



TONBRIDGE & MALLING BOROUGH COUNCIL

EXECUTIVE SERVICES

Chief Executive

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NB - This agenda contains proposals, recommendations and options. These do not represent Council policy or decisions until they have received proper consideration through the full decision making process.

Contact: Democratic Services
committee.services@tmbc.gov.uk

4 November 2020

To: MEMBERS OF THE PARISH PARTNERSHIP PANEL
(Copies to all Members of the Council)

Dear Sir/Madam

Your attendance is requested at a meeting of the Parish Partnership Panel to be held online via Microsoft Teams on Thursday, 12th November, 2020 commencing at 7.30 pm. Information on how to observe the meeting will be published on the Council's website.

Yours faithfully

JULIE BEILBY

Chief Executive

A G E N D A

Part 1 - Public

1. Apologies for absence
2. Minutes

5 - 12

To confirm as a correct record the Minutes of the meeting of the Parish Partnership Panel held on 3 September 2020

3. Update on action identified in the last Minutes
4. Borough Councils Response to the Coronavirus Pandemic 13 - 18

The Leader of the Council (Councillor Nicolas Heslop) will provide an update on the current position.

The report of the Chief Executive and Management Team presented to Cabinet of 14 October is attached for information.

5. Update on the Local Plan and Section 106 Protocol 19 - 42

The Cabinet Member for Strategic Planning and Infrastructure (Councillor David Lettington) will provide an update on the progress of the Local Plan.

There will also be an update on the Section 106 Protocol and the report to the Planning and Transportation Advisory Board of 11 November is attached for information.

6. Update on Waste Services

The Cabinet Member for Street Scene and Environment Services (Councillor Robin Betts) will provide an update on Waste Services.

7. Kent County Council Services Update

Representatives from Kent County Council to provide an update on recent initiatives, consultations and other matters of interest.

8. Air Quality Management Areas 43 - 160

The report of the Director of Planning, Housing and Environmental Health to the Street Scene and Environment Services Advisory Board of 5 October provides an updated Air Quality Action Plan and identifies actions to be taken to reduce pollutants within the 6 Air Quality Management Areas (AQMAs) and to tackle Nitrogen Dioxide across the Borough as a whole. Decision Notice D200065MEM is also attached.

(Attached for information)

(Requested by the Kent Association of Local Councils – Tonbridge and Malling)

DISTRIBUTION

Borough Council Representatives

Cllr N J Heslop (Chairman)
Cllr M A Coffin (Vice-Chairman)
Cllr Mrs J A Anderson
Cllr R P Betts
Cllr R W Dalton
Cllr P M Hickmott
Cllr F A Hoskins
Cllr S A Hudson
Cllr Mrs C B Langridge
Cllr D Lettington
Cllr B J Luker
Cllr M R Rhodes
Cllr M Taylor

Parish and Town Council Representatives

Addington
Aylesford
Birling
Borough Green
Burham
Ditton
East Malling and Larkfield
East Peckham
Hadlow
Hildenborough
Ightham
Kings Hill
Leybourne
Mereworth
Offham
Platt
Plaxtol
Ryarsh
Shipbourne
Snodland
Stansted
Trottiscliffe
Wateringbury
West Malling
West Peckham
Wouldham
Wrotham

County Councillors

Trudy Dean, Malling Central
Matthew Balfour, Malling Rural East
Sarah Hohler, Malling North
Peter Homewood, Malling Rural North East
Harry Rayner, Malling West

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TONBRIDGE AND MALLING BOROUGH COUNCIL

PARISH PARTNERSHIP PANEL

Thursday, 3rd September, 2020

Present: Cllr N J Heslop (Chairman), Cllr Mrs J A Anderson, Cllr R P Betts, Cllr R W Dalton, Cllr F A Hoskins, Cllr S A Hudson, Cllr Mrs C B Langridge, Cllr D Lettington, Cllr B J Luker, Cllr M R Rhodes and Cllr M Taylor.

Together with representatives of Addington, Aylesford, Borough Green, Burham, Ditton, East Malling and Larkfield, East Peckham, Hadlow, Hildenborough, Ightham, Kings Hill, Offham, Platt, Plaxtol, Ryarsh, Shipbourne Parish Councils and County Councillors Mrs T Dean, Mr M Balfour, Mrs S Hohler and Mr H Rayner.

Councillors M C Base, A P J Keeley, R V Roud, J L Sergison, Mrs M Tatton and D J Cooper were also present pursuant to Council Procedure Rule No 15.21.

Apologies for absence were received from Councillors M A Coffin and Leybourne Parish Council.

PART 1 - PUBLIC

PPP 20/16 MINUTES

RESOLVED: That the Minutes of the meeting held on 11 June 2020 be approved as a correct record and signed by the Chairman.

PPP 20/17 UPDATE ON ACTION IDENTIFIED IN THE LAST MINUTES

There were no actions identified that were not covered elsewhere on the agenda.

However, the Chairman invited the County Member for Malling West (Councillor Harry Rayner) to comment on the recent flooding in Borough Green, Ightham and Stansted. As this was a recurring issue related to drainage, surface water and the maintenance programme it was suggested that Southern Water were invited to a future meeting of the Parish Partnership Panel to address these significant concerns. The Chairman supported this proposal and would extend an invitation to Southern Water.

PPP 20/18 PLANNING SERVICES UPDATE

Updates were provided on the following issues:

(a) Planning For the Future and consultation timescales

The Cabinet Member for Strategic Planning and Infrastructure (Councillor David Lettington) presented an overview of the Government proposals to reform the planning system in England. These proposals were currently out for consultation and responses had to be submitted by the end of September/early October.

The Borough Council would consider its response at an extraordinary meeting of the Planning and Transportation Advisory Board scheduled for 29 September and parish councils were encouraged to submit comments direct or via local Ward Councillors or the Kent Association of Local Councils.

The main proposals set out in the White Paper 'Planning for the Future' and those matters which potentially had significant implications for the operation of the Borough Council, in its role as Local Planning Authority, had been considered by the Planning and Transportation Advisory Board held on [28 July](#).

Finally reference was made to the progress of the Borough Council's Local Plan and it was confirmed that virtual Hearings were programmed for October.

(b) S106 Procedures

The Director of Planning, Housing and Environmental Health advised that a report to the Planning and Transportation Advisory Board of [28 July](#) had provided an overview of planning obligations for the period 2018-2020. An update on upcoming changes to how future monitoring of obligations would take place had also been provided.

Members had approved the adoption of a Planning Obligations Protocol which was intended to provide a clear and transparent framework in respect of how the Service would negotiate and secure planning obligations under section 106 of the Town and Country Planning Act 1990 in order to mitigate the impacts of development taking place across the Borough. Successful negotiation of planning obligations required effective management and monitoring to ensure timely and appropriate use of collected obligations.

(c) Planning Enforcement – Revised Policy

The Panel was advised that the Planning and Transportation Advisory Board held on [28 July](#) had approved the adoption of a Planning Enforcement Section 215 Protocol. This was intended to provide a clear and transparent framework on how the authority decided to take action to serve formal notices, in particular how sites would be assessed to establish whether such action was appropriate and proportionate and whether any other powers held by the Borough Council should be called

upon as an alternative. It was noted that, given the high number of complaints the enforcement team received on such matters, the Protocol would ensure that financial and personnel resources were properly focused.

(d) Development Management processes and consultation/guidance

Further to Minute Number PPP 20/12, it was reported that Cabinet of 30 June 2020 had approved the proposed changes to development management processes, as set out in [Decision Notice D200040CAB](#) and the report of the Director of Planning, Housing and Environmental Health to the Planning and Transportation Advisory Board of 3 March 2020.

The Borough Council had committed to a programme of engagement with stakeholders and there had generally been positive feedback from parish councils and applicants. A user guide providing clear instructions was being developed and would be available on the website in due course. Parish Councils were also encouraged to volunteer to test the new development management and notification process to aid understanding of any potential problems.

Following discussion a number of potential improvement actions were identified (summarised below) and noted by the Director of Planning, Housing and Environmental Health for further investigation:

- Rescheduling of training webinars
- Training sessions and guidance with parish clerks on using the Public Access search function
- List B to be amended to advise when the 21 day consultation period expired
- List B to be amended to advise whether a technical response was required from a parish council
- Applicants to be encouraged to submit all documents in a screen readable format
- Recognised that hard copies of documents might be necessary on an exception only basis for complex planning applications

Finally, the Director of Planning, Housing and Environmental Health emphasised that these proposals were intended to improve the application process for all parties and parish councils continued to have an important role in consultation.

PPP 20/19 STREET SCENE SERVICES UPDATE

Updates were provided on the following:

(a) Waste Services Contract

The Waste Contract Manager provided an update on the recent performance of the waste service contract and referred to the significant challenges presented by the coronavirus pandemic. These challenges were also exacerbated by issues at the waste disposal sites, increased volumes of waste due to residents being at home for longer periods; the recent heatwave and vehicle breakdowns due to poor maintenance.

However, the Borough Council had managed to continue its waste service operation during the lockdown measures and only garden waste collection had been suspended for a short period. As a result, subscriptions to the service were extended for 2 months.

It was also reported that Tonbridge and Malling residents had successfully recycled 58% of waste which was significantly higher than the target set.

A number of measures had been identified to improve the performance of the contractor and these would be reviewed by the Street Scene and Environment Services Advisory Board on 5 October.

Finally, it was reported that a number of local authorities continued to experience significant disruption and Tonbridge and Malling compared favourably nationally.

In response to a question regarding the number of 'bring' sites in the Borough and whether there had been a significant reduction in their use it was suggested that this was discussed at the Street Scene and Environment Services Advisory Board in October.

(b) Provision of Household Waste Recycling Centre (HWRC) in Tonbridge and Malling

The County Councillor for Malling North (Councillor Sarah Hohler) advised that Kent County Council's Planning Committee had unanimously approved the proposal by FCC Environment (UK) Limited to establish a HWRC in Allington. Further detail was set out in the County Services Update report under Minute Number PPP 20/21.

(c) Fly Tipping Enforcement – Days of Action

Further to Minute Number PPP 20/3 (c), and as part of the 'days of action' campaign, the Borough Council remained committed to educating households to check the credentials of those collecting waste. These initiatives had been delayed due to the coronavirus pandemic and it was hoped that these could be rescheduled in the near future. Details would be shared with parish/town councils when these were finalised.

It was reported that a number (10) of fly tipping hotspots would be assessed for potential covert CCTV monitoring. This was subject to further discussion with the Kent Intelligence Unit but it was hoped that this proactive action would improve problem areas.

(d) Parking Enforcement and funding of Traffic Wardens by parishes

The Kent Association of Local Councils (Tonbridge and Malling branch) referred to a proposal from Shipbourne Parish Council regarding the potential for parish councils to contribute funding for traffic wardens to undertake parking enforcement in their parishes. The Head of Technical Services provided an overview of the current staffing arrangements and enforcement operations in the Borough.

The parish councils referred to significant parking issues outside of the working hours of operation of the Parking Enforcement Team and queried whether the enforcement role could be 'sub-let' to other organisations. It was explained that only first (county) and second (borough) tier authorities were allowed to take enforcement action and that Kent Police had powers to deal with parking issues out of hours.

However, the Head of Technical Services offered to explore all options with parish councils and it was suggested that a virtual webinar be held to discuss concerns and funding.

Finally, the Panel was reminded that problems could be reported to parking.services@tmbs.gov.uk

PPP 20/20 KENT POLICE SERVICES UPDATE

The Chairman, in his role as Leader of the Council, welcomed Inspector Elizabeth Jones to her new position at the Tonbridge and Malling Community Safety Unit.

Acting Inspector Jones provided a verbal update on the achievements made in performance and the neighbourhood policing agenda. The headline messages were that there had been a significant number of complaints related to lack of social distancing and mass gatherings; burglary from dwellings had reduced during lockdown and Police Community Support Officers (PCSO) continued to engage actively with the community.

Currently, the Community Policing Team were targeting human trafficking, drug crime and community initiatives.

Recent crime trends and activity included:

- Addressing anti-social behaviour around Blue Bell Hill following feedback from residents;
- Addressing dangerous driving on bikes and motorbikes via Op Impala;
- Dealing with traveller incursions in Tonbridge and Malling and serving Section 61 notices;
- Preparing for Op Autumn which included higher visibility patrols in hot spot areas; and
- Reviewing the circumstances of a licensed event in Wrotham which breached Covid-19 safety measures.

Particular reference was made to the traffic issues on the A20, particularly from Wrotham to West Malling, and the Panel welcomed the inclusion of this as a 'red route', which meant that it was an area of particular interest to police.

Finally, Inspector Jones committed to exploring options to provide a more personalised or parish specific summary to parish councils.

Further information on any of the items raised in the Kent Police Services Update report was available by contacting Kent Police direct. Alternatively, any specific community issues could be passed to the Democratic Services Officer (allison.parris@tmbsc.gov.uk) to forward to Kent Police.

PPP 20/21 KENT COUNTY COUNCIL SERVICES UPDATE

The County Member for Malling North (Councillor Sarah Hohler) reported that, despite extra funding provided by Government to cover additional costs and loss of income related to Covid-19, the County Council faced a budget shortfall currently estimated at £40-50M for this financial year.

In addition, there had been a significant number of unaccompanied asylum seekers in recent months, 589 of which were under 18. Kent had reached capacity on 14 August and other local authorities were now offering assistance.

Further detail was provided on the Household Waste Recycling Centre and there would be improvements made to the entrance and exits. The aim was to open the facility in 2021.

The replacement of Addington footbridge meant the overnight closure of the M20 early in October. However, there had been agreement that further improvement works on the M20 would be dealt with by partial lane closures and keeping the motorway open.

Finally, the Chairman of Kent County Council would be supporting Porchlight as his annual charity this year and would be walking from Stansted to West Malling to raise money.

In conclusion, the Chairman commended Kent County Council on the recently launched Economic Recovery Dashboard which provided useful economic indicators to support the post Covid-19 recovery.

PPP 20/22 TONBRIDGE AND MALLING BOROUGH COUNCIL SERVICES UPDATE

The Chairman, in his role as Leader of the Borough Council, provided a brief update on key points of relevance to Tonbridge and Malling. The headline messages included:

(a) Local Retail Centres and Shopfront Grants Scheme

The Panel was reminded that over the past 18 months, the Borough Council had been running various Shopfront Improvement Schemes to support local businesses and help improve the look and feel of town and local retail centres. An update on these Schemes had been provided at the Economic Regeneration Advisory Board on [2 September](#).

Members had approved the promotion of the Local Retail Centres and Shopfront Grants Scheme to encourage further applications and parish councils were asked to make local businesses aware of the potential funding opportunities. The Scheme would be closed to new applications from 31 March 2021.

(b) Response, Recovery and Reorientation

The Chairman advised that this was an evolving process and work continued on recovery and reorientation opportunities.

(c) Climate Change Strategy

The Cabinet Member for Street Scene and Environment Services (Councillor Robin Betts) advised that the consultation on the draft Strategy had ended on 30 June and thanked everyone for the submissions received. There would be a more detailed update provided at the Street Scene and Environment Services Advisory Board on 5 October, where it was anticipated that an Action Plan would be presented for discussion.

The meeting ended at 10.10 pm

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TONBRIDGE & MALLING BOROUGH COUNCIL

CABINET

14 October 2020

Report of the Chief Executive and Management Team

Part 1- Public

Executive Non Key Decisions

1 CORONAVIRUS UPDATE

This report provides an overview of a range of aspects as the Council and our communities continue to adapt to living with coronavirus.

1.1 Strategic Context

- 1.1.1 At the time of writing, we are still in a changing environment as Covid-19 levels begin to rise across the Country. Levels in Tonbridge & Malling and across Kent remain low at this time, but all areas are the subject of close scrutiny and this position could change.
- 1.1.2 We continue to operate in the Emergency Structure in accordance with the Civil Contingencies Act 2004. This continues to be led by the Kent Resilience Forum (KRF), within which we are active partners. We continue to participate in the command / control structure and also in a range of themed cells, focussing on aspects including recovery, and outbreak management planning.
- 1.1.3 As Members would expect, we also continue to be actively involved in a wide range of conference calls with various Government departments and other partners including those in the public health sector. It is particularly important that we continue to allocate senior resource to this horizon scanning and impact assessment activity, as the national picture and guidance continues to change at a significant pace.
- 1.1.4 It is perhaps helpful to remind Members of the key themes used as a framework for previous reports.
- Situation Update
 - Staff
 - Members and Democratic Process
 - TMBC Services / Financial Position
 - Business Sector
 - Community Issues
 - Communications

- 1.1.5 It is not the intention to set out every action and activity, but it may be helpful to set out some key updates and issues under each of the themes above
- 1.1.6 We have new roles and responsibilities which have to be resourced from our existing staff. These include participation in the Countywide Recovery Strategy as referenced earlier; shared responsibilities for enforcement in relation to various hospitality venues and businesses; ongoing risk assessments relating to our own staff, and events on our land through the Safety Advisory Group.

1.2 Situation Update

- 1.2.1 To re-iterate at the time of writing, Covid-19 levels remain low across Kent, including Tonbridge and Malling. There are no local restrictions in place in the County. It is not the purpose of this report to set out the national laws and guidance as Members will be aware of these from national coverage.

1.3 Staffing

- 1.3.1 Our staff are now working in a variety of ways. A high percentage continue to work from home, with full remote access to all systems. There are now between 20-35 staff working in the offices on any given day. These include staff who cannot work from home either due to the nature of their role, or for practical/personal reasons. In addition, there are staff working from other locations including car parks and country parks, with a further cohort who are working around the borough undertaking regulatory inspections on site. This pattern of working will continue throughout the winter to ensure we keep our staff well and working productively in their roles.
- 1.3.2 Our staff continue to respond to every challenge presented to them and continue to be our biggest asset in providing services and supporting our community. Management Team are working closely with staff to ensure that there is clear communication and engagement, with opportunity for staff to give input and feedback.

1.4 Members and democratic process

- 1.4.1 All Advisory Boards, Committees, Cabinet and Council continue to be held virtually by Microsoft Teams. Where permitted, public speaking has also been facilitated. These meetings are also live streamed on YouTube. The legislation allowing this remains in place until 7 May 2021.

1.5 Community Issues

- 1.5.1 The Shielded Programme has now ended. Our Community Hub helpline continues to be in operation, albeit that the call levels are very low. Our staff continue to ensure that any residents with real difficulties are connected to the most appropriate support network.

- 1.5.2 Members will have seen the report to Finance Innovation & Property Advisory Board in which Local Emergency Assistance Grant totalling £43,607 was allocated to 11 organisations providing support to residents facing severe difficulty.
- 1.5.3 The Overview and Scrutiny Committee will shortly consider the scoping report “Recovery of the Voluntary and Community Sector”.

1.6 Business Sector

- 1.6.1 The Covid-19 Helpline, run by the Kent and Medway Growth Hub, in partnership with KCC and all Kent Districts continues to operate, and is currently scheduled to do so until the end of December 2021. The hub provides access to local advisers that are able to support businesses through any difficulties they face, answer any questions they may have, help them with funding applications and, where required, signpost them to specialist advice. Since opening at the end of March 2020, the Covid-19 Helpline has received 781 enquiries from Tonbridge & Malling businesses, covering a wide range of topics.
- 1.6.2 Although the Covid-19 Helpline has fielded a lot of calls, the Borough Council has also received a large number of calls to both the Business Rates and Economic Regeneration Teams when dealing with grants or signposting to information. Although these have slowed down, regular business enquiries are still being received, especially from businesses that are struggling to re-open or that we have assisted in the recent past.
- 1.6.3 The initial Government support schemes for the Small Business Grants and Retail, Hospitality and Leisure Grants closed on 28 August 2020 we distributed a total of £19.2 million. Our own discretionary business support scheme was fully subscribed and a further £1.006m million was distributed.

1.7 TMBC Services

- 1.7.1 This report is not intended to be an update on all services provided by the Council as relevant matters are being reported to Members via various Advisory Boards and Committees. This report will only focus on operational issues relevant to the pandemic.
- 1.7.2 Customer Services –The offices at both Kings Hill and Tonbridge are open on an appointment basis only. This is in accordance with a full risk assessment to ensure the safety of staff and visitors. Appointments are made via telephone and at that point staff will help customers to find a way to resolve their matter without the need for an appointment. Where it is necessary an appointment will be offered. On average only 2 appointments are required a week. The customer services team have taken on additional call handling services for a number of departments. This has been very successful and greatly supported capacity in back office functions including Council Tax and Benefits. In order to maximise capacity and best respond to peak demand times, it proposed to trial opening of the switchboard from 0900 as

opposed to the current 0830. This will be kept under review and reported to Members before a final recommendation is considered by Members.

- 1.7.3 Regulatory Functions – We have been given new COVID-19 roles and responsibilities which have to be resourced from our existing staff, including a number of shared new responsibilities for enforcement in relation to various hospitality venues and businesses (e.g. enforcement of the ‘Rule of 6’ in certain premises, collection of contact data); ongoing risk assessments relating to our own staff, and events on our land through the Safety Advisory Group in respect of Borough. In addition, government has recently given responsibility for managing the covid-19 self-isolation payments to district councils and we are presently gearing up to provide this service through our benefits team.
- 1.7.4 Housing – We continue to provide accommodation for homeless households. The Council has been awarded £125,000 from the national Next Steps Accommodation Programme to specifically support those at risk of Rough Sleeping or homelessness during the winter months to remain in accommodation. A further report on this funding will be submitted to the next meeting of the Communities & Housing Advisory Board. Housing demand continues to be high and with only a very limited supply chain this is a very difficult scenario.
- 1.7.5 Leisure – All outdoor facilities are now open to the public, The Leisure Centres and Poult Wood Golf Course have also been opened by the Leisure Trust, albeit with limited services and capacity in order to comply with specific risk assessments. There have been 2 events at Tonbridge Castle, run by other agencies, and in accordance with Covid-19 regulations.
- 1.7.6 Parking – Members will have seen in the report to the Street Scene and Environment Advisory Board on 05 October 2020 revised timescales with regards to a number of parking matters.
- 1.7.7 Waste – planning for Christmas and New Year collection arrangements is underway. In light of the Covid-19 pandemic and the associated restrictions on expenditure, bin hangars will not be issued this year. Instead, our website and social media channels will be used to promote a downloadable leaflet, and hard copies will be made available on request. A similar decision was taken for the new annual recycling calendar earlier this year, with no complaints from residents received, and only a small number of requests for hard copies being received.

1.8 Next Steps

- 1.8.1 In this still changing environment it is difficult to anticipate what next steps are needed in relation to Covid-19. However, our engagement with partner agencies, and keeping abreast of national guidance means we are well placed to respond. There are some areas we can plan for, including how any local restrictions would be implemented and communicated. There is active consideration of these issues via a KRF cell in which we are participants.

1.9 Corporate Strategy – One-year Addendum

- 1.9.1 At its meeting on 3rd June 2020, Cabinet agreed an Addendum to the Corporate Plan, and received a further update at its meeting on 30th June 2020. As referenced in earlier sections of this report, the actions in relation to Review, Re-orientate and Recovery are now feeding into the relevant Advisory Boards and Committees. Some have already been considered including a new consultation draft of the Economic Recovery Strategy, The Climate Change Strategy, The Medium Term Financial Strategy and Savings and Transformation Strategy, support for the Leisure Trust, and the Air Quality Action Plan. A number of actions have a longer time frame and will be the subject of reports over the coming months.

1.10 Legal Implications

- 1.10.1 The statutory framework governing the response to the pandemic is evolving and changing on a frequent basis, both the restrictions placed on individuals and Local Authorities. It is an absolute requirement that we implement any new responsibilities and restrictions in a timely fashion.
- 1.10.2 The legal implications for any proposals emerging from the Corporate Plan Addendum, will be assessed at the time of individual reports to Members.

1.11 Financial and Value for Money Considerations

- 1.11.1 A separate report on this agenda sets out the latest update to the Medium Term Financial Strategy and the Savings and Transformation Strategy. Members will note from that report the latest “funding gap” which has increased as a result of the pandemic.
- 1.11.2 Cabinet previously agreed to the establishment of a Reorientation/ Post Emergency Reserve in the sum of £200,000 in response to the Covid-19 pandemic.

1.12 Risk Assessment

- 1.12.1 Then Council’s Strategic Risk Register has been regularly update and was last reported to Audit Committee on 28th September 2020

1.13 Equality Impact Assessment

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

1.14 Policy Considerations

- Community
- Business Continuity/Resilience
- Healthy Lifestyles
- Climate Change

- Asset Management
- Customer Contact
- Health and Safety
- Human Resources

1.15 Recommendations

1.15.1 That the Council's ongoing response to the evolving scenario regarding Covid-19 be **ENDORSED**

1.15.2 That progress in respect of the Corporate Plan Addendum be **NOTED**.

Background papers:

Nil

contact: Julie Beilby
Jeremy Whitaker

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TONBRIDGE & MALLING BOROUGH COUNCIL

PLANNING and TRANSPORTATION ADVISORY BOARD

11 November 2020

Report of the Director of Planning, Housing and Environmental Health

Part 1- Public

Matters for Recommendation to Cabinet - Key Decision

1 SECTION 106 PROTOCOL AND MONITORING

Summary: This report seeks approval for the adoption of a Planning Obligations Protocol (and associated monitoring fee) which is intended to provide a clear and transparent framework in respect of how the Service will negotiate and secure planning obligations under section 106 of the Town and Country Planning Act 1990 in order to mitigate the impacts of development taking place across the Borough. Successful negotiation of planning obligations requires effective management and monitoring to ensure timely and appropriate use of collected obligations.

1.1 Introduction

1.1.1 Section 106 related matters were last reported to this Board in July 2020. The focus of that report was to provide the following:

- Summary of the obligations secured, received and used for applications received 2018 – June 2020 along with a synopsis of some key obligations being sought through the Development Management process;
- Update for Members on the upcoming national requirements relating to the publication of monitoring statistics and how it is intended to action these requirements going forward; and
- Introduction of a new Protocol and consideration of the introduction of a monitoring fee (which had yet to be determined at the time of reporting).

1.1.2 At that time, officers undertook at that time to develop the protocol in detail and as a result of that further work, this report is intended to cover:

- Development of the Protocol and associated guidance with a particular emphasis on how the process should seek to engage with local communities;
- Benchmarking and analysis to establish fees to ensure monitoring can be appropriately and robustly resourced going forward.

- 1.1.3 In addition, Members can note that officers are continuing to prepare for the new monitoring and publishing requirements by continuing to liaise with IT to establish how our existing systems can best be utilised to record and report the necessary data. It is suggested that a further report to this Board early next year specifically address this following the December 2020 deadline in this respect.

1.2 Relevant statutory and policy framework:

- 1.2.1 Section 106 agreements, also known as planning obligations or developer contributions, are typically undertakings by developers or agreements between a local planning authority and a developer in the context of granting planning permission. Their function is to make acceptable development which would otherwise be unacceptable in planning terms and they typically involve commitment to provide something in-kind on site in a particular form (e.g. affordable housing, community facilities) or money for the authority to undertake necessary work. Section 106 monies, by their nature, are mostly for capital works as they are for the provision of infrastructure necessary to mitigate the impact of the development (e.g. junction modifications, school extensions).
- 1.2.2 Planning obligations effectively are used for three main purposes:
- Prescribe the nature of development (for example, requiring a given portion of housing is affordable);
 - Compensate for loss or damage created by a development;
 - Mitigate the impact of a development.
- 1.2.3 As part of the planning process, a developer may be required to enter into a legal agreement to provide infrastructure and services on or off the development site, acting as a delivery mechanism for the matters that are necessary to make the development acceptable in planning terms.
- 1.2.4 Examples of types of infrastructure or services that planning obligations can include are:
- Transport infrastructure or services, including new or improvements to existing footpaths, cycle ways, roads and bus services and their associated infrastructure, to link development to surrounding areas and ensure it is accessible by all modes of travel;
 - Affordable and specialist housing (where there is a proven local need);
 - Education facilities to meet any expected demand in school places arising from the development;
 - Community facilities, including buildings and play or open space, where existing provision is inadequate to provide for the new development;

- Environmental improvements where necessary to mitigate the impact of a development or integrate it with surrounding areas;
- Restrictions and obligations on the use of land.

1.2.5 The Community Infrastructure Regulations 2010 (CIL) that came in to force on 06 April 2010 set out the statutory tests on what can reasonably be sought under section 106 of the Act, replacing the circular 05/2005 guidance for all developments. Regulation 122 requires that a planning obligation cannot be taken into account in a decision on a planning application unless it is:

- (i) necessary to make the development acceptable in planning terms;
- (ii) directly related to the development; and
- (iii) fairly and reasonably related in scale and kind to the development.

1.3 The Protocol:

- 1.3.1 The Protocol is intended to provide best practice guidance on managing Section 106 Planning Obligations related to development taking place in the Borough. It is intended to amplify adopted local and national requirements whilst looking towards a collaborative approach to the provision of affordable housing, infrastructure projects and public services. It is essential that the means of securing such obligations takes place in a fair, open, transparent and reasonable in order to retain public confidence in the system and to provide greater clarity to all those involved.
- 1.3.2 The Protocol is intended to sit alongside the pre-application advice service the Council currently provides and the use of Planning Performance Agreements, (both of which are subject to separate reports provided elsewhere on this agenda).
- 1.3.3 It also recognises that it is important that the negotiation of planning obligations does not unnecessarily delay the planning process, thereby holding up development delivery. It is therefore essential that all parties proceed as quickly as possible towards the resolution of meaningful and enforceable obligations in parallel to planning applications (including through pre-application discussions where appropriate) and in a spirit of early engagement and co-operation, with deadlines and working practices agreed in advance as far as possible (via formal planning performance agreements wherever possible to do so) in order to shape better quality schemes and improve the outcomes of a proposed development. It is considered that a protocol will embed within it the roles and responsibilities of each party in order to achieve this in practical terms.
- 1.3.4 The Protocol itself along with a series of associated annexes is set out in at **Annex 1** to this report. Since July, officers have focused in particular on ensuring that Town and Parish Councils along with other local community groups can

robustly and effectively identify projects within their communities to which contributions may be directed via the collation of evidence bases to ultimately assist in making representations on individual planning applications. A directing aim of this guidance is to ensure such groups understand the statutory and policy context within which such contributions should be sought along with the importance of providing clear evidence.

- 1.3.5 The intention being that in parallel to this guidance being published, officers facilitate focused workshops with these groups to discuss the guidance and provide practical and informative advice where needed.
- 1.3.6 Officers have also undertaken further analysis of monitoring fees benchmarking, with a particular focus on the ways in which immediately neighbouring authorities already structure their fees. In general terms, authorities either tend to adopt a “fixed fee” approach on a per obligation basis whereas some do distinguish between on and off site obligations, with the latter tending to equate to a percentage of the total value of a financial contribution.
- 1.3.7 As Members are aware, authorities can charge a monitoring fee through section 106 planning obligations, to cover the cost of monitoring and reporting on delivery of that section 106 obligation. Monitoring fees can be used to monitor and report on any type of planning obligation, for the lifetime of that obligation. Monitoring fees should not be sought retrospectively for historic agreements. The PPG advises that fees could be a fixed percentage of the total value of the section 106 agreement or individual obligation; or could be a fixed monetary amount per agreement obligation (for example, for in-kind contributions). However, in all cases, monitoring fees must be proportionate and reasonable and reflect the actual cost of monitoring. Authorities could consider setting a cap to ensure that any fees are not excessive. Authorities must report on monitoring fees in their infrastructure funding statements.
- 1.3.8 Currently, monitoring is undertaken by a combination of officers, rather than having a dedicated resource although (linked to the national requirements coming into effect by the end of this calendar year) it is anticipated that such a resource should be identified and secured. Monitoring fees would understandably assist in facilitating such a resource. Until that comes forward and detailed time and motion work can be undertaken and further analysed, it is suggested that a flat fee of £300 per obligation be required. This follows the Sevenoaks District Council approach and is a more straightforward means of prescribing a fee at this time than some others. Furthermore, the relative values between the two authorities are readily comparable. I can advise that on this basis for the agreements pertaining to 2019 applications (determined and pending determination for the course of that year), such a fee would equate to a total of £16,800. Whilst this is a somewhat arbitrary calculation it is intended to provide Members with a general understanding of the potential fees that could be generated in order to ensure ongoing robust monitoring can take place.

1.4 Potential implications of Planning Reforms:

- 1.4.1 Members will already be aware that the Planning for the Future White Paper includes the proposal to replace the Community Infrastructure Levy (“CIL”) and section 106 obligations with a new Infrastructure Levy. Views are currently being sought on whether levels should be set nationally or locally; whether the rates should be higher or stay the same; and whether it should be extended to changes of use through permitted development. The Council’s own response to the consultation has already been discussed by this Board and I do not intend to repeat those discussions here. However, this does set an important context for this piece of work as any adopted protocol, and in particular the guidance we offer to local community groups, should be framed in such a manner that it stands the test of time in the event that reforms do come forward. There will inevitably be a need to adapt the work when any such changes are made nationally to ensure it remains fit for purpose but with an underlying understanding of what those changes might involve particularly so that any work to compile localised evidence bases at this time remain robust and useful in the future.

1.5 Infrastructure Funding Statements:

- 1.5.1 Members may also be aware that there is a new requirement for Local Planning Authorities to publish an annual Infrastructure Funding Statement in a manner carefully prescribed nationally. Officers are currently working on producing this document which must be published by 31 December 2020. Briefly, these statements are required to identify infrastructure needs, the total cost of this infrastructure, anticipated funding from developer contributions, and the choices the authority has made about how these contributions will be used.
- 1.5.2 Given the timescales involved, it has not been possible to provide a draft of this document with this report and as such it is recommended that authority to publish the final statement be delegated to the Director of Planning, Housing and Environmental Health in consultation with the Cabinet Member for Strategic Planning and Infrastructure. This is included within the recommendation that follows.

1.6 Legal Implications

- 1.6.1 The Local Government Act 2003 provides the power for local authorities to charge for discretionary services (as defined in the Local Government Act 1999). Discretionary services are those services that an authority has the power but not a duty to provide. An authority may charge where the person who receives the service has agreed to its provision. The power to charge under this provision does not apply where the power to provide the service in question already benefits from a charging power or is subject to an express prohibition from charging.
- 1.6.2 The Local Government Act 2003 places a duty on authorities to ensure that, taken one year with another, the income from charges for each kind of discretionary service does not exceed the costs of provision. An authority may set charges as it

thinks fit, and may, in particular, charge only certain people for a service or charge different people different amounts.

1.6.3 Local authorities are required to have regard for any guidance that may be issued by the Secretary of State in terms of carrying out their functions under the 2003 Act. Section 93(7) of the Act provides that certain prohibitions in other legislation preventing authorities from raising money are specifically dis-applied in relation to the exercise of the charging power.

1.6.4 Local Planning Authorities therefore have powers to recover the costs of monitoring work in recognition of the time officers have to spend ensuring compliance with obligations.

1.7 Financial and Value for Money Considerations

1.7.1 It is appropriate to review the protocol and charging schedule every year, to ensure the evidence base is up to date and that the monitoring is fairly applied.

1.8 Risk Assessment

1.8.1 Robust monitoring should be carried out every year to ensure the protocol and charging schedule in place is based on up to date evidence.

1.9 Equality Impact Assessment

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

1.10 Recommendations

1.10.1 It is **RECOMMENDED TO CABINET** to **APPROVE** the following:

- Adopt the Planning Obligations Protocol and associated monitoring fee as attached at **Annex 1**.

1.10.2 It be **AGREED** that production and publication of the Infrastructure Funding Statement by the deadline of 31 December 2020 be delegated to the Director of Planning, Housing and Environmental Health in consultation with the Cabinet Member for Strategic Planning and Infrastructure.

Background papers:

contact: Emma Keefe

Annex 1: Section 106 Protocol (with associated Annexes)

Eleanor Hoyle

Director of Planning, Housing and Environmental Health

Tonbridge and Malling Borough Council
Planning Obligations Protocol

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1. Guidance to promote local engagement
2. Collecting quantitative and qualitative evidence of need for provision and enhancement of community owned public open space

1. Introduction and Context:

- 1.1 This document is intended to provide best practice guidance on managing Section 106 Planning Obligations related to development taking place in the Borough of Tonbridge and Malling. It is intended to amplify adopted local and national requirements whilst looking towards a collaborative approach to the provision of affordable housing, infrastructure projects and public services across the Borough. The Council believes it is essential that the means of securing such obligations takes place in a fair, open, transparent and reasonable manner in order to retain public confidence in the system and to provide greater clarity to all those involved.
- 1.2 The Council does not operate a Community Infrastructure Level (CIL) charging schedule. It was decided at the meeting of the Community Infrastructure Levy Panel on 19 December 2011 to not move forward with production of such a schedule, although this position is continually kept under review. In determining planning applications for new development, the Council therefore relies on the provisions of the Town and Country Planning Act 1990 to ensure that appropriate and successful mitigation of development takes place in all instances.
- 1.3 Under Section 106 of the Act any person interested in land in the area of a Local Planning Authority may, by agreement or unilaterally, enter into a planning obligation –
 - (a) restricting the development or use of land in any specified way;
 - (b) requiring specified operations or activities to be carried out on the land;
 - (c) requiring the land to be used in any specific way;
 - (d) requiring a sum or sums to be paid to the authority on a specified date for an agreed purpose.
- 1.4 Such agreements are effectively a mechanism designed to ensure a development proposal is acceptable in planning terms where it would not otherwise be acceptable. The statutory tests for such agreements are that the obligations must be:
 - necessary to make the development acceptable in planning terms;
 - directly related to the development; and
 - fairly and reasonably related in scale and kind to the development.
- 1.5 This is further supported in policy through the National Planning Policy Framework 2019 (NPPF) at paragraph 55.

1.6 Common examples of what may be sought as planning obligations in order to make development acceptable in this Borough are as follows:

- Affordable housing;
- Provision of public open space and public realm enhancements;
- Highways, transport and travel schemes including cycle and public transport improvements, highway infrastructure works, pedestrian links and facilities;
- Educational facilities;
- Libraries;
- Healthcare facilities;
- Provision of community facilities;
- Local environmental improvements including enhancement of designated nature conservation areas;
- Flood defence;
- Securing an acceptable mix of uses on development sites;
- Securing affordable business space;
- Archaeology and conservation schemes;
- Pollution mitigation;
- Fire and rescue facilities;
- Crime and disorder prevention activities;
- Town centre improvements; and
- Employment and training.

1.7 However, the above list is not exhaustive and the precise details of what will be sought by way of a planning obligation will be dependent on the scale and nature of the application and will be governed by relevant development plan policies in force in the area and any other material considerations. As such, prospective developers and applicants are advised to read this Protocol in conjunction with all relevant adopted development plan policies and are encouraged to enter into early pre-application discussions with the Council (as set out in more detail at Section 2).

- 1.8 In addition, the Infrastructure Delivery Plan (the “IDP”) identifies critical infrastructure and for strategic allocations the IDP identifies what, where, when and how critical new infrastructure will be provided. For strategic locations the IDP identifies likely infrastructure requirements and the measures needed to ensure their future delivery. As the process for bringing forward the sites progresses, this information will be updated and may identify other more minor infrastructure that is required.

2. Practice

- 2.1 It is important that the negotiation of planning obligations does not unnecessarily delay the planning process, thereby holding up development delivery. It is therefore essential that all parties proceed as quickly as possible towards the resolution of meaningful and enforceable obligations in parallel to planning applications (including through pre-application discussions wherever appropriate) and in a spirit of early engagement and co-operation, with deadlines and working practices agreed in advance as far as possible (via formal planning performance agreements wherever possible to do so) in order to shape better quality schemes and improve the outcomes of a proposed development.
- 2.2 The Council will advise developers and applicants at the earliest opportunity if a planning obligation is required in connection with their development proposal as well as the reasons for this. Ideally this will form part of the pre-application discussions and further advice on this is provided in the pre-application protocol which is available on the Council’s website. In addition, applicants will be informed as soon as possible if it is likely that there is a potential reason for refusal which could be overcome through a planning obligation arising from engagement and consultation with the relevant infrastructure delivery bodies (both internal to the Council and external providers such as the County Council).
- 2.3 The need for and calculation of financial contributions will be applied consistently by the Council but may, occasionally, be subject to negotiation with the Development Management case officer dealing with the application in consultation with relevant colleagues both within and outside the Council, Where any departure from adopted policy is being proposed this will be made explicit and fully justified and in full accordance with the planning practice guidance.
- 2.4 The Development Management case officer in their report (whether delegated or committee) will include a section referring to the section 106 agreement detailing why it is necessary to make the development acceptable in planning terms, stating how the requirements are directly related to the development being proposed and demonstrating how they are fairly and reasonably related in scale and kind. This section of the officer report can then be referred to in any future enquiries or planning appeals.

- 2.5 Applications will **not** be reported to the relevant Planning Committee until such time as the legal agreement has either
- a) been signed by all necessary parties; or
 - b) detailed drafting of the legal agreement has been agreed and execution of the agreement is imminent.
- 2.6 In terms of the latter, when a Planning Committee determines an application for planning permission subject to the completion of the legal agreement, the permission will not be issued until the legal agreement has been completed and signed. Officer reports will, in all cases, make recommendations as to the length of time reasonable to ensure the agreement is completed and signed with recourse to either allow for further time to be built into the process if negotiations are continuing proactively, or to allow for delegated authority to refuse planning permission if it becomes clear that the obligations are not going to be met and there is a clear and justified reason for doing so.

3. Role of developers and applicants

- 3.1 Detailed Heads of Terms or fully drafted agreements should be submitted with all planning applications where policy triggers are met in accordance with adopted development plan policy or where pre-application advice has indicated that obligations will be required from external providers (including the County Council). Failure to provide either of these at the submission stage will result in the planning application being made invalid and possibly returned to the applicant. This is in accordance with the Council's published Local Validation Requirements.
- 3.2 Once a valid application has been received, in all instances, the Development Management case officer will be responsible for leading on and coordinating all negotiations pertaining to planning obligations. At this point, applicants and agents should not directly contact individual service providers but rather allow the case officer to collate, consider and coordinate any requests for obligations to ensure an effective and consistent approach. This is consistent with the ways of working of the Development Management Team and internal and external stakeholders are aware of this requirement.
- 3.3 In the event that the development is considered unviable by the applicant because of the level of contributions being requested then the Council will always seek detailed evidence from the applicant in accordance with the national Planning Practice Guidance (the "PPG"). Again, this should be provided at the submission stage because the applicant would have understood all policy requirements as part of effective pre-application discussions. In the event that no such evidence is provided and the application is not subject to a Planning Performance Agreement (PPA), the applicant will be given one

opportunity to withdraw the application within a prescribed time period after which the Council will refuse planning permission.

- 3.4 In circumstances where viability evidence is put forward, the applicant must provide a full financial appraisal of the scheme (which accords with the requirements set out in the Planning Practice Guidance) and allow the appraisal to be verified, at their expense, by an independent agent chosen by the Council. In these instances, such a process should wherever possible be enshrined within an agreed PPA.

4. Role of the County Council

- 4.1 Kent County Council is a key service and infrastructure provider within Tonbridge and Malling Borough. As such, it is important to recognise the need for a collaborative working approach between the County and Borough Council in securing necessary planning obligations. As part of this, Tonbridge and Malling Borough Council undertakes to:

- Highlight to developers at the pre-application stage the need to engage with the County Council to establish what requirements they might have in order to incorporate into the finalised proposal and application submission (and for this to be enshrined within the planning performance agreement where applicable and possible to do so);
- Consult the County Council on all applications for major development across the Borough and invite views on likely infrastructure and services required;
- Request that the County Council at all times clearly sets out the basis on which infrastructure or other contributions are required and provides this information by a specified deadline;
- Fully consider any representations from Town Councils, Parish Councils and other community groups seeking contributions where they are in accordance with the adopted development plan and have been fully evidenced.
- Ensure effective and full liaison between instructed solicitors in order to finalise and execute any agreement.

- 4.2 Tonbridge and Malling Borough Council are the local planning authority that will have the ultimate responsibility for the determination of planning applications across the Borough. To assist the Council's assessment of any proposals and the need for planning obligations, the County Council will be expected to clearly stipulate the type of infrastructure contributions required to make the development acceptable in planning terms having regard to adopted policy and

established evidence base and reasoned justification for the contributions sought.

- 4.3 The Borough Council's Development Management case officer will be responsible for leading and coordinating all negotiations regarding planning obligations. Where developer approaches are made at a pre-application stage direct to the County Council, the Borough Council should be copied in to any advice given. Once an application has been formally submitted, any such approaches should be directed back to the relevant case officer with any appropriate advice or guidance to assist negotiations.

5. Involvement of Borough Councillors, Town and Parish Councils and local community groups

- 5.1 Developers promoting larger and strategic schemes are often keen to meet with local Councillors to discuss local needs and the issue of wider community benefits that may come forward as planning obligations. There is an opportunity for Councillors to do this without pre-determining the outcome of the application process through structured and organised Member briefings. Presentations by prospective developers are also possible but officers should also be in attendance at these.
- 5.2 The need for such Member briefings is a matter best addressed through developers and applicants entering into a formal PPA where parameters and timeframes can be agreed between the parties. However, in all instances Council officers would take the lead in providing such briefings, utilising where necessary material provided by the developer.
- 5.3 Similarly, it is recognised that Town and Parish Councils and other local community groups can positively engage in this process in order to identify projects within their communities that may be funded through contributions. Such contributions may only be spent on new facilities or improvements to facilities where the new development has been identified as contributing to the need for that facility or will have an impact on the existing facilities. It should however be remembered that costs related to revenue expenditure or costs which primarily relate to the maintenance of existing facilities such as minor repairs, replacement or redecoration will be will not meet the necessary tests.
- 5.4 The Council would expect such groups to clearly identify and robustly evidence any such projects at the time they make their representations on a planning application to enable the Council to make an assessment of the project and take it forward as part of the negotiations with the developer. Submitting this evidence in this manner will in no way prejudice any objections raised within the wider representations made. Where such projects are taken forward, the terms of the obligations will be shared with the group in question so they understand the relative requirements prior to the agreement being finalised. Similarly, if it is

not considered that the project can be taken forward, an explanation as to the reasons will be provided within the officer's report.

- 5.5 Further guidance on how to compile such evidence can be found at Annexes 1 and 2 of the Protocol.
- 5.6 It should be remembered that Town and Parish Councils must prepare a report for any financial year in which it receives levy receipts. The information that parish councils should report on is prescribed in Regulation 121B of the Community Infrastructure Levy (Amendment) (England) (No. 2) Regulations 2019. The report must be published online. A copy of the report should be sent to the charging authority from which it received levy receipts (the Borough or County Council), no later than 31 December following the reported financial year, unless the report is, or is to be, published on the charging authority's website.

6. Unilateral Undertakings

- 6.1 The submission of unilateral undertakings on behalf of applicants may be acceptable. If this approach is being considered on behalf of the applicant then it is important that it is discussed at the pre-application stage with the relevant Development Management case officer before any work is done on the proposed undertaking. A unilateral undertaking must comply with the same statutory and policy requirements as a bilateral agreement. Where a unilateral undertaking is submitted and it meets the relevant tests then it will be taken into account as a material consideration when determining the application. However, if the obligation does not meet those tests and the proposed development is unacceptable without it, then the planning application will be recommended for refusal. If an alteration to the undertaking would overcome the reason for refusal then the Council will advise the developer prior to determining the application.

7. Preparation and Execution of the Agreement

- 7.1 If the Council has resolved to grant planning permission subject to the execution of a planning obligation, the planning permission will only be issued once the agreement has been executed by all parties and dated by the Council. The Council will ask for evidence that the owner has capacity to enter into the agreement and that any persons signing the agreement on behalf of the owner are authorised to do so. Ideally, this should be provided at the submission stage along with the Heads of Terms/draft agreement.
- 7.2 Applicants requiring a s.106 agreement or undertaking are expected to instruct a specialist solicitor to assist them with the preparation and completion of these documents. These are important and contractually binding documents which are often legally complex. The Council does not produce or expect a "standard

format” of agreement to be followed, as this cannot account for every eventuality which a planning obligation may need to address.

7.3 All obligations and conditions contained within the agreement will become legally binding once the agreement has been signed. The obligations and conditions contained within the agreement cannot subsequently be changed unless the consent of the owner is obtained together with further approval by Planning Committee or the Director of Planning, Housing and Environmental Housing as is appropriate or necessary. If any such variation is subsequently sought, the developer will be expected to provide a full, reasoned and evidenced justification for such a variation.

7.4 Once completed, legal agreements form part of the planning permission and are a public document. As such, anyone may see a copy of it by viewing the documents on Public Access.

8. Legal costs

8.1 The Council will require the developer to pay the Council’s legal fees of preparing the planning obligation or checking any draft agreement or unilateral undertaking. These costs vary according to the type of agreement or unilateral undertaking and the scale or complexity of the associated development. The Council’s Legal Department will be able to advise on the cost of dealing with the agreement once they have received instructions from the Planning Department.

8.2 The majority of the Council’s section 106 agreements are outsourced to the Council’s appointed external advisers save in a minority of cases where they are legally unable to act for the Council, in which case the matter will be dealt with by the Council’s internal legal team.

9. Implementation and Monitoring

9.1 Once planning obligations have been agreed it is important that they are implemented, monitored and, where necessary, enforced in an efficient and transparent way. This is to ensure that contributions are spent on their intended purpose and that the associated development contributes to the sustainability of the area. This will require monitoring which, in turn, may involve joint-working by different parts of the Council.

9.2 Following the finalisation of a planning obligation there are a range of different activities that need to be undertaken by a variety of different parties, to different timetables, sometimes extending over a number of years. Some of these tasks include:

- ensuring the delivery of on-site obligations by the developer to the required standard and timetable;

- ensuring that the necessary infrastructure that the Council or another public body has agreed to provide (wholly or in part, funded by contributions) is delivered;
- ensuring receipt of financial contributions at appropriate times;
- monitoring adherence to restrictions on all parties, including the Council, imposed through planning obligations;
- managing applications for the modification or discharge of agreements; and
- any necessary enforcement action.

9.3 If the Council's monitoring work indicates that contributions from developers have not been spent for their specified purpose within an agreed timeframe, which will be set out in the obligation and depend on the level of the contribution and its proposed end use, they will be returned to the developer. The time periods during which financial contributions are to be spent will run from the date the contribution is received by the Council once the trigger point is reached as opposed to the date of the agreement or obligation.

9.4 If the contribution cannot be spent for the originally specified purpose within the timescale set out in the agreement the Council will first seek to negotiate with the developer, or their successor in title, an alternative purpose for the financial contribution.

9.5 In order that the monitoring and enforcement of planning obligations is carried out efficiently and effectively for the benefit of communities affected by development, the Council will levy a monitoring fee on each planning obligation (rate of £300 for each obligation contained within the agreement). This monitoring fee will be enshrined within the planning obligation and must be paid by the developer or other parties as may be specified in the obligation on signing the section106 agreement. The fee will be applied to all obligations whether these are by agreement or submitted as unilateral undertakings. Similarly, the monitoring fee applies to all obligations including those payable to the County Council (and notwithstanding any fees they may levy in addition) because the Borough Council as determining local planning authority is under a duty to monitor compliance with those obligations as a matter of course too.

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Annex 1: Guidance to promote local engagement

What are Section 106 Agreements?

Section 106 agreements are mechanisms for making sure that the necessary financial or other contributions are secured to mitigate the impact of a development on the local area. (Section 106 refers to the relevant section of the Town and Country Planning Act 1990).

This is the method that is currently used by the Council. There are other methods used by other Councils and you may have heard of the Community Infrastructure Levy (CIL) which relies on fixed levels of contribution. However, the planning system is currently in a state of flux so the methods of seeking developer contributions may change over time. Regardless there will always be a role for the local community to feed into the process and the purpose of this guidance is to make this possible in the most effective way.

Section 106 agreements are negotiated between the Council and the developer, and sometimes include the County if for example highway or education matters are involved. The Government's National Policy Planning Framework (NPPF) currently sets out how such agreements should be delivered. The agreements need to meet three tests.

- the project is necessary to make the development acceptable in planning terms
- it is directly related to the development; and
- it is fairly and reasonably related in scale and kind to the development

The Council negotiates Section 106 Agreements directly with the developer. Contributions relating to affordable housing provision, health care, education, libraries and other County run services, including highway matters, are negotiated directly with the providers. Council owned open amenity and play space is subject to specific adopted policy to calculate the necessary contributions. However it is also important that Town and Parish Councils, and other community groups, also feed into this process.

How can my community become involved?

It is possible to contribute to this process by making specific comments and recommendations on every relevant planning application. However this has a number of disadvantages.

- S106 agreements often relate to large scale housing developments. Such applications are likely to be complex and sometimes controversial. There is limited time for consultation which may not allow for proper consideration of community need which could benefit from S106 contributions.
- There is a perception that comments on large scale planning applications which relate to potential community benefits are a 'developer's bribe', and that

by seeking S106 contributions the Parish or Town Council is supporting the development. This perception is unhelpful. This is the opportunity for the community to benefit as a whole if the planning application is found to meet national and local planning policy and subsequently approved.

- In order for the Council to seek S106 contributions on behalf of Parish and Town Councils, and other community groups, the need must be evidenced. This is absolutely vital. The Council cannot seek S106 contributions for the local community unless the need is proven. The time constraints are such that community based groups would struggle to meet this requirement given the limited consultation time for individual planning applications.

The advantages of a creating a plan

The solution to these disadvantages is the production of a document or plan. The Parish or Town Council, or potentially a community group, can to draw together a document or plan which lists the needs of their community.

- A plan can be prepared in advance of the submission of any large scale planning applications. This will allow for a fully considered response to any potential new development.
- A plan will set out the needs of the community as a whole and having been prepared in advance of any submissions will avoid accusations of ‘developer bribes’.
- The plan will be suitably evidenced and have the support of the local community. This will mean that the Council can use the plan as robust evidence of need in its negotiations with developers over S106 agreements.

The plan can take many different forms and can be at any scale – whatever is most appropriate for your community. There have already been a range of initiatives that some communities may have undertaken which could form the basis for such a document. There are also a number of initiatives being undertaken by communities in other districts. One such initiative is the Parish Infrastructure Spend Plan.

A Parish Infrastructure Spend Plan is plan produced by Parish and Town Councils which identifies and prioritises the necessary infrastructure works in a specified area. This specific type of plan is aimed at those Parish and Town Councils whose Borough Councils have adopted CIL. However similar principles can apply.

Hints on how to draft a plan

Identify those assets that are already in the ownership or control of the Parish or Town Council, or other community group

This will help to focus the plan. The temptation will be to create a ‘wish list’. Whilst this may be a useful exercise for the community and one that may be worth pursuing as a starting point for your plan, the plan must be based on need relating to potential

development and not merely aspiration. It is important not to artificially raise the expectations of the community as not all projects will meet the criteria of S106 requirements.

This may be best illustrated in the following examples:

- S106 contributions can be sought for a sports club that is already operating at full capacity and the relevant development will further increase demand. S106 contributions cannot be sought if the sports club has spare capacity even allowing for the increased demand due to the relevant development.
- S106 contributions can be sought to improve an existing play area which is located near to the relevant development as the play area will be used by the residents of the relevant development. S106 contributions cannot be sought if the existing play area is some distance from the relevant development and therefore the new residents would be unlikely to use it.
- S106 contributions can be sought to mitigate the impact of any new traffic generation if the existing traffic congestion exists to ensure the situation is no worse. S106 contributions cannot be used to mitigate existing traffic congestion if this is not increased by the new development.

Review any existing initiatives that may have already been undertaken in your area

Your Parish, Town Council or other community group may have already undertaken survey work which could contribute to your plan. A village design statement, community action plan or neighbourhood plan for example. Whilst this information may be dated it may still provide a useful starting point for your plan.

Identify wider projects that could be eligible for S106 funding

You may wish to do this as a community wide exercise. It is appreciated that Parish and Town Councillors are likely to be aware of the needs of their community and this may provide a good starting point. However remember for the plan to be robust it must represent the views of the local community. It may be useful to contact the existing community groups in your area which is likely to give a broader approach, but always remember the three golden rules of S106 contributions – is the project necessary to make the development acceptable in planning terms, is the project directly related to the development, and is the project fairly and reasonably related in scale and kind to the development. Also remember that the projects must be capital projects and cannot be used as general subsidies for staff payments or running costs regardless of the excellent work that may be being done by any particular group or organisation.

Prioritise the identified projects

You may find it useful to rank the identified projects. This may be in terms of short, medium or long term need. This may be in terms of scale or proximity to any

potential site within your area. It will also be useful to estimate the likely costs of any project. This does not need to be an exercise to be undertaken by experts but there is guidance available which can estimate costs. For example, Sport England provides costing examples on its website.

The plan must have the support of your community

In order for the plan to be effective it must reflect the views of your community. This is a simple phrase with huge implications, but it is essential in the production of any plan. However each Parish or Town Council, or other community group, is likely to already have mechanisms in place to seek the views of residents, and you might wish to organise a series of public consultations or have a presence at existing community functions. It will also be necessary to ensure that the formation of the plan is open and transparent. This will ensure credibility and reassure your community that the manner in which the plan has been drawn up has been fully inclusive. It might be useful to include summary details of this process within the plan, as an introduction or annex possibly.

The plan must be flexible and regularly updated

The plan needs to be a flexible document to reflect the changes in need in your community. You may wish to view the document as working document which can be easily updated in order to respond quickly to change.

What should a plan include?

- The area it covers and the location of any identified projects
- A list of projects and summary details
- A justification for each project including evidence of public support
- The indicative cost of each project
- The envisaged timescale for the delivery of each project

There are examples of similar documents that have been prepared by other Parish and Town Councils and these can be accessed through a general internet search. You may find viewing other examples helpful but be minded that every community is different and some may relate to CIL rather than S106 contributions.

Annex 2: Collecting quantitative and qualitative evidence of need for provision and enhancement of community owned public open space

[to be read in conjunction with the guidance provided at Annex 1]

It is firstly important to remember that the Borough Council as Local Planning Authority is statutorily required to determine planning applications in accordance with the adopted development plan unless material considerations indicate otherwise. It is within this context, and more specifically the requirements set out in the Protocol itself, which any contributions towards the provision or enhancement of community owned public open space should be sought.

The evidence base for seeking such contributions is key and whilst the Borough Council maintains records in connection with its own sites, in order for us to accurately consider other sites that Parishes own, it would be advantageous to compile a list of open spaces you have along with the proposed improvements. Please note that this list does not mean that funding is available or that a site will be chosen. This will be decided on a case by case basis and include other open spaces that are not owned by parishes/community groups. The exact funding could vary between developments from hundreds of pounds to potentially hundreds of thousands of pounds dependant on the size and dynamic of the new development so it is important you list all needs, even if they are very small or very big.

Please could you break down you open spaces into the relevant areas of –

- Parks and Gardens
- Amenity open space
- Outdoor sport
- Natural green space
- Children's play areas

You are also advised to refer to Annexes 3 and 7 of the Open Space Strategy Technical Study Annexes which will assist in compiling your evidence.

https://www.tmbc.gov.uk/data/assets/pdf_file/0004/57280/OPEN_SPACE_STRATEGY_TECH_STUDY_ANNEXES_FEB_2009.pdf

Please use this as a guide to fill in the table below for existing and new open spaces that you own and maintain and include this within any representations you make in which you seek to secure contributions.

Name of Parish:

Name and type of open space	Location	Identified need and evidence base	Cost Estimate	Funding Source	Action/Programme/Comments (Who/When)
Page 42		Eg new or enhanced pavilion/change facility, new or enhance play area, additional fencing, wildflower meadow, paths, new or improved pitches, floodlighting, skate park tree work/planting etc			
		Suggest inspection sheet examples provided are utilised			

TONBRIDGE & MALLING BOROUGH COUNCIL

STREET SCENE and ENVIRONMENT SERVICES ADVISORY BOARD

05 October 2020

Report of the Director of Planning, Housing and Environmental Health

Part 1- Public

Matters for Recommendation to Cabinet - Non-Key Decision (Decision may be taken by the Cabinet Member)

1 DRAFT UPDATED AIR QUALITY ACTION PLAN

1.1 Summary

- 1.1.1 Following a review of the borough's Air Quality Management Areas (AQMA's) at the March meeting of the Board, TMBC will have 6 AQMA's and therefore continue to have a statutory duty to keep updated an Air Quality Action Plan (AQAP) to outline the actions we will take to reduce concentrations of the pollutant of concern in the AQMA's so that they can all eventually be revoked. Working with consultants Bureau Veritas we have identified actions which we propose to take up to 2025 to tackle Nitrogen Dioxide, primarily within the remaining AQMA's, but also across the Borough as a whole. The draft actions table from within the AQAP is presented in **Annex 1** with the full AQAP document presented in **Annex 2**. The Technical Note underpinning this work is also presented in **Annex 3**.

1.2 Background

- 1.2.1 The Council has a statutory duty under Part IV of the Environment Act 1995 to;
- Monitor air quality within its boundary,
 - Declare an Air Quality Management Area (AQMA) where air quality exceeds the relevant standards laid down in law,
 - Where an AQMA is declared, prepare an Air Quality Action Plan (AQAP) to demonstrate how it intends to reduce the pollutant causing the exceedance, and;
 - Review AQMA's and AQAP's in response to ongoing monitoring.
- 1.2.2 Following a review of monitoring results within our existing AQMA's and across the Borough as a whole, and the detailed technical work conducted by our consultants Bureau Veritas, members will recall from the March meeting of the Board that several revocations and amendments to the existing AQMA's were proposed and agreed. The proposed actions table within the AQAP presented separately at

Annex 1 therefore reflects the recent changes to the declared AQMA's although due to Covid-19 restrictions and changed priorities those changes have yet to be formalised.

- 1.2.3 The AQAP is a Statutory Document required to focus solely on actions to tackle the exceedances of air quality objectives which led to the declaration of AQMA's, ultimately as an aid for reducing the health effects of poor air quality. However, the actions proposed will also support the recently agreed Climate Change Strategy which looks at a much broader range of actions to address the effects that all types of pollution are having on our natural environment.

1.3 Draft Updated Air Quality Action Plan

- 1.3.1 Taking into account the AQMA changes, Bureau Veritas working in conjunction with a steering group made up of Council Officers and representative from the County Council have produced a draft updated AQAP using a DEFRA template as presented in **Annex 2** with the table of proposed actions also shown separately in **Annex 1**. It outlines the actions the Council will take to improve levels of Nitrogen Dioxide within the AQMAs and across the Borough up to 2025. As a consequence of these actions it is anticipated that other pollutants will also be reduced thus aiding the aims of the Climate Change Strategy.
- 1.3.2 Members will note that some of the proposed actions in **Annex 1** such as an Anti-Idling policy are also contained within the Climate Change Strategy where that document talks about Air Quality. This is not a duplication, but the same policy, which shows an interaction between the two documents.
- 1.3.3 If approved in principal by members the draft AQAP will move to the next stage which is a statutory external consultation with parties including, DEFRA, The Environment Agency, Neighbouring Local Authorities, KCC, and Local Residents.
- 1.3.4 Ultimately the document will run in parallel with the Councils Climate Change Strategy and other relevant Policies such as KCC's Energy and Low Emission Strategy.
- 1.3.5 The proposed actions within the AQAP can be considered under five broad topics;
- Priority 1: Transport
As source apportionment in Section 3.3 of the Technical Note in **Annex 3** shows, the main source of air pollution causing the declaration of AQMAs across the Borough is associated with road transport emissions. Therefore reducing transport emissions through measures contained within the Action Plan are a key priority.
 - Priority 2: Planning and Infrastructure
The new Local Plan through LP:20 and supporting policies sets out the considerations to be applied when considering development proposals. With

significant housebuilding occurring during the life of this plan, ensuring suitable planning and infrastructure is in place is a key priority.

- **Priority 3: Policy Guidance; and**
As outlined in Section 3.2 of **Annex 3**, there are a number of existing and emerging policy/strategy documents which are a key mechanism for reducing emissions across the Borough not least the Climate change Strategy. For effective reductions to be realised, in addition to the measures outlined within the Air Quality Action Plan, all other actions within the referenced documents should be implemented.
- **Priority 4: Public Health and Wellbeing**
As highlighted in Section 3.1 of **Annex 3**, the impact of air pollution on public health is known to be highly detrimental. As we know transport is a key pollutant, aside from restricting vehicle usage through the introduction of clean air/low emission zones, the most effective way to achieve a reduction in vehicle numbers is to change the attitudes/behaviour of the population towards travel.
- **Priority 5: Air Quality Monitoring**
Currently Nitrogen Dioxide is monitored through a network of 72 passive diffusions tube and two continuous analysers. A Particulate monitor is also being established in Borough Green, with opportunities through the Smart Cities initiative being looked at to create a network of indicative Particulate Monitors, to inform the general public. Monitoring is the best way to continually assess the extent of pollution within Tonbridge and Malling, as well as quantifying improvements that have been achieved through the AQAP, and acting as an evidence base for AQMAs to be amended/revoked. Monitoring will continue in its current extent, with opportunities to move tubes to new areas of concern considered at the start of each calendar year.

1.3.6 The proposed actions drawing on the themes listed in 1.3.5 are shown separately in **Annex 1**. It is anticipated that following statutory consultation this list and its wording may change. However, it should also be noted that whatever actions are in the final plan, it will not prevent new actions which may present themselves during the life of the plan from being taken forward. All actions and priorities within the AQAP can also be seen to sit within the context of the Climate Change Strategy hierarchy.

1.3.7 The challenge ahead will be considerable and will require a combined approach. The Council has already established a Steering Group comprising of representatives from across the different Council departments as well as representatives from the County Council who have significant powers to bring these actions to fruition. Expertise from within this group will assist with progression of the targets within the action plan. We will also need to work closely with other

statutory partners, businesses, community groups and individuals to raise awareness and help to influence change.

1.4 Legal Implications

- 1.4.1 The Council has a statutory duty to monitor air quality within the Borough but specific pollutants are not described within this requirement. The Council has monitored Nitrogen Dioxide through a network of passive diffusion tubes and continuous monitors since the 1990's in line with this statutory duty.
- 1.4.2 The Council also has a statutory duty under the Environment Act 1995 to prepare and update AQAPs where AQMAs have been declared and to revoke/amend/declare AQMAs as necessary, which has occurred as detailed in this report.

1.5 Financial and Value for Money Considerations

- 1.5.1 Air Quality monitoring has an annual budget which due to Covid-19 effects on budgets has been reduced by £1000 this year. However this saving has been achieved through producing our Annual Status Report 'in house' this year and our other Air Quality work has not been affected. There is no budget set aside for the implementation of the Action Plan.
- 1.5.2 Each action proposed in **Annex 1** was put forward on the basis of a basic cost benefit analysis and the remaining actions were felt to be able to create a meaningful differences to levels of Nitrogen Dioxide both in the AQMA's cited and across the Borough as a whole whilst not costing the Council significant sums to set up/run.
- 1.5.3 There are regular opportunities to bid for funding from Air Quality projects from difference sources including DEFRA and every opportunity will be made to secure funding from these sources during the life of this AQAP.
- 1.5.4 It is anticipated that as the aims of the AQAP accord with the aims of the Climate Change Strategy some funding from that budget could also be utilised to help fund proposed actions within the AQAP.

1.6 Risk Assessment

- 1.6.1 None

1.7 Equality Impact Assessment

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

1.8 Policy Considerations

- 1.8.1 Planning, Air Quality and Climate Change, as detailed in the report and associated Annex.

1.9 Recommendations

- 1.9.1 That subject to any further amendments from Members, the Draft Amended Air Quality Action Plan as set out in full at **Annex 2, BE ENDORSED** with amendments incorporated into a further draft for Cabinet approval and prepared for wider statutory consultation thereafter.

The Director of Planning, Housing and Environmental Health confirms that the proposals contained in the recommendation(s), if approved, will fall within the Council's Budget and Policy Framework.

Background papers:

Nil

contact: Crispin Kennard
Linda Hibbs

Eleanor Hoyle
Director of Planning, Housing and Environmental Health

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Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
Transport											
1	Establish/Join a Quality Bus Partnership to help upgrade Bus Fleet	Vehicle Fleet Efficiency	Promoting Low Emission Public Transport	TMBC	Bartholomew Wren / Steven Saxbee (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via the % of buses meeting a set EURO standard.	In areas of high bus usage, such as within the Tonbridge High Street AQMA an NO ₂ in conjunction with other measures a reduction of between 1 – 3µg/m ³ is to be aimed for.		2021 Yearly grants available so try to apply each year for a grant Related to grants if they are awarded	Establish or extend neighbouring QBP(s) to help drive up the quality and emissions performance of the local bus fleet. Engage with KCC public transport and neighbouring authorities. Pursue funding opportunities from DfT, Defra and elsewhere as appropriate. To make sure cleaner buses are used on all routes, especially those operating through AQMAs.
2	Review Taxi/Private Hire Vehicle Policy and license fees, implement a strategy to encourage a switch to low emission vehicles	Vehicle Fleet Efficiency	Fleet Efficiency and Recognition Schemes	TMBC	Katie Shipman / Anthony Garnet (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via the % of taxis and private hire vehicles meeting a set EURO standard. KPI could also be to have the review completed by a set date.	To be confirmed once full fleet information is available – use of the Emissions Factor Toolkit (EFT) to define NO _x emission reductions for changes within the fleet per annum.		2025 2030	Support the review of taxi licensing policy to include options to reduce the age of vehicles in use, and to complete a review of licensing fees to work towards increasing the uptake of ULEVs. All vehicles to be petrol hybrid Euro 5 or petrol and diesel euro 6 by 2025. By 2030 all vehicles to be zero or ultra low emissions such as electric or liquid petroleum gas
3	Explore opportunities to reduce emissions from local delivery HGV's/LGV's possibly through the formations of a Freight Quality Partnership	Freight and Delivery Management	Freight Partnerships for Town Centre Deliveries	TMBC	Steven Saxbee / Jeremy Whittaker (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via the % vehicles meeting a set EURO standard, and/or by the % of business participation in recognition schemes.	To be confirmed once fleet information is available – use of the EFT to define NO _x emission reductions for changes within a fleet.		2021 2021	Opportunities for sustainable urban freight deliveries at existing locations and for new developments, can also help promote recognition schemes such as ECO Stars. Through Kent Invicta Chamber of Commerce etc and on media / website If Locase is extended past march 2020 then businesses can get grant from KCC up to 40% of costs towards low carbon and greener fuels projects (max £20,000) Advertise this on media / website

Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
4	Develop and implement a borough-wide school transport scheme	Promoting Travel Alternatives	School Travel Plans	KCC	Relevant KCC officer/team to lead, Contact at TMBC to be Tamsin Ritchie	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPIs may include the following: % reduction of children travelling to school in cars % of children cycling or walking to school. Number of schools implementing individual school travel plans.	Measure has the potential to have a medium to high impact upon short term NO ₂ concentrations close to schools depending on the uptake of the schemes across the borough. On a borough wide scale a lesser impact upon on concentrations would be realised.		2022 2020 2020 2020 2021 Yearly	Walking buses, action to focus on school run drop offs, feasibility of school start time variations. Work closely with KCC in developing these travel plans and feasibility studies. Bike Smart (Tonbridge) Tonbridge schools (secondary) Anti-idling outside school gates. Signs Banners etc Walk to school needs to start organising in Jan for sept role out. Bike to school. Bike Week? dates?
5	Create Anti-idling zone at Tonbridge taxi rank Develop and enforce a borough wide anti-idling campaign	Traffic Management	Anti-Idling Enforcement	TMBC to lead but working closely with KCC Highways team where they have input	At TMBC, Katie Shipman / Anthony Garnet (Tonbridge taxi rank) Steven Saxbee (borough wide)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via an annual review of the number of fixed penalty fines and number of complaints received. After an initial year of results the % change in penalty fines and complaints can be quantified.	Measure is more an awareness raising tool, however it is also a useful measure to prevent vehicles idling and causing congestion in specific locations, which is a significant cause of emissions.		2021 2020	Borough-wide anti idling enforcement at taxi ranks, bus stops, and outside schools etc. Social Media posts to encourage behavioural change. School case study to be chosen
6	Pilot a Car Club within the Council for individuals use in local communities	Promoting Travel Alternatives	Workplace Travel Planning	TMBC	Steven Saxbee / Jeremy Whittaker (TMBC)	Wateringbury, Aylesford, Larkfield	The introduction of pool cars can result in a reduction of approximately 20% in business mileage. KPI relating to usage at the Council can be measurements of reduction in annual mileage undertaken per team.	NO _x emission reduction achieved by the Council will be able to be calculated annually.		2020 2022 2022 2020	Tunbridge Wells Borough Council operate a successful car club, to be contacted for information. Car club campaigns, possibility to include advertising and sponsorship opportunities. Contact Liberty at Kings Hill for setting up round the estate Also advertise Kent Journey share (when covid restrictions lift)
7	Continue to explore traffic improvement options at Wateringbury crossroads, emphasis on looking at capacity and flow	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	KCC	Tim Middleton at KCC (with possible assistance from TMBC Technical Services)	Wateringbury	KPI to be formulated once option has been developed, to be based around vehicle turning counts and/or queuing statistics.	An improvement to the Wateringbury crossroads would aim to reduce NO ₂ concentrations by between 1 – 5µg/m ³ .		2024	Following the completion of a feasibility study a preferred option will be taken forward within Wateringbury.
8	Encourage companies to allow home working at least one day a week	Other	Via the internet and other mechanisms	TMBC	Jeremy Whittaker / Steven Saxbee (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Yearly surveys to companies for numbers of staff and number of days a week staff work at home	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 5µg/m ³ . Based on small uptake		To start in 2020 and be ongoing	To promote on website multimedia and targeted adds campaigns to local office based companies using momentum from for home working from Covid restrictions

Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
Planning and Infrastructure											
9	Explore the process for possible standardising Section 106 agreement funding from development for AQ improvements	Policy Guidance and Development Control	Other Policy	TMBC	Steven Saxbee / Emma Keefe (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI may be the total number of Section 106 agreements secure in terms of AQ funding per annum, or the total amount of funding secured per annum.	N/A		ongoing	Standardising the process for securing S106 agreements for AQ to be linked with planning department to ensure harmonious implementation. Conditions to be more specific in planning decisions regarding green energy, low emission vehicle and EV parking (policy compliant).
10	Installation of electric charging points within Council car parks throughout the borough	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	TMBC to lead with input from KCC	Andrew Young (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI should include the number of EV charging points installed within the borough from a baseline year, and the number and % increase per annum.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ based upon a low to medium uptake.		2025 or sooner	Council car parks, TMBC funded with possible assistance from KCC OLEV could provide funding
11	Installation of green walls and increased vegetation across the borough	Other	Other	TMBC	Tamsin Ritchie /Steven Saxbee (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	The number of green walls / vegetation installed within the borough per annum.	N/A		2021 2021 2024 2021	Investigate areas like Wateringbury where results are close to hourly mean or increasing vegetation can made a difference Look into if grant funding is available To be installed as a physical barrier to increase distances between the road and pedestrians. See if can be done through planning applications
Public Information, Strategies and Policy Guidance											
12	Raise public awareness through the launch of a Travel Choices Campaign	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	TMBC to lead with assistance from KCC (see comments)	Tamsin Ritchie / Steven Saxbee (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Usage statistics for public transport across the borough per annum.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ .		2021 2021	Possibility of partnership with 'Step Ahead of the Rest' KCC Active travel programme. Social Media advertising. Community projects
13	Prepare a new Local Cycling and Walking Infrastructure plan (LCWIP)	Promoting Low Emission Transport	Promotion of cycling	TMBC working closely with KCC	Bartholomew Wren (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	2021	Identify infrastructure improvements to support existing and new communities to walk and cycle more frequently, through the provision of a more joined up route network. Work with partners including KCC Highways and Public Rights of Way.		2021	Identify if there any specific routes that can be improved upon or require the introduction of new routes.

Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
13b	Delivery of identified cycling and walking schemes	Promoting Low Emission Transport	Promotion of cycling	KCC	Relevant KCC officer/team	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPIs to include: Usage of rental schemes. Numbers of cycle to work schemes Implementation of new routes per annum. Obtain figures from use of new cycle hub and Tonbridge station	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ based upon a low to medium uptake.		2021-2030 ongoing ongoing	Following the completion of the LCWIP, the identified cycling and walking routes will be improved / new routes are to be introduced. In addition cycle to work schemes are to be encouraged and supported through local campaigns, events and planning negotiations. Active travel to be promoted in partnership with KCC – Kent Connected. Tie in with 11. Bike Smart Tonbridge. Bike Smart Malling (Wrotham School). Tie in with 11
14	Education and encouragement in terms of air quality across the borough: public workshops, leaflet campaigns, advertising, approaching schools, businesses, community centres	Public Information	Via leaflets and other mechanisms	TMBC	Tamsin Ritchie (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Usage statistics for public transport and zero emission transport options (walking and cycling) across the borough per annum. Most of the individual parts to this measure can be developed immediately, again it may be beneficial to have a KPI relating to implementation time.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ .		2020 2021 Asses if needs to be repeated over 5 years 2021 2021	Available AQ information, current issues, what the council is doing paired with what the public can do as a bottom up approach. Provision of workshops, physical and digital leaflets, drop in sessions, dedicated phone-line etc. Social media visibility is a key element with potential to link to other KES/ELES communications. Community Champions / case studies
15	Implement an improved public transport information platform	Public Information	Via the internet and other mechanisms	KCC		M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Usage statistics for public transport across the borough per annum.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ .		2021 2021 2021	To include links to Kent connected pt and options to download it on website. To include the provision of high quality accessible information on sustainable travel, also the promotion of public transport use to incentivise usage. All available information to be linked to 'smarter cities' initiative.

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Air Quality Action Plan

Tonbridge and Malling Borough Council

January 2020



Document Control Sheet

Identification	
Client	Tonbridge and Malling Borough Council
Document Title	Air Quality Action Plan – Initial Draft for Comment
Bureau Veritas Ref No.	AQAP6481565_v0.1

Contact Details		
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Configuration				
Version	Date	Author	Reason for Issue/Summary of Changes	Status
0.1	29/01/20	P Bentley	-	Initial draft

	Name	Job Title	Signature
Prepared By	P Bentley	Senior Consultant	
Approved By	J Clayton	Principal Consultant	

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Any questions or matters arising from this Report should be addressed in the first instance to the Project Manager.



Tonbridge and Malling Borough Council Air Quality Action Plan

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

January, 2020

Local Authority Officer	Crispin Kennard & Steven Saxbee
Department	Environmental Protection
Address	Tonbridge & Malling Borough Council Gibson Building Gibson Drive Kings Hill West Malling ME19 4LZ
Telephone	01732 876184
E-mail	environmental.protection@tmbc.gov.uk
Report number	Reference Tonbridge and Malling Borough Council AQAP – Initial Draft
Date	January 2020

Executive Summary

This 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 action we will take to improve air quality in Tonbridge and Malling Borough Council up to 2025. This action plan replaces the previous draft action plan¹ which ran from June 2011.

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^{2,3}.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion⁴. Tonbridge and Malling Borough Council are committed to reducing the exposure of people within the borough to poor air quality in order to improve health.

We have developed actions that can be considered under four broad priority topics:

- Priority 1: Transport;
- Priority 2: Planning and Infrastructure;
- Priority 3: Policy Guidance; and
- Priority 4: Public Health and Wellbeing

The primary focus of the AQAP is to implement measures which will ensure levels of NO₂ across the borough, and specifically within the existing AQMAs, are consistently below 10% of the annual mean NO₂ Air Quality Strategy (AQS) objective of 40µg/m³. For two out of the six existing Air Quality Management Areas (AQMAs), a relatively small reduction in annual mean NO₂ concentration is required (3µg/m³ within AQMA 3 and 3.6µg/m³ within AQMA 7) to reduce existing concentrations to 36µg/m³ thus ensuring compliance with the annual mean objective of 40µg/m³. Where required concentration reductions are relatively low, borough-wide actions / 'soft' measures such as educational events, are more applicable within these AQMAs, compared to additional AQMA / area specific 'hard' measures such as changes in existing road layouts, that are required within the AQMAs that are current showing concentrations of NO₂ significantly in excess of the annual mean objective.

The priorities from the adoption of this action plan are to aid a behavioural shift within the population to promote more sustainable and less polluting methods of transport, reducing dangerous pollutant concentrations and reducing the risks of detrimental effects against health and wellbeing within the borough. In addition where transport remains a majority source of air pollution, traffic measures are to be implemented to reduce congestion and aim to reduce source emissions in areas of relevant exposure.

This AQAP outlines a plan to effectively tackle air quality issues within the Council's control. It should be noted that there are a large number of air quality policy areas that are outside of the Council's influence (such as vehicle emissions standards agreed in Europe), but for which the Council is able to provide useful evidence. The Council will therefore continue to work with regional and central government on policies and issues beyond Tonbridge and Malling's direct influence in relation to air quality.

¹ Tonbridge and Malling Borough Council (June 2011), Draft Air Quality Action Plan

² Environmental equity, air quality, socioeconomic status and respiratory health, 2010

³ Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

⁴ Defra. Abatement cost guidance for valuing changes in air quality, May 2013

Responsibilities and Commitment

This AQAP was prepared by the Environmental Protection department within Tonbridge and Malling Borough Council with support provided by Bureau Veritas. The following officers and departments have, and continue to provide, support and agreement to the AQAP:

List officers/departments involved in the preparation of the AQAP

This AQAP has been approved by:

<Details of high level Council members who have approved the AQAP (This could also include support from County Councils or from Highways England where appropriate) e.g. Head of Transport Planning, Head of Public Health, with e-signature>.

This AQAP will be subject to an annual review, appraisal of progress and reporting to the relevant Council Committee and Defra. Progress each year will be reported to Defra within the Annual Status Report (ASR) due for completion each year and produced by Tonbridge and Malling Borough Council, as part of our statutory LAQM duties.

If you have any comments on this AQAP please send them to the Environmental Protection department at Tonbridge and Malling Borough Council at:

Environmental Protection Team

Tonbridge and Malling Borough Council

Gibson Building, Gibson Drive

Kings Hill

West Malling

Kent

ME19 4LZ

01732 876184

environmental.protection@tmbc.gov.uk

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1 Introduction

This Air Quality Action Plan (AQAP) outlines the actions that Tonbridge and Malling Borough Council will deliver up to 2025 in order to reduce concentrations of air pollutants (primarily to nitrogen dioxide (NO₂)) within the existing Air Quality Management Areas across the borough, and also across the wider borough area; thereby positively impacting on the health and quality of life of residents within, and visitors to Tonbridge and Malling.

The 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. Development of the AQAP has taken place through discussions within a Tonbridge and Malling Borough Council Steering Group led by the Environmental Protection team and supplemented by guidance from Bureau Veritas.

The document is presented as an initial draft and is to be subjected firstly to internal consultation. Following this initial stage of consultation the draft will be subjected to external consultation and therefore will be submitted to the following parties in line with PG(16) guidance⁵:

- Department of Environment, Farming and Rural Affairs (Defra);
- Environment Agency (EA);
- Highways England;
- Tonbridge and Malling Borough Council;
- Kent County Council (KCC);
- Neighbouring local authorities;
- Residents within Tonbridge and Malling, especially within the existing AQMAs; and
- Bodies representing local business interests and other organisations as appropriate.

Once accepted by Defra, and implemented by Tonbridge and Malling this AQAP will be reviewed every five years at the latest. Details of the progress on measures set out within this AQAP will be reported on annually within the Tonbridge and Malling air quality ASR.

⁵ Local Air Quality Management Policy Guidance LAQM.PG(16). April 2016. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.

2 Summary of Current Air Quality in Tonbridge and Malling

Currently there are six Air Quality Management Areas (AQMAs) designated within Tonbridge and Malling Borough Council area. All six have been declared in response to exceedances of the NO₂ annual mean objective. Each of the six declared AQMAs incorporate areas that have strategic road links passing through them, with road traffic emissions having previously been identified as the major source of the elevated NO₂ concentrations.

The previous AQAP completed by Tonbridge and Malling⁶, dated June 2011, had been developed to include the initial six AQMAs declared (the designation relating to 24-hour PM₁₀ concentrations for the M20 AQMA 1 and the Ditton AQMA 2 have since been revoked). The previous AQAP had not been updated to include the declaration, and subsequent amendment of Borough Green AQMA. Therefore the measures outlined within this AQAP have been developed based upon the current designation of AQMAs.

Details of the current AQMAs are provided within Table 2.1 and boundary maps for each of the AQMAs are presented in Appendix A:

Table 2.1 – Tonbridge and Malling Air Quality Management Areas

AQMA Name	Date of Declaration	Location	Description of Area
M20 AQMA 1	May 2001	Larkfield / Ditton	An area along the M20 motorway between the points where it passes below New Hythe Lane, Larkfield to the west and where it crosses Hall Road, Aylesford to the east.
Tonbridge High Street AQMA 3	June 2005	Tonbridge	An area incorporating the High Street between Botany and the High Street/Vale Road roundabout, Tonbridge.
Wateringbury AQMA 4	June 2005	Wateringbury	An area incorporating the Red Hill/Tonbridge Road A26 crossroads in the Parish of Wateringbury.
Aylesford AQMA 5	October 2008 (Amended January 2020)	Aylesford	An area encompassing the junction of the A20 (London Road) with Hall Road and Mills Road.
Larkfield AQMA 6	October 2008 (Amended January 2020)	Larkfield	An area encompassing a section of the A20 (London Road) within Larkfield, including the junction with New Hythe Lane.
Borough Green AQMA 7	April 2013 (Amended January 2020)	Borough Green	An area encompassing the junction of the A25 (Sevenoaks Road) and the A227 (Western Road) within Borough Green.

Tonbridge and Malling operate a large network of passive diffusion tubes, which provide annual mean concentrations of NO₂ at monitoring locations across the borough. During 2018 monitoring was completed at 54 locations, with monitoring completed both within and outside the current AQMA boundaries. The diffusion tubes are exposed in 4-5 week periods, in line with the Defra LAQM Diffusion Tube Monitoring Calendar, and are processed to derive annual mean concentrations as per Defra TG(16) guidance⁷. In addition to the passive diffusion tube monitoring completed within the borough, the automatic monitoring of NO₂ has historically been completed at one location within the Tonbridge High Street AQMA (ZT5). In

⁶ Tonbridge and Malling Borough Council, Environment Act 1995 LAQM Draft Air Quality Action Plan, June 2011

⁷ Local Air Quality Management Technical Guidance LAQM.TG(16). April 2016. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland

Tonbridge and Malling Borough Council

2018 the monitor was relocated close to the Watlingbury AQMA due to the elevated concentrations reported within the AQMA.

Of the 54 NO₂ monitoring locations within the Council area, 21 are located within the current designated AQMAs. A summary of the recent NO₂ monitoring completed within each AQMA is presented in Table 2.2. Further details of all monitoring locations, and subsequent annual mean NO₂ concentrations are available in the latest Annual Status Report (ASR) completed and submitted to Defra each year. All LAQM reports completed by Tonbridge and Malling are available through the Tonbridge and Malling Borough Council website⁸.

Table 2.2 – Tonbridge and Malling AQMA NO₂ Monitoring

Site ID	Site Type	Monitoring Type	Annual Mean NO ₂ Concentration (µg/m ³)				
			2014	2015	2016	2017	2018
M20 AQMA 1							
TN5	Roadside	Diffusion Tube	-	-	38.1	38.8	34.9
TN7b	Roadside	Diffusion Tube	-	-	38.0	36.7	31.5
TN80a	Roadside	Diffusion Tube	38.8	35.1	34.4	35.4	30.2
TN5a	Roadside	Diffusion Tube	37.1	35.5	34.5	34.1	30.1
TN30	Roadside	Diffusion Tube	28.3	29.3	29.7	26.7	25.5
TN29a	Roadside	Diffusion Tube	24.9	25.4	28.0	25.2	24.1
Tonbridge High Street AQMA 3							
TN35	Urban Centre	Diffusion Tube	43.2	36.7	34.6	37.5	36.4
TN44	Urban Centre	Diffusion Tube	42.0	40.1	40.5	38.4	35.2
ZT5	Urban Centre	Automatic Analyser	46.6	45.8	46.8	49.6	34.9
TN45, 74, 75	Urban Centre	Diffusion Tube	42.7	41.6	40.5	42.3	39.0
TN110	Roadside	Diffusion Tube	-	-	30.1	32.8	28.4
Wateringbury AQMA 4							
TN33	Roadside	Diffusion Tube	52.7	51.9	56.4	53.6	51.9
TN43	Roadside	Diffusion Tube	38.2	38.2	39.1	38.7	35.7
TN42, 76, 77	Roadside	Diffusion Tube	64.8	63.5	64.8	61.3	58.1
Aylesford AQMA 5							
TN68	Roadside	Diffusion Tube	31.9	30.8	30.8	31.4	28.3
TN60, 62, 63	Roadside	Diffusion Tube	45.3	44.1	44.8	44.8	41.7
DF1, 2, 3	Roadside	Diffusion Tube	-	42.6	44.3	44.1	40.1
Larkfield AQMA 6							
TN57, 58, 59	Roadside	Diffusion Tube	36.5	34.0	33.7	31.4	32.2
DF7, 8, 9	Roadside	Diffusion Tube	-	35.2	41.8	35.0	32.8
TN106	Roadside	Diffusion Tube	-	-	43.9	43.2	42.0
Borough Green AQMA 7							
TN70, 72, 73	Roadside	Diffusion Tube	42.2	42.1	45.6	43.0	39.6
Notes:							
<ul style="list-style-type: none">- Exceedances of the NO₂ annual mean objective are presented in Bold- The automatic monitor ZT5 was relocated part way through 2018							

It can be seen by the monitoring results presented within Table 2.2 that the number of monitored exceedances of the NO₂ annual mean objective across all current AQMAs has reduced between 2014 (eight) and 2018 (five). In addition, detailed within the latest ASR at

⁸ Tonbridge and Malling Borough Council Air Quality – <https://www.tmbc.gov.uk/services/environment-and-planning/pollution/air-quality>

the time of writing, during 2018, as has been apparent since 2014, there have not been any monitored exceedances outside of the declared AQMAs. Although there has been a visible decline in concentrations, aside from within the M20 AQMA there remains one monitoring location reporting an NO₂ annual mean greater than, or within 10% of the annual mean objective (36.0µg/m³).

Annual mean concentrations have remained at their highest within the Watlingbury AQMA, with the triplicate diffusion tube monitoring location TN42, 76, 77 reporting the highest concentration within the borough every year since 2014 (58.1µg/m³ in 2018). As can be seen within Figure A.3, the Watlingbury AQMA consists of a single cross junction between the A26 (Tonbridge Road), Red Hill and Bow Road. The junction is traffic light controlled and congestion is experienced throughout the day due to the A26 linking Maidstone with Tonbridge and also Royal Tunbridge Wells.

There have not been any monitored exceedances of the NO₂ annual mean objective within the M20 AQMA during the previous five years. The maximum monitored concentration recorded during this period was 38.8µg/m³ recorded at both TN5 in 2017 and TN80a in 2014. Although there has not been any monitored exceedances, the detailed modelling completed as part of the AQMA review⁹ attached as Appendix xx predicted that a number of properties located to the north and south of the M20 motorway experience NO₂ annual mean concentrations greater than 36.0µg/m³. Due to the layout of the M20 motorway, and the adjoining local roads, it has not always been possible to locate diffusion tubes in locations of relevant exposure, e.g. gardens of residential properties at their closest point to the M20 motorway.

In addition to future years monitoring results, any changes made to the existing monitoring network within the borough will be detailed and justified within subsequent ASRs. The monitoring network serves as an ongoing indicator for changing NO₂ trends within the borough, and will be essential for the assessment of implementation for the measures detailed within this AQAP. The monitoring network also provides an initial evidence base for consideration of the requirement to revoke, amend or declare any AQMAs.

⁹ Bureau Veritas (November 2019), Tonbridge and Malling Borough Council Air Quality Management Area Review

3 Tonbridge and Malling's Air Quality Priorities

This chapter presents the main drivers, and the approach taken by Tonbridge and Malling for the development and subsequent selection of measures that have been included within this AQAP. Included within this section of the AQAP are descriptions of the existing strategies and policies that relate to air quality within the borough.

A source apportionment study has been completed across the borough, focusing on each of the existing six AQMAs and surrounding area. The source apportionment study has allowed the most significant vehicular NO_x contributors to be identified, and in conjunction with the strategies and policies that are currently in place, the conclusions have been used to identify and prioritise the action measures presented within Section 5.

3.1 Public Health Context

Scientific evidence has continued to show the scale of the negative impact of poor ambient air quality on health. Although the links between air pollution as a direct cause of death are still the subject of much debate, poor air quality is considered to be a significant contributory factor to the loss of life, with an average estimation of lives being shortened by five months. The Committee on the Medical Effects of Air Pollution (COMEAP)¹⁰ provides advice to Government on the setting of air quality standards, and increasingly has sought to consolidate evidence on the health burden and impacts of various pollutants, both in single occurrence and pollutants in combination. In terms of NO₂, COMEAP provide a current range of estimate for annual mortality burden for human-made air pollution in the UK is estimated to be between 28,000 and 36,000 deaths and an associated loss of population life of 328,000 and 416,000 life years lost¹¹.

Local authorities across England have a central role in achieving improvements in air quality, and have a range of powers which can effectively help to improve air quality. The involvement of public health officials is crucial in playing a role to assess the public health impacts and providing advice and guidance on taking appropriate action to reduce exposure and improve the health of everyone in Tonbridge and Malling.

The online Public Health Outcomes Framework (England) tool¹² provides further impetus to join up action between the various local authority departments that all contribute towards the delivery of air quality improvements. There is extensive evidence about the health impacts of air pollution, growing media and public interest and an indicator on mortality attributed to airborne particulate matter in the Public Health Outcomes Framework. The Public Health briefing document published by Defra and Public Health England (PHE)¹³ provides guidance as to the latest information to consider in terms of the health response to air pollution, guiding local authorities to use existing tools to appraise the scale of the air pollution issue in its area. The briefing document, as part of a resource pack for public health teams, advises local authorities how to appropriately prioritise air quality alongside other public health priorities to ensure that it is provided relevant exposure within local agenda.

The briefing document comprises the following key guides:

- Getting to grips with air pollution – the latest evidence and techniques;

¹⁰ The Committee on the Medical Effects of Air Pollution – <https://www.gov.uk/government/groups/committee-on-the-medical-effects-of-air-pollutants-comeap>

¹¹ The Committee on the Medical Effects of Air Pollution (2018), Associates of long-term average concentrations of nitrogen dioxide with mortality

¹² Public Health England, Public Health Outcomes Framework – <https://fingertips.phe.org.uk/profile/public-health-outcomes-framework>

¹³ Department for Environment, Food and Rural Affairs and Public Health England (March 2017), Air Quality: A Briefing for Directors of Public Health

- Understanding air pollution in your area;
- Engaging local decision-makers about air pollution;
- Communicating with the public during air pollution episodes;
- Communicating with the public on the long term impacts of air pollution; and
- Air Pollution: an emerging public health issue: Briefing for elected members.

As stated above, the Public Health Outcomes Framework tool includes an indicator on mortality attributed to airborne particulate matter. It should be noted that the indicator only accounts for one pollutant (particulate matter with an aerodynamic diameter of 2.5µm or less – PM_{2.5}) for which stronger scientific evidence on links with detrimental health effects and mortality exist, and not for NO₂, for which the six current AQMAs within Tonbridge and Malling are declared. For PM_{2.5} evidence continues to show that there is no real safe threshold for this pollutant and UK government should achieve reductions in levels of PM_{2.5} as low as reasonably practicable below the current air quality standard.

For Tonbridge and Malling in 2017, the fraction of mortality attributable to particulate PM_{2.5} air pollution is 5.7%, which is higher than the national average of 5.1%. The borough is currently under no obligation to monitor PM_{2.5}, which is a focus at national level, but anticipates that some of the measures implemented within this action plan for the achievement of reductions in NO₂, will have co-benefits in additionally reducing concentrations of particulate matter. Furthermore, following on from a review of research into the death burden associated with the air pollution mixture rather than single pollutants acting independently, COMEAP are currently reviewing the ability to link deaths to one specific pollutant.

At a County level the Kent Joint Health and Wellbeing Strategy¹⁴, which has been extended to 2021 provides strategic direction to address the numerous health and wellbeing issues facing the population within Kent. It is identified within the strategy that a number of factors affecting short and long term physical and mental health such as air quality need to be considered. Through an integrated approach, with continual links with local authorities feeding into the strategy, the overall vision of improving health and wellbeing outcomes.

The Kent Public Health Observatory last provided an update in terms of mortality rates attributable to air pollution in April 2018¹⁵. Within which air pollution (particulate matter) is a contributory factor in fewer deaths per year in the population (under 75) in Kent than cancer and cardiovascular disease, however it is linked with a similar number of deaths as is attributed to respiratory disease and liver disease.

3.2 Planning and Policy Context

This Action Plan outlines the Council's plan to effectively tackle air quality issues within its control; however, it is recognised there are numerous existing, and also impending policies and strategies adopted at local, regional and national level that can exert significant effects, both positive and negative, on air quality across Tonbridge and Malling. It is important that these plans and strategies are identified, and taken into consideration at an early stage of the development of the plan. These will aid the establishment of the context in which specific options for improving air quality can be implemented.

Whilst certain policies and / or strategies may be outside of the influence of Tonbridge Malling, there are a number of related policies and strategies at local and regional levels that can be tied directly with the aims of this AQAP. Some of these are directly focused on air quality improvements within Tonbridge and Malling, whilst others relate to transportation issues and therefore are likely to help contribute to overall improvements in air quality across Tonbridge and Malling.

¹⁴ Kent County Council (2013), Kent Joint Health and Wellbeing Strategy: Outcomes for Kent

¹⁵ Kent Public Health Observatory (April 2018), Air Quality

The review of these strategies and policies also assist in not duplicating the work within the AQAP, but instead focus on direct measures outside those considered within the already developed strategies and policies, but that still contribute toward their overall aims. This section outlines the strategies and policies that have the most significant potential to impact on pollutant concentrations within Tonbridge and Malling. Given their importance, the majority of measures listed below have been included as action measures within this Action Plan.

The most relevant policies and strategic documents are detailed below.

3.2.1 Clean Air Strategy 2019

The Clean Air Strategy¹⁶ has been published to set out the case for action at a national level, identifying a number of sources of air pollution within the UK including road transportation, that is relevant in terms of the AQMAs currently present within Tonbridge and Malling, and sets out the actions required to reduce the impact upon air quality from these sources. It has been developed in conjunction with three other UK Government Strategies; the Industrial Strategy, the Clean Growth Strategy, and the 25 Year Environment Plan

Key actions that are detailed within the strategy aimed at reducing emissions from transportation sources include the following:

- The publication of the Road to Zero strategy which sets out plans to end the sale of new conventional petrol and diesel cars and vans by 2040;
- New legislation to compel vehicle manufacturers to recall vehicles and non-road mobile machinery for any failures in emission control systems, and to take effective action against tampering with vehicle emissions control systems;
- Develop new standards for tyres and brakes to reduce toxic non-exhaust particulate emissions from vehicles;
- The encouragement of the cleanest modes of transport for freight and passengers; and
- Permitting approaches for the reduction of emissions from non-road mobile machinery, especially in urban areas.

3.2.2 UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations

Published in July 2017, the UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations (Detailed Plan)¹⁷ is the UK governments plan for bringing concentrations of NO₂ within statutory limits within the shortest possible time. It is identified that the most immediate air quality challenge within the UK is tackling the issue of NO₂ concentrations close to roads, especially within towns and cities. The plan identifies a number of local authorities that were required to complete feasibility studies to define NO₂ concentrations on road links identified by the national Pollutant Climate Mapping (PCM) model as being in exceedance of the NO₂ annual mean AQS objective.

Tonbridge and Malling were not one of these authorities identified, but regardless the UK Plan provides a high level of detail on possible solutions, and their implementation, to reduce NO_x emissions from vehicles, and therefore lower NO₂ concentrations. The actions detailed within the UK Plan include the following:

- Implementation of Clean Air Zones (CAZs);

¹⁶ Department for Environment, Food and Rural Affairs (2019), Clean Air Strategy

¹⁷ Department for Environment, Food and Rural Affairs, Department for Transport (2017), UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations (Detailed Plan)

- New real world driving emissions requirements for light passenger and commercial vehicles;
- Additional funding to accelerate the uptake of low emissions buses and also for the retrofitting of older buses;
- Additional funding to accelerate the uptake of hydrogen vehicles and associated infrastructure;
- New mandatory emissions standards for non-road mobile machinery; and
- Local cycling and walking investment plans.

3.2.3 Kent Environment Strategy / Energy and Low Emission Strategy

The Kent Environment Strategy (KES)¹⁸ that was adopted in 2016, and the Energy and Low Emission Strategy (ELES)¹⁹ (currently at consultation stage) which is a sub strategy of the KES have been developed to address the challenges posed across Kent through the growth and change that is predicted to occur across the County over the coming years / decades. Economic growth is welcomed within the County, but this should be realised without impacting the health and wellbeing of its residents, and also without impacting the diverse landscape across the County that is valued by residents, businesses and visitors alike.

Air quality is identified within the KES as a key issue within the County, the unique position of Kent between London and the continent leads to challenges with emissions from cross-channel freight and traffic leading to the declaration of over 40 AQMAs. Transport is identified as a majority emission source leading to associated risks for air quality, with sustainability and a shift to active travel detailed as a requirement for transport growth. In a wider sense the KES has three core themes that are applicable to the strategy and also are drawn down into the ELES:

- Theme One: Building the Foundations for Delivery;
- Theme Two: Making best use of existing resources, avoiding or minimising negative impacts; and
- Theme Three: Toward a sustainable future.

The purpose of the ELES is to identify an approach to deliver clean growth, by reducing emissions from housing, industry and transport to lead to improvements in air quality across the County. The challenge of tackling the AQMA hot-spots of poor air quality is outlined as a major challenge to be overcome at a County level, and also at a local authority level due to the majority of declared AQMAs being designated of local authority controlled road links. In terms of vehicle emissions, growth without gridlock is promoted to deliver safe and effective transport, ensuring that communities and businesses benefit, the environment is enhanced and economic growth is supported.

A drive towards a low carbon economy is included within the ELES, with five themes identified:

- Low Carbon Heating;
- Energy Saving and Efficiency;
- Renewable Generation;
- Smart Energy System; and
- Transport Revolution.

¹⁸ Kent County Council (March 2016), Kent Environment Strategy: A Strategy for Environment, Health and Economy

¹⁹ Kent County Council (2019), Kent and Medway Energy and Low Emissions Strategy: Supporting Delivery of the Kent Environment Strategy (Consultation Draft)

All of the above have the potential to help lower pollutant concentrations across Tonbridge and Malling, and the wider County. Of significant importance is the Transport Revolution which promotes EV charging and a hydrogen fuelling infrastructure, compressed natural gas (CNG) fuelling and the modernisation of the energy infrastructure within ports.

3.2.4 Local Plan

The new Tonbridge and Malling Local Plan²⁰ has been consulted upon and is currently at the examination stage. Once adopted, the Local Plan will form part of the Development Plan and will replace the current suite of adopted local plans. Due to the advanced stage of the Local Plan in terms of adoption the policies held within the plan have been detailed within this AQAP, if the relevant policies change significantly prior to the adoption of the plan the AQAP will be updated to reflect these. A large number of documents have been used to shape the Local Plan, one of which was an Air Quality Assessment²¹ that was completed to provide an evidence base for the potential air quality impacts of the Local Plan upon human health receptors (residential properties, hospitals and schools).

The Local Plan represents the starting point for decision taking on planning applications, it includes a suite of policies with the purpose to manage and facilitate sustainable development across the borough. In addition there are areas within the borough that are identified in terms of future housing allocations (LP25: Housing Allocations). The areas that are identified within the housing allocations are important as these may be close to areas of poor air quality, or will have the potential to impact upon existing air quality conditions.

In terms of air quality and future development, compliance with LP20: Air Quality within the application is required, with the identification of detailed mitigation measures to be included with the Environmental Health department having regard to the relevant air quality standards at a national level. Policy LP20: Air Quality states the following:

1. Development, either individually or cumulatively with other proposals or existing uses in the vicinity, that could directly or indirectly result in material additional air pollutants and a significant worsening of levels of air quality within the area surrounding the development site will not be permitted unless evidenced, specifically identified and detailed measures to offset or mitigate those impacts are introduced as part of the proposal.
2. Development that would introduce new receptors into an area of poor air quality will not be permitted unless the proposals incorporate acceptable measures to ensure receptors would not be subject to unacceptable risk as a result of poor air quality.

In addition to policy LP20, there are several policies within the Local Plan that are aimed at mitigating the impacts of developments upon air quality. These include LP23: Sustainable Transport, and the policies for strategic sites which seek to maximise opportunities for additional cycling and walking routes. A number of identified Strategic Sites (LP28: South Aylesford, LP29: Borough Green, LP31: South-West Tonbridge) bring opportunities to improve the air quality of the nearby AQMAs through the development of relief roads alleviating the traffic flow through the areas of concern. But this earmarked development also brings a risk of detrimental effects upon air quality with the increase of traffic flow in the immediate and surrounding area. Throughout the development of any of the Strategic Sites, or any other development within the borough the Environmental Protection team will review applications received to ensure that all applications are completed in accordance with LP20.

²⁰ Tonbridge and Malling Borough Council (January 2019), Local Plan – Regulation 22 Submission

²¹ Mott MacDonald (June 2018), Tonbridge and Malling Borough Council Local Plan Air Quality Evidence Base

3.2.5 Local Transport Plan

The Kent County Council Local Transport Plan²² was approved in 2016 setting out a vision for transport over a 15 year timeframe and has the ambition to deliver safe and effective transport, ensuring that all of Kent's communities and businesses benefit, the environment is enhanced and economic growth is supported. This ambition is to be achieved through five overarching policies, of which three have immediate relevance to improving air quality conditions:

- Outcome 3: Safer travel;
- Outcome 4: Enhanced environment; and
- Outcome 5: Better health and wellbeing.

When assessing any transport schemes air quality impacts are to be taken into account in addition to the consideration of the relocation of traffic, ranging from a strong negative impact to a strong positive impact. It is identified that the reduction of vehicle numbers will lead to a positive effect upon local air quality, with Active Travel methods such as walking or cycling promoted as a means of transport rather than just for leisure purposes. Through this links are made to the Active Travel Strategy and Cycling Strategies.

The transport priorities detailed within the Transport Plan that are relevant to Tonbridge and Malling are as follows:

- M20 Junctions 3 – 5 'smart' (managed) motorway system;
- A20 corridor improvements between A228 and M20 Junction 5;
- A228 corridor improvements;
- Borough Green Relief Road;
- Watlingtonbury A26 / B2015 junction improvements;
- Implementation of the Tonbridge and Malling Cycling Strategy; and
- Improvements within Tonbridge:
 - Tackling congestion in Tonbridge town;
 - Tonbridge town centre regeneration; and
 - Potential for Urban Traffic Control (traffic signal coordination) in Tonbridge to help alleviate congestion and improve air quality.

All of the above have the potential to impact air quality conditions within the existing AQMAs, and across the wider borough. The Environmental Protection team at Tonbridge and Malling will continue to the work in unison with our colleagues in the Highway teams at both Tonbridge and Malling and Kent County Council to ensure that the impacts upon air quality due to the implementation of any highways scheme is quantified in terms of pollutant emissions, and that our expertise within the field is sought when future schemes are developed within Tonbridge and Malling.

3.2.6 Freight Action Plan

The Kent County Council Freight Action Plan for Kent²³ identifies that when road freight vehicles travel on the local road network they can have an adverse impact on local communities in a number of ways, one of which being the impact upon local air quality conditions. It is a supporting policy to the Local Transport Plan detailed above and has three

²² Kent County Council, Local Transport Plan 4: Delivering Growth without Gridlock 2016-2031

²³ Kent County Council, Freight Action Plan for Kent

core actions detailed within. In terms of air quality issues have been identified in a number of areas:

- Direct tailpipe emissions from the freight passing through the County and also from increased congestion due to Operation Stack whereby vehicles are diverted from the M20 to the A20 when congestion for the Euro Tunnel and Port of Dover reach certain levels;
- Refrigeration and in-cab heaters running when freight are parked through the night, contributing to air pollution within the local area; and
- Implementation of vehicle restrictions within Towns and Villages to restrict the type and / or the number of vehicles that are allowed to pass through certain settlements.

Initiatives such as an ECO Stars scheme can be set up to improve efficiency within a fleet of freight vehicles, this is realised through improvements in fuel consumption and reducing any possible impacts upon local air quality conditions.

3.2.7 Climate Change Strategy

The Tonbridge and Malling Climate Change Strategy (2008 – 2011)²⁴ detailed the climate issues being faced within the borough, and the role that Tonbridge and Malling Borough Council had in the response to the challenges posed by climate change. With the main themes of the strategy being:

- Housing and Energy Conservation;
- Transportation and Air Quality;
- Sustainable Development and Sustainability within Tonbridge and Malling Borough Council;
- Waste Minimisation and Recycling;
- Community and Business Engagement; and
- Adapting to Climate Change.

In terms of air quality, it was identified that there is a close relationship between air quality and climate change pollutants emitted from transportation sources. Working to reduce the reliance upon personal travel and vehicle trips has two-fold benefits in reducing both local air pollutants and climate pollutants.

Further to the above a climate emergency has been declared by Tonbridge and Malling Borough Council with an aspiration for the borough to become carbon neutral by 2030, 20 years sooner than what Kent County Council have initially agree to. As part of the declaration a drive for electric vehicle charging points is identified, this is to ensure that Tonbridge and Malling is one of the most welcoming places in the country for driving electric and hybrid vehicles.

3.2.8 Cycling Strategy

The Tonbridge and Malling Cycling Strategy (2014 – 2019)²⁵ provided a core collection of principals and actions to promote cycling and the development of cycling facilities across the borough. It was identified that an increase in cycling has a number of positive benefits, with one of which being an improvement in air quality within urban areas through a reduction in traffic congestion.

²⁴ Tonbridge and Malling Borough Council (2008), Tonbridge and Malling Climate Change Strategy

²⁵ Kent County Council, Sustrans and Tonbridge and Malling Borough Council (2014), Tonbridge and Malling Cycling Strategy 2014 – 2019

The aim of the Cycling Strategy was to increase the number people in within Tonbridge and Malling using cycling as a frequently used travel option. The strategy considered improvements to the network in terms of new cycle routes, improved infrastructure and also influencing attitudes to cycling to shift behavioural responses. The key features to deliver step change are associated with improving and expanding the existing cycling infrastructure, providing cycle safety training within schools and the workplace, promoting and marketing cycle usage and running events to raise cycling profile.

An increase in cycling will ultimately help achieve Tonbridge and Malling's vision for improved air quality conditions by reducing congestion on the roads, therefore reducing NO_x vehicle emissions and subsequent NO₂ concentrations.

3.3 Source Apportionment

Source apportionment is the process by which different pollutant sources to relation to existing ambient concentrations are quantified. The AQAP measures presented within this Plan are intended to be targeted towards the predominant sources of emissions within Tonbridge and Malling.

The source apportionment process has been completed in order to:

- Quantify the proportions of NO_x that are attributable to both background emissions and to local road emissions;
- Determination of the relative contributions from different vehicle types (cars, Heavy Good Vehicles (HGVs), Light Goods Vehicles (LGVs), buses and coaches, and motorcycles); and
- Identification of whether action plan measures would need to be on a local / regional / national scale to have a significant impact upon reducing NO_x emissions within the existing AQMA areas.

A source apportionment exercise has been carried out using the ADMS-roads (Version 4.1.1) dispersion model to identify and assess the emission profile of vehicles within Tonbridge and Malling based upon the traffic data and receptors detailed within the AQMA review⁹. To complete this exercise, NO_x and NO₂ concentrations have been predicted at a number of receptor locations within, and close to each AQMA. The source apportionment studies have been undertaken to identify which vehicle type(s) represent the most significant source of NO_x pollution within all existing AQMA's, in addition to a borough wide exercise that encompasses all of the existing AQMA's.

Emission sources of NO₂ are dominated by a combination of direct NO₂ (f-NO₂) and oxides of nitrogen (NO_x), the latter of which is chemically unstable and rapidly oxidised upon release to form NO₂. The NO_x, once emitted from vehicles undergoes a number of chemical reactions and disperses to form the NO₂ concentrations that are measured at roadside monitoring locations. Reducing levels of NO_x emissions therefore reduces levels of NO₂. As a consequence, the source apportionment study has considered the emissions of NO_x which are assumed to be representative of the main sources of NO₂.

3.3.1 M20 Air Quality Management Area (1)

For the M20 AQMA, of the 39 modelled receptor locations, exceedances of the annual mean NO₂ objective have been predicted at nine receptors, and one further receptor had an annual mean predicted to be within 10% of the objective. As detailed below in Table 3.1 and Figure 3.1, the results of the source apportionment exercise present that across all modelled receptors the vehicular proportion of NO_x concentration is 63.3%, and this increases to 82.2% at the receptor with the maximum modelled concentration. Across both source

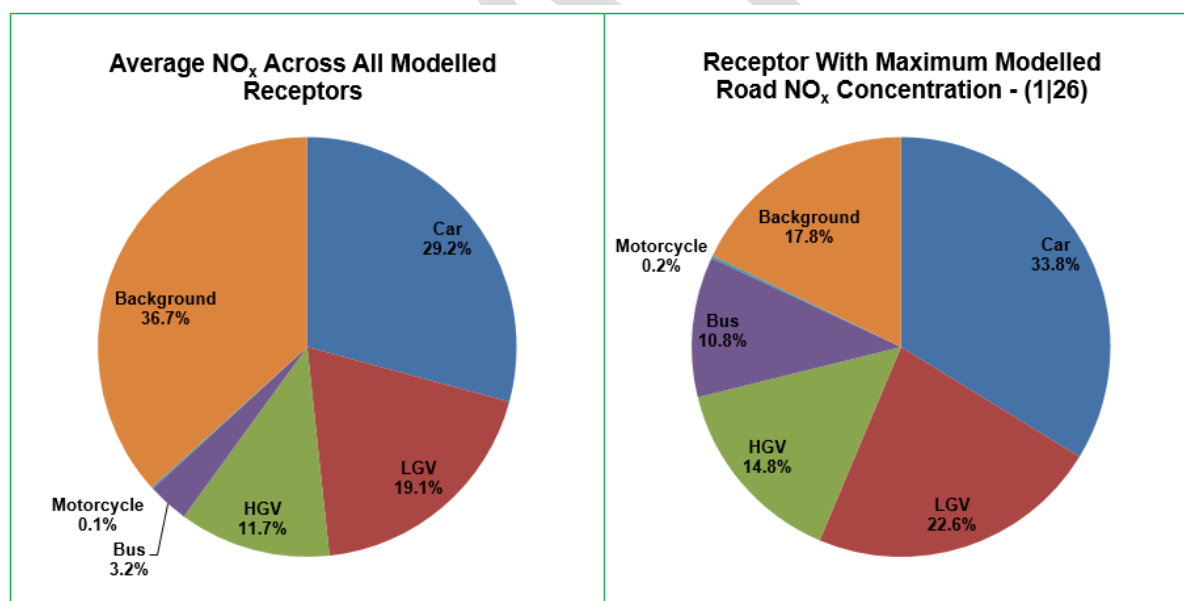
Tonbridge and Malling Borough Council

apportionment scenarios, the proportion of vehicular sources ranks high to low through cars, LGVs, HGVs, bus and coaches, and motorcycles.

Table 3.1 – Source Apportionment: M20 Air Quality Management Area

Metric	All Vehicles	Car	LGV	HGV	Bus & Coach	Motorcycle	Background
Average Across All Modelled Receptors							
NO_x Concentration (µg/m³)	37.2	17.2	11.2	6.9	1.9	0.1	21.5
Percentage of Total NO_x	63.3%	29.2%	19.1%	11.7%	3.2%	0.1%	36.7%
Percentage Contribution to Road NO_x	100.0%	46.1%	30.1%	18.5%	5.0%	0.2%	-
Receptor With Maximum Modelled Road NO_x Concentration (1 26)							
NO_x Concentration (µg/m³)	102.2	42.0	28.1	18.4	13.5	0.3	22.2
Percentage of Total NO_x	82.2%	33.8%	22.6%	14.8%	10.8%	0.2%	17.8%
Percentage Contribution to Road NO_x	100.0%	41.1%	27.5%	18.0%	13.2%	0.3%	-

Figure 3.1 – Source Apportionment: M20 Air Quality Management Area



3.3.2 Tonbridge High Street Air Quality Management Area (3)

For the Tonbridge High Street AQMA, of the 28 modelled receptors there were no exceedances of the annual mean NO₂ objective predicted within the AQMA, however the most recent monitoring concentrations published within the 2018 ASR presented locations with annual means within 10% of the objective. As detailed below in Table 3.2 and Figure 3.2, the results of the source apportionment exercise present that across all modelled receptors the vehicular proportion of NO_x concentration is 67.0%, and this increases to 80.3% at the receptor with the maximum modelled concentration. Across both source apportionment scenarios, the proportion of vehicular sources ranks high to low through cars, LGVs, bus and coaches, HGVs, and motorcycles.

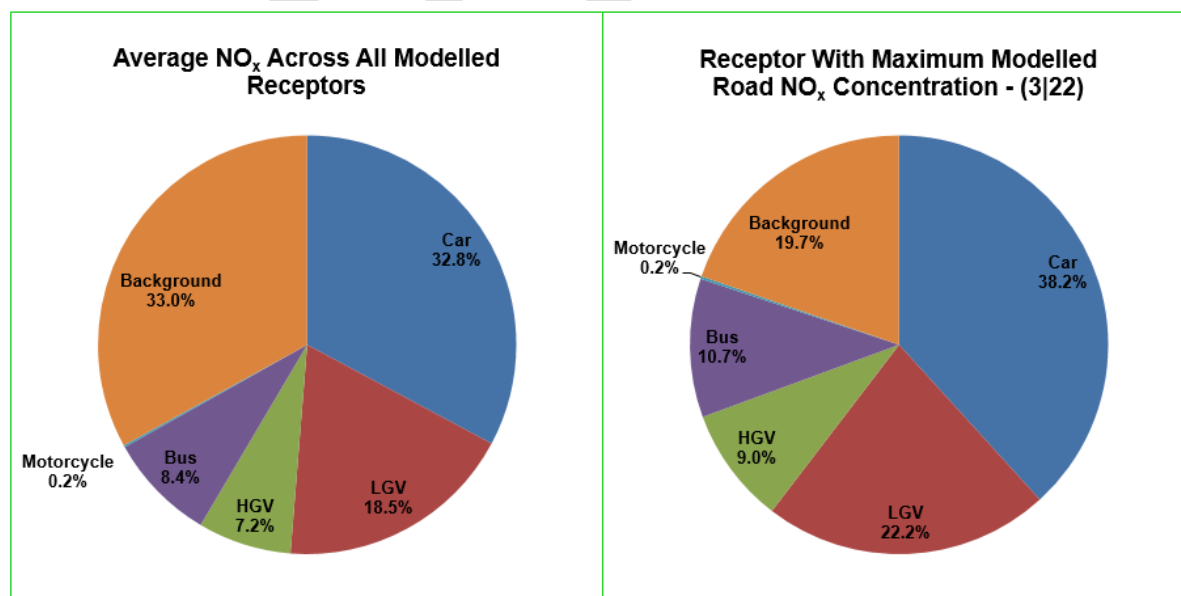
Tonbridge and Malling Borough Council

There is less of a proportion of HGVs compared to buses and coaches across both assessment scenarios. Tonbridge High Street would not be a through-fare route taken by HGVs, only service vehicles requiring to enter this area would travel along the High Street. In contrast there are a number of bus stops located along the length of the High Street with a number of different services travelling along this stretch.

Table 3.2 – Source Apportionment: Tonbridge High Street Air Quality Management Area

Metric	All Vehicles	Car	LGV	HGV	Bus & Coach	Motorcycle	Background
Average Across All Modelled Receptors							
NO_x Concentration (µg/m³)	32.2	15.8	8.9	3.5	4.0	0.1	15.9
Percentage of Total NO_x	67.0%	32.8%	18.5%	7.2%	8.4%	0.2%	33.0%
Percentage Contribution to Road NO_x	100.0%	49.0%	27.5%	10.8%	12.5%	0.2%	-
Receptor With Maximum Modelled Road NO_x Concentration (3 22)							
NO_x Concentration (µg/m³)	62.4	29.7	17.2	7.0	8.3	0.2	15.3
Percentage of Total NO_x	80.3%	38.2%	22.2%	9.0%	10.7%	0.2%	19.7%
Percentage Contribution to Road NO_x	100.0%	47.6%	27.6%	11.2%	13.3%	0.3%	-

Figure 3.2 – Source Apportionment: Tonbridge High Street Air Quality Management Area



3.3.3 Watlingbury Air Quality Management Area (4)

For the Watlingbury AQMA, of the 23 modelled receptor locations, an exceedance of the annual mean NO₂ objective has been predicted at one receptor within the existing AQMA, and a further receptor located close to the boundary of the AQMA had annual mean concentration predicted to be within 10% of the objective. As detailed below in Table 3.3 and

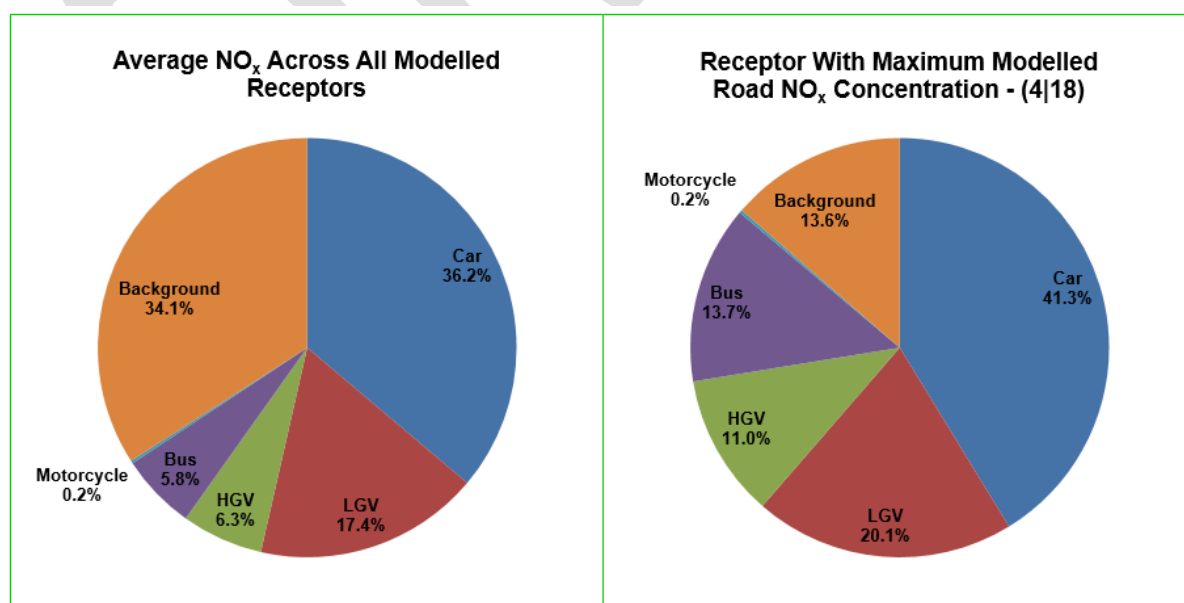
Figure 3.3, the results of the source apportionment exercise present that across all modelled receptors the vehicular proportion of NO_x concentration is 65.9%, and this increases to 86.4% at the receptor with the maximum modelled concentration. For the average of all modelled receptors, the proportion of vehicular sources ranks high to low through cars, LGVs, HGVs, bus and coaches, and motorcycles. But for the maximum NO_x concentration receptor the proportion from buses and coaches is greater than for HGVs.

Both the highest monitored and highest modelled concentrations are within the Watlingbury AQMA. The AQMA is very small in size and is due to traffic congestion at a single cross-junction at the centre of Watlingbury. This can be seen with the high proportion of NO_x concentration from cars (41.3% at the receptor with the maximum NO_x concentration), this is the highest singular vehicle proportion across all existing AQMAs.

Table 3.3 – Source Apportionment: Watlingbury Air Quality Management Area

Metric	All Vehicles	Car	LGV	HGV	Bus & Coach	Motorcycle	Background
Average Across All Modelled Receptors							
NO_x Concentration (µg/m³)	27.3	15.0	7.2	2.6	2.4	0.1	14.1
Percentage of Total NO_x	65.9%	36.2%	17.4%	6.3%	5.8%	0.2%	34.1%
Percentage Contribution to Road NO_x	100.0%	54.9%	26.4%	9.5%	8.9%	0.3%	-
Receptor With Maximum Modelled Road NO_x Concentration (4 18)							
NO_x Concentration (µg/m³)	89.9	43.0	21.0	11.5	14.3	0.2	14.2
Percentage of Total NO_x	86.4%	41.3%	20.1%	11.0%	13.7%	0.2%	13.6%
Percentage Contribution to Road NO_x	100.0%	47.8%	23.3%	12.8%	15.9%	0.3%	-

Figure 3.3 – Source Apportionment: Watlingbury Air Quality Management Area



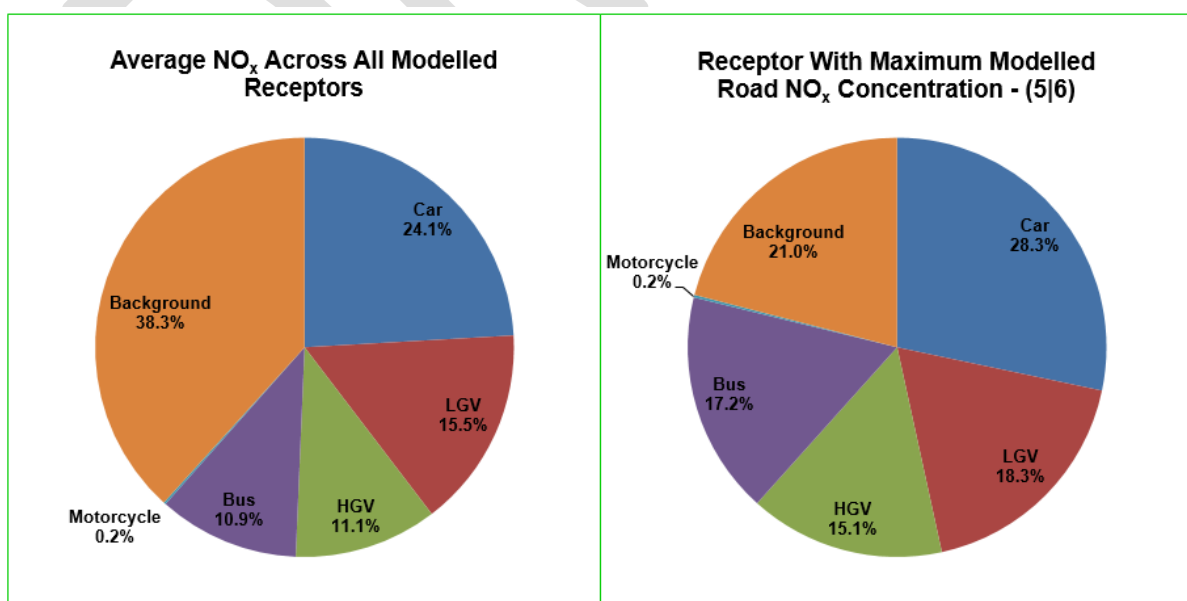
3.3.4 Aylesford Air Quality Management Area (5)

For the Aylesford AQMA, of the 16 modelled receptor locations, there was one predicted exceedance of the annual mean NO₂ objective, and one additional receptor predicted to be within 10% of the objective. As detailed below in Table 3.4 and Figure 3.4, the results of the source apportionment exercise present that across all modelled receptors the vehicular proportion of NO_x concentration is 61.7%, and this increases to 79.0% at the receptor with the maximum modelled concentration. For the average of all modelled receptors, the proportion of vehicular sources ranks high to low through cars, LGVs, HGVs, bus and coaches, and motorcycles. But for the maximum NO_x concentration receptor the proportion from buses and coaches is greater than for HGVs.

Table 3.4 – Source Apportionment: Aylesford Air Quality Management Area

Metric	All Vehicles	Car	LGV	HGV	Bus & Coach	Motorcycle	Background
Average Across All Modelled Receptors							
NO_x Concentration (µg/m³)	31.3	12.2	7.9	5.6	5.5	0.1	19.4
Percentage of Total NO_x	61.7%	24.1%	15.5%	11.1%	10.9%	0.2%	38.3%
Percentage Contribution to Road NO_x	100.0%	39.0%	25.1%	17.9%	17.6%	0.3%	-
Receptor With Maximum Modelled Road NO_x Concentration (5 6)							
NO_x Concentration (µg/m³)	72.6	26.0	16.8	13.9	15.8	0.2	19.3
Percentage of Total NO_x	79.0%	28.3%	18.3%	15.1%	17.2%	0.2%	21.0%
Percentage Contribution to Road NO_x	100.0%	35.8%	23.1%	19.1%	21.7%	0.3%	-

Figure 3.4 – Source Apportionment: Aylesford Air Quality Management Area



3.3.5 Larkfield Air Quality Management Area (6)

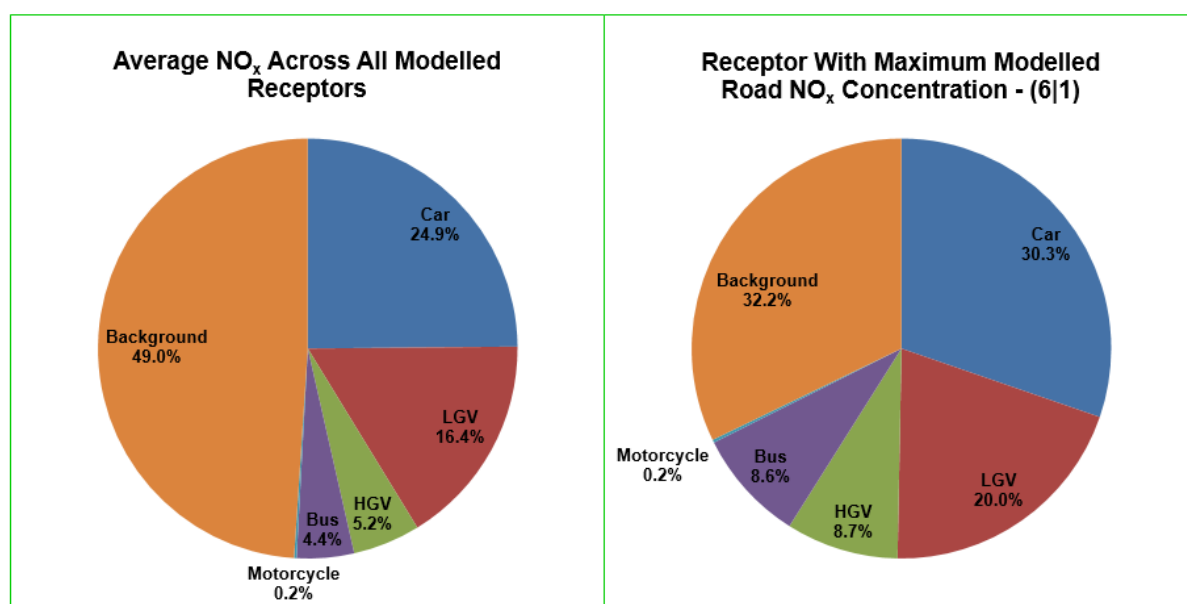
For the Larkfield AQMA, there continues to be a monitoring location (TN106) that exceeds the NO₂ annual mean objective but there were no receptor locations predicted to exceed the objective. As detailed below in Table 3.5 and Figure 3.5, the results of the source apportionment exercise present that across all modelled receptors the vehicular proportion of NO_x concentration is 51.0%, and this increases to 67.8% at the receptor with the maximum modelled concentration. Across both source apportionment scenarios, the proportion of vehicular sources ranks high to low through cars, LGVs, HGVs, bus and coaches, and motorcycles.

The proportion of NO_x concentration from background sources is higher within the Larkfield AQMA than for any other AQMA across both source apportionment scenarios. For all modelled receptors the proportions of vehicular sources and background sources are almost even (51.0% and 49.0%), background sources reduces to 32.2% at the maximum NO_x concentration receptor but this remains the highest proportion of background for these scenario across all of the AQMAs.

Table 3.5 – Source Apportionment: Larkfield Air Quality Management Area

Metric	All Vehicles	Car	LGV	HGV	Bus & Coach	Motorcycle	Background
Average Across All Modelled Receptors							
NO_x Concentration (µg/m³)	20.8	10.1	6.7	2.1	1.8	0.1	19.9
Percentage of Total NO_x	51.0%	24.9%	16.4%	5.2%	4.4%	0.2%	49.0%
Percentage Contribution to Road NO_x	100.0%	48.7%	32.1%	10.2%	8.6%	0.4%	-
Receptor With Maximum Modelled Road NO_x Concentration (6 1)							
NO_x Concentration (µg/m³)	41.6	18.6	12.3	5.3	5.3	0.1	19.7
Percentage of Total NO_x	67.8%	30.3%	20.0%	8.7%	8.6%	0.2%	32.2%
Percentage Contribution to Road NO_x	100.0%	44.7%	29.5%	12.8%	12.7%	0.3%	-

Figure 3.5 – Source Apportionment: Larkfield Air Quality Management Area



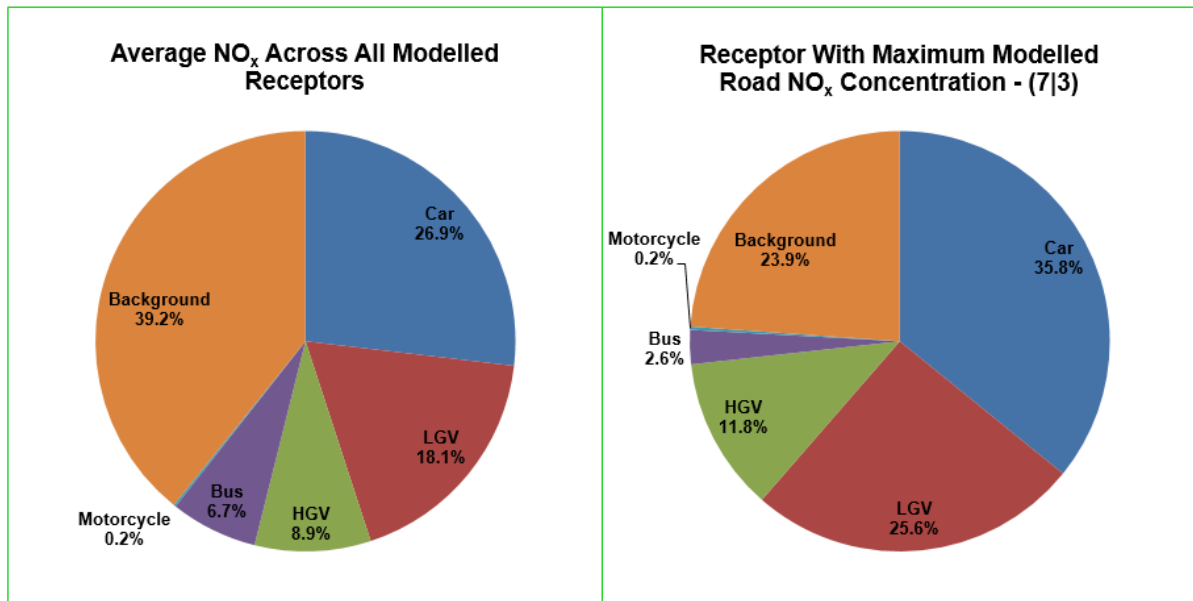
3.3.6 Borough Green Air Quality Management Area (7)

For the Borough Green AQMA, of the 49 modelled receptor locations, all receptor locations were predicted to be in compliance with the annual mean NO₂ objective, but there was one receptor predicted to have an annual mean to be within 10% of the objective. As detailed below in Table 3.6 and Figure 3.6, the results of the source apportionment exercise present that across all modelled receptors the vehicular proportion of NO_x concentration is 60.8%, and this increases to 76.1% at the receptor with the maximum modelled concentration. Across both source apportionment scenarios, the proportion of vehicular sources ranks high to low through cars, LGVs, HGVs, bus and coaches, and motorcycles.

Table 3.6 – Source Apportionment: Borough Green Air Quality Management Area

Metric	All Vehicles	Car	LGV	HGV	Bus & Coach	Motorcycle	Background
Average Across All Modelled Receptors							
NO_x Concentration (µg/m³)	26.4	11.7	7.9	3.9	2.9	0.1	17.1
Percentage of Total NO_x	60.8%	26.9%	18.1%	8.9%	6.7%	0.2%	39.2%
Percentage Contribution to Road NO_x	100.0%	44.2%	29.8%	14.7%	11.1%	0.3%	-
Receptor With Maximum Modelled Road NO_x Concentration (7 3)							
NO_x Concentration (µg/m³)	53.6	25.3	18.0	8.3	1.9	0.2	16.8
Percentage of Total NO_x	76.1%	35.8%	25.6%	11.8%	2.6%	0.2%	23.9%
Percentage Contribution to Road NO_x	100.0%	47.1%	33.6%	15.6%	3.5%	0.3%	-

Figure 3.6 – Source Apportionment: Borough Green Air Quality Management Area



3.3.7 All Air Quality Management Areas

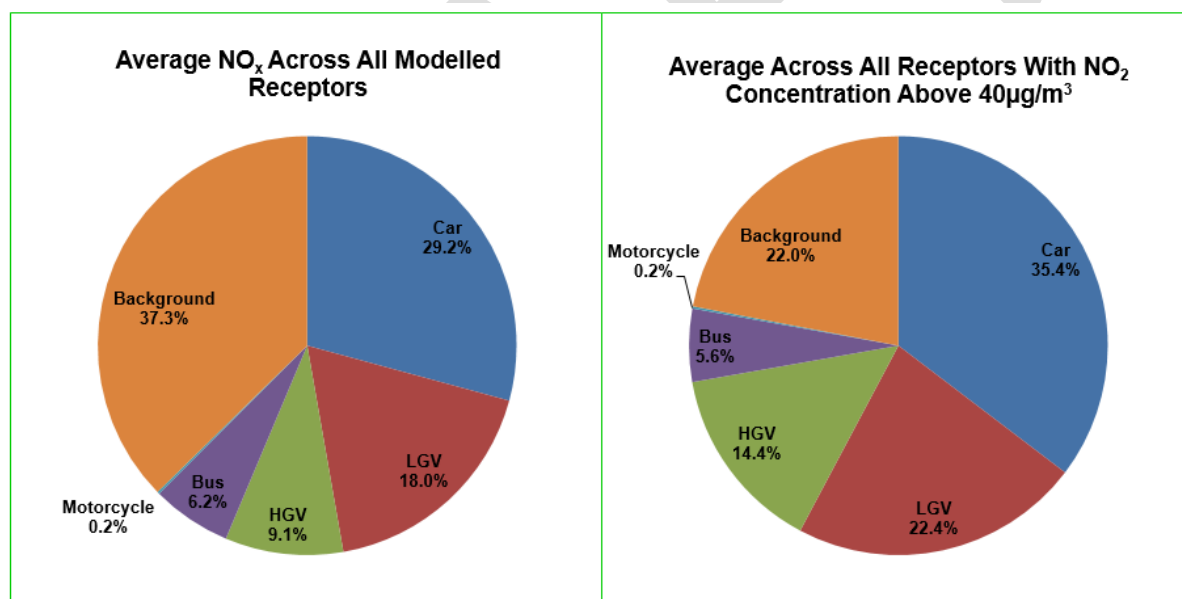
In addition to the source apportionment that has been completed within each of the six AQMAs, an assessment across all AQMAs has been compiled to better assess the source contributions of NO_x across the borough as a whole. As would be expected, due to the assessment of each AQMA, out of the vehicular sources it is the car proportion that is the highest, this is true both in terms of the average across all modelled receptors and for the average across receptors with a predicted NO₂ concentration greater than 40µg/m³.

When comparing all receptors to those with NO₂ concentrations greater than 40µg/m³ it can be seen that there is much less of a contribution from background, 37.3% compared to 22.0%. At the receptors that have been predicted to be in exceedance of the AQS annual mean objective close to 80% of the NO_x contribution is predicted to be from vehicular sources, with the highest proportion of the vehicular source to be from cars (35.4%).

The above emphasises that localised road traffic is contributing to the elevated concentrations recorded within the AQMAs, background pollutant concentrations within the AQMAs are exacerbated by road traffic emissions. It can be seen that cars and LGVs are contributing the most to NO_x concentrations, therefore there has been an emphasis upon these vehicular groups within the development of the action plan measures.

Table 3.7 – Source Apportionment: All Air Quality Management Areas

Metric	All Vehicles	Car	LGV	HGV	Bus	Motorcycle	Background
Average Across All Modelled Receptors							
NO_x Concentration (µg/m³)	30.1	14.0	8.6	4.4	3.0	0.1	17.9
Percentage of Total NO_x	62.7%	29.2%	18.0%	9.1%	6.2%	0.2%	37.3%
Percentage Contribution to Road NO_x	100.0%	46.6%	28.7%	14.5%	9.8%	0.3%	-
Average Across All Receptors With NO₂ Concentration Greater Than 40µg/m³							
NO_x Concentration (µg/m³)	71.5	32.4	20.5	13.2	5.2	0.2	20.1
Percentage of Total NO_x	78.0%	35.4%	22.4%	14.4%	5.6%	0.2%	22.0%
Percentage Contribution to Road NO_x	100.0%	45.3%	28.7%	18.5%	7.2%	0.2%	-

Figure 3.7 – Source Apportionment: All Air Quality Management Areas


3.3.8 Summary

The source apportionment assessment, completed individually in relation to each of the six designated AQMAs and in combination, has confirmed that the dominant source in regards to NO_x emissions across all of the designated AQMAs is from local road transport sources. In terms of the different vehicles that contribute to the overall vehicle NO_x source, although the specific percentages vary between each AQMA there is a clear trend for cars and LGVs contributing the highest proportion of NO_x emissions and motorbikes contributing the lowest. In terms of the car and LGV contribution, the majority of NO_x emissions are from diesel fuelled vehicles due to NO_x emissions being on average ten times higher from a diesel vehicle rather than a petrol vehicle. The proportion of HGVs and Buses and Coaches varies between AQMAs with HGVs provided a higher proportion within the M20 AQMA, and in

contrast Buses and Coaches providing a higher proportion within the Tonbridge High Street AQMA.

Based upon the findings from the source apportionment exercise, and from the nature of the existing AQMAs (designated to include / located close to strategic road links and / or traffic junctions), local traffic management and sustainable transport action plan measures may assist in reducing NO_x emissions, and subsequently NO₂ concentrations within the designated AQMAs and across the borough as a whole.

3.4 Required Reduction in Emissions

In line with the methodology presented in Box 7.6 of TG(16)⁷, the necessary reduction in Road NO_x emissions required to bring the each current AQMA into compliance is calculated below, as shown in Table 3.8. This has been completed at the maximum annual mean concentration location, either monitored or modelled, for each existing AQMA. The TG(16) procedure calculates the required reduction of road NO_x to achieve a total NO₂ concentration of 40µg/m³. To take into account possible uncertainties with dispersion modelling, and also the degree of potential inaccuracy with diffusion tube monitoring a figure of 36µg/m³ for total NO₂ concentration has been used instead (10% lower than the annual mean AQS objective). This has been used as a conservative conservation target to ensure that an AQMA is only revoked once NO₂ concentrations are confirmed to be below the AQS objective.

Table 3.8 – NO_x Reduction Required Within Each Air Quality Management Area

Metric	Air Quality Management Area					
	1	3	4	5	6	7
Maximum monitored/modelled NO₂ concentration (µg/m³)	51.6	39.0	58.1	46.5	42.0	39.6
Road NO_x Concentration (µg/m³)	83.2	57.9	110.2	45.9	59.4	57.7
Required Road NO_x Reduction (µg/m³)	38.6 (46.4%)	7.1 (12.2%)	64.3 (58.4%)	25.4 (35.6%)	14.2 (23.9%)	8.5 (14.7%)

3.5 Key Priorities

Based on the information presented with Section 3, and the conclusions drawn from this, there are a number of separate area of action than can be defined.

3.5.1 Priority 1: Transport

The main source of air pollution that has caused the declaration of the AQMAs across Tonbridge and Malling is associated with road transport emissions. Therefore, reducing transport emissions through the measures contained within the AQAP are a key priority. The approach taken focuses on areas where the Tonbridge and Malling has direct control (e.g. planning and procurement of out sourced functions), or areas where measures can be implemented via a partnership e.g. with Highways England (in terms of the M20 AQMA) and / or Kent County Council.

3.5.2 Priority 2: Planning and Infrastructure

The new Local Plan, through LP:20 and subsequent policies sets out the considerations that will be applied by Tonbridge and Malling Borough Council when considering all development proposals. The Council will work with developers and partner organisations to ensure the delivery of infrastructure, services and community facilities necessary to develop and

maintain sustainable communities, this is not just in terms of air quality but all relevant environmental aspects. Further Section 106 agreements are to be sought through developments to allow aspects of funding to be secured for future mitigation measures to be developed and implemented.

3.5.3 Priority 3: Policy Guidance

The existing strategies and policies currently adopted by Tonbridge and Malling Borough Council and by Kent County Council are key mechanisms for reducing emissions across the borough, most prevalent in terms of transport that has been identified as the main source of NO_x emissions and therefore NO₂ concentrations within the existing AQMAs. For effective reductions in NO_x emissions to be realised, in addition to the implementation of the measures outlined within the AQAP future revisions of Transport Plans, Freight Strategies, Climate Change Strategies, Cycle Strategies etc should all be completed with potential air quality impacts taken into account.

3.5.4 Priority 4: Public Health and Wellbeing

As discussed in further detail within Section 3.1, the impact of air pollution on public health is detrimental therefore improving air quality within the borough is a key priority. The main sources of air pollution in areas of public exposure within Tonbridge and Malling are from vehicle emissions from vehicles travelling on the road network within the borough. Aside from restricting vehicle usage through measures such as Clean Air Zones / Low Emission Zones, the most effective way to achieve a reduction in vehicle numbers is to change the attitudes / behaviour of the population towards travel. Tonbridge and Malling Borough Council are responsible for encouragement and facilitation of these changes through education and awareness as well as through schemes which incentivise change. Improving air pollution to ensure the health of the public is maintained requires a wide reaching perspective and will therefore not be specific to the AQMA but instead aim to have a wider impact across the borough.

3.5.5 Priority 5: Air Quality Monitoring

Currently, NO₂ is monitored across Tonbridge and Malling using passive diffusion tubes and a continuous monitoring station. Air quality monitoring is a useful way to continually assess the extent of the air pollution problem within Tonbridge and Malling. It also assists in quantifying the improvements that have materialised as a consequence of implementing measures to reduce emissions, and as an evidence base for AQMAs to be revoked.

4 Development and Implementation of Tonbridge and Malling's AQAP

4.1 Steering Group

A steering group was established at the start of the update process to drive forward the development of the new AQAP. The core aim of the steering group was to identify measures for inclusion within the AQAP that would be both effective in terms of reducing NO₂ concentrations and also would be feasible in terms of implementation and delivery.

The steering group is composed mainly of Tonbridge and Malling Council officers from those Services with an interest or potential impact on air quality and who may have an influence on the action measures being considered. Members included officers from Environmental Protection, Planning Services, Environmental Health, Housing Services and also representatives from Kent County Council in terms of Highways and an external consultant Bureau Veritas. The officers have, and continue to provide guidance in their respective areas of expertise to ensure selection, and continual evaluation of the most appropriate measures. Environmental Protection have taken the lead responsibility for the production, and any subsequent updates of the plan.

The first steering group meeting was held in December 2018 with subsequent meetings carried forward through 2019. The meetings included presentations and agendas covering an overview of the action planning process, the identification of the existing issues, with an assessment of the existing AQMAs and source apportionment exercise to inform all officers, followed by a period whereby the refinement of possible action measures was completed to those contained within the AQAP which have been agreed upon in terms of the most effective, feasible and cost-effective measures for Tonbridge and Malling Borough Council to pursue. In addition to the steering group meetings, separate individual meetings between Environmental Protection and officers from each department were also conducted in order to discuss measures in more depth.

It is thought that the steering group will continue to meet at regular intervals following the adoption of the AQAP. This is essential to provide progress reports on individual actions in relation to the AQAP measures, discuss any key lessons learnt from the continual implementation of the measures and to continue to discuss any new ideas in terms of future measures and actions within the borough.

4.2 Consultation and Stakeholder Engagement

In developing this AQAP, we have worked with other local authorities, agencies, businesses and the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in Table 4.1.

In addition, we have undertaken the following stakeholder engagement:

- E.g. website
- Articles in local newspaper
- Questionnaires distributed directly to households along major roads
- etc

The response to our consultation stakeholder engagement is given in Appendix A.

Table 4.1 – Consultation Undertaken

Yes/No	Consultee
TBC	Department of Environment, Farming and Rural Affairs
TBC	Environment Agency
TBC	Highways England
TBC	Tonbridge and Malling Borough Council
TBC	Kent County Council
TBC	Neighbouring Local Authorities
TBC	Local residents
TBC	Bodies representing local business interests and other organisations as appropriate

Following the statutory consultation completed.....

5 AQAP Measures

Throughout the development of the AQAP, a wide range of measures aimed at improving air quality within the six existing AQMAs and the wider borough have been considered. TG(16)⁷ states that AQAPs should be adapted to every local situation and most importantly are seen as part of an integrated package of measures, particularly in relation to linking with other key policy areas.

An evaluation of all possible measures was initially undertaken by the Environmental Protection team and other offices within the steering group to complete the refinement of measures, taking into consideration their local knowledge, the source apportionment results and existing local council policies. There were a number of measures that were considered, but not included within the AQAP. These measures, along with the reasons for non-inclusion within the AQAP are detailed within Appendix C.

Having undertaken this evaluation process, the resultant action measures contained within this AQAP are considered the most effective, feasible and cost-effective to pursue in terms of potential air quality improvements within the AQMAs and the wider borough. Given that road traffic has been identified as the principal source of NO_x emissions and therefore NO₂ concentrations within the AQMAs, the measures presented below focus on the promotion of low / zero emission transport, traffic management improvements and improved community awareness.

Table 5.1 presents the Tonbridge and Malling Borough Council AQAP measures, it contains the following:

- a list of the actions that form part of the plan;
- the responsible individual and departments/organisations who will deliver this action;
- 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; and
- how progress will be monitored.

The progress of the implementation of each measure, as per TG(16)⁷ will be reviewed annually, with details provided within subsequent ASRs completed following the implementation of the AQAP.

Table 5.1 – Air Quality Action Plan Measures

Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
Transport											
1	Establish/Join a Quality Bus Partnership to help upgrade Bus Fleet	Vehicle Fleet Efficiency	Promoting Low Emission Public Transport	TMBC	Bartholomew Wren / Steven Saxbee (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via the % of buses meeting a set EURO standard.	In areas of high bus usage, such as within the Tonbridge High Street AQMA an NO ₂ in conjunction with other measures a reduction of between 1 – 3µg/m ³ is to be aimed for.		2021 Yearly grants available so try to apply each year for a grant Related to grants if they are awarded	Establish or extend neighbouring QBP(s) to help drive up the quality and emissions performance of the local bus fleet. Engage with KCC public transport and neighbouring authorities. Pursue funding opportunities from DfT, Defra and elsewhere as appropriate. To make sure cleaner buses are used on all routes, especially those operating through AQMAs.
2	Review Taxi/Private Hire Vehicle Policy and license fees, implement a strategy to encourage a switch to low emission vehicles	Vehicle Fleet Efficiency	Fleet Efficiency and Recognition Schemes	TMBC	Katie Shipman / Anthony Garnet (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via the % of taxis and private hire vehicles meeting a set EURO standard. KPI could also be to have the review completed by a set date.	To be confirmed once full fleet information is available – use of the Emissions Factor Toolkit (EFT) to define NO _x emission reductions for changes within the fleet per annum.		2025 2030	Support the review of taxi licensing policy to include options to reduce the age of vehicles in use, and to complete a review of licensing fees to work towards increasing the uptake of ULEVs. All vehicles to be petrol hybrid Euro 5 or petrol and diesel euro 6 by 2025. By 2030 all vehicles to be zero or ultra low emissions such as electric or liquid petroleum gas
3	Explore opportunities to reduce emissions from local delivery HGV's/LGV's possibly through the formations of a Freight Quality Partnership	Freight and Delivery Management	Freight Partnerships for Town Centre Deliveries	TMBC	Steven Saxbee / Jeremy Whittaker (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via the % vehicles meeting a set EURO standard, and/or by the % of business participation in recognition schemes.	To be confirmed once fleet information is available – use of the EFT to define NO _x emission reductions for changes within a fleet.		2021 2021	Opportunities for sustainable urban freight deliveries at existing locations and for new developments, can also help promote recognition schemes such as ECO Stars. Through Kent Invicta Chamber of Commerce etc and on media / website If Locase is extended past march 2020 then businesses can get grant from KCC up to 40% of costs towards low carbon and greener fuels projects (max £20,000) Advertise this on media / website

Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
4	Develop and implement a borough-wide school transport scheme	Promoting Travel Alternatives	School Travel Plans	KCC	Relevant KCC officer/team to lead, Contact at TMBC to be Tamsin Ritchie	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPIs may include the following: % reduction of children travelling to school in cars % of children cycling or walking to school. Number of schools implementing individual school travel plans.	Measure has the potential to have a medium to high impact upon short term NO ₂ concentrations close to schools depending on the uptake of the schemes across the borough. On a borough wide scale a lesser impact upon on concentrations would be realised.		2022	Walking buses, action to focus on school run drop offs, feasibility of school start time variations.
										2020	Work closely with KCC in developing these travel plans and feasibility studies.
										2020	Bike Smart (Tonbridge) Tonbridge schools (secondary)
										2020	Anti-idling outside school gates. Signs Banners etc
										2021	Walk to school needs to start organising in Jan for sept role out.
										Yearly	Bike to school. Bike Week? dates?
5	Create Anti-idling zone at Tonbridge taxi rank Develop and enforce a borough wide anti-idling campaign	Traffic Management	Anti-Idling Enforcement	TMBC to lead but working closely with KCC Highways team where they have input	At TMBC, Katie Shipman / Anthony Garnet (Tonbridge taxi rank) Steven Saxbee (borough wide)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI measured via an annual review of the number of fixed penalty fines and number of complaints received. After an initial year of results the % change in penalty fines and complaints can be quantified.	Measure is more an awareness raising tool, however it is also a useful measure to prevent vehicles idling and causing congestion in specific locations, which is a significant cause of emissions.		2021	Borough-wide anti idling enforcement at taxi ranks, bus stops, and outside schools etc.
										2020	Social Media posts to encourage behavioural change. School case study to be chosen
6	Pilot a Car Club within the Council for individuals use in local communities	Promoting Travel Alternatives	Workplace Travel Planning	TMBC	Steven Saxbee / Jeremy Whittaker (TMBC)	Wateringbury, Aylesford, Larkfield	The introduction of pool cars can result in a reduction of approximately 20% in business mileage. KPI relating to usage at the Council can be measurements of reduction in annual mileage undertaken per team.	NO _x emission reduction achieved by the Council will be able to be calculated annually.		2020	Tunbridge Wells Borough Council operate a successful car club, to be contacted for information.
										2022	Car club campaigns, possibility to include advertising and sponsorship opportunities.
										2022	Contact Liberty at Kings Hill for setting up round the estate
										2020	Also advertise Kent Journey share (when covid restrictions lift)
7	Continue to explore traffic improvement options at Wateringbury crossroads, emphasis on looking at capacity and flow	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	KCC	Tim Middleton at KCC (with possible assistance from TMBC Technical Services)	Wateringbury	KPI to be formulated once option has been developed, to be based around vehicle turning counts and/or queuing statistics.	An improvement to the Wateringbury crossroads would aim to reduce NO ₂ concentrations by between 1 – 5µg/m ³ .		2024	Following the completion of a feasibility study a preferred option will be taken forward within Wateringbury.
8	Encourage companies to allow home working at least one day a week	Other	Via the internet and other mechanisms	TMBC	Jeremy Whittaker / Steven Saxbee (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Yearly surveys to companies for numbers of staff and number of days a week staff work at home	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 5µg/m ³ . Based on small uptake		To start in 2020 and be ongoing	To promote on website multimedia and targeted adds campaigns to local office based companies using momentum from for home working from Covid restrictions

Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
Planning and Infrastructure											
9	Explore the process for possible standardising Section 106 agreement funding from development for AQ improvements	Policy Guidance and Development Control	Other Policy	TMBC	Steven Saxbee / Emma Keefe (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI may be the total number of Section 106 agreements secure in terms of AQ funding per annum, or the total amount of funding secured per annum.	N/A		ongoing	Standardising the process for securing S106 agreements for AQ to be linked with planning department to ensure harmonious implementation. Conditions to be more specific in planning decisions regarding green energy, low emission vehicle and EV parking (policy compliant).
10	Installation of electric charging points within Council car parks throughout the borough	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	TMBC to lead with input from KCC	Andrew Young (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPI should include the number of EV charging points installed within the borough from a baseline year, and the number and % increase per annum.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ based upon a low to medium uptake.		2025 or sooner	Council car parks, TMBC funded with possible assistance from KCC OLEV could provide funding
11	Installation of green walls and increased vegetation across the borough	Other	Other	TMBC	Tamsin Ritchie /Steven Saxbee (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	The number of green walls / vegetation installed within the borough per annum.	N/A		2021 2021 2024 2021	Investigate areas like Wateringbury where results are close to hourly mean or increasing vegetation can made a difference Look into if grant funding is available To be installed as a physical barrier to increase distances between the road and pedestrians. See if can be done through planning applications
Public Information, Strategies and Policy Guidance											
12	Raise public awareness through the launch of a Travel Choices Campaign	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	TMBC to lead with assistance from KCC (see comments)	Tamsin Ritchie / Steven Saxbee (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Usage statistics for public transport across the borough per annum.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ .		2021 2021	Possibility of partnership with 'Step Ahead of the Rest' KCC Active travel programme. Social Media advertising. Community projects
13	Prepare a new Local Cycling and Walking Infrastructure plan (LCWIP)	Promoting Low Emission Transport	Promotion of cycling	TMBC working closely with KCC	Bartholomew Wren (TMBC)	Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	2021	Identify infrastructure improvements to support existing and new communities to walk and cycle more frequently, through the provision of a more joined up route network. Work with partners including KCC Highways and Public Rights of Way.		2021	Identify if there any specific routes that can be improved upon or require the introduction of new routes.

Measure Number	Measure	EU Category	EU Classification	Lead Authority	Lead officer	AQMA Covered	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
13b	Delivery of identified cycling and walking schemes	Promoting Low Emission Transport	Promotion of cycling	KCC	Relevant KCC officer/team	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	KPIs to include: Usage of rental schemes. Numbers of cycle to work schemes Implementation of new routes per annum. Obtain figures from use of new cycle hub and Tonbridge station	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ based upon a low to medium uptake.		2021-2030 ongoing ongoing	Following the completion of the LCWIP, the identified cycling and walking routes will be improved / new routes are to be introduced. In addition cycle to work schemes are to be encouraged and supported through local campaigns, events and planning negotiations. Active travel to be promoted in partnership with KCC – Kent Connected. Tie in with 11. Bike Smart Tonbridge. Bike Smart Malling (Wrotham School). Tie in with 11
14	Education and encouragement in terms of air quality across the borough: public workshops, leaflet campaigns, advertising, approaching schools, businesses, community centres	Public Information	Via leaflets and other mechanisms	TMBC	Tamsin Ritchie (TMBC)	M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Usage statistics for public transport and zero emission transport options (walking and cycling) across the borough per annum. Most of the individual parts to this measure can be developed immediately, again it may be beneficial to have a KPI relating to implementation time.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ .		2020 2021 Asses if needs to be repeated over 5 years 2021 2021	Available AQ information, current issues, what the council is doing paired with what the public can do as a bottom up approach. Provision of workshops, physical and digital leaflets, drop in sessions, dedicated phone-line etc. Social media visibility is a key element with potential to link to other KES/ELES communications. Community Champions / case studies
15	Implement an improved public transport information platform	Public Information	Via the internet and other mechanisms	KCC		M20, Tonbridge, Wateringbury, Aylesford, Larkfield, Borough Green	Usage statistics for public transport across the borough per annum.	Small impact upon NO ₂ concentrations from measure individually, estimated to be less than 1µg/m ³ .		2021 2021 2021	To include links to Kent connected app and options to download it on website. To include the provision of high quality accessible information on sustainable travel, also the promotion of public transport use to incentivise usage. All available information to be linked to 'smarter cities' initiative.

Appendix A: Maps of Current Air Quality Management Areas

Figure A.1 – M20 Air Quality Management Area

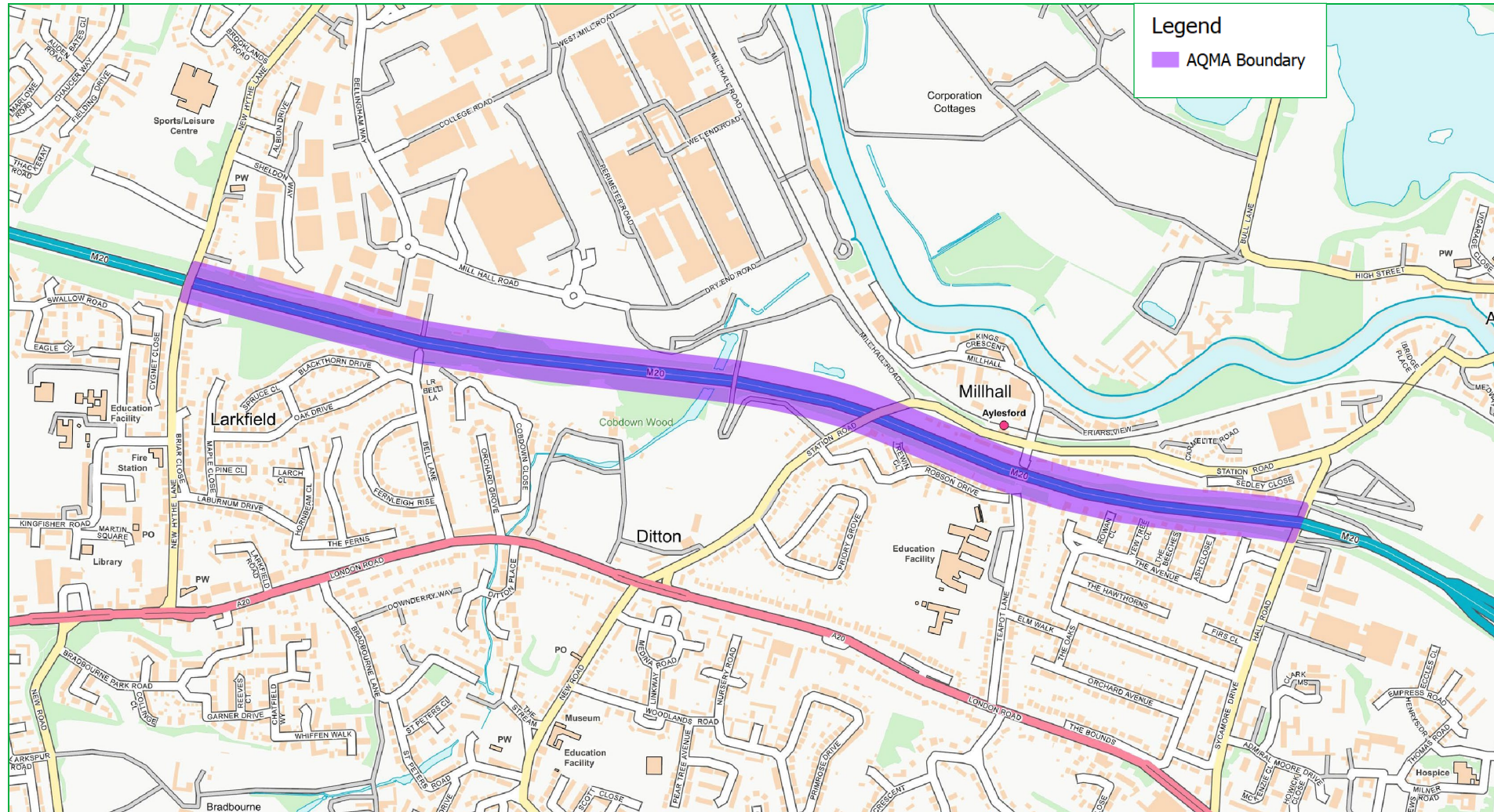


Figure A.2 – Tonbridge High Street Air Quality Management Area

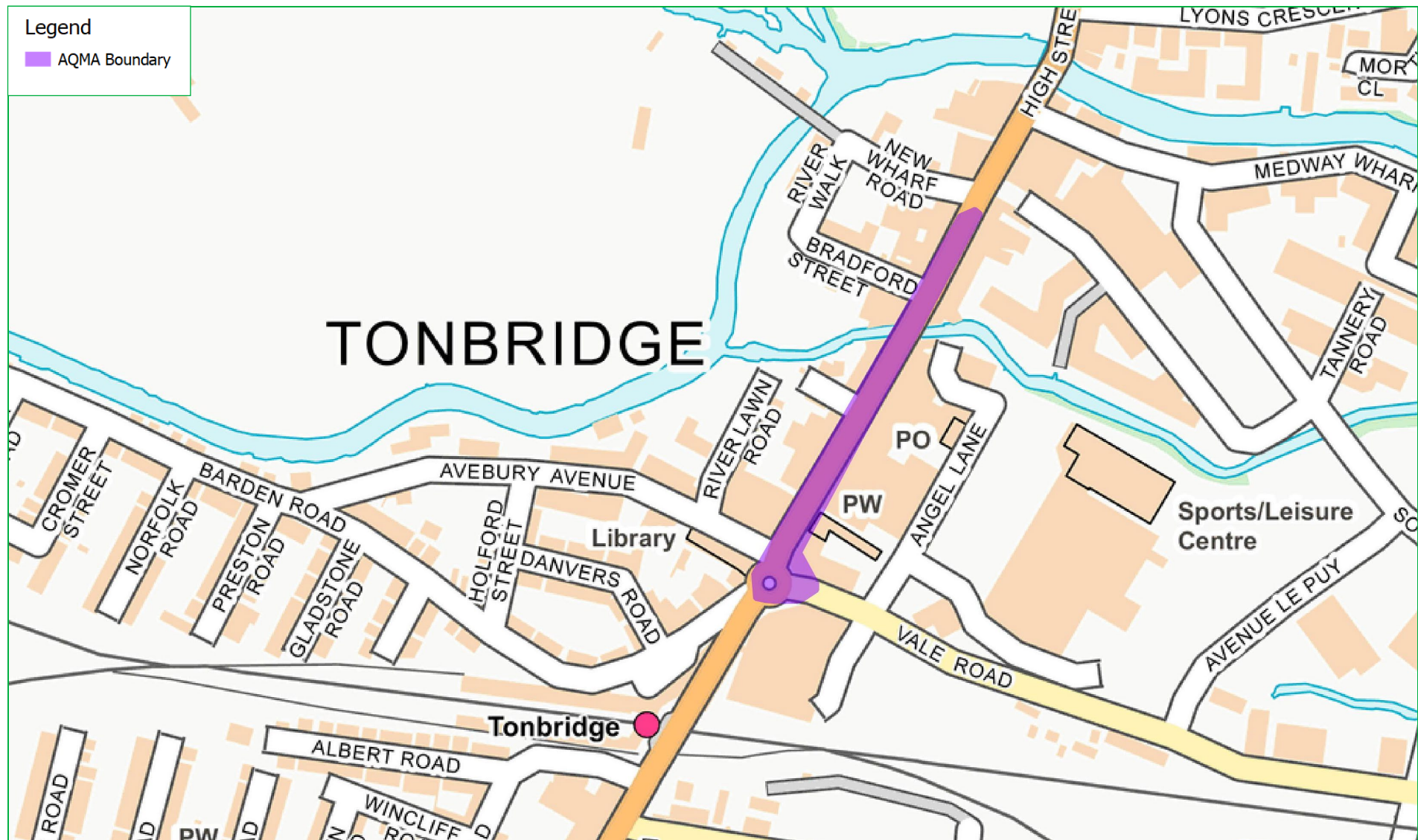


Figure A.3 – Watringbury Air Quality Management Area



Figure A.4 – Aylesford Air Quality Management Area (Amended)

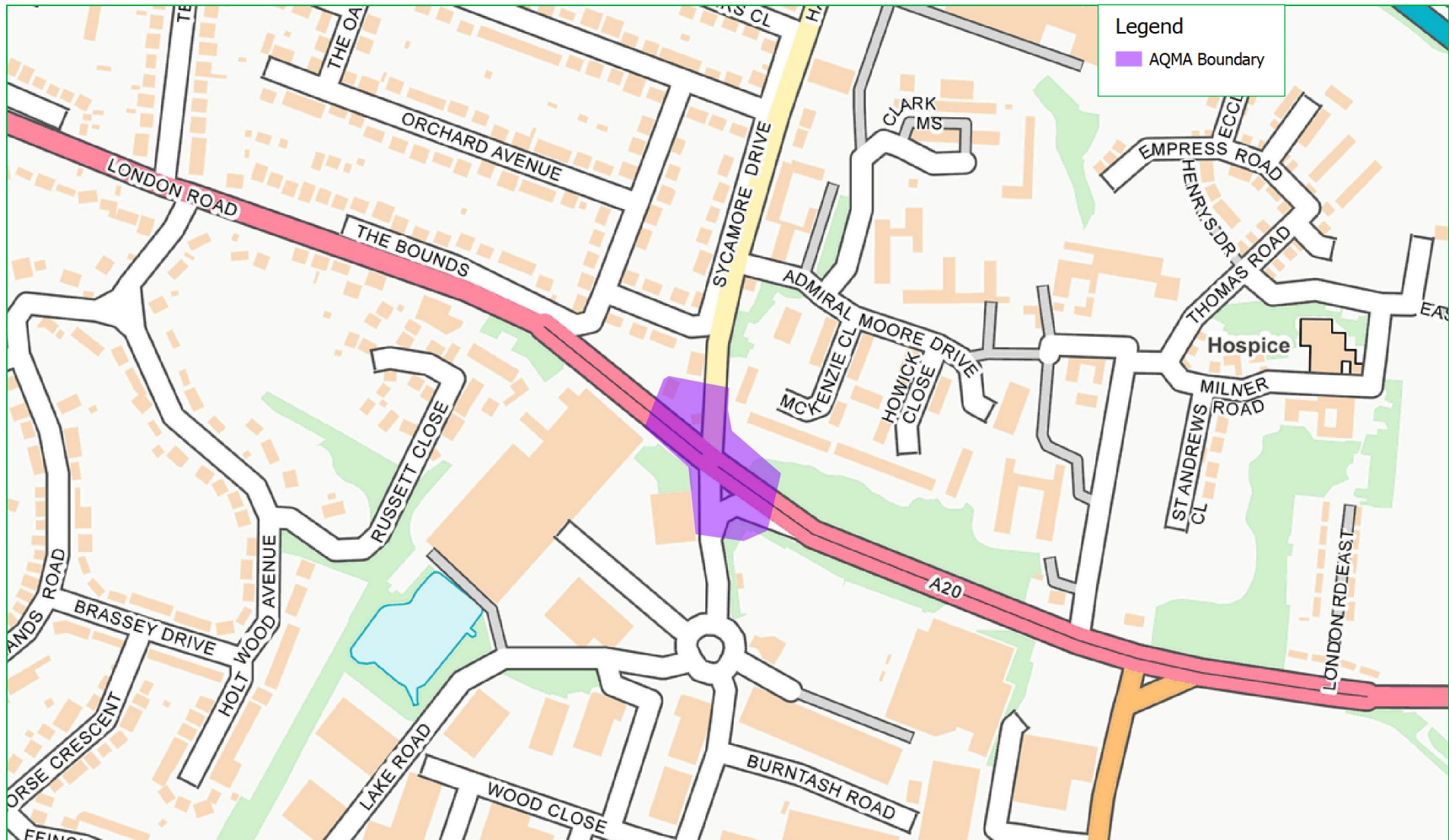


Figure A.5 – Larkfield Air Quality Management Area (Amended)

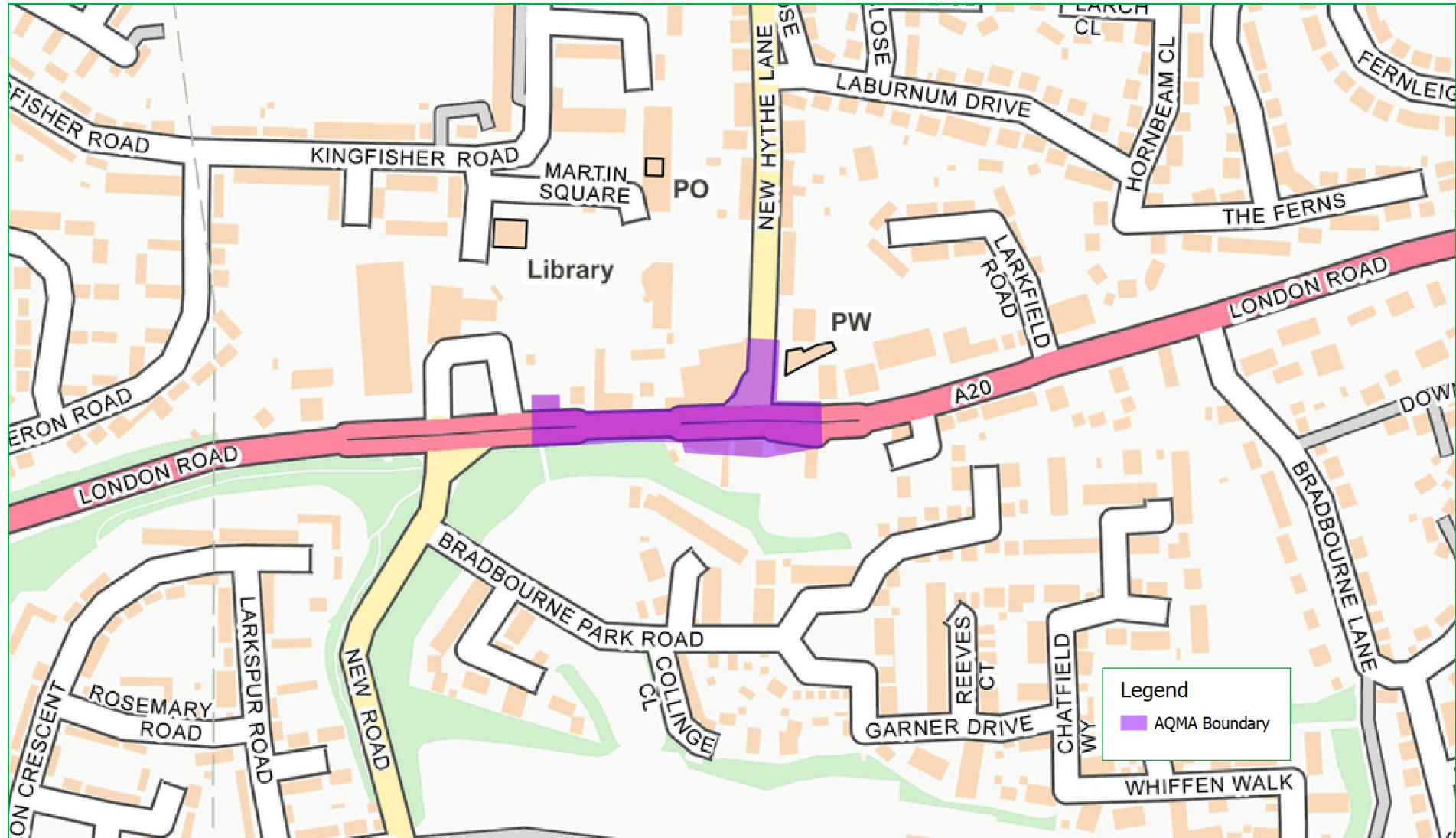
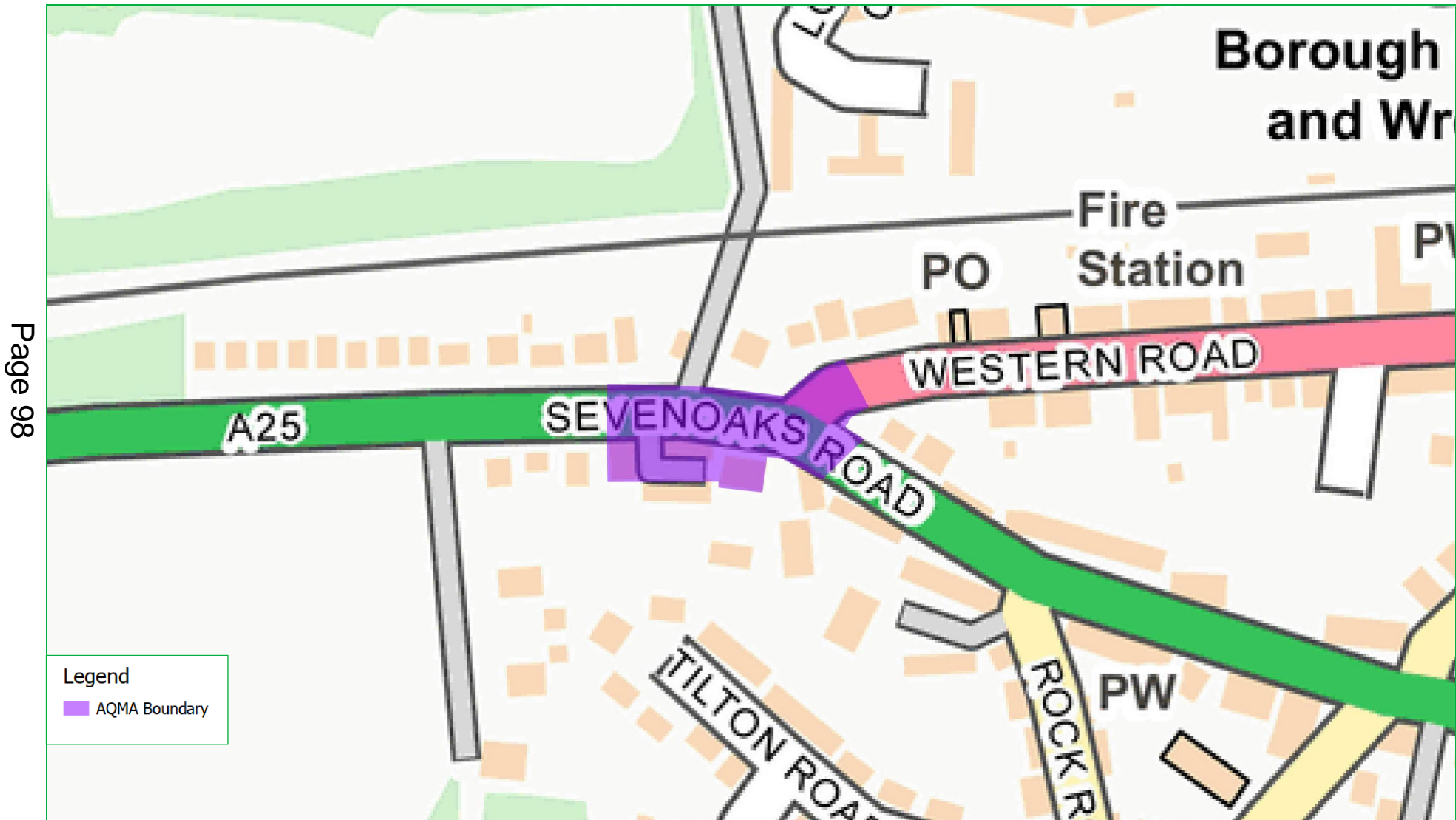


Figure A.6 – Borough Green Air Quality Management Area (Amended)



Appendix B: Response to Consultation

Table B.1 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response
e.g. Chamber of Commerce	Business	E.g. Disagree with plan to remove parking on High Street in favour of buses and cycles; consider it will harm business of members.

Appendix C: Reasons for Not Pursuing Action Plan Measures

Table C.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)
Traffic Management	Introduce permanent speed reduction zone on M20 (J3-5) on completion of smart motorway in 2020	Highways England Road – smart motorway has been implemented partly of AQ grounds – impact to be assessed before any further actions to be taken
Promoting Low Emission Transport	Council car fleet upgrades	
Promoting Low Emission Transport	Taxi scrappage/retrofit scheme to upgrade vehicles over 5 years' old	Scrappage scheme would have to be on a national scale to have intended impact
Vehicle Fleet Efficiency	Collaborative waste fleet upgrades across the county	Too many different operators?
Vehicle Fleet Efficiency	Pollution abatement equipment for local delivery HGVs/LGVs	
Vehicle Fleet Efficiency	Clean van commitment, review of delivery routes through AQMAs, LGV delivery consolidation	
Traffic Management	Restrictions on HGVs in AQMAs during Peak Periods/HGV's Routing	
Traffic Management	Smart' traffic lights within Watlingbury looking at capacity and flow, trying to improve flow	Other options to be looked at for Watlingbury junction
Promoting Low Emission Transport	Workplace parking levys - payments linked to vehicle emission standards?	
Traffic Management	Bus route amendments for AQMAs	
Promoting Travel Alternatives	Partial pedestrianisation of Tonbridge High Street	Unrealistic, only a slight reduction in NO ₂ concentrations required in Tonbridge
Policy Guidance and Development Control	Review the Kent and Medway Air Quality and Development Control Guidance; adapt to TMBC and adopt	
Promoting Travel Alternatives	Council and local businesses to promote a home working scheme to reduce car use	
Promoting Travel Alternatives	Encouragement of car sharing, campaign to reduce single occupancy trips	Public awareness campaign to be completed under measure 12

<Appendix C: Add Additional Appendices as Required>

INSTRUCTIONS

The Council should add additional supporting appendices as required.

For example, where the selection of AQAP measures has been supported by further studies, e.g. quantitative appraisal of action plan measures through dispersion modelling, or other feasibility studies, this work should be included here.

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
CAZ	Clean Air Zone
COMEAP	The Committee on the Medical Effects of Air Pollution
Defra	Department for Environment, Food and Rural Affairs
EA	Environment Agency
HGV	Heavy Goods Vehicle
EU	European Union
KCC	Kent County Council
LAQM	Local Air Quality Management
LGV	Light Goods Vehicle
NO ₂	Nitrogen Dioxide
PCM	Pollution Climate Mapping
NO _x	Nitrogen Oxides
PHE	Public Health England
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less



AQMA Technical Note

Tonbridge and Malling Borough Council AQMA Review

November 2019

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Document Control Sheet

Identification	
Client	Tonbridge and Malling Borough Council
Document Title	Technical Note: AQMA Review
Bureau Veritas Ref No.	AIR6481565_V3.0

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Configuration				
Version	Date	Author	Reason for Issue/Summary of Changes	Status
1.0	13/08/19	P Bentley	-	Initial draft
2.0	07/10/19	P Bentley	Draft following initial comments	Draft
3.0	11/11/19	P Bentley	Amends follow client comments	Final

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Executive Summary

Bureau Veritas have been commissioned by Tonbridge and Malling Borough Council to complete a review of the Council's existing Air Quality Management Areas (AQMAs) to help inform a new Air Quality Action Plan (AQAP). The Council currently have seven AQMAs, all of which have been declared in relation to traffic emissions; six of the AQMAs have been designated for exceedances of the NO₂ annual mean Air Quality Strategy objective, whereas the M20 AQMA has been declared due to exceedances of both the NO₂ annual mean and the PM₁₀ 24-hour mean AQS objectives.

A dispersion modelling assessment has been completed whereby NO₂ and PM₁₀ concentrations have been predicted across all relevant areas within the borough at both specific receptor locations, and across a number of gridded areas to allow the production of concentration isopleths. This has been used to supplement local monitoring data to provide a clear picture of the pollutant conditions within the borough.

Following the completion of the analysis of both monitoring data and modelled concentrations across all of the assessed area a number of recommendations have been made in terms of the AQMAs within Tonbridge and Malling:

- M20 AQMA (1) – A revocation of the AQMA in terms of the 24-hour PM₁₀ objective, and for the annual mean NO₂ designation to remain in force;
- Ditton AQMA (2) – A revocation of the AQMA;
- Tonbridge High Street AQMA (3) – The AQMA to remain in place based upon current monitoring results, with the designation to be reviewed based upon future monitoring data;
- Watlington AQMA (4) – The AQMA to remain in place based upon monitoring and modelled results;
- Aylesford AQMA (5) – A revision of the AQMA boundary based upon both monitored and modelled concentrations;
- Larkfield AQMA (6) – A revision of the AQMA boundary based upon both monitored and modelled concentrations; and
- Borough Green AQMA (7) – A revision of the AQMA boundary based upon both monitored and modelled concentrations.

The next steps upon completion of this Technical Note are to develop, through consideration of merit, a defined set of achievable measures to be drawn forward into the revised action plan document.

1 Introduction

Bureau Veritas have been commissioned by Tonbridge and Malling Borough Council (“the Council”) to complete a review of the Council’s existing Air Quality Management Areas (AQMA) to help inform a new Air Quality Action Plan (AQAP). The Council’s current draft AQAP was published in 2011, and the details presented within this Technical Note are to be used to develop an updated AQAP.

The Council currently have seven AQMAs. All of which are related to traffic emissions; six of the AQMAs have been designated for exceedances of the NO₂ annual mean Air Quality Strategy (AQS) objective, whereas the M20 AQMA has been declared due to exceedances of both the NO₂ annual mean and the PM₁₀ 24-hour mean AQS objectives. Details of the AQMAs are as follows:

- M20 AQMA (1) – An area extending 39m from the centreline along the M20 motorway between the points where it passes below New Hythe Lane, Larkfield to the west and where it crosses Hall Road, Aylesford to the east;
- Ditton AQMA (2) – An area incorporating the Station Road/London Road A20 crossroads in the Parish of Ditton;
- Tonbridge High Street AQMA (3) – An area incorporating the High Street between Botany and the High Street/Vale Road roundabout, Tonbridge;
- Watlingbury AQMA (4) – An area incorporating the Red Hill/Tonbridge Road A26 crossroads in the Parish of Watlingbury;
- Aylesford AQMA (5) – An area encompassing the A20 London Road in Aylesford, including the junction with Hall Road and Mills Road;
- Larkfield AQMA (6) – An area encompassing the A20 London Road in East Malling, Larkfield and Ditton, including the junction with New Hythe Lane; and
- Borough Green AQMA (7) – Parts of Sevenoaks Road A25, Western Road and the High Street in Borough Green.

1.1 Scope of Report

This Technical Note seeks, with reasonably certainty, to predict the magnitude and geographical extent of any exceedances of the AQS objectives, providing the Council with updated modelling data that can be utilised for the development and/or updates to AQAP measures.

The areas considered as part of this study are illustrated in the figures shown under each AQMA heading within this report. The following are the main objectives of this report:

- To assess the air quality at selected locations (“receptors”) at the façades of existing residential units, representative of worst-case exposure within, and close to the existing AQMA boundaries, based on modelling of emissions from road traffic on the local road network;
- To determine the geographical extent of any potential exceedance of the annual mean AQS objective for NO₂, and in regards to the M20 AQMA the 24-hour AQS objective for PM₁₀;
- To determine the relative contributions of various source types to the overall pollutant concentrations through the completion of a source apportionment study; and

- To put forward recommendations as to the extent of any changes to the current AQMA boundary, and any changes to the declaration of the specific AQMAs.

The approach adopted in this assessment to assess the impact of road traffic emissions on air quality utilised the atmospheric dispersion model ADMS-Roads version 4.1.1, focusing on emissions of oxides of nitrogen (NO_x), which comprise of nitric oxide (NO) and NO₂, and also on PM₁₀.

In order to provide consistency with the Council's own work on air quality, the guiding principles for air quality assessments as set out in the latest guidance and tools provided by Defra for air quality assessment (LAQM.TG(16)¹) have been used.

All figures presented within this Technical Note are not to scale and contain Ordnance Survey Data © Crown Copyright and database right 2019. Ordnance Survey 100049046.

¹ Local Air Quality Management Technical Guidance LAQM.TG(16). April 2016. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.

2 Assessment Methodology

To predict pollutant concentrations of road traffic emissions the atmospheric model ADMS Roads version 4.1.1 was utilised, with the approach used based upon the following:

- Prediction of NO₂ and PM₁₀ (where relevant) concentrations to which existing receptors may be exposed and comparison with the relevant AQS objectives;
- Quantification of relative NO₂ contribution of sources to overall NO₂ pollutant concentration; and
- Determination of the geographical extent of any potential exceedances in regards to the existing AQMA boundaries and proposed boundary changes stated in the previous assessment.

Pollutant concentrations have been predicted within a baseyear of 2018, with model inputs relevant to the assessment based upon the same year.

2.1 Traffic Inputs

Traffic flows for the road links included within the model have been taken from two sources; Kent County Council data presented within the Councils Local Plan Transport Assessment², and the remaining links from the DfT traffic count online resource³. Where relevant traffic flows for years preceding 2018 have been used, the data has been factored up to 2018 a factor derived from TEMPro Version 7.2.

Traffic speeds were modelled at the relevant speed limit for each road. However, in accordance with LAQM.TG(16)¹, where appropriate, traffic speeds have been reduced to simulate queues at junctions, traffic lights and other locations where queues or slower traffic are known to occur.

The Emissions Factors Toolkit (EFT) version 9.0⁴ developed by Bureau Veritas on behalf of Defra has been used to determine vehicle emission factors for input into the ADMS-Roads model. The emission factors are based upon the traffic data inputs used within the assessment.

2.2 General Model Inputs

A site surface roughness value of 0.5m was entered into the ADMS-roads model, consistent with the suburban nature of the modelled domain.

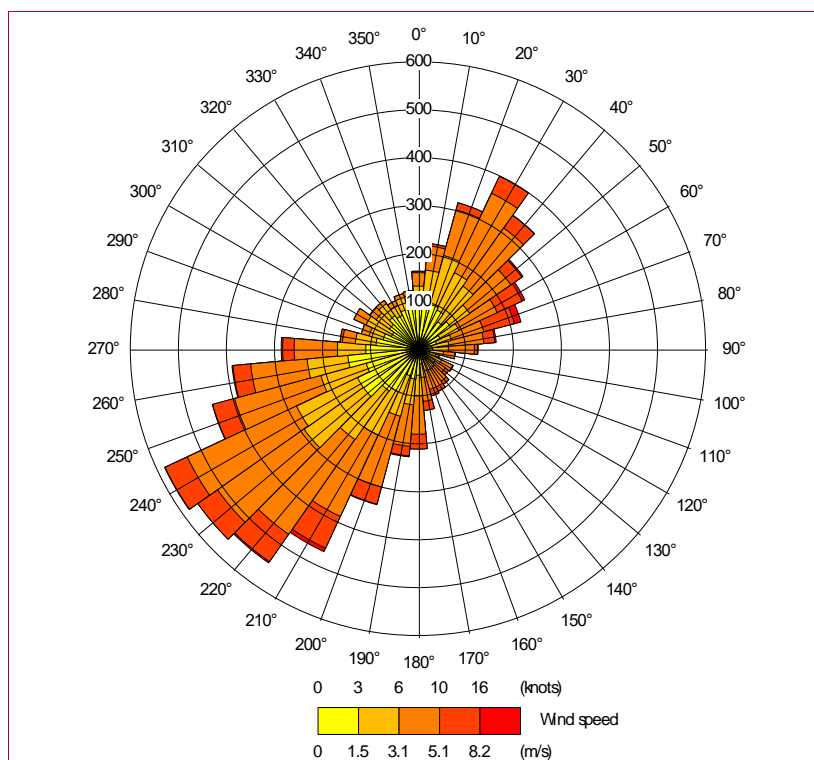
One year of hourly sequential meteorological data from a representative synoptic station is required by the dispersion model. 2018 meteorological data from Charlwood weather station, has been used in this assessment. A wind rose for this site for the year 2018 is presented in Figure 2.1.

² Mott MacDonald, Tonbridge and Malling Local Plan, Transport Assessment (2018)

³ Department for Transport, Traffic distribution by time of day on all roads in Great Britain (2019), available at <https://www.gov.uk/government/collections/road-traffic-statistics>

⁴ Defra, Emissions Factors Toolkit (2019). <http://laqm.defra.gov.uk/review-and-assessment/tools/emissions-factors-toolkit.html>

Figure 2.1 – Wind Rose for Charlwood 2018 Meteorological Data 2018



2.3 Sensitive Receptors

180 specific receptors were included within the assessment to represent locations of relevant exposure, the locations were identified through the completion of a desktop study and through consultation with the Council. In addition concentrations were also modelled across regular gridded area's set across the individual AQMAs within the model domain at a receptor height of 1.5m (plus at 3m for AQMA 3). These were supplemented with additional receptor points added close to the modelled road links, using the intelligent gridding tool in ADMS-Roads.

The majority of the receptors (162) were included at a height of 1.5m to represent ground level exposure, whereas 18 receptors were included at increased heights of 3m or 5m at various locations to represent exposure at buildings with residential use at a first storey level. The receptors at a height of greater than 1.5m are all located within AQMA 3 where there is residential exposure located above ground floor commercial usage along Tonbridge High Street.

2.4 Model Outputs

Background pollutant values derived from the Defra background maps database⁵ have been used in conjunction with the concentrations predicted by the ADMS-Roads model to calculate predicted total annual mean concentrations of NO_x.

For the prediction of annual mean NO₂ concentrations for the modelled scenarios, the output of the ADMS-Roads model for road NO_x contributions has been converted to total NO₂ following the methodology in LAQM.TG(16)1, using the NO_x to NO₂ conversion tool developed on behalf of Defra. This tool also utilises the total background NO_x and NO₂ concentrations. This assessment has utilised version 7.1 of the NO_x to NO₂ conversion tool⁶. The road contribution is then added to the appropriate NO₂ background concentration value to obtain an overall total NO₂ concentration.

⁵ Defra Background Maps (2019), <http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>

⁶ Defra NO_x to NO₂ Calculator (2019), available at <https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxNO2calc>

In addition to the calculation of total NO₂ annual mean concentrations, source apportionment was also carried out split between the following vehicle classes, for both NO_x and NO₂:

- Cars;
- Light-Goods Vehicles (LGVs);
- Heavy-Goods Vehicles (HGVs);
- Bus and Coaches; and
- Motorcycles.

Verification of the ADMS-Roads assessment has been undertaken using a number of local authority diffusion tube monitoring locations in accordance with the methodology detailed within LAQM.TG(16)¹. Due to the spatial variance of the AQMA's across Tonbridge and Malling, separate verification has been completed for a number of different areas to take into account local monitoring results and specific local conditions. All NO₂ results presented in the assessment are those calculated following the process of model verification, using the following NO_x verification factors:

- AQMA 1, 2, 5 and 6 – 1.827;
- AQMA 3 – 2.461;
- AQMA 4 – 5.684; and
- AQMA 7 – 2.334.

For the prediction of short term PM₁₀ within the assessment of AQMA 1, LAQM.TG(16)¹ provides an empirical relationship between the annual mean and the number of exceedances of the 24-hour mean AQS objective for PM₁₀ that can be calculated as follows:

$$\text{Number of 24 hour Mean Exceedances} = -18.5 + 0.00145 * \text{annual mean}^3 + \frac{206}{\text{annual mean}}$$

This relationship has thus been adopted to determine whether exceedances of the short-term PM₁₀ AQS objective are likely in this assessment, with annual mean PM₁₀ results derived by combining the modelled road contributions with the relevant background annual mean PM₁₀ concentrations. As with the modelled road NO_x emissions, the modelled PM₁₀ road emissions have had a verification factor applied to them. There are no PM₁₀ monitoring sites within Tonbridge and Malling, therefore as per LAQM.TG(16)¹ guidance the relevant NO_x verification factor has been used (1.827).

3 Modelling Results

The following section provides a detailed assessment for each AQMA, comparing monitoring completed within the AQMA over a five year period with the modelled concentrations of annual mean NO₂, and in reference to AQMA 1, 24-hour PM₁₀ concentrations. Details of each monitoring location, and monitoring results have been taken from the 2019 Annual Status Report⁷ completed by the Council. For each AQMA, recommendations have been put forward in terms of the current determination of the specific AQMA, in relation to potential changes to the designation or boundary.

Within the tabulated presentation of results for each AQMA any exceedances of the annual mean AQS objective of 40µg/m³ have been highlighted in red, and where the predicted annual mean is within 10% of the annual mean objective (36µg/m³) this has been highlighted in orange. Annual mean concentrations that are within 10% of the objective have been highlighted as a precautionary procedure, this is to ensure that for any recommendations made in terms of AQMA designation and revocation an element of uncertainty has been taken into account in regards to the predicted modelling concentrations.

3.1 AQMA 1 – M20

3.1.1 Council Monitoring Data

AQMA 1 is currently designated for both concentrations of annual mean NO₂ and 24-hour PM₁₀, and the current boundary incorporates a large section of the M20 between Larkfield and Aylesford. Currently there are nine diffusion tubes monitoring annual mean NO₂ located within the AQMA's modelled area, but there is not any PM₁₀ monitoring located within the AQMA. The current monitoring diffusion tube sites both within, and located close to the AQMA are presented in Figure 3.1, and results for the previous five years are detailed in Table 3.1.

It can be seen that there have not been any exceedances of the annual mean NO₂ AQS objective within, or close to the AQMA for the past five years. The highest concentration recorded in 2018 was 34.9µg/m³ at TN5, which since its inception in 2016 has recorded the highest annual mean concentration for the past three years.

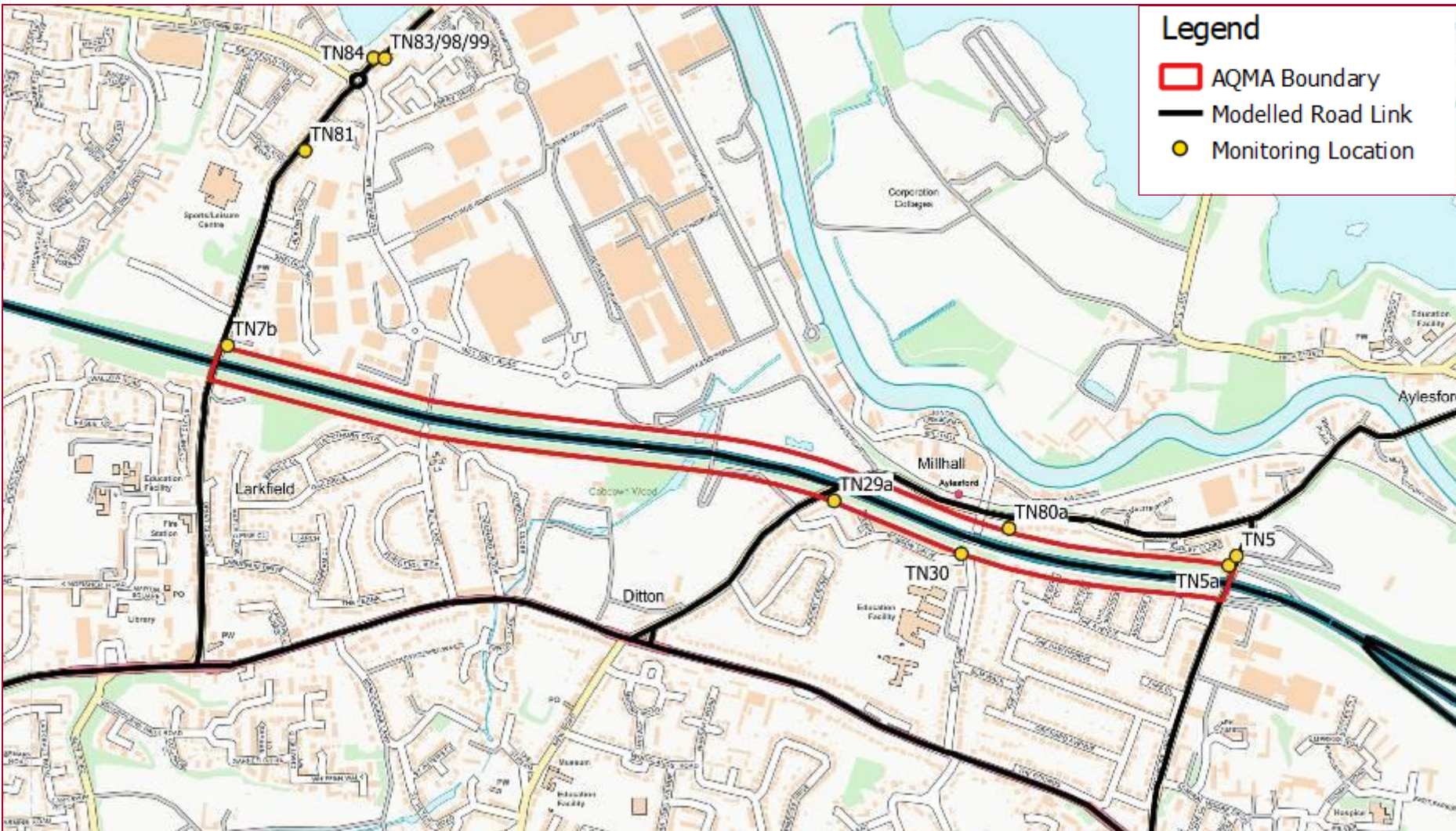
Table 3.1 – Passive NO₂ Monitoring Within, and Close to AQMA 1

Site	Site Type	OS Grid Ref X	OS Grid Ref Y	Distance to Road (m)	Located In AQMA	Annual Mean NO ₂ Concentration (µg/m ³) ¹				
						2014	2015	2016	2017	2018
TN5	R	572628	158566	4.85	YES	-	-	38.1	38.8	34.9
TN7b	R	570391	159032	33.3	YES	-	-	38.0	36.7	31.5
TN80a	R	572124	158627	35.8	YES	38.8	35.1	34.4	35.4	30.2
TN5a	R	572611	158545	26.7	YES	37.1	35.5	34.5	34.1	30.1
TN30	R	572018	158571	22	YES	28.3	29.3	29.7	26.7	25.5
TN29a	R	571736	158688	22.4	YES	24.9	25.4	28.0	25.2	24.1
TN83, 98, 99	R	570740	159667	4.1	NO	38.2	34.3	35.8	35.9	33.1
TN84	R	570715	159668	7.4	NO	31.1	30.0	29.9	29.6	26.7
TN81	R	570563	159463	5.4	NO	33.7	29.7	31.2	28.8	28.4

In **bold**, exceedance of the annual mean NO₂ AQS objective of 40µg/m³
R= Roadside
Details of diffusion tubes and results taken from the 2019 Tonbridge and Malling ASR

⁷ Tonbridge and Malling District Council, 2019 Annual Status Report (2019).

Figure 3.1 – AQMA 1, Modelled Roads and Monitoring Locations



3.1.2 Annual Mean NO₂

Table 3.2 provides the modelled annual mean NO₂ concentrations predicted at existing residential receptor locations for 2018. Of the 39 modelled receptor locations, exceedances of the annual mean NO₂ objective have been predicted at nine receptors, and one further receptor had an annual mean predicted to be within 10% of the AQS objective. From the annual mean NO₂ concentration isopleths presented in Figure 3.3-3.5, it can be seen that the extent of the predicted exceedances of the annual mean objective are similar to the existing AQMA boundary.

Table 3.2 – AQMA 1, Summary of Modelled Receptor Results (NO₂)

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective (µg/m ³)	2018 Annual Mean NO ₂ (µg/m ³)	% of AQS objective
1 1	572517	158317	1.5	40	24.0	60.0%
1 2	572556	158400	1.5	40	27.7	69.2%
1 3	572130	158620	1.5	40	44.8	112.0%
1 4	571855	158712	1.5	40	50.4	126.1%
1 5	571742	158690	1.5	40	42.9	107.1%
1 6	571578	158632	1.5	40	24.6	61.4%
1 7	570320	158789	1.5	40	24.5	61.2%
1 8	570500	159382	1.5	40	30.7	76.8%
1 9	570640	159555	1.5	40	29.3	73.2%
1 10	570712	159684	1.5	40	24.2	60.6%
1 11	569534	159194	1.5	40	34.4	86.1%
1 12	569736	159233	1.5	40	38.3	95.8%
1 13	570016	159139	1.5	40	41.3	103.2%
1 14	572930	158854	1.5	40	23.3	58.4%
1 15	572854	158803	1.5	40	28.3	70.8%
1 16	572720	158703	1.5	40	24.3	60.6%
1 17	572519	158603	1.5	40	30.5	76.3%
1 18	572314	158653	1.5	40	30.9	77.2%
1 19	572176	158538	1.5	40	44.7	111.7%
1 20	571942	158596	1.5	40	35.5	88.7%
1 21	571816	158660	1.5	40	41.6	104.1%
1 22	571999	158652	1.5	40	51.6	129.1%
1 23	571667	158664	1.5	40	28.3	70.8%
1 24	571564	158572	1.5	40	23.7	59.3%
1 25	573236	158002	1.5	40	31.5	78.7%
1 26	573333	158280	1.5	40	59.0	147.6%
1 27	572620	158564	1.5	40	32.2	80.6%
1 28	570343	158746	1.5	40	26.1	65.1%
1 29	570346	158845	1.5	40	29.6	73.9%
1 30	570321	158896	1.5	40	25.6	64.0%
1 31	570332	158943	1.5	40	31.4	78.6%
1 32	570374	158940	1.5	40	34.2	85.5%
1 33	570392	159034	1.5	40	44.4	111.0%
1 34	570424	159099	1.5	40	32.5	81.4%
1 35	570479	159274	1.5	40	27.7	69.1%
1 36	570407	159407	1.5	40	21.5	53.7%
1 37	570562	159495	1.5	40	26.9	67.2%
1 38	570647	159609	1.5	40	25.9	64.7%
1 39	570772	159690	1.5	40	32.8	82.0%

Figure 3.2 – AQMA 1, Modelled Receptor NO₂ Concentrations

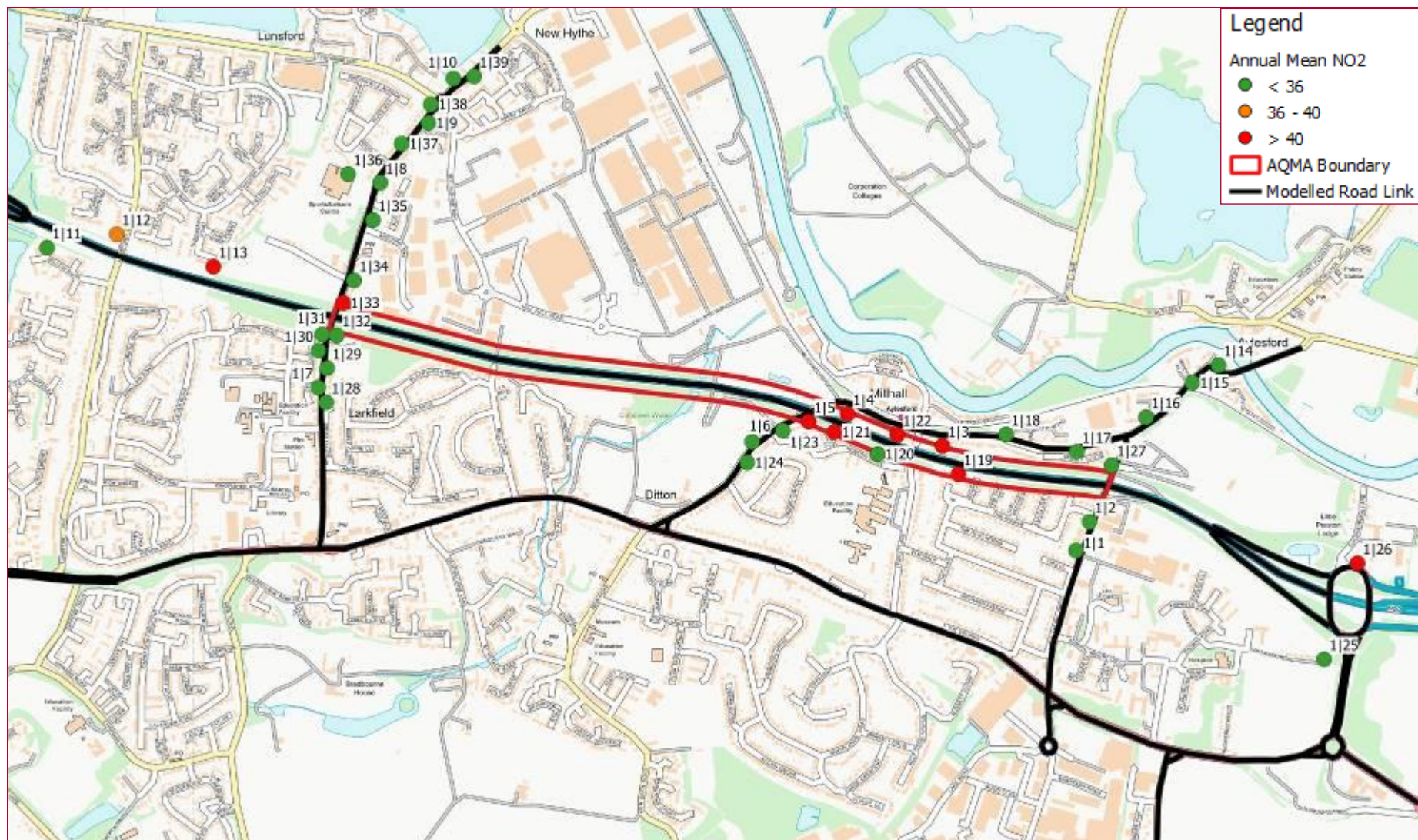


Figure 3.3 – AQMA 1, Modelled NO₂ Concentration Ispoleths, Western Section

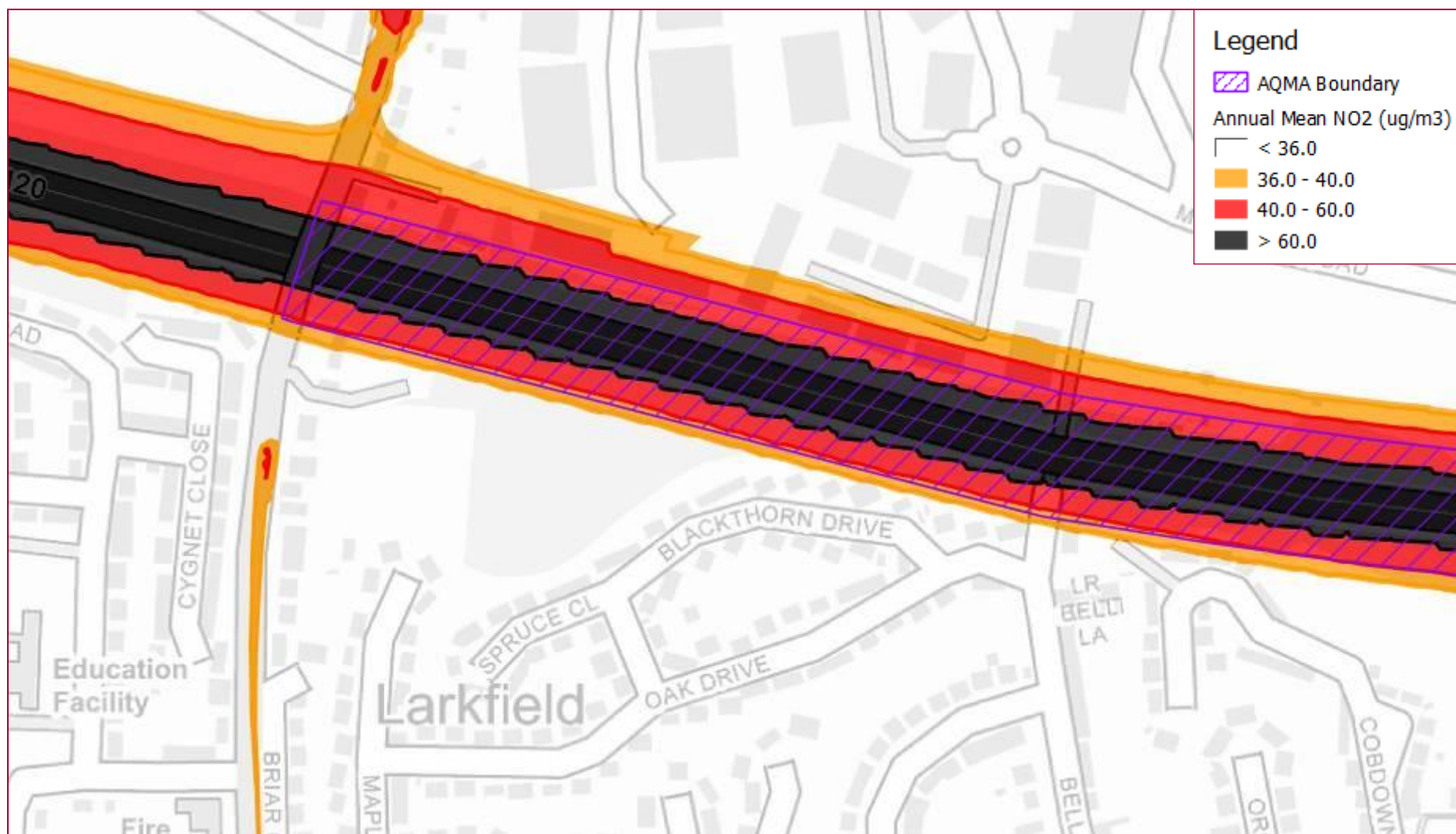


Figure 3.4 – AQMA 1, Modelled NO₂ Concentration Ispoleths, Central Section



Figure 3.5 – AQMA 1, Modelled NO₂ Concentration Ispoleths, Eastern Section



3.1.3 Daily PM₁₀

Table 3.3 provides the modelled mean 24-hour PM₁₀ concentrations that are in exceedance of 50µg/m³, the AQS objective in terms of 24-hour concentrations is that the concentration of 50µg/m³ should not be exceeded more than 35 times within a calendar year. The AQS objective was not exceeded at any of the modelled receptor locations, the maximum number of 24-hour mean concentrations greater than 50µg/m³ was 17 predicted at receptor 26.

Table 3.3 – AQMA 1, Summary of Modelled Receptor Results (PM₁₀)

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS Objective (Daily Means > 50µg/m ³)	2018 Daily Means > 50µg/m ³	% of AQS objective
1 1	572517	158317	1.5	35	3	8.6%
1 2	572556	158400	1.5	35	4	11.4%
1 3	572130	158620	1.5	35	7	20.0%
1 4	571855	158712	1.5	35	9	25.7%
1 5	571742	158690	1.5	35	7	20.0%
1 6	571578	158632	1.5	35	3	8.6%
1 7	570320	158789	1.5	35	4	11.4%
1 8	570500	159382	1.5	35	4	11.4%
1 9	570640	159555	1.5	35	3	8.6%
1 10	570712	159684	1.5	35	2	5.7%
1 11	569534	159194	1.5	35	4	11.4%
1 12	569736	159233	1.5	35	5	14.3%
1 13	570016	159139	1.5	35	5	14.3%
1 14	572930	158854	1.5	35	3	8.6%
1 15	572854	158803	1.5	35	4	11.4%
1 16	572720	158703	1.5	35	3	8.6%
1 17	572519	158603	1.5	35	4	11.4%
1 18	572314	158653	1.5	35	4	11.4%
1 19	572176	158538	1.5	35	7	20.0%
1 20	571942	158596	1.5	35	5	14.3%
1 21	571816	158660	1.5	35	6	17.1%
1 22	571999	158652	1.5	35	9	25.7%
1 23	571667	158664	1.5	35	4	11.4%
1 24	571564	158572	1.5	35	3	8.6%
1 25	573236	158002	1.5	35	5	14.3%
1 26	573333	158280	1.5	35	17	48.6%
1 27	572620	158564	1.5	35	5	14.3%
1 28	570343	158746	1.5	35	4	11.4%
1 29	570346	158845	1.5	35	5	14.3%
1 30	570321	158896	1.5	35	4	11.4%
1 31	570332	158943	1.5	35	4	11.4%
1 32	570374	158940	1.5	35	5	14.3%
1 33	570392	159034	1.5	35	6	17.1%
1 34	570424	159099	1.5	35	3	8.6%
1 35	570479	159274	1.5	35	3	8.6%
1 36	570407	159407	1.5	35	2	5.7%
1 37	570562	159495	1.5	35	3	8.6%
1 38	570647	159609	1.5	35	2	5.7%
1 39	570772	159690	1.5	35	4	11.4%

3.2 AQMA 2 – Ditton

3.2.1 Council Monitoring Data

AQMA 2 incorporates an area in Ditton covering the Station Road/London Road A20 crossroads, and there are currently three diffusion tube monitoring sites located within the AQMA. Figure 3.6 illustrates the locations of the diffusion tube monitoring sites in the modelled area and monitoring results for the previous five years are detailed in Table 3.4. It can be seen that there have not been any exceedances of the annual mean NO₂ AQS objective within, the AQMA for the past five years. The monitoring site DF4, 5, 6 has recorded the highest annual mean concentration within the AQMA since 2015 when monitoring began at this location.

Table 3.4 – Passive NO₂ Monitoring Within, and Close to AQMA 2

Site	Site Type	OS Grid Ref X	OS Grid Ref Y	Distance to Road (m)	Located In AQMA	Annual Mean NO ₂ Concentration (µg/m ³) ¹				
						2014	2015	2016	2017	2018
TN47	UB	571399	158375	23	YES	19.1	18.8	19.6	19.6	18.0
TN105	R	571305	158412	11.8	YES	-	-	25.8	24.1	21.2
DF4, 5, 6	R	571139	158427	1.9	YES	-	33.1	33.1	31.9	32.0

In **bold**, exceedance of the annual mean NO₂ AQS objective of 40µg/m³
Bias Adjustment Factors listed with relevant year
R= Roadside; UB = Urban Background

3.2.2 Annual Mean NO₂

Table 3.15 provides the annual mean NO₂ concentrations predicted at existing residential receptor locations for 2018. There were no exceedances of the annual mean NO₂ objective at any of the 13 modelled receptor locations. The maximum annual mean concentration was 29.6µg/m³ predicted at receptor 2, this equates to 75% of the annual mean objective. In addition, Figure 3.8 presents that all predicted concentrations above 36µg/m³ are predicted to be within the road link and not at any locations of relevant exposure.

Table 3.5 – AQMA 2, Summary of Modelled Receptor Results

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective (µg/m ³)	2018 Annual Mean NO ₂ (µg/m ³)	% of AQS objective
2 1	571306	158412	1.5	40	24.8	61.9%
2 2	571356	158377	1.5	40	29.6	74.0%
2 3	571183	158402	1.5	40	25.8	64.5%
2 4	571502	158488	1.5	40	22.0	55.0%
2 5	571399	158428	1.5	40	23.5	58.7%
2 6	571228	158383	1.5	40	25.5	63.8%
2 7	571283	158353	1.5	40	22.8	57.0%
2 8	571353	158342	1.5	40	24.7	61.7%
2 9	571401	158375	1.5	40	25.0	62.4%
2 10	571574	158329	1.5	40	24.5	61.3%
2 11	571624	158254	1.5	40	20.6	51.5%
2 12	571773	158210	1.5	40	24.1	60.3%
2 13	571919	158172	1.5	40	27.7	69.3%

Figure 3.6 – AQMA 2, Modelled Roads and Monitoring Locations



Figure 3.7 – AQMA 2, Modelled Receptor NO₂ Concentrations



Figure 3.8 – AQMA 2, Modelled NO₂ Concentration Isopleths



3.3 AQMA 3 – Tonbridge High Street

3.3.1 Council Monitoring Data

AQMA 3 incorporates Tonbridge High Street, between New Wharf Road and the High Street/Vale Road roundabout in Tonbridge. There are currently seven diffusion tube monitoring sites located within, or close to the AQMA's area. In addition, historically the automatic site ZT5 has been located within the AQMA, this monitor was relocated to Watlingtonbury (AQMA 4) part way through 2018⁸. Figure 3.9 illustrates the locations of the monitoring sites within and close to the modelled area and monitoring results for the previous five years are detailed in Table 3.6.

2018 has been the first year over the previous five where there have not been any exceedances of the annual mean objective, it should be noted that the concentration at ZT5 has been annualised due to the monitor being moved to Watlingtonbury part way through the year. The number of monitoring sites that has exceeded the annual mean objective has reduced from four in 2014, to three in 2015, to two in 2017 and as stated above there were no exceedances in 2018.

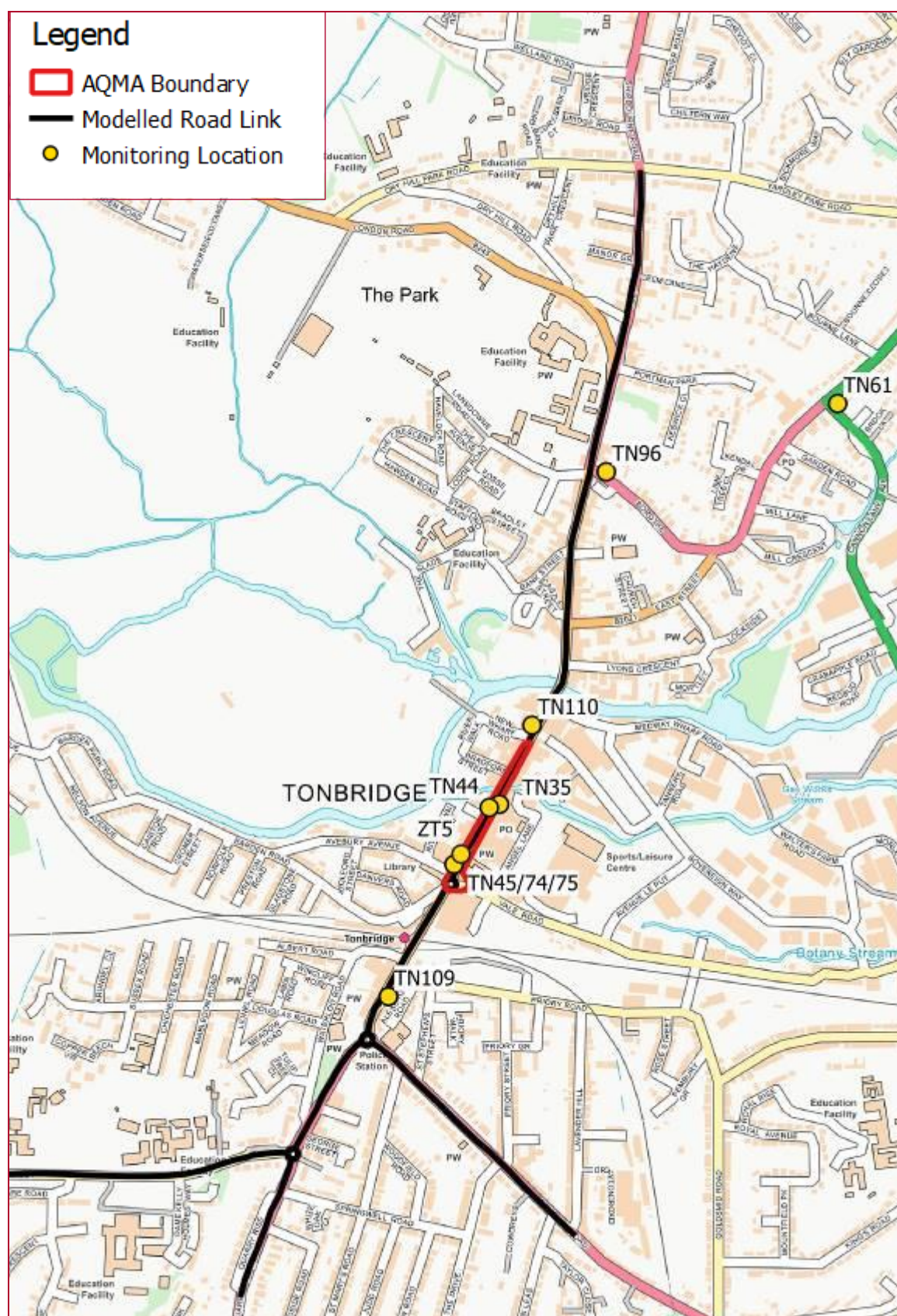
Table 3.6 – Passive and Automatic NO₂ Monitoring Within, and Close to AQMA 3

Site	Site Type	OS Grid Ref X	OS Grid Ref Y	Distance to Road (m)	Located In AQMA	Annual Mean NO ₂ Concentration (µg/m ³) ¹				
						2014	2015	2016	2017	2018
TN35	UC	558948	146277	3.8	YES	43.2	36.7	34.6	37.5	36.4
TN44	UC	558929	146271	3.3	YES	42.0	40.1	40.5	38.4	35.2
ZT5*	UC	558877	146185	2.2	YES	46.6	45.8	46.8	49.6	34.9
TN45, 74, 75	UC	558864	146166	2.3	YES	42.7	41.6	40.5	42.3	39.0
TN61	R	559572	147017	6	NO	23.3	23.4	23.4	22.5	21.6
TN96	R	559145	146891	3.5	NO	34.9	33.3	34.0	30.5	30.1
TN110	R	559008	146423	4.6	YES	-	-	30.1	32.8	28.4
TN109	R	558743	145922	4	NO	-	-	36.0	34.3	33.9

In **bold**, exceedance of the annual mean NO₂ AQS objective of 40µg/m³
 Bias Adjustment Factors listed with relevant year
 R= Roadside; UC = Urban Centre
 * The ZT5 automatic monitor was relocated from Tonbridge High Street to Watlingtonbury in June 2018

⁸ ZT5 required annualisation in line with the LAQM TG.16 guidance for 2018 data.

Figure 3.9 – AQMA 3, Modelled Roads and Monitoring Locations



3.3.2 Annual Mean NO₂

Table 3.7 provides the annual mean NO₂ concentrations predicted at existing residential receptor locations for 2018. Of the 28 modelled receptor locations, an exceedance of the annual mean NO₂ objective has only been predicted at one location that is outside of the existing AQMA, and one further receptor, also outside of the existing AQMA, had an annual mean predicted to be within 10% of the AQS objective. There were no predicted exceedances of the annual mean objective within the AQMA.

It should be noted that receptors have been modelled at relevant heights in terms of relevant exposure derived from Box 1.1 of LAQM.TG(16)¹. The majority of relevant exposure located on Tonbridge High Street is located at first floor height due to commercial premises at ground floor level. The changes in annual mean concentration in terms of height (1.5m and 3m) are presented within Figure 3.11 and Figure 3.12. At a receptor height of 1.5m exceedances of the annual mean objective run adjacent with Tonbridge High Street throughout the AQMA. When the receptor height is increased to 3m all exceedances are contained within the boundary of the road link.

Table 3.7 – AQMA 3, Summary of Modelled Receptor Results

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective (µg/m ³)	2018 Annual Mean NO ₂ (µg/m ³)	% of AQS objective
3 1	557480	145156	1.5	40	13.3	33.3%
3 2	557578	145378	1.5	40	14.4	35.9%
3 3	557923	145602	1.5	40	14.4	36.0%
3 4	558548	145653	1.5	40	21.1	52.8%
3 5	558659	145782	3	40	30.5	76.4%
3 6	558661	145787	1.5	40	36.4	91.0%
3 7	558666	145791	5	40	24.5	61.3%
3 8	558706	145900	3	40	26.5	66.4%
3 9	558737	145952	3	40	25.2	63.0%
3 10	558834	146135	3	40	23.4	58.6%
3 11	558903	146241	3	40	25.2	62.9%
3 12	558953	146290	3	40	33.4	83.6%
3 13	559005	146384	3	40	35.5	88.9%
3 14	559012	146428	3	40	29.3	73.3%
3 15	559080	146639	3	40	34.5	86.1%
3 16	559072	146759	3	40	25.8	64.6%
3 17	559124	146914	3	40	35.9	89.7%
3 18	559113	146931	1.5	40	29.9	74.8%
3 19	559194	147194	3	40	31.1	77.8%
3 20	559197	147202	1.5	40	35.5	88.8%
3 21	559195	147335	1.5	40	25.8	64.4%
3 22	559214	147367	1.5	40	40.5	101.1%
3 23	558503	145431	1.5	40	29.0	72.6%
3 24	558776	145792	1.5	40	32.8	82.1%
3 25	558799	145745	1.5	40	22.2	55.6%
3 26	558859	145689	1.5	40	22.6	56.5%
3 27	558941	145634	1.5	40	29.3	73.3%
3 28	559016	145535	1.5	40	20.7	51.8%

Figure 3.11 – AQMA 3, Modelled NO₂ Concentration Ispoleths (1.5m Height)

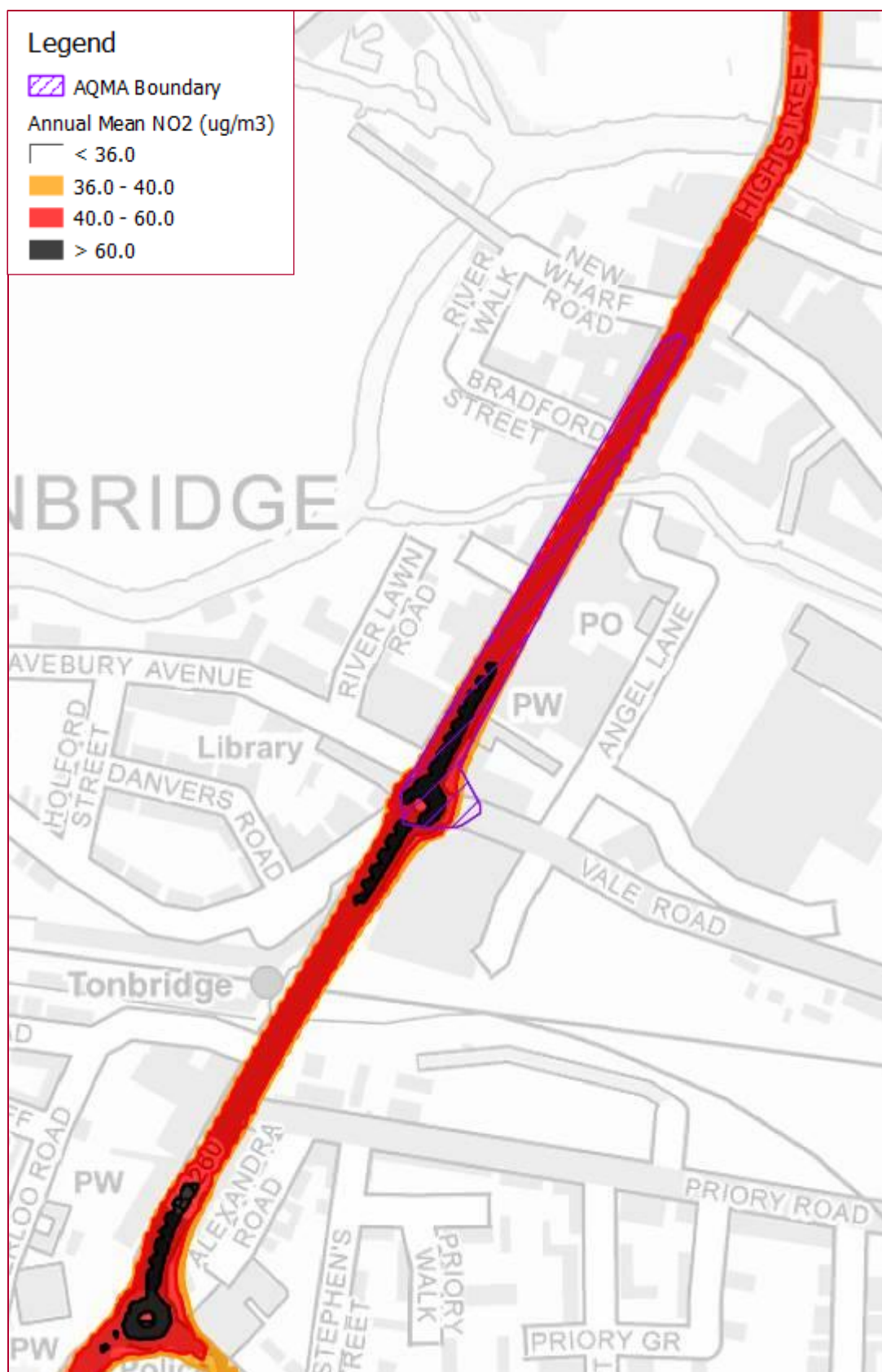
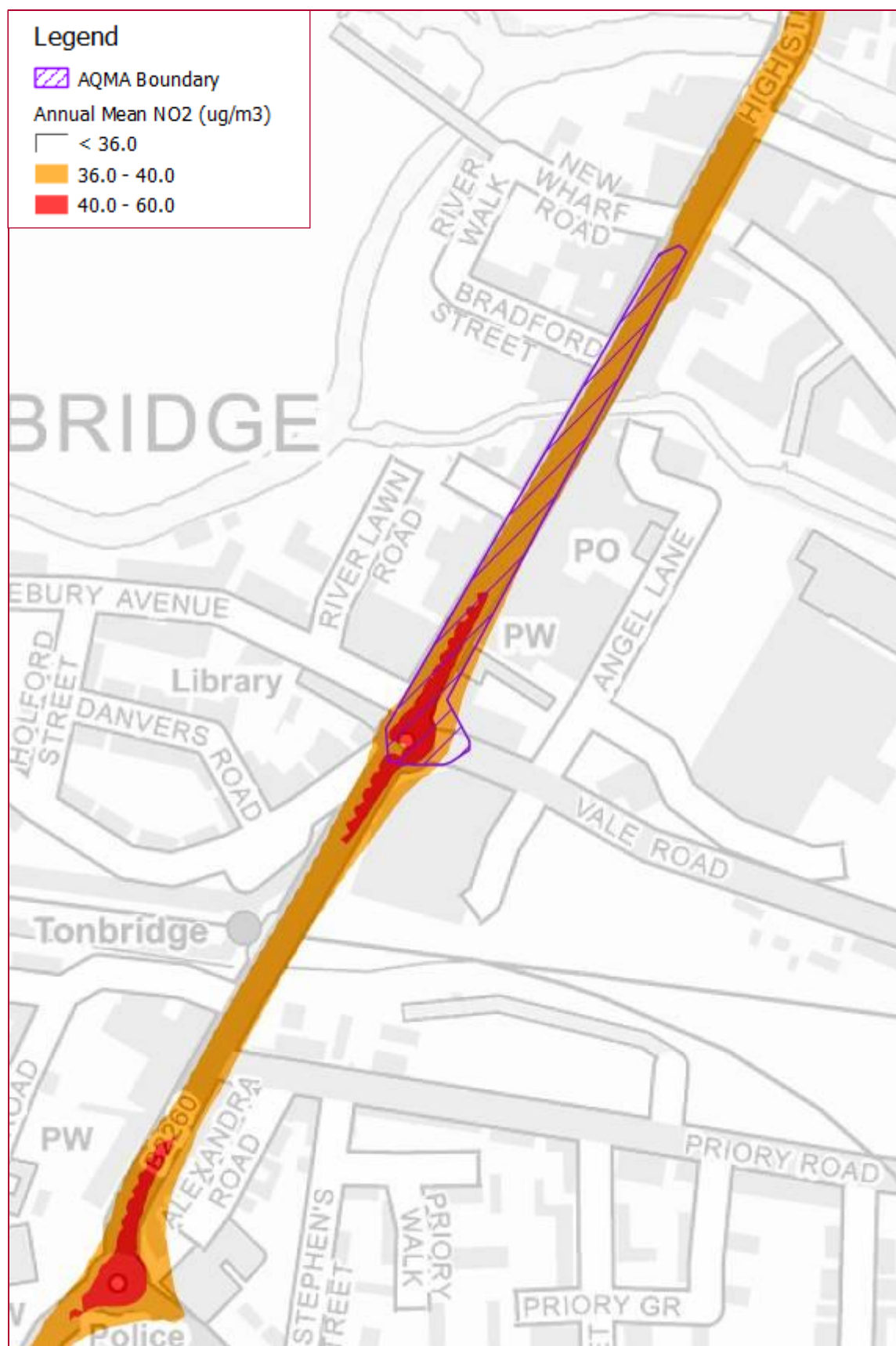


Figure 3.12 – AQMA 3, Modelled NO₂ Concentration Ispoleths (3m Height)



3.4 AQMA 4 – Waterringbury

3.4.1 Council Monitoring Data

AQMA 4 incorporates the Red Hill/Tonbridge Road A26 crossroads in Waterringbury. There are currently five diffusion tube sites located within, or close to the AQMA's area. In addition the automatic site ZT7, was established part way through 2018⁹ after being relocated from Tonbridge High Street (ZT5). Figure 3.13 illustrates the locations of the monitoring sites within and close to the modelled area and monitoring results for the previous five years are detailed in Table 3.8.

Within AQMA 4 two monitoring sites have exceeded the annual mean objective for the past five years, with concentrations in excess of 60µg/m³ experienced between 2014 and 2017 at site TN42, 76, 77. Between 2014 and 2018 there has been a reduction in annual mean concentration at site TN42, 76, 77 but it remained close to 60µg/m³ in 2018 (58.1µg/m³).

Table 3.8 – Passive and Automatic NO₂ Monitoring Within, and Close to AQMA 4

Site	Site Type	OS Grid Ref X	OS Grid Ref Y	Distance to Road (m)	Located In AQMA	Annual Mean NO ₂ Concentration (µg/m ³) ¹				
						2014	2015	2016	2017	2018
TN33	R	569201	153486	1.25	YES	52.7	51.9	56.4	53.6	51.9
TN43	R	569187	153498	2.6	YES	38.2	38.2	39.1	38.7	35.7
TN42, 76, 77	R	569226	153475	1.3	YES	64.8	63.5	64.8	61.3	58.1
TN108	R	569056	153537	4	NO	-	-	23.0	23.7	20.9
TN115, TN116, TN117	R	569165	153493	1	YES	-	-	-	-	19.9
ZT7*	R	569165	153493	0.2	YES	-	-	-	-	23.6

In **bold**, exceedance of the annual mean NO₂ AQS objective of 40µg/m³
 Bias Adjustment Factors listed with relevant year
 R= Roadside
 * The ZT5 automatic monitor was relocated from Tonbridge High Street to Waterringbury in June 2018

⁹ ZT7 required annualisation in line with the LAQM TG.16 guidance for 2018 data.

Figure 3.13 – AQMA 4, Modelled Roads and Monitoring Locations



3.4.2 Annual Mean NO₂

Table 3.15 provides the modelled annual mean NO₂ concentrations predicted at existing residential receptor locations for 2018. Of the 23 modelled receptor locations, an exceedance of the annual mean NO₂ objective has been predicted at one receptor within the existing AQMA, and a further receptor located close to the boundary of the AQMA had annual mean concentration predicted to be within 10% of the AQS objective. There were no predicted exceedances of the annual mean objective outside of the AQMA.

Employing the same methodology as for AQMA 3, receptors have been modelled at relevant heights in terms of relevant exposure derived from Box 1.1 of LAQM.TG(16)¹. Receptors 4, 6 and 9 have been modelled at a first floor height due to commercial premises at ground floor level.

From the annual mean NO₂ concentration isopleths presented in Figure 3.15, it can be seen that predicted exceedances of the annual mean objective are of a similar extent to the existing AQMA boundary.

Table 3.9 – AQMA 4, Summary of Modelled Receptor Results

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective (µg/m ³)	2018 Annual Mean NO ₂ (µg/m ³)	% of AQS objective
4 1	569150	153418	1.5	40	23.2	58.1%
4 2	569136	153441	1.5	40	20.4	51.0%
4 3	569180	153466	1.5	40	34.2	85.4%
4 4	569167	153446	3	40	24.6	61.6%
4 5	569153	153495	1.5	40	23.4	58.5%
4 6	569180	153501	3	40	39.5	98.8%
4 7	569171	153508	1.5	40	25.3	63.2%
4 8	569156	153517	1.5	40	25.0	62.5%
4 9	569147	153523	3	40	20.9	52.2%
4 10	569014	153550	1.5	40	17.2	43.0%
4 11	568870	153602	1.5	40	17.6	43.9%
4 12	568598	153611	1.5	40	13.2	33.0%
4 13	567601	153502	1.5	40	14.4	36.0%
4 14	569189	153507	1.5	40	30.6	76.5%
4 15	569209	153529	1.5	40	21.0	52.4%
4 16	569251	153539	1.5	40	20.1	50.2%
4 17	569385	153631	1.5	40	14.7	36.6%
4 18	569209	153487	1.5	40	50.8	126.9%
4 19	569247	153470	1.5	40	32.7	81.7%
4 20	569288	153464	1.5	40	22.8	56.9%
4 21	569499	153409	1.5	40	20.1	50.1%
4 22	569814	153372	1.5	40	18.8	47.1%
4 23	570413	153375	1.5	40	21.4	53.4%

Figure 3.14 – AQMA 4, Modelled Receptor NO₂ Concentrations



Figure 3.15 – AQMA 4, Modelled NO₂ Concentration Ispoleths



3.5 AQMA 5 – Aylesford

3.5.1 Council Monitoring Data

AQMA 5 incorporates the A20 London Road in Aylesford, including the Hall Road and Mills Road Junction. There are currently seven diffusion tube monitoring sites located within, or close to the AQMA's area. Figure 3.16 illustrates the locations of the diffusion tube monitoring sites in the modelled area. Recent results for the monitoring sites are shown in Table 3.10.

Within AQMA 5 two monitoring sites have exceeded the annual mean objective for the past five years (TN60, 62, 63 and DF1, 2, 3), with all other monitoring sites recording compliance with the objective. Both TN60, 62, 63 and DF1, 2, 3 are located close to the Hall Road/Mills Road junction.

Table 3.10 – Passive NO₂ Monitoring Within, and Close to AQMA 5

Site	Site Type	OS Grid Ref X	OS Grid Ref Y	Distance to Road (m)	Located In AQMA	Annual Mean NO ₂ Concentration (µg/m ³) ¹				
						2014	2015	2016	2017	2018
TN68	R	572430	157975	6.6	YES	31.9	30.8	30.8	31.4	28.3
TN104	R	572976	157726	8.2	YES	-	-	37.3	32.8	35.5
TN60, 62, 63	R	572423	157932	6.5	YES	45.3	44.1	44.8	44.8	41.7
DF1, 2, 3	R	572459	157904	2.5	YES	-	42.6	44.3	44.1	40.1
TN100	R	572998	156292	6.2	NO	21.5	21.8	22.9	24.4	21.4
TN102	R	572768	157186	14.5	NO	19.4	19.3	20.0	23.0	19.0
TN103	R	572739	157532	9.5	NO	20.6	20.9	23.9	21.5	21.7

In **bold**, exceedance of the annual mean NO₂ AQS objective of 40µg/m³
Bias Adjustment Factors listed with relevant year
R= Roadside

3.5.2 Annual Mean NO₂

Table 3.15 provides the modelled annual mean NO₂ concentrations predicted at existing residential receptor locations for 2018. Of the 16 modelled receptor locations, there was one predicted exceedance of the annual mean NO₂ objective (receptor 6), and one additional receptor had an annual mean concentration predicted to be within 10% of the AQS objective. Receptor 6 is located at a residential property close to the Hall Road/Mills Road junction.

From the annual mean NO₂ concentration isopleths presented in Figure 3.18, it can be seen that predicted exceedances of the annual mean objective are limited to the Hall Road/Mills Road junction. The only relevant receptor within the predicted exceedance area is the residential property at which receptor 6 has been located.

Table 3.11 – AQMA 5, Summary of Modelled Receptor Results

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective (µg/m ³)	2018 Annual Mean NO ₂ (µg/m ³)	% of AQS objective
5 1	572996	156318	1.5	40	25.2	63.1%
5 2	572801	157090	1.5	40	22.5	56.2%
5 3	572741	157529	1.5	40	23.9	59.7%
5 4	572980	157726	1.5	40	34.0	84.9%
5 5	572782	157764	1.5	40	30.8	76.9%
5 6	572431	157922	1.5	40	46.5	116.2%
5 7	572431	157974	1.5	40	27.8	69.5%
5 8	572463	158052	1.5	40	28.3	70.6%
5 9	572526	158323	1.5	40	25.5	63.7%
5 10	572556	158400	1.5	40	27.7	69.2%

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective ($\mu\text{g}/\text{m}^3$)	2018 Annual Mean NO_2 ($\mu\text{g}/\text{m}^3$)	% of AQS objective
5 11	572421	157839	1.5	40	29.6	74.0%
5 12	572453	157797	1.5	40	38.9	97.1%
5 13	572497	157923	1.5	40	27.2	67.9%
5 14	572616	157879	1.5	40	23.2	58.1%
5 15	572452	157954	1.5	40	30.6	76.4%
5 16	573339	157664	1.5	40	24.2	60.6%

Figure 3.16 – AQMA 5, Modelled Roads and Monitoring Locations

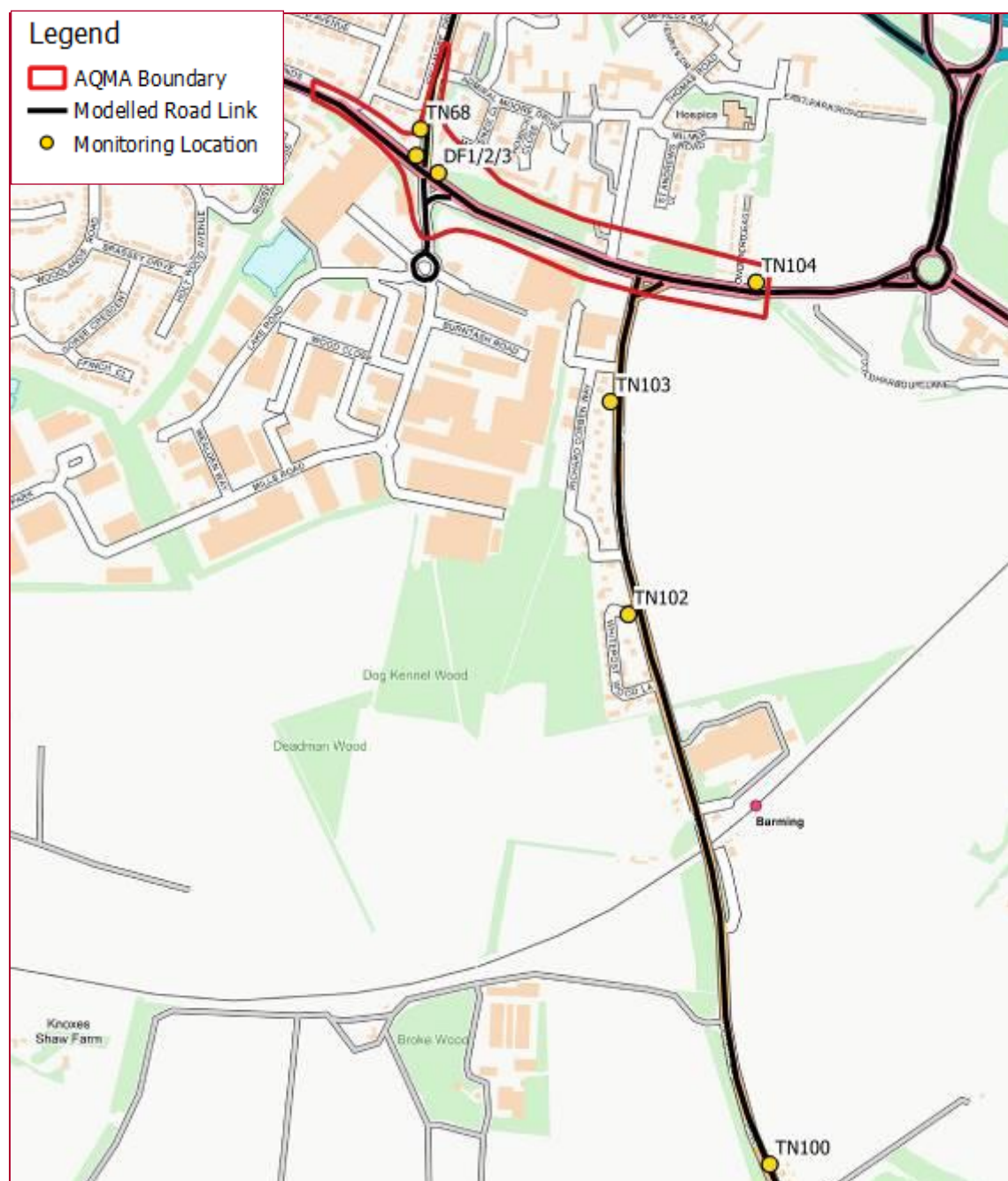
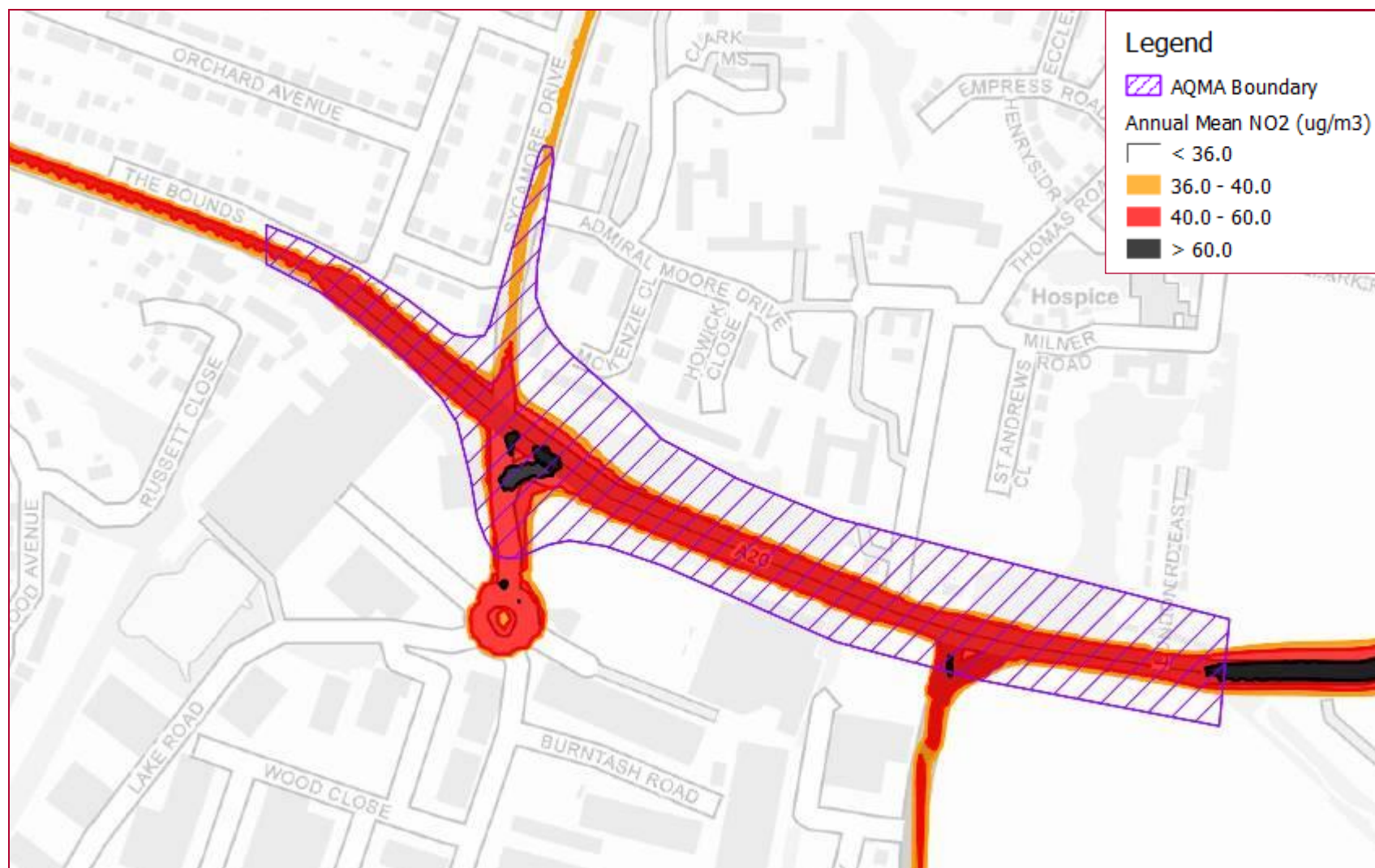


Figure 3.17 – AQMA 5, Modelled Receptor NO₂ Concentrations



Figure 3.18 – AQMA 5, Modelled NO₂ Concentration Ispoeths



3.6 AQMA 6 – Larkfield

3.6.1 Council Monitoring Data

AQMA 6 encompasses the A20 London Road in East Malling, Larkfield and Ditton, including the New Hythe Lane junction. There are currently four diffusion tube sites located within the AQMA's modelled area. Figure 3.19 illustrates the locations of the diffusion tube monitoring sites in the modelled area. Recent results for the monitoring sites are shown in Table 3.12.

Within AQMA 6 monitoring site TN106 has exceeded the annual mean objective for the past three years, with all other monitoring sites recording compliance with the objective from 2017. TN106 is located on a residential façade therefore is sited at a location of relevant exposure in relation to NO₂ annual mean concentrations

Table 3.12 – Passive NO₂ Monitoring Within, and Close to AQMA 6

Site	Site Type	OS Grid Ref X	OS Grid Ref Y	Distance to Road (m)	Located In AQMA	Annual Mean NO ₂ Concentration (µg/m ³) ¹				
						2014	2015	2016	2017	2018
TN64	R	570948	158482	5	YES	30.6	29.0	31.0	29.4	29.0
TN57, 58, 59	R	570467	158328	4.82	YES	36.5	34.0	33.7	31.4	32.2
DF7, 8, 9	R	570386	158311	1.4	YES	-	35.2	41.8	35.0	32.8
TN106	R	570189	158326	2.25	YES	-	-	43.9	43.2	42.0

In **bold**, exceedance of the annual mean NO₂ AQS objective of 40µg/m³
Bias Adjustment Factors listed with relevant year
R= Roadside

3.6.2 Annual Mean NO₂

Table 3.15 provides the annual mean NO₂ concentrations predicted at existing residential receptor locations for 2018. There were no exceedances of the annual mean NO₂ objective at any of the nine modelled receptor locations. As stated above the monitoring site TN106 has exceeded the annual mean objective for the past three years, because of a poor correlation within the verification procedure when compared to all other verification monitoring locations, TN106 was removed from the verification calculations. Due to the monitored exceedance at TN106 it has been proposed within Section 5 that the AQMA boundary to the west of New Hythe Lane remain in its current designation.

The maximum annual mean concentration was 34.1µg/m³ predicted at receptor 1, this equates to 85.3% of the annual mean objective. In addition Figure 3.21 presents that all predicted concentrations above 36µg/m³ are predicted to be within the road link and not at any locations of relevant exposure.

Table 3.13 – AQMA 6, Summary of Modelled Receptor Results

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective (µg/m ³)	2018 Annual Mean NO ₂ (µg/m ³)	% of AQS objective
6 1	570816	158457	1.5	40	34.1	85.3%
6 2	570343	158413	1.5	40	32.3	80.7%
6 3	570323	158486	1.5	40	22.8	56.9%
6 4	569884	158302	1.5	40	21.1	52.8%
6 5	569487	158266	1.5	40	27.9	69.8%
6 6	568907	158220	1.5	40	22.6	56.5%
6 7	568702	158298	1.5	40	19.9	49.8%
6 8	569028	158233	1.5	40	20.5	51.3%
6 9	569339	158269	1.5	40	21.5	53.7%

Figure 3.19 – AQMA 6, Modelled Roads and Monitoring Locations

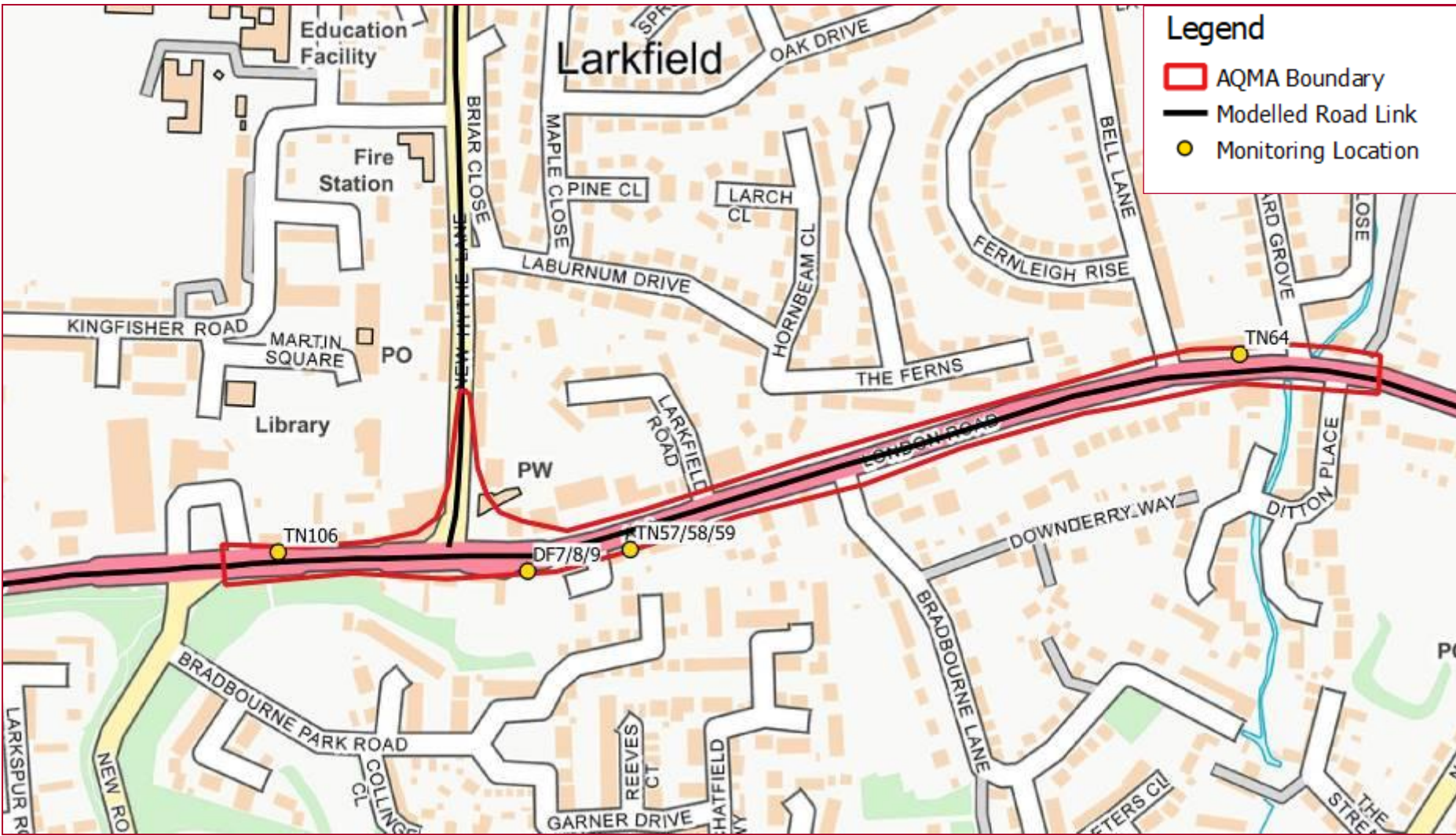


Figure 3.20 – AQMA 6, Modelled Receptor NO₂ Locations

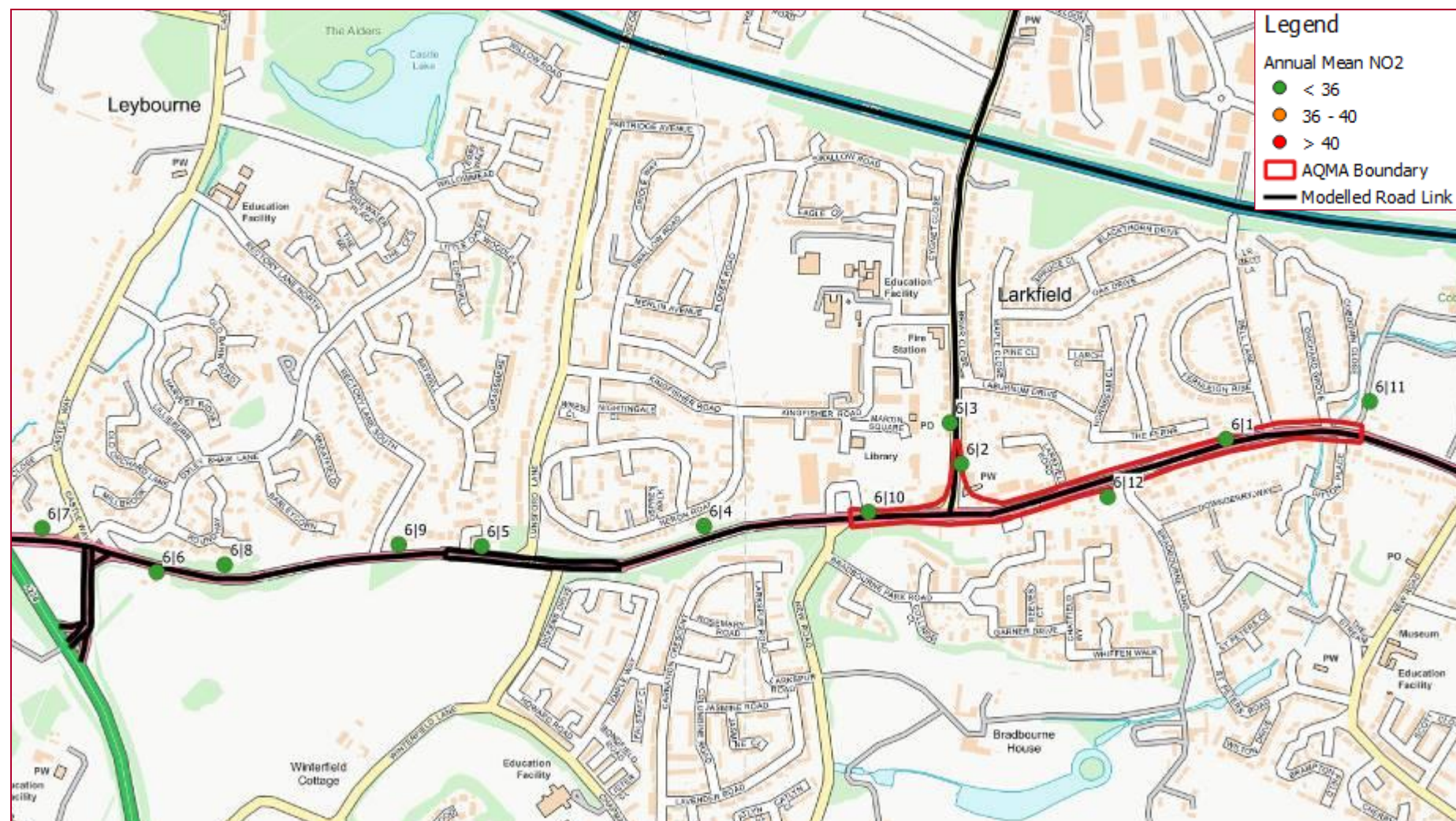


Figure 3.21 – AQMA 6, Modelled NO₂ Concentration Isopeleths



3.7 AQMA 7 – Borough Green

3.7.1 Council Monitoring Data

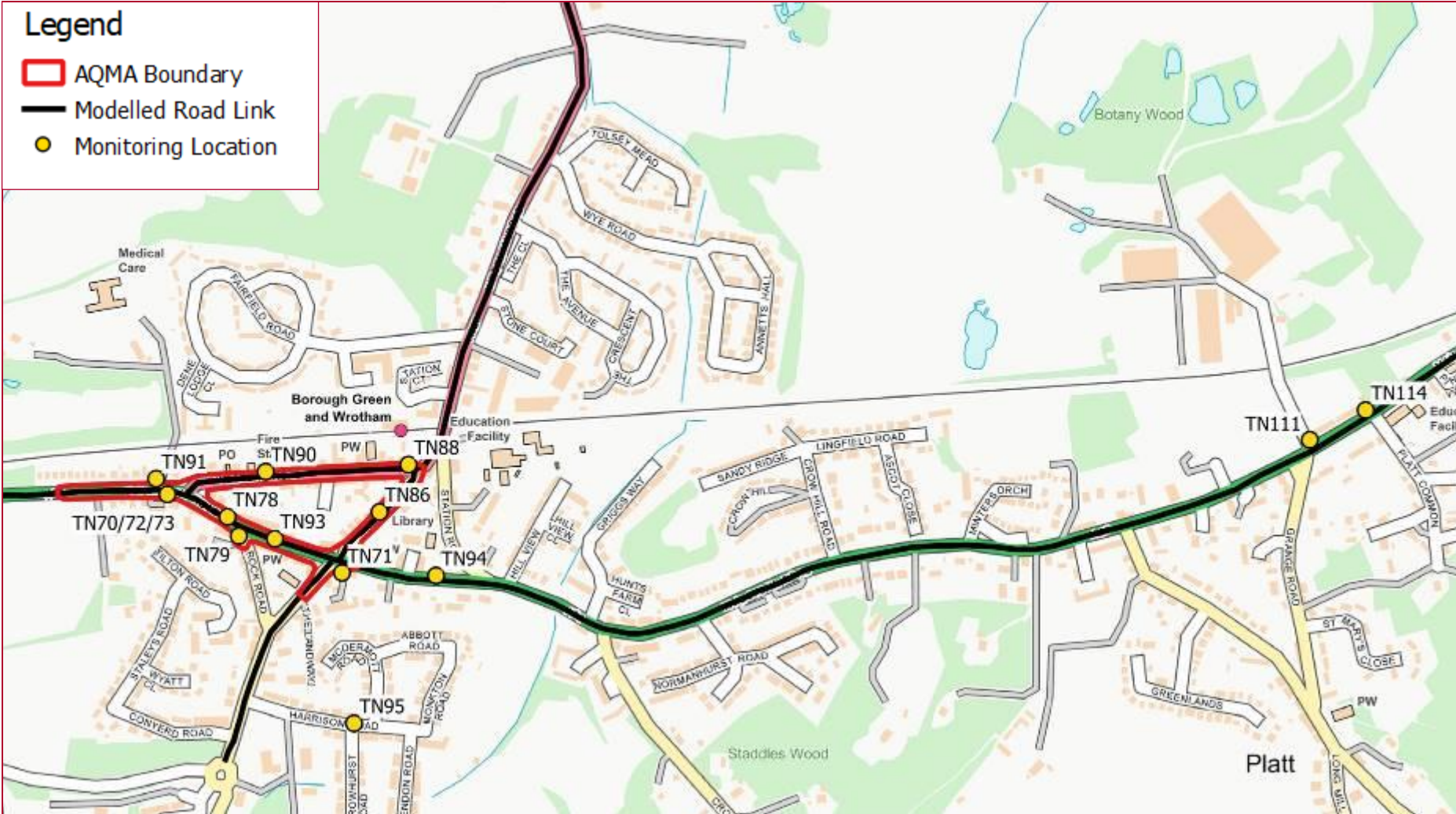
AQMA 7 includes a number of sections of Sevenoaks Road (A25), Western Road and Borough Green High Street. There are currently 12 diffusion tubes monitoring sites located within or close to the AQMA's modelled area. Figure 3.22 illustrates the locations of the diffusion tube monitoring sites in the modelled area. Recent results for the monitoring sites are shown in Table 3.14.

2018 has been the first year over the previous five years where there have not been any exceedances of the annual mean objective, monitoring site TN70, 72, 73 remained within 10% of the objective with 2018. Aside from sites TN70, 72, 73 and TN93, there have not been any annual mean concentrations above 30µg/m³ since 2016.

Table 3.14 – Passive NO₂ Monitoring Within, and Close to AQMA 7

Site	Site Type	OS Grid Ref X	OS Grid Ref Y	Distance to Road (m)	Located In AQMA	Annual Mean NO ₂ Concentration (µg/m ³) ¹				
						2014	2015	2016	2017	2018
TN78	R	560654	157296	3.1	YES	-	-	33.6	28.7	27.8
TN79	R	560670	157269	7.2	YES	29.3	29.0	31.2	27.6	25.7
TN86	UC	560869	157303	2.46	YES	24.6	22.6	25.0	24.5	22.0
TN88	R	560910	157370	4.3	YES	24.9	23.8	26.8	23.5	22.2
TN90	R	560708	157360	4.5	YES	24.2	22.2	25.7	25.6	22.7
TN93	R	560721	157265	1.5	YES	34.8	34.0	39.8	35.8	34.6
TN94	R	560949	157213	4.3	NO	29.1	28.1	28.5	27.3	24.3
TN114	R	562264	157447	6.5	NO	-	-	26.1	22.3	20.1
TN70, 72, 73	R	560569	157328	2.06	YES	42.2	42.1	45.6	43.0	39.6
TN111	R	562185	157405	2.2	NO	-	-	-	-	16.9
TN95	UB	560833	157004	1.7	NO	15.3	14.8	16.1	14.6	13.6
TN91	R	560553	157350	14.2	YES	18.4	16.5	18.6	18.2	16.3
In bold , exceedance of the annual mean NO ₂ AQS objective of 40µg/m ³ Bias Adjustment Factors listed with relevant year R= Roadside; UC = Urban Centre; UB = Urban Background										

Figure 3.22 – AQMA 7, Modelled Roads and Monitoring Locations



3.7.2 Annual Mean NO₂

Table 3.15 provides the annual mean NO₂ concentrations predicted at existing residential receptor locations for 2018. Of the 49 modelled receptor locations, all receptor locations were predicted to be in compliance with the annual mean NO₂ objective, and there was one receptor predicted to have an annual mean to be within 10% of the AQS objective.

The concentration isopleths presented in Figure 3.25 show that the concentrations in exceedance of the annual mean objective are mostly predicted to be within the road links, with relevant exposure only within the exceedance isopleths on Sevenoaks Road to the west of the AQMA close to receptor 3 and diffusion tube TN70, 72, 73.

Table 3.15 – AQMA 7, Summary of Modelled Receptor Results

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective (µg/m ³)	2018 Annual Mean NO ₂ (µg/m ³)	% of AQS objective
7 1	560399	157344	1.5	40	28.4	71.0%
7 2	560504	157320	1.5	40	28.3	70.7%
7 3	560562	157327	1.5	40	37.7	94.3%
7 4	560581	157322	1.5	40	33.6	83.9%
7 5	560604	157350	1.5	40	27.8	69.4%
7 6	560624	157355	3	40	25.3	63.2%
7 7	560671	157342	1.5	40	24.5	61.2%
7 8	560881	157371	1.5	40	25.5	63.8%
7 9	560912	157358	1.5	40	34.5	86.3%
7 10	560904	157344	3	40	28.7	71.8%
7 11	560918	157331	1.5	40	28.3	70.8%
7 12	560822	157268	1.5	40	30.0	75.0%
7 13	560746	157248	1.5	40	25.3	63.3%
7 14	560782	157252	1.5	40	29.6	73.9%
7 15	560651	157299	1.5	40	33.6	83.9%
7 16	560600	157317	1.5	40	34.6	86.5%
7 17	561036	157620	1.5	40	27.3	68.2%
7 18	561075	157770	1.5	40	22.8	57.0%
7 19	561063	158228	1.5	40	20.6	51.5%
7 20	561196	157143	1.5	40	27.4	68.5%
7 21	561349	157152	1.5	40	22.1	55.4%
7 22	561489	157243	1.5	40	20.4	51.0%
7 23	561781	157238	1.5	40	21.0	52.5%
7 24	561867	157275	1.5	40	27.5	68.8%
7 25	562075	157324	1.5	40	25.4	63.5%
7 26	562209	157420	1.5	40	20.3	50.6%
7 27	562391	157512	1.5	40	25.4	63.5%
7 28	562770	157841	1.5	40	22.9	57.3%
7 29	562949	157947	1.5	40	22.0	55.0%
7 30	560786	157225	1.5	40	35.4	88.4%
7 31	560746	157163	1.5	40	24.2	60.5%
7 32	560695	157054	1.5	40	19.5	48.8%
7 33	560663	157003	1.5	40	19.7	49.2%
7 34	560053	157255	1.5	40	21.3	53.2%
7 35	560478	157345	1.5	40	31.4	78.4%
7 36	560692	157282	1.5	40	28.2	70.6%
7 37	560771	157368	1.5	40	22.0	55.0%
7 38	560898	157194	1.5	40	20.0	50.1%
7 39	561025	157185	1.5	40	19.8	49.6%
7 40	561020	157380	1.5	40	16.7	41.8%
7 41	560969	157499	1.5	40	22.9	57.3%
7 42	561021	157679	1.5	40	18.0	44.9%
7 43	561082	157726	1.5	40	24.0	60.0%
7 44	561120	157866	1.5	40	20.3	50.7%

Receptor ID	OS Grid X	OS Grid Y	Height (m)	AQS objective ($\mu\text{g}/\text{m}^3$)	2018 Annual Mean NO ₂ ($\mu\text{g}/\text{m}^3$)	% of AQS objective
7 45	561132	157842	1.5	40	34.3	85.7%
7 46	561082	158262	1.5	40	25.1	62.8%
7 47	561072	158159	1.5	40	18.5	46.2%
7 48	561149	158377	1.5	40	30.5	76.3%
7 49	561106	158626	1.5	40	20.5	51.3%

Figure 3.23 – AQMA 7, Modelled Receptor NO₂ Locations (Wide view)

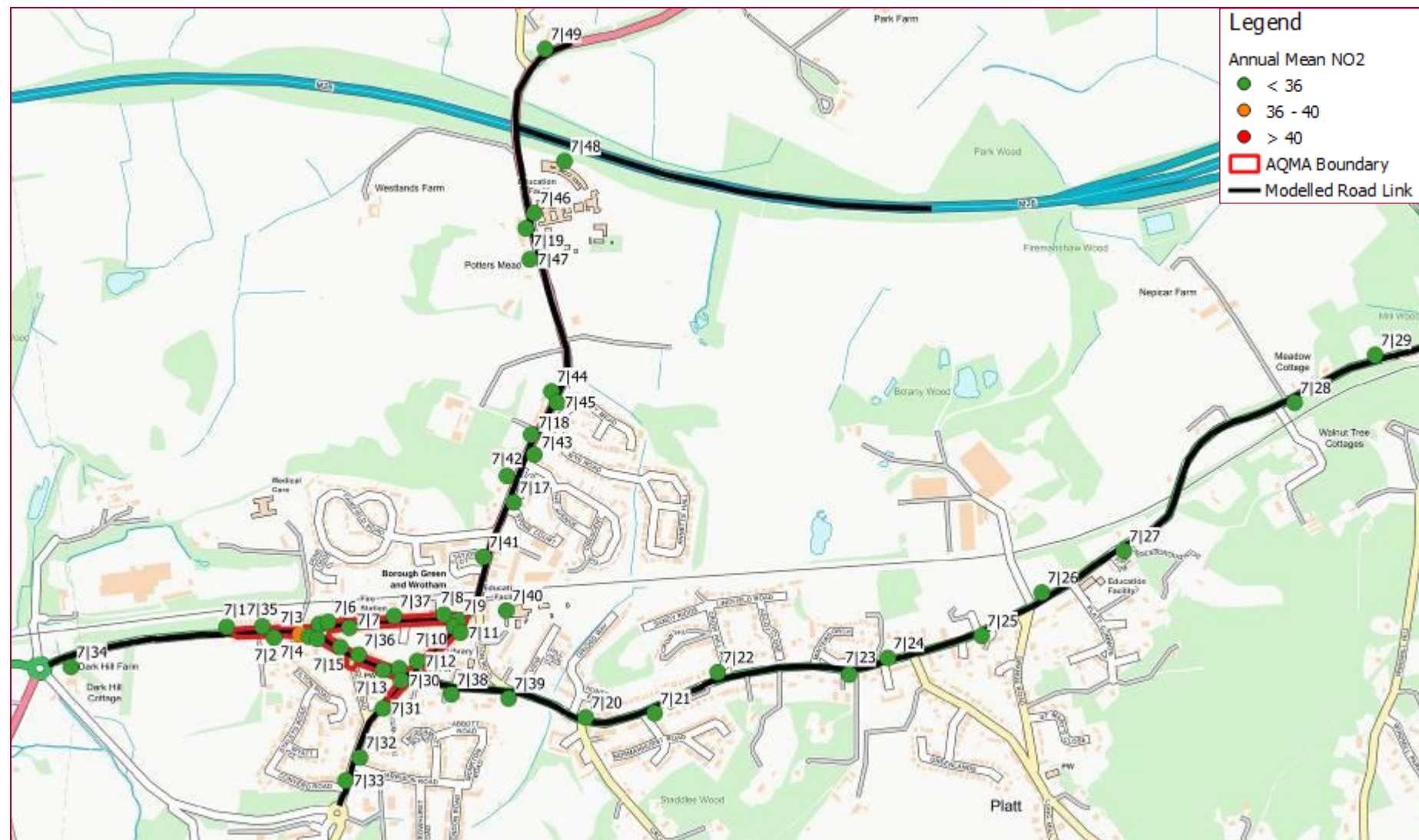


Figure 3.24 – AQMA 7, Modelled Receptor NO₂ Locations (Close up to AQMA)

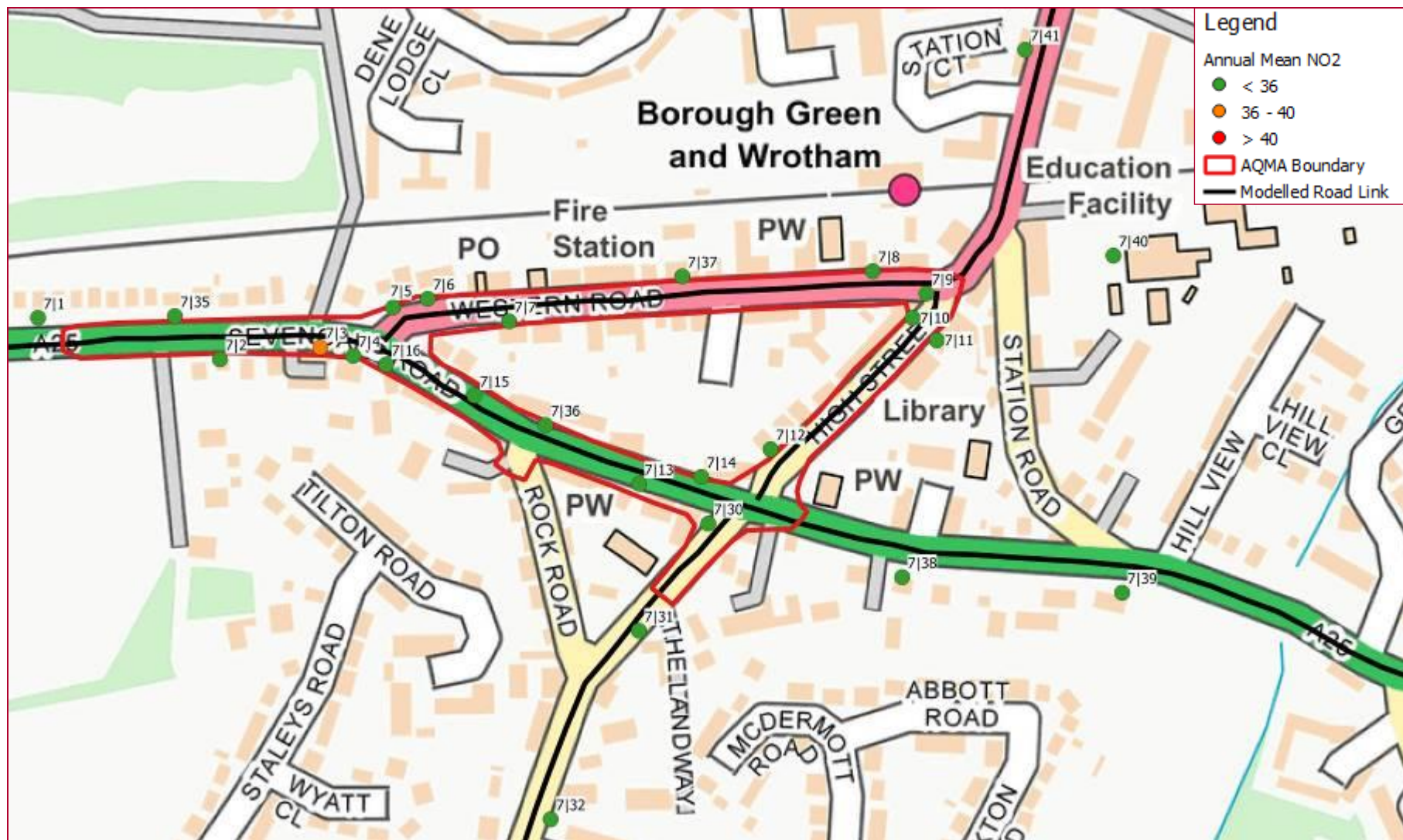
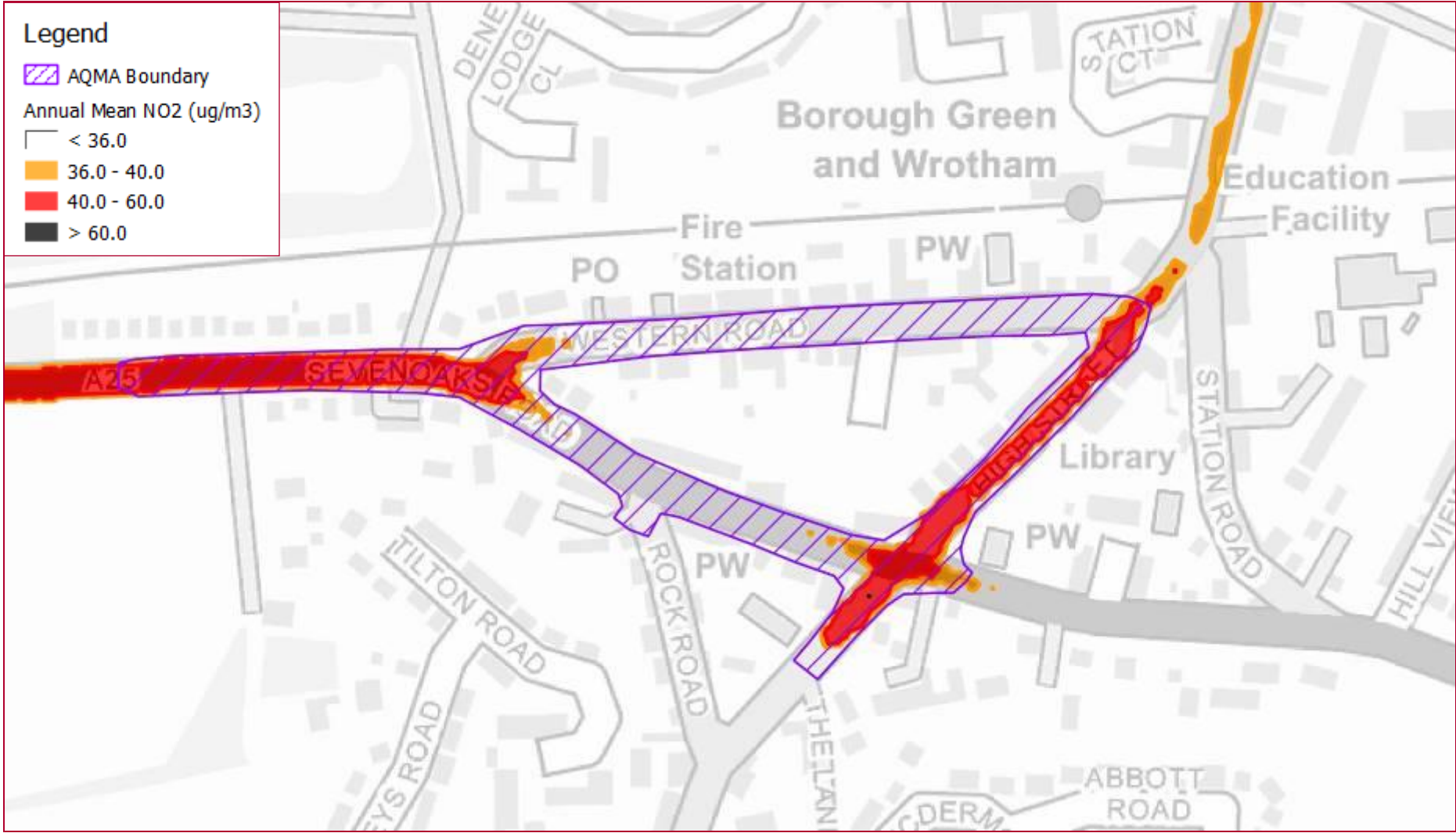


Figure 3.25 – AQMA 7, Modelled NO₂ Concentration Isoleths



4 Source Apportionment

To help inform the development of measures as part of the action plan stage of the project, NO_x source apportionment exercise was undertaken for the following vehicle classes:

- Cars;
- Light-Goods Vehicles (LGVs);
- Heavy-Goods Vehicles (HGVs);
- Bus and Coaches; and
- Motorcycles.

This provides vehicle contributions of NO_x as a proportion of the total NO_x concentration, which will allow the Council to develop specific AQAP measures targeting a reduction in emissions from specific vehicle types.

It should be noted that emission sources of NO₂ are dominated by a combination of direct NO₂ (f-NO₂) and oxides of nitrogen (NO_x), the latter of which is chemically unstable and rapidly oxidised upon release to form NO₂. Reducing levels of NO_x emissions therefore reduces concentrations of NO₂. As a consequence, the source apportionment study has firstly considered the emissions of NO_x, which are assumed to be representative of the main sources of NO₂, and secondly emissions of NO₂.

With regards to the discrete receptor locations, consideration has been given to the following groups of receptors:

- The average NO_x and NO₂ contributions across all modelled locations. This provides useful information when considering possible action measures to test and adopt. It will however understate road NO_x concentrations in problem areas;
- The average NO_x and NO₂ contributions across all locations with modelled NO₂ concentration greater than 40µg/m³. This provides an indication of source apportionment in problematic areas (i.e. only where the AQS objective is exceeded). As such, this information should be considered with more scrutiny when testing and adopting action measures;

Table 4.1 details the source apportionment results for NO_x concentrations, whilst Figure 4.1 presents pie charts illustrate the results.

When considering the average NO_x concentration across all modelled receptors, road traffic accounts for 39.4µg/m³ (61.9%) of total NO_x concentration. Of this 39.4µg/m³, Cars account for the most (28.8%) of any of the vehicle types, followed by LGVs (17.8%). HGVs and Buses/Coaches account for a similar total road-NO_x, with HGVs at 9.0% (4.3µg/m³) and Buses/Coaches at 6.1% (2.9µg/m³), whilst Motorcycles are found to contribute <1%.

When considering the average NO_x concentration at receptors with NO₂ concentration greater than 40µg/m³, road traffic accounts for 71.5µg/m³ (78.0%) of 91.6µg/m³. Of this 71.5µg/m³, Cars account for the most (32.4%) of any of the vehicle types, followed by LGVs (20.5%), HGVs (13.2%), Buses/Coaches (5.2%), and Motorcycles contributing <1%.

Table 4.1 – NO_x Source Apportionment Results

Results	All Vehicles	Car	LGV	HGV	Bus	Motorcycle	Background
Average across all modelled receptors							
NO_x Concentration (µg/m³)	29.4	13.7	8.5	4.3	2.9	0.1	18.1
Percentage	61.9%	28.8%	17.8%	9.0%	6.1%	0.2%	38.1%
Percentage Road Contribution	100.0%	46.6%	28.8%	14.5%	9.9%	0.3%	-
Average Across All Receptors With NO₂ Concentration Greater Than 40µg/m³							
NO_x Concentration (µg/m³)	71.5	32.4	20.5	13.2	5.2	0.2	20.1
Percentage	78.0%	35.4%	22.4%	14.4%	5.6%	0.2%	22.0%
Percentage Road Contribution	100.0%	45.3%	28.7%	18.5%	7.2%	0.2%	-

Figure 4.1 – Pie Charts showing NO_x Source Apportionment Results

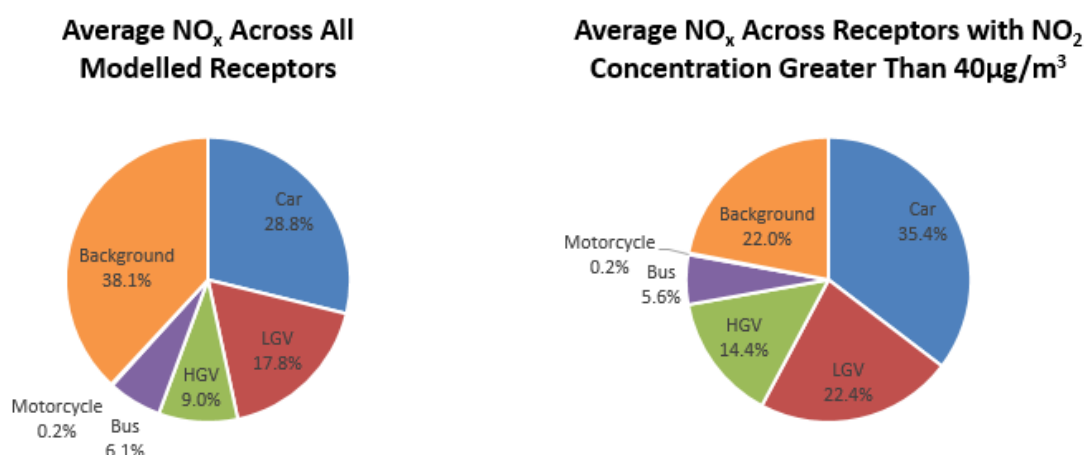


Table 4.2 details the source apportionment results for NO₂ concentrations, whilst Figure 4.2 presents pie charts illustrate the results.

When considering the average NO₂ concentration across all modelled receptors, road traffic accounts for 14.4µg/m³ (52.6%) of total µg/m³. Of this 14.4µg/m³, Cars account for the most (24.5%) of any of the vehicle types, followed by LGVs (15.1%). HGVs and Buses/Coaches account for a similar total road-NO₂, with HGVs at 7.6% (2.1µg/m³) and Buses/Coaches at 5.2% (1.4µg/m³), whilst Motorcycles are found to contribute <1%.

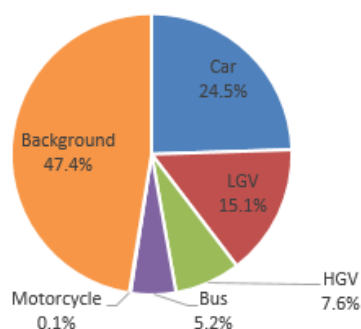
When considering the average NO₂ concentration at receptors with NO₂ concentration greater than 40µg/m³, road traffic accounts for 32.2µg/m³ (69.2%) of 46.5µg/m³. Of this µg/m³, Cars account for the most (31.4%) of any of the vehicle types, followed by LGVs (19.9%), HGVs (12.8%), Buses/Coaches (5.0%), and Motorcycles contributing <1%.

Table 4.2 – NO₂ source Apportionment Results

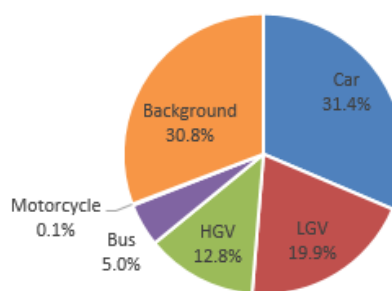
Results	All Vehicles	Car	LGV	HGV	Bus	Motorcycle	Background
Average across all modelled receptors							
NO₂ Concentration (µg/m³)	14.4	6.7	4.1	2.1	1.4	0.0	13.0
Percentage	52.6%	24.5%	15.1%	7.6%	5.2%	0.1%	47.4%
Percentage Road Contribution	100.0%	46.6%	28.8%	14.4%	9.9%	0.3%	-
Average Across All Receptors With NO₂ Concentration Greater Than 40µg/m³							
NO₂ Concentration (µg/m³)	32.2	14.6	9.3	6.0	2.3	0.1	14.3
Percentage	69.2%	31.4%	19.9%	12.8%	5.0%	0.1%	30.8%
Percentage Road Contribution	100.0%	45.4%	28.8%	18.5%	7.2%	0.2%	-

Figure 4.2 – Pie Charts showing NO₂ Source Apportionment Results

Average NO₂ Across All Modelled Receptors



Average NO₂ Across Receptors with NO₂ Concentration Greater Than 40µg/m³



5 Conclusions and Recommendations

Following the completion of the analysis of both monitoring data and modelled concentrations across all of the assessed area a number of recommendations have been made in terms of the AQMAs within Tonbridge and Malling.

5.1 AQMA 1 – M20

AQMA 1 is currently designated for both concentrations of annual mean NO₂ and 24-hour PM₁₀, monitoring is completed within, and close to the AQMA using NO₂ diffusion tubes. There has been no PM₁₀ monitoring completed since the designation of the AQMA. There have not been any monitored exceedances of the NO₂ annual mean objective within the past five years but the modelling has predicted concentrations of 40µg/m³ to have a similar extent to the existing AQMA boundary.

Based upon the analysis of results it is recommended for the AQMA to remain in force with its current boundary in relation to the annual mean NO₂ objective and be revoked in terms of 24-hour PM₁₀ objective. The M20 is a Highways England controlled road and therefore the measures to be developed would have to be a collaboration between the Council and Highways England. Works are currently being undertaken to install a Smart Motorway between Junction 3 (West Malling) and Junction 5 (Aylesford), with the aim to improve traffic flow and therefore this may have beneficial impacts for air quality in the area.

In addition to possible collaborative measures, further borough-wide initiatives should be developed that may not have a large direct impact upon AQMA 1 but would bring about improvements across the borough.

5.2 AQMA 2 – Ditton

There have not been any monitored exceedances of the NO₂ annual mean objective within the AQMA over the past five years. In addition the modelling results predicted a maximum annual mean of 29µg/m³ at a location of relevant exposure and all concentrations in excess of 40µg/m³ are restricted to within the boundary of the road link.

Due to the ongoing compliance presented within the monitoring completed, and the concentrations predicted through the dispersion modelling, it is recommended that AQMA 2 is revoked.

5.3 AQMA 3 – Tonbridge High Street

There were no monitored exceedances recorded during 2018. This is the first year that no exceedances have occurred in the past five years. A downward trend in annual mean concentrations within the AQMA is visible between 2014 and 2018. In addition, there were no modelled exceedances predicted within the AQMA at relevant locations of exposure. This would suggest that concentrations of NO₂ are improving within the area without the application of specific measures for the AQMA. Due to the High Street environment of commercial usage at ground floor level and residential at first floor level, NO₂ concentration predictions were completed at varying heights to present the change in concentrations in relation to changing heights.

Due to the general downward trend that is apparent within the AQMA it is recommended that a mixture of area specific and borough wide initiatives be implemented regarding Tonbridge High Street. Although the concentrations are not yet at a level whereby the AQMA should be revoked, if they continue to remain below the annual mean objective this should be considered in the future.

5.4 AQMA 4 – Watlingtonbury

Diffusion tube monitoring sites within AQMA 4 have consistently recorded exceedances of the annual mean objective over the past five years, with concentrations of over 60µg/m³ recorded at

one location between 2014 and 2017. Monitored concentrations are consistently higher on the eastern approach to the central junction within Watlingbury compared to the western approach. The automatic monitor ZT7 was re-located to the western approach to the central junction in June 2018, with the annualised 2018 annual mean recorded as $23.6\mu\text{g}/\text{m}^3$.

The completed modelling within Watlingbury broadly agrees with the monitored data, with the highest annual mean concentrations predicted at properties on the northern side of Tonbridge Road.

Due to the monitored and modelled concentrations within the Watlingbury AQMA being the highest within the borough it is recommended that in addition to borough-wide measures being implemented, measures specific to Watlingbury are also developed and implemented. These should specifically target the central junction where concentrations are at their highest.

5.5 AQMA 5 – Aylesford

There are two diffusion tube monitoring locations within the Aylesford AQMA that consistently exceed the annual mean NO_2 objective, these are located close to the junction of the A20, Hall Road and Mills Road. In addition this is the only location where a modelled exceedance of the annual mean objective was predicted. In terms of relevant exposure only a small number of properties fronting the A20 are within areas predicted to be in exceedance of the annual mean objective.

Due to the spatial extent of the monitored and predicted exceedances it is recommended to revise the AQMA boundary from its existing form to that which encompasses the small area of exceedance on the north western corner of the main junction. Concentrations are not yet at a level within the AQMA to revoke therefore a mixture of area specific and borough wide initiatives should be implemented.

5.6 AQMA 6 – Larkfield

There was one diffusion tube monitoring location that exceeded the annual mean objective in 2018. This tube has experienced an exceedance each year since monitoring commenced at the location in 2016. The diffusion tube is sited on a residential façade and therefore is located at a location of relevant exposure. From the modelling completed there were no exceedances of the annual mean NO_2 objective at any of the modelled receptor locations, and the concentration isopleths display that all concentrations in excess of $40\mu\text{g}/\text{m}^3$ are contained within the modelled road links.

Due to the location of the monitored exceedance it is recommended to revise the AQMA boundary, retracting the eastern boundary of the AQMA to the junction of London Road and New Hythe Lane. This would incorporate the monitoring location that is currently showing an exceedance, and the junction whereby predicted concentrations are at their highest. Due to amendment rather than revocation being recommended, a mixture of AQMA specific and borough wide initiatives should be implemented.

5.7 AQMA 7 – Borough Green

There were no monitored exceedances recorded during 2018, which is the first time this has occurred over the past five years. One monitoring location (TN70, 72, 73) has consistently been in exceedance of the annual mean objective, within 2018 this was below, but within 10% of the objective ($39.6\mu\text{g}/\text{m}^3$). Across the majority of the monitoring sites within the AQMA a downward trend in annual mean concentrations within the AQMA is visible between 2014 and 2018. In addition there were no modelled exceedances predicted within the AQMA at relevant locations of exposure, but there was one receptor concentration predicted to be within 10% of the objective at a location close to TN70, 72, 73. The concentration isopleths display that exceedances of the annual mean objective are mostly predicted to be within the boundaries of the road links, with this encroaching to relevant receptors only in the locality of TN70, 72, 73.

Due to the location of the monitoring site, and modelled receptors that are within 10% of the annual mean objective it is recommended to revise the current AQMA boundary. As all other monitoring sites and modelled receptors show compliance with the objective the boundary should remain around the junction of Sevenoaks Road and Western Road to the west of the current AQMA. Due amendment rather than revocation being recommended, a mixture of AQMA specific and borough wide initiatives should be implemented.

Decision Taken By: Cabinet Member for Street Scene and Environment Services

Decision No:
D200065MEM

Date: 05 October 2020

Decision(s) and Reason(s)

Draft Updated Air Quality Action Plan

(Report of Director of Planning, Housing and Environmental Health)

The report provided an updated Air Quality Action Plan (AQAP) for the six Air Quality Management Areas (AQMAs) within the Borough. The AQAP outlined actions to be taken to reduce concentrations of pollutants within the AQMAs so that, eventually, these could be revoked. The actions identified within the AQAP would also be used to tackle Nitrogen Dioxide across the Borough as a whole.

Following consideration by the Street Scene and Environment Services Advisory Board, the Cabinet Member for Street Scene and Environment Services resolved that:

The Draft Amended Air Quality Action Plan, as set out at Annex 2 to the report, be endorsed and the wider statutory consultation be undertaken.

Reasons:

As set out in the report submitted to the Street Scene and Environment Services Advisory Board of 5 October 2020.

Signed Cabinet Member for
Street Scene and
Environment Services

R Betts

Signed Leader:

N Heslop

Signed Chief Executive:

J Beilby

Date of publication:

9 October 2020

This decision will come into force and may then be implemented on the expiry of 5 working days after publication unless it is called in.

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