

<b>Cabinet Meeting</b>	
<b>Meeting Date</b>	11 July 2018
<b>Report Title</b>	Swale Borough Council Strategic Air Quality Action Plan
<b>Cabinet Member</b>	Cllr David Simmons, Cabinet Member for Environment and Rural Affairs
<b>SMT Lead</b>	Nick Vickers, Chief Financial Officer
<b>Head of Service</b>	Tracey Beattie, Mid Kent Environmental Health Manager
<b>Lead Officer</b>	Steve Wilcock, Environment Protection Team Leader
<b>Key Decision</b>	Yes
<b>Classification</b>	Open
<b>Forward Plan</b>	<b>Reference number:</b>
<b>Recommendations</b>	1. To update progress made on the Swale Borough Council Strategic Air Quality Action Plan 2018-2022.

## 1. Purpose of Report and Executive Summary

- 1.1 We last reported on Air Quality to Cabinet in October 2017 and this is an update report. Clearly air quality is a hugely important subject with enormous health and social implications. Swale Borough Council has a statutory duty to produce Air Quality Action Plans (AQAPs) as part of the Local Air Quality Management Framework. It currently has a number of individual Air Quality Action Plans for the 5 current Air Quality Management Areas (AQMAs) in the borough. The Interim AQAP consolidated these separate plans into one more strategically focused plan to provide greater focus and direction to the work of improving air quality in the Borough.
- 1.2 Whilst acknowledging the importance of the issue we need to be cognisant of the legal powers which the Council has, which are relatively limited, and the inevitable tensions which exist with the Government's requirements for new housing.
- 1.3 The AQAP is a highly defined document by DEFRA which has to follow set process for implementation, including public consultation and engagement and is very heavily a reliant on data collection and modelling. This data that takes time to collect and analyse which militates against a swift process. The Air Quality Steering Group has taken the view that time spent gathering the right data is worth the additional time. But that does extend the timelines for going out to consultation on the AQAP and its submission to DEFRA.

## 2 Background

- 2.1 Since the Interim Air Quality Action Plan was approved by Cabinet in October 2017, Phlorum, the appointed AQ consultants, commissioned traffic data surveys (traffic count and ANPR) which took place in January 2018.
- 2.2 Their report was received in March and they concluded that older vehicles are the major source of vehicular pollution and that measures need to be put in place to reduce the numbers of the worst polluting vehicles (Euro IV and below) from the AQMA's to make a significant impact on improvements to air quality along A2 and St Paul's. Cars formed the largest group of vehicles from the traffic surveys, ranging between 57.1% in Newington to 71.0% in Ospringe. A summary of their findings is attached in Appendix I and the full report can be accessed via the link provided.
- 2.3 So far it is apparent that the measure most likely to impact and reduce pollution within AQMAs is the implementation of a Clean Air Zone/Corridor.
- 2.4 This conclusion is based on traffic flows without the impact of future developments already agreed and those sites allocated in the Local Plan.
- 2.5 The Air Quality Steering Group has taken the view that it is essential to have traffic modelling that includes future developments and this has led to an additional phase before the consultation can be commenced. Whilst the delay this entails is regrettable it is vital in such a data led exercise.
- 2.6 The Strategic AQAP is linked to the five existing AQMAs and the SBC Local Plan and Sustainable Assessment Plan. A number of steps in the development of the AQAP have been completed, but some are yet to be carried out:

### (1) Stage I

Review and update existing AQAP and set out strategic approach and potential measures for development of Swale Strategic AQAP.

Output: Interim AQAP (2017). (Completed October 2017)

### (2) Stage II

Further develop the AQAP steering group and develop AQAP options/measures to be assessed. Assess viability and air quality benefits of measures for internal engagement and consultation.

Output: Strategic AQAP assessment (2018) (Summer 2018).

### (3) Stage III

Draft Strategic AQAP for Swale BC including Local Plan involvement, consultation and preparation for public consultation (later in 2018), finalise Strategic AQAP and implementation plans.

Output: Swale Strategic AQAP (2018–2022) (Autumn 2018)

The Stage II report was completed in March 2018 and this is a vital step in the path to an AQAP. It contains analysis of the traffic counts and ANPR surveys which were carried out at selected sites. Vehicle source apportionment is the identification from number plates, and from access to DVLA, the type of vehicle involved and hence what type of vehicle, whether car, LGV, HGV etc. and hence the EURO Classification (Euro I is the most polluting and Euro VI the least).

2.7 Two modelled baseline surveys (2020 and 2022) were carried out to be compared against the annual mean Air Quality Standard with existing DEFRA background concentrations at the same locality for the same years. 2020 was chosen as a representative period from the last Action Plan and 2022 was chosen to align with the Local Plan. The report is a baseline for a robust assessment of the measures contained in the Interim AQAP. The report involved in a comprehensive traffic survey of volume and type of traffic passing through the AQMAs and modelled for 2020 and 2022 but without consideration of the impact of future developments. The Automatic Number Plate Recognition (ANPR) survey ran at three selected locations – Newington High Street, Key Street and Ospringe Street. This was then followed by source apportionment work.

2.8 The table below summarises the AQMA modelling results for 2018, 2020 and 2022 showing Predicted Annual Average NO<sub>2</sub> Concentration ug.m<sup>3</sup>:

Receptor No.	2018	2020	2022
<b>East Street AQMA</b>			
12	61.8	57.2	44.5
21	55.3	46.9	40.0
<b>St Paul's AQMA</b>			
6	41.7	36.0	32.1
8	42.3	36.5	32.4
<b>Newington AQMA</b>			
24	47.1	39.3	34.4
28	44.9	37.4	32.7
<b>Teynham AQMA</b>			
10	56.1	48.8	42.6
12	54.0	47.0	41.0
<b>Ospringe AQMA</b>			
14	60.0	59.4	45.7
15	57.8	57.2	44.0

2.9 From this data we can conclude:

- (1) The NO<sub>2</sub> source apportionment results based on the baseline modelling for 2020 and 2022 indicate that significant emissions reductions will be required in the three of the five the AQMA locations.
- (2) Further emissions reduction are needed for 2020 compared with 2022 due a reduction of the worst polluting vehicles. As AQMA totals are predicted to be higher in 2020, therefore more reductions are needed to comply.
- (3) These findings show that the St Paul's and Newington AQMA's are likely to be compliant by 2020, without the need for additional AQAP measures. These AQMAs could be considered for revocation.
- (4) The baseline 2020 source apportionment study also identified:
  - Large (17-19 ug/m<sup>3</sup>) reductions required to achieve Air Quality Standards (AQS) compliance in East Street and Ospringe; and
  - East Street and Ospringe AQMA need significant emission reductions from all Euro 1 – 5 vehicles including cars as well as HGV and LGVs to achieve AQS compliance.
- (5) The baseline 2022 source apportionment study identified:
  - Smaller reductions required across the AQMAs;
  - St Pauls and Teynham AQMA compliance are achievable with reasonable measures to restrict/remove LGVs and HGVs below Euro 4/5;
  - East St and Ospringe AQMA require less reduction than 2020, however reductions will also likely to be required from Euro 5 HGVs as well as LGVs up to Euro 3.
  - Emissions reduction from the older Euro vehicles (i.e. Euro1–4/5) becomes more challenging in 2022. This is due to older (more polluting) vehicles being phased out and replaced with new cleaner vehicles.
  - Both 2020 and 2022 baseline assessments have identified that significant reductions in NO<sub>2</sub> emissions will be required across the A2 AQMAs. The Council will therefore need to consider a variety of strategic measures that impact on NO<sub>2</sub> emissions from a range of vehicle classes and Euro categories.

2.10 There was AQ Steering Group agreement that Phlorum should consider future developments as the A2 is the major infrastructure route for most of the local plan developments.

## Policy Development and Review Committee comments on the Strategic AQAP and Source Apportionment Report.

- 2.11 Included in Appendix II are the Comments made by Policy Development and Review Committee on 10 April on the Interim AQAP (Appendix III).

### Traffic Modelling

- 2.12 Traffic modelling is currently being undertaken on behalf of KCC for the new Local Plan for the periods 2018 to 2027 and 2037. An agreement is currently being made that traffic modelling being commissioned by Planning Policy can include data modelled for 2020 and 2022 for use by Phlorum in the Strategic AQAP. This data will be used to inform the AQAP and the consultation. Discussions have been taking place between Phlorum, Swale BC and KCC Highways regarding an exchange of traffic modelling data. KCC have asked their contractors to provide us with traffic modelling data that is being used for the latest version of the SBC Local Plan. At the moment the KCC contractors are working on a timescale of 2027/2037. To comply with the requirements of the AQAP, this will necessitate them carrying out a further modelling exercise to be in line with the 2020/2022 timescale. The cost associated with this work is being finalised but is likely to be around £20,000.
- 2.13 There is a benefit in obtaining more robust traffic modelling based on data used for Local Plan and therefore more representative data from which to undertake source apportionment and predicted AQ levels of pollutants. This will make it less open to challenge, ensuring that both the Local Plan and the Strategic AQAP are using the same traffic modelling information.

### Role of AQ Steering Group

- 2.14 The main purpose of the group is to oversee the production of an AQAP, manage the consultation process and then oversee implementation. The group is chaired by the Cabinet Member for the Environment and Rural Affairs and has met 4 times to date. The Interim AQAP is attached in Appendix III.

## **3 Proposals**

- 3.1 That the source apportionment assessments are based upon updated local plan traffic modelling information. This will then inform the cost benefit work undertaken for the proposed action plan measures in the Strategic AQAP and the delivery of actions to improve air quality.
- 3.2 That when the modelling work is complete a full public consultation is undertaken to ensure all interest groups are engaged in the document including; parish, town councils and relevant KCC councillors. The results of the Consultation will then be reported to Cabinet and the AQAP will be formally agreed for submission to DEFRA.

3.3 It is intended that the additional £50,000 allocated by Council for AQ work will focus on more operational and tactical issues identified by the Steering Group and PDRC.

## 4 Alternative Options

4.1 Cabinet have already agreed to develop a Strategic AQAP and to set up an Air Quality Steering Group.

## 5 Consultation Undertaken or Proposed

5.1 The measures contained in the Interim AQAP have been prepared following community based consultations with residents and members of steering groups; notably Newington, Ospringe and Teynham during 2016.

5.2 Members and officers have attended meetings of Air Quality Groups in Ospringe and Newington and a meeting in Teynham is planned.

5.3 Establishing the Strategic Air Quality Steering Group will provide additional discussion on the measures.

5.4 A full public consultation will follow the completion of the modelling work.

## 6 Implications

Issue	Implications
Corporate Plan	<ul style="list-style-type: none"> <li>• A Borough to be Proud of Protect and Improve the natural and built environment</li> <li>• A Community to be Proud of Work in partnership to Improve health and mental health</li> <li>• A Council to Be Proud Of Enhance capacity to achieve outcomes collaboratively</li> </ul>
Financial, Resource and Property	Council allocated an additional £50,000 for Air Quality work. There may be need for additional funds during the year on top of this.
Legal and Statutory	The Interim AQAP will meet Swale's statutory obligation under the Environment Act 1995 to provide an Air Quality Action Plan that meets Defra approval. There are no significant legal implications of waiting for additional data aligned to Local Plan.
Crime and Disorder	None identified.

<b>Issue</b>	<b>Implications</b>
Sustainability	These recommendations will support Climate Local Swale and the Kent Environment Strategy particularly with concern to emissions and health targets.
Health and Wellbeing	The Strategic AQAP seeks to improve the health and wellbeing of those living in or near declared AQMAs within Swale.
Risk Management and Health and Safety	A robust Strategic AQAP reduces Swale's risk to legal action from Government via the Localism Act 2011 by demonstrating their commitment to meeting the UK National AQ Strategy.  There are no health and safety risks associated with the Interim AQAP
Equality and Diversity	None identified.
Privacy and Data Protection	There will be no additional privacy and data protection considerations over and above what we currently do.

## **7 Appendices**

- 7.1 **Appendix I:** Summary Phlorum Report 1: Source Apportionment and Options Assessment
- 7.2 **Appendix II:** PDRC comments for consideration by the Cabinet Member for the Environment and Rural Affairs.
- 7.3 **Appendix III:** Interim AQAP.

## **8 Background Papers**

Phlorum Report 1 Source Apportionment and Options Assessment  
<https://services.swale.gov.uk/meetings/documents/s9627/Appendix%20II.pdf>

Cabinet report October 2017  
[https://services.swale.gov.uk/meetings/documents/s8358/AQAP%20report\\_postAS.pdf](https://services.swale.gov.uk/meetings/documents/s8358/AQAP%20report_postAS.pdf)

## Summary Phlorum Report 1: Source Apportionment and Options Assessment

The NO<sub>2</sub> source apportionment results based on the baseline modelling for 2020 and 2022 indicate that significant emissions reductions will be required in the majority of the AQMA locations.

The baseline 2020 source apportionment study identified:

- Significant reductions in NO<sub>2</sub> required to achieve AQS compliance; and
- East St and Ospringe AQMA need significant emission reductions from all Euro 1 – 5 vehicles including cars as well as HGV and LGVs to achieve AQS compliance.
- The St Pauls and Newington AQMA are likely to be compliant by 2020, without the need for additional AQAP measures.

The baseline 2022 source apportionment study identified:

- Smaller reductions required across the AQMAs;
- Table 9.2 show Teynham AQMA compliance are achievable with reasonable measures to restrict/remove LGVs and HGVs below Euro 4/IV;
- East St and Ospringe AQMA require less reductions than 2020, however reductions will also likely to be required from Euro V HGVs as well as LGVs up to Euro 3;
- Emissions reductions from the older Euro vehicles (i.e. Euro 1/I – 4/IV) becomes more challenging in 2022. This is due to older (more polluting) vehicles being phased out and replaced with new cleaner vehicles.

Both 2020 and 2022 baseline assessments have identified that significant reductions in NO<sub>x</sub> emissions will be required across the A2 AQMAs. Swale Council will therefore need to consider a variety of strategic measures that impact on NO<sub>x</sub> emissions from a range vehicle classes and Euro categories.

The Swale Strategic AQAP 2018 - 2022 Report 2 will provide a review and assess potential AQAP options that target the required NO<sub>x</sub> emissions reductions.