18 October 2022 at 7.00 pm

Council Chamber, Argyle Road, Sevenoaks

Published: 10.10.22



The meeting will also be livestreamed to YouTube on the Council's channel here: https://www.youtube.com/channel/UClT1f F5OfvTzxjZk6Zqn6g

Cleaner & Greener Advisory Committee

Membership:

Chairman, Cllr. McArthur; Vice-Chairman, Cllr. Roy Cllrs. Andrews, Barnett, Bayley, Dr. Canet, Carroll, Collins, G. Darrington, Griffiths, Harrison and Raikes

Agenda

There are no fire drills planned. If the fire alarm is activated, which is a continuous siren with a flashing red light, please leave the building immediately, following the fire exit signs.

1000	owing the the exit signs.		
Ano	logies for Absence	Pages	Contact
Apo	togies for Absence		
1.	Minutes To agree the minutes of the meeting of the Committee held on 23 June 2022, as a correct record.	(Pages 1 - 6)	
2.	Declarations of Interest Any interests not already registered.		
3.	Actions from Previous Meeting (if any)		
4.	Referral from Cabinet or the Audit committee (if any)		
5.	Update from Portfolio Holder		
6.	Net Zero 2030 Update	(Pages 7 - 14)	Helen French Tel: 01732 227357 Margaret Carr Tel: 01732 227341
7.	Air Quality - Annual Status Report & Update	(Pages 15 - 88) Nick Chapman Tel: 01322 227167
8.	Fleet Replacement Programme 2023- 2028	(Pages 89 - 94	Trevor Kennett Tel: 01732 227407

9.	Briefing Report - Swanley Sunday Market Pilot Update	(Pages 95 - 100)	Trevor Kennett Tel: 01732 227407
10.	Parking Terminal Upgrade Option Report	(Pages 101 - 104)	Trevor Kennett Tel: 01732 227407
11.	Work Plan	(Pages 105 - 106)	
12.	West Kent CCTV Control Room Hub	(Pages 107 - 122)	Trevor Kennett Tel: 01732 227407 Adrian Rowbotham Tel: 01732 227153
13.	SDC Food Safety Plan	(Pages 123 - 148)	Nick Chapman Tel: 01322 227167 Glenys Shorrick Tel: 0132234161

EXEMPT INFORMATION

Recommendation: That, under section 100A(4) of the Local Government Act 1972, the public be excluded from the meeting when considering item 13 and Appendix 1 of Item 12 above, on the grounds that likely disclosure of exempt information is involved as defined by Schedule 12A, Paragraph 3 (Relating to the business or financial affairs of a particular person (or the authority holding that information))

If you wish to obtain further factual information on any of the agenda items listed above, please contact the named officer prior to the day of the meeting.

Should you need this agenda or any of the reports in a different format, or have any other queries concerning this agenda or the meeting please contact Democratic Services on 01732 227000 or democratic.services@sevenoaks.gov.uk.

CLEANER & GREENER ADVISORY COMMITTEE

Minutes of the meeting held on 28 June 2022 commencing at 7.00 pm

Present: Cllr. McArthur (Chairman)

Cllr. Roy (Vice-Chairman)

Cllrs. Barnett, Bayley, Dr. Canet, Collins, Griffiths, Harrison and Raikes

Apologies for absence were received from Cllrs. Andrews and G. Darrington

Cllr. Andrews was present via a virtual media platform which did not constitute attendance as recognised by the Local Government act 1972.

1. Appointment of Chairman

Resolved: That Cllr. McArthur be appointed as Chairman of the Advisory Committee for the year 2022/23.

(Cllr McArthur in the Chair)

2. <u>Appointment of Vice-Chairman</u>

Resolved: That Cllr. Roy be appointed as Vice-Chair for the Advisory Committee for the year 2022/23

3. Minutes

Resolved: That the minutes of the meeting held on 19 April 2022 be approved and signed by the Chairman as a correct record.

4. Declarations of Interest

There were none.

5. Actions from Previous Meeting

There were none.

6. Update from Portfolio Holder

The Chairman and Portfolio Holder gave an update to the Committee.

The application to the Heritage Lottery Fund for Bradbourne Lakes had been scheduled for August 2022 and the Council's consultant had kept residents and

Agenda Item 1 Cleaner & Greener Advisory Committee - 28 June 2022

Kent Wildlife Trust updated. At Mill Pond, the Council would retest silt to determine its current state, Thames Water had agreed to do some work to the filtration system.

Food standards assessments were progressing and were busy. A report would be brought to the next meeting of the Advisory Committee.

The Portfolio Holder would be meeting the Cabinet Member for Environment at Kent County Council along with the Director for Environment and Waste, and the Interim Head of Sustainable Business and Communities, for Climate Change discussions. Topics would include: progress towards local net zero commitment, approach to climate change adaptation and mitigation locally, air quality and trees.

7. Referral from Cabinet or the Audit committee

There were none.

8. Net Zero 2030 - 2021/22 Action Report

The Net Zero Project Co-ordinator presented the report which provided additional detail on a selection of the projects achieved in 2021-22. These included updates on: Net Zero webpage and Communications, the Movement Strategy, Greener Homes, Smart Bins, Low emission and electric vehicles, biodiversity and the natural environment and the Air quality action plan. Many of the projects remained ongoing and had been incorporated into the actions for 22/23 which were agreed by members in April 2022.

Members discussed the report and associated appendices and asked questions of clarification. It was confirmed that the Council was using as much existing funding as was possible. Members noted that the information on tree planting throughout the report was out of date and would need to be updated before the actions were published.

In response to a question on listed buildings, it was confirmed that energy efficiencies were being looked into, the Council was looking at developing advice for listed building consent.

Resolved: That the report be noted.

9. <u>Contaminated Land Strategy 2022 - 2027</u>

The Environmental Protection Team Leader presented the report which proposed that Cabinet adopt an updated Contaminated Land Strategy. The revised strategy identified that the Development Control Process had been instrumental in the remediation of many sites and would be encompassed within the Strategy. This strategy proposed this method of discharging the statutory duty primarily by the development control processes.

Cleaner & Greener Advisory Committee - 28 June 2022

The strategy had been circulated throughout the Council departments and the Environment Agency and all were happy with its content.

Officers confirmed that the original strategy identified one site which required remediation. This work was completed some time ago and the site record removed. There were no sites at the time in the contaminated land register.

The register was usually considered within the planning process hence it had been included in the strategy.

Resolved: That it be recommended to Cabinet that it be recommended to Council that the Contaminated Land Strategy, be adopted.

10. Off Street Car Parks Electric Vehicle Charging Points Update

The Head of Direct Services presented the report that provided an update as to the electric vehicle charging points (EVCPs) in off-street car parks. Sevenoaks district had the highest number of electric vehicle ownership in Kent.

The Council had committed to installing EVCPs in Sevenoaks District Council owned car parks. This was included as an action for the Net Zero 2030 work.

The Council had installed 10 charging points within Sevenoaks District Council owned car parks via BP Pulse. The Council would continue to introduce more Charging points over the coming years.

The Head of Direct Services clarified a typographical error on page 66 of the agenda, the increase from charging points from 10 - 46 should read as 10 - 56.

Members asked questions of clarification.

Officers confirmed that at the time, the risk and costs associated with the EVCPs were burdened on the supplier. The technology of EVCPs was progressing quickly and it was expected that the EVCPs in Council owned car parks would be updated at no cost to the Council until the medium term. The electric vehicle fleet owned by direct services totalled 114 vehicles with only 45 HGVs.

At the weekend the Council staff car park was open for public use and so installing EVCPs at the Council car park would accommodate the public. In response to further questions it was confirmed that installation was limited by the location of Council car parks. In the future Officers could look at where these could be located but at the time were restricted by the number of power points around the district. Officers would continue to work with Kent County Council on EVCPs.

Resolved: That the report be noted.

11. Net Zero 2030 - Ebikes And Social Value

Officers presented the report which proposed that Cabinet authorise the engagement of a consultant to assess the viability of an e-bikes scheme. Member's attention was drawn to the supplementary agenda, which amended the recommendations

In response to questions Members were advised that the scheme would not be limited to the Share Bike proposal.

The Chief Officer Finance and Trading, confirmed that the financial risk of the Share Bike proposal would entail an initial outlay of £250,000 by the council with the intention that it was repaid by the operator. The Monitoring Officer, further confirmed that there were no governance or procurement issues.

Members discussed the proposals. Some concern was raised as to the feasibility of the proposed Share Bike scheme in urban areas. Members discussed the viability of a rental scheme for e-bikes where residents could keep the bikes at home.

Public Sector Equality Duty

Members noted that consideration had been given to impacts under the Public Sector Equality Duty.

Resolved: That it be recommended to Cabinet that

- a) the engagement of a consultant to assess the overall feasibility of introducing an e-bike scheme in the District taking into account scheme demand, geographical coverage, economic case, fleet assumptions, cost and tariff plans, delivery and operating options and scheme risks, be authorised;
- b) the engagement of the same consultant to develop a business case for a feasible scheme if such a scheme is deemed achievable by the consultant be authorised;
- c) the initial costs be funded from the Net Zero Reserve, be agreed;
- d) in principle the provision by spring 2023 of a partnership e-bike scheme within the District as a vehicle to address the issues of homelessness, under-employment and low skills in the workforce, be endorsed; and
- e) prior to the 2023/24 budget being set, a final report on this item including any consultancy advice be brought back to Cabinet for consideration.

Agenda Item 1 Cleaner & Greener Advisory Committee - 28 June 2022

12. Work Plan

The Work Plan was noted.

THE MEETING WAS CONCLUDED AT 7:46PM

CHAIRMAN



NET ZERO 2030 UPDATE - OCTOBER 2022

Cleaner and Greener Advisory Committee - 18 October 2022

Report of: Deputy Chief Executive and Chief Officer - Planning & Regulatory

Services

Status: For Information

Also considered by:

N/A

Key Decision: No

This reports support the Key Aim of The Council's commitment to Net Zero

2030.

Portfolio Holder: Cllr. Margot McArthur

Contact Officer(s): Helen French, Ext. 7357; Margaret Carr, Ext. 7341;

Recommendation to Cleaner and Greener Advisory Committee:

To note this update report for information.

Introduction and Background

- Achieving Net Zero carbon emissions is a top priority that encompasses all aspects of the Council. It incorporates energy efficiency and generation, sustainable transport and active travel, air quality, health and wellbeing, habitats and biodiversity, flooding, water supply and consumption, and more.
- We have made a commitment to work towards achieving net zero carbon emissions for the Council and its assets by 2030 (Council emissions). We also have an ambition to assist the District to become net zero by working closely with local communities (District emissions) and to improve the resilience of the District to a changing climate (Climate resilience). This is collectively known as our Net Zero 2030 commitment.
- 3 This report provides a short update on progress on delivering the Net Zero Agenda during Spring/Summer 2022.

Sustainable Transport

- 4 The first Local Cycling and Walking Infrastructure Plan (LCWIP) covering Sevenoaks Urban Area is continuing to progress well. There have been two rounds of consultation with communities, users and other stakeholders. There was a high level of engagement and the feedback has been incorporated into the final Plan. Sustrans, the consultants, are continuing to compile the report which should be ready later this Autumn.
- The Department for Transport released the list of successful applicants for the **Active Travel Fund** in May 2022. Sevenoaks District Council's bid, in partnership with Kent County Council (KCC), for a Sevenoaks East-West cycle route was successful and was awarded £1.2 million.
- 6 KCC have begun some initial work on the East-West draft route and have carried out an initial walk through. Discussions are being held with private land owners regarding the potential route. We will be meeting with KCC in the upcoming weeks to discuss the work so far and will continue to work with KCC to progress this further.
- 7 We have appointed consultants to undertake a feasibility study for the possibility of an **electric bike scheme** for Sevenoaks District. The findings of this study will be presented to this committee in December 2022.

Electric Vehicle Charging Points

- 8 Field Dynamics has been appointed to undertake an **Electric Vehicle Infrastructure Study** for the District.
- 9 The findings of the study will be used to:
 - Identify suitable and priority locations for new charging points;
 - Work with partners, landowners and businesses to deliver new charging points or increase the offer provided by existing installations (i.e. increase number/ type/ access);
 - Help demonstrate/ establish business cases for the installation of new charging points or the upgrade of existing infrastructure;
 - Apply for funding to deliver charging points;
 - Fulfil actions of the Council's Net Zero Commitment, Air Quality Action Plan and Movement Strategy;
 - Provide evidence for Local Plan policy and assist in Development Management decisions.
- 10 Charging points for both the SDC fleet and the general public are being installed at Argyle Road. We are also planning to install more charging points in SDC owned car parks as set out in a previous report to this committee.
- 11 The first charging point exclusively for taxi charging has been installed in Sevenoaks Town in conjunction with KCC.

Energy Efficiency

- 12 Following the successful application to the **Department for Business, Energy and Industrial Strategy's (BEIS) Home Upgrade Grant**, we have received £402,500 up to March 23 to help tackle fuel poverty for low income families by providing energy efficiency upgrades, insulation and low-carbon heating to low-income households in the Sevenoaks District. This project is being led by a newly appointed Energy Efficiency Project Officer to work with communities to identify suitable households.
- 13 Alongside partner councils in Kent, and led by KCC, we were successful in our application for the Local Government Association Behavioural Insights

 Programme 2022. The purpose of the project is to encourage and empower lower to middle income households to make low or no-cost behaviour changes that will reduce their domestic energy consumption. Focusing on those that can't access the advice or support that is targeted at the fuel poor.
- 14 The behaviour change initiative will be published during Autumn 2022 with results published in early 2023. The Energy Efficiency Project Officer is leading on this project with assistance from the communications team.

SDC Emissions Report

- 15 As part of our commitment to be Net Zero by 2030, we are reporting annually on our carbon emissions, so that we can measure our progress and the impact our actions are having on reducing these emissions. We began to do this in 2019/2020; the Council had issued its last Greenhouse Gas Report in 2011.
- 16 We use the Department of Business, Energy and Industrial Strategy reporting guidance, which identifies Scope 1, 2 and 3 emissions, as defined by the <u>Greenhouse Gas Reporting Protocol</u>.
- 17 The calculations for the previous two years have focused on the Council's Argyle Road offices and our depot at Dunbrik, including the fleet. This year we have also started to look at the emissions from our leisure centres in Edenbridge and Sevenoaks. Our third leisure centre in White Oak, Swanley, is a new building and has only been open for two months of the 2021/2 reporting year; for this reason we have not included it this year, but will do in future years. The Energy Performance Certificate for the new building rates it as A, which means it is highly energy efficient.
- 18 The table below provides a summary of the Council's carbon emissions for 2021/2.

Summary table of Council emissions 2021/22

Dunbrik and Argyle Road only (buildings and fleet)								
	2019/20	2020/21	2021/22					
	Tonnes (t) of CO ₂ emissions	Tonnes (t) of CO ₂ emissions	Tonnes (t) of CO ₂ emissions					
Scope 1	1,209.36	1,367.51	703.74					
Scope 2	151.18	128.79	116.16					
Scope 3	33.57	27.64	33.54					
Total emissions	1,394.11	1,523.96	853.44					

Edenbridge and Sevenoaks Leisure Centres						
2021/22						
Tonnes (t) of CO₂ emissions						
Scope 1	613.23					
Scope 2	116.73					
Scope 3	15.86					
Total emissions	745.82					

- 19 During the past year we have reduced our carbon emissions. This is due to the replacement of some of our Class 1 diesel vehicles with electric ones, and the reduction in journeys by the waste and recycling team which for several weeks in the previous year had to go to the site at North Farm in Tunbridge Wells to deposit waste and recycling due to a fire at Dunbrik.
- 20 Although not as many residents are working from home full time now, we are still collecting the same volume of waste and recycling as in the previous two years.

Community Engagement

- 21 We continue to engage with the community to publicise how we are working to meet our Net Zero 2030 commitment and also how others can reduce their own carbon emissions.
- 22 Throughout the summer holidays we ran free **eco trails** in locations across the District. Together with the North West Kent Countryside Partnership, we created eco-trails for the whole family to enjoy. We promoted the trails on social media as well as directly emailing town and parish councils, members and all the schools in the District and included the information in InShape.
- 23 We have continued to have at least one **Net Zero social media** post each week including making residents aware of new electric vans, promoting green schemes and opportunities for businesses, promoting Cycle to Work day and Zero Waste Week. In July we marked National Net Zero week by posting on social media each day setting out what the Council has done to contribute towards net zero commitment.
- 24 In May, Cllr Fleming and Helen French (Net Zero Project Co-ordinator) were invited to give a presentation during assembly at **Russell House School** in Otford. This was very well received and we are looking to ways we can engage with other schools and work together to address climate change in the District.
- 25 At the beginning of September, Cllr Fleming and Holly Harris (Air Quality Promotions Officer) attended the **Eynsford Eco Fair** representing Sevenoaks District Council. The event was an opportunity for Sevenoaks District Council to share progress on their Net Zero achievements and engage with residents on improvements they can make within their households. This included discussions with residents on thermal imagery devices to detect energy gaps in their homes, home installation improvements and refuse collection alternatives.

Carbon Reduction Plan

- 26 We have appointed LASER to undertake a study for our Net Zero work. This will cover:
 - Heat decarbonisation plans for Argyle Road, Dunbrik, Sevenoaks Leisure Centre, Edenbridge Leisure Centre (White Oak is too new to be included at this stage)
 - Carbon Reduction Plan to set out what we will need to do to reach our target
 - District Emissions report
- 27 The findings of the study will be incorporated into future action plans and other Council projects and proposals. Work should be complete in Winter 22/23 and will be included in future Net Zero Update reports.
- 28 It is highly likely that the Council will need to offset some carbon emissions in order to reach net zero in 2030. The plan will set out the level of emissions

Agenda Item 6

likely to need offsetting as well as potential opportunities for renewable energy generation to further reduce the remaining carbon emissions.

Next Steps

- 29 Officers will continue to make progress to achieve the Net Zero 2030 actions. We will also continue to identify new opportunities and projects to deliver the Net Zero 2030 commitment.
- 30 Regular update reports on the Net Zero 2030 work will be provided for members via the Cleaner and Greener Advisory Committee.

Other Options Considered and/or Rejected

The Council have made a commitment to Net Zero 2030.

Key Implications

Financial

Funding for the Net Zero 2030 commitment will be met from existing budgets.

<u>Legal Implications and Risk Assessment Statement.</u>

No legal implications have been identified.

Equality Assessment

The decisions recommended through this paper have a remote or low relevance to the substance of the Equality Act. There is no perceived impact on end users.

Net Zero Implications

Members are reminded of the Council's stated ambition to be Net Zero with regards to carbon emissions by 2030. This report is to inform members of the ongoing work to meet the commitment.

Conclusions

The Council have committed to Net Zero 2030 and have identified actions to help achieve this goal. We are currently making good progress to achieve the actions within the agreed timescales.

Agenda Item 6

Appendices	
None	
Background Papers	
None	

Richard Morris

Deputy Chief Executive and Chief Officer - Planning & Regulatory Services



AIR QUALITY- ANNUAL STATUS REPORT & UPDATE

Cleaner & Greener Advisory Committee - 18 October 2022

Report of: Deputy Chief Executive and Chief Officer Planning and Regulatory

Services

Status: For Consideration

Also considered by:

Key Decision: No

This report supports the Key Aim of: Green Environment & Healthy

Environment

Portfolio Holder: Cllr. McArthur

Contact Officer(s): Nick Chapman, Ext. 7167

Recommendation to Cleaner & Greener Advisory Committee

To note the contents of the 2022 Annual Status Report

Reason for recommendation: This report is for information and has been provided to update Cleaner & Greener Advisory Committee on Air Quality results and actions being taken by the District Council.

Introduction and Background

- The District Council is required by DEFRA to produce an Annual Status Report every year. This report summarises the results of Air Quality Monitoring in the previous calendar year (i.e. 2021).
- In 2021 no diffusion tube showed an exceedance of the National Objective Level (40ug/m3) for Nitrogen Dioxide (NO₂).
- The highest concentrations within the district were measured at Riverhead on the roundabout (37.5ug/m³) and at Bradbourne Road South (37.5ug/m³). Neither of these monitoring locations are adjacent to residential properties and so the pollution levels experienced by residents within these areas are substantially lower than that measured by our diffusion tubes when corrected for distance (33.1µg/m³ and 24.5µg/m³ respectively).
- Across all sites, concentrations of Nitrogen Dioxide increased slightly from those measured in 2020 when Covid-19 lockdowns resulted in reduced traffic. However, the overall trend (over the past 5 years) shows that

- annual mean Nitrogen Dioxide concentrations have been continuing to decrease across the district.
- There were no breaches of the NO_2 hourly, PM_{10} (small particulate) annual, or PM_{10} daily air quality objectives at any of the relevant monitoring locations across the district.
- 6 The Annual Status Report 2022 is Appendix A.

Progress towards measures within the Air Quality Action Plan

- Councillors will be aware that in April 2022, Council agreed a new Air Quality Action Plan (AQAP) that will operate between 2022 and 2027. This AQAP contains a number of measures that seek to improve air quality within the district.
- 8 Although the AQAP has only been in place for 6 months we have already made progress towards delivering a number of measures.
- 9 Measure 6- Bike Rental Schemes- a feasibility study will be commissioned to review if such as scheme is viable in the Sevenoaks town area.
- Measure 8- Development of new walking and cycling routes- The first Local Cycling and Walking Infrastructure Plan for Sevenoaks urban area is in development and is expected to be completed during 2022.
- Measure 11- Reducing vehicle idling- The Air Quality Promotions Officer is developing an engagement campaign which will be delivered with schools in September/ October 2022.
- Measure 12- Educational campaigns for schools- Sevenoaks District Council was part of a successful DEFRA bid (with other local authorities in Kent) for the creation of an educational air quality awareness resource aimed at primary school children.
- Measure 14- Transitioning the Council's fleet to low emission vehicles- The District Council has made significant progress in transitioning its LGVs to electric alternatives and have installed new charging points at Dunbrik depot and Argyle Road offices.
- Measure 15- Improving and developing EV infrastructure within the district— The District Council has commissioned a specialist consultancy to develop an evidence base, which demonstrates where the local need exists for EV infrastructure. This work will then be utilised to help ensure that infrastructure investment is targeted to the areas of greatest need. This work is being funded by Air Quality s106 money.
- Measure 23- Complete a detailed modelling assessment of the Swanley area to quantify local air quality. We have commission Bureau Veritas to undertake this work and the report will be delivered in autumn 2022.
- 16 Measure 24- Hire an Air Quality Promotions Officer- This action is complete

Conclusion

- Monitoring data demonstrates that air quality in Sevenoaks District continues to improve year on year and in 2021 all areas met national objective levels for measured pollutants.
- Although Air Quality within Sevenoaks District is improving, there is no safe level of exposure to air pollution. It is therefore in the interests of our residents that we continue to work to reduce exposure to air pollution as far as possible.
- Our new Air Quality Action Plan (2022-2027) provides the framework of measures we intend to implement to improve air quality. We have already made significant progress towards several measures and hope to report more on these in future updates.

Key Implications

Financial

None

Legal Implications and Risk Assessment Statement.

None

Equality Assessment

The information in this paper has a remote or low relevance to the substance of the Equality Act. There is no perceived impact on end users.

Net Zero Implications

Whilst the District Council's Air Quality work aligns and supports our NetZero ambitions. The decisions recommended through this paper have a remote or low relevance to the council's ambition to be Net Zero by 2030. There is no perceived impact regarding either an increase or decrease in carbon emissions in the district, or supporting the resilience of the natural environment

Appendices

Appendix 1 - Air Quality Status Report 2022

Richard Morris

Deputy Chief Executive and Chief Officer - Planning & Regulatory Services





AgeManemrdix 1

Sevenoaks District Council Air Quality Annual Status Report

In fulfilment of Part IV of the Environment Act 1995 (as amended) Local Air Quality Management

June 2022



Information	Sevenoaks District Council Details			
Local Authority Officer	Nick Chapman			
Department	Environmental Health			
	Sevenoaks District Council			
Address	Argyle Road			
Address	Sevenoaks			
	TN13 1HG			
Telephone	01732 227167			
E-mail	nick.chapman@sevenoaks.gov.uk			
Report Reference Number	14548499/UK/v1.0			
Date	June 2022			

We have made every effort to make this document accessible for people with visual impairments. However, it includes detailed information we are required to publish. Some of this information is presented in tables and for this reason, screen readers may not work effectively on all pages. If you need help understanding this document, please call our Environmental Health Team on 01732 227000 or email environmental.health@sevenoaks.gov.uk.

Executive Summary: Air Quality in Our Area

Air Quality in Sevenoaks District Council

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children, the elderly, and those with existing heart and lung conditions. There is also often a strong correlation with equalities issues because areas with poor air quality are also often less affluent areas^{1,2}.

The mortality burden of air pollution within the UK is equivalent to 28,000 to 36,000 deaths at typical ages³, with a total estimated healthcare cost to the NHS and social care of £157 million in 2017⁴.

The primary source of air pollution within the district is from nitrogen dioxide (NO_2) and particulate matter (PM_{10} and $PM_{2.5}$), predominantly originating from road traffic. The district is traversed by three major motorways, the M25, M26, and M20. These are major road links that connect London and the north of the UK to both the port at Dover and the Channel Tunnel, and as such have a considerable flow of continental HGVs. In addition, local journeys such as school runs but also commuter traffic directly to, or connecting to, London contribute significantly to a number of hot spots in Sevenoaks, Swanley, and in several of the small towns that are located along the A25 road.

At all monitoring locations in 2021, annual mean NO₂ concentrations were reported to be below the annual mean Air Quality Strategy (AQS) objective of $40\mu g/m3$. The maximum reported concentration was $37.5\mu g/m^3$ at DT42 and DT87, located in Riverhead. Neither of these sites are located at a site of relevant exposure, and once fall-off-with-distance calculations had been carried out, the concentrations predicted at relevant exposure was

¹ Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

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

³ Defra. Air quality appraisal: damage cost guidance, July 2021

⁴ Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

Agenda Item 7

33.1µg/m³ and 24.5µg/m³ respectively. In general, across the Sevenoaks District, concentrations have increased slightly from what was reported in 2020, which is to be expected as the UK Government enforced COVID-19 restrictions were gradually relaxed and traffic flows were observed to have increased relative to that of the first national lockdown. The overall trend over the past 5 years shows that annual mean NO₂ concentrations have been continuing to decrease across the district.

In addition, no breaches of the NO₂ hourly, PM₁₀ annual, or PM₁₀ daily AQS objectives were reported at any of the relevant monitoring locations within the district.

Sevenoaks District Council has recently adopted a new Air Quality Action Plan (AQAP). The AQAP was put out for public consultation during early 2022. The measures included within this action plan are detailed within this report.

Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades, and will continue to improve due to national policy decisions, there are some areas where local action is needed to improve air quality further.

The 2019 Clean Air Strategy⁵ sets out the case for action, with goals to reduce exposure to harmful pollutants. The Road to Zero⁶ sets out the approach to reduce exhaust emissions from road transport through a number of mechanisms; this is extremely important given that the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

As detailed within Sevenoaks District Council AQAP 2022, key planned measures include:

Junction and Road improvements at Bat & Ball, in Riverhead, Sevenoaks High Street, Seal and Brasted;

July 2018

⁶ DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy,

⁵ Defra. Clean Air Strategy, 2019

- A number of measures to encourage active travel, such as introducing bike rental schemes, promotion of active travel schemes, developing new walking and cycle routes;
- A number of behavioural change campaigns to reduce single use occupancy car journeys and vehicle idling;
- Transitioning local bus fleets and the Council's fleet to low emission and ultra-low emissions vehicles;
- Improving and developing the EV infrastructure within the district;
- Discouraging the use of bonfires as a means of waste disposal;
- Working with businesses to help identify ways in which they can reduce their emissions and increase proportions of low emissions vehicles within their fleets;
- Reducing emissions from activities with Environmental Permits; and
- Working with Highways England to reduce the need for HGV and LGV vehicles to use the A25.

The Council is looking to carry out a number of measures that target road user behaviours, as it is difficult to target specific hot spot areas within the district due to the nature of the emissions source (significant HGV through traffic on the major road network, large proportion of commuter traffic). Whilst these are not entirely focused on specific areas, it is believed that these will help improve air pollution across the district to help ensure that residents are not exposed to high pollution levels. In addition, some of the measures detailed within the new AQAP will also target and encourage reduction of emissions of PM₁₀ and PM_{2.5}.

At the start of 2022, the Council hired an Air Quality Promotions Officer, whose role is to facilitate the implementation and success of the measures as set out within the AQAP. The Council is also in progress of releasing a County wide school resource for tackling air pollution and is developing the first Local Cycling and Walking Infrastructure Plan (LCWIP). The Council has been involved with Kent Air Week, releasing a number of social media posts referencing different actions across the county. The Council is also looking to improve the accessibility of their air quality webpages, and to publish a number of school resources including anti-idling campaigns and walk to school incentives.

Conclusions and Priorities

The conclusions and priorities for the Council in addressing and managing air quality within Sevenoaks District Council in the coming year includes:

- Annual mean NO2 concentrations at all monitoring sites operated by Sevenoaks
 District Council are below the AQS objective of 40µg/m3. This is also the case for
 the NO2 hourly, PM10 annual and PM10 daily AQS objectives;
- Generally, there is an overall downward trend in annual mean NO₂ concentrations
 across all monitoring sites where 2 or more years' worth of monitoring data is
 available. Concentrations at some sites did increase from 2017 to 2018, however all
 sites then reported a decrease to 2020.
- The majority of monitoring sites have shown an increase in annual mean concentrations from 2020 to 2021. At DT25 and DT42, the 2021 concentrations are the greatest that has been reported at these sites over the past 5 years (but still below the AQS objective, the maximum being 37.5µg/m³ at DT42 which is not at a site of relevant exposure). All other sites reported an annual mean concentration in 2021 lower than that reported in 2019 where monitoring data is available, which continues to suggest an overall decrease across the past 5 years.
- Careful attention shall be given to the 2022 monitoring data to understand whether there will be a further bounce back following the relaxation of all UK Government enforced COVID-19 restrictions, in particular at DT25 and DT42 which experienced the greatest increase (a maximum of 14.0µg/m³ at DT42);
- Promotion of the new AQAP;
- Progress measures set out within the new AQAP; and
- Revocation of the following AQMAs:
 - AQMA 1- Declared for NO₂-Junction 3 of the M25 to the district boundary with Tonbridge and Malling Borough Council including part of the A20 at Farningham.
 - AQMA 2- Declared for NO₂-- County border with Surrey to district border with Dartford, including Junctions 3, 4 and 5 and the extension of Junction 5 to connect with the A25 at Bessel's Green

- AQMA 3- Declared for NO₂-- M26 from junction 5 of the M25 to the district boundary with Tonbridge and Malling Borough Council
- o AQMA 4- Declared for NO₂-- Swanley Bypass from junction 3 of the M25 to the district boundary with the London Borough of Bromley
- o AQMA 6- Declared for PM₁₀- Junction 5 to Kent / Surrey border

Local Engagement and How to get Involved

Members of the public can help to improve air quality by making small changes to their everyday lives.

Walking and cycling instead of making car journeys will reduce the amount of traffic on the local roads and reducing emissions and also helping to improve the congestion. Other small changes include not allowing car engines to idle when vehicles are stationary.

- Anticipate traffic flow, keeping in the highest gear possible and maintaining a steady speed at a low revs per minute (RPM). This will help to reduce pollution from your car, and save on fuel consumption.
- Consider purchasing a cleaner electric, hybrid vehicle or one that meets the euro 6
 emission standard.
- Maintain your vehicle regularly, if a diesel, make sure the oil and filters are changed frequently. If you notice sooty emissions from the exhaust, take your vehicle to a servicing garage as soon as possible. Ensure your tyres are maintained at the optimum pressure to achieve the best fuel consumption and save you money.
- Turn off your engine if you are caught in a traffic jam or have to wait at level crossings; not only will this reduce your emissions but you will also save fuel.
- Avoid using your car for short journeys short trips are very polluting as vehicle
 engines needs to reach a very high temperature to work efficiently; on short trips it
 won't reach that temperature.
- For short journeys, walking, cycling and public transport can be the best and cheapest option.

Agenda Item 7

 Avoid/reduce the burning of solid fuels and garden bonfires as these produce significant particulate pollution.

Further information on air quality monitoring carried out by Sevenoaks District Council can be found on the London Air Quality Network website.

Some areas of the District are subject to smoke control orders under the Clean Air Act 1993. Residents can check if their property is include by visiting the Council's <u>website</u>.

In a Smoke Control area only fuel on the list of authorised fuels, or any of the following 'smokeless' fuels can be burned, unless an exempt appliance is used.

- Anthracite
- Semi-anthracite
- Gas
- Low volatile steam coal

Even if your property is not within a Smoke Control Area, you should be aware that appliances that burn solid fuel contribute to local air pollution and evidence is that their contribution is increasing due to the popularity of solid fuel burning for occasional heating requirements, especially in the wintertime. Domestic solid fuel burning can generate significant levels of particulate pollution, and the council have noted an increase in complaints concerning smoke emitted from domestic properties. Non-compliance with the smoke control rules can result in a fine of up to £1,000.

The Department for Environmental Food and Rural Affairs have produced <u>guidance</u> should residents still wish to use solid fuels or solid fuel appliances.

Local Responsibilities and Commitment

This ASR was prepared by Bureau Veritas on behalf of the Environmental Health
Department of Sevenoaks District Council with the support and agreement of the following
officers and departments:

Holly Harris, Air Quality Promotions Officer

Helen French, Net Zero Project Co-ordinator

Colin Alden, Environmental Protection Team Leader

Nick Chapman, Environmental Health Manager

This ASR has been approved by:

Nick Chapman, Environmental Health manager



This ASR has not been signed off by a Director of Public Health.

If you have any comments on this ASR please send them to Holly Harris at: air.quality@sevenoaks.gov.uk

Sevenoaks District Council, Argyle Road, Sevenoaks, Kent, TN13 1HG 01732 227000

Agenda Item 7

Table of Contents

Executive Summary: Air Quality in Our Area	iii
Air Quality in Sevenoaks District Council	iii
Actions to Improve Air Quality	iv
Conclusions and Priorities	vi
Local Engagement and How to get Involved	vii
Local Responsibilities and Commitment	ix
Table of Contents	x
1 Local Air Quality Management	1
2 Actions to Improve Air Quality	2
2.1 Air Quality Management Areas	2
2.2 Progress and Impact of Measures to address Air Quality in Sevenoaks District Council	5
2.3 PM _{2.5} – Local Authority Approach to Reducing Emissions and/or Concentrations	15
3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National	
Compliance	17
3.1 Summary of Monitoring Undertaken	17
3.2 Individual Pollutants	18
Appendix A: Monitoring Results	21
Appendix B: Full Monthly Diffusion Tube Results for 2021	41
Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC	43
QA/QC of Automatic Monitoring	46
Appendix D: Maps of Monitoring Locations and AQMAs	49
Appendix E: Summary of Air Quality Objectives in England	55
Glossary of Terms	56
Deferences	FO

List of Tables

Table 2.1 - Declared Air Quality Management Areas	3
Table 2.2 – Progress on Measures to Improve Air Quality	8
Table A.1 – Details of Automatic Monitoring Sites	21
Table A.2 – Details of Non-Automatic Monitoring Sites	22
Table A.3 – Annual Mean NO2 Monitoring Results: Automatic Monitoring (μg/m3)	28
Table A.4 – Annual Mean NO2 Monitoring Results: Non-Automatic Monitoring (μg/m3)	29
Table A.5 – 1-Hour Mean NO2 Monitoring Results, Number of 1-Hour Means > 200μg/m3	36
Table A.6 – Annual Mean PM10 Monitoring Results (μg/m3)	37
Table A.7 – 24-Hour Mean PM10 Monitoring Results, Number of PM10 24-Hour Means > 50µg/m3	39
Table B.1 – NO2 2021 Diffusion Tube Results (µg/m3)	41
Table C.1 – Bias Adjustment Factor	45
Table C.2 – Local Bias Adjustment Calculation	47
Table C.3 – NO2 Fall off With Distance Calculations (concentrations presented in μg/m3)	48
Table E.1 – Air Quality Objectives in England	55
List of Figures Figure A. 1– Trends in Annual Mean NO2 Concentrations: AQMAs No.1, No.2, No.3, No.4, No.8, No.10),
No.14	
Figure A. 2– Trends in Annual Mean NO2 Concentrations: AQMA No.13	
Figure A. 3– Trends in Annual Mean NO2 Concentrations: Outside AQMAs	35
Figure A.4 – Trends in Annual Mean PM10 Concentrations	38
Figure A.5 – Trends in Number of 24-Hour Mean PM10 Results > 50µg/m3	40
Figure D.1 – Map of Monitoring Locations and AQMAs near Swanley	49
Figure D.2 – Map of Monitoring Locations and AQMAs near Westerham and Brasted	50
Figure D.3 - Map of Monitoring Locations and AQMAs near Riverhead and Bat & Ball	51
Figure D.4 – Map of Monitoring Locations and AQMAs near Seal	52
Figure D.5 – Map of Monitoring Locations and AQMAs near Sevenoaks	53
Figure D.6 – Map of AQMAs Declared by Sevenoaks District Council	54

1 Local Air Quality Management

This report provides an overview of air quality in Sevenoaks District Council during 2021. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) 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 pursuit of the objectives. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Sevenoaks District Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented in Table E.1.

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 12 months setting out measures it intends to put in place in pursuit of compliance with the objectives.

A summary of AQMAs declared by Sevenoaks District Council can be found in Table 2.1. The table presents a description of the 9 AQMAs that are currently designated within Sevenoaks District. Appendix D: Maps of Monitoring Locations and AQMAs provides maps of AQMAs and also the air quality monitoring locations in relation to the AQMAs. Additional information on the AQMAs can be found on Defra's UK-Air website. The air quality objectives pertinent to the current AQMA designations are as follows:

- NO₂ annual mean; and
- PM₁₀ 24-hour mean.

As detailed in the 2021 ASR, following the findings of AQMA review carried out by Bureau Veritas on behalf of Sevenoaks District Council, the Council intends to revoke the following AQMAs:

- AQMA 1- Declared for NO₂ Junction 3 of the M25 to the district boundary with Tonbridge and Malling Borough Council including part of the A20 at Farningham.
- AQMA 2- Declared for NO₂ County border with Surrey to district border with Dartford, including Junctions 3, 4 and 5 and the extension of Junction 5 to connect with the A25 at Bessel's Green
- AQMA 3- Declared for NO_2 M26 from junction 5 of the M25 to the district boundary with Tonbridge and Malling Borough Council
- AQMA 4- Declared for NO₂ Swanley Bypass from junction 3 of the M25 to the district boundary with the London Borough of Bromley
- AQMA 6- Declared for PM₁₀ Junction 5 to Kent / Surrey border

Whilst this has not been completed during 2021, the Council continues with the intention to proceed with these revocations.

 Table 2.1 - 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 National Highways?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Name and Date of AQAP Publication	Web Link to AQAP
P	AQMA 1	01/03/2002 Amended 2005	NO2 Annual Mean	Junction 3 of the M25 to the district boundary with Tonbridge and Malling Borough Council including part of the A20 at Farningham.	YES	45μg/m³	19.6μg/m³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP
Page 32	AQMA 2	01/03/2002	NO2 Annual Mean	County border with Surrey to district border with Dartford, including Junctions 3, 4 and 5 and the extension of Junction 5 to connect with the A25 at	YES	55μg/m³	25.5μg/m ³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP
	AQMA 3	01/03/2002	NO2 Annual Mean	M26 - from junction 5 of the M25 to the district boundary with Tonbridge and Malling Borough Council.	YES	50μg/m ³	24.7μg/m ³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP
	AQMA 4	01/03/2002	NO2 Annual Mean	Swanley Bypass - from junction 3 of the M25 to the district boundary with the London Borough of Bromley	YES	45μg/m ³	16.9μg/m ³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP
	AQMA 6	01/09/2006	PM10 24 Hour Mean	Junction 5 to Kent / Surrey border	YES	Risk predicted	No current monitoring	Sevenoaks Air Quality Action Plan 2022)	Sevenoaks AQAP
	AQMA 8	01/09/2006	NO2 Annual Mean	Swanley – London Road (East); High Street; Bartholomew Way and parts of Central town area	NO	56.7μg/m ³	34.1μg/m ³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP

AQI Nai	MA me	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by National Highways?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Name and Date of AQAP Publication	Web Link to AQAP
AQN		10/01/2008	NO2 Annual Mean	Sevenoaks – High Street & London Road	NO	46.5μg/m ³	31.8μg/m ³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP
AQN 13		14/01/2014	NO2 Annual Mean	The entire length of the A25 from the border with Tonbridge and Malling in the east to the border with Tandridge in the west.	NO	55.3μg/m ³	37.5μg/m ³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP
AQN 14		14/01/2014	NO2 Annual Mean	The junction of London Road and Birchwood Road, Swanley.	NO	48.8μg/m³	33.1μg/m ³	Sevenoaks Air Quality Action Plan 2022	Sevenoaks AQAP

- ☑ Sevenoaks District Council confirm the information on UK-Air regarding their AQMA(s) is up to date.
- ☑ Sevenoaks District Council confirm that all current AQAPs have been submitted to Defra.

2.2 Progress and Impact of Measures to address Air Quality in Sevenoaks District Council

Defra's appraisal of last year's ASR concluded that the report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports.

- 1. The Council have provided a detailed discussion of air quality measures that have been completed over the reporting year, which include actions to promote low emission and electric vehicles in the District.
- 2. The 2009 AQAP is over 5 years old and a new AQAP is required. The Council have highlighted their priority to finalise the new AQAP.
- 3. No PM₁₀ monitoring is being carried out in AQMA 6 which was declared for exceedances of the 24-hour mean AQO for PM₁₀. The Council should consider commissioning PM₁₀ monitoring in this AQMA to determine if exceedances of the AQO are still occurring.
- 4. It is noted that the new AQAP will include measures to reduce PM_{2.5} and this is encouraging. However, the Council could include information on some of these measures or at the least, refer back to the current AQAP measures that would also result in reduction in PM_{2.5}.
- 5. The format of the report is generally good, but some template text has been left in near Appendix tables. Annual mean PM_{10} results for Greatness site are in bold but are not exceeding the objective.
- 6. The Council have included clear discussion of the QA/QC procedures applied to their monitoring. Further information should be included on the analysis method of diffusion tubes including which lab was used and whether they were deployed in line with Defra Calendar.
- 7. Overall the report is detailed, concise and mostly satisfies the criteria of the relevant reporting standard.

Sevenoaks District Council welcomes these comments to help improve future reporting. Additional care shall be taken to ensure that the template text is removed and to ensure that formatting throughout the report is correct. Furthermore, the Council intends to maintain a clear discussion of the QA/QC procedures applied to monitoring, but to provide additional information on the analysis method of the diffusion tubes, the lab used, and whether deployment has aligned with the LAQM calendar.

The Council have adopted a new AQAP in Spring 2022.

Sevenoaks District Council has identified a number of new direct measures within the updated AQAP during the current reporting year of 2022 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. 32 measures are included within Table 2.2, with the type of measure and the progress Sevenoaks District Council has made during the reporting year of 2022 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in the respective Action Plan. Key planned measures are:

- Junction and Road improvements at Bat & Ball, in Riverhead, Sevenoaks High Street,
 Seal and Brasted;
- A number of measures to encourage active travel, such as introducing bike rental schemes, promotion of active travel schemes, developing new walking and cycle routes;
- A number of behavioural change campaigns to reduce single use occupancy car journeys and vehicle idling;
- Transitioning local bus fleets and the Council's fleet to low emission and ultra-low emissions vehicles;
- Improving and developing the EV infrastructure within the district;
- Discouraging the use of bonfires as a means of waste disposal;
- Working with businesses to help identify ways in which they can reduce their emissions and increase proportions of low emissions vehicles within their fleets;
- Reducing emissions from activities with Environmental Permits; and
- Working with Highways England to reduce the need for HGV and LGV vehicles to use the A25.

Agenda Item 7

Some of these measures have already been completed, or reasonable progression has been made to these in 2021. The Council has formally hired an Air Quality Promotions Officer, whose role is specific to focussing efforts on achieving the measures set out within the AQAP. In addition, the Council has begun progressing a County wide school resource for tackling air pollution and developing the first Local Cycling and Walking Infrastructure Plan. The Council has been involved with Kent Air Week, releasing a number of social media posts referencing different actions across the county. The Council is also looking to improve the accessibility of their air quality webpages, and to publish a number of school resources including anti-idling campaigns and walk to school incentives.

Sevenoaks District Council's priorities for the coming year are to progress a large number of the actions within the new 2022 AQAP to improve air quality within the district.

A number of the measures set out also have joint wins with the Council's Climate Change Strategy as these will also reduce emissions of CO₂ and reduce dependency on fossil fuels.

Sevenoaks District Council is working to implement these measures in partnership with the following stakeholders during 2021:

- Neighbouring local authorities
- · Highways England
- Local businesses and fleet operators

The principal challenges and barriers to implementation that Sevenoaks District Council anticipates facing are constraints on funding available to implement some of the proposed measures. Some of the measures set out may not be commercially viable currently, however due to the number of measures set out it is hoped that some of these may become more viable in the future once funding is available.

Sevenoaks District Council anticipates that the measures stated above and in Table 2.2 will help achieve and maintain compliance in all AQMAs across the district.

Table 2.2 - Progress on Measures to Improve Air Quality

Measure No.	Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	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	Local Plan policy and guidance – Ensure that developers take account of onsite and offsite air quality when assessing the environmental impact of their proposals. That suitable onsite and offsite air quality mitigation measures are included (including financial contributions to strategic air quality improvement measures) as part of a proposal such that future air quality is either improved or sustained at a level that would be achieved without the development.	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2022	Ongoing	SDC/ KCC	Internal/ Existing	No	Fully Funded	Low	Planning	NO2, Whilst guidance already exists, it is important to keep these up- to-date as policies and strategies evolve.	Implementation of policy	Draft policies and allocations	Considering a Supplementary Planning Document on Air Quality to set out how air quality will be assessed and the implementation of existing policy. The emerging Local Plan will include a more detailed policy on Air Quality. Air Quality will be considered in the site selection for allocations.
2	Junction improvements at Bat & Ball Junction (A25/ A225 Junction)	Traffic Management	UTC, Congestion management, traffic reduction	2025	2030	SDC/ KCC/ STC	CIL / KCC / S106 Funding	No	Not Funded	Very High	Planning	NO2. To be confirmed by further assessment once appropriate scheme is determined by partners.	Reduction in NO2 concentrations (amount to be determined by scenario testing once suitable scheme is identified) / Reduced congestion and journey times	Initial discussions	The Local Plan will consider the impact of development on these junctions and potential improvements. Cost of works likely to be significant and to cause significant disruption during implementation phase. Funding not secured.
3	Junction improvements at A224/A25 in Riverhead	Traffic Management	UTC, Congestion management, traffic reduction	2025	2030	SDC/ KCC/ STC	CIL / KCC / S106 Funding	No	Not Funded	Very High	Planning	NO2. To be confirmed by further assessment once appropriate scheme is determined by partners.	Reduction in NO2 concentrations (amount to be determined by scenario testing once suitable scheme is identified) / Reduced congestion and journey times	Initial discussions	The Local Plan will consider the impact of development on these junctions and potential improvements. Cost of works likely to be significant and to cause significant disruption during implementation phase. Funding not secured.

	asure No.	Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	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
	4	Road/ Junction improvements along A225 Sevenoaks High Street	Traffic Management	UTC, Congestion management, traffic reduction	2025	2030	SDC/ KCC/ STC	CIL / KCC /S106 Funding	No	Not Funded	Medium to high	Planning	NO2. To be confirmed by further assessment once appropriate scheme is determined by partners.	Reduction in NO2 concentrations (amount to be determined by scenario testing once suitable scheme is identified) / Reduced congestion and journey times	Initial discussions	Sevenoaks Town centre was previously considered to be made one way however was later discounted. Councillors raised concerns about traffic entering and exiting Knole Park. Possible junction works at entrance to Knole Park + A224/A225 Junction. Possible introduction of 20mph speed limit in Sevenoaks High Street. / Consideration of removing loading/ parking bays.
	5	Road improvements along the A25 in Seal, and the A25 in Brasted	Traffic Management	UTC, Congestion management, traffic reduction	2025	2030	SDC/ KCC/ STC/ SPC/ WTC/ BPC	CIL / KCC /S106 Funding	No	Not Funded	Medium to high	Planning	NO2. To be confirmed by further assessment once appropriate scheme is determined by partners.	Reduction in NO2 concentrations (amount to be determined by scenario testing once suitable scheme is identified) / Reduced congestion and journey times	Initial discussions	No Scheme currently being considered however 20mph zones have been suggested by Town and Parish Councils. Impact to be scenario tested. Costs likely to be significant depending on nature of changes.
	6	Bike rental schemes	Promoting Travel Alternatives	Promotion of cycling	2022	Ongoing	SDC	CIL/ Grant/ Commercial Income	No	Not Funded	Medium	Planning and feasibility	NO2. Small impact upon NO2 concentrations from measure individually, estimated to be less than 1µg/m3 based upon a low to medium uptake.	Number of bikes available and rentals	Currently being considered for feasibility	Linked to Net Zero 2030 Ambitions. Focus on replacing private vehicle movements (38.1% NO2 emissions) with sustainable alternatives
	7	Promotion of active travel schemes	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2022	Ongoing	SDC/KCC	Internal/ Existing	No	Funded	Low	Planning	No2. Measure is more an awareness raising tool to encourage uptake and use of existing schemes	Movement Strategy to be adopted Spring 2022. Recruitment of an Air Quality Promotions Officer	Movement strategy is in development for adoption Spring 2022	Promotion of measures to wider audience using dedicated AQPO resource. Focus on replacing private vehicle movements (38.1% NO2 emissions) with sustainable alternatives
:	8	Development of new walking and cycle routes	Transport Planning and Infrastructure	Cycle Network	2022	2027	SDC/ KCC	Internal/ Existing to develop plan + CIL/ Grant to develop infrastructure	No	Partially Funded	Medium/High. LCWIP – approx. £25-30k each	Planning	NO2. Small impact upon NO2 concentrations from measure individually, estimated to be less than 1µg/m3 based upon a low to medium uptake.	Development of the Local Cycling and Walking Strategy. Completion of cycle routes	The first Local Cycling and Walking Infrastructure Plan for Sevenoaks Urban Area in early stages. Expected to be completed during 2022	LCWIPs will be prepared for other parts of the District. Focus on replacing private vehicle movements (38.1% NO2 emissions) with sustainable alternatives. Some options include adoption of the Liftshare platform, use of Betterpoints behaviour change service, gamification etc.

Measure No.	Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	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
9	District wide promotion of active travel	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2022	2027	SDC	Internal/ Existing	No	Funded	Low	Planning	NO ₂ . Measure to increase public awareness	Number of promotion events	Part of the Movement Strategy and the Net Zero 2030 work	Focus on replacing private vehicle movements (38.1% NO ₂ emissions) with sustainable alternatives
10	Behavioural change campaigns to reduce single use occupancy car journeys	Alternatives to private vehicle use	Other	2023	2027	SDC	Internal/ Existing	No	Funded	Low	Planning	NO ₂ . Measure to increase public awareness	Number of campaigns	Recruitment of the AQPO to lead on this area	Part of the Net Zero 2030 work. Would need to consider how best to reach audience. Focus on reducing the number of private vehicle movements within the AQMAs (38.1% NO2 emissions)
11	Reducing vehicle idling	Traffic Management	Anti-idling enforcement	2022	2025	SDC	Internal/ Existing	No	Funded	Low	Planning	NO2. Measure largely to increase public awareness, but will help reduce pollutant levels in key hotspot areas	Reduction in NO2 concentrations. Quantitative assessments undertaken before and after initiatives	Recruitment of the AQPO to lead on this area	Development of program under development. To be primarily used as an educational program around primary schools etc
12	Educational campaigns for schools	Public Information	Other	2022	2027	SDC	Internal/ Existing	Yes	Funded	Low	Planning	NO2. Measure to increase public awareness	Number of campaigns	Recruitment of the AQPO to lead on this area	DEFRA grant has been received in Kent for the production of educational resources. Educate on the alternatives for private vehicle use within AQMAs (38.1% NO2 emissions)
13	Collaboration with bus operators to introduce ultra- low emission vehicles into the fleets	Vehicle Fleet Efficiency	Promoting Low Emission Public Transport	2022	2027	SDC/ KCC/ Private operators	Internal/ Existing + CIL/Grant as necessary	No	Partially Funded	High	Planning	NO ₂ . Value to be confirmed by scenario testing	Fleet Composition (% using LEV)	Initial discussions with KCC following the national bus strategy. Proposal for scenario testing being developed	Working with KCC to consider how we can work together to bring forward low emission schemes. Cost likely to be significant for bus operators. SDC unlikely to be able to fund initiatives without CIL/ developer contributions or grants. AQPO to promote benefits to bus operators of sustainable technologies. Reduce emissions of Busses 4.7% within AQMAs
14	Transitioning the Council's fleet to low emission vehicles	Promoting Low Emission Transport	Public Vehicle Procurement - Prioritising uptake of low emission vehicles. Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2021	2030	SDC	Internal	No	Partially Secured	High – To be identified through the forthcoming Carbon Reduction Plan	Feasibility and Implementation	NO ₂ . Scenario Testing to be undertaken to assess the impact of the measure on NO ₂ depending on fleet composition	Change in fleet composition to less polluting vehicles.	Fleet composition considered by SDC Low Emission and Electric Vehicle Strategy.	Vehicle Replacement Plan to be considered by Members in 2022. Reduce emissions of HGVs 4.9% within AQMAs

	Measure No.	Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	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
	15	Improving and developing the EV infrastructure within the district	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2022	2030	SDC/KCC	Internal/ Existing to initiate study of probable EV Charging locations. External funding to be identified for installation/ working with district partners	No	Secured for study / Funding for EV sites to be identified	Medium / Very High	Planning	NO ₂ Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m³ based upon a low to medium uptake.	Undertake a study to identify suitable locations (demand and infrastructure) for the installation of EV Charging Points. Number of EV charging points	EV Technical Study to be undertaken in 2022 and funded from appropriate s106 money (already held by SDC)	Part of the recently published Low Emission and Electric Vehicle Strategy. Reduce % NO2 emissions from private vehicles (38%)
	16	Installing EV charging points within all Council owned carparks	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2022	2027	SDC/KCC	Internal	No	Study of suitable locations ongoing	High	Planning	NO2. Small impact upon NO2 concentrations from measure individually, estimated to be less than 1µg/m3 based upon a low to medium uptake.	Number of EV charging points within District Area	Part of the recently published Low Emission and Electric Vehicle Strategy	Future use of land assets. Issues with Network Power Infrastructure. Reduce % NO2 emissions from private vehicles (38%)
Page 40	17	Improving public transport infrastructure	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2022	2027	SDC/KCC	External	No	Not funded	Very High	Planning	NO2. Small impact upon NO2 concentrations from measure individually, estimated to be less than 1µg/m3 based upon a low to medium uptake.	Increased use of Public transport. Additional routes public transport facilities.	Movement Strategy to be adopted Spring 2022	Additional routes for public transport are unlikely to be viable unless commercially sustainable. Reduce % NO2 emissions from private vehicles (38%)
	18	Promote the use of public transport	Promoting Travel Alternatives	Promote use of rail and inland waterways	2022	2027	SDC/ KCC/ Rail Operators	Internal/ External	No	Partially Funded	Medium	Implementation	NO2. Measure is more an awareness raising tool to encourage uptake and use of available infrastructure	Number of promotional events. Number of passengers on public transport	Rail Projects Community Officer has been employed- funded from existing budgets. Work to improve signage around rural stations.	Public transport within SDC is fragmented, but initiatives are currently underway to encourage use of rail. Reduce % NO2 emissions from private vehicles (38%)
	19	On and off-street parking charges linked to vehicle emissions standards	Promoting Low Emission Transport	Priority parking for LEV's	2021	Ongoing	SDC	Internal/ Existing	No	Funded	Very High	Implementation	NO2. Small impact upon NO2 concentrations from measure individually, estimated to be less than 1µg/m3 based upon a low to medium uptake.	Number of discounted permits	Residential on street permits are already discounted for hybrid vehicles. Review of the impact if changed to EV only.	Part of the Net Zero 2030 work. Reduce % NO2 emissions from private vehicles (38%) by encouraging LEV

Measur No.	e Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	Organisations	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
20	Car Club / Sharing schemes	Alternatives to private vehicle use	Car Clubs	2022	2027	SDC	External Funding/ CIL	No	Not funded/ feasibility study	Medium	Planning	NO2. Small impact upon NO2 concentrations from measure individually, estimated to be less than 1µg/m3 based upon a low to medium uptake	Number of car sharing individuals	Car Club schemes to be encouraged in new development through the Local Plan. Included within the Movement Strategy	Cost of implementation/ May not be commercially viable within Sevenoaks. Reduce % NO2 emissions from private vehicles (38%) by reducing number within AQMAs
21	Exploring flexible working and home working	Promoting Travel Alternatives	Facilitate flexible and home-working	2022	Ongoing	SDC	Internal	No	Funded	Low	Implementation	NO2. Measure to increase public awareness	Levels of home working/ number of vehicle journeys removed from road network	Local Plan to facilitate flexible working options. Working with businesses to explore how flexible working can contribute to reducing emissions. Policy developed for SDC staff	Reduce % NO2 emissions from private vehicles (38%) by reducing number within AQMAs
22	Walking to school incentives/ encouragement	Promoting Travel Alternatives	School Travel Plans	2022	2027	SDC/ KCC	Internal/ Existing Budgets + External funding	No	Partially Funded	Low	Planning	NO2. Measure to increase public awareness	Reduction in school vehicle drop-offs / pick- ups. Reduced congestion around school opening and closing times	Employed an AQPO to develop and undertake initiatives	Could have a big impact and is supported by Councillors. Reduce % NO2 emissions from private vehicles (38%) by reducing number within AQMAs
23	Complete a detailed modelling assessment of the Swanley Area to quantify the local air quality	Traffic Management	Other	2022	2027	SDC	Internal/ Existing Budgets	No	Funded	Low	Planning	TBC	Completion of the report	Quote received/ scoping exercise commenced	A number of developments are due to take place in and near to Swanley, therefore understanding the existing air quality will help inform planning decision making. Survey to be funded from existing budgets within Environmental Health
24	Hire an Air Quality Promotions Officer	Public Information	Other	2022	ongoing	SDC	Internal/ Existing Budgets	No	Funded	Medium	Implementation	N/A	Recruitment of AQPO	Suitable candidate identified and employed	This role will be specific to focusing efforts on achieving the measures as set out within this action plan

Measure No.	Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	Organisations	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
25	To provide information and education in respect of personal emissions and how they may be reduced	Public Information	Other	2022	2027	SDC	Internal/ Existing Budgets	No	Funded	Low	Planning	PM2.5 / NO2	Number of educational campaigns		Action to form part of the AQPO duties and role. Initiatives may include reducing emissions from home heating etc
26	To work with businesses to identify ways to reduce emissions from their activities	Public Information	Other	2022	2027	SDC	Internal/ Existing Budgets	No	Funded	Low	Planning	N/A	Number of educational campaigns		Action to form part of the AQPO duties and role. Part of the Net Zero 2030 work. Promote LoCASE funding and training to businesses in SDC which will enable businesses in SDC to move to lower carbon and low pollution activities.
27	To discourage the use of bonfires as a means of waste disposal.	Public Information	Regulatory activities / statutory duties r	2022	Ongoing	SDC	Internal/ Existing Budgets	No	Funded	Low	Implementation	PM10/ PM2.5	Number of interventions to provide advice and information to residents. Total number of enforcement actions undertaken	Forms part of current statutory duties	Environmental Health have an enforcement role for bonfires that constitute a statutory nuisance and offences under s2 Clean Air Act
28	To reduce emissions from activities with Environmental Permits	Environmental Permits	Measures to reduce pollution through IPPC . Permits going beyond BAT	2022	Ongoing	SDC	Internal/ Existing Budgets	No	Funded	Low	Implementation	NO2 PM10/ PM2.5	Increased compliance with Environmental Permitting Regulations. Number of premises identified as 'low risk; (%)	All relevant activities hold relevant permits.	EH regulate activities that pollute to air. Risk based regime.
29	To work with Highways England to identify measures which will reduce the need for HGV and LGV vehicles to use the A25	Traffic Management	UTC, Congestion management, traffic reduction	2024	Ongoing	SDC/KCC/ Highways England	External	No	Not- Funded	Very High	Planning	NO2 PM10/ PM2.5	Identification of schemes that may have AQ benefit along the A25 (AQMA 13)	Previous discussions held	Focus on reducing emissions from LGV/ HGV along A25
30	To review the effectiveness of introducing 20mph zones within areas where AQS objective levels are highest (Sevenoaks High Street, A25 Seal, Bat & Ball Junction, Riverhead, Westerham)	Traffic Management	Reduction of speed limits, 20mph zones	2023	2025	SDC/KCC	Internal	No	Funded	Low	Planning	NO2 PM10/ PM2.5	Undertake scenario testing to assess impact of measure	Parish and Town Councils independently seeking 20mph zones	Focus on reducing emissions of all sources within AQMAs.

Page 42

Measure No.	Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	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
31	To work with business operators to increase the % composition of LEV within private fleets	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2023	2027	SDC/ KCC	Internal	No	Funded	Low	Planning	NO ₂	Number of businesses approached by AQPO. Uptake of LEVs by businesses		Reduction of emissions from HGV and LGV within AQMA 13. Promotion of the Kent REVs scheme and the buying of the Kent REVs electric vehicles.
32	To increase the number of Taxi operators using LEV and EV vehicles	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles. Taxi emission incentives. Taxi Licensing conditions	2023	2027	SDC	Internal/ External	No	TBC	Low	Planning	NO2	Number of vehicles within the taxi fleet changing to LEV/ EV alternatives	Promotion of energy saving trust. Electric vehicle (EV) training courses for taxi and private hire drivers	Reduction in emissions of Private diesel and petrol vehicles within AQMAs

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

As detailed in Policy Guidance LAQM.PG16 (Chapter 7), local authorities are expected to work towards reducing emissions and/or concentrations of $PM_{2.5}$ (particulate matter with an aerodynamic diameter of $2.5\mu m$ or less). There is clear evidence that $PM_{2.5}$ has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

No monitoring of $PM_{2.5}$ is currently conducted within Sevenoaks District, however the two automatic monitoring sites located at Greatness and Bat & Ball monitor PM_{10} concentrations. As per LAQM.TG (16) guidance, $PM_{2.5}$ concentrations can be estimated from monitored PM_{10} concentrations. In order to do this, data from the London Air Quality Network (LAQN) monitoring station Harwood Avenue (Roadside) in Bromley (~18km northwest of both monitoring sites) has been used to calculate an estimated $PM_{2.5}$ concentration at both monitoring sites. The Harwood Avenue site was chosen due to it being the closest roadside LAQN site to the automatic monitoring sites within Sevenoaks where both PM_{10} and $PM_{2.5}$ are measured.

The methodology detailed within Box 7.7 of LAQM.TG (16) has been followed to calculate a locally derived $PM_{2.5}$ / PM_{10} ratio of 0.626. Applied to the 2021 PM_{10} annual mean concentrations of 17.0µg/m³ and 18.2µg/m³ at Greatness and Bat & Ball respectively, this gives an estimated $PM_{2.5}$ annual mean of 10.7µg/m³ and 11.4µg/m³. These estimated annual mean concentrations are below to the recommended indicative annual mean limit value for $PM_{2.5}$ (20µg/m³).

LAQM.TG (16) recommends using a national factor of 0.7, which is slightly more conservative than the factor calculated at Harwood Avenue. Comparatively, when applying this the estimated PM_{2.5} concentrations at Greatness and Bat & Ball are $11.9\mu g/m^3$ and $12.7\mu g/m^3$ respectively, both still below the recommended indicative annual mean limit value.

In addition to this, the current Defra 2021 <u>background maps</u> (based on 2018 monitored concentrations) for Sevenoaks District Council estimates that all background

concentrations of $PM_{2.5}$ are well below the indicative annual mean limit value for $PM_{2.5}$. The maximum predicted concentration is $11.1\mu g/m^3$ within the 1 x 1km grid square with the centroid grid reference of 552500, 167500. This is an area that contains both the M25 and M20, just southeast of Swanley. The background maps also provide a breakdown of sources. For this grid square, the majority of the $PM_{2.5}$ concentrations is estimated to arise from secondary $PM_{2.5}$ formation, which forms following chemical reactions of other gaseous atmospheric pollutants, such as nitrogen oxides (NO_x), ammonia (NH₃), and volatile organic compounds (VOCs).

The Public Health Outcomes Framework data tool compiled by Public Health England and The Department of Health has a number of public health indicators that are used focus public health action, identify areas of health inequality and concern and monitor the differences in health impacts across regions in the UK. This framework includes an indicator "D01- Fraction of Mortality Attributable to Particulate Air Pollution" which is calculated using background annual average PM_{2.5} concentrations, modelled at a 1km² resolution based on measured concentrations from the AURN. As such, this quantifies the mortality burden of PM_{2.5} within England on a county and local authority scale. The 2020 fraction of mortality attributable to PM_{2.5} pollution across England is 5.6%, and the fraction within the Southeast region higher than this at 6.0%. The fraction reported within Sevenoaks specifically is higher than the national average, but equal to the regional average, at 6.0%. The 2020 fraction of mortality has been used as opposed to the 2021 fraction as the latest data has not been made available at the time of writing.

Measures to improve air quality often have shared wins with other public health indicators, a good example being the encouragement of active travel and commuting leading to increased physical activity and increased wellbeing. A number of the measures set out in the new AQAP aim to reduce vehicular travel frequency and time via means such as encouraging active travel and reducing single occupancy journeys. In addition, some of the measures are specifically targeted at reducing PM_{2.5} concentrations, such as controlling the use of bonfires as a means of waste disposal and reducing emissions from activities with environmental permits. These are all expected to have a positive impact on reducing PM_{2.5} concentrations.

Agenda Item 7

Sevenoaks District Council currently has <u>smoke control areas</u> located in Swanley and to the south of Crockenhill. Within these areas, emissions of smoke from a chimney are forbidden unless authorised fuels or exempt appliances are being used.

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

This section sets out the monitoring undertaken within 2021 by Sevenoaks District Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2017 and 2021 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Sevenoaks District Council undertook automatic (continuous) monitoring at 2 sites during 2021. Table A.1 in Appendix A shows the details of the automatic monitoring sites. Tables within Appendix A presents automatic monitoring results for Sevenoaks District Council, with automatic monitoring results also available through the LAQN website.

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

3.1.2 Non-Automatic Monitoring Sites

Sevenoaks District Council undertook non-automatic (i.e. passive) monitoring of NO_2 at 53 sites during 2021, including two triplicate co-locations. Table A.2 in Appendix A presents the details of the non-automatic sites. There has been no changes to the non-automatic monitoring network in 2021.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. annualisation and/or distance correction), are included in Appendix C.

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.

3.2.1 Nitrogen Dioxide (NO₂)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of $40\mu g/m^3$. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2021 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

Table A.5 in 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.

No exceedances of the annual mean NO_2 Air Quality Strategy (AQS) objective ($40\mu g/m^3$) have been reported at any monitoring location operated by Sevenoaks District Council in 2021. The maximum reported concentration is $37.5\mu g/m^3$, within 10% of the AQS objective

 $(36\mu g/m^3)$, reported at both DT42 and DT87, located in Riverhead along Worships Hill and Bradbourne Vale Road respectively. Both of these are within AQMA No.13. One other site reported an annual mean concentration >36 $\mu g/m^3$, DT31 with a concentration of 36.3 $\mu g/m^3$. This site is located along the A25 Seal Road, near the Bat & Ball junction, within AQMA No.13. None of these sites are located at a site of relevant exposure, and once fall-off with distance correction calculations had been carried out the maximum reported concentration of these was $33.4\mu g/m^3$ at DT31.

Agenda Item 7

Annual mean NO₂ concentrations have shown an increase at the majority of monitoring locations from 2020 to 2021. At sites DT25 and DT42, the 2021 annual mean concentration reported is the greatest it has been at these sites over the past 5 years, with the maximum being reported at DT42. The greatest increase was 14.0µg/m³ at site DT42, however as stated above this remains to be below the AQS objective and is not at a site of relevant exposure in 2021. All other monitoring sites have reported a lesser increase, or have remained relatively stable. Despite this, with the exception of DT25 and DT42, the 2021 annual mean concentrations remain below that reported in 2019. This may be due to continued impacts of the COVID-19 pandemic, such as UK Government enforced restrictions at the start of the year (January and February), but this may also be due to changes in behaviours and increasing numbers of people working from home. This may have also had an impact on standard rush hour and peak times, meaning that congestion may be diminished when compared to pre-COVID-19. The increases observed at DT 25 and DT42 may be due to localised increases in congestion. If 2022 concentrations show a further increase or remain high, a further investigation into what is causing this shall be carried out.

With respect to the 1-hour mean objective, no diffusion tube monitoring locations have reported a concentration >60 μ g/m³, which as per LAQM.TG (16), would indicate a potential exceedance of the 1-hour mean objective. Additionally, neither of the continuous monitoring locations reported any period in 2021 where the hourly concentration exceeded 200 μ g/m³.

3.2.2 Particulate Matter (PM₁₀)

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past five years with the air quality objective of $40\mu g/m^3$.

Table A.7 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for the past five years with the air quality objective of $50\mu g/m^3$, not to be exceeded more than 35 times per year.

Both continuous monitoring locations reported annual mean PM_{10} concentrations below the annual mean objective of $40\mu g/m^3$. Greatness (CM1) reported a concentration of

 $17.0\mu g/m^3$, whereas Bat & Ball (CM2) reported a concentration of $18.2\mu g/m^3$. There is little change to what was reported in 2020 (+ $0.2\mu g/m^3$ at CM2), and longer term trends the concentrations at both sites appear to be relatively stable.

With respect to the 24-hour objective, where there should be no more than 35 24-hour averages which exceed $50\mu g/m^3$, both monitoring sites reported 2 periods where this was the case. The maximum number reported over the past 5 years was 9 at CM1 in 2019.

3.2.3 Ozone (O₃)

The continuous monitor CM1 also monitors and reports concentrations of ozone. The AQS objective for this is that the 8-hour running mean should not exceed $100\mu g/m^3$ more than 10 times a year. CM1 reported 55 8-hour mean periods where this is the case. It should be noted that ozone is a difficult pollutant to control, due to its natural formation in absence of NO_x within the atmosphere.

Appendix A: Monitoring Results

Table A.1 - 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	Greatness	Urban Background	553603	156774	NO_x , NO , NO_2 , PM_{10} , O_3	NO	Chemiluminescent / Teom	Υ	46m	1.8
֓֞֞֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֡֓֡֓֓֓֡֓֡֓֡֓֡֓֡	CM2	Bat & Ball	Roadside	553044	156690	NO _x , NO, NO ₂ , PM ₁₀	YES	Chemiluminescent / Teom	N - (30m)	8m	1.8

Notes:

Page 50

(1) Om 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 A.2 – 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)
	DT02	Sevenoaks, High St South 1	Roadside	553157	154416	NO2	Y - AQMA No.10	0.0	2.0	No	2.0
	DT03	Sevenoaks, Garvock Drive	Urban Background	552465	154165	NO2	Ν	0.0	2.0	No	2.0
, כ	DT05	Riverhead, Riverhead 2	Roadside	551414	156196	NO2	Y - AQMA No.13	0.0	2.5	No	2.5
2 7	DT06	Riverhead, Riverhead 3	Kerbside	551442	156159	NO2	Y - AQMA No.13	2.0	2.5	No	2.5
.	DT07	Seal, High St East 1	Roadside	555096	156692	NO2	Y - AQMA No.13	3.0	2.5	No	2.5
	DT08	Seal, High St West 1	Roadside	554991	156728	NO2	Y - AQMA No.13	0.0	2.0	No	2.0
	DT12	Brasted, Station Rd	Roadside	546813	155850	NO2	Y - AQMA No.2	0.0	2.0	No	2.0
	DT13	Swanley, London Rd/Wested Lane	Kerbside	552510	167704	NO2	Y - AQMA No.2	3.0	2.5	No	2.5
	DT14	Swanley, Wadard Terrace (Button St)	Roadside	553107	167868	NO2	Y - AQMA No.2	6.0	2.5	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)
	DT23	Sevenoaks, Bat & Ball 1	Roadside	553050	156625	NO2	Y - AQMA No.13	4.0	2.5	No	2.5
	DT24	Westerham, High St	Roadside	544418	153918	NO2	Y - AQMA No.13	10.0	2.5	No	2.5
	DT25	Westerham, Vicarage Hill	Roadside	544638	154041	NO2	Y - AQMA No.13	20.0	2.5	No	2.5
Р	DT26	Farningham, Farningham Hill	Roadside	554218	167252	NO2	N	4.0	2.5	No	2.5
Page (DT27	Sevenoaks, High St South 2	Roadside	553138	154260	NO2	Y - AQMA No.10	0.0	2.5	No	2.5
52	DT28	Sevenoaks, High St North 2	Roadside	553044	154889	NO2	Y - AQMA No.10	7.0	2.5	No	2.5
	DT29	Sevenoaks, High St North 3	Roadside	553073	155030	NO2	Y - AQMA No.10	1.5	2.5	No	2.5
	DT30	Sevenoaks, Bat & Ball 2	Roadside	553019	156692	NO2	Y - AQMA No.13	0.0	2.5	No	2.5
	DT31	Sevenoaks, Bat & Ball 3	Kerbside	553165	156686	NO2	Y - AQMA No.13	1.5	2.5	No	2.5
	DT32	Sevenoaks, Bat & Ball 4	Roadside	553147	156563	NO2	Y - AQMA No.13	6.0	2.5	No	2.5
	DT33	Seal, High St East 2	Roadside	555069	156709	NO2	Y - AQMA No.13	2.0	2.5	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)
DT34	16 Main Road, Sundridge Dunbrik	Roadside	544802	154895	NO2	Y - AQMA No.2	36.0	2.5	No	2.5
DT35	Sevenoaks, Seal Hollow Rd	Roadside	554092	156797	NO2	Y - AQMA No.13	0.0	2.5	No	2.5
DT36	Westerham, Market Sq	Roadside	544598	154021	NO2	Y - AQMA No.13	3.0	2.5	No	2.5
DT39	Swanley, Bartholomew Way 2, opposite ASDA delivery	Roadside	551492	168695	NO2	Y - AQMA No.8	0.0	2.0	No	2.0
DT40	Swanley, London Rd 1	Roadside	551579	168507	NO2	Y - AQMA No.8	0.0	0.0	No	2.5
DT41	Swanley, London Rd 2	Roadside	552175	168162	NO2	Y - AQMA No.8	18.0	2.5	No	2.5
DT42	Riverhead, London Rd	Roadside	551383	156064	NO2	Y - AQMA No.13	2.5	2.5	No	2.5
DT43	Dunton Green, London Rd	Roadside	551315	156381	NO2	Y - AQMA No.13	8.0	2.5	No	2.5
DT48	Sevenoaks, 73 London Rd	Roadside	552867	154858	NO2	Y - AQMA No.10	8.0	2.5	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)
	DT49	Sevenoaks, 20 London Rd	Roadside	553018	154655	NO2	Y - AQMA No.10	0.0	2.0	No	2.0
	DT51	Sevenoaks, 130 London Rd	Roadside	552761	155050	NO2	Y - AQMA No.10	1.5	2.5	No	2.5
	DT52	Sevenoaks, 142 London Rd	Roadside	552504	155271	NO2	Z	42.0	2.0	No	2.0
P	DT54	Dunton Green, 57 London Rd	Roadside	551224	156975	NO2	Y - AQMA No.13	0.0	2.5	No	2.5
Page !	DT71	Sundridge, 204 Main Rd	Roadside	548239	155355	NO2	Y - AQMA No.13	0.0	2.5	No	2.5
54	DT74	Bessels Green, (A25) Westerham Rd	Roadside	550768	155584	NO2	Y - AQMA No.13	3.0	2.5	No	2.5
	DT76	Worships Hill, Witches Lane	Roadside	551019	155714	NO2	Y - AQMA No.13	3.0	2.5	No	2.5
	DT77	Sevenoaks, London Rd/Montreal Av	Kerbside	551528	155967	NO2	Y - AQMA No.13	3.0	2.5	No	2.5
	DT81	Swanley, Farningham Hill Rd	Urban Background	553419	167614	NO2	Y - AQMA No.1	14.0	2.5	No	2.5
	DT83	Swanley, Birchwood Rd,	Roadside	550298	169627	NO2	Y - AQMA No.14	15.0	2.5	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)
		Jessamine Terrace									
	DT84	Brasted, West End	Roadside	546803	154999	NO2	Y - AQMA No.13	13.0	2.5	No	2.5
	DT85	Brasted, Chart Lane	Kerbside	547094	155099	NO2	Y - AQMA No.13	2.0	2.5	No	2.5
P	DT86	Bessels Green, (A25) 59 Westerham Rd	Roadside	550306	155595	NO2	Y - AQMA No.13	6.0	2.5	No	2.5
Page 55	DT87	Sevenoaks, Bradbourne Vale Rd South	Roadside	551639	156334	NO2	Y - AQMA No.13	17.0	2.5	No	2.5
	DT88	Sevenoaks, Bradbourne Vale Rd North	Roadside	552950	156578	NO2	Y - AQMA No.13	0.5	2.5	No	2.5
	DT90	Sevenoaks St Johns, A4 St Johns Hill	Roadside	553053	154708	NO2	Y - AQMA No.10	10.0	2.5	No	2.5
	DT93	Swanley, Birchwood Rd, end of Pucknells Close	Roadside	550284	169743	NO2	Z	10.0	2.0	No	2.0

Ī	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)
	DT94	Swanley, Birchwood Rd, Beefeater Restaurant	Roadside	550249	169573	NO2	Y - AQMA No.14	20.0	2.5	No	2.5
	DT95	Swanley, Birchwood Rd, London Rd opposite Malvern	Roadside	550351	169490	NO2	Y - AQMA No.14	0.0	2.0	No	2.0
D 2	DT96	Sevenoaks STN 1	Roadside	552371	155346	NO2	N	1.8	2.5	No	2.5
33.0	DT97	Ellis Close	Urban Background	550555	168253	NO2	Y - AQMA No.4	35.0	14.0	No	2.5
	DT98	Dunton Green M26	Roadside	550962	157662	NO2	Y - AQMA No.3	16.0	2.0	No	2.5
	BC01, BC02, BC03	Sevenoaks, Greatness 3	Urban Background	553607	156776	NO2	N	39.0	2.0	Yes	1.8
	BC04, BC05, BC06	Sevenoaks, Bat & Ball AQ Station	Roadside	553045	156690	NO2	Y - AQMA No.13	30.0	2.0	Yes	1.8

- (1) Om 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 A.3 - Annual Mean NO₂ Monitoring Results: Automatic Monitoring (μg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2021 (%) ⁽²⁾	2017	2018	2019	2020	2021
CM1	553603	156774	Urban	78%	78%	16.0	15.0	14.0	12.0	11.6
			Background							
CM2	553044	156690	Roadside	94%	94%	28.0	25.0	23.0	18.0	20.1

- ☑ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16.
- Reported concentrations are those at the location of the monitoring site (annualised, as required), i.e. prior to any fall-off with distance correction.

Page Notes:

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

Exceedances of the NO_2 annual mean objective of $40\mu g/m^3$ are shown in **bold**.

All means have been "annualised" as per LAQM.TG16 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 A.4 – Annual Mean NO₂ Monitoring Results: Non-Automatic Monitoring (μg/m³)

	Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2021 (%) ⁽²⁾	2017	2018	2019	2020	2021
	DT02	553157	154416	Roadside	100.0	100.0	48.1	49.9	40.4	29.6	31.8
	DT03	552465	154165	Urban Background	100.0	100.0	11.1	11.8	9.9	8.0	8.0
_	DT05	551414	156196	Roadside	84.6	84.6	42.7	39.3	34.4	30.3	30.6
_	DT06	551442	156159	Kerbside	100.0	100.0	40.2	41.7	34.8	27.3	30.0
	DT07	555096	156692	Roadside	100.0	100.0	42.7	41.3	36.6	26.2	29.3
	DT08	554991	156728	Roadside	100.0	100.0	26.9	28.3	23.7	19.2	20.3
ס	DT12	546813	155850	Roadside	100.0	100.0	40.0	39.8	33.2	26.6	25.5
age	DT13	552510	167704	Kerbside	100.0	100.0	30.5	32.9	27.7	21.7	23.1
	DT14	553107	167868	Roadside	92.3	92.3	30.1	27.6	25.2	20.9	20.7
58	DT23	553050	156625	Roadside	100.0	100.0	34.3	39.2	33.0	26.6	28.9
	DT24	544418	153918	Roadside	100.0	100.0	30.4	35.8	28.2	23.0	24.9
	DT25	544638	154041	Roadside	84.6	84.6	25.9	26.1	23.5	18.4	30.6
	DT26	554218	167252	Roadside	92.3	92.3	41.8	42.7	34.8	29.6	28.9
	DT27	553138	154260	Roadside	100.0	100.0	38.2	37.7	33.2	21.6	24.3
	DT28	553044	154889	Roadside	92.3	92.3	36.7	36.8	31.5	23.5	23.6
	DT29	553073	155030	Roadside	92.3	92.3	28.0	28.2	23.7	17.6	19.9
	DT30	553019	156692	Roadside	100.0	100.0	32.4	35.1	30.8	24.2	25.4
	DT31	553165	156686	Kerbside	100.0	100.0	51.2	51.1	43.6	35.0	36.3
	DT32	553147	156563	Roadside	90.4	90.4	47.6	51.9	40.7	32.5	34.1
	DT33	555069	156709	Roadside	100.0	100.0	40.5	40.5	34.6	26.3	29.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2021 (%) ⁽²⁾	2017	2018	2019	2020	2021
DT34	544802	154895	Roadside	100.0	100.0	27.5	26.1	23.5	18.3	18.6
DT35	554092	156797	Roadside	84.6	84.6	32.5	33.7	30.0	24.3	26.5
DT36	544598	154021	Roadside	92.3	92.3	39.6	40.1	33.5	28.2	28.1
DT39	551492	168695	Roadside	92.3	92.3	34.5	36.4	34.8	28.1	29.4
DT40	551579	168507	Roadside	90.4	90.4	40.9	45.6	37.5	28.4	34.1
DT41	552175	168162	Roadside	100.0	100.0	40.1	38.6	32.6	27.2	29.5
DT42	551383	156064	Roadside	92.3	92.3	35.5	34.5	27.4	23.6	37.5
DT43	551315	156381	Roadside	100.0	100.0	29.5	28.5	26.5	19.3	24.9
DT48	552867	154858	Roadside	90.4	90.4	40.7	23.9	20.0	13.6	15.9
DT49	553018	154655	Roadside	100.0	100.0	28.2	29.1	25.1	17.2	18.6
DT51	552761	155050	Roadside	84.6	84.6	35.1	39.0	30.2	22.3	18.1
DT52	552504	155271	Roadside	92.3	92.3	33.1	34.0	29.5	21.8	21.8
DT54	551224	156975	Roadside	100.0	100.0	33.8	32.7	28.8	24.8	24.1
DT71	548239	155355	Roadside	100.0	100.0	30.0	31.3	25.6	22.5	23.6
DT74	550768	155584	Roadside	100.0	100.0	35.4	35.9	30.7	22.2	25.5
DT76	551019	155714	Roadside	100.0	100.0	33.9	37.9	33.3	27.4	29.0
DT77	551528	155967	Kerbside	100.0	100.0	38.8	38.7	31.6	25.0	26.5
DT81	553419	167614	Urban Background	82.7	82.7	30.9	28.6	25.7	20.7	19.6
DT83	550298	169627	Roadside	92.3	92.3	49.8	46.7	42.4	33.3	33.1
DT84	546803	154999	Roadside	92.3	92.3	31.2	32.5	26.5	23.0	25.1
DT85	547094	155099	Kerbside	90.4	90.4	43.9	43.7	35.7	31.5	30.1
DT86	550306	155595	Roadside	90.4	90.4	36.0	34.7	30.7	21.1	24.3
DT87	551639	156334	Roadside	100.0	100.0	45.7	47.0	42.3	35.7	37.5

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2021 (%) ⁽²⁾	2017	2018	2019	2020	2021
DT88	552950	156578	Roadside	100.0	100.0	28.7	30.3	28.1	20.7	21.5
DT90	553053	154708	Roadside	84.6	84.6	31.5	34.5	29.5	21.1	21.4
DT93	550284	169743	Roadside	100.0	100.0	27.2	28.8	25.9	19.5	20.2
DT94	550249	169573	Roadside	100.0	100.0	32.2	33.8	28.6	22.8	22.7
DT95	550351	169490	Roadside	100.0	100.0	33.6	33.0	30.2	25.0	25.3
DT96	552371	155346	Roadside	92.3	92.3	-	34.5	30.5	21.2	22.4
DT97	550555	168253	Urban Background	92.3	92.3	-	-	-	17.7	16.9
DT98	550962	157662	Roadside	82.7	82.7	-	-	-	22.8	24.7
BC01, BC02, BC03	553607	156776	Urban Background	100.0	100.0	15.5	13.9	13.0	10.8	11.0
BC04, BC05, BC06	553045	156690	Roadside	100.0	100.0	28.3	26.9	24.9	19.6	20.3

- ☑ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16.
- ☑ 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.

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

Exceedances of the NO_2 annual mean objective of $40\mu g/m^3$ are shown in **bold**.

 NO_2 annual means exceeding $60\mu g/m^3$, 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.TG16 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%).

Figure A. 1- Trends in Annual Mean NO₂ Concentrations: AQMAs No.1, No.2, No.3, No.4, No.8, No.10, No.14

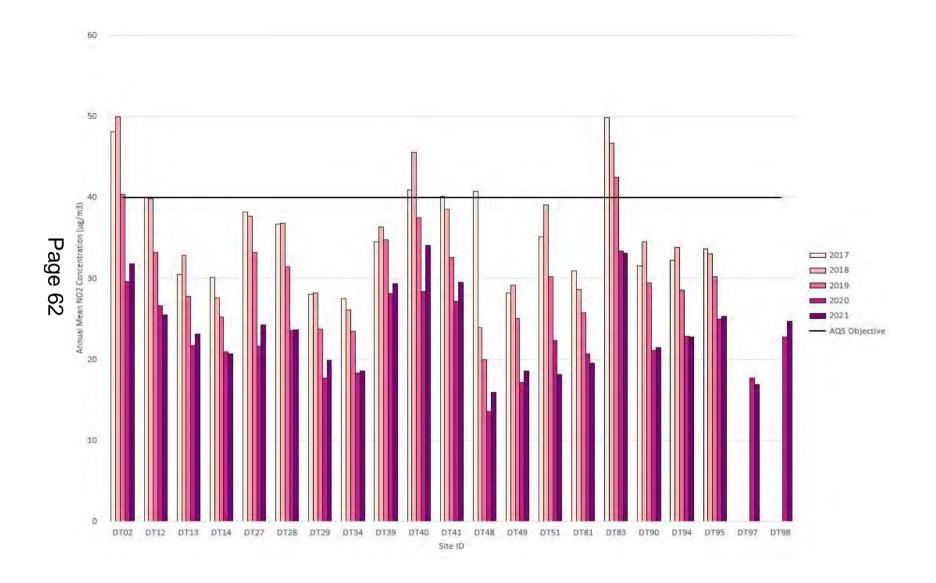


Figure A. 2- Trends in Annual Mean NO₂ Concentrations: AQMA No.

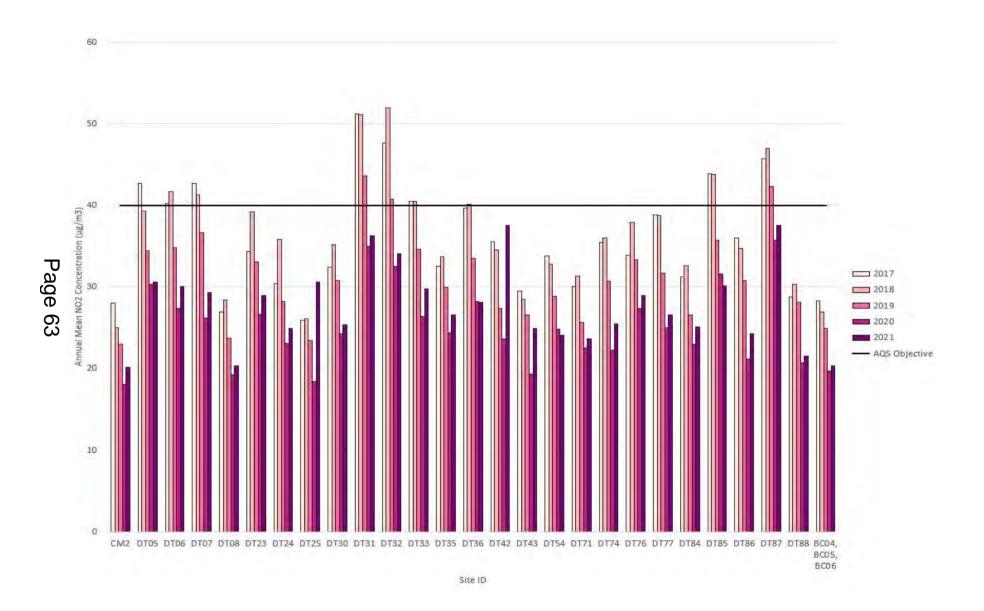


Figure A. 3 – Trends in Annual Mean NO₂ Concentrations: Outside AQMAs

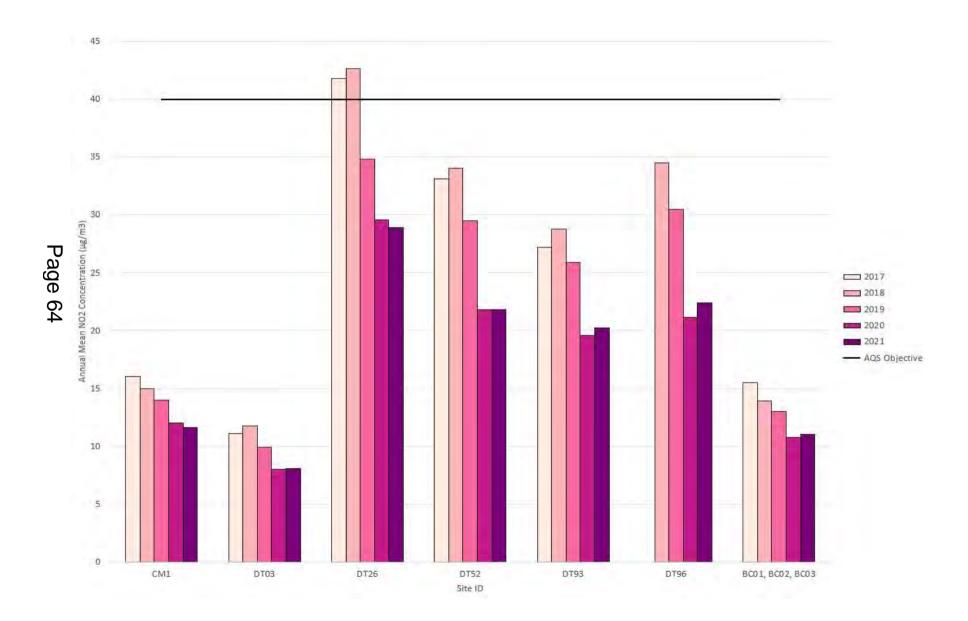


Table A.5 – 1-Hour Mean NO₂ Monitoring Results, Number of 1-Hour Means > 200μg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2021 (%) ⁽²⁾	2017	2018	2019	2020	2021
CM1	553603	156774	Urban	78%	78%	0	0	0	0	0
			Background							
CM2	553044	156690	Roadside	94%	94%	0	0	0	0	0

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m³ have been recorded.

Exceedances of the NO₂ 1-hour mean objective (200 μ g/m³ not to be exceeded more than 18 times/year) are shown in **bold**. If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

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

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

Table A.6 - Annual Mean PM₁₀ Monitoring Results (μg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2021 (%) ⁽²⁾	2017	2018	2019	2020	2021
CM1	553603	156774	Urban	98%	98%	18.0	19.0	20.0	17.0	17.0
			Background							
CM2	553044	156690	Roadside	99%	99%	20.0	21.0	20.0	18.0	18.2

☑ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16.

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.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.4 – Trends in Annual Mean PM₁₀ Concentrations

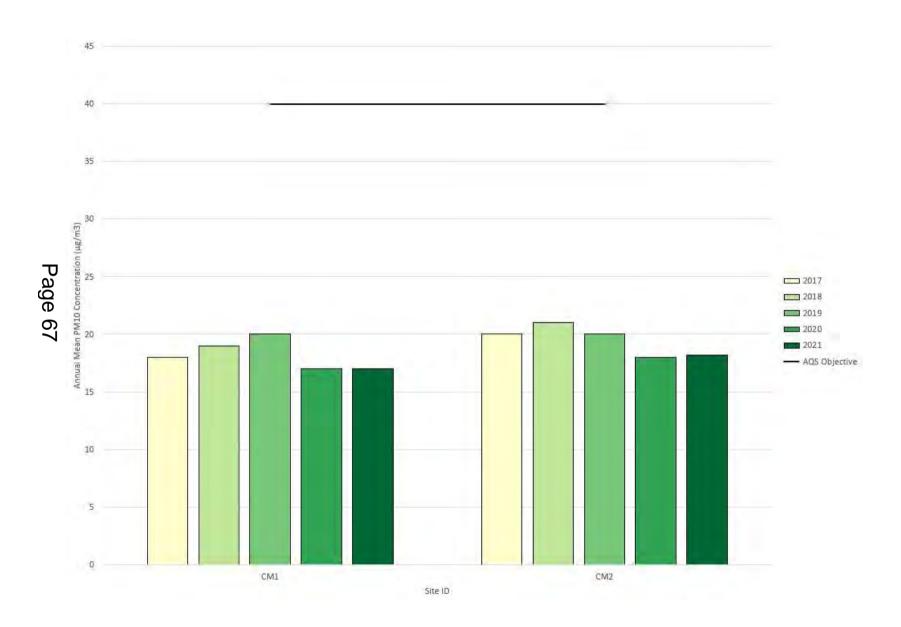


Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > $50\mu g/m^3$

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2021 (%) ⁽²⁾	2017	2018	2019	2020	2021
CM1	553603	156774	Urban	98%	98%	4	1	9	3	2
			Background							
CM2	553044	156690	Roadside	99%	99%	5	8	8	4	2

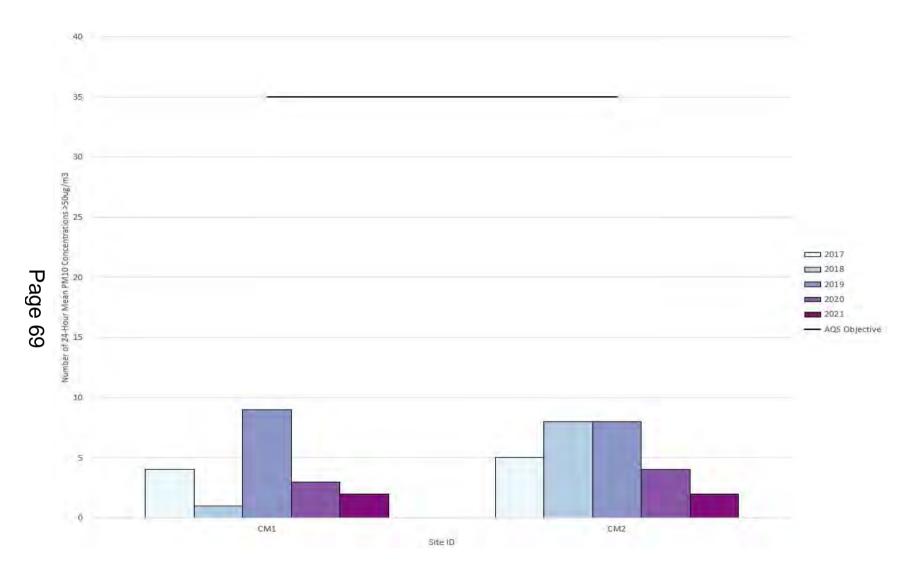
Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m³ have been recorded.

Exceedances of the PM_{10} 24-hour mean objective ($50\mu g/m^3$ 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%).

Figure A.5 – Trends in Number of 24-Hour Mean PM_{10} Results > $50\mu g/m^3$



Appendix B: Full Monthly Diffusion Tube Results for 2021

Table B.1 – NO₂ 2021 Diffusion Tube Results (μg/m³)

DT ID	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 (0.78)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT02	553157	154416	49.9	40.9	39.8	39.7	41.8	36.9	30.5	25.0	46.3	44.4	56.9	36.4	40.7	31.8	-	
DT03	552465	154165	17.4	12.1	10.6	10.0	8.4	7.7	6.9	5.2	9.7	9.8	14.5	11.5	10.3	8.0	-	
DT05	551414	156196	45.1	39.0		37.3	37.1	39.4	34.6	34.5		37.4	49.7	37.6	39.2	30.6	-	
DT06	551442	156159	38.7	37.7	33.3	49.2	34.8	40.5	39.6	25.7	43.5	37.0	43.8	37.8	38.5	30.0	-	
DT07	555096	156692	46.4	40.5	35.0	33.5	35.1	36.8	33.1	23.0	42.9	38.3	46.1	39.4	37.5	29.3	-	
DT08	554991	156728	36.9	27.6	22.6	27.0	23.0	25.5	19.6	19.8	27.0	22.4	36.3	24.8	26.0	20.3	-	
DT12	546813	155850	44.4	27.7	38.2	38.7	25.8	28.2	25.2	28.7	33.4	27.8	46.5	27.6	32.7	25.5	-	
DT13	552510	167704	40.4	26.8	28.5	34.6	30.1	25.0	22.0	20.9	36.1	24.8	36.2	30.1	29.6	23.1	-	
DT14	553107	167868	40.0	26.9	24.1	20.5		21.4	17.8	18.5	27.3	28.1	40.2	26.7	26.5	20.7	-	
DT23	553050	156625	44.5	36.9	36.2	42.5	33.5	38.1	33.2	23.9	43.7	33.0	45.1	34.5	37.1	28.9	-	
DT24	544418	153918	39.0	36.8	30.9	37.2	28.0	32.9	30.6	13.6	35.8	27.0	37.8	33.4	31.9	24.9	-	
DT25	544638	154041	40.9	37.3		47.7		40.3	36.4	28.7	44.8	34.4	43.1	38.1	39.2	30.6	-	
DT26	554218	167252		38.8	36.6	43.3	36.5	37.2	29.9	29.1	40.0	37.8	38.8	39.2	37.0	28.9	-	
DT27	553138	154260	40.3	29.6	35.1	29.6	23.3	26.7	25.4	23.2	31.7	33.0	44.2	31.6	31.1	24.3	-	
DT28	553044	154889	36.1	31.4	35.6	30.5	27.6	32.8	18.7	23.6	35.3	30.2		31.3	30.3	23.6	-	
DT29	553073	155030	33.5	28.2	22.3	26.6		22.0	20.1	16.4	27.1	24.4	31.6	28.7	25.5	19.9	-	
DT30	553019	156692	42.4	32.1	35.7	35.9	27.5	31.3	28.6	27.9	33.7	21.0	41.9	32.1	32.5	25.4	-	
DT31	553165	156686	54.4	43.9	47.3	44.8	39.4	45.9	39.4	36.3	54.0	44.8	62.2	45.6	46.5	36.3	33.4	
DT32	553147	156563	53.7	48.4	45.0		37.0	45.6	42.7	34.9	54.6	38.3	50.0	30.4	43.7	34.1	-	
DT33	555069	156709	45.6	37.9	36.3	46.0	35.8	39.6	34.3	27.5	41.4	32.9	45.8	34.9	38.2	29.8	-	
DT34	544802	154895	31.7	26.0	24.1	29.6	15.1	21.4	21.4	17.8	28.4	21.5	26.1	22.7	23.8	18.6	-	
DT35	554092	156797	36.6	35.5	31.3	27.4			31.5	26.7	40.9	36.7	36.4	36.7	34.0	26.5	-	
DT36	544598	154021	43.0	37.8	34.5	35.4	33.8	35.8	30.5	27.8		36.7	38.9	41.9	36.0	28.1	-	
DT39	551492	168695	44.5	41.1	37.7	40.9	26.7	42.5	33.9	29.6	43.5	37.3		36.6	37.7	29.4	-	
DT40	551579	168507	50.4	48.7	43.2	49.9	25.0	44.4	46.2	36.7	49.5	33.6	52.7		43.7	34.1	-	
DT41	552175	168162	43.8	38.4	33.8	35.0	34.9	35.5	31.5	25.2	44.3	38.3	51.7	41.9	37.9	29.5	-	
DT42	551383	156064	53.7	46.2	47.7	48.2	43.5	50.0	40.6	40.8	55.8	49.2		53.4	48.1	37.5	33.1	
DT43	551315	156381	43.3	31.6	34.2	27.9	28.4	28.0	24.9	21.8	33.5	32.7	42.0	35.0	31.9	24.9	-	
DT48	552867	154858	28.6	23.2	19.9		17.2	17.3	14.4	12.7	21.4	19.3	28.3	21.9	20.4	15.9	-	
DT49	553018	154655	28.8	28.5	22.8	25.6	18.8	22.3	19.2	15.4	28.2	22.5	31.3	22.2	23.8	18.6	-	
DT51	552761	155050			23.9	27.4	19.1	22.4	19.2	16.3	25.5	21.6	31.7	25.2	23.2	18.1	-	
DT52	552504	155271		31.4	30.1	25.7	26.2	31.9	17.7	17.1	35.9	27.9	34.4	29.0	27.9	21.8	-	
DT54	551224	156975	41.0	32.7	32.6	29.9	27.9	28.1	21.5	21.2	30.5	30.8	42.5	31.9	30.9	24.1	-	
DT71	548239	155355	37.3	31.9	32.8	27.6	29.3	29.0	23.9	20.7	31.5	29.9	36.9	32.9	30.3	23.6	-	

D	ΓID	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 (0.78)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
D	T74	550768	155584	43.3	35.2	31.7	31.8	28.9	31.0	29.4	23.5	34.6	30.3	41.0	31.0	32.6	25.5	-	
D	T76	551019	155714	44.4	31.3	36.7	36.5	35.0	36.0	35.9	31.0	40.5	35.6	50.0	32.5	37.1	29.0	-	
D	T77	551528	155967	37.7	32.4	28.6	39.7	35.5	34.6	28.2	25.5	40.9	34.9	38.1	32.2	34.0	26.5	-	
D	T81	553419	167614	36.3	27.9	26.2	24.3	21.3	21.0			26.5	12.3	30.7	24.4	25.1	19.6	-	
D	T83	550298	169627	50.5	33.3	45.9	37.8		44.2	37.8	36.1	33.5	46.4	58.2	42.7	42.4	33.1	-	
D	T84	546803	154999	35.9	31.6	33.4	31.8		31.4	35.3	23.5	34.9	31.0	34.8	30.3	32.2	25.1	-	
D	T85	547094	155099	47.0	39.1	39.2		34.4	41.5	28.5	27.7	43.9	35.4	51.0	36.9	38.6	30.1	-	
D	T86	550306	155595	38.2	33.4	28.8	28.9	28.3	25.1		20.9	36.1	30.6	41.9	30.2	31.1	24.3	-	
D	T87	551639	156334	58.7	46.6	47.4	43.6	49.9	51.2	38.6	38.0	52.6	45.9	58.2	46.8	48.1	37.5	24.5	
D	T88	552950	156578	35.3	27.1	28.6	29.6	25.4	26.7	24.3	19.7	32.1	26.2	31.4	24.1	27.5	21.5	-	
D	T90	553053	154708		33.4	27.3	36.9	29.0	32.8	26.9	21.5		0.6	35.7	30.8	27.5	21.4	-	
D	T93	550284	169743	39.0	27.8	22.0	30.7	21.7	24.1	21.1	18.0	28.3	23.3	29.5	26.0	26.0	20.2	-	
D	T94	550249	169573	34.7	34.7	29.8	28.8	26.6	28.6	24.9	17.8	33.4	27.7	36.2	26.6	29.2	22.7	-	
D	T95	550351	169490	35.4	35.8	34.6	34.4	28.8	30.5	28.0	20.9	37.2	27.8	42.9	33.5	32.5	25.3	-	
D	T96	552371	155346		31.9	29.7	27.2	24.6	25.7	24.9	16.7	32.3	32.6	37.2	33.0	28.7	22.4	-	
Ω D	T97	550555	168253		25.2	24.3	21.9	19.0	16.3	17.0	13.7	23.2	22.4	30.5	24.7	21.7	16.9	-	
D	T98	550962	157662		32.5	34.8	35.5	28.6	32.7		22.8	33.6	28.4	40.8	27.1	31.7	24.7	-	
7 B	C01	553607	156776	23.5	16.6	14.9	13.0	10.2	9.6	9.0	8.2	14.3	12.8	19.1	16.3	-	-	-	Triplicate Site with BC01, BC02 and BC03 - Annual data provided for BC03 only
B	C02	553607	156776	24.9	15.8	16.2	11.7	10.4		9.5	7.6	13.6	12.9	22.3	15.6	-	-	-	Triplicate Site with BC01, BC02 and BC03 - Annual data provided for BC03 only
В	C03	553607	156776	22.7	16.6	15.8	12.9	10.4	10.7	9.3	8.3	14.3	13.0	21.6	16.0	14.2	11.0	-	Triplicate Site with BC01, BC02 and BC03 - Annual data provided for BC03 only
В	C04	553045	156690	33.4	29.1	25.8	24.3	21.8	22.2	19.9	16.5	29.6	30.8	33.4	26.2	-	-	-	Triplicate Site with BC04, BC05 and BC06 - Annual data provided for BC06 only
В	C05	553045	156690	29.8	28.9	27.4	24.8	22.6	23.1	21.1	18.9	30.1	27.4	36.5	26.9	-	-	-	Triplicate Site with BC04, BC05 and BC06 - Annual data provided for BC06 only
В	C06	553045	156690	31.7	28.3	24.7	23.3	20.1	22.8	22.0	17.5	28.4	27.2	32.7	27.6	26.0	20.3	-	Triplicate Site with BC04, BC05 and BC06 - Annual data provided for BC06 only

- ☑ All erroneous data has been removed from the NO₂ diffusion tube dataset presented in Table B.1.
- ☑ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16.
- ☐ Local bias adjustment factor used.
- ☑ National bias adjustment factor used.
- ☑ Where applicable, data has been distance corrected for relevant exposure in the final column
- ☑ Sevenoaks District Council confirm that all 2021 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.

Notes:

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

 NO_2 annual means exceeding $60\mu g/m^3$, 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.

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

New or Changed Sources Identified Within Sevenoaks District Council During 2021
Two large, proposed developments have been identified as potentially having an impact on air quality within the district. These are:

- Development of Sevenoaks Quarry to include 950 residential dwellings, 200 residential institutional units, business, retail, leisure and sports uses, and a new primary school.
- Residential development at Bevan Place, Swanley.

Additional Air Quality Works Undertaken by Sevenoaks District Council During 2021 Sevenoaks District Council has not completed any additional works within the reporting year of 2021.

QA/QC of Diffusion Tube Monitoring

Sevenoaks District Council's diffusion tubes were supplied and analysed by SOCOTEC Didcot during 2021, using the 50% Triethanolamine (TEA) in acetone preparation method. SOCOTEC's laboratory is UKAS accredited, participating in the AIR-PT Scheme (a continuation of the Workplace Analysis Scheme for Proficiency (WASP)) for NO₂ tube analysis and the Annual Field Inter-Comparison Exercise. These provide strict performance criteria for participating laboratories to meet, thereby ensuring NO₂ concentrations reported are of a high calibre. The lab follows the procedures set out in the Harmonisation Practical Guidance. In the latest available AIR-PT results, AIR PT ARO42 (January – March 2021), SOCOTEC scored 100%. Currently no additional results have been published for 2021. The percentage score reflects the results deemed to be satisfactory based upon the z-score of < ± 2.

20 of the 23 local authority co-location studies which use tubes supplied by SOCOTEC Didcot with the 50% TEA in acetone preparation method in 2021 were rated as 'good', with 3 being rated as 'poor', as shown by the <u>precision summary results</u>. This precision reflects the laboratory's performance and consistency in preparing and analysing the tubes, as well as the subsequent handling of the tubes in the field. Tubes are considered to have a

"good" precision where the coefficient of variation of duplicate or triplicate diffusion tubes for eight or more monitoring periods during a year is less than 20%.

Monitoring in 2021 had been largely completed in adherence with the 2021 Diffusion Tube Monitoring Calendar, whereby most changeovers were completed within ±2 days of the specified date. The only exception to this is the June monitoring period, whereby the tubes were deployed and collected 6 days early. Despite this, the annual averages have been calculated using the LAQM Diffusion Tube Data Processing Tool (DTDPT) which calculates a time-weighted average of when the tubes have been exposed rather than being calculated based on the discrete individual monthly periods.

Diffusion Tube Annualisation

All diffusion tube monitoring locations within Sevenoaks District Council recorded data capture of 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2022 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. LAQM.TG16 provides guidance with regard to 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/NO₂ continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Sevenoaks District Council have applied a national bias adjustment factor of 0.78 to the 2021 monitoring data (from the <u>National Diffusion Tube Bias Adjustment Factor</u>

<u>Spreadsheet</u>, version 03/22). This factor is based on 23 co-location studies, whereby 20 were reported to have good data precision. A summary of bias adjustment factors used by Sevenoaks District Council over the past five years is presented in Table C.1.

Sevenoaks District Council operates two continuous monitoring co-location sites at Greatness Park and Bat & Ball, part of the London Air Quality Network. A combined local

Agenda Item 7

bias adjustment factor has been utilised in previous years and has been calculated using the LAQM DTDPT for the 2021 monitoring period (0.81). Details of the combined local factor are presented in Table C.2. In 2021 the continuous monitor at Greatness Park had poor overall data capture due to 5 monthly monitoring periods having <75% data capture. As a result, it was decided to not use the Greatness Park co-location in the combined factor. The local factor calculated at Bat & Ball was 0.77. It was therefore decided that the National Factor of 0.78 should be applied, as this was slightly more conservative than the Bat & Ball factor, whilst remaining in line with the bias adjustment factors applied in previous years.

Table C.1 - Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2021	National	03/22	0.78
2020	Local	-	0.78
2019	National	06/20	0.75
2018	Local	-	0.80
2017	Local	-	0.83

NO₂ Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO₂ concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO₂ fall-off with distance calculator available on the LAQM Support website. Where appropriate, non -automatic annual mean NO₂ concentrations corrected for distance are presented in Table B.1.

Fall-off-with-distance calculations were required at 3 monitoring sites in 2021: DT31, DT42 and DT87. This was due to these sites reporting a bias adjusted annual average greater than $36\mu g/m^3$ and not being located at sites of relevant exposure, as required per LAQM.TG (16). This was calculated using the LAQM DTDPT, with the details presented in Table C.3. Following fall-off-with-distance calculation it is predicted that concentrations at the nearest relevant exposure to these 3 sites is below $36\mu g/m^3$.

QA/QC of Automatic Monitoring

Data management and local site operator (LSO) duties for both the automatic monitoring locations within Sevenoaks are carried out by the Environmental Research Group at Imperial College London. As part of this, routine calibrations of instruments are carried out every two weeks.

The data presented within the ASR for the 2021 monitoring year is fully ratified, and both live and historic data is available through the <u>LAQN website</u>.

PM₁₀ and PM_{2.5} Monitoring Adjustment

The TEOM PM₁₀ analysers utilised at both Greatness Park and Bat & Ball have been converted to reference equivalence using the volatile correction method. This is carried out by the data managers prior to being presented on the LAQN website.

Automatic Monitoring Annualisation

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

NO₂ Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO₂ concentration at the nearest location relevant for exposure has been estimated using the NO₂ fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO₂ concentrations corrected for distance are presented in Table B.1.

No automatic NO₂ monitoring locations within Sevenoaks District Council required distance correction during 2021.

Table C.2 - Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1 Greatness Park	Local Bias Adjustment Input 2 Bat & Ball
Periods used to calculate bias	7	11
Bias Factor A	0.85 (0.79 - 0.91)	0.77 (0.72 - 0.83)
Bias Factor B	18% (10% - 26%)	30% (21% - 39%)
Diffusion Tube Mean (μg/m³)	13.2	26.5
Mean CV (Precision)	3.9%	4.4%
Automatic Mean (μg/m³)	11.2	20.4
Data Capture	96%	98%
Adjusted Tube Mean (μg/m³)	11 (10 - 12)	20 (19 - 22)
Overall Diffusion Tube Precision	Good Overall Precision	Good Overall Precision
Overall Continuous Monitor Data Capture	Poor Overall Data Capture	Good Overall Data Capture

Table C.3 – NO₂ Fall off With Distance Calculations (concentrations presented in μg/m³)

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
DT31	2.5	4.0	36.3	11.5	33.4
DT42	2.5	5.0	37.5	11.8	33.1
DT87	2.5	19.5	37.5	11.8	24.5

Appendix D: Maps of Monitoring Locations and AQMAs

Figure D.1 - Map of Monitoring Locations and AQMAs near Swanley

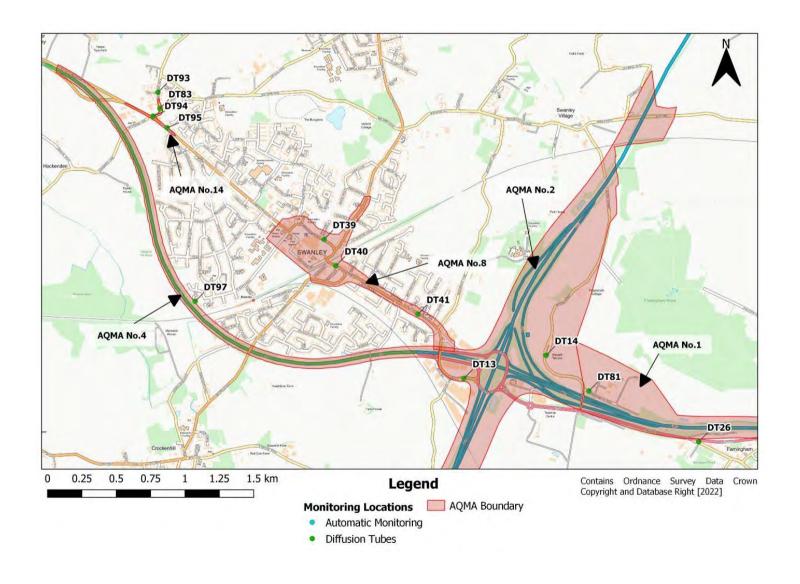


Figure D.2 - Map of Monitoring Locations and AQMAs near Westerham and Brasted

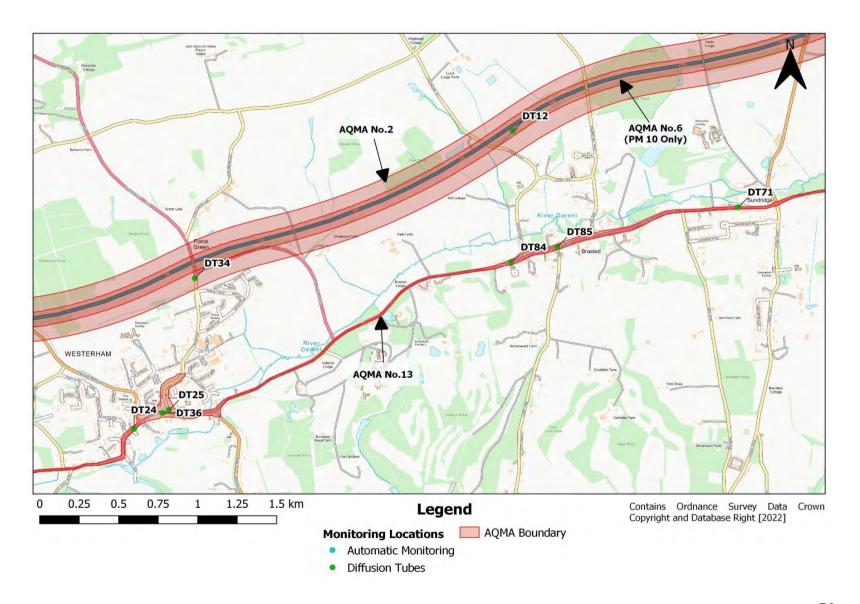


Figure D.3 - Map of Monitoring Locations and AQMAs near Riverhead and Bat & Ball

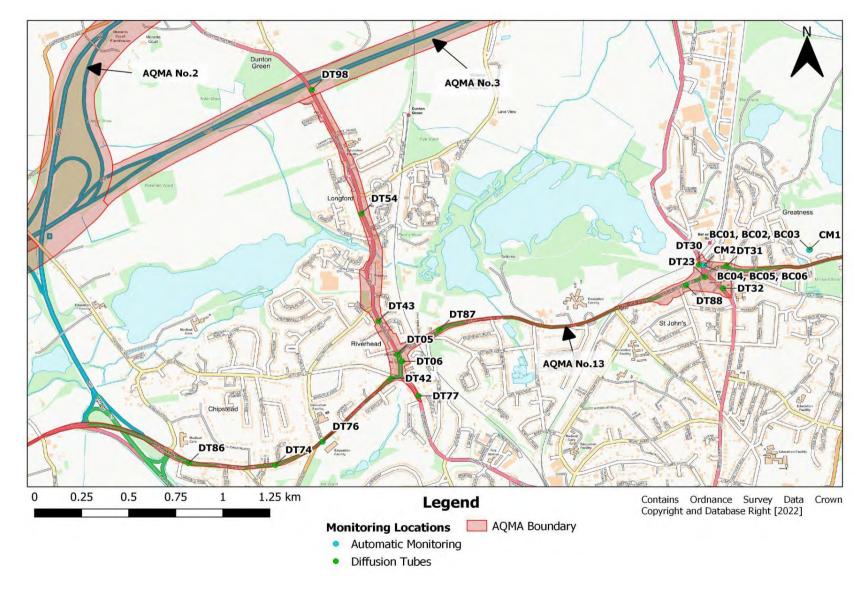


Figure D.4 - Map of Monitoring Locations and AQMAs near Seal

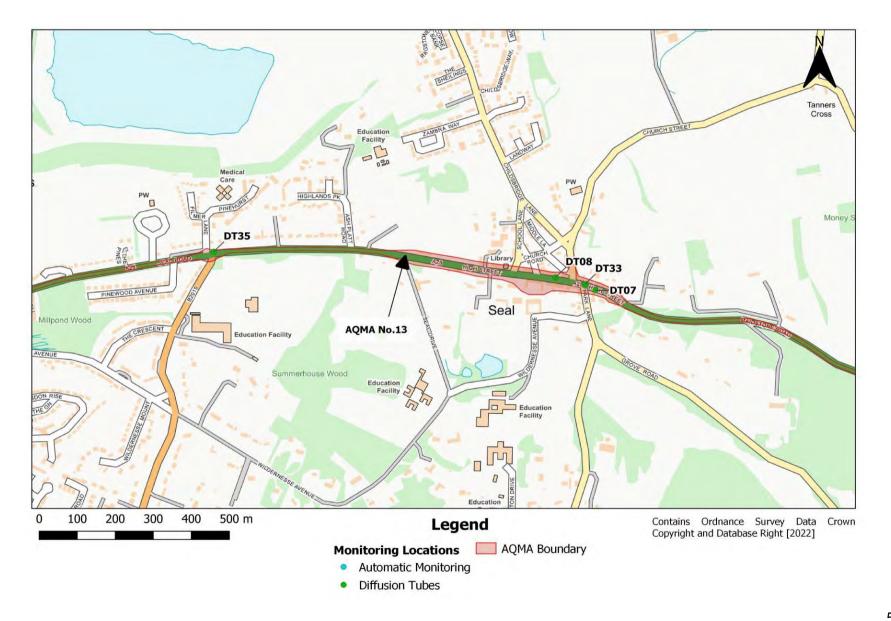


Figure D.5 - Map of Monitoring Locations and AQMAs near Sevenoaks

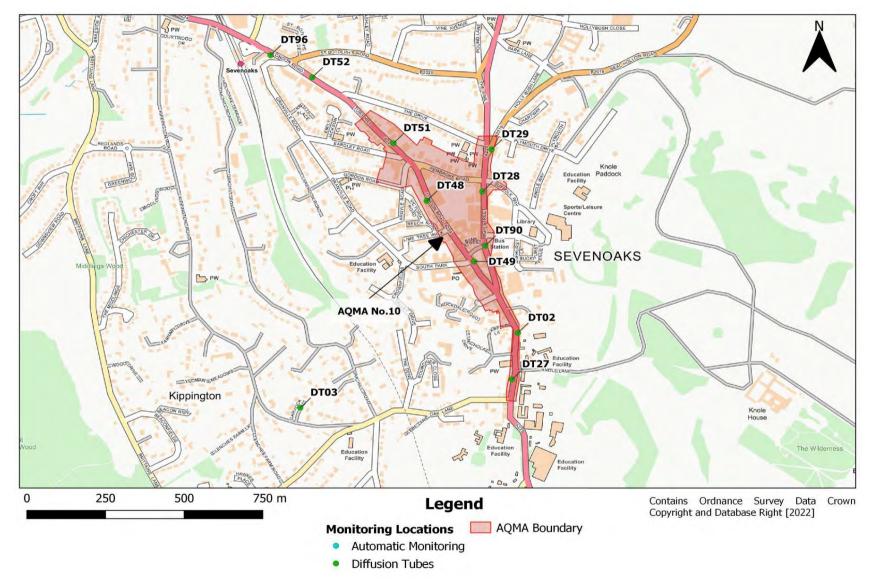
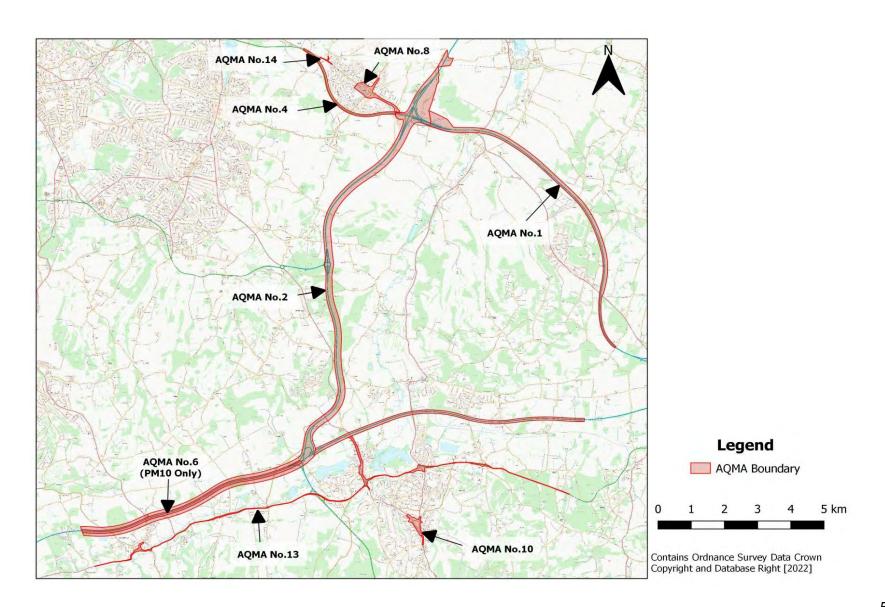


Figure D.6 - Map of AQMAs Declared by Sevenoaks District Council



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England 7

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO₂)	200μg/m³ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO ₂)	40μg/m³	Annual mean
Particulate Matter (PM ₁₀)	50μg/m³, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM ₁₀)	40μg/m³	Annual mean
Sulphur Dioxide (SO ₂)	350μg/m³, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO ₂)	125μg/m³, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO ₂)	$266\mu g/m^3$, not to be exceeded more than 35 times a year	15-minute mean

_

 $^{^7}$ The units are in micrograms of pollutant per cubic metre of air (µg/m³).

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'					
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					
ASR	Annual Status Report					
BAT	Best Available Techniques					
BPC	Brasted Parish Council					
CO ₂	Carbon Dioxide					
Defra	Department for Environment, Food and Rural Affairs					
EU	European Union					
EV	Electric Vehicle					
FDMS	Filter Dynamics Measurement System					
HGV	Heavy Goods Vehicle					
IPPC	Integrated Pollution Prevention and Control					
KCC	Kent County Council					
LAQM	Local Air Quality Management					
LEV	Low Emission Vehicle					
LGV	Light Goods Vehicle					
NO ₂	Nitrogen Dioxide					
NO _x	Nitrogen Oxides					
O ₃	Ozone					
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					
SDC	Sevenoaks District Council					
SPC	Seal Parish Council					
STC	Sevenoaks Town Council					

Agenda Item 7

Abbreviation	Description
TEOM	Tapered Element Oscillating Microbalance
UTC	Urban Traffic Control
WTC	Westerham Town Council

References

- Local Air Quality Management Technical Guidance LAQM.TG16. April 2021.
 Published by Defra in partnership with the Scottish Government, Welsh Assembly
 Government and Department of the Environment Northern Ireland.
- Local Air Quality Management Policy Guidance LAQM.PG16. May 2016. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Sevenoaks District Council AQAP 2022
- Sevenoaks District Council 2021 Annual Status Report
- Sevenoaks District Council 2019 Annual Status Report

Agenda Item 7 To find out more, please contact us:

- t 01732 227000
- e air.quality@sevenoaks.gov.uk
- w sevenoaks.gov.uk/airquality

Sevenoaks District Council, Council Offices, Argyle Road, Sevenoaks, Kent TN13 1HG

Visit our Sevenoaks offices:

Monday to Thursday, 8.45am to 5pm Friday 8.45am to 4.45pm

This publication is available in large print and can be explained in other languages by calling 01732 227000



sdc_newsdesk



Sevenoaks District Council Official



sevenoaksdistrictcouncil



Sevenoaks District Council

FLEET REPLACEMENT PROGRAMME - 2023 - 2028

Cleaner & Greener Advisory Committee - 18 October 2022

Report of: Deputy Chief Executive & Chief Officer - Finance & Trading

Status: For Decision

Also considered by: 10 November 2022 - Cabinet

Key Decision: Yes

Executive Summary: This report updates the Cleaner & Greener Advisory Committee on the fleet requirements for statutory waste collection and associated services within Direct Services over the next 5 years.

This report supports the Key Aim of: a green and healthy environment

Portfolio Holder: Cllr. Margot McArthur

Contact Officer: Trevor Kennett, ext. 7407

Adrian Rowbotham, Ext. 7153

Recommendation to Cleaner & Greener Advisory Committee: That the 5-Year Fleet Replacement Programme 2023-2028 as detailed in this report be considered by the Committee, and its views be submitted for consideration by Cabinet.

Recommendation for Cabinet: That the 5-Year Fleet Replacement Programme 2023-2028 proposal along with any proposals submitted by the Cleaner & Greener Advisory Committee be considered and approved.

Reason for recommendation: Given the uncertainty from central Government regarding the new Environment Act 2021 and the funding for local Government waste collection resources and the ageing fleet it is urgent that a shorter 5-year plan is approved.

Introduction

This proposed fleet replacement plan (2023-2028) provides a framework for the procurement and management of our fleet vehicles operated by Sevenoaks District Council as the statutory Waste Collection Authority and the Litter Authority.

- The current fleet comprises of 101 vehicles and these assets are critical for delivering statutory and income-generating services, which include collection of waste and recycling, maintenance of the roads and public footpaths, parking control, commercial waste collection, pest control services, bulky waste collection, clinical collections, sack deliveries, and garden services.
- All vehicles must be fit for purpose and need to be managed effectively to enable us to provide the best possible service and protect the health and safety of staff, our customers and the wider community. They must also offer excellent value for money.
- When procuring new vehicles over the next 5-years, all options will be explored and assessed and the best option, based on the whole life costing and operational use as well as environmental suitability will be chosen. Any procurement for new vehicles or equipment will also take into account new environmentally sustainable technologies, such as electric, hydrogen and hydro-fuel cell capabilities.
- The legal and statutory responsibility for management of vehicles sits with the Transportation & Depot Operations Manager as the accredited professional competent person, as recognised by the Traffic Commissioner. As an operator of a large fleet of vehicles it is a legal requirement to have a qualified Transportation Manager on site in a full time position.

Background

- In 2012, a 10-year vehicle replacement projection was established; the plan calculated that we needed around £5.4m to replace the fleet for the next 10 years. This plan had fixed sums per annum, and in 2012 at the start of the plan, the cost of a new split-load refuse vehicle was estimated at around £125,000. From 2012, the Council has relied on purchasing a mixture of new and used vehicles within the allocated budget set for that year.
- Since the start of the 2012 plan, the cost of new split-load refuse vehicles now stands at £245,000, so our strategy for procurement needs to change to ensure the funds available are able to sustain a suitable fleet to carry out our services, and grow our paid for services.

Current Vehicle Fleet

The current vehicle fleet has an average working use age of 7 years. However, the oldest vehicle in service is a 2003 Ford Ranger. The Council has through effective maintenance, and refurbishment plans, maximized the current vehicles lifespan, this coupled with the procurement of second-hand vehicles has been a short term success. However, the short term gain of fixing gaps in the fleet profile now caught up with us, with the fleet now being extremely old with some vehicle's failing. We therefore need a new approach to be considered to take us forward that falls within the Council's 10 year balanced budget.

Current Planned and Delivered Purchases

- 9 For 2020-2021 we purchased three new Refuse Collection Vehicles (RCV's) via the TPPL framework (Procurement partnership).
- 10 For 2021-2022 we have ordered via the TPPL Framework four 12 tonne narrow RCV's for our rural waste rounds. These are due to be delivered in September 2022.

A new approach

- To ensure that we replace our oldest and most vulnerable vehicles quickly, while also taking into account delivery lead times, for 2023-2024 we will be leasing five 26tonne RCV's. These will be in service from June 2023
- The lease will run for three years and will cost £324,000 per year for all five vehicles and will be paid for from the current Vehicle Reserve allocation for years 2023-24, 2024-25 and 2026-27.
- 13 In 2027-2028 the five leased vehicles will be purchased at a cost of £625,000.
- In 2028-2029 further vehicles will be identified for replacement and leased in the same way.
- Over these 5-years the balance of the Vehicle Reserve will be used to purchase smaller fleet vehicles, which will be electric whenever possible.

Government requirements and funding

The implications of the new legislation (Environment Act 2021) is that by 2023 all local authorities will have further statutory collection requirements placed on them. This will also have an impact on vehicle procurement lead times as all local authorities will need to purchase new and different types of waste vehicles. This Act will have a major effect on the amount of vehicles required and the additional funding that will be provided by Government.

Our new approach to leasing our Operator Licence Fleet will enable these changes to be managed and an understanding on what central Government funding will be given. It would not be prudent to purchase large numbers of vehicles before this information and allocation is known. However, we also need to be mindful of delivery lead times and the ageing fleet we currently have, so not replacing is not an option at this stage.

Finance

- The current capital purchase price of a Mercedes Econic 2630 6x2 Rear-steer Low-entry chassis cab with a Euro 6 engine is estimated at £245,000 per vehicle. If we stayed within our current budget this would mean that we would only be able to purchase two vehicles. If ordered now the lead time for delivery would also not be until September 2023.
- Leasing costs for the same Mercedes Econic vehicle over a 36 month period is £5,400 per vehicle per month. The yearly leasing costs for 5 new vehicles would be £324,000. If ordered today delivery would be in June 2023.

Technology

- The operating context for vehicle fleets is changing because of concerns over poor air quality resulting from internal combustion engine vehicle emissions, awareness of the need to decarbonise transport to tackle climate change and the availability of electric vehicles, with potential for lower total cost of ownership.
- There are also new regulations to consider which deal with ultra-low emissions zones with access charges for more polluting vehicles and the prohibition of certain vehicle types (e.g. diesel) from city centres.
- As a result we are looking at commitments to electrify our smaller fleets over the next 5-years. However, electric and hydrogen vehicle technology is fundamentally different to existing vehicles, requiring new operational and commercial approaches.
- The current cost of a Mercedes eEconic refuse vehicle with body and DC charging point is £507,000 each.
- In regards to hydrogen refuse vehicles the cost is around £700,000 each with infrastructure for a hydrogen fuel tank at the depot.
- Therefore these options are not economically viable with the budget currently available.

Key Implications

Financial

All budget and financial issues are detailed in the main report.

Legal Implications and Risk Assessment Statement.

Sevenoaks District Council has statutory duties requiring the authority to provide public services, such as litter collection, waste and recycling collection.

Equality Assessment

The decisions recommended through this paper have a remote or low relevance to the substance of the Equality Act. There is no perceived impact on end users.

Net Zero Implications

Members are reminded of the Council's stated ambition to be Net Zero with regards to carbon emissions by 2030. The decisions recommended in this paper directly impact on this ambition. The impact has been reviewed and there will be a slight decrease on carbon emissions produced in the district as a result of this decision.

This is due to more modern and efficient large refuse vehicles at Euro 6 standards and the replacement of the small fleet with electric vehicles.

Conclusions

Leasing new replacement vehicles though leasing arrangements is the best solution over the next five years, so that Government funding information is known and ageing vehicles are replaced urgently.

Appendices None

Background Papers None

Adrian Rowbotham

Deputy Chief Executive and Chief Officer

- Finance & Trading



BRIEFING REPORT - SWANLEY SUNDAY MARKET PILOT UPDATE

Cleaner & Greener Advisory Committee - 18 October 2022

Report of: Deputy Chief Executive & Chief Officer - Finance & Trading

Status: For Decision

Key Decision: No

Executive Summary: This report updates members on the 6-month pilot for an additional Sunday street market in Swapley.

additional Sunday street market in Swanley.

This report supports the Key Aim of: Building on the District's thriving economy through the regeneration of our market towns, and by enhancing both the visitor and rural economies.

Portfolio Holder: Cllr. Margot McArthur

Contact Officer: Trevor Kennett, Ext. 7407

Adrian Rowbotham, Ext. 7153

Recommendation to Cleaner & Greener Advisory Committee: That the additional Sunday market pilot update report be noted and the officer recommendation be considered by the Committee, and its views be submitted for consideration by Cabinet.

Recommendation to Cabinet: That the additional Swanley Sunday market extension request along with any proposals submitted by the Cleaner & Greener Advisory Committee be considered and approved.

Reason for recommendation: The pilot for an additional Sunday street market in Swanley, has been in the main successful and is slowly assisting in the generation of additional income for the Council and has helping to build on the District's thriving economy through the regeneration of our market towns.

Introduction

- In its meeting on 5 January 2022 the Cleaner & Greener Advisory Committee resolved that it be recommended to Cabinet that the proposal for an additional Sunday market, be endorsed subject to the following comments made by the Advisory Committee:
 - a) the market should be tightly managed

- b) the public and Swanley Town Council should be rigorously consulted
- c) Following completion of the pilot, a report should be brought to the Committee with an update.
- On 13 January 2022 The Council's Cabinet resolved that taking into consideration of the views of the Cleaner & Greener Advisory Committee, the additional Sunday Street Market proposal be endorsed.
- The Council's current street market contract is managed by a specialist markets contractor (Bray Associates) who deliver both the Wednesday and pilot Sunday street markets, which both operate from the Shopping Centre, Swanley.
- The initial Sunday market pilot was to offer an additional Sunday street market at the same location as the existing Swanley market. This would initially be trailed as a 6-month pilot with the potential of either extending the pilot if successful or adding it to the street market tender from March 2023.

Location

- eVolve Estates, based in London operate and own the Shopping Centre at Swanley. eVolve Estates have formally approved that the Council can use its shopping centre for the Sunday market at this location.
- eVolve Estates and the Council have formally agreed a lease cost for the Sunday market at £50,000 per annum or £25,000 per 6 month period, depending on any extension to the pilot.
- A new lease, as the previous lease expired on 31 March 2022 with the provisions for a Wednesday and Sunday street market has been agreed with eVolve estates in principle.

Sunday Market Pilot Update

- Bray Associates commenced the proposed 6-month pilot on Sunday 3rd April 2022 missing any Sunday dates agreed with Swanley Town Council. They have been responsible for the total management of the Sunday market, including publicity, marketing, operations and litter management.
- The ethos of the Sunday market pilot has been to set a mix of different types of market traders that would see traditional traders, along with a food market offering, local produce, and farmer's market like traders. Brays have encouraged through free start up rents to attract local traders, such as crafts and locally produced goods. They have also given opportunities to young entrepreneurial traders, such as start-up and are looking to bring on social enterprise businesses.

- Given the short time the pilot market has been operating and the lengthy time it can take to attract established traders week in, week out the Sunday pilot has been successful.
- 11 From user research completed by Bray's and business user feedback completed by eVolve Estates it has been confirmed that market users and the local businesses in the area are very supportive, as currently Wednesday is their best trading day of the week, due in the main to the large footfall the market brings. Shops are now looking to open on a Sunday, given the growing Sunday market.

Management of the Market pilot

- The Business Development Team with Direct Services have been monitoring the Sunday market pilot with planned meetings with the contractor, local businesses and the site owners, along with un-announced visits on a Sunday.
- 13 The Head of Direct Services has dealt with a small number of minor complaints about the market set up and operation, which have all been discussed with the contractor and resolved.

Community engagement

- On-going engagement has taken place with Swanley Town Council constantly during the pilot and a grant of £25,000 has been paid to the town council, as agreed by Cabinet to be spent on any measures needed to mitigate any concerns raised from the Sunday market.
- A public survey has been undertaken to engage with local people about the Sunday market pilot and to help evaluate the additional Sunday market and its operation under the pilot. The survey ran from 16 August to 16 September 2022.
- The survey received 699 responses from members of the public with over 79% stating that they had visited the Sunday market. 85% of respondents were from a Swanley postal code. The results were generally split 50/50 on whether the market was a good idea, good value, good selection of goods to the opposite not needed or not good value and that it was just a copy of the Wednesday market.
- 40% of respondents thought the Sunday market had a positive effect, 39% thought it had a negative effect on the area. 21% said it had no effect at all.
- On the question 'Would you like the Sunday market to continue at the end of the trial period in October 2022' all respondents that had visited the Sunday market 55% said yes and 45% said no.

Recommendation

- 19 Given the general split of opinion on whether the Sunday market is successful or needed, that the pilot for the additional Sunday street market is extended for a further 6-months from October 2022 to the end of March 2023 to allow more time to develop the market offering.
- The market stall holder mix will improve shortly as the boot fair season has finished and with the lead-up to Christmas this extension will give the market pilot an opportunity to develop further.
- A full procurement tender exercise is undertaken for the Swanley street markets to operate on Wednesday and Sunday's as the current Wednesday market contract ends on the 31 March 2023.

Key Implications

Financial

Since the start of the pilot in April 2022 £105,000 has been received by the Council in additional income.

Legal Implications and Risk Assessment Statement.

None identified.

Equality Assessment

The decisions recommended through this paper have a remote or low relevance to the substance of the Equality Act. There is no perceived impact on end users.

Net Zero Implications

Members are reminded of the Council's stated ambition to be Net Zero with regards to carbon emissions by 2030. The decisions recommended in this paper directly impact on this ambition. The impact has been reviewed and there will be a slight increase on carbon emissions produced in the district as a result of this decision.

An additional Sunday market in Swanley would see a potential increase to local traffic in the area, which could slightly increase carbon emissions. Additional waste would be produced, which would need to be removed and disposed of correctly.

Conclusions

Other than monitoring the management of the market, there is no resourcing issues for the Council to be concerned about. This additional income would significantly assist the Council in balancing the budget.

Agenda Item 9

Appendices	None
Background Papers	None
Adrian Rowbotham	
Deputy Chief Executive and Chief Officer - Finance & Trading	



PARKING TERMINAL UPGRADE OPTION REPORT

Cleaner & Greener Advisory Committee - 18 October 2022

Report of: Deputy Chief Executive & Chief Officer - Finance & Trading

Status: For Decision

Also considered by: 10 November 2022 - Cabinet

Key Decision: Yes

Executive Summary: This report updates the Cleaner & Greener Advisory Committee on the essential upgrade to the districts 93 x Flowbird (was Parkeon) parking payment machines to counter the National phasing out of the 3G network, with an simultaneous opportunity to convert the machines to allow contactless card payments.

This report supports the Key Aim of: Building on the District's thriving economy through the regeneration of our market towns, and by enhancing both the visitor and rural economies.

Portfolio Holder: Cllr. Margot McArthur

Contact Officer: Trevor Kennett, ext. 7407

Adrian Rowbotham, Ext. 7153

Recommendation to Cleaner & Greener Advisory Committee: That the parking terminal upgrade options as detailed in this report be considered by the Committee, and its views be submitted for consideration by Cabinet.

Recommendation for Cabinet: That the parking terminal upgrade options proposal along with any proposals submitted by the Cleaner & Greener Advisory Committee be considered and option 2 be approved.

Reason for recommendation: The National phasing out of the 3G network will ultimately make the current suite of parking machines in our district redundant if not upgraded. Also the risk of not being able to source a viable cash collection service provider and a switch towards a more cashless based society has accelerated through the pandemic.

Introduction

- Sevenoaks District Council owns and operates 93 pay and display parking terminals, which are all are supplied by Flowbird. https://www.flowbird.group/smartcity/uk/
- The districts terminals are all currently cash only payment machines, are predominantly older units, and will ultimately require replacing through a procurement plan.
- 3 60 of the current machines are the Strada Evolution models, with 33 being the older version of Strada PAL terminals. There is a mixture of mains power and solar powered units.
- 4 All UK networks have committed to closing their 3G networks, with current supplier Vodafone running a sunset service until full closure in 2023. Future suppliers focus will be on strengthening the 4G and 5G networks. GOVT UPDATE LINK.
- Early in 2022 saw the sudden demise of the Kent Consortium cash collection contractor CSS, who ceased trading with immediate effect leaving Kent Councils with serious physical cash collection issues. Only one viable alternative was found by the Consortium, G4S, at a higher cost, and is the current contracted service for Sevenoaks District Council.
- 6 By upgrading our parking payment machines to 4/5G technology and introducing payments by card we will sustainably reduce our costs on cash collection.
- 7 The pandemic has accelerated the demand for cashless payment options, and the service must adapt to accommodate this growing demand through offering of a cashless card payment option.

Options

- Option 1 4G Upgrade: Install all machines with 4G modem & antenna kits. A software update would be required for every tariff in the district, estimated at 14, with copies to other terminals on the same tariff at significantly reduced price. Engineer and labour costs are fixed, and indicate an estimated 47 hours of work involved.
- 9 Option 2 Contactless Payment + 4G Upgrade Combination Install A1000 contactless pads, extended keyboards and all supporting parts to all terminals. Install all machines with 4G modem & antenna kits. A software update would be required for every tariff in the district, estimated at 14, with copies to other terminals on the same tariff at significantly reduced price. Engineer and labour costs are fixed, and indicate an estimated 186 hours of work involved.

Service considerations

- Terminals will switch back from 3G to 2G when it is phased out in 2023, 2G network is currently scheduled to be active until 2033. The implications in terms of data transfer issues from terminal to back office parking software over 2G are currently uncertain. Machines will not be able to offer a cashless payment option. The Councils stock of terminals are becoming aged and ultimately could become redundant, with inevitable higher maintenance costs and increased non-functioning.
- The replacement models would be the next generation of digital touchscreen Cale Webterminal (CWT) technology.
- The delivery of a modern, cashless payment option on all the Council owned parking terminals would be viewed as a positive investment of the on-street parking income. Retaining the option to also accept cash payments for the foreseeable future will be seen as a sensible step.
- 13 The shift of over 50% of current customers to contactless with immediate effect in our car parks will enable us to heavily cut back on the volume of cash collections, saving money and reducing risk.

Recommendation

Given the need to upgrade the parking payment machines away from 3G and to offer customers contactless card payment choices, that Option 2 is approved.

Key Implications

Financial

It should be noted that options 1 & 2 will be funded from the ring-fenced parking decriminalisation budget (Decrim) from on-street parking fees, enforcement fines and charges income.

Option	Description	Cost
1	4G Upgrade only	£35,000
2	4G Upgrade with an additional contactless car payment upgrade	£102,000

It should be noted that the ArchiPEL platform charge for card payments has been agreed at 8% per transaction. Flowbird processes payment chains

worldwide through ArchiPEL, its centralised acceptance payment platform, allowing easier evolutions and better reporting. Flowbird is among the most experienced providers of worldwide payment solutions.

Legal Implications and Risk Assessment Statement.

Doing nothing may ultimately lead to redundancy of units without notice, and large maintenance costs with downtime affecting income. The Lack of guarantee whether the 2G network will cope with the demand when 3G is switched off in data handling from unit to the office.

Equality Assessment

The decisions recommended through this paper have a remote or low relevance to the substance of the Equality Act.

Net Zero Implications

Members are reminded of the Council's stated ambition to be Net Zero with regards to carbon emissions by 2030. The decisions recommended in this paper directly impact on this ambition. The impact has been reviewed and there will be a slight decrease on carbon emissions produced in the district as a result of this decision.

Reducing by around 50% of physical cash collection visits to each machine by vans every year. This will continue to reduce annually.

Appendices None

Background Papers None

Adrian Rowbotham

Deputy Chief Executive and Chief Officer Finance & Trading

Cleaner and Greener Advisory Committee - 18 October 2022 - Work Plan (as at 03/10/22)

18 October 2022

- Net Zero 2030 Update
- Air Quality Status Report Update
- Fleet Replacement Programme 2023 2028
- Briefing Report CCTV & West Kent Hub Update
- Food Service Standards Agency Report
- Briefing Report Swanley Sunday Market Pilot Update
- Parking Terminal Upgrade Option Report

6 December 2022

- Net Zero 2030 Update
- Budget 2023/24: Review of Service Dashboards and Service Change Impact Assessments (SCIAs)
- Scrap Metal Dealer Licence Fees 2023/24

•

14 March 2023

- Net Zero 2030 Update
- _



BRIEFING REPORT - CCTV & WEST KENT HUB UPDATE

Cleaner & Greener Advisory Committee - 18 October 2022

Report of: Deputy Chief Executive & Chief Officer - Finance & Trading

Status: For Information

Key Decision: No

Executive Summary: This report updates members on a recently undertaken technical report on the Council's CCTV system and options to create a multi-council West Kent Hub.

This report supports the Key Aim of: Safe Communities: A safer place to live, work and travel.

Portfolio Holder: Cllr. Margot McArthur

Contact Officer: Trevor Kennett, ext. 7407

Adrian Rowbotham, Ext. 7153

Recommendation to Cleaner & Greener Advisory Committee: That the CCTV & West Kent Hub report is noted and that officers further consider with our partners the options outlined in the technical report.

Reason for recommendation: The Council's CCTV service plays a critical role in making our communities and public spaces safer, they also assist the police evidentially in preventing, reducing and detecting crime.

Introduction

Sevenoaks District Council (SDC) maintains a system of 144 cameras. The majority transmit their data, either via cables (owned or hired) or over an encrypted internet connection, to the SDC CCTV control room. Images can be shared by operators, with the Police. The majority of the 144 cameras have Pan Tilt and Zoom (PTZ) capacity. The CCTV system and equipment dates back to 1997 when Central Government funding was provided to encourage camera systems nationwide, though most of the original cameras have subsequently been repaired or replaced, however the transmission operating system remains as originally supplied and is analogue in operation, which is no longer supported.

- On 14 April 2016 the Legal & Democratic Services Advisory Committee considered a report provided for information that had been considered by the Direct & Trading Advisory Committee on 12 April 2016 and would be considered by Cabinet on 21 April 2016. The report provided an update on the feasibility of merging the Sevenoaks District Council (SDC) and the Tunbridge Wells Borough Council (TWBC) CCTV Control Rooms and proposals to establish a West Kent CCTV hub, based at the Sevenoaks Offices.
- The proposal, depending upon the monitoring option taken forward, could provide a return to 24/7 staff monitoring whilst achieving identified savings on monitoring costs and increasing resilience in the control room, particularly for the out of hours service.
- The Chief Officer Environmental & Operational Services advised that the Direct & Trading Advisory Committee had considered the report and agreed to recommend it to Cabinet.
- On 21 April 2016 the Council's Cabinet considered further a report from the Chief Officer Environmental & Operational Services that reported and updated figures for the preferred Option, advising that the potential savings were less than those quoted in the report at £18,000 for SDC, £21,000 for Tonbridge & Malling Borough Council (T&MBC) and £10,000 for Tunbridge Wells Borough Council (TWBC). However, it was likely that this could be even less if the monitoring arrangements were exposed to competitive tendering.
- Cabinet resolved that a) in principle, a joint agreement be entered into with TWBC and T&MBC to establish a West Kent CCTV hub, based at the Sevenoaks offices; b) the preferred monitoring arrangements be '24 hour CCTV coverage and out of hour's service for all 3 Councils. This model includes a dedicated Supervisor and 12 operators. This provides, mainly for three operators to be on duty, but at certain less busy times this will be reduced to 2 operators. Estimated Cost: £104,933 per Council; and c) a one-off Capital budget of £37,300 be approved, representing 50% of the cost of enlarging the existing Sevenoaks CCTV control room.
- Although the proposal for a West Kent CCTV Hub was approved by SDC, partnering borough's decided not to proceed with the project.
- In 2015 all 3 councils upgraded the server matrix to a Meyertech system. This is coming to its end of life with limited support available for spare parts. In 2019 SDC Upgraded the CCTV Control Room with new recording equipment, monitor wall screens, rewired the control room and refurbished all furniture and desks. In 2020 all the old cameras started to be replaced with hybrid cameras, this project has only another 20 cameras to be upgraded from the total of 144 cameras.
- In November 2021 SDC, TWBC and T&MBC agreed that the West Kent CCTV Hub could now be an option as all of the Council's CCTV requirements had changed over the last 5 years. It was agreed by all three Council's that a technical report would be undertaken by an independent CCTV expert to see what the current options are.

- 10 Ilker Dervish was commissioned to carry out the technical CCTV review and to report his findings on all three Council CCTV systems and the options for combining these systems into a West Kent CCTV Hub based at SDC.
- 11 Ilker Dervish is a very experienced CCTV and Security professional with more than 35 years' experience in dealing with a wide range of public sector organisations at all levels. He has invaluable insight into understanding how organisations operate and has sat on several boards and committees devising policy, reviewing compliance and setting standards. He is currently Vice Chairman of the National CCTV User Group (NASCAM) and Managing Director of Comfort Zone Technology. Ilker is also the lead consultant for the London Borough of Tower Hamlets CCTV Transformation project.
- 12 The CCTV Technical report can be found in Appendix 1.

CCTV Technical Report - Overview

- In summary the overwhelming conclusions of the CCTV technical report are two-fold, 1) the current condition of the Council's own CCTV system and 2) the options around providing a West Kent Hub opportunity.
- SDC CCTV system It is clear that regardless of progressing the West Kent CCTV Hub, although it would be critical for this opportunity to be delivered the Council's current system is in dire need of upgrading.
- Our current CCTV system uses and relies upon end-of-life equipment which no longer can be supported by the respective manufacturers, which will result in the gradual piecemeal (or in the worst case catastrophic) failure of the CCTV system which it turn would have corporate reputational damage for the Council.
- West Kent CCTV Hub It also clear that the existing systems operated by Sevenoaks District Council, Tunbridge Wells Borough Council and Tonbridge & Malling Borough Council are all at an end of life status and the continuing use of which present a significant risk to services provided to residents mitigating security public space concerns.
- In regards to Kent Police funding CCTV networks, Matthew Scott Kent's Police & Crime Commissioner has said that 'the Crime Reduction Grant can be used to support CCTV, however CCTV provision is not a core function of the Police and it is up to Local Authorities to decide what the CCTV service looks like going forward. The CCTV service will also be meeting and working with the district's new commander, Chief Inspector Elizabeth Jones to ensure the CCTV system is being used in the best interests of keeping the public safe by supporting and working with the police.
- In 2021-2022 our CCTV Service were involved in over 100 assisted, monitored and instigated arrests with over 300 evidence and CCTV seizures from Kent police and other partners. Our CCTV Operators also dealt with over 1,500

requests from Kent Police's Force control centre for CCTV assistance within the district.

Strategy Options

- 19 The CCTV technical report sets out five strategic options for consideration for the West Kent CCTV Hub project, which are:
 - **Do nothing** resulting in gradual decline in effectiveness and the potentials for the eventual ceasing of equipment and the service;
 - **Go it alone** Each authority to deliver their public space CCTV service separately and upgrading their own system when required. How each authority's systems are to be monitored will need to be resolved (may have significant maintenance and monitoring cost implications).
 - Switch to an unmonitored operation with incremental system upgrades in response to equipment failure - resulting in immediate decline in effectiveness and eventual ceasing of the service for each authority or authorities (as failure in the system may impact in another authority's service delivery).
 - Create a single operating centre (West Kent Hub) utilising existing equipment and delivering incremental system upgrades in response to equipment failure results in improvement in monitoring effectiveness but postpones the requirement for further investment in upgrading cameras
 - Create a single operating centre (West Kent Hub) utilising existing equipment and upgrade all systems to the latest IP technology - brings the systems up to current standards and futureproofs the service whilst reducing system revenue costs

Recommendation

That officers further consider with our partners the options outlined in the technical report and provide a further update to members on options that are available.

Key Implications

Financial

All budget and financial issues are detailed in the main report.

<u>Legal Implications and Risk Assessment Statement.</u>

The technical report has highlighted a risk to system failures on all CCTV equipment, which could render the system as unusable if the equipment fails, due to the age of the infrastructure.

Equality Assessment

The decisions recommended through this paper have a remote or low relevance to the substance of the Equality Act. There is no perceived impact on end users.

Net Zero Implications

Members are reminded of the Council's stated ambition to be Net Zero with regards to carbon emissions by 2030. The decisions recommended in this paper directly impact on this ambition. The impact has been reviewed and there will be neither an increase nor decrease on carbon emissions produced in the district as a result of this decision.

Conclusions

Clearly further decisions are needed between all partners to decide if there are any possible options for progressing and developing this project. Once partners position have been decided upon Sevenoaks District Council will need to consider its position regarding the CCTV equipment and its future development and operation.

Appendices Appendix 1 - Technical CCTV report

Background Papers None

Adrian Rowbotham

Deputy Chief Executive and Chief Officer Finance & Trading



Document is Restricted



Document is Restricted



Document is Restricted

