hour mean

Table 17 -World Health Organisation recommended air pollution guidelines.

	Recommended guidelines for each pollutant	
Pollutant	Concentration (µg/m^3)	Measured as
Nitrogen Dioxide (NO_2)	200	1-hour mean
Nitrogen Dioxide (NO_2)	25	24-hour mean
Nitrogen Dioxide (NO_2)	10	Annual mean
Particulate Matter (PM_{10})	45	24-hour mean
Particulate Matter (PM_{10})	15	Annual mean
Particulate Matter ($PM_{2.5}$)	15	24-hour mean
Particulate Matter ($PM_{2.5}$)	5	Annual mean
Ozone (O_3)	60	Peak season[11]
Ozone (O_3)	100	8-hour mean

10 The units are in microgrammes of pollutant per cubic metre of air (µg/m^3).

11 Average of daily maximum 8 hour mean O_3 concentration in the six consecutive months with the highest six-month average O_3 concentration.

Appendix F: Time variations and calendar plots of Oxford's automatic monitoring

Figure 10 – NO_2 time variations at Oxford's automatic monitoring sites along calendar year 2023

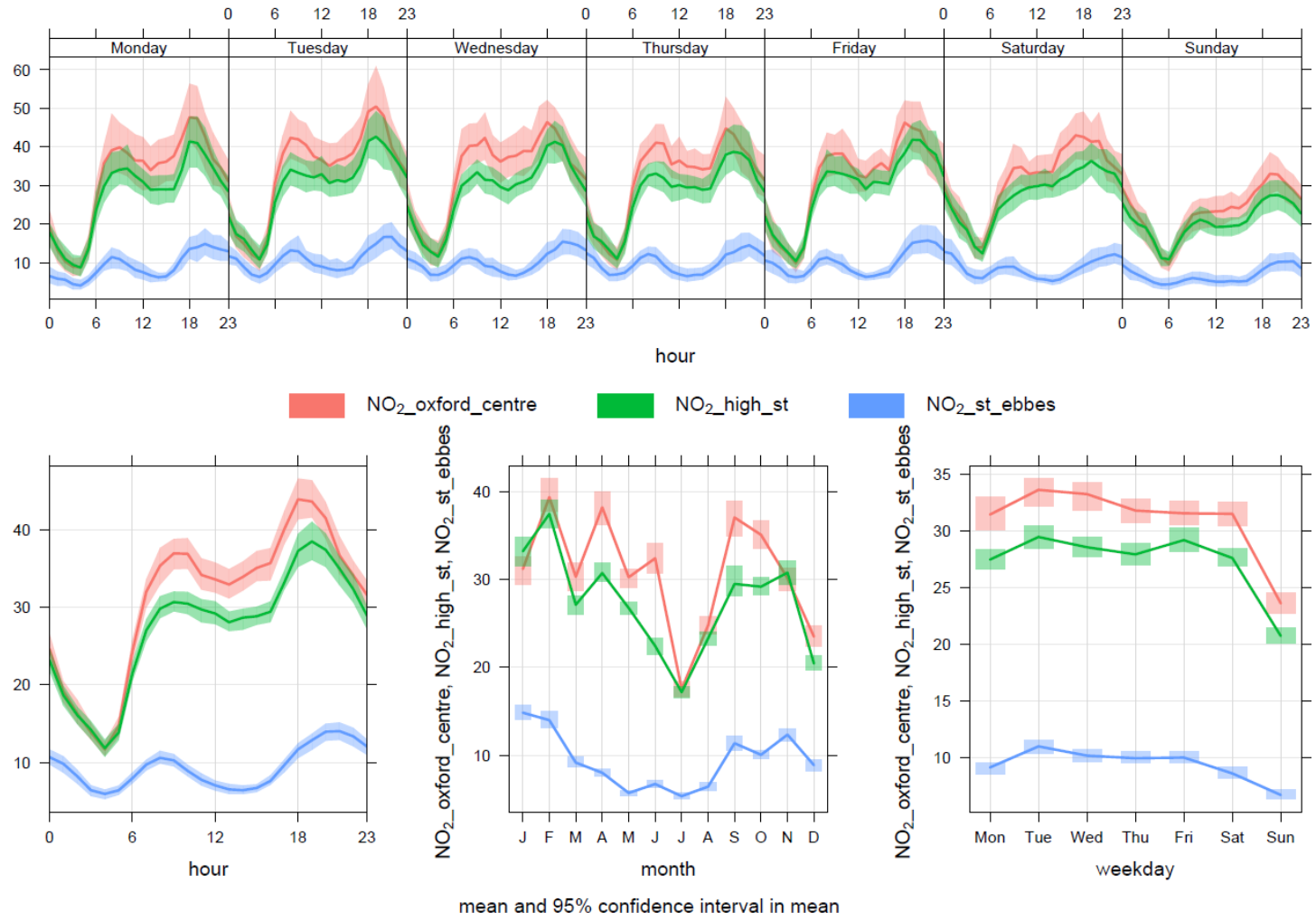

Figure 11 – Oxford's 3 NO_2 automatic monitoring sites (basic statistics 2023)

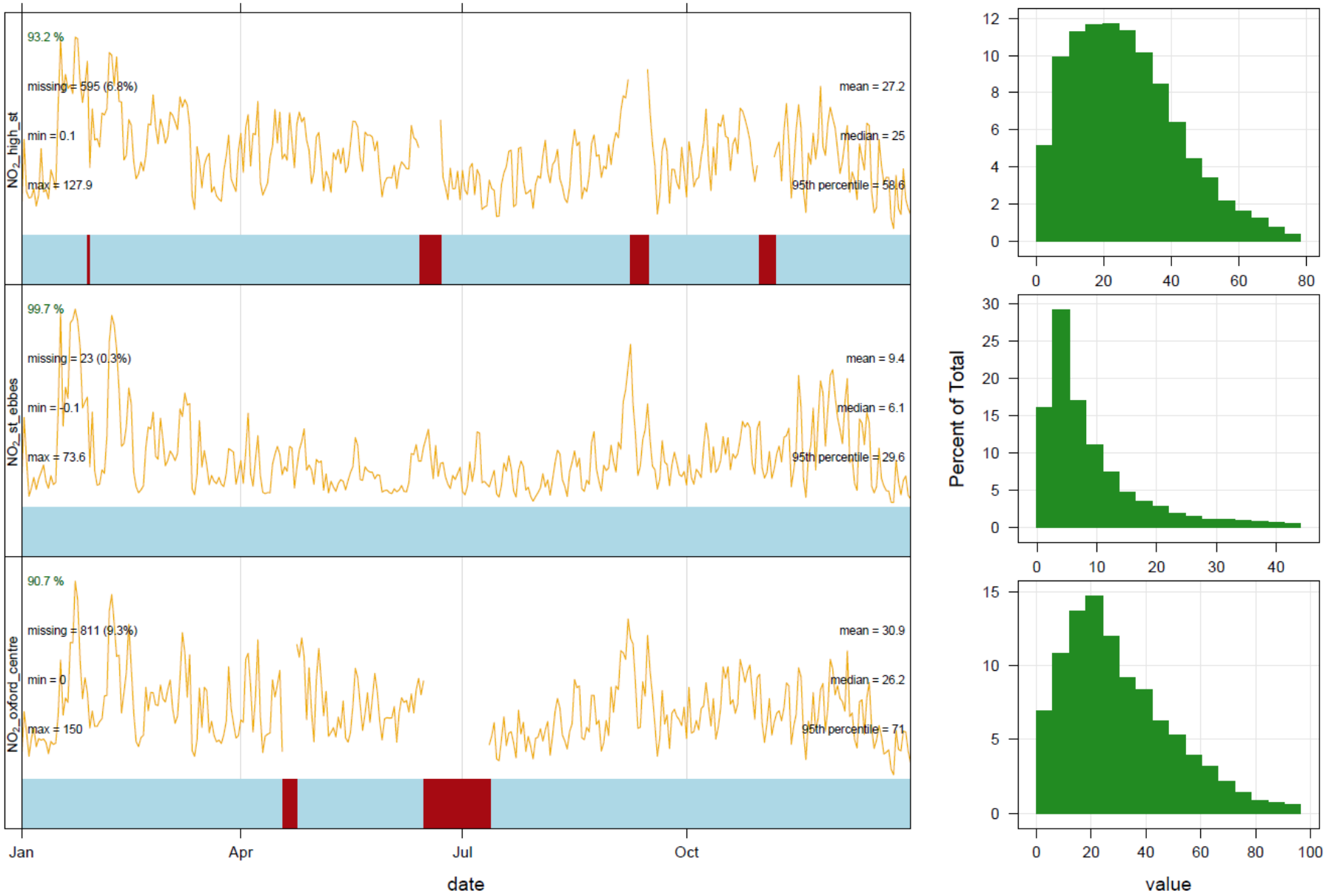

Figure 12 – Daily NO_2 averages (Calendar Plot) at AURN Oxford Centre in 2023

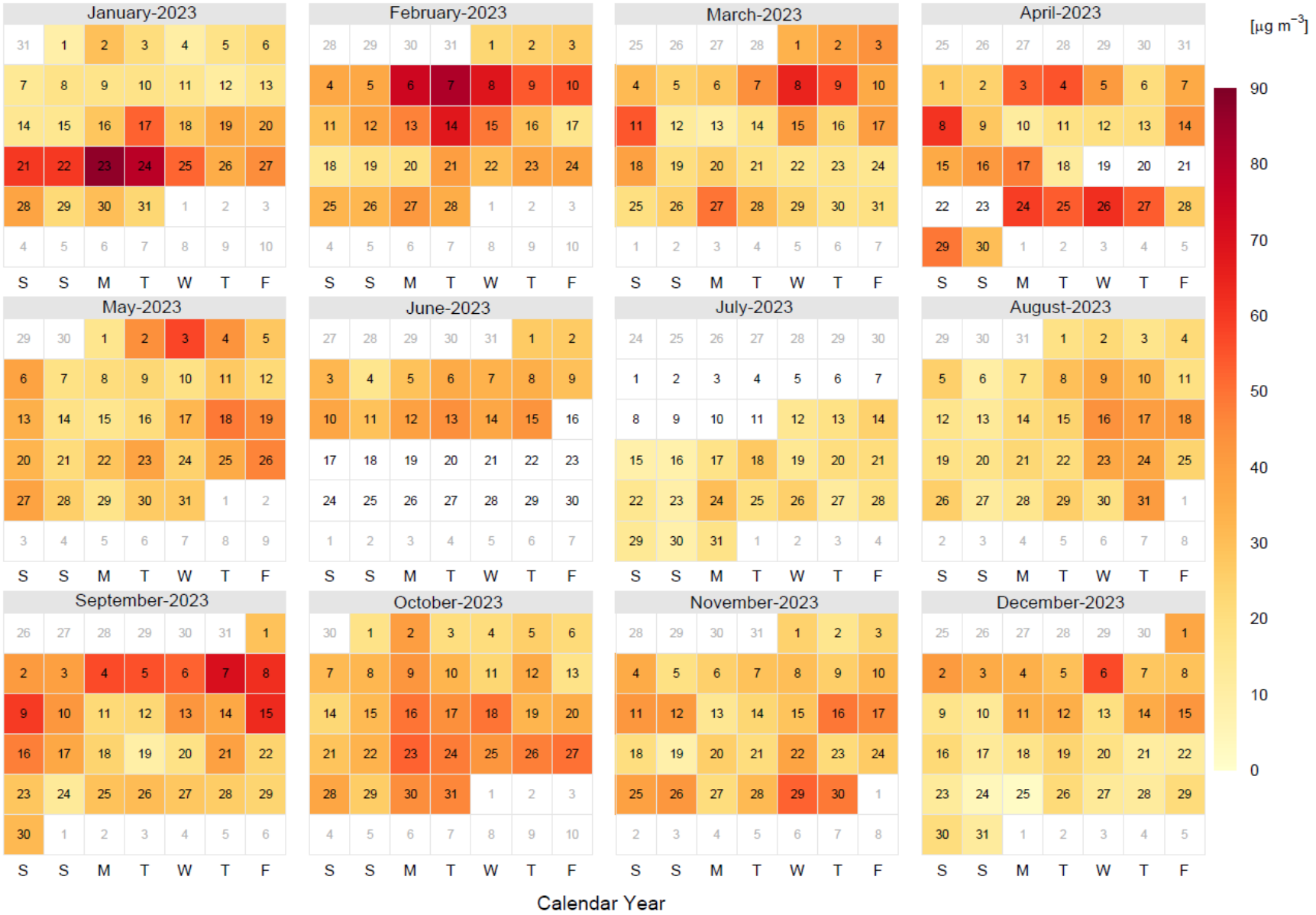

Figure 13 – Daily NO_2 averages (Calendar Plot) at AURN St Ebbes in 2023

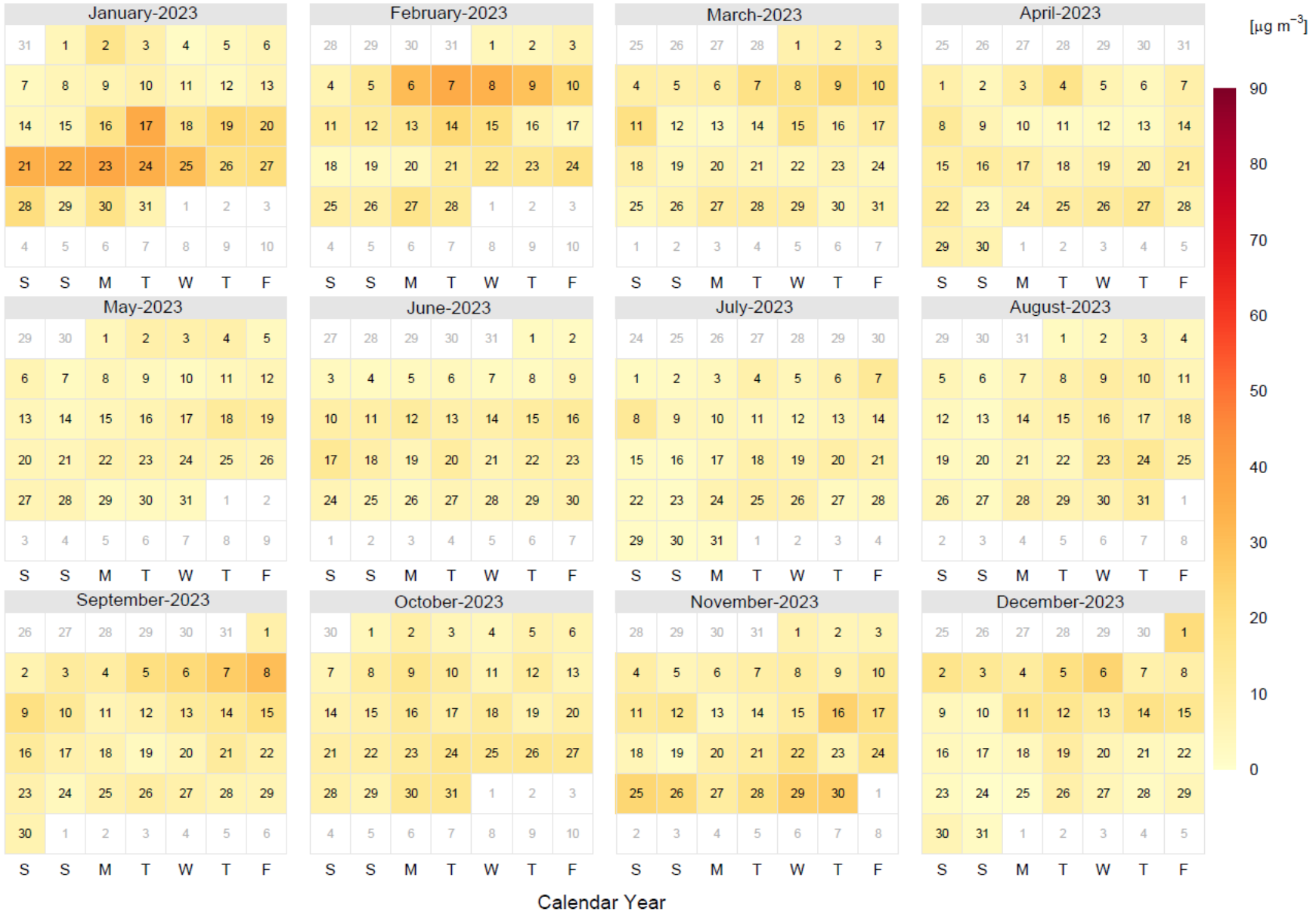

Figure 14 -Daily NO_2 averages (Calendar Plot) at Oxford High Street in 2023

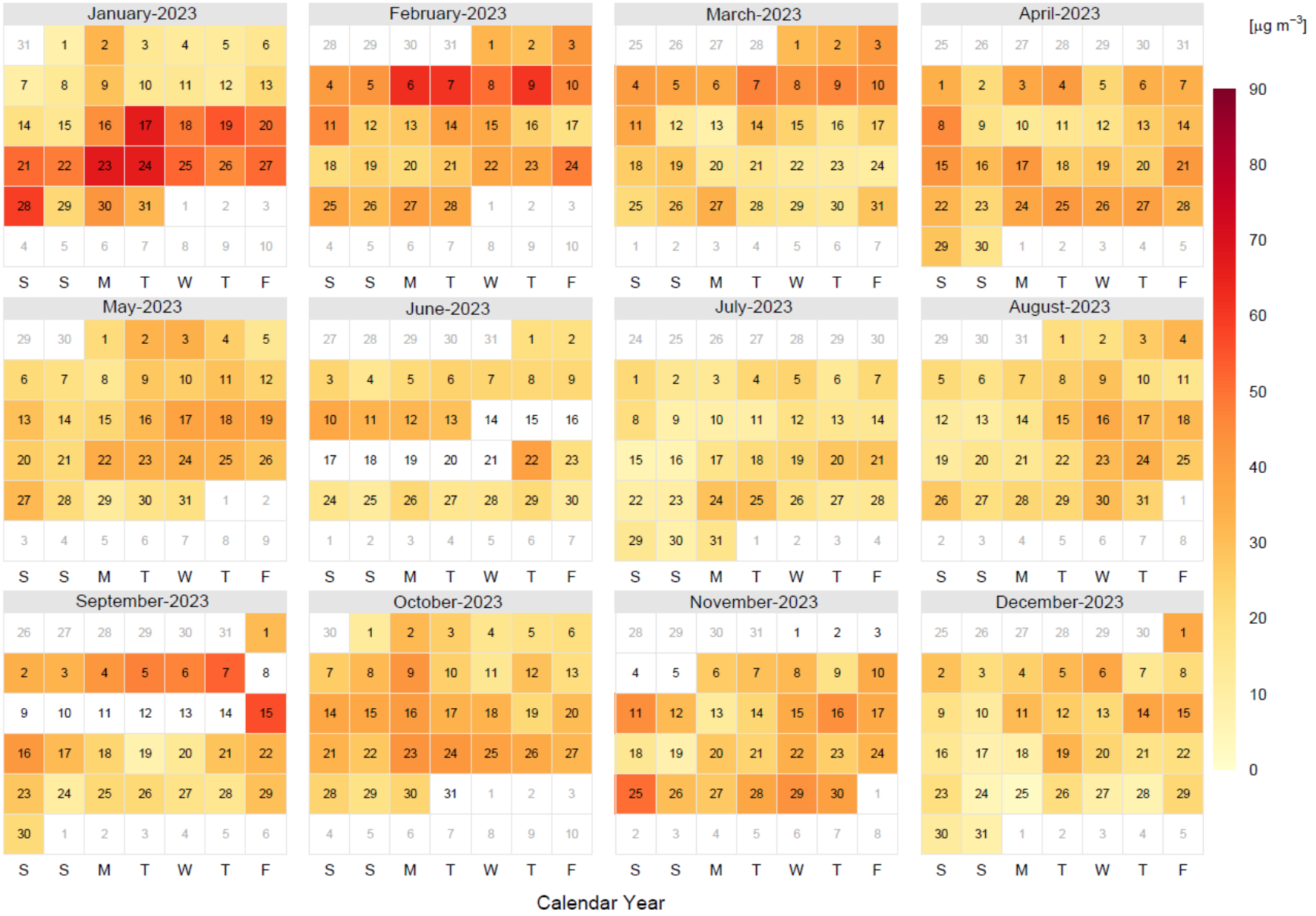

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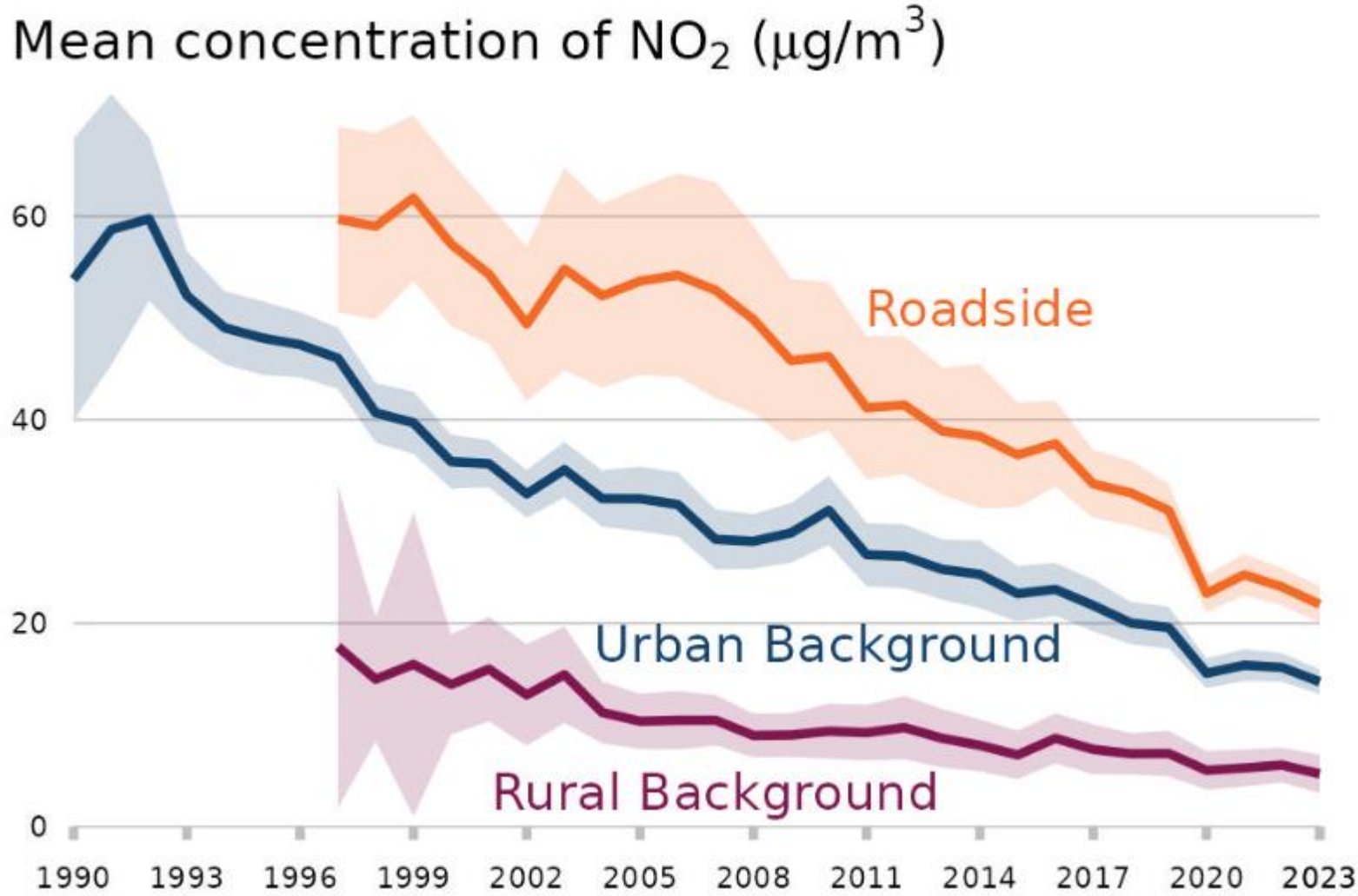
Figure 15 – Annual mean concentrations of NO_2 in the UK (1990-2023)



In 2023, average NO_2 concentrations at UK's AURN Roadside and Urban Background automatic monitoring sites have decreased (on average) by 8% and 9% respectively, when compared with the measurements obtained in the previous year.

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values
AIR-PT	Independent analytical Proficiency Testing Scheme that offers a number of test samples designed to test the proficiency of laboratories undertaking analysis of chemical pollutants in ambient indoor, stack and workplace air.
ANPR	Automatic Number Plate Recognition technology.
AQ	Air Quality
AQI	Air Quality Index – The AQI Tells you about levels of air pollution and provides recommended actions and health advice. The index is numbered 1-10 and divided into four bands, low (1) to very high (10).
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.
ASHP	Air Source Heat Pump
ASR	Annual Status Report –Document that reviews on an annual basis current and likely future air quality and assess whether air quality objectives are currently being achieved or are likely to be achieved.
AURN	Automatic Urban & Rural Network.
BHBH	Better House Better Health is a service supporting residents to keep warm, stay safe & live well in their homes.
CAZ	Clean Air Zone.
COPD	Chronic obstructive pulmonary disease - a chronic inflammatory lung disease that causes obstructed airflow from the lungs. Symptoms include breathing difficulty, cough, mucus (sputum) production and wheezing.
COVID-19	Disease caused by a new strain of coronavirus. CO stands for corona, VI for virus, and D for disease.
CPZs	Controlled parking zones - areas where parking is only permitted in designated parking bays, and the rest of the kerbside space is restricted by yellow lines. Any illegally parked cars are issued with a parking ticket.
DCs	District Councils
DEFRA	Department for Environment, Food and Rural Affairs.
DfT	Department for Transport.
ECO	The Energy Company Obligation (ECO) is a government energy efficiency scheme in Great Britain to tackle fuel poverty and help reduce carbon emissions

Abbreviation	Description
EIP	Government's Environmental Improvement Plan
ETRO	Experimental traffic regulation order
EVs	Electric Vehicles.
FIDAS	Fine Dust Monitor System that uses optical light scattering to detect and measure aerosol particles.
GULO	Go Ultra Low Oxford project.
LAQM	Local Air Quality Management – A UK Government policy framework that requires local authorities to periodically review and assess the current and future air quality in their areas.
LAQM PG22	Local Air Quality Management Policy Guidance.
LAQM TG22	Local Air Quality Management Technical Guidance.
LAs	Local Authorities.
LCWIP	Local Cycling and Walking Infrastructure Plan.
LEZ	Low Emission Zone - defined area where access by some polluting vehicles is restricted or deterred with the aim of improving air quality. This may favour vehicles such as (certain) alternative fuel vehicles, hybrid electric vehicles, plug-in hybrids, and zero-emission vehicles such as all-electric vehicles.
LTNs	Low Traffic Neighbourhoods –residential areas where vehicles not stopping in the area are prevented or discouraged from driving through them.
LV	Limit Value – Legally binding pollution levels that must not be exceeded. LVs are set for individual pollutants and are made up of a concentration value, an averaging time over which it is to be measured, the number of exceedances allowed per year, if any, and a date by which it must be achieved. Some pollutants have more than one limit value covering different endpoints or averaging times.
NHS	National Health System
NO	Nitric Oxide – Formed from nitrogen (N) in the atmosphere during high temperature combustion
NO_2	Nitrogen Dioxide – Formed in small amounts in the atmosphere during high temperature combustion, but the majority is formed in the atmosphere through conversion of nitric oxide (NO) in the presence of ozone (O_3)
NO_x	Nitrogen Oxides – collective term used to refer to nitric oxide (NO) and nitrogen dioxide (NO_2). Nitrogen oxides are produced from fuel combustion in mobile (e.g., cars) and stationary (e.g., power plants) sources.
O_3	Ozone
ODS	Oxford Direct Services Limited commenced trading on 1st April 2018 and is wholly owned by Oxford City Council. The company brings together the majority of Oxford City Council's front line operational services.
OLEV	UK Government's Office for Low Emission Vehicles

Abbreviation	Description
OXONAIR	Name of the new air quality website for Oxfordshire, developed by Oxford City Council in partnership with County and all the districts in Oxfordshire
PM	Particulate Matter.
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm or less.
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less.
QA/QC	Quality Assurance and Quality Control.
SCAs	Smoke Control Areas – legally defined area where only approved solid fuels or exempted appliances can be used within buildings.
SHDF	Social Housing Decarbonisation Fund
STOP	Schools Tackling Oxford's Air Pollution
TEA	Triethanolamine – Viscous organic compound that is used in diffusion tubes as an absorbent for NO_2.
µg	Microgramme – One millionth of a gram
$\mu g/m^3$	Microgrammes per cubic metre of air – A unit for describing the concentration of air pollutants in the atmosphere, as a mass of pollutant per unit volume of clean air.
UK	United Kingdom.
UKRI	United Kingdom Research and Innovation
ULEV	Ultra Low Emission Vehicle
WHO	World Health Organisation.
WOW	Year round walk to school programme
WPL	Workplace Parking Levy – Charge that a local authority can place on private business commuter parking to both manage peak time traffic congestion, improve air quality, and generate revenue for transport investment.
ZEBRA	Zero Emission Bus Regional Areas scheme.
ZEV	Zero Emission Vehicle
ZEZ	Zero Emission Zone – area designed to reduce traffic volumes, encourage the uptake of zero emission vehicles and lead to other positive behavioural changes; all of these would reduce vehicle emissions and hence air pollution whilst maintaining access for those who need it.

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- WHO global air quality guidelines: particulate matter ($PM_{2.5}$ and PM_{10}), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide (September 2021);

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To:	**Climate and Environment Panel**
Date:	**10 September 2024**
Report of:	**Head of Corporate Strategy**
Title of Report:	**Zero Carbon Oxford Partnership expansion to Zero Carbon Oxfordshire Partnership**

Summary and recommendations	
Purpose of report:	This briefing note covers the work of the Zero Carbon Oxford Partnership (ZCOP) and ambition of its corporate members to expand focus from a City to an Oxfordshire scale. The report covers the strategic opportunities of an anchor network convened at this scale. The report has been produced at the request of the Climate and Environment Panel, while noting decisions around ZCOP expansion and future governance sit with the ZCOP Steering Group and Future Oxfordshire Partnership.
Key decision:	No
Cabinet Member:	Councillor Anna Railton, Cabinet Member for Zero Carbon Oxford
Corporate Priority:	Zero Carbon Oxford
Policy Framework:	Council Strategy 2024-28
Recommendation(s): That the Panel resolves to:	
1. Note and comment on the report and agree any recommendations.	

Appendices	
Appendix A	Benefits of ZCOP Membership

Introduction and background

1. Since its formation in 2021, Zero Carbon Oxford Partnership has operated successfully as a collaboration between key private partners and the City and County Councils to advance joint working on climate action focussed on the City area. The partnership includes SSEN, both universities, higher education, both NHS Hospital Trusts, Low Carbon Hub and the private sector BMW Mini, Unipart, LandSec and LucyGroup.

2. Despite being home to many other organisations with strong ambition to address the climate crisis, Oxfordshire has not yet had a defined countywide climate partnership. Early in 2024, the Future Oxfordshire Partnership (FOP) was presented a paper exploring the role and potential of an 'Anchor Institution' network in delivering strategic priorities – including tackling climate change. It was agreed that to avoid duplication it would be preferable to expand ZCOP's work countywide.

3. On 30 April 2024 – the ZCOP Steering Group unanimously expressed support to expand the partnership. The majority of the existing Steering Group members - Oxford Brookes, Oxfordshire County Council, Oxford University Health Trust, Oxford Health, Oxford University, Lucy Group, OxLEP, SSEN, Low Carbon Hub – operate across the county or have a presence outside of the city.

4. Following FOP's adoption of the Pathways to a Zero Carbon Oxfordshire (PAZCO) strategy and Net Zero Route Map and Action Plan (NZRMAP), ZCOP has also involved non-members in some of its task and finish projects – including Industrial Decarbonisation and Active Travel. Several organisations with footprints outside of the city have asked how they may become more involved.

5. Over a number of months, officers at Oxfordshire County Council, Oxford City Council and Cherwell, West Oxfordshire, South Oxfordshire and Vale of White Horse District Councils have been involved in discussions on how an expanded partnership might meet the collective needs of local authorities to engage the private sector and other key local stakeholders to advance their net zero objectives.

Strategic Benefit

6. All Oxfordshire's local authorities have declared a climate emergency and set targets for emissions reductions, which meet or exceed the national 2050 goal. However, much like in the City of Oxford, Oxfordshire's local authorities are only directly responsible for 1-2% of the county's total emissions. Whereas a third of emissions are directly shaped or influenced by local authorities.

7. Local authorities can have a catalytic role in bringing together the businesses, institutions, public and community and voluntary sectors to tackle emissions reduction and adaptation in their local area. ZCOP aims to unify efforts, leverage collective resources, and significantly accelerate our progress towards achieving climate action. With decreasing resources in local authorities the importance of working with partners will increase.

8. ZCOP has established a record of enabling organisations based in and around the city to collaborate to accelerate climate action. It harnesses collective skills and powers and has provided Oxford with a network, expertise and – increasingly – new sources of funding to accelerate local net zero projects.

9. The partnership operates on membership contributions which funds a small secretariat function, hosted by Oxford City Council to support the activities of the partnership.

Purpose and Benefits of the Expansion

10. An expanded ZCOP will support delivery of the Oxfordshire Net Zero Route Map and Action Plan. The key benefits of an expanded ZCOP are:

- **Agile and Effective Collaboration:** ZCOP is a dynamic partnership of engaged organisations dedicated to place-based net zero projects. By running task and finish (sprint) groups, leveraging local finance and expertise, and securing funding bids, ZCOP accelerates action. This approach tackles climate challenges at a place scale and beyond individual organisational limits.
- **Peer-to-Peer Learning and Networking:** ZCOP facilitates knowledge sharing and best practice through peer-to-peer learning, quarterly meetings, and networking events. These activities connect a broad range of academic, technical experts, and leaders.
- **Streamlined Processes and Resource Optimisation:** The dedicated ZCOP Partnership Secretariat provides administrative resource, enabling partners to maximise their limited resources on progress towards net zero outcomes.
- **Scalability and Impact:** Leveraging the expertise of ZCOP partners allows local authorities to scale-up net zero efforts.
- **Coordinated and Aligned Action:** ZCOP fosters collaboration and alignment across influential and senior leaders in key local organisations. This coordination enhances the ability to deliver place-based and needs-led solutions. This is particularly important in the face of the many systems challenges we face around net zero, with partnership offering the opportunity to bring together the entire value chain.
- **Local and National Advocacy:** Collective lobbying by an aligned partnership amplifies the voice of the local area, gaining greater attention and support than acting alone. This advocacy helps to position the local area as a leader in climate action.

Expansion Planning

11. To maintain the high levels of engagement of existing partners, it is recognised that an interim and phased arrangement may be most effective as the partnership grows. Interim governance can then be reviewed and shaped as the partnership expands, and new members can be involved in these discussions.
12. At the request of the Oxfordshire Chief Executives Group (CEX), officers are exploring structures for local authority representation on an expanded ZCOP Steering Group and considering the potential role of FOP in the partnership's governance.
13. In the interim several changes are in progress:
    - The previous chair, Cllr Susan Brown, has stepped down and Harriet Waters, Head of Environmental Sustainability, Oxford University has been elected Interim Chair by the ZCOP Steering Group.
    - Officers from the County Council, Oxford City Council, West Oxfordshire and Cherwell District Councils are working with the ZCOP Secretariat to identify the key local strategic partners to be included in the first phase of expansion. This will include:
        - Largest (with highest CO_2 emissions) and most influential local organisations within the Districts and the County.

- Sector specific representatives.
- Restructuring the subscription model to encourage smaller organisations to join.
- Supplementing officer resourcing to drive the expansion work.

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Background Papers: None

APPENDIX A

Benefits of ZCOP Membership

- **In the last 2-years, ZCOP has won £0.8m funding and raised additional contributions worth an estimated £100k from partners (on top of their membership fees) to support delivery.** This money has been used to hire project managers in ZCOP, provided additional budget for City Council staff time, commissioned research and communications materials, conducted feasibility studies, delivered training to ZCOP members (and more).

- **Negotiated discount on net zero tools.** For example, 25-35% discount for ZCOP partners on business focused tools. Worth £500-2,000 depending on size of organisation.

- **Low cost or free accredited training sessions** in green skills for ZCOP members.

- **Develop and define place-based innovation projects with stakeholder buy-in**. Partners helped scope work and then contributed funding for the A House Like Mine project. The IUK funded FutureFit One Stop Shop (FOSS) feasibility study came out of the ZCOP retrofit sprint group – with majority of partners being part of the group.

- **Reduce cost of delivery** ZCOP is supporting partners align and improve their travel surveys to enable joined up, area-based analysis.

- **Free Quarterly meetings and networking events:** connecting a broad range of leasing academic, technical experts and business leaders. Enabling sharing of approaches, policies, and showcasing successes.

Example work

- **ZCOP Industrial decarbonisation (ID)**

£350k project awarded from the Department for Energy Security and Net Zero, involving ZCOP partners, BMW MINI, Unipart, Oxfordshire Greentech plus City and County Council. Project will develop an in-depth plan, outlining how industry can decarbonise in line with the city's net zero ambitions. It will also establish a local industrial cluster to support industry organisations as they work together to deliver the action plan, run training to increase skills, knowledge capacity and capability.

- **Residential retrofit**

Series of successful bids in this space: Sprint Group scoped retrofit engagement need and won funding from MCS Foundation to deliver the A House Like Mine project; The ~£100k IUK funded FutureFit One Stop Shop (FOSS) feasibility study also came out of needs identified by the ZCOP retrofit sprint group – with majority of partners being part of the group. ZCOP also hosts a series of knowledge sharing and networking sessions in this space, bringing together the diverse retrofit network.

- **Sustainable commuting Sprint**

This group aims to Support ZCOP staff take up car sharing, public transport, (e)cycling, walking, (e)scotting, wheeling. This is being supported through a number of actions:

  - Aligning and improving ZCOP partner travel surveys to enable joined up statistical analysis across organisations.
  - Providing expert support to businesses analysing survey results and developing travel plans
  - Development of website that summarises actions for employers and support/options for staff, including case studies from organisations and individuals' successes.
  - Focused support to employers wanting to promote lift sharing or e bikes.
  - Lower costs of initiatives – negotiated 25-35% discount for key tools that support employers.