



Tunbridge Wells Borough Council

Air Quality Action Plan 2018-2023



Foreword

Air pollution impacts on public health, the natural environment, and the economy. It is well known that long term exposure to high levels of air pollution can have potentially serious health implications, including contributing to cardiovascular disease, lung cancer and respiratory diseases. Bad air quality affects everyone and it has a disproportionate impact on the young and the old, the sick and the poor. In recent years we have seen a downward trend in air pollution levels and as a Council we are committed to continuing the improvements in local air quality.

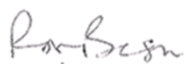
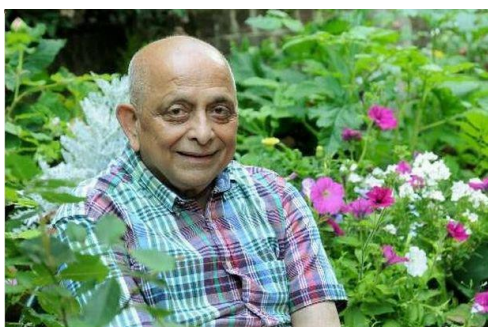
We have been measuring air pollution for many years, to fulfil our statutory obligations under the Environment Act 1990. The pollutants monitored in the Borough are nitrogen dioxide (NO₂) and PM₁₀ (Particulate Matter less than 10 microns diameter.)

An Air Quality Management Area (AQMA) was initially declared in 2005, based on exceedances of the Air Quality Strategy annual mean objective for nitrogen dioxide (NO₂). The AQMA was extended in 2011 and adjusted at the end of 2018 as part of updating this action plan. The PM₁₀ objectives have not been exceeded in Tunbridge Wells.

In recent years we have seen a downward trend in NO₂ levels in the Borough, and following a report commissioned in 2016 we have amended the current boundaries of the AQMA to more accurately reflect the areas of exceedance.

We also recognise the impact of particulate matter PM_{2.5} on health. Whilst the levels in the borough do not exceed those set for this pollutant, the measures proposed in this plan will also help deliver improvements with regards to this issue.

The Council introduced its first Air Quality Action Plan in 2010. All the actions have since been completed where possible or were found not to be viable. The 2018-2023 Action Plan sets out our priorities as we work towards continuing to improve and maintain good air quality.



Councillor Dr Ronen Basu
Portfolio Holder for Sustainability

Responsibilities and commitment

This Air Quality Action Plan (AQAP) was prepared by Sustainability and Mid Kent Environmental Health with the support and agreement of officers from the Borough and County Council and will be jointly delivered by:

Tunbridge Wells Borough Council
Kent County Council

The outline of this Air Quality Action Plan was first approved by Cabinet 2nd August 2018. A public consultation was held between 14th September 2018 to 28th October 2018, with the revised Air Quality Action Plan approved and adopted by Cabinet 7th March 2019.

Details on the public consultation can be found at: [link to public consultation information](#)

The Air Quality Action Plan will be subject to an annual review, appraisal of progress and reporting to Cabinet.

Progress each year will be reported in the Annual Status Reports (ASR's) produced by Tunbridge Wells Borough Council, as part of our statutory Local Air Quality Management duties.

The Air Quality Action Plan is a live document. Measures will be added and developed throughout the lifetime of this Plan.

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Air Quality Action Plan



1 Introduction

- 1.1. With the ongoing growth of Tunbridge Wells, one of the Council's overriding priorities is to encourage investment and sustainable growth and enhance quality of life for all.
- 1.2. Focusing on activities that support prosperity, wellness and inclusivity, the borough will be a more attractive place to live, work and visit.
- 1.3. The borough already faces the challenges of more traffic on our roads, increased congestion, and at times poorer air quality. That's why we are committed to our second Air Quality Action Plan, concentrating on the three themes of transport, planning and public health, which describes the measures that we will take, with Kent County Council to ensure that our borough continues to thrive. The Air Quality Action Plan fits with the borough council's vision to make Tunbridge Wells a great place to live, learn and work.
- 1.4. Under the Environment Act 1995, all local authorities have a duty to review and assess air quality in their area periodically, in order to determine whether or not the relevant air quality objectives are likely to be met. Where it appears that the air quality objectives will not be met, local authorities must declare an Air Quality Management Area (AQMA) and develop an associated Air Quality Action Plan in pursuit of the air quality objectives. The air quality objectives are shown in Table 1.
- 1.5. Tunbridge Wells Borough Council declared an AQMA in 2005, based on exceedances of the Air Quality Strategy objective for nitrogen dioxide (NO₂). The AQMA was extended in 2011 when exceedances were found outside of the original AQMA boundaries.
- 1.6. The predominant source of the elevated levels of air pollution is the emissions of oxides of nitrogen (NO_x) from road transport vehicles. Road transport vehicles are

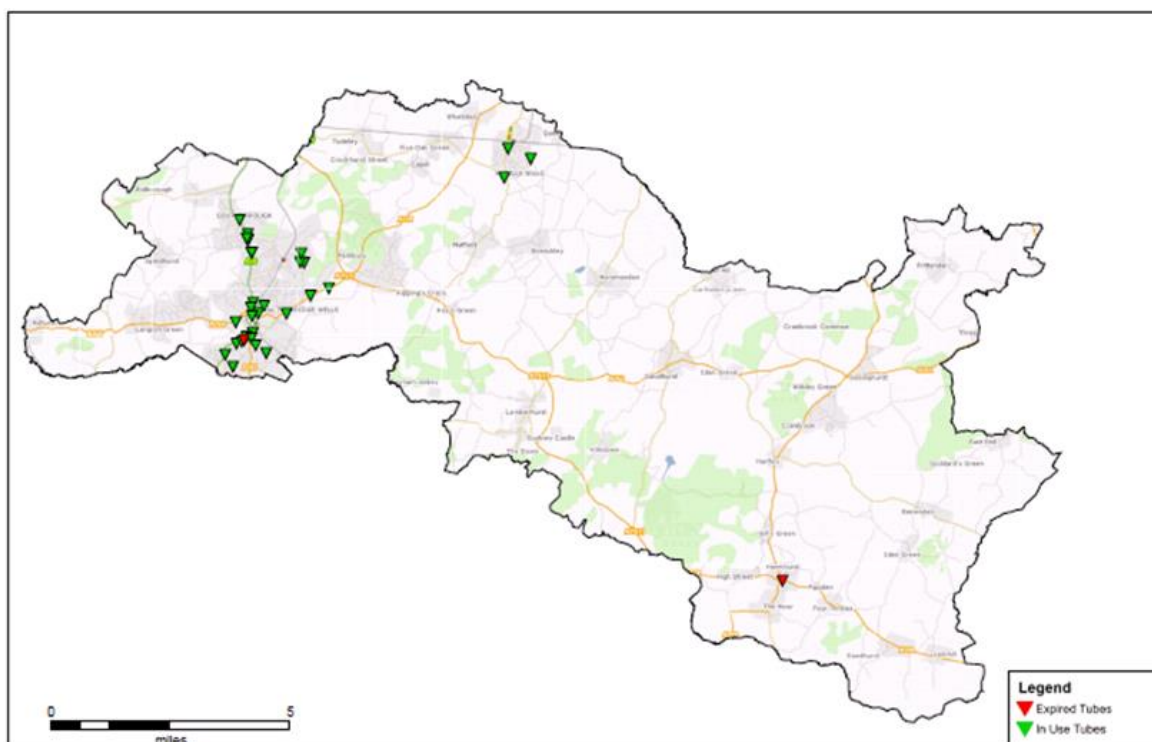
also a significant source of fine particulate concentrations in Tunbridge Wells, and, although levels fall below the EU threshold, it is known that long term exposure to high levels of air pollution can potentially have serious health impacts. It is now thought that there is no safe level for fine particles (PM_{2.5}) (less than 2.5 microns in size). In 2013, the World Health Organisation (WHO) classified diesel exhaust emissions as carcinogenic to humans.

- 1.7. Local Authorities are also expected to work towards reducing emissions and concentrations of PM_{2.5} in their local area as practicable. However, we are not required to carry out any monitoring or any additional local review and assessment but make use of national monitoring (see [link to national monitoring information](#)). We already meet the guideline value of PM_{2.5} of 25µg/m³ to be met by 2020 and a new more stringent objective from 2020 of 20µg/m³ is also already being met, as well as a future guideline value of 10µg/m³. The actions we are proposing to take to reduce levels of NO₂, will also contribute towards reducing levels of fine particulate matter. The 2014 data from Public Health England for PM_{2.5} shows that the mean anthropogenic PM_{2.5} to be 8.9µg/m³ for Tunbridge Wells (see [link to Public Health England information](#)).

Summary of current air quality monitoring

- 1.8. Tunbridge Wells has an automatic monitoring station in London Road, Southborough, which measures NO₂ and PM₁₀ (particulate matter less than 10 micron diameter). Also, a network of diffusion tubes is deployed across the Borough to measure NO₂. Figure 1, below, shows a map of the NO₂ monitoring locations across Tunbridge Wells Borough.

Figure 1: Map of monitoring locations in Tunbridge Wells borough



Although nitrogen dioxide levels have exceeded the relevant objective for many years, they appear to have been on a steady downward trend since 2014. In 2017 the level measured at the monitoring station was $40\mu\text{g}/\text{m}^3$ which is equal to the objective level (see Figure 2).

- 1.9. It is worth noting, however, that the annual mean objective for nitrogen dioxide is primarily applicable at residential receptors. The air quality monitoring station is considerably closer to the road than any residential property at that location; therefore the nearest receptors will be experiencing NO_2 levels below the objective.
- 1.10. PM_{10} levels have never exceeded the objective in Tunbridge Wells, however, these too appear to be reducing, with levels in 2017 being the lowest we have seen (see Figure 3).

Table 1: Air quality objectives in England

Pollutant	Air quality objective - concentration	Air quality objective – measured as
Nitrogen Dioxide (NO_2)	$200\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO_2)	$40\mu\text{g}/\text{m}^3$	Annual mean
Particulate Matter (PM_{10})	$50\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM_{10})	$40\mu\text{g}/\text{m}^3$	Annual mean
Sulphur Dioxide (SO_2)	$350\mu\text{g}/\text{m}^3$, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO_2)	$125\mu\text{g}/\text{m}^3$, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO_2)	$266\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	15-minute mean

The units are in micrograms of pollutant per cubic metre of air ($\mu\text{g}/\text{m}^3$).

Figure 2: NO₂ levels at TWBC automatic monitoring station

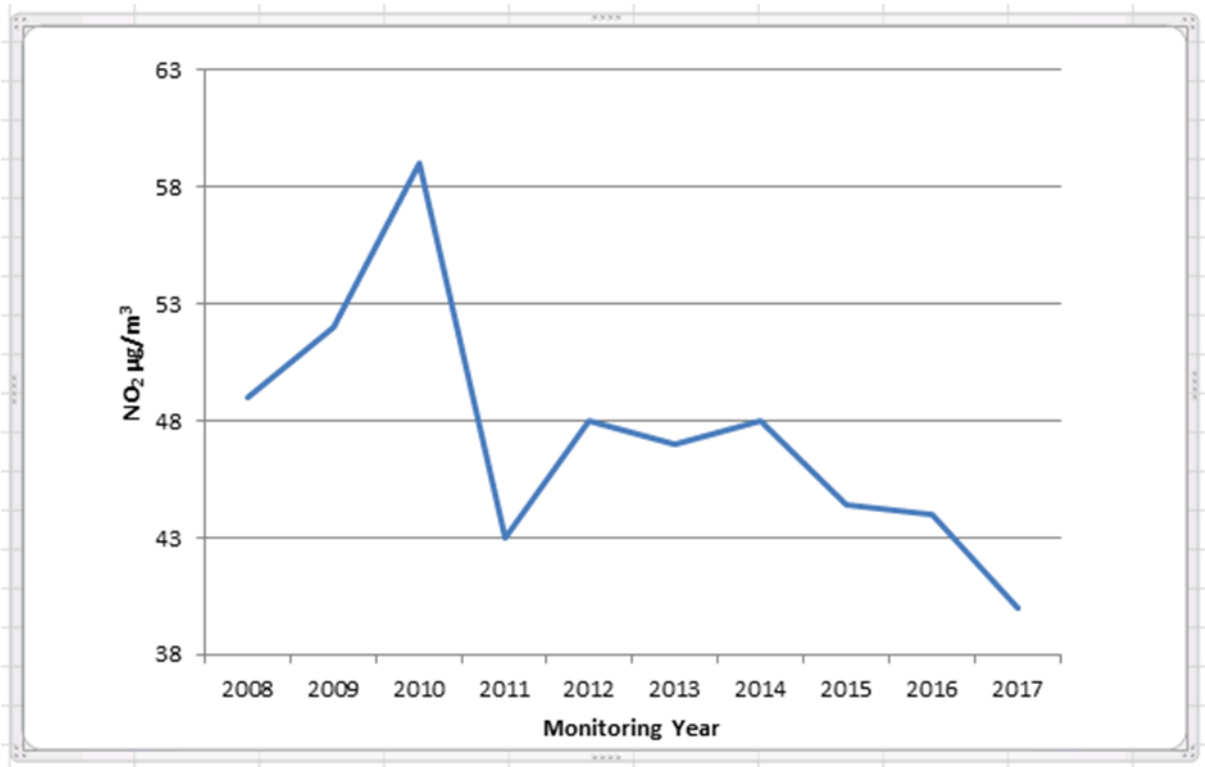
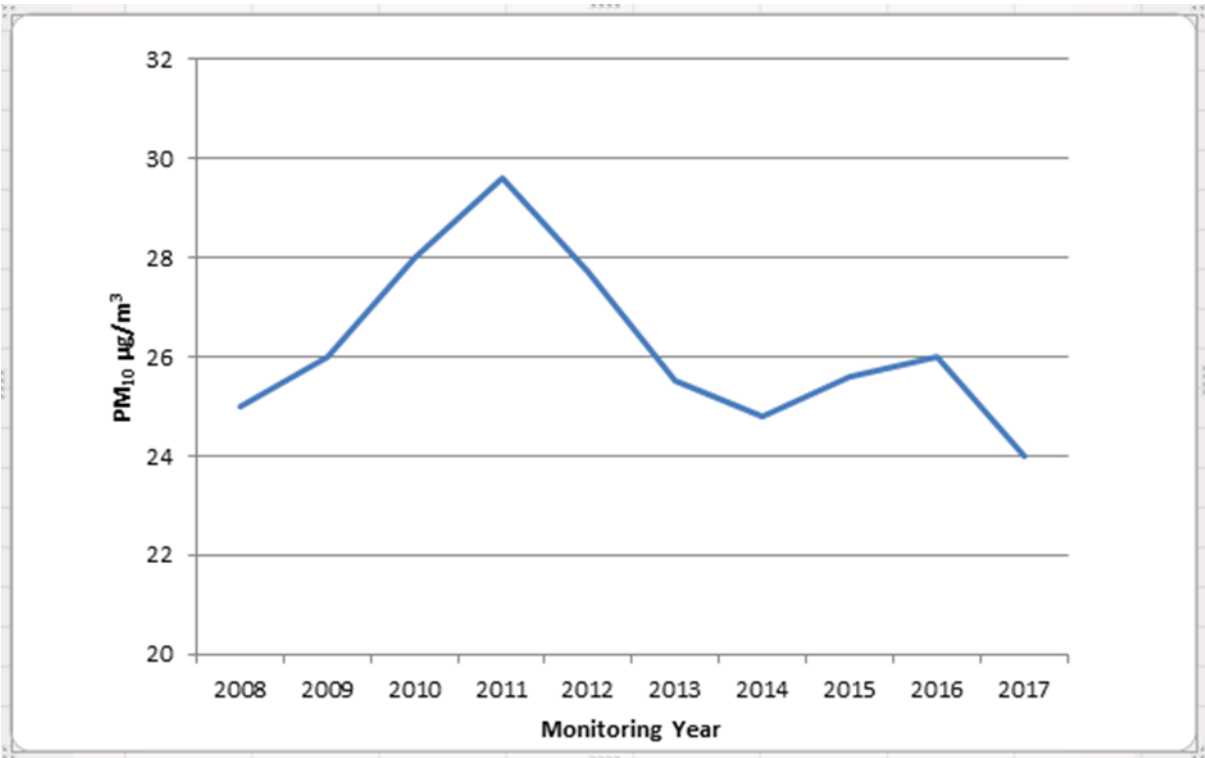


Figure 3: PM₁₀ levels at TWBC automatic monitoring station



Source apportionment

- 1.11. In 2016, TWBC commissioned a report to review the boundaries of the AQMA and to undertake a source apportionment exercise (based on 2014 air quality monitoring data).
- 1.12. The traffic sources contributing to the objective exceedances have been identified. This data can be used to help develop an appropriate Action Plan and to inform future traffic management decisions. They have been calculated in line with guidance provided in LAQM.TG(16) (Defra, 2016).
- 1.13. Table 2 and Figure 4 set out the relative contributions of traffic emissions. The following categories have been included in the source apportionment:
- Regional Background (Reg Bkgd);
 - Local Background (Local Bkgd);
 - Motorcycles (MCL);
 - Cars;
 - Light Goods Vehicles (LGV);
 - Buses;
 - Rigid Heavy Goods Vehicles (Rigid); and
 - Articulated Heavy Goods Vehicles (Artic.)
- 1.14. 13 receptor locations, as set out in Table 3, were identified, which have been used to provide an overview of source contributions. Table 2 and Figure 4 show that the most significant local road traffic component at all receptors are emissions from cars (although not shown, diesel cars will have a greater contribution than petrol cars). For Receptors 7, 9, 11 and 12, (Grosvenor Road and Eridge Road) the relative contribution from buses is higher than at other locations, although car emissions still dominate.
- 1.15. The report concludes that in order to achieve the relevant objective at all locations, a reduction in traffic emissions of 33% would be required. However, the report was based on 2014 data, which was relatively high. The latest data available (2017) already shows a significant reduction as shown in Figure 2. Whilst the report identifies that cars are the most significant source of pollution in the Borough, it's important that the Action Plan does not ignore the other vehicle types. Modelling carried out in 2017, (to investigate the potential for reductions in annual mean nitrogen dioxide concentrations as a result of the retrofitting of Euro IV and Euro V buses so that they are equivalent to Euro VI models), suggested that if 50% of the bus fleet could be brought up to Euro VI standard, this could achieve a reduction in NO₂ levels approaching 10%.

Table 2: Predicted annual mean nitrogen dioxide concentrations (2014) and the contribution of each source type to the total

Data shows annual mean concentration ($\mu\text{g}/\text{m}^3$)

Receptor	Reg Bkgd	Local Bkgd	MCL	Car	LGV	Bus	Rigid	Artic	Total
1	6.6	3.9	0.04	8.1	3.1	2.3	2.3	1.1	27.5
2	6.6	5.1	0.04	11.2	3.9	3.8	3.8	1.9	36.4
3	6.6	5.1	0.05	13.6	4.6	4.4	4.5	2.2	41.1*
4	6.6	5.1	0.02	5.3	1.9	1.8	1.9	0.9	23.6
5	6.5	6.6	0.05	12.2	4.4	4.3	4.3	2.2	40.6*
6	6.5	6.6	0.04	11.5	4.0	4.2	4.0	2.0	38.9
7	6.4	8.9	0.04	11.4	2.9	11.3	4.0	0.3	45.3*
8	6.4	8.9	0.04	12.9	4.3	4.7	4.2	1.5	42.9*
9	6.4	8.9	0.04	8.6	2.4	7.7	2.7	0.2	37.0
10	6.5	5.9	0.03	8.6	2.7	5.3	4.9	2.5	36.5
11	6.5	5.9	0.04	17.8	4.2	8.0	5.5	3.3	51.2*
12	6.5	5.9	0.03	15.6	3.6	6.9	4.6	2.8	45.9*
13	6.4	8.9	0.07	15.5	5.8	2.1	4.3	1.5	44.5*

*Figure exceeds objective of $40 \mu\text{g}/\text{m}^3$

Data shows % contribution to total

Receptor	Reg Bkgd	Local Bkgd	MCL	Car	LGV	Bus	Rigid	Artic	Total
1	24.1	14.3	0.2	29.5	11.4	8.3	8.4	3.8	100
2	18.1	14.1	0.1	30.8	10.7	10.5	10.4	5.3	100
3	16.0	12.5	0.1	33.1	11.1	10.7	11.0	5.4	100
4	27.9	21.8	0.1	22.3	8.2	7.8	7.9	4.0	100
5	16.0	16.4	0.1	30.1	10.8	10.7	10.5	5.4	100
6	16.7	17.1	0.1	29.6	10.4	10.7	10.3	5.0	100
7	14.0	19.7	0.1	25.2	6.5	24.9	8.7	0.8	100
8	14.8	20.8	0.1	30.0	10.0	11.0	9.8	3.5	100

Receptor	Reg Bkgd	Local Bkgd	MCL	Car	LGV	Bus	Rigid	Artic	Total
9	17.2	24.0	0.1	23.4	6.4	20.9	7.4	0.6	100
10	17.8	16.1	0.1	23.5	7.5	14.5	13.5	7.0	100
11	12.7	11.5	0.1	34.8	8.1	15.6	10.7	6.4	100
12	14.2	12.8	0.1	34.0	7.8	15.0	10.1	6.1	100
13	14.3	20.1	0.1	34.8	12.9	4.6	9.7	3.3	100

Figure 4: Relative contribution of each source type to the total predicted annual mean nitrogen dioxide concentration at receptor locations ($\mu\text{g}/\text{m}^3$)

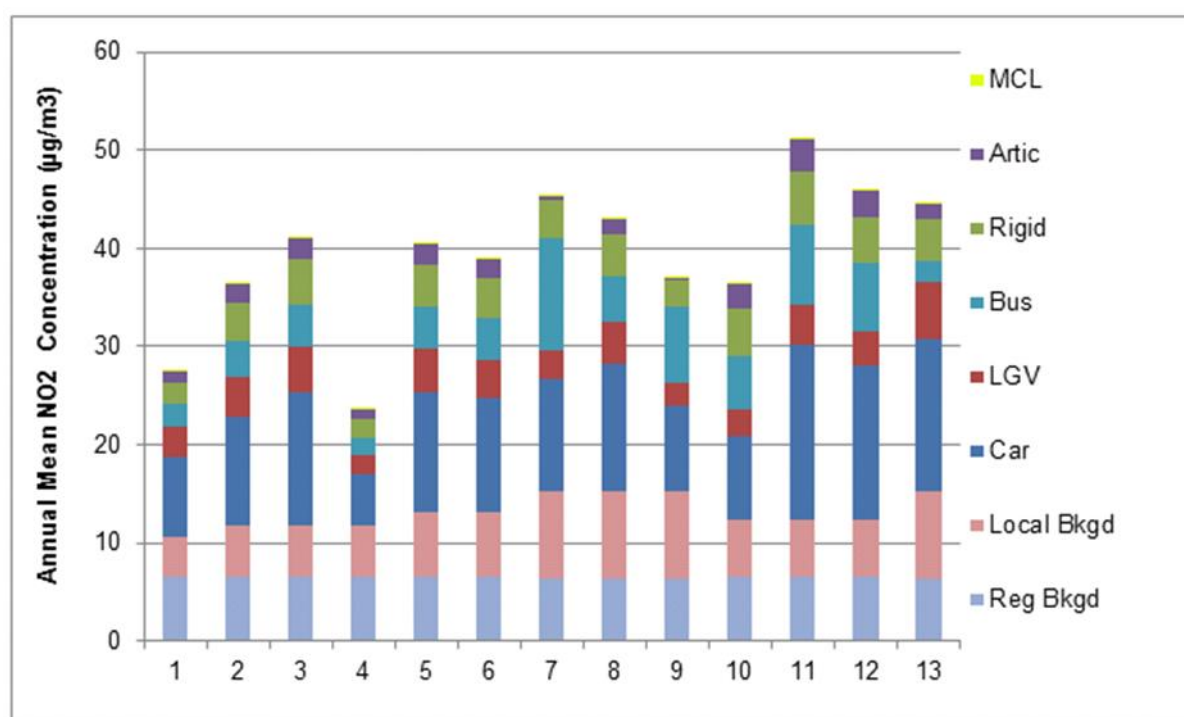


Table 3: Modelled annual mean nitrogen dioxide concentrations at specific receptors

Receptor	Location	Height	2014 ($\mu\text{g}/\text{m}^3$)
1	56a London Road	1.5	27.5
2	138 London Road	4.5	36.4
3	162 London Road	4.5	41.1*
4	220 St John's Road	1.5	23.6
5	50 St John's Road	1.5	40.6*
6	12 St John's Road	1.5	38.9

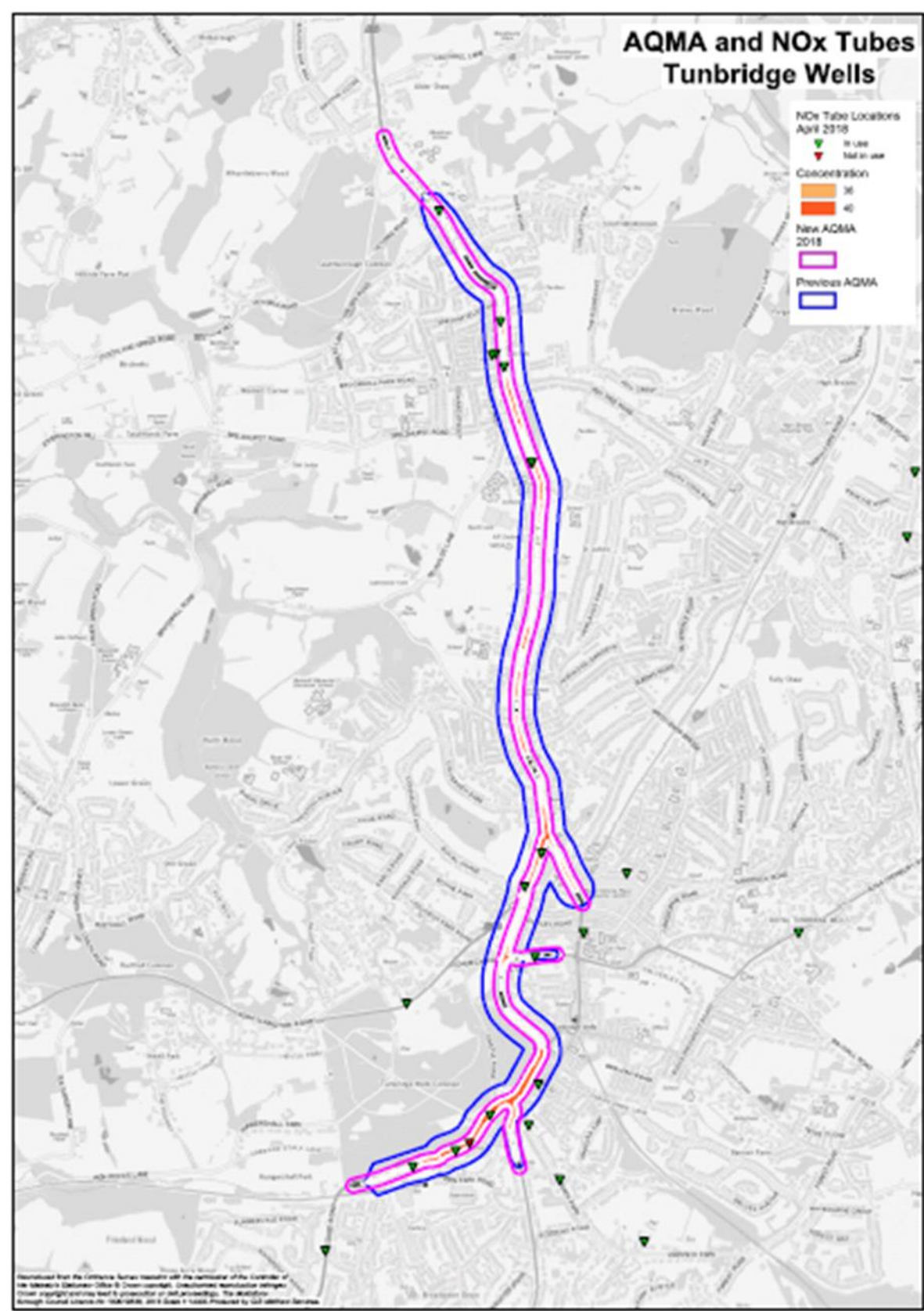
Receptor	Location	Height	2014 ($\mu\text{g}/\text{m}^3$)
7	71 Grosvenor Road	1.5	45.3*
8	8 Mount Ephraim	1.5	42.9*
9	58 Grosvenor Road	1.5	37.0
10	1 London Road	4.5	36.5
11	8 Eridge Road	4.5	51.2*
12	38 Eridge Road	1.5	45.9*
13	48 Mount Ephraim	1.5	44.5*

*Figure exceeds objective of $40 \mu\text{g}/\text{m}^3$

Air Quality Management Area review

- 1.16. The predicted area of exceedance is slightly smaller than the current Air Quality Management (AQMA), boundary. Taking account of uncertainties in assessment methods it has become industry practice to allow for at least a 10% variation from the annual mean objective of $40\mu\text{gm}^{-3}$ NO_2 , with the revised AQMA including areas within the $36\mu\text{gm}^{-3}$ contour. This ensures the AQMA covers likely areas of exceedance as well as exceedances and allow for any variations in year to year data, caused by weather or monitoring equipment.
- 1.17. The current AQMA boundary has been extended slightly to the north and south, but the buffer, which currently stands at 80m, either side of the centreline of the A26 carriageway, is reduced to 30m. The map of the current and proposed AQMA boundaries is shown below in Figure 5.
- 1.18. Redrawing the boundaries of the AQMA more accurately, complies with DEFRA guidance , with a 30m buffer providing clarity and enables the Council to focus its energies more effectively to progress the actions proposed and is straightforward in relation to the planning system.
- 1.19. Following approval from Cabinet 2nd August 2018 (CAB47/18), the Air Quality Management Area Order was amended on 1st September 2018, with a copy submitted to DEFRA.

Figure 5: Comparison on existing AQMA and proposed new AQMA



2. Aims

2.1. The aims of the Action Plan are as follows:

1. To ensure that Tunbridge Wells Borough Council is complying with relevant air quality legislation
2. To achieve a higher standard of air quality across Tunbridge Wells Borough
3. To engage with partners and colleagues including those representing Highways and Transportation, Public Health, Economic Development, local Bus Companies, and other relevant stakeholders, to improve air quality across the Borough
4. To build on previous work in this area in order to drive further improvements in air quality with the ultimate aim of being able to revoke the Air Quality Management Area

3. Actions

3.1. This plan is divided into a number of themes, transport, planning and health and actions have been developed under each of these themes. The themes are shown below together with an overview of the type of measures included. The actions included are detailed fully within the implementation plan (appendix 1).

Theme 1: Transport

- 3.2. Since transport is the main cause of the pollution affecting Tunbridge Wells Borough, the Transport section of the AQAP will be the most important. This section will complement other Council policies and strategies such as the Local Plan, Local Transport Plan and the Infrastructure Delivery Plan. Actions in the Transport theme are designed to encourage 'modal shift' i.e. increased walking cycling and use of public transport, thereby reducing the number of vehicles on the road, improving the flow of traffic on the road network and encouraging the use of cleaner vehicles.
- 3.3. The latest UK road-traffic emission factors (see [link to DEFRA emissions factors toolkit](#)) show that buses are significantly higher emitters of NO_x than cars, LGVs and even HGVs. The level of emissions is mainly dependent upon the emission technology (Euro classes). The bus fleet across Tunbridge Wells and Maidstone comprises predominantly Euro III vehicles, and Euro V vehicles. There is therefore significant scope for improvement. TWBC will investigate ways to improve the composition of the bus fleet in the Borough, including taking advantage of suitable funding opportunities, wherever possible. There may also be scope for working with bus operators to move their cleanest buses onto the most polluted routes.



- 3.4. Increasingly, Local Authorities are introducing Emissions Standards for the bus fleets within their Boroughs. One consequence of this is that, as bus fleet operators use their newer, cleaner buses in areas where emissions standards have been introduced, they shift their older more polluting buses to the areas where no standards apply.
- 3.5. Therefore, an emissions standard for buses operating in the District, could achieve a significant improvement in air quality. This would need to be a medium to long term action, as it would be unreasonable to expect bus operators to replace their fleets overnight. Nevertheless we can work with bus operators to decide an appropriate standard, and over what period of time this could be introduced. In the first instance, any bus emissions standard would be likely to apply only in the AQMA, but the ultimate aim would be to continue to improve air quality across the entire Borough, so the standard might well be extended when possible. At the end of 2017, the composition of the Arriva bus fleet in Tunbridge Wells was as shown below:-

Table 4: Composition of Arriva bus fleet Tunbridge Wells (December 2017)

Type of bus	Number of buses
Euro 2	4
Euro 3	25
Euro 4	2
Euro 5	12
Euro 6	0
Total	43

- 3.6. TWBC will also consider an emissions standard for taxis. Taxis are far less significant polluters than buses, however TWBC will be forward thinking and encourage the shift towards low and ultra-low emission vehicles. The present Taxi Licensing Policy sets a

vehicle age standard, however, a standard based on vehicle emissions, coupled with measures to encourage the use of hybrid and electric vehicles as taxis would represent a significant improvement. This will be facilitated during the next review of taxi policy.

- 3.7. There is anecdotal evidence of a problem with both buses and taxis, regarding engine idling. We will look at options to tackle this problem, whether through encouragement or enforcement.
- 3.8. The council will be looking at ways to improve the emissions of the HGV and LGV fleets using the Borough's road network. For example, it might be possible to ease restrictions on late night deliveries, so that some lorries can be taken away from busy areas at peak times. However, this will need to be balanced with protecting residents from unreasonable noise disturbance. We will also evaluate the fleet operator schemes such as the Fleet Operator Recognition Scheme (FORS) (see [link to information on FORS](#)) and 'Ecostars' (see [link to information on Ecostars](#)).
- 3.9. The Council will also be delivering opportunities to enable the uptake of electric vehicles, for example, by requiring developers to build in EV charging points to new developments, using parking policy to provide incentives for using low emission vehicles, and ensuring that all its own EV points are maintained and available for the public.
- 3.10. Half of all women and a third of men in England are damaging their health due to a lack of physical activity (see [link to Working Together to Promote Active Travel: A briefing for local authorities PHE 2016](#)). Daily physical activity is hugely important for maintaining health with inactivity directly contributes to one in six deaths in the UK (see Department of Health (2011) Start Active, Stay Active: A report on physical activity from the four home countries' Chief Medical Officers. London: DH. And Lee I-M, et al (2012) Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. The Lancet 380: 219–29, quoted in PHE). The most efficient way to achieve an increase in physical activity and support the health and wellbeing targets is by building active travel into daily routines. (? Check, where is footnote no. 9 info?)
- 3.11. This Plan also includes a number of measures to encourage 'active travel' such as walking and cycling (see [link to cycling and walking investment strategy](#)). Not only will this support improvement to health, but will also benefit local air quality and congestion. This Action Plan complements the Council's Transport, Cycling and Walking strategies and we will be encouraging the provision of good quality infrastructure, by, for example, requesting S106 funding or through growth funding.
- 3.12. Car clubs and car share are a key component for future sustainable transport solutions (see [link to guide Making car clubs work - The social, environmental and financial case for car clubs 2016 \(car plus/ bike plus\)](#)) and we will continue to support the provision and expansion of the car club in Tunbridge Wells and support the uptake of car sharing. We will also engage with schools to encourage them to reduce the impact of school traffic by increasing their use of green travel options.

Theme 2: Planning



- 3.13. 'Tunbridge Wells Borough faces significant transport challenges, particularly in terms of managing existing congestion and future growth, as well as needing to respond to the impacts of air quality and climate change'. Effective planning policies will play a vital role in helping to sustain air quality improvements by supporting active travel and discouraging the use of high emission vehicles and supporting the uptake of low emission vehicles, including the provision of low emission vehicle infrastructure, such as EV charging points.
- 3.14. Recently published National Planning Practice Guidance (NPPG) states that mitigation may include the contribution of “funding to measures, including those identified in air quality action plans and low emission strategies, designed to offset the impact on air quality arising from new development”. While air quality is only one of many considerations that are relevant to planning, the NPPG states that where sustained compliance with EU Limit Values is prevented, a local authority is to “consider whether planning permission should be refused”.
- 3.15. It is increasingly recognised that developers should be required to use mitigation measures to offset the environmental damage caused by their new developments.
- 3.16. The Kent and Medway Air Quality Partnership has developed planning guidance which includes the integration of mitigation measures into scheme design as standard and uses a damage cost approach to inform the scale of mitigation required for major schemes. This approach should work very well in Tunbridge Wells Borough. This element will be one of the actions that have the most potential impact as it will mitigate the effects of necessary new development on air quality in a holistic nature. The provision of EV infrastructure and low NOx boilers will become viewed as minimum standards for inclusion in new developments.
- 3.17. Air pollution can negatively affect natural habitats, ecosystems and processes, and plants and animals. Serious environmental impacts of air pollution occur as a result of nitrogen deposition, acid deposition and direct toxic effects of pollutants in the air. This Plan supports and complements the development of the Council’s Green Infrastructure Plan.
- 3.18. The important link between planning and air quality is fully recognised in the action plan.

Partnerships

- 3.19. The Council will examine the increased potential for purchase cost savings when buying low emission vehicles and deploying low emission vehicle infrastructure through innovative partnerships with both public sector organisations and the private sector.

Theme 3: Public health



- 3.20. Public Health is one of the key drivers for reducing air pollution.
- 3.21. Exposure to air pollution is linked with adverse health effects such as heart disease, stroke and respiratory disease. Air pollution is known to exacerbate asthma and allergies, and disproportionately affects the young, the elderly and those with pre-existing respiratory conditions such as bronchitis and Chronic Obstructive Pulmonary Disease (COPD). It also causes increased rates of hospital admission and contributes to premature deaths. Diesel fumes are now known to be carcinogenic.
- 3.22. The Air Quality Action Plan will complement but not duplicate work being undertaken to promote active travel initiatives and public transport use. This includes the Council's Transport and Cycling Strategies and Sports and Recreation strategy, as well as KCC's Active Travel strategy and Public rights of Way Improvement Plan. TWBC will also work with KCC Public Health to raise awareness of the health issues associated with poor air quality.
- 3.23. We will also be working with schools to reduce the impact of school traffic as part of our clean air for schools campaign.

Monitoring and review

- 3.24. The Air Quality Action Plan 2018 - 2023 will be subject to an annual review with progress reported to DEFRA as part of our statutory duties under the Local Air Quality Management regime and to Cabinet. The Air Quality Action Plan is a live document, with measures added and developed throughout the lifetime of this Plan.
- 3.25. The Plan as a whole will be reviewed in 2023 in line with the Local Plan

Areas for future action

- 3.26. There are other sources of both particulate and nitrogen emissions that contribute to the global emissions to air of these pollutants. Most notable of these are agriculture, domestic wood burning and biomass energy generation as set out in the government's published Air Quality Strategy 2019 document. While these areas are

important, the council will at this stage focus its resources on the areas where the impact on public health is most significant. It is also anticipated that specific guidance will be issued by DEFRA in relation to emissions from agriculture and biomass. When this is released this can be incorporated in the strategy and action plan.

Glossary of terms

Term	Definition
$\mu\text{g}/\text{m}^3$ or μgm^{-3}	Micrograms per cubic metre
AADT	Annual Average Daily Traffic
Annualisation	The process of estimating annual means from the extrapolation of short-term monitoring results
APR	Annual Progress Report
AQAP	Air Quality Action Plan. A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the LA intends to achieve air quality limit values
AQMA	Air Quality Management Area. An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
AURN	Automatic Urban and Rural Network
Bias Correction	For NO_2 diffusion tubes, bias represents the overall tendency of the tubes to under or over-read relative to the reference chemiluminescence analyser. This should not be confused with precision, which is an indication of how similar the results of duplicate or triplicate tubes are to each other. It is necessary to calculate a bias factor and adjust monitored results accordingly
CAZ	Clean Air Zone. Where certain types of vehicles cannot enter without meeting set emission standards or facing a penalty charge
Chemiluminescence	The emission of a photon of light during a chemical reaction which does not produce significant quantities of heat

Term	Definition
CO	Carbon monoxide
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
Detailed Assessment	Use of a detailed dispersion model to determine if a particular emissions source is likely to create an exceedance of a given Air Quality Strategy objective
Dispersion Modelling	The mathematical computation of the dispersal of emissions as they travel through the ambient atmosphere
CO	Carbon monoxide
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
Detailed Assessment	Use of a detailed dispersion model to determine if a particular emissions source is likely to create an exceedance of a given Air Quality Strategy objective
Dispersion Modelling	The mathematical computation of the dispersal of emissions as they travel through the ambient atmosphere
Fugitive Emissions	Emissions brought about by unintended or irregular releases that do not pass through the intended emissions point, mostly from industrial activities
GIS	Geographical Information System
HDV	Heavy Duty Vehicle
HGV	Heavy Goods Vehicle
Hot-spot	A localised area where emissions and/or concentrations of a given pollutant are notably higher than is generally the case across the wider Local Authority area
IPPC	Integrated Pollution Prevention and Control
KCC	Kent County Council

Term	Definition
Kerb	In the context of LAQM, the kerb is defined as the edge of the carriageway with free-flowing traffic. In most instances, this will be the physical kerb with the pavement, although in some cases, where for example stationary vehicles are regularly parked alongside a road, the 'nominal' kerb may be classed as being within the road itself, away from the 'physical' kerb
LAPPC	Local Air Pollution Prevention and Control
LAQM	Local Air Quality Management
LAQM.PG16	Local Air Quality Management Policy Guidance 2016
LAQM.TG16	Local Air Quality Management Technical Guidance 2016
LDV	Light Duty Vehicle
LEP	Low Emission Partnership
LEZ	Low Emissions Zone. Where certain types of vehicles cannot enter without meeting set emission standards or facing a penalty charge
LGV	Light Goods Vehicle
Local Background	<p>In a broader sense, the "local background" can be said to be equal to the "total background" concentration at any given point, with the term "local" used to clarify that this must be relevant to the geographical point in question.</p> <p>However, in some contexts (particularly source apportionment), "local background" is a component of the "total background". It then relates to sources that contribute to the "total background" that lie within a Local Authority area, which they should thus have some influence over. In this case, the "total background" would be</p>

Term	Definition
	equal to the "local background" + the "regional background"
LTP	Local Transport Plan
Model Verification	A comparison of the modelled results versus monitoring results at relevant locations to enable the adjustment of model outputs, minimising the inherent uncertainties associated with dispersion modelling
MPH	Miles per hour
NO ₂	Nitrogen dioxide is a brown gas, with the chemical formula NO ₂ . It is chemically related to nitric oxide (nitrogen monoxide), a colourless gas with the chemical formula NO
NO _x	Oxides of nitrogen, together, NO and NO ₂ are known as NO _x
NRMM	Non-Road Mobile Machinery
O ₃	Ozone
Pb	Lead
Plant	Industrial, manufacturing or construction mechanical equipment or vehicle
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 (Taken deep into the lungs)
Primary Source	A source of emissions that directly contributes to the concentrations of a given pollutant
QA/QC	Quality Assurance and Quality Control
Regional Background	The component of the "total background" that does not come from local sources, thus is outside of direct local authority control. This is represented by the "rural" column in the national background maps

Term	Definition
Relevant Receptor	A location representative of human (or ecological) exposure to a pollutant, over a time period relevant to the objective that is being assessed against, where the Air Quality Strategy objectives are considered to apply
RSW	Report Submission Website
Screening Assessment	Use of a screening tool to determine if a particular emissions source is likely to create an exceedance of a given Air Quality Strategy objective
Secondary Source	A source of emissions that in-directly contributes to the concentrations of a given pollutant, primarily via chemical reaction with other components of the atmosphere
SO ₂	Sulphur dioxide
Source Apportionment	The process of attributing the relative contribution of individual emissions sources to the overall ambient concentration of a given pollutant
Street Canyon	Generally defined as narrow streets where the height of buildings on both sides of the road is greater than the road width, leading to the formation of vortices and recirculation of air flow that can trap pollutants and restrict dispersion
Target Emission Rate	The calculated emissions rate at which it is considered unlikely that the given objective for a pollutant and averaging period will be exceeded, to be obtained through the LAQM screening tools
TEA	Triethanolamine
TEOM	Tapered Element Oscillating Microbalance
TEOM-FDMS	Tapered Element Oscillating Microbalance Filter Dynamics Measurement System
TfL	Transport for London
Total Background	The "total background" is equal to the "local

Term	Definition
	background" + the "regional background"
USA	Updating and Screening Assessment
VCM	Volatile Correction Model

Appendix 1: Implementation Plan – AQAP 2018 - 2023

Transport related actions:

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
Transport Priority 1	Support the development of cycling and walking infrastructure to increase the use of sustainable transport modes such as walking and cycling	KCC Transport and Development Planning Team Inc. Transport Innovations, Economic Development, Sustainability and Environmental protection Project lead: Economic Development and KCC Transport and Development Planning team; Inc. Cycling Transport Planner	Support the review of the Tunbridge Wells Transport Strategy 2015 - 2026 to feed into local plan, (including traffic modelling work). Support the ongoing delivery of a network of high quality footpaths/cycle ways as specified in the Tunbridge Wells Borough Council Cycling Strategy 2016-20 Current routes being delivered include: -	2018-2019 1-5 years As set out in the Cycle Strategy	High	Medium – High	Implementation of both strategies and schemes are reliant on partnership working and funding. Partnership working with local cycling groups and community/residents groups; e.g. TWBUG (Tunbridge Wells Bicycle Users Group). Preparation of the strategies will enable negotiation for mitigation such as s106 funding via planning/development control. Similarly, it will make it possible

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			<ul style="list-style-type: none"> • A21 Non Motorised Route alongside Pembury to Tonbridge duelling • Tonbridge Rd link to Tunbridge Wells Hospital • 21st century cycle route • A26 cycle route Inc. • 20 mph scheme St John's <p>Support the preparation of a Local Cycling and Walking Infrastructure Plan – to feed into Tunbridge Wells Transport Strategy, incorporating a review of routes in the cycling strategy</p>				<p>to potentially secure grant funding.</p> <p>Kent County Council are a statutory consultee in the planning process and aim to achieve increased use of sustainable transport through securing developer contributions and implementing the infrastructure required to encourage walking, cycling and the use of public transport.</p> <p>Infrastructure development will be delivered via the Tunbridge Wells Transport Strategy reporting and approval requirements.</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							<p>The AQAP 2018 – 2023 supports the projects as set out in the Transport and Cycling Strategies, thereby improving local air quality.</p> <p>Providing high quality cycle routes supports the ambition of increasing cycling and walking rates which in turn improve local air quality by decreasing the number of cars on the road and promotes the aim of active travel by increasing physical activity and the associated health benefits.</p> <p>Kent design guidance on route design including planning</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							<p>requirements to be embedded into planning policy.</p> <p>Support the implementation of 20 mph zones on identified and agreed routes to enable cycling to be a normal part of everyday life in the Borough, by creating a safe and welcoming environment for cyclists of all ages and abilities.</p> <p>Implementation of such zones will continue to ensure the smooth flow of traffic, restrictions will not increase the potential of stop-start traffic and therefore such measures as</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							road humps will be avoided.
Transport Priority 2	Securing grant funding for buses	Arriva, TWBC, KCC Public transport, Transport Innovations, neighbouring authorities (T&MBC, Maidstone) Project lead: Environmental protection and QBP.	Explore opportunities for OLEV, DfT and DEFRA funding for bus retrofit schemes or new ultra clean buses. Build on existing evidence, use feedback information from DEFRA to strengthen business case to ensure information remains up to date and relevant to take advantage of future funding opportunities. Strong partnership links between bus operator ARRIVA, KCC and TWBC in	1-5 years	High	Low	Stakeholder engagement and buy in critical. Potential High Impact/high benefits/high cost project. Recognise TWBC not priority area for funding, funding awards to-date point to majority of funding being awarded to key County's identified in the National Air Quality NO ₂ plan as requiring immediate action to reduce pollution levels. Funding award has potential to make a real measurable

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			conjunction with developed business plan to take advantage of funding opportunities as these arise due to ad hoc nature of grant funding and limited time period for application.				<p>difference, with retrofitted buses having reduced emissions.</p> <p>Partnership working with bus operators and County Council critical in successful bid applications and bus operator willing to fit retrofit equipment.</p> <p>Introducing low emission and ultra low emission busses only possible with external funding through grant funding, s106 or other match funding from operator or other partners.</p> <p>No available funding direct from TWBC.</p> <p>Will review potential</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							benefits from working with bus companies to shuffle their fleet to ensure only their best buses are operating in the areas with the worst air quality.
Transport Priority 3	<p>Investigate Low Emission Standard for Buses and/or HGV's. Either a graduated scheme of improvement "Low Emissions Zone" or a Euro VI "Clean Air Zone"</p> <p>Support freight routing as set out in the KCC Freight Action Plan</p>	<p><u>Bus Partner:</u></p> <p>Quality Bus Partnership, Arriva, KCC Public Transport team, Transport Innovations, TWBC, Bus operators, Passenger groups</p> <p><u>Freight Partners:</u></p> <p>Freight Transport Association (FTA) KCC Highways, KCC Traffic Network Solutions</p> <p>Economic</p>	<p>Initial data collation - composition of the bus fleet operating in the AQMA – co-benefits with neighbouring AQMA's Tonbridge & Malling and Maidstone.</p> <p>Joint partnership with main bus operators and in particular Arriva. Incorporate into Quality Bus Partnership business plan.</p> <p>Euro Standard or equivalent to be</p>	<p>1-3 years for feasibility study</p> <p>5+ Years for CAZ</p>	High	High	<p>Stakeholder engagement and buy in critical.</p> <p>Will require Cabinet and Joint Transportation Board including bus operators' input, prior to decision and approval. In terms of freight close partnership working and buy will also be required from the FTA, KCC Highways and Transportation.</p> <p>This could be a high impact/high</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
		<p>Development</p> <p><u>Project lead:</u> Environmental Protection in conjunction with the QBP and input from Economic development.</p>	<p>agreed. (Euro VI)</p> <p>Timeline for compliance.</p> <p>Scheme voluntary/enforcement</p> <p>Investigate the national approach to Clean Air Zone</p> <p>Emission assessment required as to number of retrofit busses required, for compliance and to establish air quality benefit.</p> <p>Changing the bus fleet to lower emission vehicles will become more critical as cars become cleaner. Therefore, the proportion of emissions from busses will in due</p>				<p>benefits/high cost project, therefore initially feasibility study only will be undertaken.</p> <p>Costs are not known at this stage a ball estimate that £50,000 would be required for in-depth evaluation and feasibility. <u>Will only be taken forward if grant funding becomes available.</u></p> <p>Initial assessment though by Air Quality Consultants to understand possible air quality benefits in TW, %impact on AQ improvements. Managed within existing resources.</p> <p>Impact on bus operator's business</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			<p>course become more significant.</p> <p>Combined with the aim of modal shift to sustainable public transport, low emission busses will support the aim of ensuring good air quality on key arterial routes.</p> <p>Identify possible opportunities to include freight traffic within the Low Emission Zone, with associated opportunities to reduce emission from freight. Recognising the type and amount of freight that passes along the A26 Southborough, St Johns and Mount</p>				<p>model and freight business, requires full evaluation.</p> <p>Financial, political and reputational risks, project brief to identify various scheme options Inc. potentials costs and benefits to enable informed decision on most appropriate scheme for Tunbridge Wells to be made.</p> <p>Technically difficult and potentially expensive scheme to implement a Low Emission Zone, in terms of consultation, legal work and infrastructure such as signage, enforcement and monitoring. Plus cost of bus retrofits</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			<p>Ephraim.</p> <p>Multi faceted undertaking.</p> <p>Recognise current key emission source in TW is the car and not the bus.</p>				<p>and new low emission busses and finance impact on freight.</p> <p>Promote strategic routes for freight to reduce the air quality impact of road freight on our local communities.</p> <p>Require detailed costings to procure services, would require external funding.</p> <p>If funding cannot be secured, it will not be possible to progress project, due to expertise required to determine air quality benefits.</p> <p>Requires financial and external expertise to</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							<p>implement, to utilise existing staff resource would put project at risk, time line extended considerable and lead to potential failure.</p> <p>Recognising the opportunities for this project in the AQAP 2018 -2023 allows for grant funding from DfT and DEFRA as these arise to be applied for.</p>
Transport Priority 4	Review opportunities to facilitate the implementation of a Bike Share Scheme. With possible options to provide initial support funding using S106 or grant funding, inc. private investor funding. Including as appropriate	KCC Highways and Transport Planning, Inc. Transport Innovations, KCC Sustainable Business and Communities, Economic development, retail and SME's, YMCA	<p>Review opportunities for bike share in Tunbridge Wells.</p> <p>Assess and identify possible variations on this scheme, i.e. External company provides docked bicycle scheme at key locations Inc. with</p>	2 -5 years	Medium	Low	<p>Such a scheme would only be feasible by facilitating its take up through partnership engagement and private sector investment.</p> <p>Prior to any approval process and implementation full</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
	docking stations and electric bicycle facilities	<p><u>Project lead:</u></p> <p>Sustainability and Economic Development, Healthier lifestyles team.</p> <p>With support from parking services and environmental health.</p>	<p>electric bicycles</p> <p>Smaller scale work with local companies to provide opportunities to try a bike before buying</p> <p>Joint partnership work with public health identify key areas to support mobility and access to services such as employment, health care, etc. by provision of bicycle hire through local shops at reduced/preferential rate Inc. try before purchase and support local refurbishment schemes for bikes.</p> <p>Identify opportunities to implement a 'Dr Bike' scheme both at community events</p>				<p>business case assessment, opportunities and funding routes including s106 and grants to be identified. To apply for grant funding a developed business case will be critical.</p> <p><u>Initial feasibility study only</u> to establish potential opportunities for a bike share scheme in royal Tunbridge Wells, including sufficient population density to support such a scheme.</p> <p>Finance for initial study and development of business case to be identified. Will only</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			and for employee sessions at the Council and local employers. Include assessments for funding options.				<p>progress if funding identified potentially via grant funding or appropriate offsetting through s106. Council standing orders apply.</p> <p>Option for smaller trial scheme with local businesses, more 'try out bike' before purchase may be more appropriate</p> <p>Potential to link to a bike refurbishment scheme, in conjunction with KCC or local YMCA. Which has the co-benefit of supporting an apprentice scheme opportunities and sale of re-conditioned bikes to support/off set some</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							<p>of the costs of delivering such a scheme.</p> <p>Bike Doctors include experienced cyclists and mechanics that are able to provide 'health checks' for bike's and provide advice on maintenance and general cycling. With the aim to promote and increase regular cycling rates.</p> <p>Quantification as to air quality improvements to be included within any review.</p>
Transport Priority 5	Review opportunities to reduce emissions from delivery vehicles	Urban freight delivery companies, Freight Transport Association, (FTA), KCC Highways &	Restrictions on new developments in terms of peak delivery times, to be balanced with impacts from	3-5 years	Medium	Low	Initial feasibility study only, opportunities to apply for grant funding with projects brought forward for

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
		<p>Transportation and Traffic Network Solutions, Economic Development, Royal Victoria shopping centre and local retailers</p> <p><u>Project lead:</u> Environmental protection/Economic Development, Planning policy, Parking and KCC.</p>	<p>unreasonable noise disturbance.</p> <p>Review opportunities for sustainable urban freight deliveries at existing locations and for new developments in terms of:-</p> <p>Use of low and ultra low emission vehicles</p> <p>Routing, scheduling & retiming</p> <p>Last-mile deliveries</p> <p>Driver training</p> <p>Consolidation</p> <p>Explore whether ECOSTARS or FORS are viable options for Royal Tunbridge Wells.</p> <p>ECOSTARS - encourage</p>				<p>approval via the Councils standing orders.</p> <p>Purpose would be to explore solutions/options to reduce the impact from deliveries into and Royal Tunbridge Wells. Aim: -</p> <p>To reduce congestion at peak time</p> <p>Support the use of low emission delivery vehicles Inc. electric vehicles</p> <p>Consolidation of deliveries to reduce number of journeys made</p> <p>Potential impact to be assessed by Air Quality Consultants as to the air quality</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			<p>commercial vehicle operators to be cleaner and greener. (Local authority managed scheme).</p> <p>FORS - Fleet Operators Recognition Scheme, similar to ECOSTARS but managed by fleet operators.</p> <p>FORS/CLOCS – Construction logistic plans to influence deliveries on larger developments – fuel efficient vehicles and driving, promote low entry cabs for safety of vulnerable road users, cycle and pedestrians.</p>				<p>benefits as part of business case to determine cost/benefits.</p> <p>Incorporate into development policies.</p> <p>Explore options with retail outlets, economic development and link across to the County Freight Transport Plan. Benefit to business in terms of consolidation of deliveries i.e. cost savings.</p> <p>Project brief to identify and establish various available options suitable for TWBC, stakeholder engagement and partnership with freight delivery</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							<p>organisations and FTA.</p> <p>Engage with the development of the Kent and Medway Energy and Low Emission Strategy to incorporate low emission opportunities for freight deliveries.</p> <p>Balance delivery times with the potential for increased noise complaints to be received, as night time deliveries are not silent.</p> <p>Review opportunities for last mile deliveries by low emission transport.</p>
Transport	Direct the ongoing	Sustainability,	Continue with the	1-3 years	Medium	Low	Expansion supported

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
Priority 6	expansion of the Tunbridge Wells Car club.	Parking services, Planning Policy <u>Project lead:</u> Sustainability and Parking	delivery of the car club in Tunbridge Wells. Continue to establish opportunities for expansion which in the main will be delivered through development control by incorporating relevant guidance and policy documents into planning policy. Review opportunities for expansion into new growth areas i.e. larger developments, 'Garden towns' etc.		- low		through s106 funding and costs borne by provider and not the Council. 5 year contract let 2017 – 2022 as approved by Cabinet, CAB47/15. Forms part of a suite of sustainable transport choices. Benefit in terms of behavioural change, car club members use various means of transport according to need and data confirms choice of use for sustainable transport modes increases for car club members. Car club has been well received in Royal

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							Tunbridge Wells.
Transport Priority 7	Explore ways in which the Parking Strategy can contribute to improving air quality, by the review of parking restrictions/enforcement	Parking services, KCC Highways and Transportation, local businesses/Royal Victoria Place <u>Project lead:</u> Parking Services	Review peak time parking restrictions along key routes within the borough to identify any potential improvements to traffic flow through the use of loading restrictions. We will review the Parking Strategy and look for further opportunities to support the Air Quality Action Plan by encouraging motorists to switch to smaller and less emitting vehicles. Increase cycle parking facilities within the town centre area including parking	1-3 years	Medium - Low	Medium - High	Implementing loading restrictions during rush hour can help to improve the traffic flow. Although restrictions are already in place in most locations across the borough we will review key routes to determine whether the current hours of restriction are appropriate and investigate the feasibility of introducing loading restrictions where they are not already in operation. The current Parking Strategy has a number of measures in place to reduce

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			for electric bicycles.				<p>harmful vehicle emissions. We will explore the feasibility of any additional actions, identified as part of a wider review of the Parking Strategy, which will support the Air Quality Action Plan.</p> <p>We will seek further approval for any additional measures before implementation and undertake consultation where appropriate.</p> <p>Any changes to parking restrictions would be subject to statutory consultation.</p>
Transport Priority 8	Reduce idling of engines whilst stationary with focus on	Licensing, KCC , traffic management team, Inc. KCC	The Council will explore the adoption of enforcement	1-3 years	Low	Low	Positive benefits in terms of behavioural change, highlighting

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
	<p>Taxi's, coaches/ busses and HGV's.</p> <p>With an option to extend to anti-idling campaigns outside schools located near the AQMA.</p>	<p>Sustainable Business and Communities, Parking services, Taxi drivers,</p> <p><u>Project lead:</u> Environmental Protection Inc. Parking Services</p>	<p>powers to implement anti-idling schemes.</p> <p>The Council will also explore the option of behaviour change and promotional campaigns to limit idling of engines.</p> <p>Consider use of signage, eg outside schools and in taxi ranks and other key locations to reduce idling of engines.</p>				<p>fuel savings and cost benefits to users and reduce localised pollution.</p> <p>Partnership work with the bus operators through the Quality Bus Partnership and the Public Transport Forum and Multi Bus Operator Partnership in terms of engaging bus drivers to reduce engine idling.</p> <p>Adopt legislation: - The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 to be taken forward as part of the Councils standing orders and approval process.</p> <p>Project to incorporate</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							<p>behavioural change, marketing education, social media messages</p> <p>Consultation with key stakeholders KCC highways, scheme implementation and signage on the road.</p> <p>Review the benefits of behaviour change campaigns to engage in positive behaviour change versus formal route of enforcement option.</p>
Transport Priority 9(a)	Emissions Standard for Taxis (Euro 6 standard)	Licensing, Taxi drivers, KCC Inc. Sustainable Business and Communities, <u>Project lead:</u> Licensing	Support a review of opportunities for licensing policy to incorporate options to reduce the age of vehicles permitted to be used. Timing to coincide	1-5 years	Low	Medium	<p>Stakeholder engagement with licenced drivers critical.</p> <p>Implementation will be via the Taxi Licensing policy review and approval</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			<p>with the next programmed review of the taxi policy.</p> <p>Only applicable to vehicles registered in TWBC.</p>				<p>process, with a phased approach.</p> <p>Supports reduction in emission with newer vehicles emitting less pollution and support low emission vehicle uptake.</p> <p>Only applicable to Taxis/Private Hire Vehicle licenced in TWBC area.</p> <p>However, opportunity as part of the Kent and Medway Energy and Low Emission Strategy to enable similar policies to be explored and adopted by local authorities across Kent, which would reduce any risk in terms of the competitiveness of Tunbridge Wells</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							Taxi's.
Transport Priority 9(b)	Encourage use of Low and Ultra low emission vehicles as taxis	Licensing, Taxi drivers, KCC Inc. Sustainable Business and Communities, <u>Project lead:</u> Licensing	Support the review of opportunities via licensing fee reductions to increase uptake of low emission vehicles.	1-5 years	Low	Medium	Stakeholder engagement critical. Implementation to be phased and will be via the Taxi Licensing policy review and approval process. Supports national policy for low emission vehicle uptake. Assess impact on licensing fee income, becomes more critical as number of low emission vehicles increases.
Transport Priority 10	The Council will support KCC in their delivery of a 'Demand Response Transport service as part of Kent Connected	KCC Public Transport team, Inc. Transport Innovations,	Kent Total Transport project proposes the introduction of a new DRT (Demand Responsive Transport) scheme or	1-5 years	Low	Low	No cost to the Council, project funded and lead by KCC The Council will work

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
	and Kent Connected +	<u>Project lead:</u> Total Transport Project Manager Public Transport Teams	“bookable bus” service to the pilot area of Tunbridge Wells Borough Council, which is booked in advance, flexibly routed and is available as a transport option for the general public, for KCC clients (contracted journeys) and from 2022 contracted health patients with joint commissioning with West Kent CCG.				<p>with its partner KCC to understand how this project can be supported, albeit not financially.</p> <p>DRT is generally considered as an intermediate form of public transport, somewhere between a bus and a taxi and uses minibuses and smaller vehicles. The combination of smaller, cheaper to run vehicles and the potential to schedule passenger pick-ups to ensure maximum usage of each vehicle has made DRT a potential solution for areas where passenger demand is not enough to warrant a conventional bus,</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
							<p>but enough that a more flexible minibus-based transport with mixing types of journeys is a solution.</p> <p>The new DRT service would be provided under the umbrella brand of Kent Connected and Kent Connected+, with KCC contract journeys scheduled in first and demand based for the general public.</p>
Transport Priority 11	To revise and update the Council's own 2011 Travel Plan.	Sustainability, Parking Services, Human resources, Finance	Revise the travel plan to help promote sustainable transport within our organisation, improve travel options for our employees and reduce single occupancy car	1-3 years	Low	Low	The 2011 outdated plan applies to all staff employed by Tunbridge Wells Borough Council and focuses on facilitating sustainable travel choices for journeys to and from work.

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			journeys.				<p>It does not currently cover transport issues relating to deliveries or visitors to council sites.</p> <p>The plan will continue to link to 'liftshare' and other shared travel options as deemed appropriate.</p>
Transport Priority 12	To deliver an adaptive traffic management control system	<p>KCC Highways and Transportation - Traffic Network Solutions Asset Manager</p> <p><u>Project lead:</u> KCC Traffic Network Solutions</p>	<p>Model as necessary the improvements to air quality an adaptive traffic management control system would bring.</p> <p>Identify junctions, road links and traffic control areas with queuing traffic specifically in areas of poor air quality. These areas are at higher risk of NO₂ emissions</p>	1-5 years	Low	Low	<p>Implementation as part of KCC highways and transportation project development and delivery.</p> <p>No cost to the Council</p> <p>Improvements to local air quality by implementing an adaptive traffic management system is supported. An adaptive traffic management system</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			<p>from stop start traffic.</p> <p>Provide advice and guidance on air quality pollutant emissions to enable zones to be implemented which allow for smooth continues movement of vehicular traffic, which has been shown to benefit emission reduction.</p>				<p>allows traffic to flow more smoothly less stop and start and re-direct traffic in the event of congestion.</p> <p>Some roadside message signs and car parking guidance information available already.</p> <p>Potential limited scope for delivery in Tunbridge Wells in terms of traffic light control systems.</p>

Planning related actions:

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
Planning Priority 1	Good air quality is appropriately recognised in the Local Plan - Development Plan	Planning policy, development control, KCC Transport and Development planning, environmental protection,	Specific air quality planning policies developed to direct and enable	12 months for policy development In line with	High	Low	No cost to the Council as benefits realised through air

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
	Document/SPD in emerging local plan.	Sustainability. <u>Project lead:</u> Planning policy/Sustainability/environmental protection	ongoing improvements to local air quality, reduce emissions, and support sustainable transport including sustainable public transport and low emission vehicles. Recognise the cumulative impact of developments on local air quality and ensure that, where developers are required to submit air quality assessments with their applications, that all other new and proposed	Local Plan development timeline			quality positive developments in accordance with statutory planning requirements. Air Quality is a material planning consideration and its inclusion within the new Local Plan will ensure ongoing air quality improvements in a consistent manner. Potential high negative impact if not included in the local plan, due to adverse air

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			<p>developments in the area are considered. Thus the air quality assessments must assess the total impact and bring forward appropriate air quality mitigation, including contributions towards sustainable transport infrastructure measures.</p> <p>Minimum standards, in terms of air quality, should be required in ALL developments.</p> <p>Establish the impact taller</p>				<p>quality impacts from development and long term high costs to the Council in negating these impacts.</p> <p>Developments add to the pressures of improving and maintaining good air quality through increase density of buildings and movement of vehicles i.e. traffic density. Hence recognising the cumulative impact is essential to</p>

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
			developments have on local air quality, such as canyon effects by restricting the dispersion of air pollutants including the cumulative impact of numerous taller buildings in a specified area.				ensure developments in Tunbridge Wells contribute to air quality positive designs including sustainable transport.
Planning Priority 2	Incorporate a requirement for sustainable travel choices and car club schemes into the emerging Local Plan to support ongoing air quality improvements and maintaining good air quality.	Planning policy, development control, KCC Transport and Development Planning, environmental protection, Sustainability <u>Project lead:</u> Development Control and Planning Policy	Support the delivery of car clubs as part of sustainable travel choices during the early phases of development in Local Plan. Infrastructure for active travel mitigation and offsetting, to link	1- 5 years	High	Low	Delivered via the Local Development Framework requirements at no costs to the Council. Where costs are identified such as through infrastructure

Theme	Action	Key stakeholders	Outline	Timescale	Air quality impact	Political risks	Risks and benefits
	<p>The Local Plan to introduce as appropriate a requirement for air quality impacts to be considered as part of Transport Assessments and Transport Statements, and for air quality impacts arising from transport to be a consideration in determining the appropriateness of transport mitigation and the overall transport impacts arising from the development.</p> <p>The Local Plan to introduce a requirement for ongoing</p>		<p>to the Local Cycling and Walking Infrastructure Plan and KCC Active Travel strategy.</p> <p>Develop planning guidance to enable an effective bus service to be delivered in new developments</p> <p>Work with KCC to support the revisions of the Kent design guide, recognising the importance of good design to support air quality positive developments</p>				<p>requirements, these would follow the relevant reporting requirements i.e. through planning committee and s106 funding release.</p> <p>The use of car clubs will facilitate the sustainable travel choices.</p> <p>Increasing sustainable active travel can help create growth in the economy and tackle climate change by cutting carbon</p>

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	monitoring of the impacts of development on air quality as appropriate in those locations within the Borough most at risk of poor air quality.		and low emissions.				<p>emissions. It also influences human health, by improving air quality and physical activity, and can drive productivity by reducing congestion and providing easier access to jobs.</p> <p>Infrastructure delivery would include improved footway/cycle paths and cycle parking facilities Inc. electric bicycle parking and charging.</p> <p>Identify</p>

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							<p>opportunities for cycle hub facilities at relevant locations, such as train stations, key areas of employment and retail and options to link to cycle initiatives and bike doctor opportunities.</p> <p>Partnership engagement with bus operators to enable the development of effective planning policy guidance on bus services in new</p>

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							developments. Explore opportunities to place planning conditions on developments to be excluded from on street residential parking schemes.
Planning Priority 3	Incorporate the development of a future 'Air Quality Protection Area' into the emerging Local Plan to support ongoing air quality improvements and maintaining good air quality.	Planning policy, development control, KCC Transport and Development Planning, environmental protection, <u>Project lead:</u> Planning policy/Sustainability/environmental protection	The current air quality management area (AQMA) is recognised in the Local Plan thus ensuring public health is not compromised and enables air quality positive development. With consistent improved air	1 - 5 years In line with Local plan development	High	Low	No cost to the Council as benefits realised through air quality positive developments in accordance with statutory planning requirements. An air quality protection zone would be

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			<p>quality over a period of five years demonstrating improvements to local air quality, the AQMA will be revoked as required under Local Air Quality Management.</p> <p>To ensure local air quality remains as good as possible for local communities, the AQMA will be replaced by an Air Quality Protection Area/s.</p>				<p>delivered as part of the developing Local Plan.</p> <p>An air quality protection zone would offset any potential risk of air quality deteriorating in the future once the AQMA has been revoked.</p> <p>Good air quality for Royal Tunbridge Wells will be retained.</p>
Planning Priority 4	An effective Electric Vehicle charging network is available for	Planning policy, development control, KCC Transport Innovations, Transport and Development Planning,	Identify the opportunities for the delivery of an electric vehicle	– 2 years	Medium	Low	Joint initiative with KCC Transport Innovations to

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	use within the Borough	environmental protection, <u>Project lead:</u> Sustainability, Development Control, Parking services.	charging network: - through planning policy and new development existing developments i.e. on street car parks and businesses/retail Develop planning policy guidance for EV charging in new developments. Develop an EV charging network policy for Tunbridge Wells.				identify gaps and opportunities for a suitable charging network in the Borough of Tunbridge Wells. Partnership work with KCC Transport Innovations team, to deliver a Kent wide policy on EV charging. Identify opportunities for grant funding to deliver on-street EV charging network. On

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							<p>street EV charging will only be delivered if suitable funding can be identified and approved.</p> <p>Delivery of EV charging in new developments at no cost to the Council.</p> <p>EV charging opportunities to be incorporated into revisions of the Councils car park policy. Some costs in terms of charging provision in Council own car parks, but</p>

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							<p>these to be identified with funding opportunities to be agreed with parking services. Approval process as part of the Parking policy reporting requirements.</p> <p>The use of electric vehicles will reduce emissions and improve air quality locally and therefore the provision of necessary infrastructure which promote the use of such vehicles is essential.</p>

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							Complies with national guidance and government announcement that the majority of new cars and vans should be electric by 2030.
Planning Priority 5	Support the protection of existing and development of new Green Infrastructure(GI) as part of the Green Infrastructure Policy	Planning policy, development control and environmental protection, Sustainability <u>Project lead:</u> Landscape and Biodiversity	Development proposals will be expected to identify and protect existing GI and deliver opportunities for new GI where it makes a positive contribution to strengthening and restoring a healthy and integrated network of	1-5 years	Low	Low	At no cost to the Council, through development control to improve the urban environment in terms of benefiting local air quality. In urban areas all developments

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			habitats and green spaces for the benefit of nature, people and the economy.				are expected to maximise opportunities for GI and Biodiversity enhancements and in support of air quality improvements through the addition of: Green roofs and green walls Street tree and hedge planting

Public health actions:

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Public Health Priority 1	Infrastructure developments in parks to support cycling and walking links to and through parks to enable sustainable access and support commuting routes.	Parks and Economic Development KCC Highways and Transportation <u>Project lead:</u> Parks and Economic Development	Route designs in parks and open spaces link to Parks/Sports strategy Routes aid access to parks and sporting facilities Benefits users of the facilities, but also enables communities to use these to commute to work, shops, services etc.	1- 5 years	Medium	Low	Schemes brought forward will follow the approval process as part of infrastructure delivery through the Local Cycling and Walking Infrastructure Plan or as part of adopting a revised Parks and Sports Strategy. Ensure that the best use is made of parks so that they provide encouragement

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							<p>t for active travel rather than being a barrier.</p> <p>Ensure that the build and design of parks enhances active travel for all so that pedestrians, cyclists and visitors to the park all benefit.</p>
Public Health Priority 2	<p>Engage with schools to reduce impact of school traffic</p> <p>Work with KM Charity Team to increase the number of schools using</p>	<p>KCC Inc. Public Health, Sustainable Business and Communities, School travel Planner, local schools,</p> <p><u>Project lead:</u> Environmental protection/School Travel</p>	<p>Work with relevant partners and schools to review options to support a reduction in school related traffic.</p> <p>By: -</p> <p>Reducing/ avoiding unnecessary car journeys through</p>	1-3 years	Low	Low	<p>Difficulty and risk are low by linking in with established outreach programs already being delivered.</p> <p>In-house</p>

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	green travel	Planner	<p>ongoing 'walking buses', etc.</p> <p>Encourage and support active travel to school.</p> <p>Behaviour change programme and education on public health impacts related to air quality and active travel.</p> <p>Link to schools and attend key events.</p> <p>Every School in Tunbridge Wells will be contacted and invited to join the 'SuperWoW scheme.</p>				<p>staffing resource to prepare successful programmes with some small financial resource to prepare marketing materials, to be funded from within existing budget resources.</p> <p>Partnership working with KCC school travel planner, Safer Mobility team as part of Walking Busses and local schools, in conjunction with KMFM</p>

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							<p>charity team supporting 'Walk to School' and Super WoW (Walk on Wednesday).</p> <p>Could potentially reach up to 3000 children and families to advice on green travel throughout the academic year 2019/20.</p>
Public Health Priority 3	Raising Awareness of Air Quality and health issues	KCC Public Health, <u>Project lead:</u> Environmental Protection	<p>The council will work with partners to highlight the issues of health and air quality and promote this on the wider public health agenda.</p> <p>This will involve</p>	1-3 years	Low	Low - medium	<p>No additional cost, delivery within available resource.</p> <p>Link to Kent</p>

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			<p>promoting the e-mail alert scheme available to advice when air pollution is likely to be high. This will particularly target vulnerable groups.</p> <p>Promote awareness of Air Quality in schools by offering them diffusion tubes to do their own air quality monitoring.</p> <p>Assess the potential of working with Kings College London on measuring 'exposure', as part of an education campaign with school age children.</p>				<p>and Medway Air Quality Monitoring Network website</p> <p>The impact of this action is difficult to measure as awareness is intangible. It is possible to measure the number of people signed up to the alert scheme but only over the Kent Area.</p> <p>The difficulty is technically low but will require officer time and buy in from partners</p>

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							<p>to be effective.</p> <p>S106 funding available to carry out monitoring scheme, including opportunity to explore 'measuring exposure'. i.e walking to school on a heavily trafficked route as opposed to walking on a less trafficked route and noting the differences. Links in with the national consultation on a new Clean Air Strategy</p>

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							and raising awareness of air quality and what communities/in individuals can do both to reduce and avoid pollution. Links to Directors of Public Health toolkit on engaging with communities on air quality.
Public Health Priority 4	Improved air quality/sustainability web pages	Environmental protection (Lead) Communications team and web design team	Digital access to reliable and good air quality data for communities, business and visitors.	Year 1	Low	Low	No additional cost, delivery within available resource. Delivery of good quality web pages on 'air quality' will

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							<p>be a key priority of the new Air Quality Strategy for England which is currently being consulted on by the government.</p> <p>To enable the public to make informed decisions to support good local air quality and adjust their daily routines according to information on 'poor air quality' days, e.g. pollution forecasts etc.</p>

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							http://www.kentair.org.uk/ Review of current and possible links to relevant air quality pages, data, sustainable transport and planning. Improve current sign posting of our links. Including general advice on Tunbridge Wells air quality 'What you can do to help' and 'How to reduce your exposure'.

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							<p>For example: -</p> <p>Links to Co-Wheels site</p> <p>Links to Kent journey share</p> <p>Links to Arriva site (timetables)</p> <p>Links to National Rail Enquiries</p> <p>Links to active travel/travel planning pages</p> <p>Links to planning guidance?</p> <p>Links to all previous ASRs, progress reports and</p>

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							consultant's reports. Link to KCC Public Health https://explore.kent.org/cycling-in-kent/ https://kentconnected.org/
Review and update Priority 5	Annual progress report to Cabinet timed with annual reporting (of the Annual Status Report, ASR), to DEFRA.	Environmental Protection/Sustainability	The council is required to report annually on the status of air quality to DEFRA. As part of this review, progress in terms of delivering the actions as set out in the Implementation plan of the AQAP 2018-2023 will be reported annually to Cabinet.	Annually	Low	Low	This will demonstrate the level of progress on individual actions and will enable the actions to be updated regularly.
Public	Review of air quality	Environmental Protection	The council will review its network of	1-3 years	Low	Low	Good practice and in

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Health Priority 6	monitoring provision in TW Area		<p>monitoring locations and methods across the area to ensure that they are proportionate, relevant and cost effective.</p> <p>Initially monitoring with NOx tubes along the AQMA will be increased in response to comment by DEFRA concerning the potential to revoke the AQMA. This will enable an informed assessment based upon more detailed data.</p>				<p>accordance with DEFRA Technical guidance TG (16) April 2016. Ensuring the Council is following published guidance and complying with the local air quality management requirements, thereby being confident our data is accurate and relevant.</p> <p>If any significant capital spend to be referred to Cabinet for</p>

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							approval.
Public Health Priority 7	Review the opportunity to identify the 'cost of illness' by using the newly developed Public Health England tool in the: 'Estimations of costs to the NHS and social care due to the health impacts of air quality.'	KCC Pubic Health Team, Kent Public Health Observatory <u>Project lead:</u> Sustainability/Environmental protection	Assess the opportunities presented by the newly released public health toolkit and how this could be implemented in Tunbridge Wells.	2-3 years	Low	low	Partnership engagement with KCC Public Health critical in the use of this tool. Important to understand the limitations of the tool and manage expectations. Costs in using the tool need to be identified, but unlikely to be excessive. Council standing orders will apply. Critically, the

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							<p>tool ignores current and historical air pollution and instead looks only at costing interventions and their effects on future pollution.</p> <p>Tool considers morbidity (illness) only as opposed to mortality (death).</p> <p>Link to "Air pollution - a tool to estimate healthcare costs" document</p>