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AGENDA

POLICY DEVELOPMENT AND REVIEW COMMITTEE MEETING

Date: Tuesday, 10 April 2018
Time: 7.00 pm
Venue: Council Chamber, Swale House, East Street, Sittingbourne, Kent , ME10 3HT

Membership:

Councillors Sarah Aldridge, Mike Baldock, Monique Bonney, Andy Booth (Vice-Chairman), Lloyd Bowen (Chairman), Nicholas Hampshire, James Hunt, Peter Marchington, George Samuel, Ben Stokes and Tony Winckless.

Quorum = 3

Pages

1. Fire Evacuation Procedure

   The Chairman will advise the meeting of the evacuation procedures to follow in the event of an emergency. This is particularly important for visitors and members of the public who will be unfamiliar with the building and procedures.

   The Chairman will inform the meeting whether there is a planned evacuation drill due to take place, what the alarm sounds like (i.e. ringing bells), where the closest emergency exit route is, and where the second closest emergency exit route is, in the event that the closest exit or route is blocked.

   The Chairman will inform the meeting that:

   (a) in the event of the alarm sounding, everybody must leave the building via the nearest safe available exit and gather at the Assembly points at the far side of the Car Park; and

   (b) the lifts must not be used in the event of an evacuation.

   Any officers present at the meeting will aid with the evacuation.

   It is important that the Chairman is informed of any person attending who is disabled or unable to use the stairs, so that suitable arrangements may be made in the event of an emergency.

2. Apologies for Absence and Confirmation of Substitutes

3. Minutes

To approve the Minutes of the Meeting held on 13 February 2018 (Minute Nos. 490 - 495) as a correct record.

4. Declarations of Interest

Councillors should not act or take decisions in order to gain financial or other material benefits for themselves or their spouse, civil partner or person with whom they are living with as a spouse or civil partner. They must declare and resolve any interests and relationships.

The Chairman will ask Members if they have any interests to declare in respect of items on this agenda, under the following headings:

(a) Disclosable Pecuniary Interests (DPI) under the Localism Act 2011. The nature as well as the existence of any such interest must be declared. After declaring a DPI, the Member must leave the meeting and not take part in the discussion or vote. This applies even if there is provision for public speaking.

(b) Disclosable Non Pecuniary (DNPI) under the Code of Conduct adopted by the Council in May 2012. The nature as well as the existence of any such interest must be declared. After declaring a DNPI interest, the Member may stay, speak and vote on the matter.

(c) Where it is possible that a fair-minded and informed observer, having considered the facts would conclude that there was a real possibility that the Member might be predetermined or biased the Member should declare their predetermination or bias and then leave the room while that item is considered.

Advice to Members: If any Councillor has any doubt about the existence or nature of any DPI or DNPI which he/she may have in any item on this agenda, he/she should seek advice from the Monitoring Officer, the Head of Legal or from other Solicitors in Legal Services as early as possible, and in advance of the Meeting.

Part B reports for the Committee to decide

5. Digital Strategy 1 - 10

The Committee is asked to consider the Digital Strategy.

The Deputy Cabinet Member for Finance and Performance, the Head of ICT and the Transformation Programme Manager have been invited to attend for this item.

6. Discretionary Housing Payment Policy 11 - 22

The Committee is asked to consider the Discretionary Housing Payment Policy.

The Deputy Cabinet Member for Finance and Performance and the Revenue and Benefits Manager have been invited to attend for this item.

7. Swale Strategic Air Quality Action Plan 2018-22 — 23 - 106

The Committee is asked to consider the Swale Strategic Air Quality Action Plan 2018-22.

The Cabinet Member for Environmental and Rural Affairs, the Chief Financial Officer, the Mid-Kent Environmental Health Manager and the Environment Protection Team Leader have been invited to attend for this item.

8. Committee Work Programme — 107 - 108

The Committee is asked to note the Committee's Work Programme for the remainder of the year.

Issued on Wednesday, 28 March 2018

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Chief Executive, Swale Borough Council,
Swale House, East Street, Sittingbourne, Kent, ME10 3HT

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Policy Development and Review Committee	
Meeting Date	10 April 2018
Report Title	Digital Strategy
Cabinet Member	Cllr Duncan Dewar-Whalley, Cabinet Member for Finance and Performance
SMT Lead	Mark Radford
Head of Service	Mark Radford
Lead Officer	Sarah Porter
Key Decision	No
Classification	**Open**
Recommendations	1. That the Policy Development and Review Committee consider the Digital Strategy to submitted to Cabinet on 30 May 2018.

1 Purpose of Report and Executive Summary

1.1 The Digital Strategy summarises the direction the Council is taking with regard to offering a greater range of digital services for our residents and businesses and encouraging innovation in this field, as set out in the Corporate Plan.

1.2 The Strategy imagines the outcomes of how the services we deliver and the way we work will change as a result of greater use of digital technologies and approaches, addressing the areas of:

- Councillors
- Citizens
- Workforce
- Community & Partners
- Technology & Service Design

1.3 Further, the Digital Strategy offers guidance and instruction for the standards and principles to be met when developing digital services to ensure they are focused on the end-user as well as making sure that those who are digitally excluded are not left behind.

2 Background

2.1 The digital and technological arena is a notoriously fast moving sector and increasingly one in which the majority of our residents and businesses are choosing to bank, shop, transact and commute.

2.2 Our website received over 1.3m page views in the last year, far outweighing telephone or face-to-face as the preferred method for finding out about council services. Taking advantage of this preference by delivering more services digitally offers an opportunity to meet not only our customers' expectations, but also to provide benefits to the Council. There are clear efficiencies to be gained from moving appropriate transactions to digital, but it must never be about technology for technology's sake.

2.3 The Society of IT Managers (SOCITM) estimates the cost of a face-to face transaction to be £8.21 and a telephone call £2.59. A fully digital transaction is estimated to cost £0.09.

2.4 The draft strategy (see Appendix I) is about providing a framework for the emerging importance of digital methods of service delivery to digital. It is a significant challenge as well as an opportunity. For our staff, digital can be a difficult subject area to keep pace with there are a range of emerging technologies, couched in technical jargon and supported by a bewildering array of software and devices to choose from. It is important that we an approach to service delivery that is sustainable and cost-effective, whilst maximising the use of digital technologies.

2.5 When faced with uncertainty, people have a tendency to stick with what they know best and this may mean continuing the use of paper based, unnecessary burdensome processes. This strategy seeks to encourage digital service delivery. If we continue as we are we will not deliver the necessary step change in service delivery for the Council. It is against this background that the Council requires a consistent strategic direction that can be adopted by all involved in the delivery of our services.

3 Proposals

3.1 Implementing the digital strategy will provide clear direction for service areas to work towards in the development of their future service delivery models, guiding their choices about software and devices, whilst ensuring a consistent customer experience when transacting with the Council.

4 Alternative Options

4.1 Do not adopt a digital strategy. This would mean we would not be able to give clear direction and strategy for the delivery of digital services. This risks teams duplicating spend on software, creating many different online services which are inconsistent to use for the customer, and failing to spot opportunities to join up services and improve efficiency. Given the shared ICT resource in MKS, not adopting a digital strategy could also potentially mean that we are pulled in the direction that one of the other Council's would prefer to go. These councils are far more overtly 'digital by default', our proposal is that customers should be

'digital by choice'.

5 Consultation Undertaken or Proposed

5.1 Consultation has been undertaken with

- Mark Radford
- Cllr Dewar-Whalley
- David Clifford
- Phil Sutcliffe
- Kieren Mansfield
- Carol Sargeant
- Bob Pullen

6 Implications

Issue	Implications
Corporate Plan	There are several areas of the corporate plan where the digital strategy could have an impact. These are included in the body of the strategy
Financial, Resource and Property	No immediate implications, but adoption of the strategy should enable us to work in a more cost effective way as an organisation.
Legal and Statutory	None identified at this stage
Crime and Disorder	None identified at this stage
Environmental Sustainability	None identified at this stage
Health and Wellbeing	None identified at this stage
Risk Management and Health and Safety	None identified at this stage
Equality and Diversity	Improved digital services should help increase our offer to residents with some protected characteristics.
Privacy and Data Protection	Increased digital activity will mean we need to consider the protection of people's personal data even more carefully and ensure that all data we hold and capture digitally is within regulations.

7 Appendices

7.1 The following documents are to be published with this report and form part of the report:

- Appendix I: Draft Digital Strategy

8 Background Papers

None

Date	Version	Comments
20 Oct 17	0.1	First draft – for comments
26 Oct 17	0.2	Second draft – for discussion
01 Nov 17	1.1	To DDW for discussion
23 Nov 17	1.2	Updated to go to GR for GDPR comment
25 Jan 18	1.3	Updated version to DDW and MR
26 Jan 18	1.4	To DC, KM, PS, CS and BP for comment
27 March 2018	1.5	To PDRC

Swale Borough Council

Digital Strategy

Developed jointly with Mid-Kent Services

Purpose of Document

The Swale Borough Council Digital Strategy describes how digital technologies will impact on our organisation's approaches to delivering services and contribute to strategic priorities between 2015-2018 and beyond.

This document articulates our aspirations for how we transform services to enable digital access where appropriate for the service. Our ambition is to make digital services easy to access and to support residents and businesses to live, work and enjoy our district. We are also aware of some of the barriers to digital that exist in our communities and this document will be clear that we will not be digital by default, but digital by choice.

The introduction to the strategy and the section describing Our Future Organisations has been jointly written by officers representing the digital and ICT functions of the three Councils comprising Mid-Kent Services.

The purpose of joining together to write these sections of the strategy are to align our future approaches to working in the digital age and consequently provide a clear and coherent set of priorities for our shared ICT service to work to.

Introduction

The Digital Revolution is changing the world, creating new structures and models for commerce, politics and society which empower and connect people across the world.

The pace of change driven by technology over the past 10 years has been breath-taking. It will only increase in the next 10 years and though it often seems there is little we can do to stop it, we must be prepared as an organisation to meet the future. For every negative we might perceive of the digital age, there are consequential benefits and opportunities to be taken.

Airbnb is an example of the sharing economy made possible by the internet – sellers of services are matched with people who want to buy or hire them. Established commercial companies are undercut by start-ups which operate with much lower overheads. What impact does this have on our high streets and businesses? Could the sharing economy revolutionise the provision of public services?

Social media has the ability to support communities and increase public engagement, whether this is through messages relayed during times of crisis or through increased access to lectures and talks through platforms such as TED. Could social media offer the opportunity to empower communities to join together to look after and improve their neighbourhoods?

Edward Snowden, WikiLeaks and the Panama Papers demonstrate the consequences when corporate data is made publicly available. For better or worse, the power of information no longer lies in who holds it, but how it is used. Appropriate publishing of our own data assets offers benefits for transparency, accountability and driving innovation in the public sector.

Understanding the context within which this Digital Strategy has been written requires no more than looking at the world outside the Civic Centre - there is no aspect of our lives that has not been touched upon in some way by advancing technology.

Digital in our Strategic Plans

Partners under the Mid-Kent Services umbrella have set out expectations and aspirations for future service delivery in their strategic plans.

Swale Borough Council

Corporate Plan 2015-18

> "…an organisation which continuously and actively seeks new ways of achieving better results at lower cost and in which all employees are supported to experiment and innovate to improve the way they do their jobs…"
>
> "… a council whose ongoing financial viability is largely independent of the decisions made by central government and is less dependent on grant funding…"
>
> "… improve resident's perceptions and customer experience…"
>
> "… encourage innovation at every level…"
>
> "… enhance our capacity for achieving outcomes collaboratively…"

Tunbridge Wells Borough Council

Excerpts from Our Five Year Plan

"…over the next five years the funding we receive for local services will disappear…"

"…residents increasingly use digital technology to find out about and access our services…"

"…technological advances provide opportunities for reviewing the way we deliver services and remain in contact with our customers…"

"…all of our business that can be done digitally, will be done digitally…"

Maidstone Borough Council

Values from the Strategic Plan

"Service - Everything we do impacts on our customers, both internal and external. We will listen to and understand their needs, then take action to provide the right service in a positive and professional manner."

"Integrity - We work with our partners and customers to create a feeling of openness and transparency in everything we do."

"Value – …aiming to get the maximum effect for every penny of public money we spend.

"Equality - …services that are fair and easy to access."

Transformation Challenge Award

The partnership has also been awarded £569,000 of funding from the DCLG's Transformation Challenge Award, which commits the Councils to developing better online services, improving customer satisfaction and delivering efficiency savings, with the following objectives:

- Implement Digital First strategies that will increase digital take up and reduce email and face to face contact by 70 percent, and telephone contact by 50 percent, improving website satisfaction to 80 percent "good", and removing barriers to telephone contact for officers, Councillors and members of the public.
- Reduce MKS's cost to serve by implementing Digital First, together with Lean and Mindspace methodology, saving up to £8 million over 10 years.
- Implement customer insight and business intelligence technology to monitor, manage and shape service trends and demand, offering this capability to other public services and creating the potential to dramatically reduce costs to the public purse within the region.
- Provide a blueprint for partnership working within the region, and nationally, to cascade the learning and benefits to other organisations.

Our Future Organisations

This strategy aims to describe how our organisations will deliver services in three to five years time, the impact on our citizens, workforce, community & partners and the contribution that ICT & Digital technology will make. We do not know what is around

the corner. A new development in technology or a change in legislation could change our operating environment beyond recognition. We can plan only based on what we know now.

Councillors

Councillors have an integral part to play in promoting the digital services that the council offers. As an organisation we can support this by ensuring that all Councillors have the opportunity to learn the skills required and by ensuring that our online services are among the best, so they can promote them with confidence.

Citizens

Acting as a council that embraces digital technology will mean putting our citizens at the centre of any digital change as well as evolving and maintaining an internal digital culture. We must be aware of those who cannot or choose not to use digital and ensure that there are non-digital channels for those who need them. We must also continuously improve the digital services we provide.

- We will continue to develop a consistent approach to online services, both in terms of the look and approach to what we offer.
- We will ensure that the services provided online inspire confidence from customers; they don't crash, information is passed on correctly and any information we provide is up-to-date
- We will ensure that if there is a major business continuity issue then all services will continue to be able to deliver their services without the need for technology
- We will make sure that we incorporate customer feedback into any changes
- Where consent is the most appropriate lawful basis for processing, we will be clear about how citizens and customers can freely opt in and opt out of future communications with us under the General Data Protection Regulations (GDPR)
- We will support customers to do it themselves and work towards improving digital skills across the borough, through schemes such as the Digital Champions at the Gateway.

The better our online services are, the faster our citizens will move away from choosing traditional methods of contact, like the phone, to digital interactions.

Workforce

Even with advances in technology we will continue to need committed and motivated people to deliver our services. Changing demands require them to be more mobile, flexible and cover a wider range of tasks and activities than ever before. Future digital technology, improved communications and transformational change will allow our workforce to operate from anywhere. In five year's time, we imagine that:

- Our workforce will continue to deliver excellent customer service using technology and processes designed to support them in their work.

- Moving to digital working will help keep individual workloads manageable by reducing administrative work.
- Staff will feel empowered to change what doesn't work and there will be opportunities to gain skills relevant to the modern workplace.
- Staff will spend time with citizens who have complex needs because everyday transactions and requests for information will be dealt with digitally.
- Culture will continue to be 'can-do' with a shift in emphasis towards enabling and assisting people to access Council services themselves.
- We will review our systems at regular intervals to ensure that we are using them in a way that maximises the efficiency of our staff
- We will equip our working environment to enable our staff to maximise their productivity by working digitally.
- Staff will have technology that meets their role's requirements, which securely connects to our systems and provides the flexibility to operate from anywhere.
- Our shared services will be able to operate and access their information from any of the partner's sites.

Community and Partners

We are a trusted and integral part of our community, working to improve outcomes for all through close working with a wide variety and number of organisations. Reducing digital exclusion relies on improving access, skills and motivation to use the internet and trust in online services. Together with our partners we can reduce digital exclusion and promote a local economy maximising the use of digital and technology to benefit our Boroughs.

- We will encourage the use of technologies to improve quality of life for our residents.
- We will communicate with our partners to enslist their support in promoting our online services. This will include through Kent Association of Local Councils (KALC) and community groups to increase the number of people who are using council services online.
- Where appropriate our partners - e.g. KCC and Housing Associations - will be able to use our Customer Account portal to provide their services and vice versa.

Technology and Service Re-design

When we look to review the services we provide we will ensure that they are fit for purpose in meeting the needs and demands of our citizens. We will understand that demand first before we see how technology can enhance the experience of doing business with us.

We will use technology only where it improves our citizens' experience and will strive to get service right first time. By improving our services and incorporating digital tools we anticipate that our citizens will choose to move away from traditional

methods of contact to digital interactions including how we communicate with our citizens.

Going digital is less about IT technologies and hardware and more about better services for citizens, available when they need them. We want to develop a culture internally and externally that ensures that digital is the preferred choice of the majority of our citizens

Links to our Customer Access Strategy

The Digital Strategy for Swale is closely linked to the 2013 Customer Access Strategy where we articulated the need to improve the way customers access services and change how we engage with customers. The principles outlined in the Customer Access Strategy as below are still applicable.

- All of our services are delivered with our customers' needs and preferences in mind and in accordance with the stated service standards
- There is an appropriate and convenient choice of ways to access our services; whilst we will introduce more self service facilities as a means of customer access, we appreciate the importance of maintaining face to face and telephone access for those who need or prefer such methods
- We have a clear knowledge and understanding of our customers' needs
- Our customers will, wherever possible, have to contact us only once and may easily track the progress of their enquiries
- We will deliver the services in an efficient and cost effective manner

Links to our Communications Strategy

The Communication Strategy sets out a clear ambition around improving the digital offer to residents and business through the following avenues:

- An improved website with enhanced functionality
- Improved social media presence
- Increased digital communications

Policy Development Review Committee Meeting

Meeting Date	10 April 2018
Report Title	Discretionary Housing Payment Policy
Cabinet Member	Cllr Duncan Dewar-Whalley, Cabinet Member for Finance and Performance
SMT Lead	Emma Wiggins
Head of Service	Amber Christou
Lead Officer	Zoe Kent
Recommendations	1. To review the Discretionary Housing Payment policy.

1 Purpose of Report and Executive Summary

1.1 The Benefits section is awarded an annual budget from Central Government to provide payments to those Housing Benefit customers who have a shortfall between their rent and their Housing Benefit. Due to the welfare reform changes that were brought in by Central Government our Discretionary Housing Payment (DHP) grant has increased significantly since 2013/14 rising to £454,797 for 2017/18. Each local authority is able to allocate its own funds to top up the fund to an overall limit of 2.5 times the DHP grant. The authority may not reject applications because the funding provided by the Government has been spent, it is therefore considered appropriate to regularly review the policy.

2 Background

1.2 Discretionary Housing Payments are extra funding which may be awarded when a Local Authority considers that a claimant requires further financial assistance towards housing costs and is receipt of Housing Benefit or Universal Credit with housing costs towards rental liability. The payments are funded from a grant received from the Department for Work and Pensions. As the scheme is discretionary it is good practice to have a policy in place to ensure the Council acts fairly, reasonably and consistently when making decisions.

1.3 Prior to April 2013, DHPs had only been paid to claimants who had a shortfall between their Housing Benefit and rent, for reasons such as a higher than average rent, working so not receiving full Housing Benefit or living in larger than necessary accommodation due to a claimant being pregnant.

1.4 Since the implementation of the welfare reform changes the DHP grant increased due to the reduction in the Local Housing Allowance (LHA) rates which had

restricted the amount the Council can pay in Housing Benefit, the spare room subsidy reductions and the benefit cap. In 2015 single claimants were able to claim Universal Credit so the Council also started awarding DHPs to claimants claiming Universal Credit Housing Costs.

1.5 Before the implementation of the Welfare Reform changes in 2013 it was thought that Local Authorities would significantly overspend on their DHP budgets due to the reduction in the Housing Benefit awards to claimants. This did not occur which has given the Council the ability to consider how the budget would be best spent and to ensure those in need receive the appropriate help towards their housing costs.

1.6 DHP claims have only been turned down where it has been felt that claimants had enough excess income to cover any shortfall between their Housing Benefit and rent. What is not known is whether claimants are underspending on necessities such as food or other living expenses to meet the shortfall in their rent.

1.7 The amount spent on Benefit Cap cases has increased since the maximum income triggering the benefit cap was reduced to £20,000 per year from £26,000. The number of customers applying for a DHP who are at risk of loosing their homes due to rent arrears has increased significantly over the past two years. The DWP guidance manual suggests that DHPs should be used to help families at risk of homelessness.

Table 1: *Actual DHP expenditure 2015/16*

Impact of Welfare Reforms 2015/16 DHP Grant - £248k	**Number of awards**	**£**
Benefit Cap	24	15,690
Removal of spare room subsidy	215	80,889
LHA Restriction	19	7,491
Combination of reforms	6	2,208
No welfare reform impact i.e. awarded under previous rules	276	137,680
Total	**540**	**£243,958**
Purpose of DHP		**Number of awards**
To help secure and move to alternative accommodation e.g. rent deposit		114
To help with short-term rental costs while the claimant secures and moves to alternative accommodation		104
To help with short-term rental costs whilst the claimant seeks employment		38
To help with on-going rental costs for a disabled person in		9

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adapted accommodation	
To help with on-going rental costs for any other reasons	275
Total	**540**

Table 2: *Actual DHP expenditure 2016/17*

Impact of Welfare Reforms 2016/17 DHP Grant - £319k	**Number of awards**	**£**
Benefit Cap	71	69,751
Removal of spare room subsidy	126	43,936
LHA Restriction	7	3,831
Combination of reforms	2	519
No welfare reform impact i.e. awarded under previous rules	298	210,169
Total	**504**	**£328,206**
Purpose of DHP		**Number of awards**
To help secure and move to alternative accommodation e.g. rent deposit		56
To help with short-term rental costs while the claimant secures and moves to alternative accommodation		9
To help with short-term rental costs whilst the claimant seeks employment		13
To help with on-going rental costs for a disabled person in adapted accommodation		1
To help with on-going rental costs for a foster carer		0
To help with on-going rental costs for any other reasons		425
Total		**405**

Table 3: *Actual DHP expenditure 2017/18 up to 01.03.2018*

Impact of Welfare Reforms 2017/18 up to 01.01.2018 DHP Grant - £455k	**Number of awards**	**£**
Benefit Cap	108	122,696
Removal of spare room subsidy	74	26,056
LHA Restriction	4	1,621
Combination of reforms	21	20,652
No welfare reform impact i.e. awarded under previous rules	339	250,009
Total	**546**	**£421,034**
Purpose of DHP		**Number of awards**
To help secure and move to alternative accommodation e.g. rent deposit		59
To help with short-term rental costs while the claimant secures and moves to alternative accommodation		0

To help with short-term rental costs whilst the claimant seeks employment	4
To help with on-going rental costs for a disabled person in adapted accommodation	1
To help with on-going rental costs for a foster carer	2
To help with on-going rental costs for any other reasons	480
Total	**546**

1.8 Following an appeal (Hardy, R (on the application of) v Sandwell Metropolitan Borough Council (2015)) the High Court stated that authorities should not be using blanket policies when considering DHP applications. The policy therefore should not for example suggest that a particular income should or should not be taken into account.

3 Proposal

1.9 It is proposed that the policy should be reviewed by the Policy Development Review Committee. .

4 Alternative Options

1.10 DHPs could be awarded just following the DWP DHP guidance manual. This is not recommended because if further welfare reform measures are brought in it is likely that an increased level of claims will be received. It is therefore recommended that as the award of DHPs are discretionary a policy should be in place so that awards are made based on the needs of the Borough.

5 Consultation Undertaken or Proposed

1.11 An 8 week consultation is currently being carried out to obtain the views of Swale residents and stakeholders. The consultation will be taken into account in the final version of the policy to go to Cabinet..

6 Implications

Issue	Implications
Corporate Plan	A council to be proud of – the DHP budget can be used to help those most in need to either stay in their current dwelling or to move to more appropriate housing for their needs. This can also help us to free up properties that may be more suitable for other

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	residents who are currently bidding for housing.
Financial, Resource and Property	The DHP funding is an annual grant from the DWP. If the grant is not spent in full, any funding left at the end of the financial year must be repaid to the DWP. It is therefore imperative that the use of the grant is monitored throughout the year. The Housing Benefit team therefore work with the Housing Options team and landlords to ensure that the grant is used to provide support to those most in need.
Legal and Statutory	Discretionary Financial Assistance Regulations 2001 (as amended 2008 and 2013) give the Borough the discretion to decide how to award discretionary payments. The regulations were amended in 2013 to include the award of DHP payments to those residents in receipt of Universal Credit.
Crime and Disorder	By providing DHP payments it may stop some claimants from committing crime in order to meet any shortfall between their Housing Benefit and rent payments. The risk of this happening is likely to be minimal.
Sustainability	None
Health and Wellbeing	Using the DHP budget appropriately to reach those residents most in need will help to improve the health and wellbeing of people whose health may be suffering. This could include stress they are under due to living in unsuitable housing or due to rent arrears they have built up.
Risk Management and Health and Safety	If the DHP budget is not used to help those residents who are at risk of homelessness there will be a risk of an increase in expenditure for temporary accommodation.
Equality and Diversity	A community impact assessment is being carried out.

7 Appendices

The following documents are to be published with this report and form part of the report

- Appendix I: DHP Policy – Draft January 2018

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Appendix I

Swale Borough Council Discretionary Housing Payments Policy

Revenues & Benefits Service

Draft January 2018

1. Introduction

This policy sets out how Swale Borough Council will operate its Discretionary Housing Payment (DHP) scheme.

DHP awards play an important part in helping people adjust to changes in the welfare system as well as for those who are struggling to meet a rent shortfall or need help with costs associated with moving to more affordable accommodation. DHP funding is limited and therefore in most cases only short to medium support will be considered through the DHP scheme whilst any underlying issues are addressed, such as:

- Taking up employment;
- Moving to more affordable or suitably sized accommodation;
- Seeking help to address money and debt issues; and
- Avoiding an immediate threat of eviction

In administering the scheme and considering any application, the Council will expect those that are able to help themselves to do so. DHP should not be seen as an alternative to welfare reform.

2. Objectives of the Scheme

The Council will consider making a Discretionary Housing Payment (DHP) to households who meet the criteria outlined in this policy. It will consider all claims on their individual merits, along with other associated policies.

The Council will work with other departments (such as the Housing Section) and other organisations (such as advice agencies, landlords and Social Services), for the purpose of signposting and assistance, to help address underlying issues such as to:

- Prevent homelessness
- Help alleviate poverty;
- Support vulnerable households;
- Provide support in a time of crisis; and
- Encourage employment.

Discretionary Housing Payments can only be made to help with housing costs. They are means tested and only essential expenditure is taken into account. Each application will be looked at on an individual basis taking into account all relevant circumstances. They cannot not be paid to cover other costs such as service charges or Council Tax.

3. The DHP scheme

The DHP scheme is intended to be flexible and can cover a range of different housing costs or scenarios. These include:

Meeting the shortfall between rent and housing benefit where:

- a property has been especially adapted to meet the needs of a disability and it would be impractical to move;
- a disabled person is waiting to be moved to more suitable accommodation;
- the householder has planned to move to more affordable accommodation and needs some short term assistance until they actually make the move into their new home;
- the property is currently classed as too big for the household but the circumstances are expected to change e.g. expecting a baby, a birthday that affects entitlement to Housing Benefit or Universal Credit Housing Costs, awaiting placement of a foster child or taking in a lodger;
- the householder is struggling to pay their rent because of other debts but can demonstrate that they are seeking help or have arranged their finances to enable them to pay the shortfall in the future; and
- provide short term support to help with the move back into work.
- payments towards rent arrears to avoid the risk of eviction

Help to move to an affordable property where:

- the customer wants to move to a more suitable property for their needs and requires some help to pay the rent in advance and/or deposit; and
- the customer has to pay rent on two properties for a short period and it cannot be met by housing benefit.
- The customer needs help with the cost of removals.

DHPs are made at the discretion of the Council and are not governed by the same rules as housing benefit; however, to qualify the person making a claim must also be receiving housing benefit or the housing element of Universal Credit.

The starting point of any application will also be to consider whether there is a need for a DHP or if the amount can be met through the other income and savings within the household. The Council will also look where appropriate to see what action the person is taking to help themselves.

4. Claiming a DHP

A claim for a DHP will generally be expected to be made in writing using the form provided by the Council. The form asks for details of all income and expenses, as well as details of wider circumstances which the Council needs to be aware of to make an informed decision.

Where the customer would rather discuss their circumstances in person, a private interview can be arranged or, where the customer cannot attend the office, a home visit made.

In considering an application the Council may request evidence to support the application, or take steps to verify the information provided to ensure that they are accurate.

5. Period of Award

The period of award will be dependent on the individual circumstances and whether the award is to help to meet a one-off cost, temporary shortfall, or longer term need.

At the point of making a decision the Council will set the period of award, which will be notified along with the decision. Decisions will normally start from the Monday after receipt of the claim; however, awards may be backdated if there is a good reason why the claim could not have been made sooner and the circumstances continued throughout that period.

6. Changes of Circumstances

In receiving a DHP the applicant provides an undertaking to notify the Council of any change in the circumstances declared within their application. The Council may revise and recover any overpayment where the claimant's circumstances have materially changed.

7. Payment

The Council will decide the most appropriate person to pay based upon the circumstances of each case. This could include paying:

- the claimant;
- their partner;
- an appointee;
- their landlord (or an agent of the landlord); and
- any third party to whom it might be most appropriate to make payment.

Payments will be made by BACS and at the same frequency as any housing benefit, subject to any special requirements.

8. Notification

The Council will aim to advise claimants of the outcome of their claim within 14 days of receipt of their claim and any evidence requested. The notification will include;

- the weekly amount of DHP awarded;
- the income and expenditure used in the calculation;
- the period of award;
- whom it will be paid to; and
- the requirement to report a change of circumstances.

9. Review of Decisions

The Council will operate the following policy, in dealing with a request for a decision to be reviewed following a refusal to award a DHP or a request to review the amount or period of an award:

- a request for a review should be in writing within one month of the decision, stating why the decision is believed to be wrong and providing any additional evidence;
- the decision, along with any new evidence from the claimant, will be reviewed by the Council's nominated Appeals Officer, who will aim to either make a new decision or confirm the earlier decision within 14 days;
- the claimant will be notified of the outcome in writing and informed of their right to escalate their appeal to the Revenues and Benefits Manager – Financial & Technical if they remain unhappy with the decision made;
- the Revenues and Benefits Manager- Financial & Technical will review the decision and write to confirm the outcome within 14 days informing them of their right to escalate their appeal to the Head of Resident's Services if they still remain unhappy with the decision made; and
- the Head of Resident's Services will review the decision and will write to confirm the outcome within 21 days. That decision will be final with no further right of appeal.

10. Publicity

The Council will promote the availability of DHPs when notifying individuals of their housing benefit entitlement, when communicating any change or restriction in housing benefit awards, and through the information made available on-line and at customer access points.

11. Information Sharing

The Council will use the information provided within the application and any supporting evidence for the purpose of verifying benefit entitlement and making a decision on the claim. In addition, it may share information with other departments within the Council and with partner organisations for the purpose of the planning and/or delivery of services or fraud prevention.

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Policy & Development Review Committee	
Meeting Date	10 April 2018
Report Title	Draft Swale Strategic Air Quality Action Plan 2018 - 2022
Cabinet Member	Cllr David Simmons, Cabinet Member for Environment and Rural Affairs
SMT Lead	Nick Vickers
Head of Service	Tracey Beattie
Lead Officer	Steve Wilcock
Key Decision	Yes
Classification	**Open**
Recommendations	1. That the committee note the contents of Swale Strategic AQAP 2018 – 2022 Report 1: Source Apportionment and Options Assessment (Draft 1) 2. That the progress and development of the Interim Swale Strategic Air Quality Action Plan 2018 – 22 is noted and that committee advise the Cabinet Member for the Environment and Rural Communities of the inclusion of further action plan measures they consider should be included.

1 Purpose of Report and Executive Summary

1.1 An Interim Swale Strategic Air Quality Action Plan 2018 – 22 (Interim AQAP) was approved by Cabinet on 4 October 2017, it outlines the implementation process for the adoption of the Strategic Air Quality Action Plan 2018 – 22 (Appendix II).

1.2 Developing a Swale Strategic AQAP will provide clear objectives for delivering air quality improvements in the Borough. These include:

- Clear vision and direction for the AQAP
- Strategic and focused actions and measures to improve air quality across the borough as well as within Swale's declared AQMAs
- Detailed assessment and quantification of agreed actions and measures within the AQAP
- Full consultation and engagement process with all stakeholders and delivery partners on the key actions and measures within the AQAP; and
- Implementation and delivery plan for the AQAP through 2018 – 2022.

1.3 The process of adopting a Swale Strategic AQAP involves a number of stages to ensure that the measures finally approved, consulted and submitted to Defra will achieve the desired air quality improvement. The Swale Strategic AQAP 2018 – 20122: Report 1 (Appendix I) produced by Consultants Phlorum is the first major step in the process and provides the evidential basis from which assessments of the effectiveness of action plan measures can be made..

1.4 The Swale Air Quality Steering Group has not yet considered the details contained in Report 1 the next meeting is planned for 18 April 2018. Following this, the proposed action plan measures can be reviewed in terms of emissions reduction assessment, AQMA options modelling and cost benefit analysis to inform the second report. This will feed into the final draft Strategic AQAP for public consultation in June 2018.

2 Background

2.1 Swale Borough Council has a statutory duty to provide Air Quality Action Plans (AQAPs) as part of the Local Air Quality Management Framework and has previously developed a number of individual AQAPs for the Air Quality Management Areas within the district. These plans are required to be updated to ensure that the Action Plan measures remain relevant and reflect the current needs of the AQMAs. It is also important to ensure that any revision of the AQAPs reflect best practice and recent Defra guidance.

2.2 A review of the air quality issues in the borough concluded that one strategic AQAP would provide a better approach to tacking some of the common issues that occurred across all five AQMAs, four of which are situated along the A2, with the option of accommodating specific needs of each AQMA. The Interim Swale Strategic AQAP 2018 – 2022 contains an updated list of measure to improve air quality (Appendix I).

2.3 The Swale Strategic AQAP 2018 – 2022 Report 1: Source Apportionment and Options Assessment (Appendix II) contains detailed information on traffic assessments, NOx and NO_2 source apportionment, and air quality modelling assessments for all the AQMAs within Swale. The information will form the baseline for the work of the next four years, enabling officers to prioritise resource on initiatives that will have the biggest impact on reducing pollutants from vehicles within the AQMAs and also across the whole borough.

2.4 The report draws on historic and some publicly available traffic information, but the majority of the data provided comes from detailed traffic surveys commissioned by Swale B C and undertaken in January 2018 specifically for the purpose of providing baseline data for each of the AQMAs.

2.5 The surveys included automatic traffic counts, giving speeds, vehicle categories and total volume of traffic at each AQMA (5.10 and Figures 1 -4) for a period of

seven days from 22 January 2018. Analysis of the ATC data is included in Table 5.1 and Graphs 5.1 and 5.2.

2.6 Automatic Number Plate Recognition (ANPR) surveys were also conducted at three locations along the A2; at Newington, Key Street and Ospringe to provide information on the volumes, vehicle classes and individual vehicle Euro categories over a two-day period on the 9 and 10 January 2018. This information is captured in Tables 5.2 – 5.4, with further breakdown of vehicle by Euro category at each site in Graphs 5.3 – 5.5.

2.7 NOx emissions source apportionment studies were undertaken for each AQMA and are detailed in Section 6, Table 6.1 of the report (Appendix II). In summary the traffic data showed that across all AQMA locations on average 82% vehicle movements were cars, 15% were Light Goods Vehicles and 3% combined Ordinary Goods Vehicles (HGV). The source apportionment identified that 15% of LGV were responsible for 15-20% of NOx emissions and 3% of HGV produced 18 – 20% of NOx emissions.

2.8 The consultant has undertaken air quality modelling to predict the baseline NO_2 concentrations using accepted and current methodology. The modelling provides future year concentrations of NO_2 at sensitive receptor locations in each AQMA. This is summarised in Table 7.3. There are predicted exceedances in three of the five AQMAs in 2022 if no action is taken to reduce concentrations of NO_2. Table 7.4 indicates the level of reduction needed to meet the Air Quality Standards Compliance level.

2.9 The source apportionment identifies several vehicle categories which can be targeted to achieve the required reduction needed to be able to produce the levels of NO_2 required to achieve compliance in the four AQMAs predicted to exceed AQS levels in 2022.

2.10 The report identifies that the primary vehicle group to target to achieve compliance of AQSs are HGV vehicles and LGV (diesel) sector and early Euro category vehicles (Euro 1 – 4).

3 Proposals

3.1 That the work being undertaken by the consultant Phlorum in the Swale Strategic AQAP 2018 -2022: Report 1: Source Apportionment and Options Assessment (Appendix II) is noted by the Committee.

3.2 That the progress and development of the Interim Swale Strategic Air Quality Action Plan 2018 – 22 is noted and that committee advise Cabinet of the inclusion of further action plan measures they consider should be included

4 Alternative Options

4.1 The committee may advise Cabinet that the Strategic Air Quality Action Plan 2018 – 22 should not be approved and the current Action Plans remain in place. This option increases the risk of government infraction against Swale for failing to meet its obligations on air quality. Having out of date action plans fails to provide officers with guidance for prioritisation work on air quality initiatives. It also fails to provide endorsement of the important role air quality has in planning consultations and advice to developers in Swale.

4.2 The committee could recommend an alternative approach to the progression of the Swale Strategic Air Quality Action Plan 2018 – 22. This may run the danger of delaying the publication of the plan.

5 Consultation Undertaken or Proposed

5.1 Following completion of the three stages outlined in the Interim Swale Strategic AQAP 2018 – 2022 and the final report being submitted to Cabinet a full public consultation will be held before submission to Defra.

6 Implications

Issue	Implications
Corporate Plan	Priority Theme One: A Borough to be Proud of A borough which is noticeably clean and well maintained, in which the natural and built environments are respected, conserved and enhanced for future generations. Facilities for residents and visitors alike.
Financial, Resource and Property	The financial implications of the Swale Strategic AQAP 2018 – 22 are yet to be determined. The Interim Swale Strategic AQAP 2018 – 2022 (Appendix I) and the Report in Appendix II have still to determine the Measure and Actions to improve air quality.
Legal and Statutory	Development of the Swale Strategic AQAP 2018 -2022 will ensure that the Borough meets is obligations under the Environment Act 1995.
Crime and Disorder	No implications at this stage.
Environmental Sustainability	This report and the work being undertaken will provide mitigation measures to improve air quality and climate change.
Health and	The Swale Strategic AQAP 2018 – 2022 will seek to support

Wellbeing	improvements to air quality and improve the health and wellbeing of residents and visitors to Swale.
Risk Management and Health and Safety	Working towards a robust Swale Strategic AQAP will improve risk management of air quality for the borough.
Equality and Diversity	No implications at this stage
Privacy and Data Protection	No implications at this stage

7 Appendices

7.1 The following documents are to be published with this report and form part of the report:

- Appendix I: The Interim Swale Strategic AQAP 2018 -22
- Appendix II: The Swale Strategic AQAP 2018 – 22 Report 1:Source Apportionment and Options Appraisal

8 Background Papers

None

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Swale Borough Council
(Interim) Air Quality Action Plan

In fulfilment of Part IV of the
Environment Act 1995
Local Air Quality Management

2017

Local Authority Officer	Steve Wilcock
Department	Environmental Protection Team Mid- Kent Shared Service Environmental Health
Address	Swale Borough Council East Street Sittingbourne ME10 3HT
Telephone	01622 602187
E-mail	Steve.wilcock@midkent.gov.uk
Report Reference number	Enter Report Reference
Date	September 2017

Executive Summary

This interim Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management Framework. It outlines the approach and proposed actions and measures to be developed into a (final) Strategic AQAP for Swale, which will set out how we will improve air quality in the Borough between 2018 and 2022.

This interim AQAP sets out the proposed action plan options for developing a final "Strategic AQAP" for Swale. Swale Borough Council declared five AQMAs over a period of seven to eight years since 2009, and has separate AQAPs developed for each of these locations. The new proposed approach for Swale is to develop a more holistic AQAP which will combine local AQMA actions and measures, plus provide a wider strategic approach to improving air quality across the wider Borough. The final Strategic AQAP will replace the previous individual action plans which ran from 2010/11.

Projects delivered through the past action plan include:

- Developing a Swale Freight Management Plan (2016)
- Participating in the Eco Stars Scheme 2015 – 16
- Participating in the Kent Messenger Schools Projects (active travel campaign)
- Resident campaigns in newly formed Teynham and Lynsted AQMA community action group
- Resuming the community Air Quality Steering Groups within Newington and Ospringe

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 and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion. Swale Borough Council is committed to reducing the exposure of people in Swale to poor air quality to improve local health outcomes.

In this interim AQAP, we propose to develop actions and measures that can be considered under the following wider topics:

- Alternatives to private vehicle use
- Freight and delivery management
- Policy guidance and development control
- Promoting low emission transport
- Promoting travel alternatives
- Public information
- Transport planning and infrastructure
- Traffic management
- Vehicle fleet efficiency

Our key priorities are to develop measures which deliver compliance of air quality objectives through a combination of strategic and local focused AQMA measures. The key priorities are to identify measures which target reductions in emissions from vehicle fleets (HGV, LGV and cars), smooth traffic flows and reduce congestion and protect local communities.

In this interim AQAP, we outline how we plan to effectively tackle air quality issues within our control and working with partners who can support actions to reduce harmful emissions of pollutants and measures which can protect the public and the most vulnerable from air pollution.

However, we do recognise that there are a number of policy areas that are outside of our influence (such as vehicle emissions standards), so we will also continue to work hard to influence central government and other agencies to develop policies and

implement measures such as Clean Air Zones to help drive down emissions and improve air quality for our citizens.

Responsibilities and Commitment

This interim AQAP was prepared by the Mid Kent Shared Service Environmental Health Department for Swale Borough Council with the support and agreement of the following officers and departments:

Council Officers	**Position**
Tracey Beattie	Mid Kent Environmental Health Manager
Steve Wilcock	Mid Kent Environmental Protection Team Leader

This interim AQAP has been approved key Council Members:

Swale Borough Council Elected Members	**Signature**
Councillor David Simmons, Cabinet Member for Environment and Rural Affairs	
Councillor Andrew Bowles, Council Leader	

The Interim AQAP will be approved in principle by the Cabinet (4 October 2017) and support will be sought from AQMA community groups and a Strategic AQAP Steering Group to include key strategic partners as the Action Plan is developed through key stages.

Key consultees to be engaged include Swale Borough Council, Mid Kent Environmental Health, Kent County Council, Swale Joint Transport Board, Highways England and Public Health England. The full list of additional supporting partners and consultees is provided in Appendix A: Interim AQAP consultees.

The development of the final Swale Strategic AQAP (2018 – 2022) will involve wider strategic and local AQMA community involvement and consultation. A Strategic AQAP Steering Group is to be developed through 2017/18 which will consult and develop the strategic measures required to deliver compliance through to the final Strategic Action Plan. This Strategic AQAP Steering Group will also become the AQAP implementation and delivery body, as it will consist of key partners with responsibilities for transport, planning and policy development across Swale and Kent.

The final Swale Strategic AQAP will be subject to an annual review, appraisal of progress and reporting to the relevant Council Committees (Full Cabinet and the Joint Transport Board). Progress each year will be reported in the Annual Status Reports (ASRs) produced by Swale Borough Council as part of our statutory Local Air Quality Management duties.

If you have any comments on this AQAP please send them to Steve Wilcock at:

Address Swale Borough Council
Swale House
East Street
Sittingbourne
Kent ME10 3HT

Telephone 01622 602184

Email steve.wilcock@midkent.gov.uk

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1 Introduction

This report outlines the Interim Air Quality Action Plan (AQAP) for Swale Borough Council. This interim AQAP sets out the approach and proposed measures that are to be developed into a final Strategic AQAP to be published in 2018. This interim AQAP has been developed to ensure that a comprehensive Strategic Action Plan will be in place for implementation from 2018 – 2022.

The final Swale Strategic AQAP (2018 – 2022) will include:

1. Clear vision and direction for the Swale Strategic AQAP;
2. Strategic and focused actions and measures to improve air quality across the Borough and as well as within the declared Swale AQMAs;
3. Detailed assessment and qualification of agreed actions and measures within the AQAP;
4. Full consultation and engagement process with all stakeholders and delivery partners on the key actions and measures within the AQAP; and
5. Implementation and delivery plan for the Strategic AQAP through 2018 – 2022.

The final Strategic AQAP, that Swale Borough Council will deliver between 2018 – 2022, will target reductions in concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents, people working in and visiting the Borough.

This interim AQAP has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

The final Strategic AQAP will be reviewed every five years and progress on measures set out within this Plan will be reported on annually within Swale Borough Council's air quality Annual Status Report. The latest ASR was submitted to Defra in December 2016 and is available on the Kent and Medway Air Quality Partnership (KMAQP) website. http://www.kentair.org.uk/

2 Summary of Current Air Quality in Swale

Swale Borough Council has a comprehensive monitoring network of nitrogen dioxide (NO_2) monitoring sites including measurement by automatic analysers at three locations (Newington, Ospringe and St Paul's) and fifty-seven locations with passive diffusion tube devices. The Council also undertakes particulate monitoring using an automatic analyser to measure particulates less than 10 microns in size (PM_{10}) at Ospringe and from late 2017 at Newington.

The monitoring programme undertaken by the Council identified five locations which exceeded the annual air quality objective level for nitrogen dioxide ($NO_{2)}$ and subsequently declared five AQMAs within Swale Borough. The AQMAs are listed below:

- AQMA 1: Newington, (A2 /High St)) declared 2009
- AQMA 2: Ospringe Street, Faversham (A2/Ospringe) declared in June 2011 and revised (as AQMA 6) to the Mount in May 2016.
- AQMA 3: East Street, Sittingbourne (A2/Canterbury Road) declared January 2013
- AQMA 4: St Pauls Street, Milton, Sittingbourne (B2006) declared January 2013
- AQMA 5: Teynham (A2 /London Rd) declared December 2015

AQMAs 1, 2, 3 and 5 are situated on the A2 which is a major transport corridor through Swale, with AQMA 4 located within Sittingbourne urban centre. The AQMA location maps are provided in **Error! Reference source not found.**Appendix C: AQMA location maps) and on the Defra website "List of Local Authorities with AQMA's"[1]).

The 2017 Swale Borough Council ASR contains the most recent monitoring locations, data and progress to date on the current AQAP measures for the Swale AQMAs. Although particulate matter (PM_{10}) concentrations are not exceeding air quality objectives, the 2017 ASR recommended that monitoring of PM_{10} should

[1] https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=268

continue. The monitoring will also help the Council to review and report the effectiveness of Action Plan measures to reduce NO_2 and PM_{10} concentrations.

3 Swale Borough Council's Air Quality Priorities

3.1 Public Health Context

Air pollution is associated with a number of adverse health impacts. Each year in the UK, around 40,000 deaths are attributable to exposure to outdoor air pollution which plays a role in many of the major health challenges of our day. 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 and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas.

There is gathering evidence regarding the impact of gaseous and particulate matter pollutants on respiratory and cardiac health from sources such as the Committee on the Medical Effects of Air Pollutants (2010) and the Royal College of Physicians and Royal College of Paediatrics and Child Health[2] (2016). Research has linked air pollution with cancer and dementia as well as the additional impact on mental health from the traffic noise affecting residents in homes in air quality management areas.

3.2 Planning and Policy Context

Swale's Local Plan 'Bearing Fruits', (http://www.swale.gov.uk/local-plan-for-swale/) was adopted in July 2017 and contains a number of references to air quality, Action Plans and the Air Quality Management Areas. The Local Plan identifies the need to ensure new developments are assessed for air quality and have nil-detriment (air quality objectives are not compromised) to air quality within AQMAs and are consistent with the local Air Quality Action Plans. The Plan also recommends innovative mitigation measures that may be required to address any impacts with regard to air quality and noise (Policies ST5, ST7, A9, A10, A14, A16, A18, A19, MU4, MU5, MU7, DM6, DM10, DM20). The Plan also links back to the national policy in the National Planning Policy Framework and Planning Practice Guidance

[2] www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution

(DCLG). Section 7.7 Conserving and enhancing the natural environment makes specific reference to air quality by referencing the impact of developments on air quality and highlighting the Kent and Medway Air Quality Partnership (KMAQP) Air Quality and Planning Technical Guidance (July 2011), since revised in 2015.

Swale adapted the KMAQP guidance and produced its own Air Quality Planning Technical Guidance in Dec 2016. Through its use in development management, greater acceptance of the importance of air quality in the planning process has been developed and resultant damage costs calculations in larger developments have provided mitigation.

3.3 Source Apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within Swale and the specific AQMAs.

Source apportionment exercises were carried out by Swale Borough Council across three of the A2 AQMAs in Ospringe (2012) Newington (2013) and East St (2014). These studies found that within the AQMAs, the percentage source contributions were as follows:

- road traffic is responsible for over 70 - 76% of the ambient NO_2 concentrations;
- between 30 - 40% of NOx pollution comes from the HGVs and more than 31-36% from cars.

Further detailed analysis of the East St (A2) source apportionment provided a further breakdown of road-traffic NOx contributions as follows:

- Cars (31.0%), HGVs (29.2%), LGVs (11.3%) Buses/Coaches (2.9%) and Motorcycles (0.1%)

The contribution of HGVs to the total NOx and NO_2 concentrations is quite significant especially if compared to the proportion of the vehicle fleet they represent (about 4.6% and 6.2% respectively).

The source apportionment study of urban AQMA in St Pauls Street, Sittingbourne (2014) had slightly higher ratio of emissions from road traffic at 77.6% with the breakdown of road-traffic NOx contribution as follows:

- Cars (31.7%), HGVs (31.4%), LGVs (11.7%) Buses/Coaches (2.6%) and Motorcycles (0.1%).

These source apportionment studies demonstrate the significant emissions of NOx and resultant impact of traffic on NO_2 concentrations within all the AQMAs. It provides the focus of measures for reducing emissions from the key vehicle sectors; HGVs and cars, followed by LGVs.

3.4 Required Reduction in Emissions

Each AQMA continues to have measured exceedances of the air quality objectives for NO_2 (as described in the 2017 ASR). Specific wider strategic measures will be needed across all the AQMAs to reduce emissions significantly enough to ensure compliance. In addition, localised emissions reduction measures will need to be tailored in each AQMA for local conditions and community supported actions and initiatives. It should also be noted that there will be variations in the required emissions reductions at each location as the exceedance value of NO_2 differs in each of the AQMAs.

Emission reduction assessments were undertaken in previous further assessments for East St AQMA (2013), St Paul's AQMA (2013) and Ospringe AQMA (2012). These identified some significant required reductions in emissions ranging from 35% reduction in required road-NOx emissions (equating to the required 9.6µg/m^3 reduction in NO_2) in East St AQMA to 53.7% reduction in required road-NOx emissions (equating to the required 18µg/m^3 reduction in NO_2) in St Paul's AQMA. These assessments provide a rough basis for assessments but need to be reviewed as current NO_2 concentrations have changed since the initial assessment were undertaken. As well as changes to local traffic characteristics and the vehicle emission factors revision in light of real-world emission testing.

Emissions reduction assessments will need to be undertaken for each AQMA to assess the best AQAP measures to achieve compliance and improve air quality. This Interim AQAP does not provide a comprehensive emissions reduction

assessment, therefore it is recommended that Swale Borough Council undertakes revised assessment AQMA traffic and likely emissions reductions measures required at each AQMA.

3.5 Key Priorities

The interim AQAP priorities for delivering compliance within the AQMAs, based on the previous sections highlight the need for:

- **Priority 1** – Undertake revised impact assessment of AQMA traffic and emissions reductions measures required at each AQMA.
- **Priority 2** - Development of local AQMA and wider Strategic measures.
- **Priority 3** - Develop measures which focus on key emissions reduction measures from the HGV and LGV fleet travelling through the AQMAs.
- **Priority 4** – Ensure wider engagement with all key stakeholders and lead by example in promoting clean air initiatives and measures to reduce emissions and protect communities.

4 Swale Borough Council's strategic approach to air quality

4.1 The AQAP framework approach

Swale Borough Council has five (5) declared AQMAs across the Borough for exceedances of national air quality objectives for annual nitrogen dioxide (NO_2) concentrations. The five separate AQMAs had been declared over a period of seven to eight years since 2009 and have had separate AQAPs developed for each location. The interim AQAP framework approach is designed to bring together the pre-existing AQAP measures and develop a strategic approach under one AQAP.

Due to the location of the AQMAs, either being adjacent to or near to the A2 strategic route through Swale, there are a number of action plan options and measures common to all of the AQMAs within Swale which form the basis of a range of strategic measures developed to deliver improvements across the Borough. These will be complemented by a number of focussed local AQMA measures to take into account local conditions, circumstances and community views.

A Strategic AQAP will provide Swale Council with an Action Plan that includes:

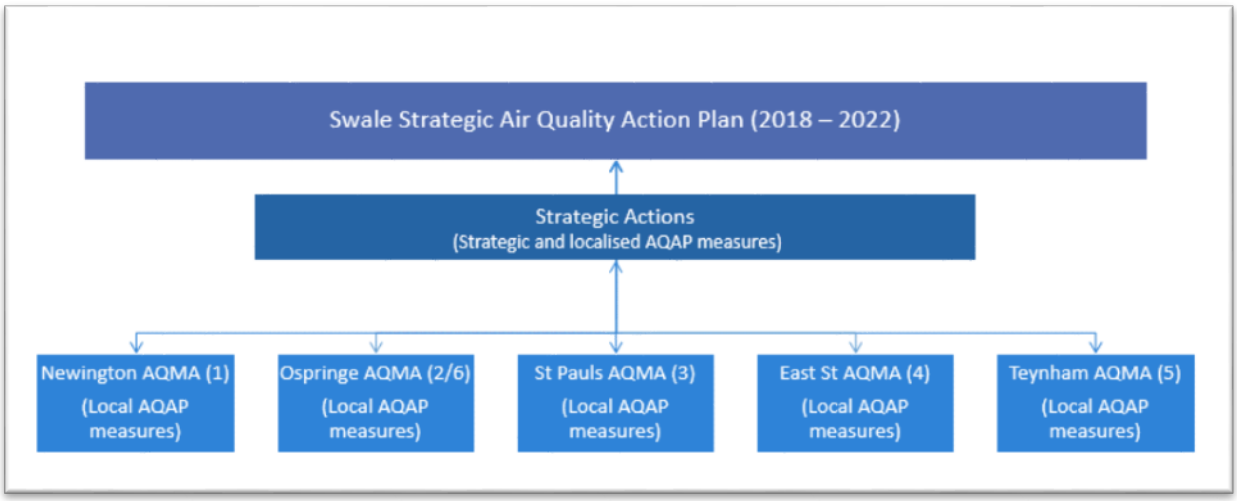
- Strategic Borough-wide AQAP measures;
- Local focused AQMA measures;
- Strategic partnership working through a wider "Strategic AQAP Steering Group" and local AQMA community groups.

This framework approach follows the approach recommended in Defra LAQM TG(16)[3] section 2.03 which states: "*Where a Local Authority has designated multiple AQMAs in its area, particularly if these are related to a similar emissions source, it is advised that a single AQAP should be submitted, but this should clearly address each individual AQMA in the area*."

Error! Reference source not found. sets out the Strategic AQAP approach with localised AQMA action plan measures feeding into and supporting wider strategic actions under the Swale Strategic AQAP (2018 – 2022).

[3] Local Air Quality Management Technical Guidance (TG16) - April 2016

Figure 4.1 Strategic AQAP approach



4.2 The Interim AQAP

This Interim AQAP has been produced to provide a framework and process for the delivery of the Strategic AQAP. The Interim AQAP forms the first stage of the Strategic AQAPs development and has been developed in recognition of:

- the complexity and number of locations where there are air quality issues;
- the variety of measures needed to deliver change;
- changes in technology and vehicle emissions data over recent years;

and build on and learn from:

- existing successful measures and initiatives delivered through previous local and other strategic AQAPs; and
- existing local and strategic partnerships.

5 Development of Swale Borough Council's Strategic AQAP

The Air Quality Action Plan will be developed through 2017 – 2018 to provide a final Swale Strategic Air Quality Action Plan covering the period 2018 to 2022.

5.1 The Strategic AQAP development stages

The methodology for developing a comprehensive AQAP for Swale requires a three stage approach.

Stage I is the current stage which presents the framework approach presented in this Interim AQAP.

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

- Output: Interim AQAP (Autumn 2017).

Stages II and III will follow and develop specific measures in consultation and through engagement with the key delivery partners and stakeholders.

Stage II. Further develop AQAP steering groups 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 (2017/18).

Stage III. Draft Strategic AQAP for Swale BC consultation and preparation for public consultation (early 2018), finalise Strategic AQAP and implementation plans.

- Output: Swale Strategic AQAP (2018 – 2022)

This methodology follows staged approach recommended in Defra LAQM TG(16) Chapter 2: Air Quality Action Plans and LAQM PG(16)[4] which states: "*The Action Plan should take a practical approach towards focussing on what really matters –*

[4] Local Air Quality Management Policy Guidance (PG16) - April 2016

identifying the nature of the problem whilst detailing measures that are or will be actively implemented to improve air quality and quantifying their impact over time."

The Strategic AQAP will be developed through:

- Engagement of key officers and stakeholders;
- Collation of detailed knowledge of the contributory sources to determine the range and extent of the problem;
- Consider suitable measures to reduce emissions across policy areas;
- Development of appropriate targets and indicators across key areas; and
- Evaluation and detailed consideration of AQAP measures.

5.2 Strategic AQAP Steering Group

The Strategic AQAP Steering Group (SASG) will be formed to develop and deliver the Strategic AQAP for Swale. The SASG will also be responsible for the implementation and monitoring of the delivery of the AQAP to ensure measures are kept on-track and report progress back to Defra.

This steering group will be made up from the key stakeholder partners; led by Swale Council (Mid Kent Environmental Health) and supported by the key delivery partners:

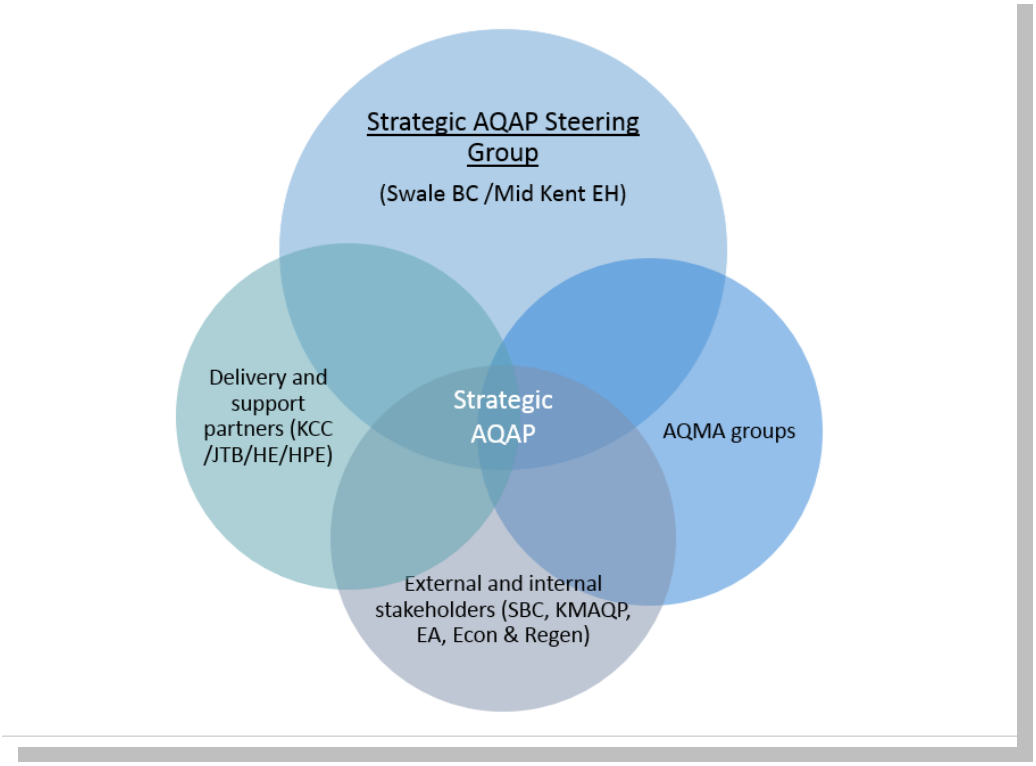
- Swale Borough Council (Mid Kent Environmental Health and other services)
- Council member
- Kent County Council (KCC)
- Highways England
- Public Health England (Kent)

The SASG will be led by senior officers within Swale Borough Council to ensure engagement at political and senior management levels across the Council (internally) and at senior management levels with external partners.

The SASG will be responsible for reviewing and assessing the AQAP options to be taken forward as measures under the final AQAP. In addition, the individual AQMA consultation groups will feed into the AQAP with local AQMA priorities and will be consulted on the wider strategic measures as well.

The AQAP needs a consensus-based approach to become successful, so the SASG needs to further engage with other external partners through forums, meetings and engagement events. This engagement needs to be co-ordinated and led by Swale Borough Council / Mid Kent Environmental Health. The structure of the wider AQAP stakeholder partner groups that will feed into the SASG is set-out in Figure 5.1.

Figure 5.1 Strategic AQAP stakeholder partner groups



The wider stakeholder engagement groups will include:

- Swale Joint Transportation Board (JTB)
- Local business forums
- Internal stakeholders: policy and resources, land use planners licensing, procurement.
- Environment Agency
- Swale Economy and Regeneration Partnership
- Kent and Medway Air Quality Partnership (KMAQP)
- Other local authorities
- Transport Organisations
- Local AQMA community steering group representatives
- Parish & Town Councils
- Sittingbourne Society

5.3 Consultation and Stakeholder Engagement

In developing and updating the Strategic AQAP, we will continue to work with other local authorities, agencies, businesses and the local community groups to develop strategic and localised AQMA measures to improve local air quality. This final consultation phase will be completed in Stage III of the Strategic AQAP development (see **Error! Reference source not found.**).

We will continue to undertake the following stakeholder engagement:

- Swale Borough Council website (http://www.swale.gov.uk/air-quality) currently under review
- Kent and Medway Air Quality Partnership website (http://www.kentair.org.uk/)
- Social media – LinkedIn, Facebook etc.
- Articles in local newspaper
- Questionnaires distributed directly to households along major roads
- AQMA Community Liaison Groups

Pre-stage I engagement has focused on local and internal stakeholder groups whereas the following stages (II and III) will involve the wider consultation and stakeholder engagement once a Strategic AQAP Steering Group has been formed.

The response to our consultation stakeholder engagements to date is given in Appendix A, with a summary of the proposed programmed consultation given below in Table 5.1.

Table 5.1 – Consultation programme

Stage	Consultee
I	Local residents living in the AQMAs
I	Local Councillors – parish and Borough
I	Officers in Swale and Mid- Kent
II	Highways Authorities (KCC and Highways England) and JTB
II	Other public authorities as appropriate, such as Public Health officials
II	Neighbouring local authorities, parish and town councils

II	Environment Agency
II	SERP (the Swale Economy and Regeneration Partnership), KFBPF (Kemsley Fields Business Park Forum), the Kent Science Park and the Kent FSB.
II	Bodies representing local business interests and other organisations as appropriate
II	Internal departments
III	Secretary of State
III	Public
III	All previous consultees from stages II & II

6 Proposed AQAP Measures

The proposed AQAP measures set-out in this Interim AQAP will be further developed under Stage II of the Swale AQAP development process. Many of the proposed measures have been developed with existing internal and community groups, however these and further measures presented in this Interim AQAP need to be reviewed by the wider Strategic AQAP Steering Group.

The proposed measures set-out in this interim AQAP are structured as follows:

- **Strategic AQAP measures**: those wider strategic measures which are to be implemented across the borough with strategic delivery partners and agencies.

and

- **Local AQMA measures**: those measures which will be focussed specifically within each AQMA which will support and compliment the strategic measures.

The following tables 6.1 and 6.2 respectively show the proposed strategic and locally focussed AQMA measures. The AQAP measure tables contain:

- a list of the actions that form part of the plan
- the responsible individual and departments/organisations who will deliver this action

The next stage of the Strategic AQAP will provide information in a shorter listed measures table with:

- estimated cost of implementing each action (overall cost and cost to the local authority)
- expected benefit in terms of pollutant emission and/or concentration reduction
- the timescale for implementation
- how progress will be monitored

Note: Please see future Annual Status Reports for regular annual updates on the progress and implementation of these measures.

The recent draft Swale Freight Management Plan (Dec 2016) (FMP) sets out the wider transport and freight challenges for Swale and highlights the need for Swale Borough Council to work closely with Kent County Council and other key delivery partners, including Government to improve air quality. The draft FMP also highlights that "*care is needed in assessing what effects these measures will have; the effects may be subject to the 'law of unintended consequences'. For example, a speed limit may reduce the noise produced by heavy lorries but might increase the emissions. Also, the needs of all road users must be taken into account; solving problems for freight movements should not be at the expense of pedestrians, for example.*"

Therefore, each of the proposed measures is to be assessed individually but also considered with other measures to delivery combined improvements in air quality and compliance with objectives.

The following tables do not represent a final exhaustive list of measures. This is because the forthcoming engagement and consultation with wider stakeholder groups (through Stages II and III) may provide further options and measures that could be considered for the final Strategic AQAP.

6.1 Strategic AQAP measures

Key strategic measures that need to be considered are those that target:

- Emission reductions from the HGV and LGV fleets;
- Volume reductions in the HGV fleet using the A2 especially through the AQMAs;
- Smoother, less congested, traffic flows of all vehicles through the AQMAs;
- Policies that encourage only low emission developments being approved; and
- Alternative modes to HGV, LGV and car use to reduce congestion and pollution from freight and other traffic.

Table 6.1 – Interim Air Quality Action Plan: Strategic AQAP measures

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	KPI	Target Pollution Reduction in the AQMA	Progress to Date	Estimate Completion Date	Comments / AQMA
1.	Swale Freight Manage-ment Plan (2016)	Freight and Delivery Management	Delivery and Service plans	KCC	2016	2018- 2022					KCC and SBC to support Swale FMP by delivering recommendations (section 5) Document submitted to Defra 2016.
2.	"Clear air signage and information scheme"	Freight and Delivery Management	Route Management Plans/ Strategic routing strategy for HGV's	KCC	2018						**New proposal to be evaluated** (builds on FMP) Roadside information includes "switch-off engine" congestion signage and over-night lorry parking ban information on A2
3.	Swale Low Emission Zone or Corridor	Promoting Low Emissions transport	Low Emissions Zone (LEZ) or Clean Air Zone (CAZ)	KCC/ SBC	2018						**New proposal to be evaluated** (builds on FMP) Create a (Euro emission class) restriction zones for **all vehicles** with strategic ANPR cameras.
4.	HGV "Clear air zone"	Promoting Low Emission Transport	Low Emission Zone (LEZ) or Clean Air Zone (CAZ)	KCC/ SBC	2018						**New proposal to be evaluated** (builds on FMP) Create a HGV (Euro emission class) restriction zones with strategic ANPR cameras.
5.	Swale and Medway A2 corridor Planning Agreement	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	SBC/ Medway Council	2018/19						**New Proposal to be evaluated** (building on Kent AQ Planning Document) Establish a planning

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	KPI	Target Pollution Reduction in the AQMA	Progress to Date	Estimate Completion Date	Comments / AQMA
											policy mechanism for major developments with significant impact on A2 corridor to mitigate impact.
6.	Swale Air Quality and Planning Guidance (update)	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	SBC	2017/18 update	In-place and active since 2016					Update to include minimum standards and conditions for approval i.e. ULEV parking, alt transport options, charge points, low NOx boilers, distance from road
7.	Air Quality and Low Emission Strategy	Policy Guidance and Development Control	Low Emissions Strategy	SBC	2017/18						**New proposal to be evaluated** (includes sustainable procurement, SBC fleet improvements, low emission fuels and installation (STOR) guidance)
8.	Low emission taxi licencing scheme (Kent)	Promoting Low Emission Transport	Taxi Licensing conditions	SBC	2017/18						**New proposal to be evaluated** Improve emissions from taxis, subsidies for lower local fares
9.	Clean-flow traffic management	Traffic Management	UTC, Congestion management ,traffic reduction	KCC	2017						**New proposal to be evaluated**. Traffic smoothing though average speed camera section management. Linked to localised AQMA “20’s plenty” measure

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	KPI	Target Pollution Reduction in the AQMA	Progress to Date	Estimate Completion Date	Comments / AQMA
10.	Clean-air walking and cycle ways	Promote travel alternatives	Intensive active travel campaign & infrastructure	KCC/ SBC	2017/18						**New proposal to be evaluated**. Work with KCC & Development Management/Planning Policy to develop further walking and cycling infrastructure for local commuter and school routes
11.	Clean-air travel planning	Promote travel alternatives	Personalised Travel Planning	KCCC /SBC	2017/18						**New proposal to be evaluated.** Require strategic travel plan requirements for new developments and businesses (KCC and SBC Planning & Dev Control)
12.	Promote and encourage change of transport modes	Promote low emission transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	SBC	2018	Summer 2019-2020	% increase in electric /hybrid vehicles on the road using traffic counts.				**New proposal to be evaluated.** Support bids for eV infrastructure, alt. fuels, hybrid vehicles and low emission taxis. Encourage use of buses and trains as alternatives to cars by installing infrastructure at PnR and stations.
13.	Eco Stars	Vehicle Fleet Efficiency	Driver training and ECO driving aids	SBC	2014	2015-2018	Number of HGV and LGV drivers taken through scheme.				Ecostars pilot continues in 2017 (Initially 14 companies signed up in Swale with 812 vehicles

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	KPI	Target Pollution Reduction in the AQMA	Progress to Date	Estimate Completion Date	Comments / AQMA
14.	Air pollution alerts and information	Public information	Via other mechanisms	SBC	-	2018 - 2022	Number of (vulnerable) people using the alert service in Swale	n/a			Communications and marketing directed to vulnerable people (COPD) and information on health effects Use business forums to promote best eco practices for travel

6.2 Local focussed AQMA measures

Key locally focussed measures that are to be considered for the individual AQMAs are those that target localised:

- Initiatives that inform and protect local residents;
- Smooth traffic flows causing less congestion of all vehicles through the AQMAs;
- Freight management and access policies within AQMAs; and
- Access to cleaner alternative transport for residents and businesses

Table 6.2 – Interim Air Quality Management Area: Local AQAP measures

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	KPI	Target Pollution Reduction in the AQMA	Progress to Date	Estimate Completion Date	Comments / AQMA
1.	"20's plenty" zones	Traffic Management	Reduction of speed limits, 20mph zones	KCC	2017						Community steering group proposal to be evaluated. (AQMA's: 1,2,3,4,5)
2.	Campaigns for ant-idling, smoky exhausts	Traffic Management	Anti-idling enforcement	SBC	2017						Community steering group proposal to be evaluated. Promotion to raise awareness of health and air pollution (AQMA 2)
3.	Quiet delivery zones	Freight and delivery management	Quiet and out of hours delivery	KCC							Community steering group proposal to be evaluated. School and night-time hours restricted freight delivery times for noise and AQ.

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	KPI	Target Pollution Reduction in the AQMA	Progress to Date	Estimate Completion Date	Comments / AQMA
											(AQMAs: all)
4.	Pinch-point parking alternatives (red-route)	Traffic Management	Workplace Parking Levy, Parking Enforcement on highway	KCC	2017						New proposal to be evaluated. Remove pinch point A2 parking by providing alternate off-street parking and camera enforcement and signage(AQMAs: 1,2,4, 5)
5.	Local LEV car-club	Promoting Low Emission Transport	Other	SBC							Set-up low emission community car club or car-share scheme for AQMAs (AQMAs: 1,2,4, 5)
6.	Local school and business travel plans	Promoting travel alternatives	Promotion of walking and cycling and travel plans	KCC (+ PH SBC)	2010	2013 Swale already participating in the Kent Travel scheme and involved in Better business for all	% of schools participant in Kent smarter travel challenge recorded by KCC		Annual bids to the KCC	Ongoing	Community steering group proposal to be evaluated. (AQMAs: all)
7.	Tree planting scheme	Public information	Other	SBC	2017/18						Community steering group proposal in favour of tree planting schemes. Funding obtained by the community in 2016 -2017 to commence in Teynham

Appendix A: Interim AQAP consultees

Table A.1 – Interim AQAP Consultees

Swale Borough Council Services
Tracey Beattie - Mid Kent Environmental Health
Janet Hill – Climate Change Officer
Anna Stonor – Planning Policy
Chris Blandford – Economic Development
External Partners
KCC Transport Director - Alan Blackburn
KCC Transport Innovations- Lindsay Reynolds
KCC Freight Officer Highways, Transportation and Waste- Tim Middleton
KCC Sam Yates
KCC Phil Gilbert
KCC Roadworks alerts – Ben Hilden
KCC Highways - Andy Corcoran
KCC Director of Public Health – Andrew Scott-Clark
KCC Highways - Stephen Huckle
KCC Tom Pierpoint, Transport Innovations
KCC Chris Bell Sustainable Business Low Carbon Kent project
KCC Simon Allum (Cycling)
John Elliot and Mike Dempsey – Swale Freight Transport Plan Consultants and authors
Public Health England -
Highways England -
Environment Agency – Roger Kidd
Kent Wildlife Trust - Mary Blackwell

Table A.2 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP (to date)

Consultee	Category	Response
Lindsay Reynolds	KCC lift share	Email re Update Kent Journey share website
Nigel Heriz Smith	Local Resident	Offered to share information in Teynham and provided information about groundwork project history and many updates regarding research and press information e.g. Reporting smoky vehicles web link https://www.gov.uk/report-smoky-vehicle. Concerned about Lynsted Lane Development Air quality assessment Fowler Welch Coolchain – Tree planting around the site and Euro 6 vehicles in the new bays
Colin Barnard	Local Resident	Planning comments regarding development at Frognal Lane and bids for funding for greening projects
Sioux Peto	Local Resident	Assistance with arranging meetings, steering group inception and funding bids projects
Ali Corbel	Blenwood contractor and Swale In Bloom coordinator	Partnership work on the Swale In Bloom projects in the AQMAs and Teynham greening project (SWAPS)
David Dale	EHP	Attended the Internal steering groups and steering group in Teynham and – Teynham greening project (SWAPS)
Alan Blackburn	KCC Transport Manager	Support with strategic transport issues
Andy Fairhurst	KCC Public Health	Support for Eco stars and other projects liaising with KCC public health
Mary.Blackwell	Kent Wildlife Trust	(@kentwildlife.org.uk) support for Teynham steering group
'Dawn.Apcar	Kent Wildlife Trust	and @kentwildlife.org.uk' support with Teynham greening and planters project
Chris Blandford	Economic Development Support Officer	Advice on the economic development support for the Swale action plan
Nicky Saynor	Public Health	Support with advice Eco stars and other projects liaising with KCC public health
Jacquie Town	Regeneration	Steering group member Teynham
Gill Harris and Anna Stonor	Planning Policy	Consultee regarding the Swale freight Transport Plan (2016) and detailed comments on AQAP and need for restructuring (August 2017)

Sandy Hammock	CVS	Steering group meeting at Teynham
Sara Cline and Hayley Keefe	KM Charity Team	Support for walk to school and other projects
John Elliot and Mike Dempsey	Consultants	Developed Swale Freight Management Plan
Janet Hill	Climate Change Officer, Swale Borough Council	Input into stakeholder meetings

Appendix B: Reasons for Not Pursuing Action Plan Measures

Table B.1 – Action Plan Measures Not Pursued and the Reasons for that Decision

Action category	Action description	Reason action is not being pursued (including Stakeholder views)
Personalised Travel Planning	Church Lane Residents Parking Survey	Suggestion was dismissed by the Newington Steering group in the original action plan as it was superseded by the KCC travel planning schemes and other projects where the KCC collected data.
Local Bypass	Bypass for Newington	Newington Steering group discussed this however at the time there was no financial support available from KCC Highways

Appendix C: AQMA location maps

Figure C 1 AQMA 1: Newington AQMA map

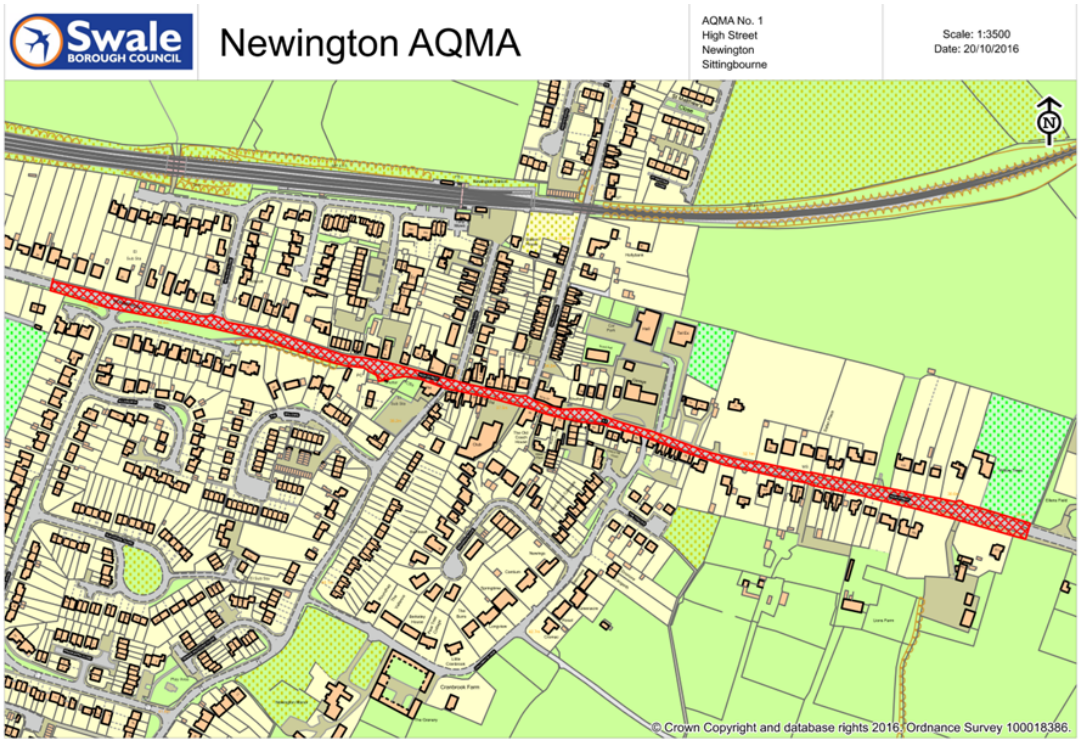


Figure C 2 AQMA 2: Ospringe AQMA map

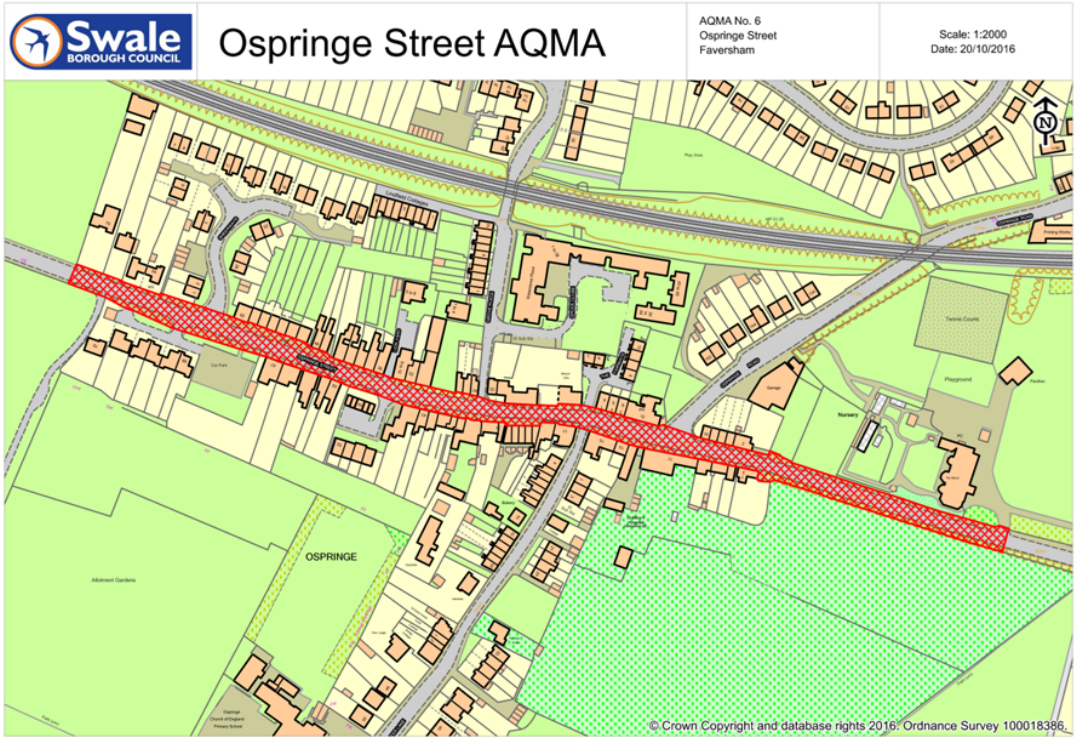


Figure C 3 AQMA 3: East Street AQMA map

Figure C 4 AQMA 4: St Paul's AQMA

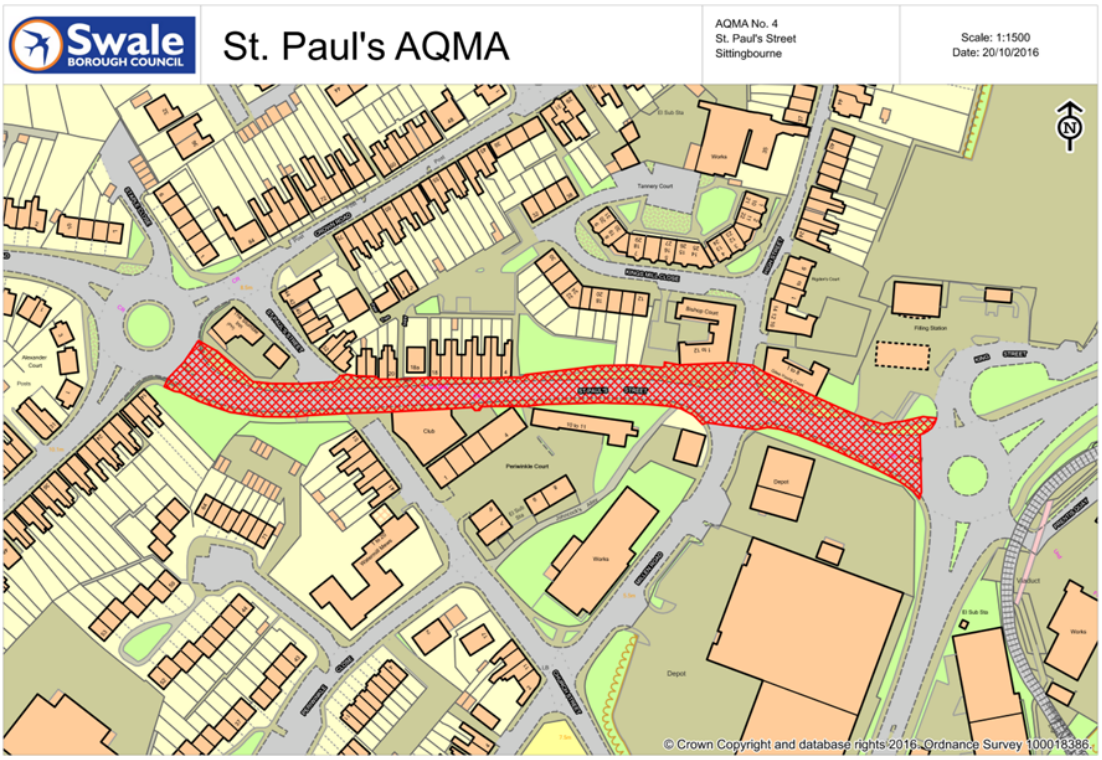
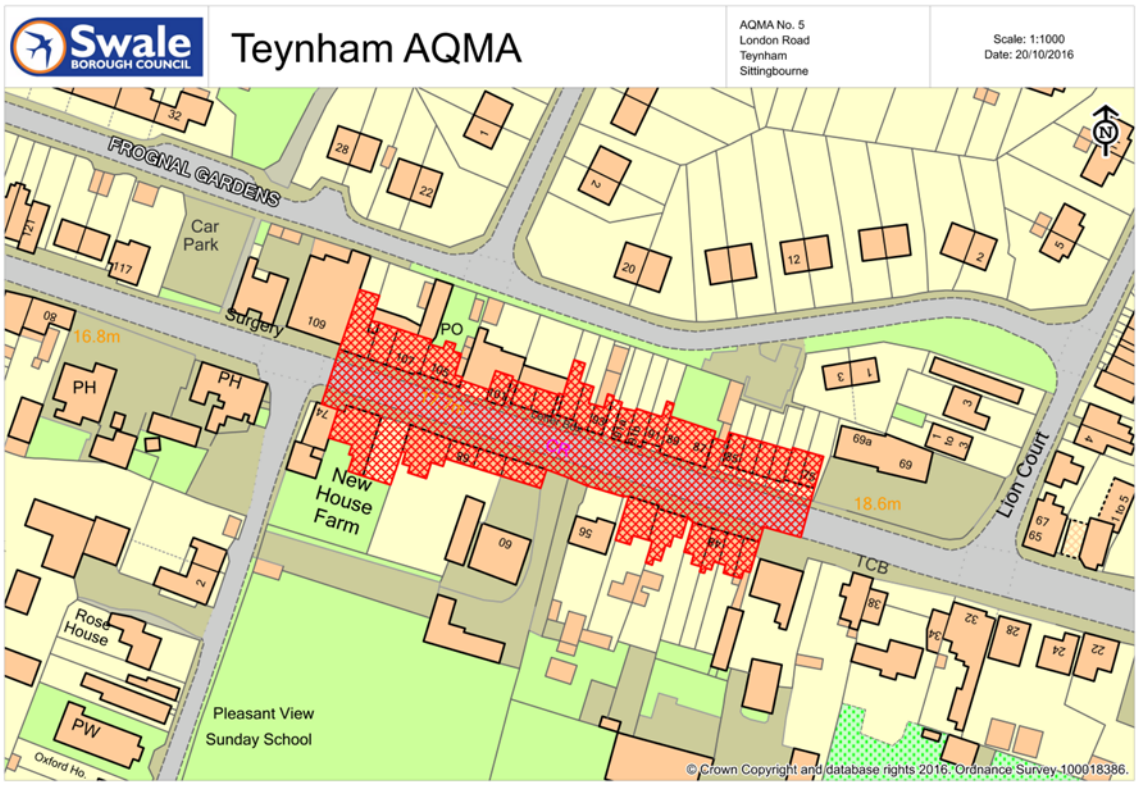


Figure C 5 AQMA 5: Teynham AQMA



Glossary of Terms

Please add a description of any abbreviation included in the AQAP – An example is provided below.

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
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
CAZ	Clean Air Zone
Defra	Department for Environment, Food and Rural Affairs
EU	European Union
LAQM	Local Air Quality Management
LES	Low Emission Strategy
LEZ	Low Emission Zone
NO_2	Nitrogen Dioxide

Swale Strategic AQAP 2018 - 2022

Report 1: Source Apportionment and Options Assessment

Swale Strategic AQAP 2018 Report 1: Source Apportionment and Options Assessment

March 2018

Swale Borough Council

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Sittingbourne
Kent
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Written By	Nigel Jenkins Emilia Pruszkowski	22/03/2018
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Revision 1	Nigel Jenkins	27/03/2018

Contents

1. Introduction

1.1 This report forms the first report in the series of reports to support Swale Borough Council in the development of the Swale Strategic Air Quality Action Plan (AQAP) 2018 - 2022.

1.2 The Swale Strategic AQAP will be developed through early 2018, for consultation in mid-2018.

Swale Strategic AQAP Stages

1.3 The 2017 Swale Interim AQAP set out the program for developing the Swale Strategic AQAP. The Strategic AQAP program is being developed through 3 stages:

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 September 2017)

Stage II

Further develop AQAP steering groups 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 (2017/18).

Stage III

Draft Strategic AQAP for Swale BC consultation and preparation for public consultation (early 2018), finalise Strategic AQAP and implementation plans.

- Output: Swale Strategic AQAP (2018 – 2022)

Strategic AQAP - Stage II program

1.4 To support the AQAP Stage II development, the following air quality assessments and reports will be provided by Phlorum Ltd.

1.5 Stage II is the assessment stage of the Strategic AQAP development. A review of current air quality and emissions from pollutant sources is undertaken to assess the sources of local pollution. In the case of the Swale Air Quality Management Areas (AQMAs), the main emissions sources of concern are from local traffic.

1.6 The main focus of the Stage II assessments will be to determine current transport emissions and develop measures and strategies to reduce emissions and exposure.

1.7 The Stage II program is presented in Table 1.1 below.

Table1.1: Swale Strategic AQAP program

Task	Assessment	Reports
I	**AQMA review:** Traffic data review and commissioning ANPR and ATC surveys	
II	**AQMA assessment:** Traffic assessment Source apportionment Baseline AQMA Air Quality modelling AQAP options assessment	**Report 1:** **Source apportionment and options assessment report**
III	**AQMA options appraisal:** Emissions reduction assessment AQMA options modelling Cost benefit analysis (CBA)	**Report 2:** **AQMA options assessment and Cost Benefit Analysis**
IV	**Final Report:** Options consultation and review Options appraisal	**Report 3:** **Final AQAP Report**

1.8 This report (Report 1) forms part of Stage II development of the Strategic AQAP and includes Task I and II results.

2. Swale Strategic AQAP

Objectives of the Swale Strategic AQAP

2.1 A Swale Interim AQAP was developed in 2017 to set out the objectives of the Council to develop a Swale Strategic AQAP (2018 – 2022).

2.2 The objectives of the Swale Strategic AQAP are to include:

- Clear vision and direction for the Swale Strategic AQAP;
- Strategic and focused actions and measures to improve air quality across the borough and as well as within the declared Swale AQMAs;
- Detailed assessment and qualification of agreed actions and measures within the AQAP;
- Full consultation and engagement process with all stakeholders and delivery partners on the key actions and measures within the AQAP; and
- Implementation and delivery plan for the AQAP through 2018 – 2022.

2.3 The Swale Strategic AQAP is to be delivered between 2018 and 2022 and will target reductions in concentrations of local air pollutants and exposure to air pollution.

2.4 The key priority of the Strategic AQAP is to deliver compliance of the AQS within the AQMAs, but also to improve air quality across the Borough. The key AQAP priorities are:

Priority 1:

- Undertake revised impact assessment of AQMA traffic and emissions reductions measures required at each AQMA.

Priority 2:

- Development of local AQMA and wider strategic measures.

Priority 3:

- Develop measures which focus on key emissions reduction measures from the HGV and LGV fleet travelling through the AQMAs.

Priority 4:

- Ensure wider engagement with all key stakeholders and lead by example in promoting clean air initiatives and measures to reduce emissions.

3. Swale Air Quality Management Areas

Swale Air Quality Management Areas

3.1 Swale Borough Council has 5 locations which exceeded the annual air quality standard (AQS) for nitrogen dioxide (NO_2) and subsequently declared 5 AQMAs within the Borough.

3.2 The AQMAs are listed below:

- AQMA 1: Newington, (A2 /High St) declared 2009;
- AQMA 2: Ospringe Street, Faversham (A2/Ospringe) declared in June 2011 and revised (as AQMA 6) to the Mount in May 2016;
- AQMA 3: East Street, Sittingbourne (A2/Canterbury Road) declared January 2013;
- AQMA 4: St Pauls Street, Milton, Sittingbourne (B2006) declared January 2013; and
- AQMA 5: Teynham (A2/London Rd) declared December 2015.

3.3 AQMAs 1, 2, 4 and 5 are situated on the A2 which is a major transport corridor through Swale. AQMA 3 is located within the Sittingbourne urban centre.

Pollutants of concern

3.4 The major pollutant of concern is NO_2, however small respiratory sized particulates are also a concern to human health. Therefore, although the assessment of air quality within the AQMAs will focus on NO_2 impacts and reduction measures, particulates smaller than 10 and 2.5 microns in size (PM_{10} and $PM_{2.5}$) will also be assessed. The PM_{10} and $PM_{2.5}$ results will be provided in the final report.

3.5 The sources of pollutants which impact the Swale AQMAs are presented in the Chapter 6 (NOx Emissions Source Apportionment). The major source of emissions which impact the concentration exposures at receptors in these locations is from road traffic.

3.6 Other (background) air pollutant sources contribute to local pollution. These include emissions from; domestic, commercial, industrial, marine or transboundary emissions. These emissions are accounted for in this assessment and identified as background emissions.

3.7 Background concentrations of NO_2 account for up to one third of the total of NO_2 concentrations within the urban centre AQMA at St. Pauls, whereas background concentrations of NO_2 account for up to one fifth of NO_2 in other AQMA locations on the A2. The background concentrations for each AQMA are identified in Chapter 7.

4. Assessment Methodology

4.1 Each AQMA will be assessed in line with the AQAP priorities and options for improving air quality through AQAP measures.

4.2 The methodology for assessing each AQMA follows the LAQM TG(16) (updated Feb 2018[1]) methodology set-out in sections 2.09 - 2.35. The key assessment methodology this assessment follows is detailed in sections 2.13 – 2.24; these include sections titled:

- 2 - Undertake Appropriate Local Monitoring and Assessment (Source Apportionment) for Development Phase
- 3 - Decide what Level of Actions are Required

Assessment Process

4.3 The assessment process for determining the concentrations of pollutants in Swale's AQMAs and assessing potential Action Plan options is as follows:

1. Traffic assessment:
    - Undertake up-to-date detailed traffic assessments.
        - Categorise the fleet: volumes, type and Euro classifications.
2. Source Apportionment:
    - Assess the NOx sources of pollutants from the traffic.
        - Undertake NOx source apportionment of vehicle types, Euro class and volumes.
3. Baseline air quality modelling:
    - Detailed dispersion modelling assessment is undertaken to provide a detailed picture.
        - Modelling assessment of current and future years (2020/2022) to determine baseline AQMA NO_2 concentrations.
4. NO_2 source apportionment:

[1] https://laqm.defra.gov.uk/technical-guidance/

- Identify the extent to which different key sources contribute to the air quality exceedances that have been identified.
    - Determine vehicle sector contributions of NO_2 within the AQMAs and required concentration reductions to achieve compliance.

5. AQMA options review:
    - Determine the scale of effort required in the AQAP to tackle air pollution within AQMAs required to attain the objectives.
        - Quantifying the (NOx) emission reduction required for the area of concern will allow a range or combination of measures that have the potential to deliver the emissions reductions.

5. Traffic Assessments

Traffic Assessment

5.1 Traffic assessments are required for detailed air quality assessments to determine key factors used in the source apportionment of transport emissions, air quality modelling and determining Action Plan options and measures.

5.2 Detailed traffic count data required for the assessment are:

- Volumes
- Vehicle classes (cars, LGV, HGV, bus/coach etc.)
- Speed
- Euro category (EU emissions standards)

5.3 Euro categories are an essential element to determining the emissions from the local traffic and identifying higher emitting sectors of the vehicle categories. Identifying the Euro categories enable emissions calculations to be more accurate for the fleet of vehicles in each locality. Euro categories have introduced stricter pollutant emissions limits over time (since 1993 (Euro 1/I)[2] and therefore detailed data enables a more detailed understanding of which vehicles are emitting pollutants locally.

Traffic Count Sources

5.4 Traffic data can be acquired through Department for Transport (DfT) count sites, local traffic counts undertaken by the Highways Authority (Kent County Council (KCC)) or commission traffic surveys.

5.5 The DfT provide traffic data for major roads across the UK[3]. There are specific DfT traffic count points across Kent including the A2 sections close to the Swale AQMAs with the exception of the St. Pauls AQMA.

5.6 DfT counts provide annual average daily flows (AADF) data on vehicle categories and total volumes.

5.7 There were no available Kent County Council Traffic data for the AQMA locations.

[2] Euro category stages are typically referred to as Euro 1, Euro 2, Euro 3, Euro 4, Euro 5 and Euro 6 for Light Duty Vehicle standards. The corresponding series of standards for Heavy Duty Vehicles use Roman numerals.
[3] https://www.dft.gov.uk/traffic-counts/cp.php?la=Kent

5.8 Traffic counts were commissioned by Swale Borough Council with Traffic Data Centre (TDC) at locations in or adjacent to the AQMAs. The traffic surveys were undertaken using Automatic Traffic Counters (ATC) and Automatic Number Plate Recognition (ANPR) cameras.

Automatic Traffic Count (ATC) Surveys

5.9 The ATC traffic surveys identify traffic information in each direction of a carriage-way as follows:

- Speeds, vehicle category and total volumes.

5.10 The ATC counts were undertaken over 7 days from 22nd January 2018 and were located at:

- ATC 1 – 7: locations around East Street (A2) AQMA
- ATC 8 -10: at St Pauls AQMA
- ATC 11: London Road (A2) east of A249
- ATC 12: Key Street (A2) in Newington AQMA
- ATC 13: Ospringe AQMA

5.11 ATC locations are provided in Figures 1- 3.

Automatic Number Plate Recognition (ANPR) Surveys

5.12 The ANPR traffic surveys were undertaken using ANPR cameras with on-site ATC counters. ANPR surveys identify vehicles through camera shots after which data was securely archived by TDC and sent to the Driver and Vehicle Licensing Agency (DVLA) to request vehicle information.

5.13 DVLA provided the relevant vehicle information which is used in the assessment,. These include:

- Volumes, vehicle classes and individual vehicle Euro categories.

5.14 The ATC data provided complimentary data to validate the ANPR counts and included additional information on:

- Speed

5.15 The ATC counts provide complementary volume data used in the analysis at the ANPR survey locations as ANPR data capture can be lower than ATCs due to camera obscuration. For example, number plates can be obscured by other vehicles in front, dirty plates or number plates not on a vehicle or in a different position.

5.16 The ANPR surveys were undertaken over a 2-day (48hr) period between the 9th and 10th January 2018 and were located at:

- Newington (A2) AQMA
- Key St (A2) east of A249
- Ospringe (A2) AQMA

5.17 ANPR locations are provided in Figure 4.

Traffic Survey Analysis

5.18 The traffic surveys undertaken in 2018 provided detailed information on vehicular movements through the AQMAs. Tables 5.1 and 5.2 provide the summary data from the traffic surveys undertaken at the ATC and ANPR survey locations.

5.19 Vehicles are categorised in the surveys under six classes:

- Car (passenger cars, taxi)
- LGV (Light Goods Vehicles i.e. vans)
- *OGV1 (Ordinary Goods Vehicle 1 - rigid vehicles with 2 or 3 axles)
- *OGV2 (Ordinary Goods Vehicle 2 rigid vehicles with >4 axles and all articulated vehicles)
- PSV (Passenger service vehicles - buses and coaches)
- Motorcycles

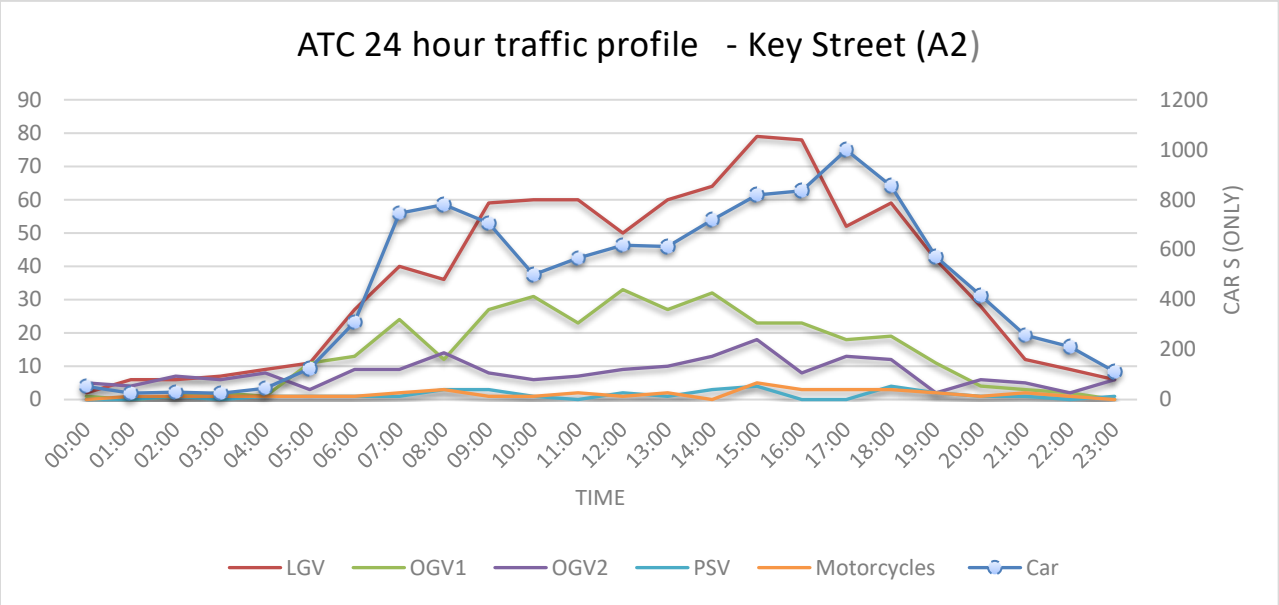
*Note: OGV1 and OGV2 are often combined and categorised as Heavy Goods Vehicles (HGV)

Table 5.1 – Summary of Swale ATC traffic surveys (2018)

Traffic survey locations	AADT	Mean Speed (mph)
1 High Street West of Bell Road	1299	15.1
2 Bell Road South of East Street	7480	23.9
3 Crown Quay Lane South of St Michael's Road	7831	17.1
4 East Street West of West Lane	1677	15.1
5 East Street West of Shakespeare Road	21631	22.0
6 A2 St Michael's Road South of Shortlands Road	18344	21.9
7 A2 St Michael's Road South of Shortlands Road	18344	21.9
8 Staplehurst Road East of Windmill Road	18482	27.9
9 Chalkwell Road South of Romney Court	9818	19.1
10 St Paul's Street West of High Street	17891	26.4
11 Key Street (A2) ANPR	24448	23.6
12 Newington AQMA ANPR	16269	31.0
13 Ospringe AQMA ANPR	19081	24.8

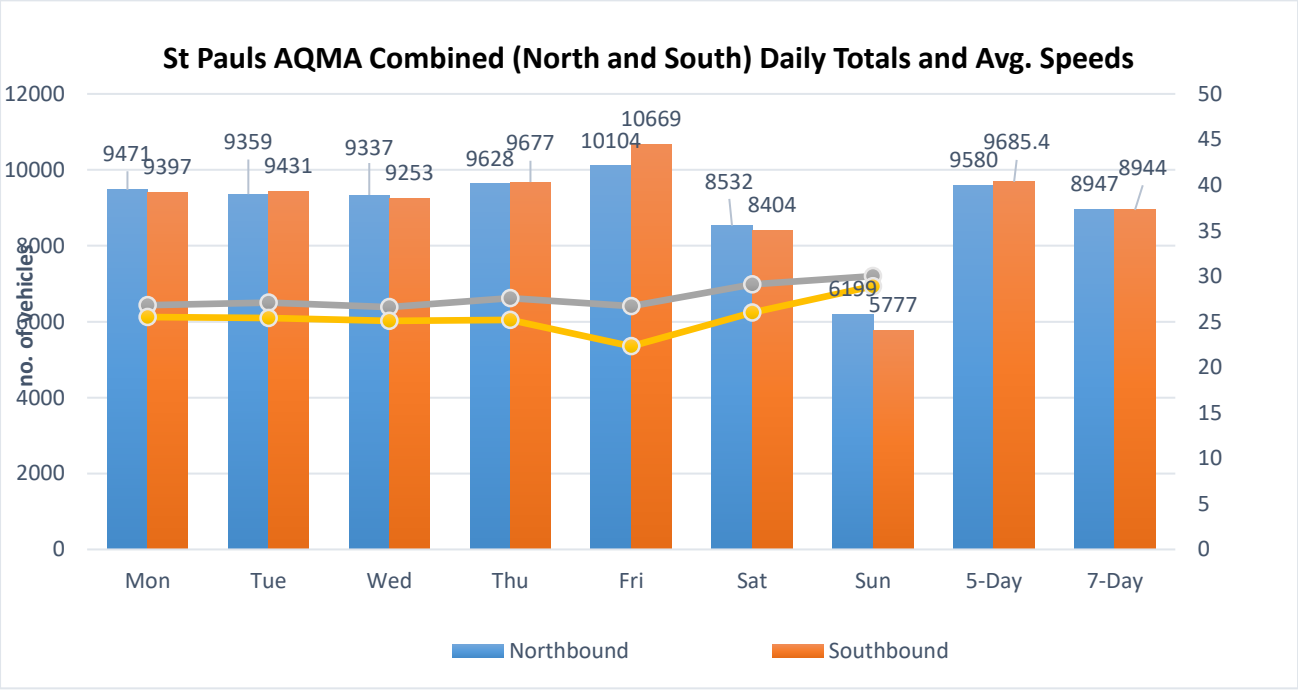
5.20 A typical mid-week traffic flow profile is provided in Graph 5.1.

Graph 5.1 – Typical 24-hour traffic profile – Key Street (A2)



5.21 Daily ATC traffic flows taken in St Pauls AQMA highlighted typical weekly variation in traffic flows.

Graph 5.2 – Typical weekly traffic profile – St Pauls AQMA



5.22 The ANPR survey location data provided the following detailed table identifying volumes, speeds and vehicle classes of the traffic at each location.

Table 5.2 – Summary of Swale ANPR traffic surveys (2018)

2018	Key Street (A2)		Newington AQMA		Ospringe AQMA	
Vehicle Class	Number	%	Number	%	Number	%
Car	21599	87.9	14103	85.9	17488	91.2
LGV	1858	7.6	1505	9.2	677	3.5
OGV1	638	2.6	466	2.8	486	2.5
OGV2	306	1.2	153	0.9	421	2.2
PSV	48	0.2	44	0.3	9	0.0
Motorcycles	111	0.4	140	0.9	100	0.5
Total Vehicles	24558		16409		19181	

5.23 The ANPR survey locations identified similar traffic ratios (percentages) to the ATC sites. As with all the sites on the A2, the traffic volumes were dominated by passenger (car) and light goods vehicles (LGV) sectors.

Euro Category Characterisation

5.24 EU directives have set out European emission standards for passenger and HGV category vehicles known as Euro categories. The identification of vehicle Euro category through ANPR enables the characterisation of the emissions profile of vehicles travelling through the AQMAs.

5.25 ANPR surveys identified number plates and this data was sent to DVLA who provided detailed information on the vehicle Euro category. This Euro category was thereafter used to refine the emissions profile of each AQMA location to provide a more accurate assessment of vehicles traveling through these locations.

5.26 To analyse the Euro categories, the traffic data the data was aggregated to produce Euro category outputs in 3 vehicle categories. The following groups were created; Cars (Cars + motorcycles), LGV and HGV (OGV1 = OGV2 + PSV).

5.27 The ANPR data provided the following summary tables, which identify the volumes and percentages of Euro categories of the traffic at each location.

Table 5.3 – Summary of ANPR survey location Euro categories totals

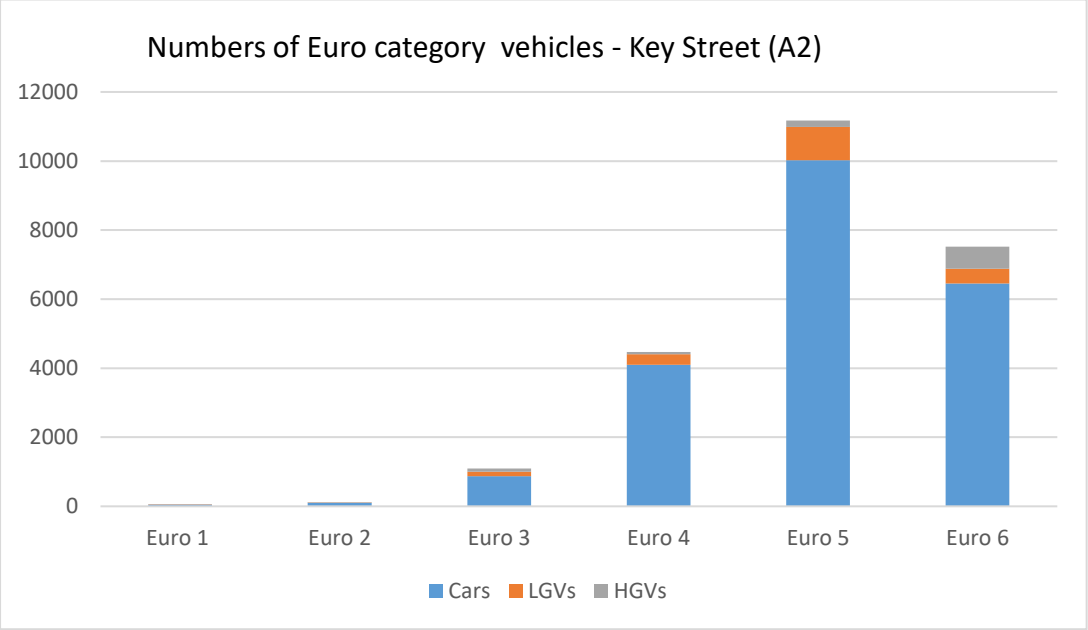
	Key Street (A2)			Newington AQMA			Ospringe AQMA		
Euro Category	Cars	LGVs	HGVs	Cars	LGVs	HGVs	Cars	LGVs	HGVs
Euro 1/I	50	11	4	22	9	7	41	4	2
Euro 2/II	101	9	9	90	12	2	73	1	5
Euro 3/III	876	130	87	698	129	71	823	65	32
Euro 4/IV	4097	312	65	2799	287	80	3796	132	48
Euro 5/V	10019	969	189	6652	746	133	8199	332	154
Euro 6/VI	6455	428	638	3842	322	368	4556	142	675
Totals	21599	1858	991	14103	1505	662	17488	677	916

Table 5.4 – Summary of ANPR survey location Euro categories percentages

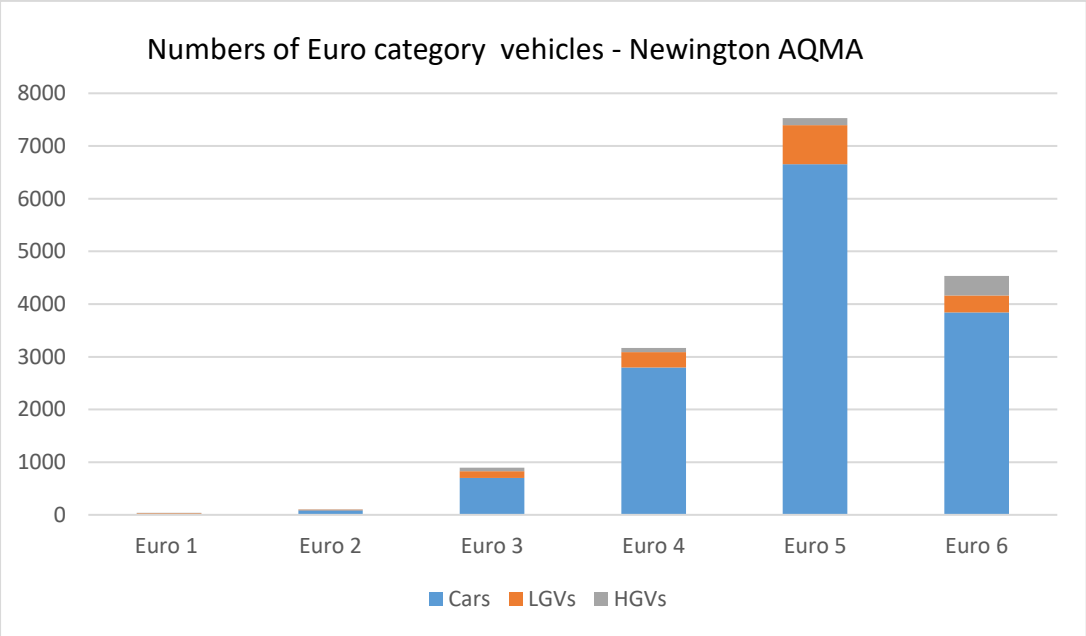
	Key Street (A2)			Newington AQMA			Ospringe AQMA		
Euro Category	**Cars**	**LGVs**	**HGVs**	**Cars**	**LGVs**	**HGVs**	**Cars**	**LGVs**	**HGVs**
Euro 1/I	0%	1%	0%	0%	1%	1%	0%	1%	0%
Euro 2/II	0%	0%	1%	1%	1%	0%	0%	0%	1%
Euro 3/III	4%	7%	9%	5%	9%	11%	5%	10%	3%
Euro 4/IV	19%	17%	7%	20%	19%	12%	22%	19%	5%
Euro 5/V	46%	52%	19%	47%	50%	20%	47%	49%	17%
Euro 6/VI	30%	23%	64%	27%	21%	56%	26%	21%	74%

5.28 The ANPR data provided the following graphs, which illustrate the ratio (percentages) of Euro categories for traffic at each location.

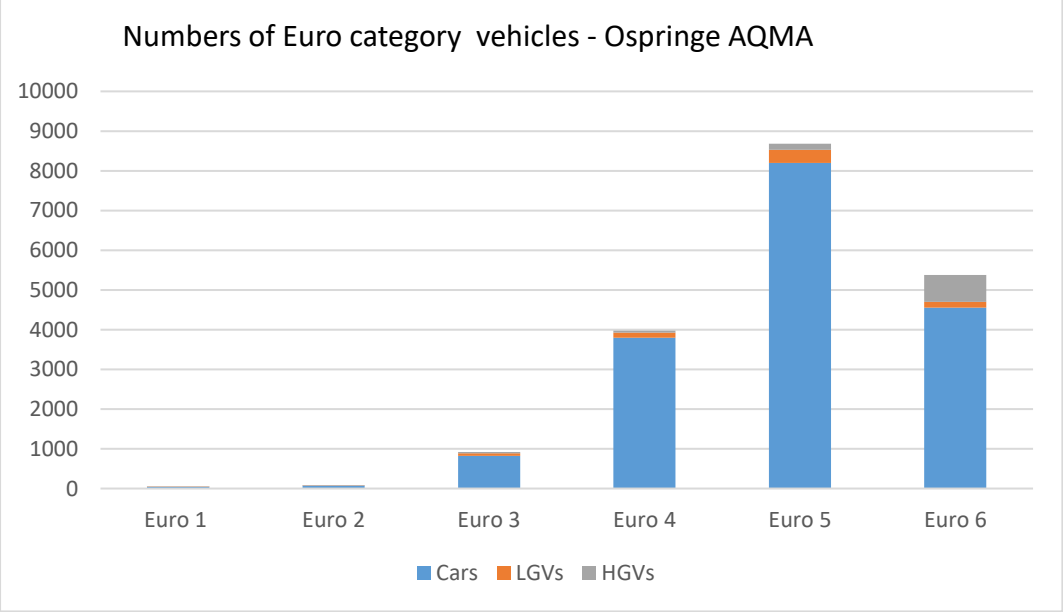
Graph 5.3 – Number of vehicles by Euro category – Key Street (A2)



Graph 5.4 – Number of vehicles by Euro category – Newington AQMA



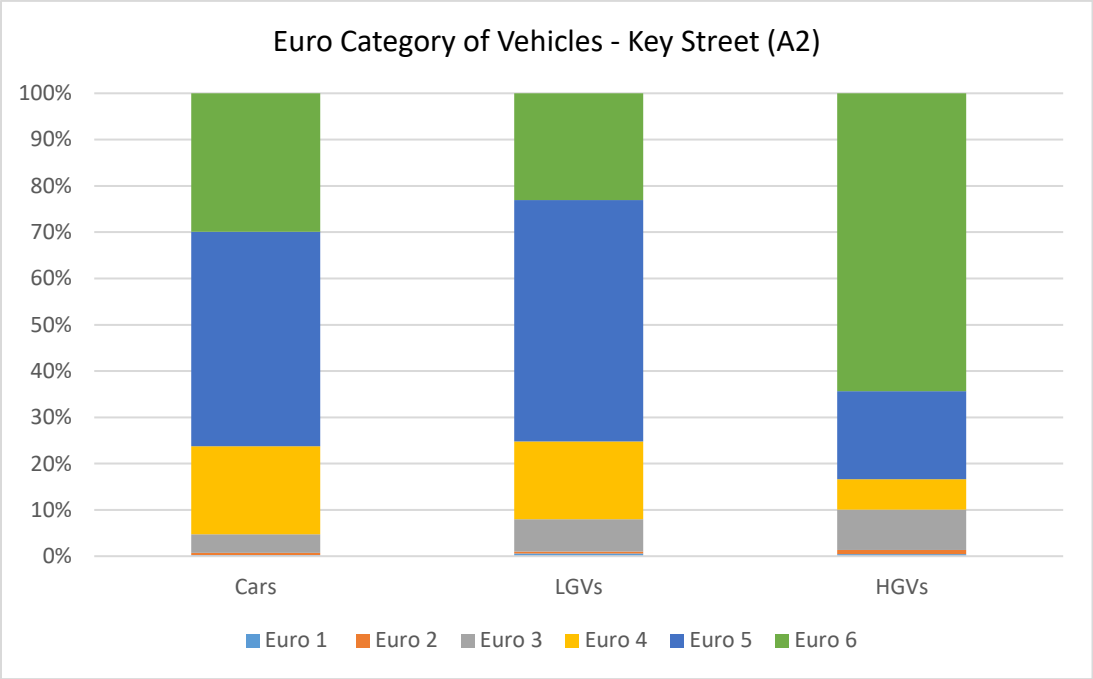
Graph 5.5 – Number of vehicles by Euro category – Ospringe AQMA



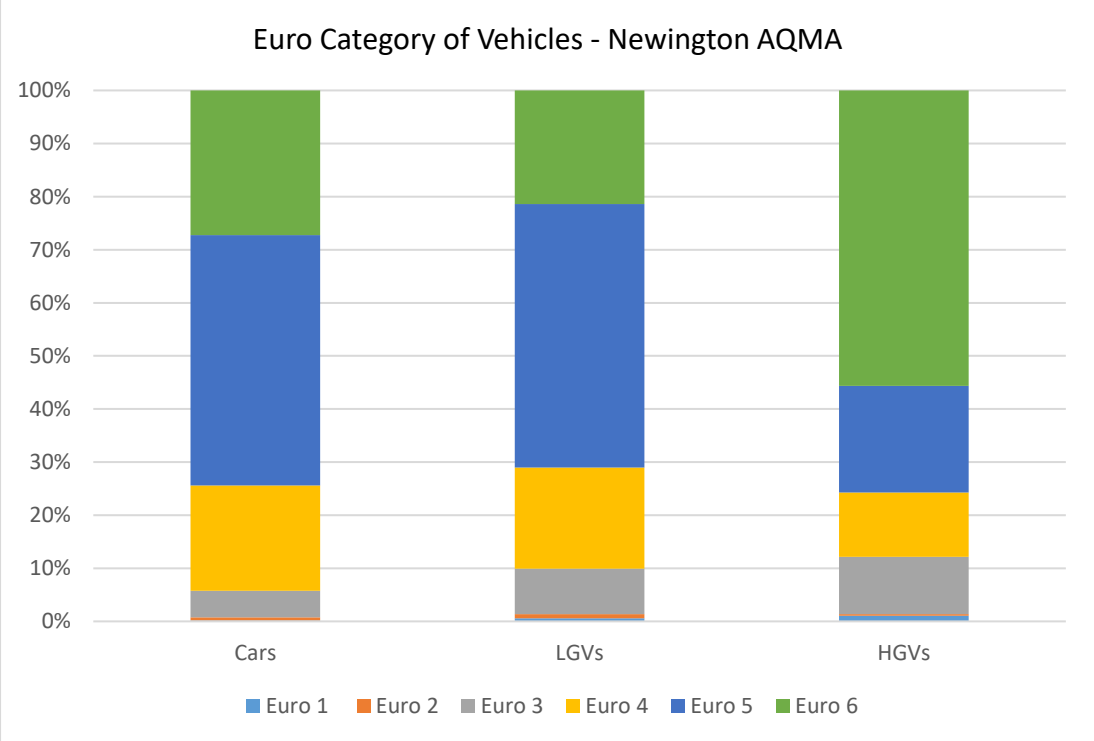
5.29 The range of Euro categories identified in the previous tables and graphs shows the fleet to be dominated by Euro 5 and Euro 6 vehicles at 39% and 38%, respectively. The Euro 4 vehicles make up 16% (average) of the fleet, with 8% (average) of the fleet being pre-Euro 4 (i.e. registered before January 2005).

5.30 Further Euro category analysis of the fleet composition is provided in the following graphs.

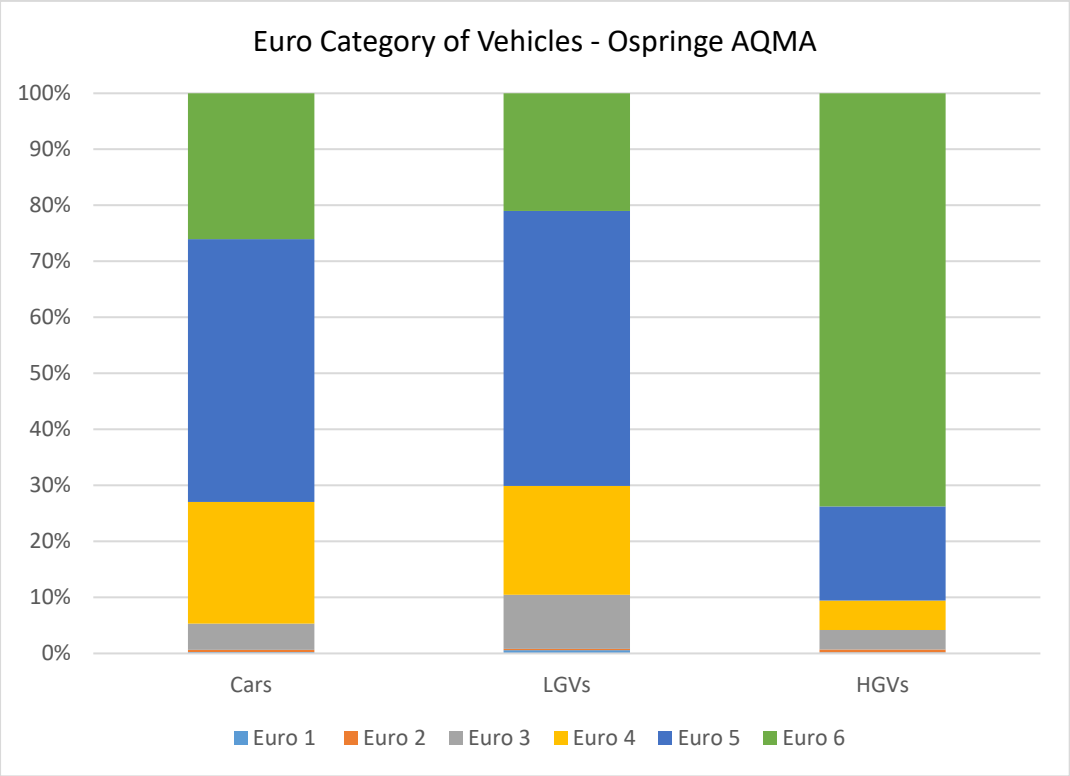
Graph 5.6 – Ratio of Euro categories per vehicle sector – Key Street (A2)



Graph 5.7 – Ratio of Euro categories per vehicle sector – Newington AQMA



Graph 5.8 – Ratio of Euro categories per vehicle sector – Ospringe AQMA



5.31 The ANPR survey at Key St (A2) was undertaken west of the A249. The survey showed a typical ratio (percentage) of Euro categories for Cars and LGVs. This location was dominated by a high percentage of Euro 6 HGVs (64%), indicating a newer fleet than other locations.

5.32 The ANPR survey at Newington AQMA showed a similar ratio (percentage) of Euro categories for Cars and LGVs to Key St (A2) . The exception is that there is a higher ratio of LGVs Euro 4 and below (30%). This location was dominated by a high percentage of Euro 6 HGVs (56%); however, up to 24% of HGVs were Euro 4 or below.

5.33 The ANPR survey at Ospringe AQMA showed a similar ratio (percentage) of Euro categories for Cars and LGVs to Newington AQMA, with a similarly higher ratio of LGVs Euro 4 and below (30%). This location was dominated by a high percentage of Euro 6 HGVs (74%), with only 9% of HGV being Euro 4 or below.

6. NOx Emissions Source Apportionment

Emissions Assessment

6.1 The source apportionment is undertaken using traffic data and Euro category data were provided from the traffic surveys.

6.2 To analyse the Euro categories and traffic survey information, this data is imported into the Defra Emissions Factor Toolkit (EFT) to produce emissions. The EFT utilises the volume data and Euro categories to provide ratios of emissions for different vehicle classes. This data is output as emissions of (all) oxides of nitrogen (NOx).

Source Apportionment

6.3 The NOx source apportionment for the Swale AQMAs provides a break-down of which vehicle categories provide the local emissions of NOx. The ratio of emissions differs due the type of vehicle (i.e. car, HGV, bus), the size of vehicle and fuel type used (i.e. diesel, petrol, other) to determine the amount of NOx emitted.

6.4 The source apportionment for the Swale AQMAs for 2018 is set out in Table 6.1 and Charts 6.1, 6.2, 6.3 and 6.4.

Table 6.1 – AQMA source apportionment table (2018)

	East Street AQMA	Newington AQMA	Ospringe & Teynham AQMA	St Pauls AQMA
Petrol Cars	6.8%	6.8%	8.2%	7.0%
Diesel Cars	51.3%	50.3%	62.8%	53.6%
Petrol LGVs	0.0%	0.0%	0.0%	0.0%
Diesel LGVs	20.4%	22.5%	9.4%	15.4%
Rigid HGVs	11.4%	12.2%	8.2%	14.5%
Artic HGVs	8.1%	6.0%	10.3%	6.6%
Buses/Coaches	1.3%	1.4%	0.3%	2.4%
Motorcycles	0.2%	0.4%	0.2%	0.1%
Full Hybrid Petrol Cars	0.1%	0.2%	0.1%	0.1%
Plug-In Hybrid Petrol Cars	0.0%	0.1%	0.0%	0.0%
Full Hybrid Diesel Cars	0.3%	0.2%	0.3%	0.2%

Notes: Teynham AQMA source apportionment is based on Ospringe AQMA ANPR survey results. East Street source apportionment is based on Key Street (A2) ANPR survey results.

Chart 6.1 – Newington AQMA NOx source apportionment (2018)

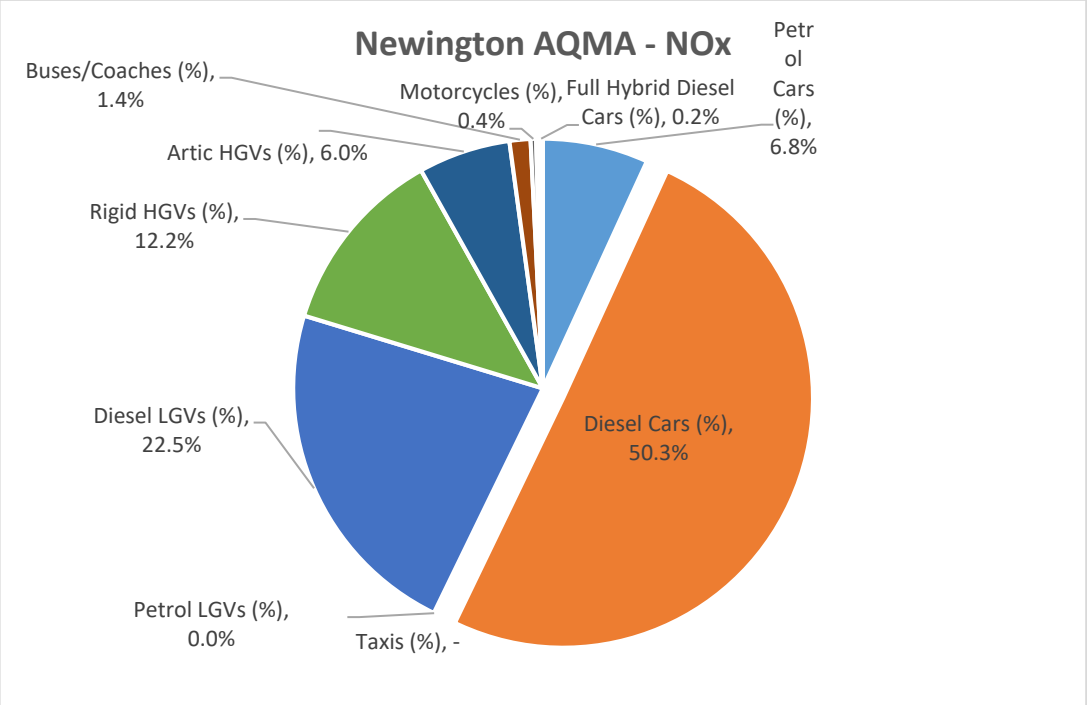


Chart 6.2 – Ospringe AQMA NOx source apportionment (2018)

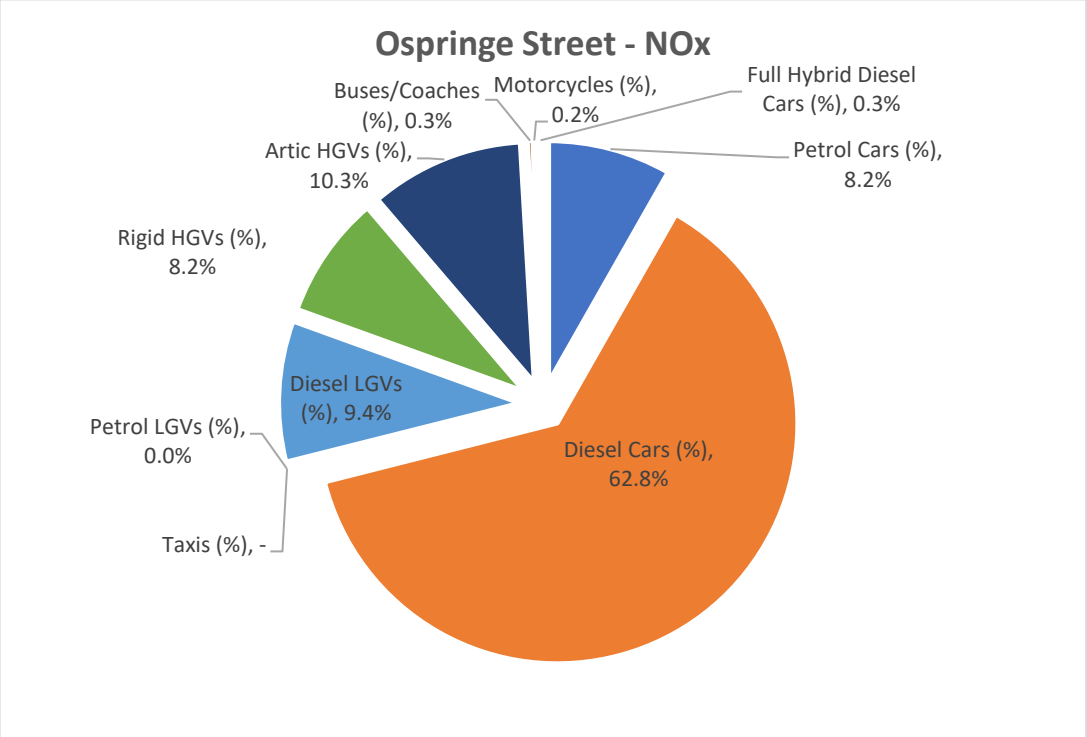


Chart 6.3 – East Street AQMA NOx source apportionment (2018)

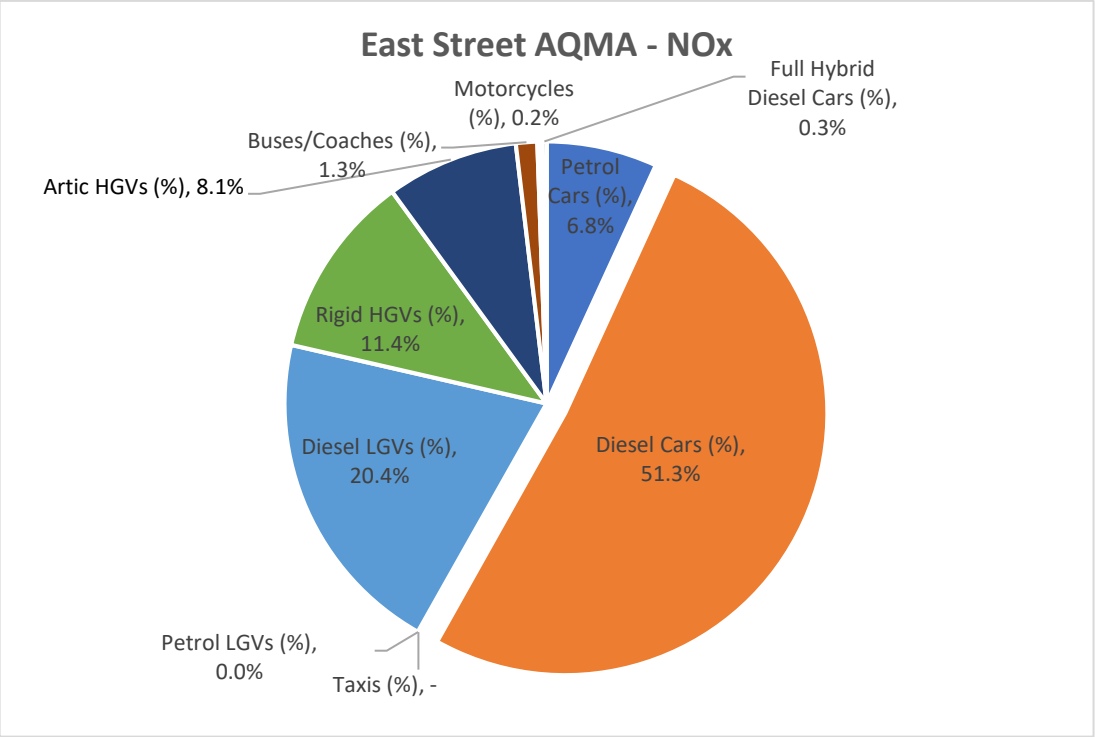
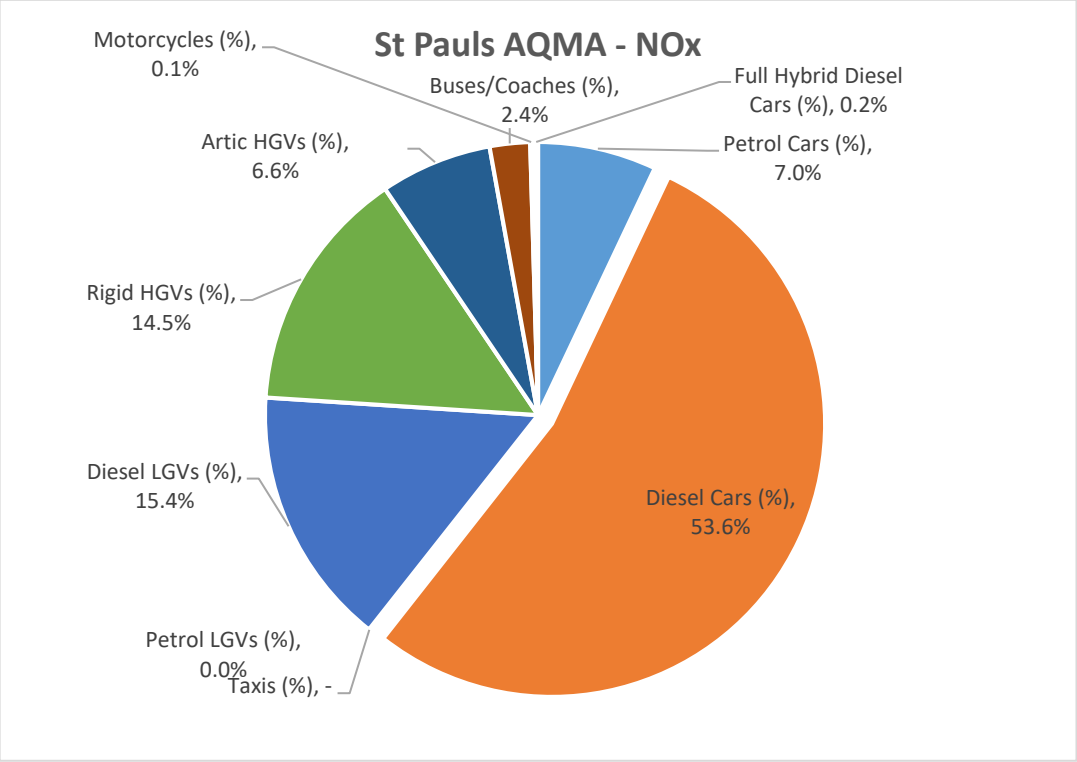


Chart 6.4 – St Pauls AQMA NOx source apportionment (2018)



6.5 The traffic data taken from across all AQMA locations showed on average that 82% vehicle movements were cars, with 15% being LGV and 3% combined OGVs.

6.6 The source apportionment however identified that:

- 15% LGV = 15- 20% NOx emissions
- 3% HGV = 18- 20% NOx emissions

6.7 The NOx source apportionment study highlighted that targeting key vehicles types such as LGVs and OGVs are likely to produce the substantial NOx reductions within the AQMAs. However as highlighted in Chapter 5, many OGVs and LGV operators are already operating Euro 6 category vehicles, thus the focus should also be on older Euro category vehicles in the vehicle classes.

6.8 Future AQAP measures need also to consider the changing fleet composition over time, which will introduce cleaner vehicles through improving Euro emissions standards beyond Euro 6. The following baseline modelling Chapter provides the future NO_2 concentrations within the AQMAs, so that the Council can assess the required measures needed to achieve the AQS compliance.

7. Air Quality Modelling Assessment

7.1 Undertaking baseline modelling establishes the likely NO_2 concentrations within the AQMAs in future years. This then enables the authority to determine how much of a reduction in NO_2 is needed to comply with the AQS.

7.2 The baseline modelling will also determine if any of AQMAs become compliant before any additional recommended AQAP measures are applied.

Traffic Data

7.3 Roads included in the AQMA modelling are presented in Table 7.1 below All data sources and information are provided in Chapter 5.

Table 7.1 – Modelled Roads

AQMA	Modelled Roads
AQMA 1: Newington	A2 High Street
AQMA 2: Ospringe	A2 Ospringe Street
AQMA 3: East Street	Bell Road Crown Quay Lane East Street A2 Michael's Road
AQMA 4: St Paul's	Staplehurst Road Chalkwell Road St Paul's Street
AQMA 5: Teynham	A2 London Road

UK-AIR Background Pollution

7.4 Defra provides estimated background concentrations of the UKAQS pollutants at the UK Air Information Resource (UK-AIR) website[4]. These estimates are produced using detailed modelling tools and are presented as concentrations at central 1km^2 National Grid square locations across the UK. These were updated in November 2017 and are based on monitoring data from 2015.

7.5 Being background concentrations, the UK-AIR data are intended to represent a homogenous mixture of all emissions sources in the general area of a particular grid square location. Concentrations of pollutants at various sensitive receptor locations can, therefore, be calculated by modelling the emissions from a nearby pollution source, such as a busy road, and then adding this to the appropriate UK-AIR background datum.

7.6 The predicted background pollution concentrations for NO_2 for 2017 to 2022 are presented in Table 7.2. These data were taken from the central grid square location closest to the AQMAs.

Table 7.2: 2017 to 2022 background concentrations of NO_2

Central grid square location	Predicted NO_2 background concentration ($\mu g.m^{-3}$)				Averaging period	AQS concentration ($\mu g.m^{-3}$)
	2017	2018	2020	2022		
East Street AQMA						
591500, 163500	16.6	16.0	15.1	14.2	annual mean	40
St Paul's AQMA						
590500, 164500	15.4	15.0	14.1	13.5	annual mean	40
Newington AQMA						
585500, 164500	12.4	12.0	11.2	10.5	annual mean	40
586500, 164500	12.5	12.1	11.3	10.6		
Teynham AQMA						
595500, 162500	9.8	9.5	8.9	8.3	annual mean	40
Ospringe AQMA						
600500, 160500	11.3	10.8	9.9	9.2	annual mean	40

AQMA Modelling Approach

7.7 Detailed air quality modelling was undertaken to establish the baseline concentrations of NO_2 within the Swale AQMAs. Each AQMA was modelled using the detailed dispersion model ADMS Roads (version 4.1.1).

4 Defra: UK-AIR. www.uk-air.defra.gov.uk (accessed 11/01/2018).

7.8 It is recommended, following guidance set out in LAQM.TG(16), that the model results be compared with measured data to determine whether they need adjusting to more accurately reflect local air quality. This process is known as verification and reduces the uncertainty associated with local effects on pollution dispersion and allows the model results to be more site-specific.

7.9 A verification study has been undertaken using the local authority monitoring data within each AQMA for 2017. The model was found to be under-predicting concentrations, which is not unusual, and therefore adjustment factors for each AQMA have been applied to the model results. Full details of this modelling study will be provided in a separate modelling report.

7.10 The AQMA modelling assessment requires baseline modelling to determine the likely concentrations within AQMA in future years. The baseline modelling assumes projected changes in vehicle volumes and vehicle Euro categories without any other variables. Future year projection data is based on the national Trip End Model Presentation Program (TEMpro) Road Traffic Forecast (RTF) model for Kent (SE region) and the EFT for changes in the Euro category changes.

7.11 All future year ADMS baseline modelling uses 2017 as the metrological data year.

7.12 Future baseline modelling was undertaken for the years 2018, 2020 and 2022.

7.13 Modelling was undertaken to assess against the annual average AQS for NO_2 (40µg/m³).

7.14 Emissions factor calculation were taken from the latest EFT and applied to the year of assessment. The EFT includes data on Euro category emission factors for specific years and also accounts for the increased natural turn-over of the fleet. This turn-out of vehicles relates to the reduction of older vehicles leaving the fleet and newer vehicles replacing them. This turn-over results in lower fleet emissions as time moves forward.

7.15 Each AQMA was modelled and representative sensitive receptors were based on previous assessment reports for comparison. The following table 7.3 provides a list of the locations of the 2 most sensitive receptors within each AQMA. These receptors were selected to provide the worst-case locations of exposure.

Table 7.3 – AQMA sensitive receptor locations.

Receptor no.	Receptor location		
	X(m)	Y(m)	Z(m)
East Street AQMA			
12	591404	163489	1.5
21	591485	163473	1.5

St Paul's AQMA			
6	591188	163538	1.5
8	591203	163705	1.5
Newington AQMA			
24	585909	164804	1.5
28	585907	164794	1.5
Teynham AQMA			
10	595232.4	162447.3	1.5
12	595217	162452.3	1.5
Ospringe AQMA			
14	600388.6	160851.3	1.5
15	600374.4	160856.2	1.5

7.16 Detailed information of the modelling assessment will be provided in a separate modelling report, these will include model verification, full lists of sensitive receptors and results.

Baseline Modelling Results

7.17 2018 baseline modelling was undertaken for the Swale AQMAs to determine the predicted current year concentration exposures within the AQMAs.

7.18 A selection of sensitive receptors is presented in the following assessment results. Theses receptors have been selected as the most sensitive/highest exposure locations within the AMQAs.

7.19 Table 7.4 presents the baseline AQMA modelling results for the selected receptors.

Table 7.4 – Summary of Swale AQMA modelling results for 2018 - 2022

Receptor no.	Predicted annual average NO_2 concentration ($\mu g.m^{-3}$)		
	2018	2020	2022
East Street AQMA			
12	**61.8**	**57.2**	**44.5**
21	**55.3**	**46.9**	**40.0**
St Paul's AQMA			
6	**41.7**	36.0	32.1
8	**42.3**	36.5	32.4
Newington AQMA			
24	**47.1**	**39.3**	34.4
28	**44.9**	37.4	32.7
Teynham AQMA			
10	**56.1**	**48.8**	**42.6**

12	**54.0**	**47.0**	**41.0**
Ospringe AQMA			
14	**60.0**	**59.4**	**45.7**
15	**57.8**	**57.2**	**44.0**

***Bold** denotes an exceedance of the 40µg/m³ AQS.

7.20 The baseline modelling results identified continued exceedances of the AQS for NO_2 in all AQMAs in 2018.

7.21 Results in 2020 identified a reduction in concentrations across all the AQMAs, these included predicted NO_2 concentrations lower than the AQS at all sensitive receptors in St Paul's and Newington.

7.22 The 2022 modelling results indicate that reductions in NO_2 concentrations continue as background sources and fleet emissions continue to reduce as expected. The AQMAs in East Street, Teynham and Ospringe continue to be in exceedance of the NO_2 AQS.

7.23 These modelled results are baseline modelled results without any Kent or Medway authorities Local Plan (LP) committed developments. LP data was not available at the time of the assessment preparation.

Minimum Required NO_2 Reductions

7.24 To determine the amount of reduction required to gain AQS compliance, a simple calculation is undertaken by subtracting 40(µg/m³) from the AQMA NO_2 total in the years 2020 and 2022. The required minimum reductions in NO_2 are provided in Table 7.5.

Table 7.5 – Minimum required NO_2 concentration reductions in each AQMA.

Receptor no.	Minimum required NO_2 concentration reduction ($\mu g.m^{-3}$)	
	2020	2022
East Street AQMA		
12	17.2	4.5
St Paul's AQMA		
8	Not required	Not required
Newington AQMA		
24	Not required	Not required
Teynham AQMA		
10	8.8	2.6
Ospringe AQMA		
14	19.4	5.7

7.25 East Street AQMA and Ospringe AQMA require significant reductions in NO_2 in 2020; however, the required concentration reduction reduces significantly in 2022.

7.26 St Pauls and Newington AQMA are likely to be compliant with the AQS, therefore a reduction target is not required.

7.27 Teynham AQMA requires significant reductions in 2020 to comply; however, as 2022 approaches, the minimum reduction reduces to 2.6µg/m³.

8. NO_2 Source Apportionment

8.1 The baseline modelling assessment identified the predicted future baseline concentrations of NO_2 at the worst-case locations within each AQMA and the minimum require reductions.

Road Traffic NO_2 Sources

8.2 To determine what sector of the vehicle fleet should be considered, an assessment of the NO_2 sources is undertaken.

8.3 The breakdown of the sources of NO_2 from road traffic has been assessed for each AQMA with the exception of Newington. Tables 8.1 to 8.3 provide the source apportionment of the NO_2 concentration sources at the worst-case receptor locations in each AQMA for 2020 and 2022.

Table 8.1 – East Street AQMA NO_2 source apportionment

	2020		2022	
	NO_2 conc.	%	NO_2 conc.	%
Petrol Cars	2.88	5.03	2.28	5.13
Diesel Cars	23.07	40.32	16.99	38.19
Taxis	0.00	0.00	0.00	0.00
Petrol LGVs	0.01	0.02	0.01	0.02
Diesel LGVs	6.96	12.17	4.71	10.58
Rigid HGVs	4.96	8.68	3.01	6.76
Artic HGVs	3.77	6.59	2.21	4.96
Buses/Coaches	0.77	1.35	0.46	1.03
Motorcycles	0.05	0.08	0.04	0.08
Full Hybrid Petrol Cars	0.08	0.14	0.09	0.20
Plug-In Hybrid Petrol Cars	0.01	0.01	0.01	0.03
Full Hybrid Diesel Cars	0.24	0.43	0.29	0.65
Background	14.41	25.19	2.28	5.13

Table 8.2 – Teynham AQMA NO_2 source apportionment

	2020		2022	
	NO_2 conc.	%	NO_2 conc.	%
Petrol Cars	3.35	6.87	3.22	7.57
Diesel Cars	25.56	52.39	22.72	53.35
Taxis	0.00	0.00	0.00	0.00
Petrol LGVs	0.01	0.01	0.00	0.01
Diesel LGVs	3.15	6.45	2.57	6.04
Rigid HGVs	4.48	9.19	3.19	7.49
Artic HGVs	2.82	5.78	1.97	4.62
Buses/Coaches	0.14	0.28	0.10	0.23
Motorcycles	0.06	0.12	0.05	0.12
Full Hybrid Petrol Cars	0.09	0.19	0.12	0.29
Plug-In Hybrid Petrol Cars	0.01	0.02	0.02	0.04
Full Hybrid Diesel Cars	0.27	0.56	0.39	0.91
Background	8.85	18.15	8.23	19.33

Table 8.3 – Ospringe AQMA NO_2 source apportionment

	2020		2022	
	NO_2 conc.	%	NO_2 conc.	%
Petrol Cars	3.81	6.41	3.15	6.89
Diesel Cars	30.52	51.41	23.45	51.30
Taxis	0.00	0.00	0.00	0.00
Petrol LGVs	0.01	0.01	0.00	0.01
Diesel LGVs	3.53	5.95	2.49	5.45
Rigid HGVs	6.54	11.01	4.13	9.03
Artic HGVs	4.30	7.25	2.62	5.74
Buses/Coaches	0.20	0.34	0.12	0.27
Motorcycles	0.06	0.10	0.05	0.11
Full Hybrid Petrol Cars	0.10	0.17	0.12	0.26
Plug-In Hybrid Petrol Cars	0.01	0.02	0.02	0.03
Full Hybrid Diesel Cars	0.32	0.55	0.40	0.88
Background	9.96	16.78	9.16	20.03

8.4 The NO_2 source apportionment tables show the high proportion of NO_2 sourced from the diesel sector of the fleet. The diesel sector includes diesel cars, diesel LGVs, rigid HGVs, artic HGVs and buses/coaches and accounts for over 65-75% of the NO_2 source.

8.5 Diesel cars are the most dominant source of NO_2 across all AQMAs, due to the high volumes of private cars passing through the AQMAs, of which >50% are currently diesel cars.

8.6 East Street AQMA has a significant proportion of diesel LGVs accounting for up to 3.5µg/m³ of the NO_2 in the AQMA. HGVs account for approximately 8.8-5.2µg/m³ of the NO_2 in 2020 and 2022, respectively.

8.7 Teynham AQMA has an even spread of sources of NO_2 from diesel LGVs, rigid HGV and artic HGVs between 3 – 2.5µg/m³, 4.5 – 3.2 µg/m³ and 2.8 – 1.9 µg/m³ respectively for 2020 and 2022.

8.8 Ospringe AQMA has a similar profile of NO_2 sources as Teynham; however, it has double the reduction targets for 2020 and 2022.

9. AQMA Options Review

9.1 The NO_2 source apportionment identifies several vehicle categories which can be targeted to achieve the required (minimum) NO_2 reductions in each AQMA

9.2 The key sectors to consider in the AQMA options assessment are sectors that are high emitters and are in low numbers. The high emitters as indicated in the source apportionment studies are the diesel fleet vehicles.

9.3 The NOx source apportionment identified that LGVs accounted for 15% of the fleet, but produced up to 20% of NOx emissions, whereas HGVs made up only 3% of the fleet, but are responsible for between 18 and20% of NOx emissions.

9.4 The study also identified that the older vehicles, i.e. the early Euro category vehicles, produce significantly higher emissions than newer Euro 5 and 6 vehicles.

9.5 The primary vehicle groups to target to achieve compliance of AQSs are therefore:

- HGV vehicle and LGV (diesel) sector
- Early Euro category vehicles (Euro 1 - 4)

AQMA Euro Category NO_2 assessment

9.6 To assess the required Euro category vehicles that will be required to reduce their emissions, the following assessment sets out the required vehicle categories to target.

9.7 These figures are based on the baseline model results without any AQAP measures.

9.8 Tables 9.1 and 9.2 present the assessment results showing predicted NO_2 concentration values per Euro category for Cars, LGVs and HGVs in the AQMAs. The tables show the relevant concentration proportioned to the all the vehicles in each class and Euro category.

Table 9.1 – Euro category NO_2 concentration (µg/m³) apportionment (2020)

		Euro 1/I	Euro 2/II	Euro 3/III	Euro 4/IV	Euro 5/V	Euro 6/VI
East Street AQMA	Cars	**0**	**0**	**1.04**	**4.94**	**11.96**	7.8
	LGVs	**0.07**	**0**	**0.49**	**1.19**	**3.64**	1.61
	HGVs	**0**	**0.09**	**0.7**	**0.61**	**1.67**	5.63
Teynham AQMA	Cars	**0**	**0**	**1.44**	**6.36**	13.58	7.51
	LGVs	**0.03**	**0**	**0.31**	**0.60**	1.55	0.66
	HGVs	**0**	**0.073**	**0.21**	**0.36**	1.24	5.40
Ospringe AQMA	Cars	**0**	**0**	**1.71**	**7.55**	**16.13**	8.92
	LGVs	**0.03**	**0**	**0.35**	**0.67**	**1.73**	0.74
	HGVs	**0**	**0.10**	**0.32**	**0.54**	**1.84**	8.02

9.9 The required minimum NO_2 concentration (µg/m³) reductions set out in Table 7.2 for each AQMA in 2020 is:

- East Street = 17.2
- Teynham = 8.8
- Ospringe = 19.4

9.10 The required vehicle Euro categories that need to be targeted to achieve the reductions without any additional AQAP measures are highlighted in **bold.**

9.11 Significant reductions will be required across all AQMAs to achieve AQS compliance.

Table 9.2 – Euro category NO_2 concentration (µg/m³) apportionment (2022)

		Euro 1/I	Euro 2/II	Euro 3/III	Euro 4/IV	Euro 5/V	Euro 6/VI
East Street AQMA	Cars	**0.00**	**0.00**	**0.77**	3.67	8.88	5.79
	LGVs	**0.05**	**0.00**	**0.33**	**0.80**	2.44	1.08
	HGVs	**0.00**	**0.05**	**0.47**	**0.36**	**0.99**	3.33
Teynham AQMA	Cars	0.00	0.00	1.30	5.71	12.19	6.74
	LGVs	**0.06**	**0.00**	**0.61**	**1.15**	2.96	1.27
	HGVs	**0.00**	**0.05**	**0.15**	**0.26**	0.88	3.82
Ospringe AQMA	Cars	**0.00**	**0.00**	**1.33**	5.85	12.50	6.92
	LGVs	**0.03**	**0.00**	**0.25**	**0.48**	**1.23**	0.53
	HGVs	**0.00**	**0.07**	**0.20**	**0.34**	**1.15**	5.00

9.12 The required minimum NO_2 concentration (µg/m³) reductions set out in Table 7.2 for each AQMA in 2022 is:

- East Street = 4.5
- Teynham = 2.6
- Ospringe = 5.7

9.13 The required vehicle Euro categories that need to be targeted to achieve the reductions without any additional AQAP measures are highlighted in **bold.**

9.14 Major reductions will be required across all AQMAs to achieve AQS compliance.

Summary of Results

9.15 The NO_2 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.

9.16 The baseline 2020 source apportionment study identified:

- Significant reductions in NO_2 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.

9.17 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.

9.18 Both 2020 and 2022 baseline assessments have identified that significant reductions in NOx emissions will be required across the A2 AQMAs. Swale Council will therefore need to consider a variety of strategic measures that impact on NOx emissions from a range vehicle classes and Euro categories.

9.19 The *Swale Strategic AQAP 2018 - 2022 Report 2* will provide a review and assess potential AQAP options that target the required NOx emissions reductions.

Figures

Figures 1 - 4: ATC and ANPR traffic survey location

Figure 1 - ATC 1 - 10: St Pauls and East Street AQMA

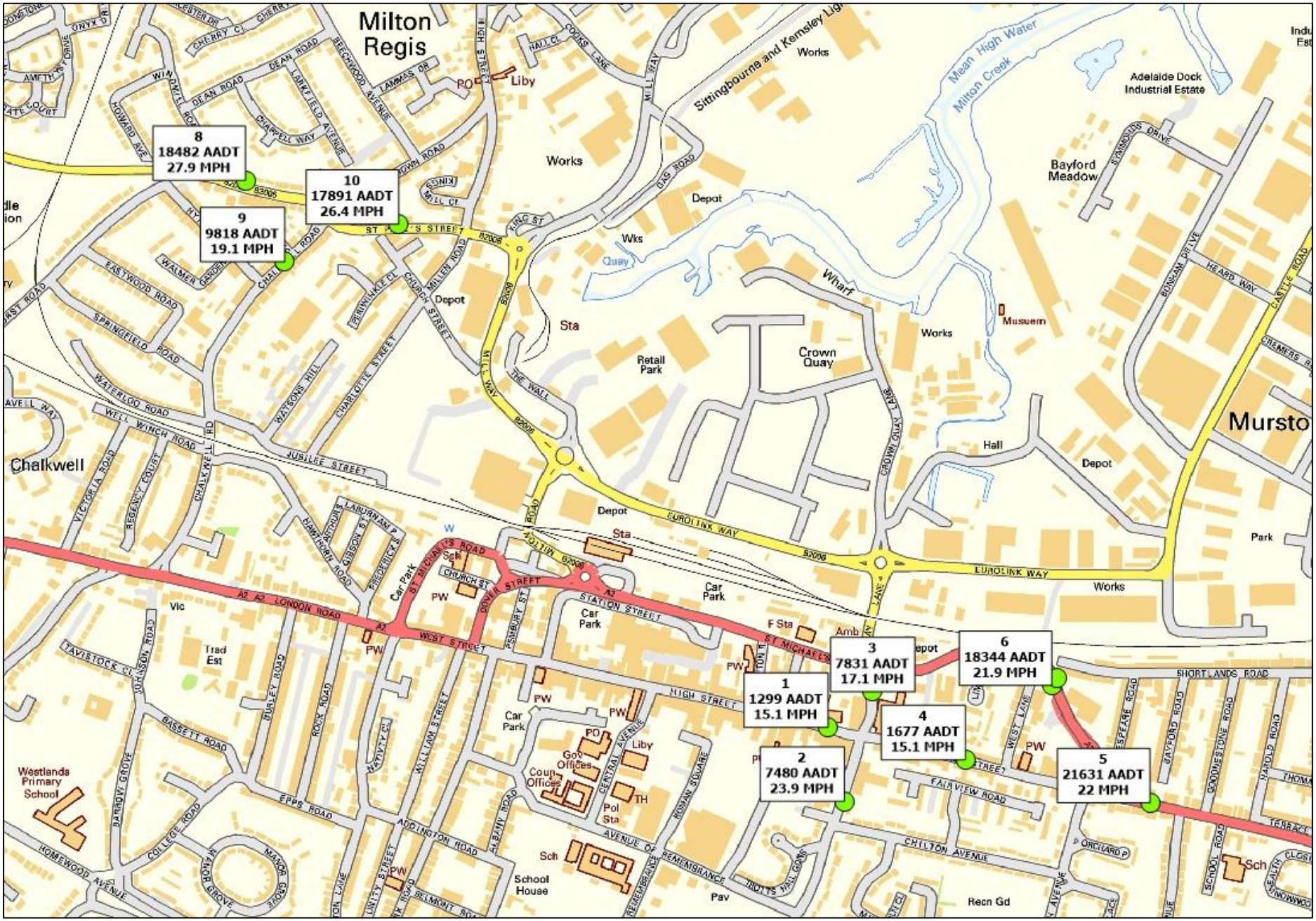


Figure 2 - ATC 11 and 12: London Road and Key Street AQMA

Figure 3 - ATC 13: Ospringe Street AQMA

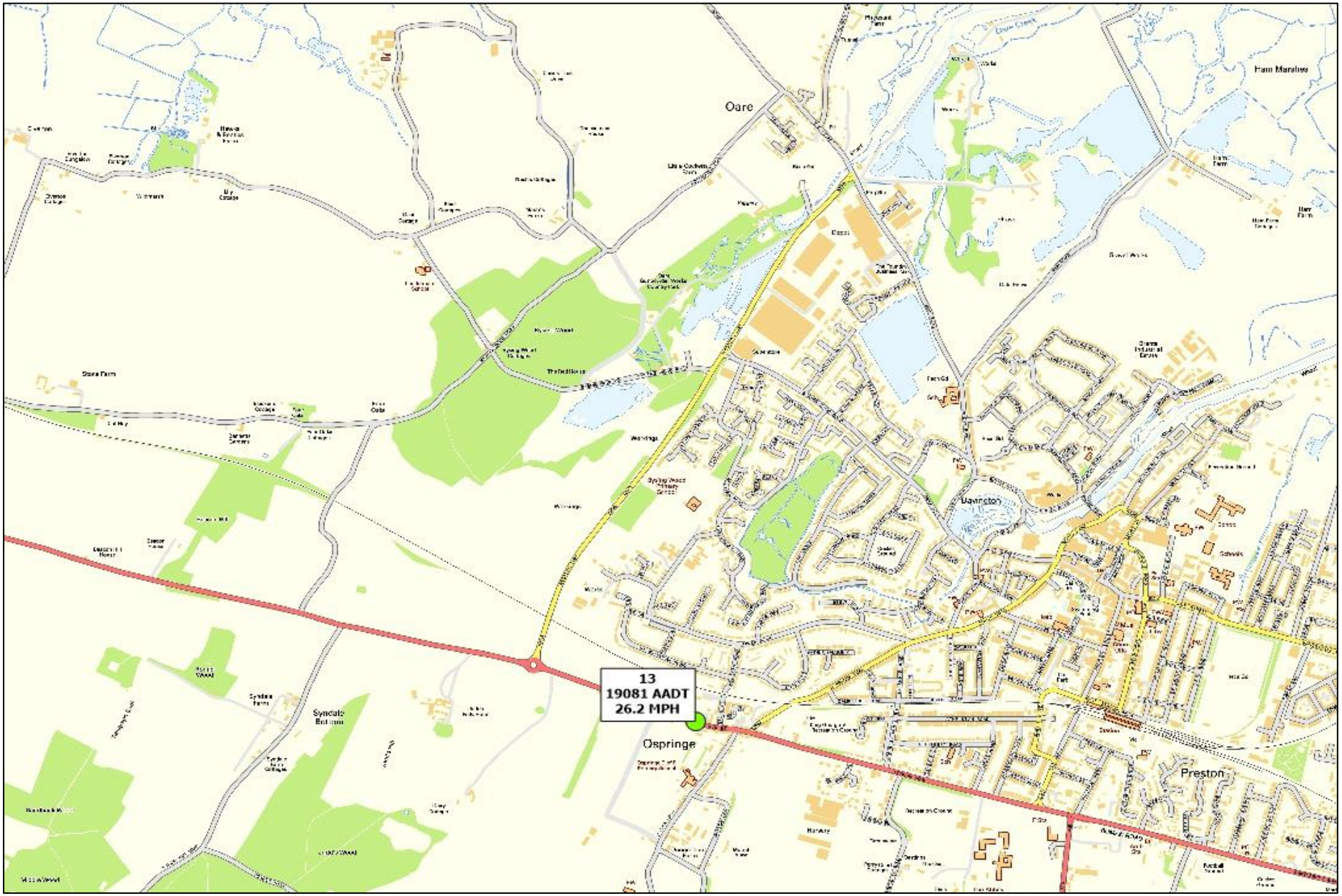


Figure 4 - ANPR sites: 1. Newington (A2) AQMA 2. Key St (A2) east of A249 3. Ospringe (A2) AQMA

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Policy Development and Review Committee - Policies, plans and strategies due for review in 2017/18 and beyond

Policies, plans and strategies	Service unit	Due date for publication of new/revised policy, plan or strategy	Policy Development and Review Committee dates	Commentary
Digital Strategy	Chief Executive	Summer 2018	10 April 2018	On Forward Plan for 30 May Cabinet
Discretionary Housing Payment policy	Resident Services	Spring 2018	10 April 2018	
Swale Strategic Air Quality Action Plan 2018 - 2022	Environmental Health	Summer 2018	10 April 2018	A request has been made to the Chairman of PDRC by a ward councillor for this to be reviewed by the Committee. A report to Cabinet on 4 October confirms that PDRC will be consulted on the Plan. On Forward Plan for 30 May Cabinet
Regeneration Strategy	Economy and Community Services	Winter 2018	10 May 2018	
Policies likely to be considered in 2018/19 Municipal Year				
Corporate Plan review	Policy and Performance	TBA	6 June 2018	To consider initial iteration
Beach Hut Policy	Commissioning and Customer Service	Spring 2018	6 June 2018?	
Update Tree Policy	Commissioning and Customer Service	Spring 2018	6 June 2018?	

Policies, plans and strategies	Service unit	Due date for publication of new/revised policy, plan or strategy	Policy Development and Review Committee dates	Commentary
Homelessness and Housing Strategy	Resident Services	Autumn 2018	18 July 2018?	
Corporate Plan review	Policy and Performance	TBA	12 September 2018	To consider further iteration following discussions Cabinet Members, Group Leaders and Heads of Service
Housing Allocations Policy	Resident Services	Autumn/winter 2018	12 September 2018	

Policy Development and Review Committee dates 2017/18:

- 10 April 2018; and
- 10 May 2018.

Provisional Policy Development and Review Committee dates 2018/19

- 6 June 2018;
- 18 July 2018;
- 12 September 2018;
- 24 October 2018;
- 27 November 2018;
- 16 January 2019; and
- 12 February 2019.