

Air Quality in Exeter

Report of the Director of Climate Change, Environment and Transport

Please note that the following recommendation is subject to consideration and determination by the Committee before taking effect.

1) Recommendations

That the Committee be asked to note the report.

2) Introduction

Exeter City Council (ECC) is responsible for monitoring and reporting on local air quality management, including producing an Air Quality Action Plan (AQAP). The County Council has a role in supporting the AQAP as transport-related pollution is one of the main contributors to poor air quality. This report draws upon information from ECC's latest Air Quality Annual Status Report based upon monitoring data from 2021 and reported to ECC Executive in October 2022.

There are two national objectives for levels of nitrogen dioxide. These are for the average level over a whole year, which should be below 40 $\mu\text{g}/\text{m}^3$ (micrograms per cubic metre), and the average level for one hour, which should not exceed 200 $\mu\text{g}/\text{m}^3$ on more than 18 occasions during a year. Local authorities are told that this one-hour standard is unlikely to be exceeded where the average level over a whole year is below 60 $\mu\text{g}/\text{m}^3$ so this measurement is a commonly used proxy. The annual average objective applies to residential, hospital and education sites. Monitoring conducted by the City Council is not representative of typical or average conditions across the city. Instead, most of the monitoring sites are indicative of the worst-case locations.

3) Proposal

Based on 2022 report findings, the number of sites which exceed the objective has reduced significantly since the Air Quality Management Area (AQMA) was declared (a reduction from 32 exceedances in 2009 to one in 2021). The highest levels are measured on the Heavitree Road corridor at East Wonford Hill. Here, levels have previously been close to or above the levels which indicates an exceedance of the hourly objective but in 2021 were significantly lower at 42.2 $\mu\text{g}/\text{m}^3$.

Appendix 1 provides a series of graphs, summarising how pollutant levels have changed across the main corridors in the city. During 2020 levels of nitrogen dioxide fell below the objective level.

4) Mitigation Measures

The Air Quality Action Plan identifies a series of actions to support ongoing improvement of air quality. As transport is a key contributor to air quality, Devon County Council has a lead role in delivering several of the Action Plan measures and progress on these is summarised in the table below:

Action Plan measures (DCC lead)	Progress
Filtered permeability projects including feasibility for corridors	<ul style="list-style-type: none"> - E9 route (Pynes Hill to city centre) modal filters complete (Ludwell Lane, Dryden Road, Wonford Road) - E3 route (Hill Barton/Monkerton to city centre via Heavitree) enhanced (e.g. contraflow cycle lane on Park Place; modal filters on Homefield Road and Chard Road). - E12 route segregated cycle corridor to be constructed during 23/24 on Rifford Road, building upon Sweetbrier Lane route, connecting through Wonford neighbourhood towards Riverside Valley Park or E9.
Access restrictions reducing dominance of cars, particularly city centre	<ul style="list-style-type: none"> - Reallocation of road space schemes on site in: Magdalen Road – due for completion in May 2023 & Queen Street – works commencing in April 2023 - Sport England Newtown Neighbourhood improvements – enhancing local walking and cycling linkages due for implementation in 23/24.
New transport links to make it easier for those living outside the city to choose sustainable modes	<ul style="list-style-type: none"> - Green routes delivered to improve cycle connections between urban fringe settlements and Exeter, i.e. Woodbury link to Exe Estuary (on site in 23/24); Langaton Lane connecting Pinhoe area to East of Exeter jobs (on site in 23/24); Balls Farm Road connecting Ide to Exeter (complete). - Dartmoor Line – Okehampton to Exeter railway reopened in November 2021 and funding secured for 2nd rail station serving West Devon, Torridge, North Cornwall catchment (delivered by March 2025). - Marsh Barton Station – due for completion in Spring 2023. - Park and Change – 300 space car park with bike lockers/bike hire and linked to local bus services completed in July 2021. - Bus priority measures to be delivered on Cowick Street, Pinhoe Road, New North Road and Heavitree Road to improve journey time reliability on core city bus corridors by March 2025 (BSIP funding secured).

Development of cycle network	<ul style="list-style-type: none"> - Exeter LCWIP consultation held during February and March 2023. Publication later in 23/24. - Capability and Ambition Fund secured in late 2022 to accelerate network design for pipeline of schemes. - Awaiting Active Travel Fund tranche 4 announcement for walking and cycling schemes.
Expand school and community projects	<ul style="list-style-type: none"> - Successful School Street trials to close roads to through traffic during school drop off/pick up have been made permanent at Whipton Barton and Ladysmith Infant primary schools.
Promote and expand Co-Bikes/Co-Cars network	<ul style="list-style-type: none"> - Continued expansion of bike hire docks and growth in usage across the city, including examples of mobility hubs in new residential growth areas. - Cargo bikes funding secured to roll out bikes to assist with DCC (road safety & civil enforcement), ECC (environmental health) & RD&E operational activities.
Improved multi-modal public transport network	<ul style="list-style-type: none"> - Pinhoe Station interchange delivered offering integrated offer with bike hire, lockers, car clubs and shuttle bus services to key employment destinations. - New cycle hire docks delivered at rail stations to support better integrated last mile offer.

5) Technical Data

The table below highlights how traffic flows have reduced in recent years (due to COVID-19). There was a slight recovery in 2021 in terms of traffic volumes and slight worsening in air quality; however, significantly below pre-pandemic traffic volumes and air quality objective levels.

Site Name	2015	2020	2021	% change from 2015 to 2020	% change from 2015 to 2021
<u>Pinhoe Road (Whipton)</u>	20830	16538	17,218	-21%	-17%
<u>Heavitree Road</u>	17507	14832	16,632	-15%	-5%
Honiton Road	26832	22789	23,936	-15%	-11%
Topsham Road (King George)	26057	20702	23,635	-21%	-9%
Alphington St	28799	22012	23,401	-24%	-19%
<u>Cowick St</u>	14840	10913	11,916	-26%	-20%
Total	134865	107786	116,738	-20%	-13%

2016 count data is shown for Heavitree Road because the 2015 data was faulty

2021 count data for Pinhoe Road is estimated because of incomplete data

6) Strategic Plan

Actions taken to support improvement in local air quality complement Strategic Plan priorities of responding positively to the climate emergency through promotion of sustainable travel alternatives. It also supports improved health and wellbeing by reducing pollution and encouraging increased physical activity and safer, better-connected communities by increasing the travel choices.

7) Financial Considerations

Financial considerations for specific transportation infrastructure schemes are set out in the annual Cabinet transport capital programme report published in the autumn.

8) Legal Considerations

Part IV of the Environment Act 1995 sets out statutory provisions on air quality and the requirements for local authorities to review the air quality within their area. The Environment Act 2021 (schedule 11) amended the Environment Act 1995 to introduce a duty for County Councils to co-operate and provide the district council with proposals for particular measures to contribute to the achievement, and maintenance, of air quality standards and objectives in the area.

9) Environmental Impact Considerations (Including Climate Change)

The measures described in section 4 aims to improve local air quality through encourage use of alternative modes of transport and reducing peoples' reliance on the private car. In doing so, it also supports the Council's aims to reduce carbon emissions from transport.

10) Equality Considerations

In recommending this proposal no potential impact has been identified on people with protected characteristics as determined by the Equality Act because the report is for information only. Exeter City Council carried out an equalities assessment as part of the production of the Air Quality Action Plan.

11) Risk Management Considerations

This report is for information and covers information taken from the contents Exeter City Council's Annual Status Report. Funding risks in relation to the delivery of Action Plan mitigation measures are addressed at capital programme level annually in the autumn and/or at individual scheme level through the appropriate committee 'approval to construct' processes.

12) Summary

The report highlights the overall improvement in air quality in Exeter, the reduction in traffic volumes across the city since 2015 and progress in delivering against the Air Quality Action Plan remedial measures to encourage mode shift and reduced reliance on private car for peoples' daily needs.

Meg Booth

Director of Climate Change, Environment and Transport

Electoral Divisions: All in Exeter

Local Government Act 1972: List of background papers

Background Paper Nil

Date

File Reference

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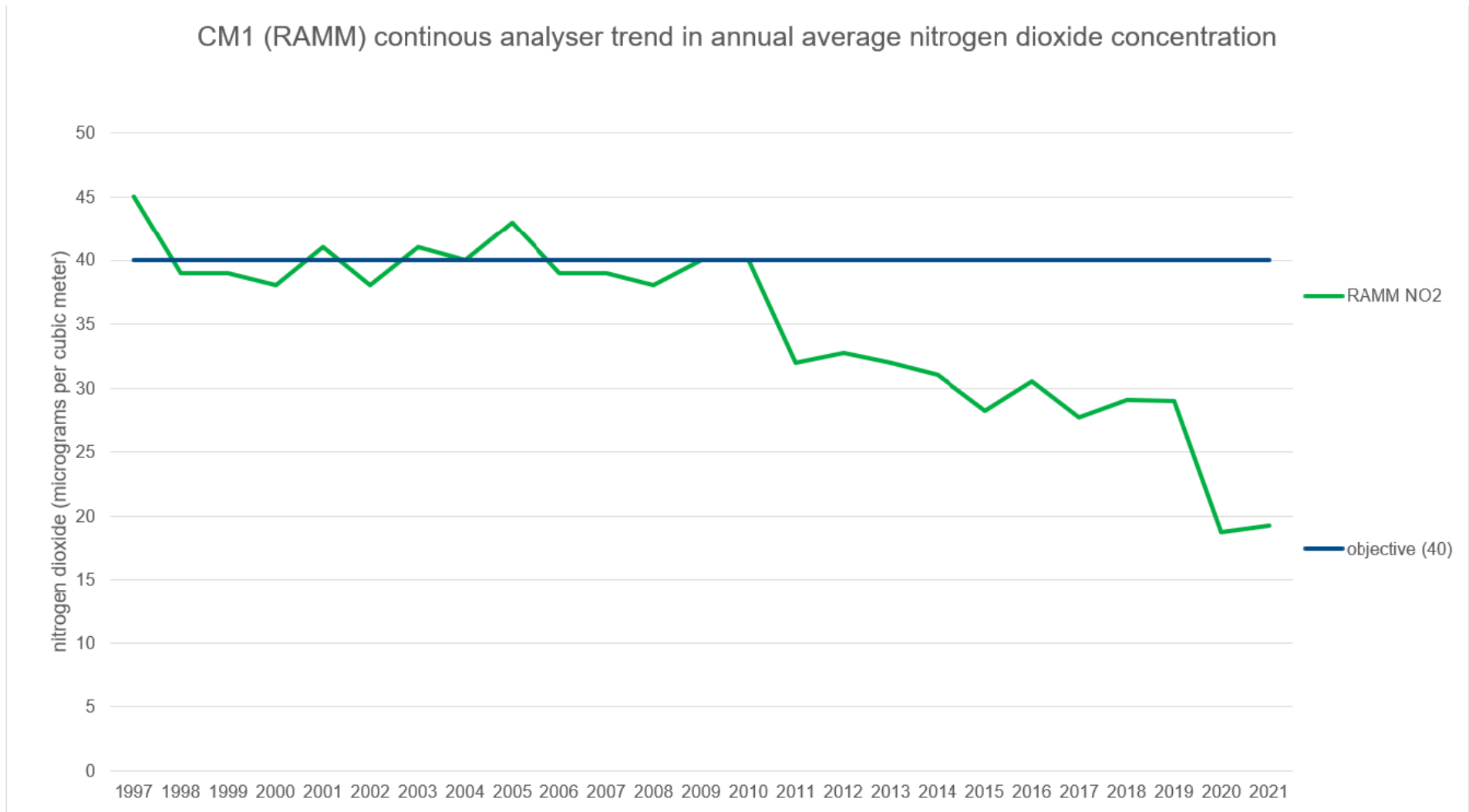
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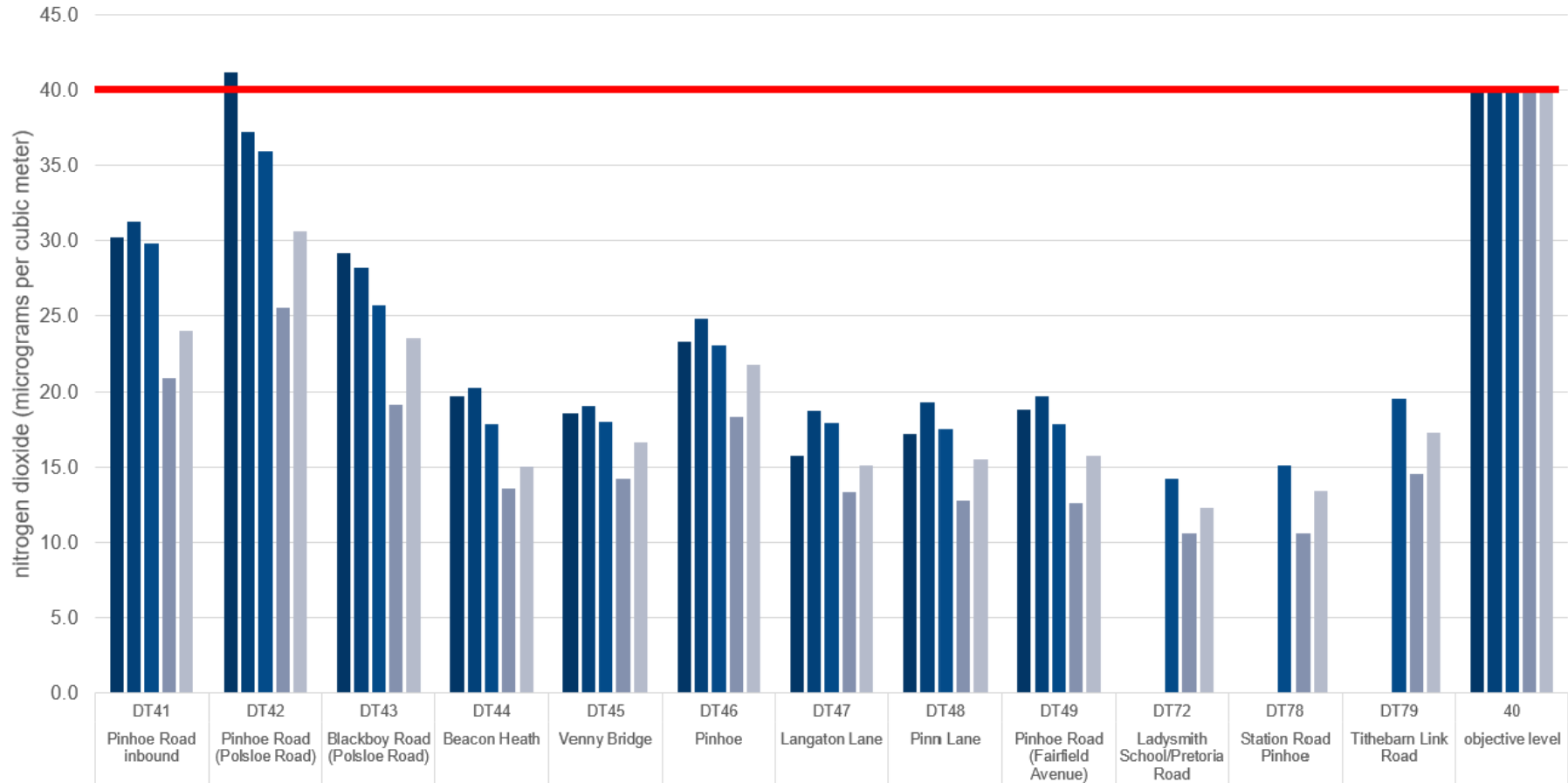
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Appendix 1 to CET/23/30

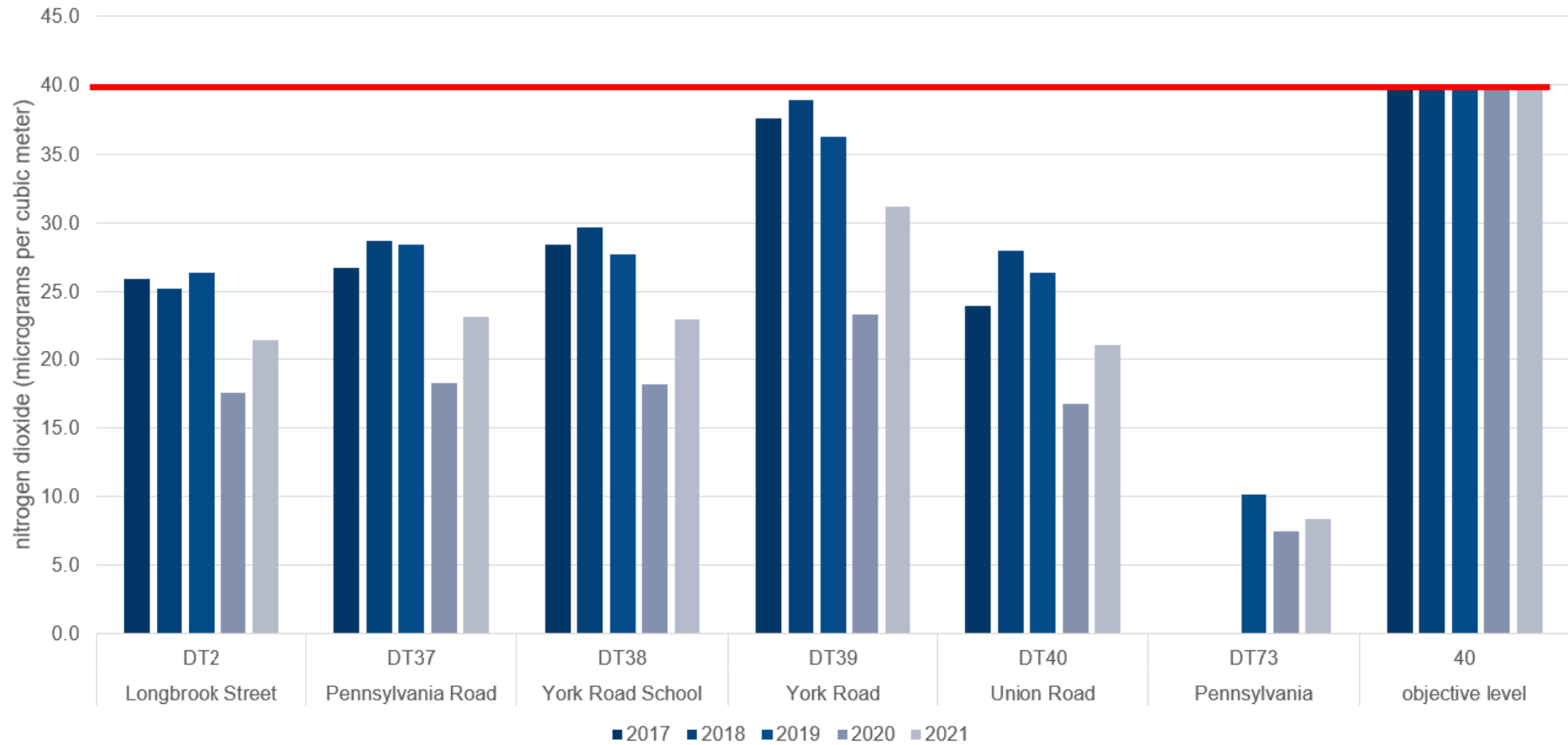
Extracts from Exeter City Council Air Quality Annual Status Report 2022



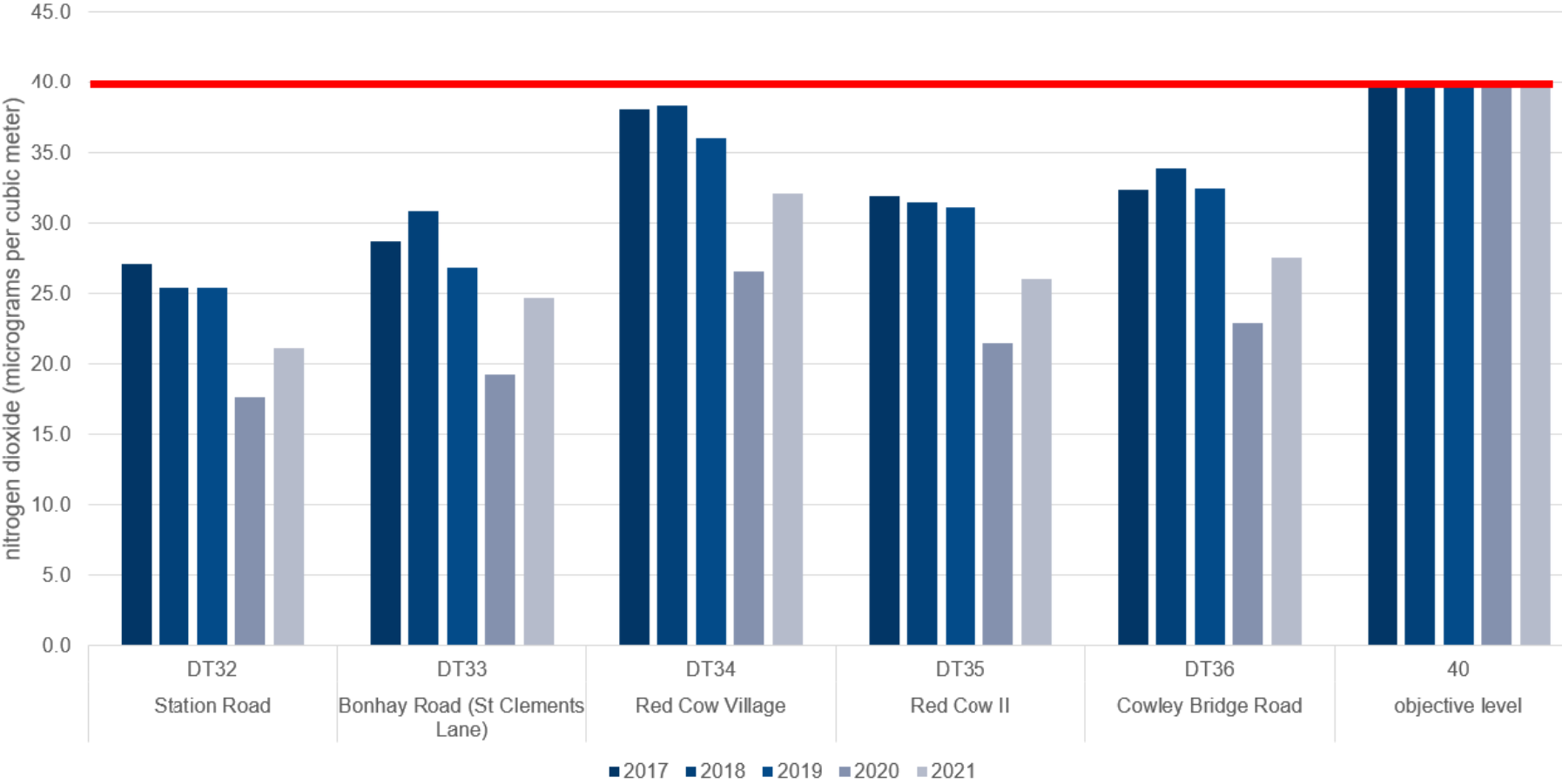
Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites along Pinhoe Corridor



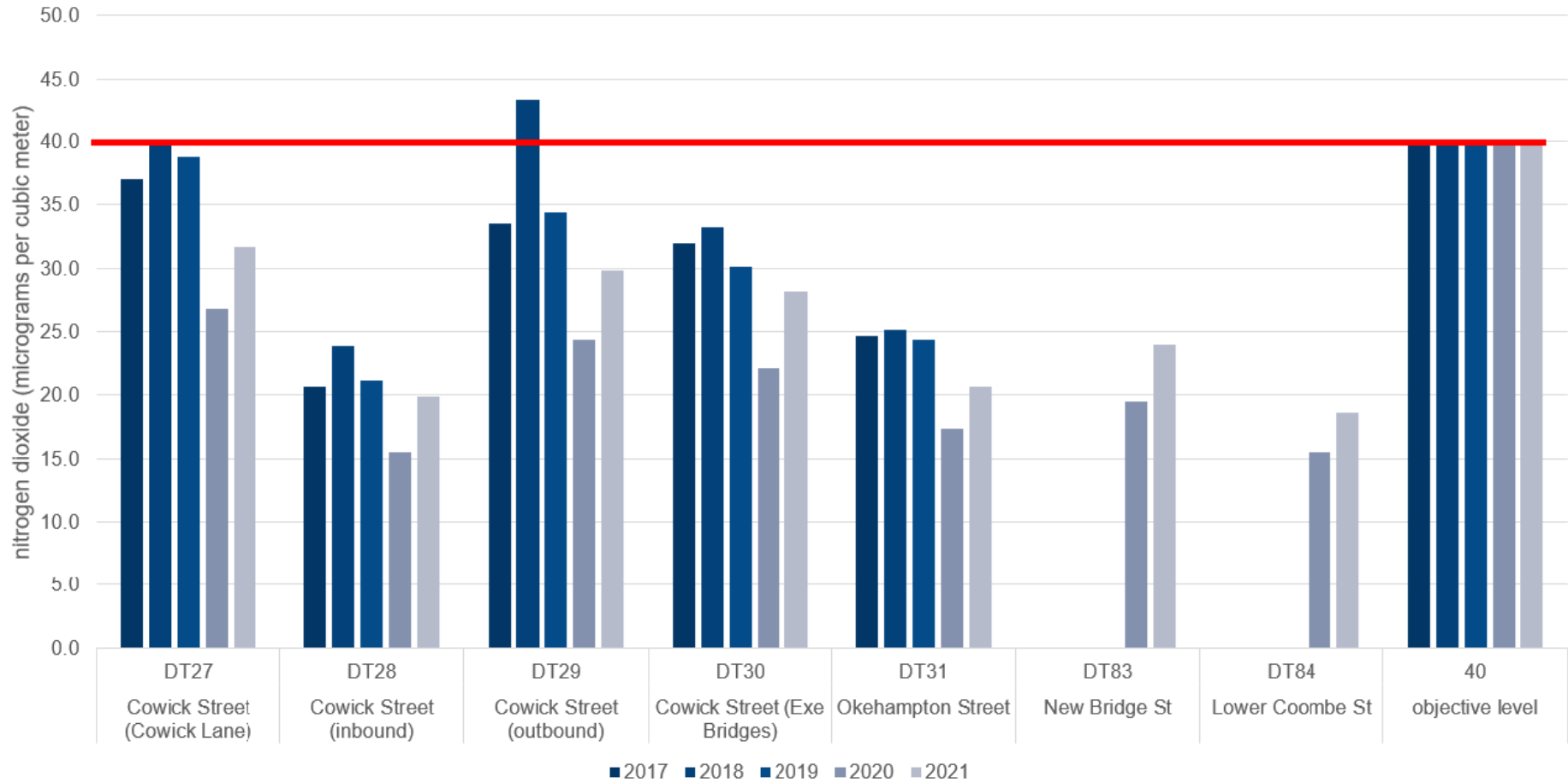
Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites along Pennsylvania Corridor



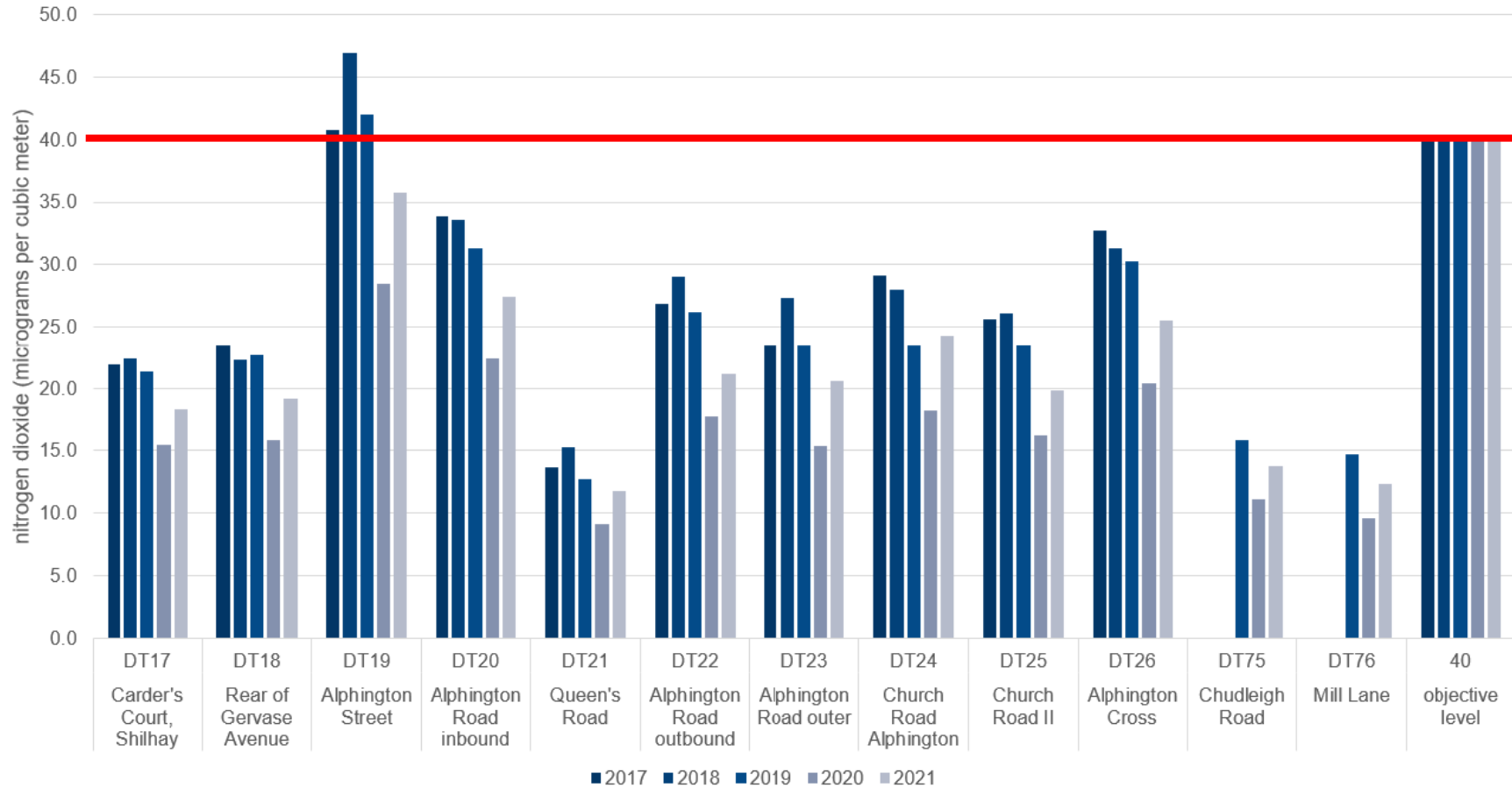
Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites in St David's Station Area



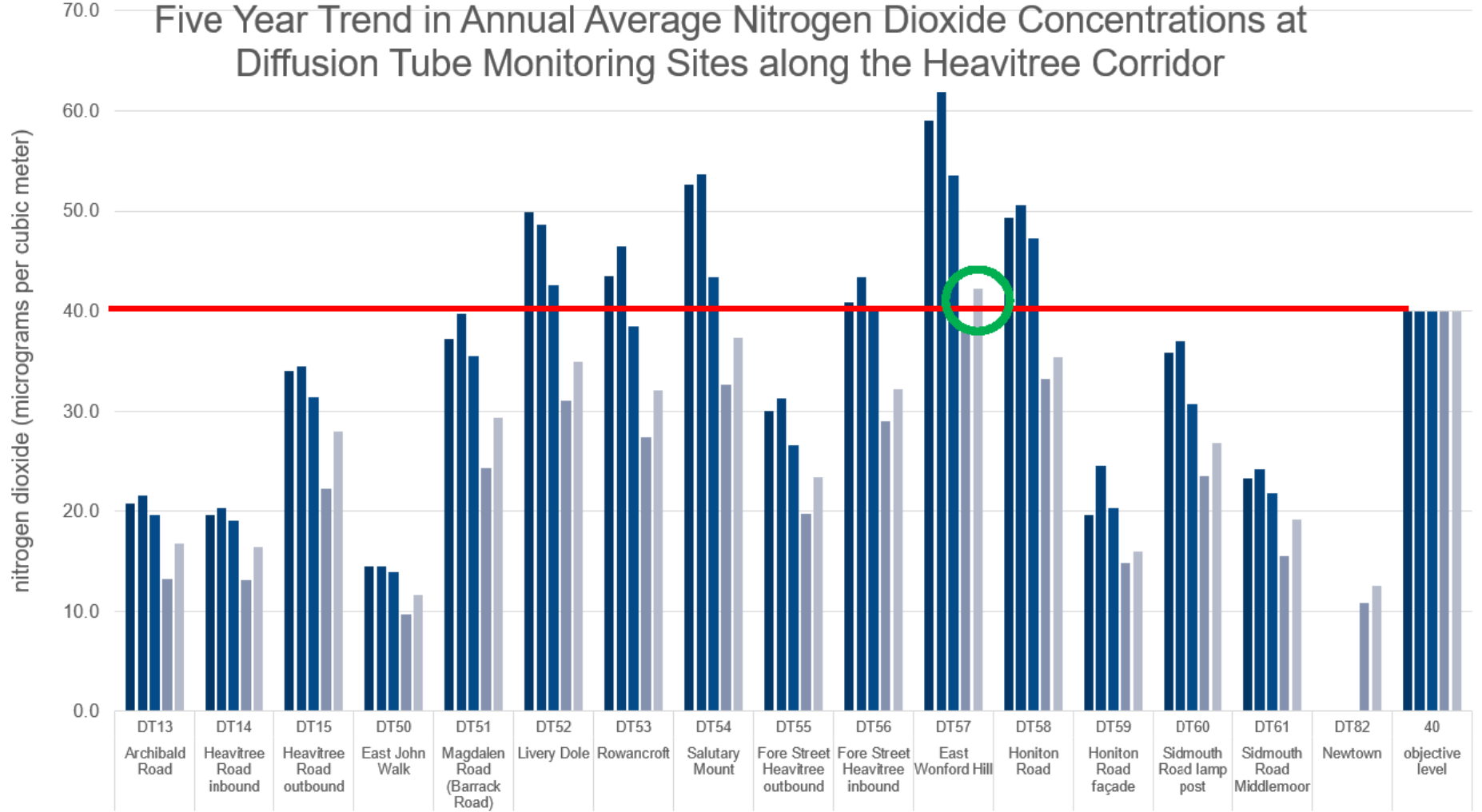
Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites along the Cowick Street Corridor



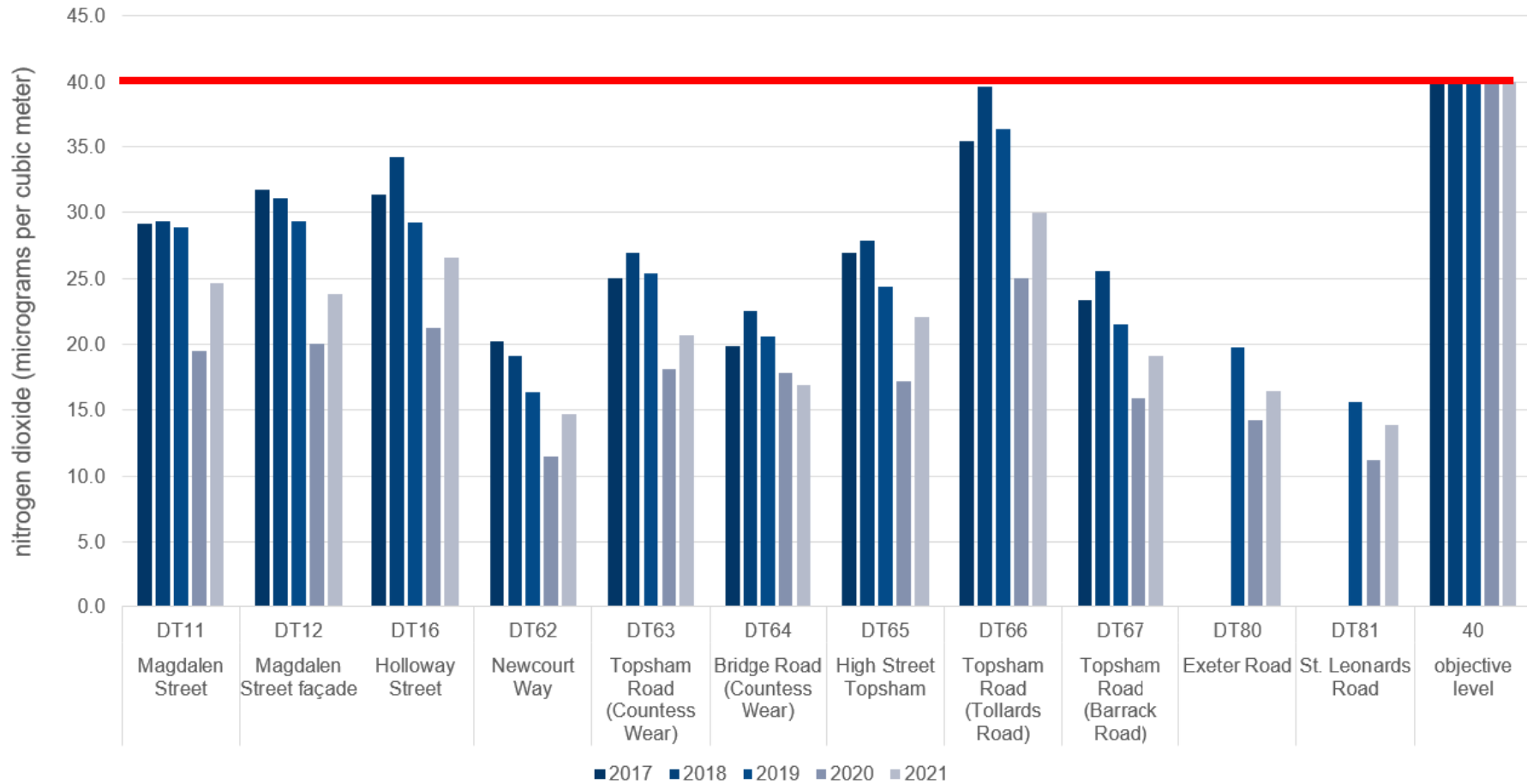
Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites along the Alphington Corridor



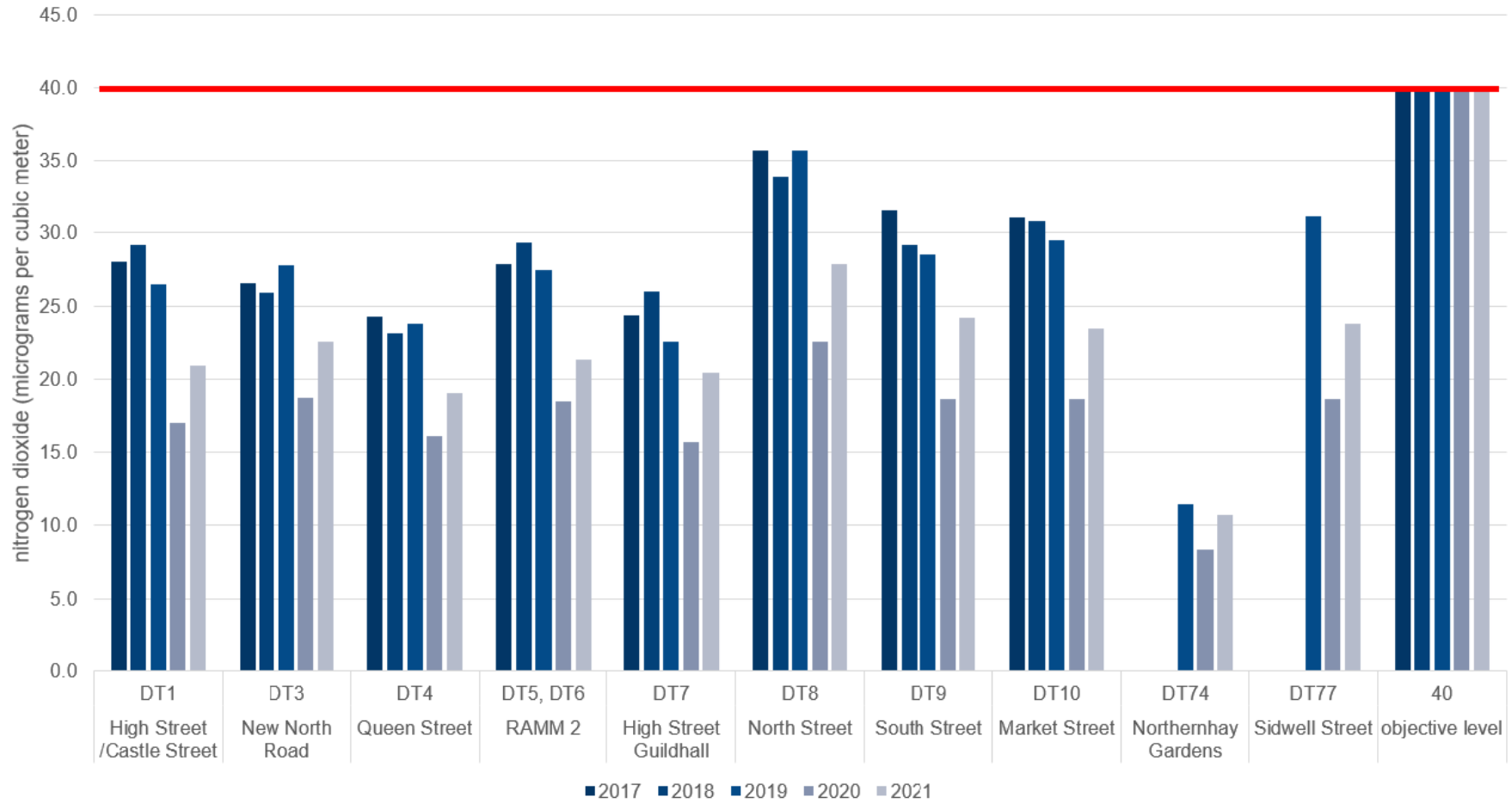
Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites along the Heavitree Corridor



Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites along the Topsham Road Corridor



Five Year Trend in Annual Average Nitrogen Dioxide Concentrations at Diffusion Tube Monitoring Sites in City Centre Area



Trend in annual average PM10 concentrations

