

Scrutiny Committee



Listening Learning Leading

Report of Head of Housing and Environment

Author: Simon Hill

Telephone: 01235 422105

E-mail: simon.hill@southandvale.gov.uk

Cabinet member responsible: David Rouane

Tel: 07957 287799

E-mail: David.rouane@southoxon.gov.uk

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South Oxfordshire Air Quality Update

Recommendation

That the Scrutiny Committee reviews progress on the South Oxfordshire District Council's Air Quality Action Plan (AQAP) adopted in 2014 and Low Emission Strategy adopted in 2017.

Purpose of Report

1. To update the committee on Air Quality in South Oxfordshire.

Strategic Objectives

2. This report supports the council's strategic objective of building thriving communities, making communities clean and safe by improving air quality across the district, and specifically tackle poor air quality in Henley, Wallingford and Watlington.

Background

3. In accordance with section 82 of the Environment Act (1995) (Part IV), Local Authorities (LAs) are required to periodically review and assess air quality within their area of jurisdiction, under the system of Local Air Quality Management (LAQM). This review and assessment of air quality involves considering present and future air quality levels against the national Air Quality Objectives (AQO) defined by Defra.
4. If it is predicted that levels at sensitive locations, where members of the public are regularly present for the relevant averaging period, are likely to be exceeded, the LA is required to undertake a detailed assessment for that pollutant. If the results

of the detailed assessment confirm that an AQO was likely to be exceeded, they are required to declare an Air Quality Management Area (AQMA).

5. Following the declaration of an AQMA the LA is required to produce an Air Quality Action Plan (AQAP), the objective of which is to identify relevant responsible organisations who would work collaboratively to reduce pollutant concentrations to within the defined AQOs.
6. South Oxfordshire District Council's AQAP, adopted in 2014, is the document that sets out the actions proposed or taken to combat and mitigate air quality issues within the district. The document proposes how we will work with other authorities and organisations that have the power to make the necessary changes to tackle the air quality problems, specifically within the AQMA's but also across the district.
7. As a result of a successful DEFRA bid in 2014, a Low Emission Strategy (LES) was adopted in November 2017. The associated research showed that if all the measures included in the strategy were implemented then the improvements to air quality would mean the AQMA's in Wallingford and Watlington could potentially be revoked and the nitrogen dioxide (NO₂) levels in these towns would be within the national objective levels.
8. Some of the more significant actions, that may improve air quality included in the strategy are: promoting low emission behaviours, supporting the uptake of electric and low emission vehicles and implementing a low emission freight and bus strategy. Actions relating to traffic management such as a low emissions freight strategy, enforcement of weight limit restrictions, road layouts and speed restrictions are dependent on Oxfordshire County Council.
9. As a largely rural district, with several market towns and villages the air quality throughout the district is generally very good. There are however air pollution hotspots where NO₂ associated with traffic emissions is higher and where it has been necessary to declare AQMAs.
10. These areas are typically where houses are close to busy roads and pollution can be worsened by problems with congestion. There are three AQMA's in the district all declared because NO₂ levels were either predicted to or were exceeding national objectives. These are in Henley on Thames, Wallingford and Watlington.
11. The concentration of NO₂ is measured in micrograms (µg) per cubic metre (m³) of air. A concentration of 1µg/m³ means that one cubic metre of air contains one microgram of pollutant. The national objective is for NO₂ levels not to exceed an annual average of 40µg/m³ or 200µg/m³ averaged over an hour with no more than 18 exceedances per year. As part of our reporting requirements we have identified one exceedance of the annual average of 40µg/m³ during 2018, however, we have not exceeded 200µg/m³ at any location.
12. Regular air quality monitoring is undertaken at three automatic monitoring stations and 62 diffusion tube sites throughout the district. This seeks to continually review the air quality levels in AQMA's and within key areas which have been identified. The annual and hourly national objectives determined by Defra apply to the residential facade where a sensitive receptor would be expected to live and be exposed in their day to day lives. As would be expected, there is a greater concentration of AQ monitoring in the AQMAs and this monitoring is broken down to regular and short-term monitoring sites.

13. Because several monitoring site locations are situated on the kerbside and not at a residential facade of a property, a distance correction needs to be applied to many of these kerbside/street location results. This can influence the raw data and will normally reduce the reported concentrations as a result of biased and distance corrections applied.
14. In accordance with Defra guidelines and previous assessments on the contributing elements which may diminish air quality generally NO₂ is the only pollutant required to be monitored within the district. Other factors such as Particulate Matters (PM10 and PM2.5) are not found to be prevalent and requiring the same level of assessment.
15. The monitoring of air quality must be reported to Defra annually. This is done through our Annual Status Reports, which provides details of all NO₂ readings, the annual average for NO₂ before and after bias and distance correction and assessment for compliance with the annual air quality objective and monitoring results from previous years. The 2019 Status Report is attached to this report.
16. Defra have responded to the 2019 Status Report stating that it follows the latest reporting template, is well structured, detailed, and provides the information specified in the guidance. They have suggested the council should complete and publish an updated Air Quality Action Plan (AQAP) ideally before the next Annual Status Report (due June 2020). However, officers are recommending a more realistic timetable to allow time to consider the declared Climate Emergency and the link between air quality and the work of the Climate Advisory Committee.

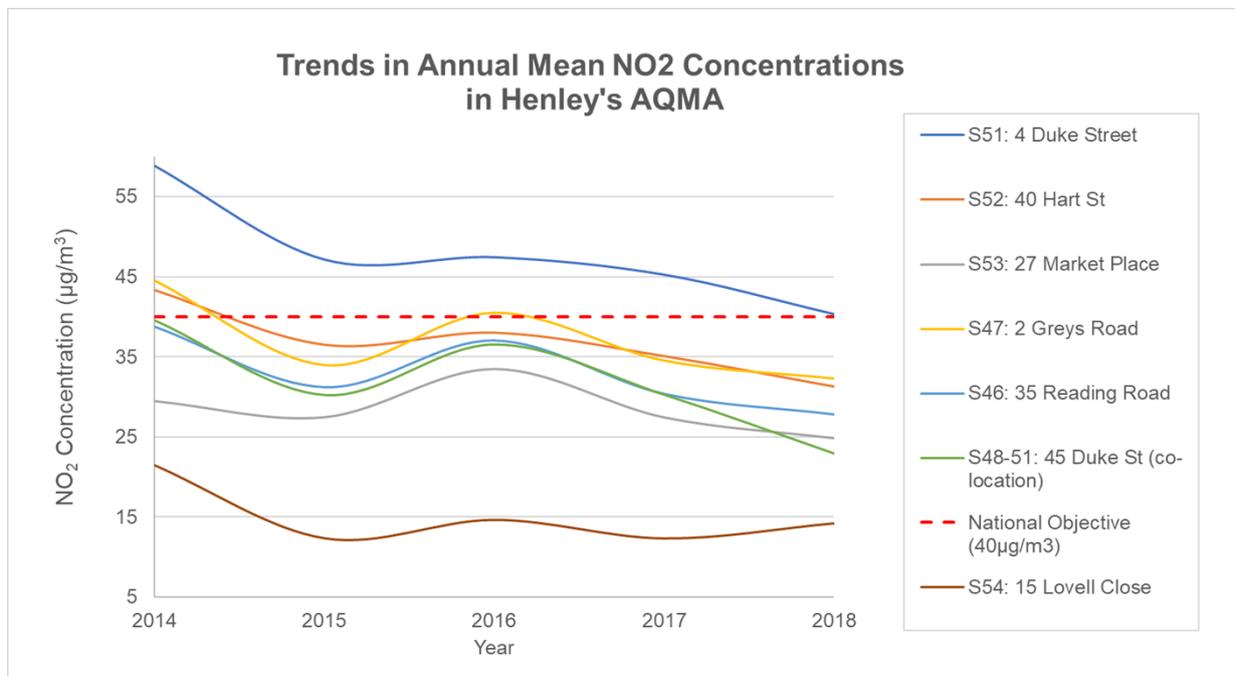
Air Quality Management Areas

17. The table below provides information on the annual NO₂ levels within the Air Quality Management areas at declaration and levels recorded during 2018. Results are presented with relevant distance and bias adjustments included.
18. There has been a significant reduction since declaration of NO₂ levels at all three AQMAs, taking it below the national objectives in Wallingford and Watlington.

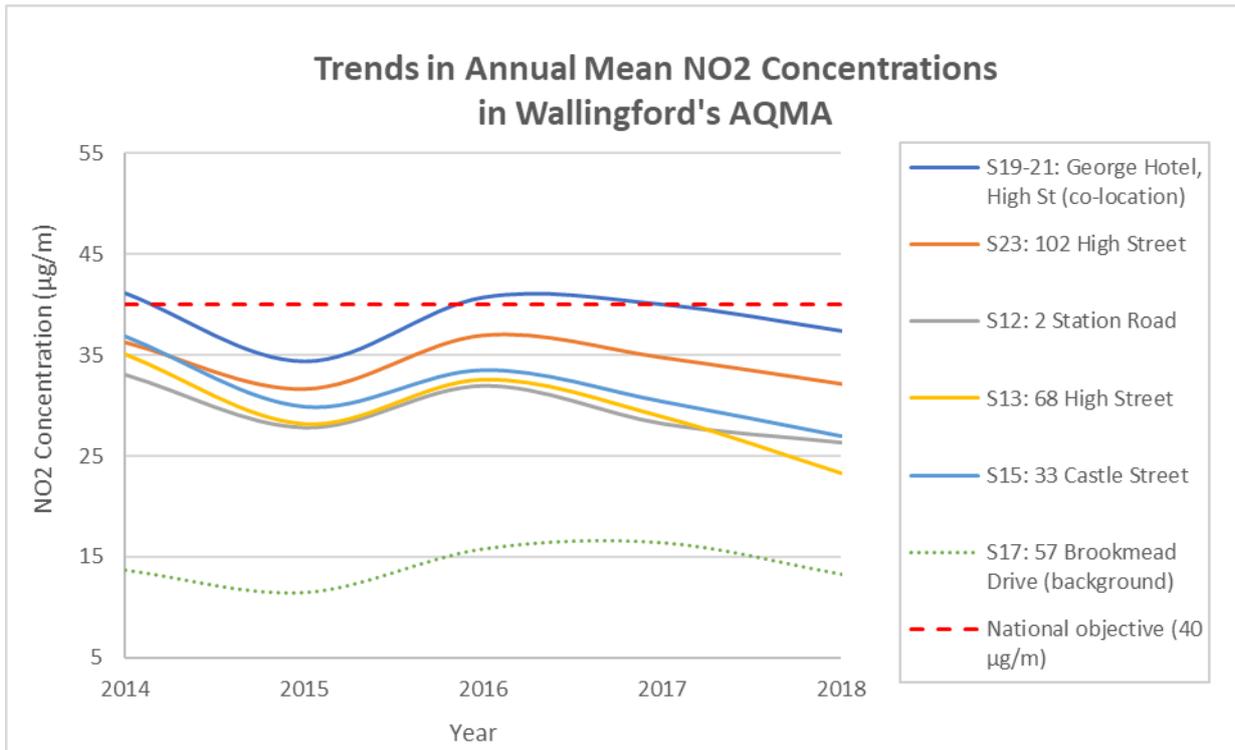
AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	City / Town	One Line Description	Level of Exceedance	
					At Declaration	Now
Henley	01/01/2003	NO ₂ Annual Mean	Henley	An area encompassing Duke Street and Bell Street in 2002 and was further extended in 2004 to include the Market Place, Hart street and Reading Road.	45.1 µg/m ³	39.6 µg/m ³

Wallingford	28/03/2008	NO ₂ Annual Mean	Wallingford	An area encompassing the High Street and part of Castle Street, St Marys Street and St Martins Street	48.3 µg/m ³	37.5 µg/m ³
Watlington	31/03/2009	NO ₂ Annual Mean	Watlington	An area encompassing Shirburn Street, Couching Street and Brook street	51.3 µg/m ³	38.5 µg/m ³

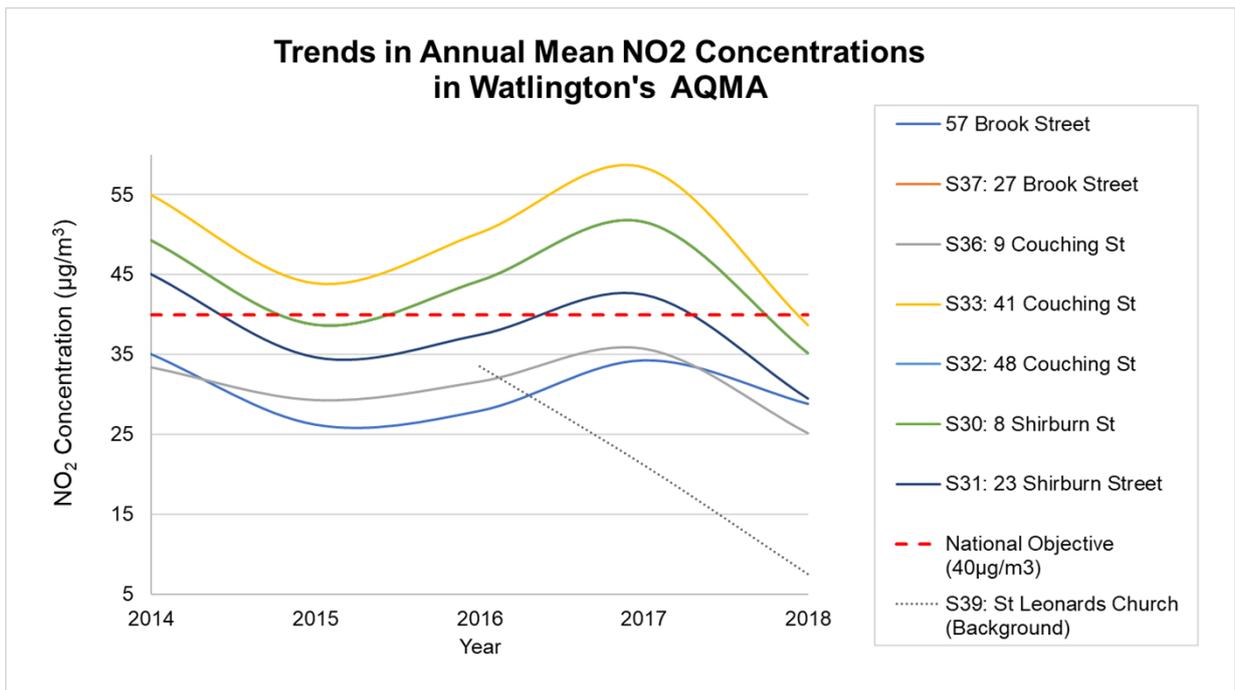
a) Henley on Thames AQMA



b) Wallingford AQMA



c) Watlington AQMA



Air Quality in 2018

19. In 2018, 86 per cent of our 65 monitoring sites recorded lower NO₂ annual mean concentrations than those of 2017.

a) NO₂ Annual Mean Objective (40µg/m³)

20. In 2018 the air quality objective was breached at only one of our regular monitoring sites, compared with ten sites in 2017. The exceedance of this objective (47.8

$\mu\text{g}/\text{m}^3$) was registered at the monitoring site located in Mendip Heights, Didcot (site ref S72), identified as a roadside site.

21. At **S72**, there is no relevant exposure since the distance between the nearest dwellings and the monitoring site is too large for the result to be distance adjusted, meaning it should be interpreted carefully. In order to review NO_2 levels in this area more accurately, the monitoring site was moved and is now located adjacent to the facade of the nearest dwelling, where the results recorded in Jan-June 2019 suggest concentrations are very low and at the present time are at no risk of exceeding the AQOs for the annual mean in NO_2 . Defra's appraisal of the report concluded that no further action is required to address the results obtained at S72 in 2018.

b) NO_2 1-hour Mean Objective ($200 \mu\text{g NO}_2/\text{m}^3$)

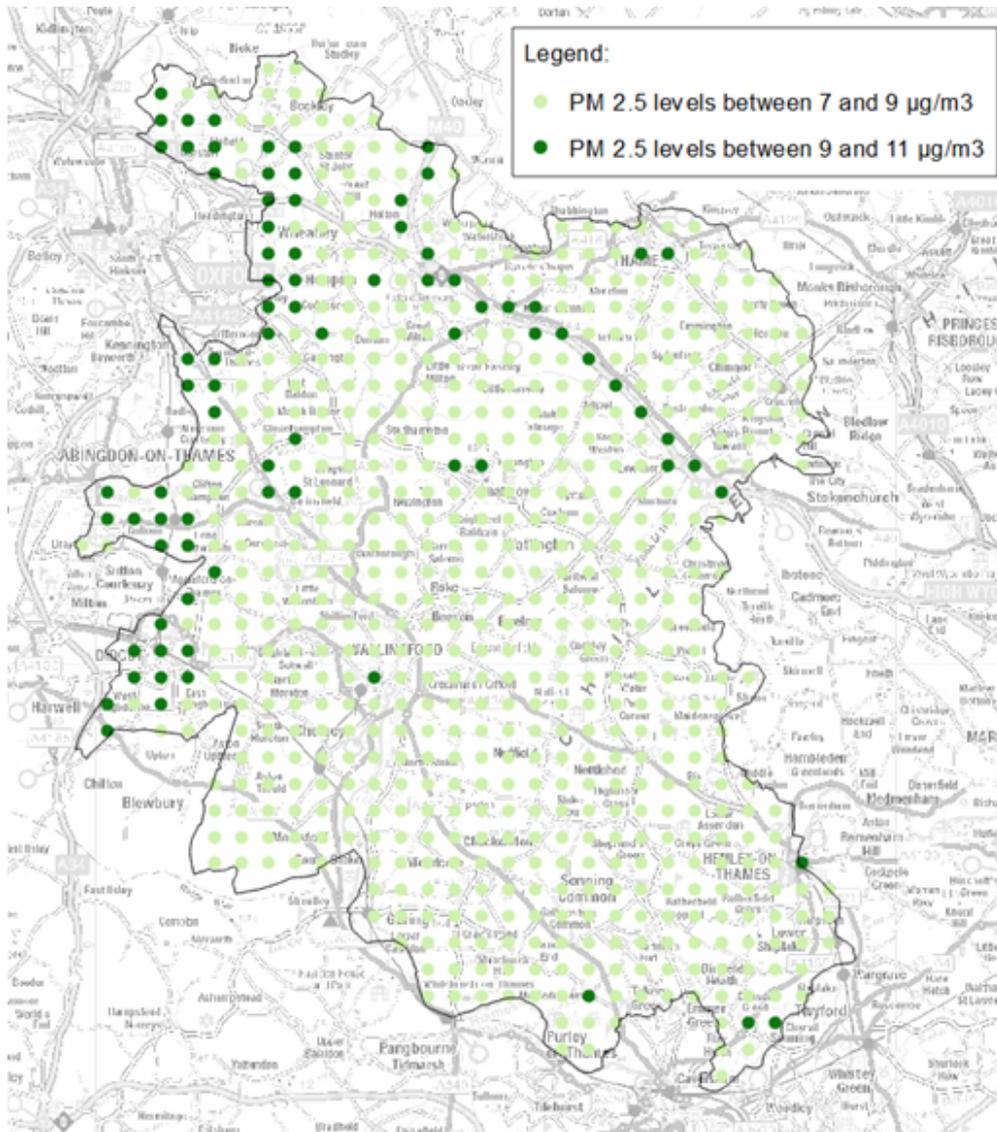
22. In terms of the NO_2 1-hour mean objective, exceedance were registered once by the analyser in Wallingford (exceedances of this objective are permitted up to 18 days per year), suggesting an isolated episode.

23. None of the diffusion tubes recorded levels above $60 \mu\text{gNO}_2/\text{m}^3$, it is considered that the 1-hour objective was met at all of the other monitoring sites across the district.

c) $\text{PM}_{2.5}$ Modelled Figures

24. There is a direct relationship between PM and NO_2 levels when the major source is road traffic. Throughout the UK there are very few AQMAs declared for PM alone, but many more for NO_2 .

Defra's background mappings of PM (shown in the Figure below) are believed to be accurate, putting district average $\text{PM}_{2.5}$ levels below $11 \mu\text{g}/\text{m}^3$ in 2018. We have not identified any significant additional sources of PM in the district. Based on this, SODC do not currently monitor PM but are confident it falls well below objective levels at all locations throughout the district.



Progress and Impact of Measures to Address Air Quality

25. Progress against the AQAP and LES actions are detailed in Appendix 1 along with measures which are identified to sit with partner agencies.

26. South Oxfordshire District Council has and is continuing to take forward several direct measures in pursuit of improving local air quality. These include:

- Installation of four Electric Vehicle (EV) charging points in council owned car parks (Wallingford and Henley).
- Adoption of a taxi licensing scheme that offers a reduced fee for low emission vehicles. We are currently feeding into the review of this Licensing policy to add further air quality measures including penalty points if a taxi is witnessed idling and updating the emissions standards and associated taxi fees. Our licensing team is now required (Jan 2020) to supply Defra with taxi licensing details (vehicle registration, licence number and period covered).
- Producing and shortly publishing a revised Air Quality Planning Guidance and regular updates to ensure it promotes most recent best practice.
- Completed modelling work to assess the impacts on the proposed 'edge road' on local air quality in Watlington.
- Oxford Bus Company retrofitted another 14 vehicles to E6 standards in 2019. This means 45 per cent of the bus fleet operating in South Oxfordshire meets Euro 6 standards.
- Launched a vehicle anti-idling campaign, '*Turn it Off*', that targets idling at locations with sensitive receptors, such as schools and medical practices. We have also attended a number of events/market days to promote the campaign over the summer months.
- Continuing to use our planning and procurement systems to reduce emissions from transport in the long term.
- Provided funding towards the 2019 Wallingford Festival of Cycling, an event that promotes adopting sustainable means of transport in the district.

27. Some measures to be completed over the course of the next reporting year:

- Providing eco-driver training for council employees in early 2020.
- Investigating formally adopting the AQ Planning Guidance as a Supplementary Planning Guidance.
- Complete a feasibility study to identify opportunities to install new charging points in car parks/council properties.
- Commence the process of producing an updated Air Quality Action Plan in conjunction with the work of the Climate Advisory Committee.

Key challenges

28. Implementation of some of the more substantial measures is dependent on third parties, changing existing policies and identifying necessary resources.

Financial Implications

29. There is no financial implication associated with this report.

Legal Implications

30. There are no legal implications associated with this update report.

Risks

31. There are no risks directly associated with this update report.

Other Implications

32. There are no other implications associated with this update report.

Conclusion

33. Nitrogen dioxide levels continue to improve in South Oxfordshire according to the figures registered at our monitoring sites with a significant reduction, since declaration, at all three AQMAs, taking it below the national objectives in Wallingford and Watlington.

34. There has been progress towards implementing actions within the 2014 Air Quality Action Plan although several the projects are dependent on external organisations.

35. Following Defra's recommendation, in conjunction with the Climate Advisory Committee, we will be updating our AQAP with measures to target air pollution in the district, although as previously mention improvements to air quality associated with traffic emissions is very much dependant on OCC involvement, we will continue to work closely with them on this matter.

Background Papers

- South Oxfordshire District Council 2019 Air Quality Annual Status Report (Submitted to and approved by Defra (using their template)).
(https://oxfordshire.air-quality.info/documents/ASR_Template_England_2019_SODC_V2.pdf)
- South Oxfordshire District Council Low Emission Strategy Nov 2017
(http://democratic.southoxon.gov.uk/documents/s7214/SODC%20LES_2015_V3_Final%20edited%202.pdf)
- South Oxfordshire District Council Air Quality Action Plan 2014
(https://oxfordshire.air-quality.info/documents/air_quality_action_plan.pdf)
- Oxfordshire air quality website:
<https://oxfordshire.air-quality.info/>

Appendix 1: Progress on Measures to Improve Air Quality

Measure No. (LES or AQAP)	Measure	Organisations involved and Funding Source	Progress to Date	Estimated / Actual Completion Date	Comments
1 (AQAP 1)	Low Emission Strategy (LES)	SODC	Ongoing	2017	LES adopted in Nov 2017. Further implementation will progressively take place during the following year(s)
2 (AQAP 2, LES 3.2, 3.5.1)	Installation of EV charging points (EV = Electric vehicle)	SODC	Four charging points installed in Henley and Wallingford Council owner car parks. Encouragement through the planning process and council car parking initiatives	Ongoing	Further development of our air quality planning guidance is nearly completed outlining EV requirements Feasibility study being finalised by our Technical Services Team to scope possibility of new points in car parks/council properties.
3 (AQAP 3, LES 3.1)	Parking permit incentives for low emission vehicles	SODC	All parking permits are half the list price for owners of a vehicle with a CO ₂ emission of 120g/km or less or for those coming into the district's towns to work.	2017	Looking to feed into next review of parking fees.
4 (AQAP 4, LES 3.3)	Feasibility study for freight consolidation centre / freight quality partnerships	OCC	Funding not yet secured	Unknown	Not considered a high priority at this present time. Probably best developed as a county wide initiative by the Oxfordshire County Council.
5 (AQAP 5, LES 3.2)	Taxi incentives for LEVs	SODC	Completed-LEV taxi licensing scheme in place Policy currently being reviewed 2019/20.	2019	Licensing policy offers a reduced fee for low emission vehicles, this is currently being reviewed and we are proposing further detailed incentives.
6 (AQAP 6, LES 3.3)	Improved use and enforcement of traffic regulation orders	SODC/OCC	Civil parking enforcement has been scoped by council's Technical Services Manager. In partnership with OCC a joint specification has been prepared to commission a feasibility study, which is expected to be delivered in Autumn 2019.	Ongoing	No additional comments

7 (AQAP 7, LES 3.5.2)	Review of Council and contractors' fleet	SODC	Our waste contractor (Biffa) has updated its entire fleet to Euro 6 vehicle in October 2017. Waste collection has secured a 10 per cent reduction in fuel usage due this change and improved routing despite increasing fleet numbers. Public Realm team going through the process of procuring a tipper vehicle as part of the broader project proposals. Emission levels are part of the appraisal process.	2017	Further improvements in emissions should be realised as and when vehicles are replaced with newer, higher Euro Standard vehicles.
8 (AQAP 8, LES 3.1)	Eco-driver training	SODC	Not Yet Started	2020	Training scheduled for council staff in early 2020.
9 (AQAP 9, LES 3.5.1)	AQ planning guidance	SODC	Updated version being finalised	Summer 2019	Guidance for developers available via our website, new version is being finalised with Planning Policy
10 (AQAP 10)	Community projects	SODC	Oxfordshire Air Quality Group website completed.	Ongoing	Oxfordshire Website Further work proposed for 2019/20 raising public awareness by producing promotional materials. Twitter feed on website for news updates to be utilised
11 (AQAP 10, LES 3.1)	Awareness campaign(s)	SODC	Anti-idling campaign soft launched March 2019, formal launch on clean air day (20 June 2019). Produced stickers to identify monitoring sites as such. The stickers include a link to our website for members public to easily access monitoring results.	Ongoing	Further works proposed around our anti-idling campaign for 2019/20 raising public awareness and planning future school learning packs.
12 (AQAP 10, LES 3.1)	Behavioural change projects	SODC	Anti-idling campaign launched March 2019.	Ongoing	Further works proposed around our anti-idling campaign for 2019/20 raising public awareness and planning future school learning packs.
13 (AQAP A1, B1, C1)	Low emission zone feasibility study	SODC	Complete	2017	Feasibility study for LES obtained in 2017. LES adopted in 2017.

14 (AQAP B2)	Increased use of the Wallingford ring road	SODC OCC	Under consideration by OCC	Unknown	Dependant on OCC. Further monitoring to be done by OCC to assess the benefits and impacts to AQ of closing the Wallingford Bridge during rush hour
15 (AQAP A2, B4; LES 3.1)	Anti-idling Campaigns	SODC	Anti-idling campaign soft launched March 2019, formal launch on clean air day (20 June 2019). Produced stickers to identify monitoring sites as such. The stickers include a link to our website for members public to easily access monitoring results.	Ongoing	Further works proposed around our anti-idling campaign for 2019/20 raising public awareness and planning future school learning packs.
16 (AQAP A2, B3; LES 3.1)	"Park and Stride" Campaign	SODC	Not Yet Started	Unknown	Further work proposed for 2019/20 raising public awareness and school visits.
17 (AQAP A3, B4; LES 3.1)	"Turn it Off" Campaign	SODC	Anti-idling campaign soft launched March 2019, formal launch on clean air day (20 June 2019). Produced stickers to identify monitoring sites as such. The stickers include a link to our website for members public to easily access monitoring results.	Ongoing	Further works proposed around our anti-idling campaign for summer 2019. Campaign will aim to raise public awareness, especially at locations with sensitive receptors (schools). Formal launch on clean air day. Events planned in Henley on Market day moving to other Towns on their market days
18 (AQAP C2; LES 3.3)	Increased enforcement and review of the weight restriction zone in Watlington	OCC	Not Yet Started	Unknown	Dependant on OCC.
19 (LES 3.3)	A low emission freight strategy: Delivery service plans	OCC	Not Yet Started	Unknown	Dependant on OCC. OCC looking into the possibility of including delivery plans as a requirement for commercial applications

<p>20 (AQAP C3, LES 3.3)</p>	<p>Smoothing traffic flow in Watlington</p>	<p>OCC</p>	<p>Ongoing</p>	<p>Unknown</p>	<p>Micro-sim model indicated that the removal of parking would improve flow in Watlington. As part of a recent planning application, OCC and the developer have agreed to implement this measure.</p> <p>Air quality impact assessment has been completed. The study has determined (model) the impacts a bypass road/edge road will have on NO₂ levels in the AQMA.</p> <p>The possibility of building an Edge Road seems a better solution to reduce traffic through Watlington. This is progressing, but dependant on housing planning applications being approved to fund and complete the Edge Road.</p>
<p>21 (LES 3.1)</p>	<p>Promoting low emission behaviour: Dockless bikes scheme</p>	<p>SODC</p>	<p>Ongoing</p>	<p>Ongoing</p>	<p>Studying the possibility of promoting the use of sustainable transport by facilitating the implementation of a dockless bikes scheme in our towns with an AQMA.</p> <p>Seeking interest from companies providing this service</p>
<p>22 (LES 3.4)</p>	<p>A low emission bus strategy</p>	<p>SODC Oxford Bus Company</p>	<p>Ongoing</p>	<p>Ongoing</p>	<p>Oxford Bus are updating the emissions standard of their fleet progressively. Most of the fleet operating in the district is already Euro VI.</p> <p>Agreed that Mini Park and Ride and Pick Me Up services would be best actions to support low emission transport</p>
<p>23</p>	<p>Mini Park and Ride</p>	<p>SODC Oxford Bus Company (OBC)</p>	<p>Ongoing</p>	<p>Unknown</p>	<p>Following a meeting with OBC (July 2018), considering the viability of a Mini Park and Ride in Wallingford at the new council offices</p>
<p>24</p>	<p>PickMeUp</p>	<p>SODC OxfordBus Company</p>	<p>Ongoing</p>	<p>Unknown</p>	<p>Resource dependant- would require 120k of funding.</p> <p>Following a meeting with OBC, currently looking into the feasibility of this action.</p>
<p>25</p>	<p>Installation of countdown clocks at traffic lights</p>	<p>SODC OCC</p>	<p>Ongoing</p>	<p>Unknown</p>	<p>Dependant on OCC.</p> <p>OCC researching whether the clocks can be installed at current traffic lights.</p>