

Air Quality – Chamber of Commerce

25th February 2020

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Welcome

Air pollution is a serious public health concern in Richmond upon Thames that affects everybody, We all need to breathe clean air.

- **Air pollution is complex**
- **“Simply living in the worst hit areas of the UK could be as deadly as smoking over 150 cigarettes each year.” BHF**
- **It accounts for some 40,000 early deaths annually across the UK (compared to around 80,000 deaths from smoking and 2,000 from road accidents)**
- **Population and the number of vehicles on the road is increasing year on year. If we do nothing TfL estimate London will reach gridlock by 2035.**
- **Improving air quality across the borough is a priority for the Council.**
- **We are all responsible and can all make a difference**

Improving Air Quality is NOT just a job for the Council. Businesses have an important role to play.

Air Pollution – health effects

- **Exposure to poor air quality is associated with both ill health and premature death. It affects us all.**
- **There are both short term and long term (chronic) effects.**
- **The more vulnerable are the old, the young and those with heart and lung conditions**
- **Poor air quality can affect the eyes, nose, throat, exacerbate breathing difficulties, heart conditions, asthma, COPD, make heart attacks more likely, result in low birthweight, stunted lung growth in children and is now linked to interfering with the immune system, various cancers and dementia.**

Purpose of the presentation

- Outline pollutants of concern
- Outline sources and locations
- What are we doing?
- What can you do?

Air pollutants of concern in Richmond upon Thames

1) Nitrogen dioxide (NO₂)

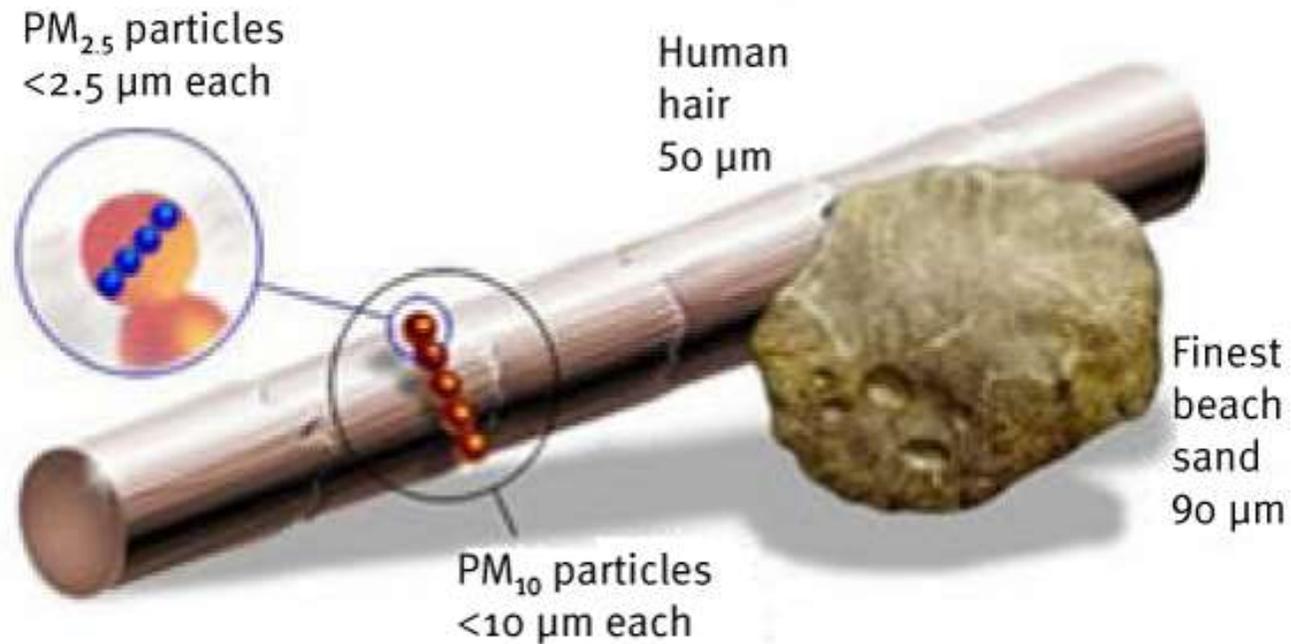
- NO₂ is an invisible gas
- At high levels, nitrogen dioxide irritates and inflames the airways of the lungs

2) Particulate matter (PM)

- PM are liquid and solid particles in the air
- natural or man made
- graded by size - PM₁₀, PM_{2.5}, PM₁ and PM_{0.01}. All are very tiny, may be carcinogenic; recent studies have linked them to various cancers and dementia
- no known threshold concentration below which particulates have no effect on health

PM's (Particulates)

- Atmospheric *particulate* matter, also known as *particulate* matter (PM) or *particulates*, are microscopic solid or liquid matter suspended in the air we breathe



Legal limits

EU/WHO annual limit for NO₂ = 40ug/m³

EU annual limit for PM₁₀ = 40ug/m³

WHO guideline for PM₁₀ = 20ug/m³

EU annual limit for PM_{2.5} = 25ug/m³

WHO guideline for PM₁₀ = 10 ug/m³

Locations and Sources - Where and why?

The overwhelming contributor to pollution in the borough is from our main roads and highways, followed by heating and cooling of buildings. There are also a number of sources of pollution outside the borough.

Locations:

Most main roads and town centres across LBRUT.

Sources:

All combustion of fuels, so

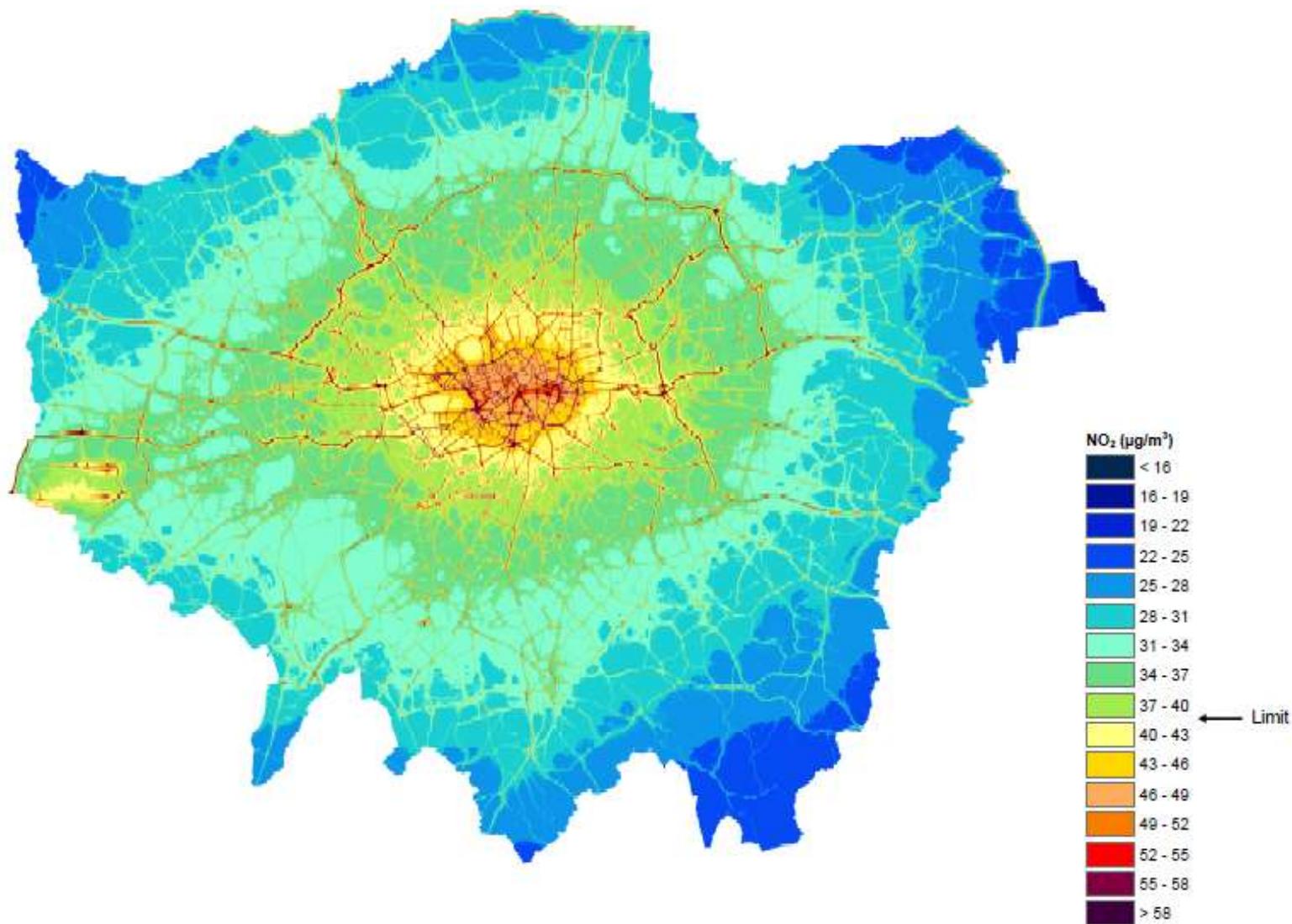
Road transport

Heating and cooling of buildings

Wood burners, bonfires etc

Blown in from outside

2016 Modelled annual mean NO₂ air pollution

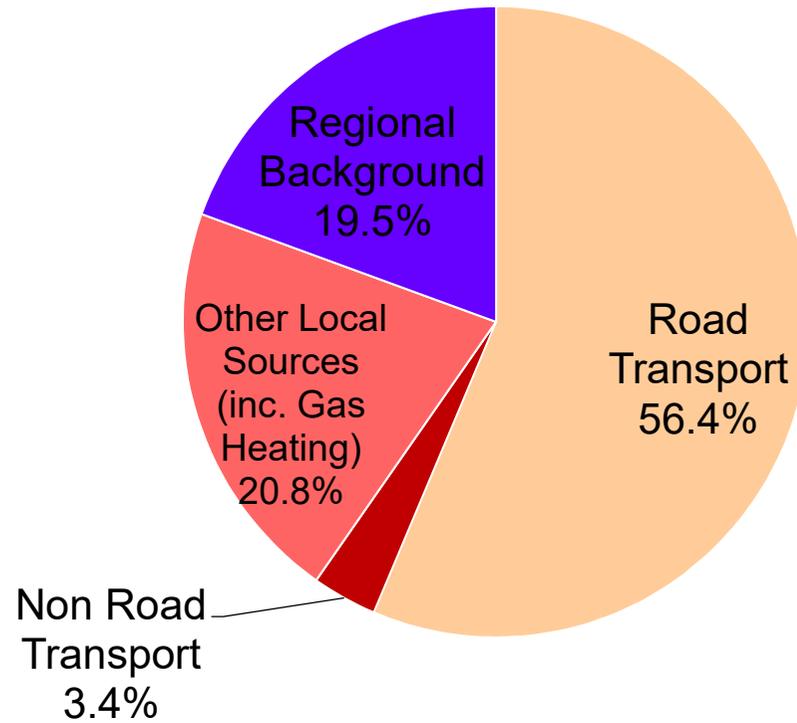


LAEI 2016 - NO2 - Richmond town



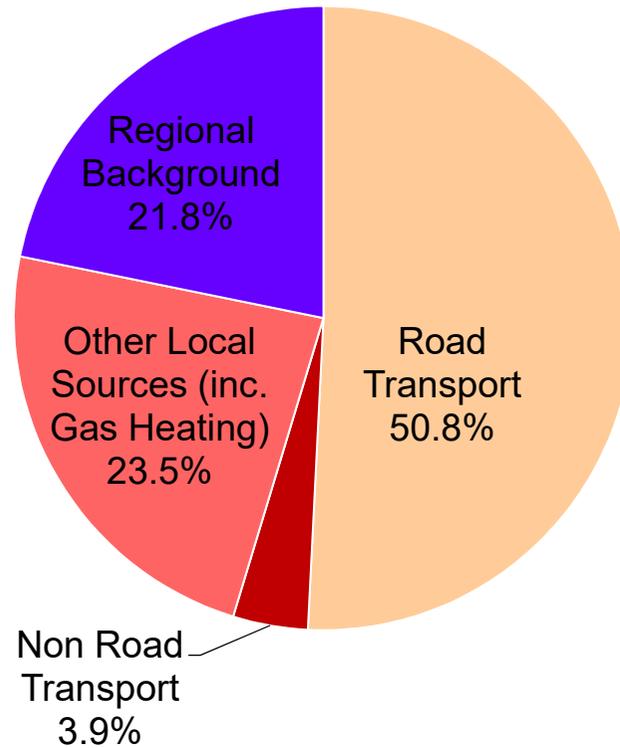
Richmond Town Centre Air Quality Focus Area

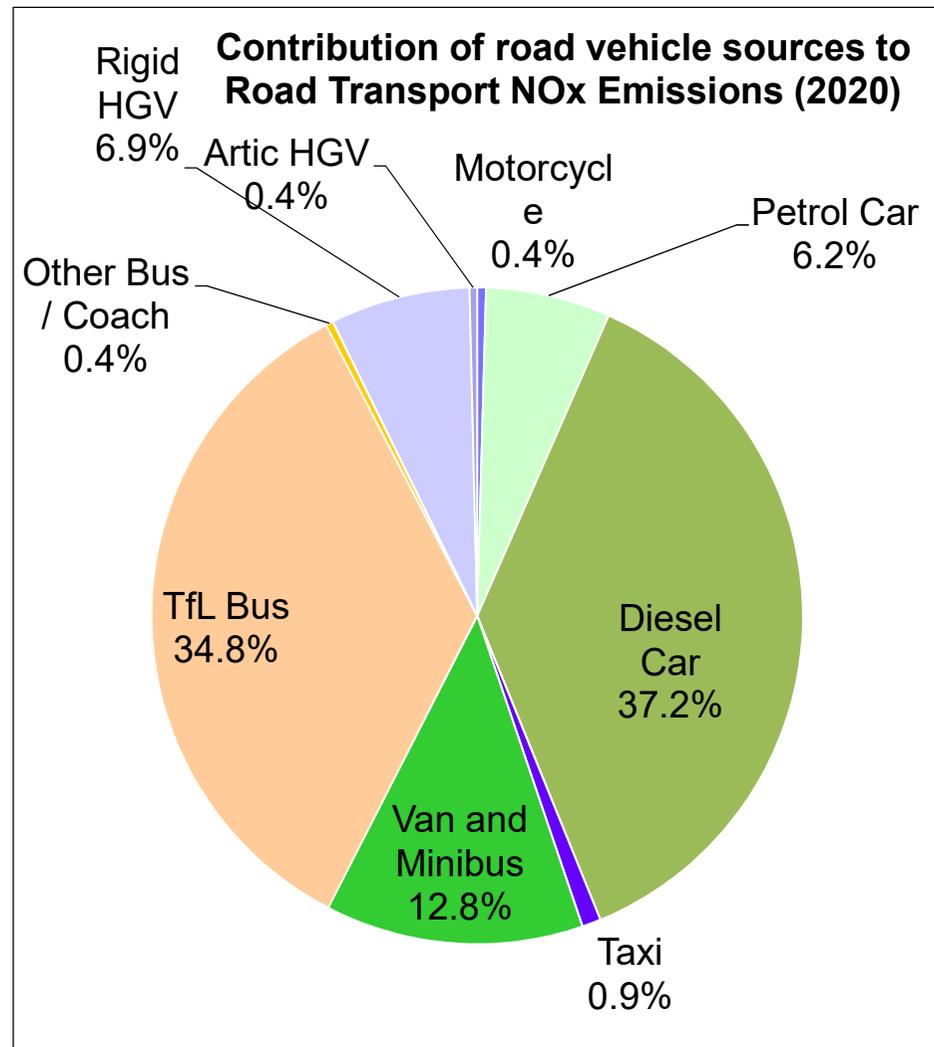
% Contribution of sources to NO_x Concentration at Ground Level (Average Across Focus Area - 2020)



Twickenham Town Centre Air Quality Focus Area

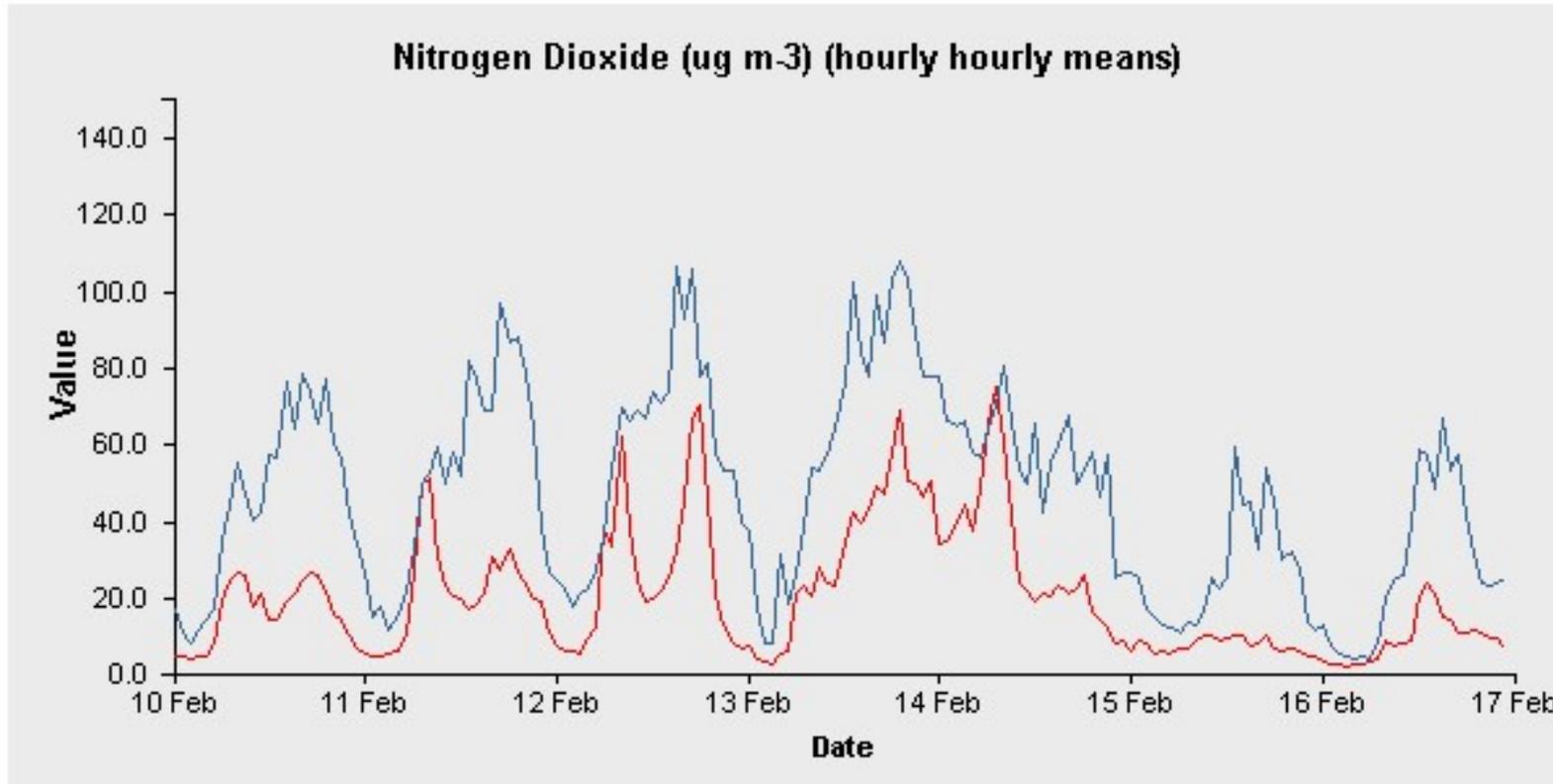
% Contribution of sources to NOx Concentration at Ground Level (Average Across Focus Area - 2020)





View Period » 10-feb-2020 to 17-feb-2020

Resize graph:



Key: Richmond Upon Thames - Chertsey Road Westminster - Oxford Street

BREATHE LONDON

Map About Air Pollution Pollution Sources Wearables Partners Methodology Take Action FAQ News Get In Touch

Air quality

● Current ○ Average

Breathe London monitors ▾

○ Monitor sites

🚗 On-road (NO2 only)

Other monitors ▾

◇ Regulatory networks

Pollutant ▾

● NO2

○ PM2.5

Additional pollutants coming soon

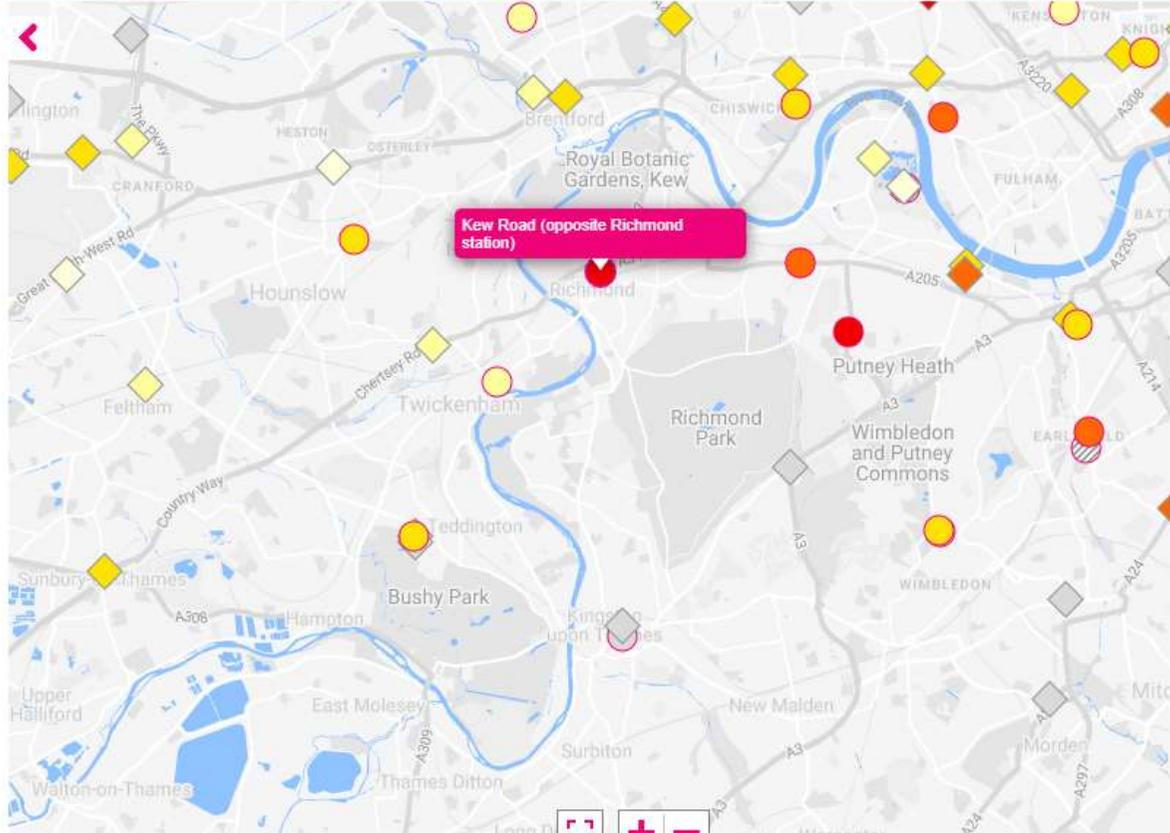
Concentration (µg/m³) ▾

● > 200

● 100 - 200

● 60 - 100

● 40 - 60



Kew Road (opposite Richmond station)

○ Breathe London ✕

Kew Road (opposite Richmond station)
RICHMOND
KERBSIDE

20th February 2020 10:00

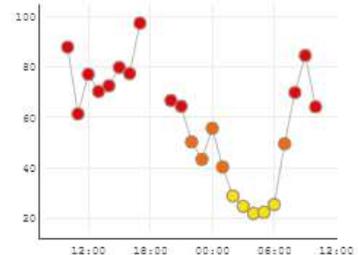
Current air quality

NO2 **64.2 µg/m³ (hourly)** ●

Current air quality (1-hour average)

Past 24 hours [More data](#)

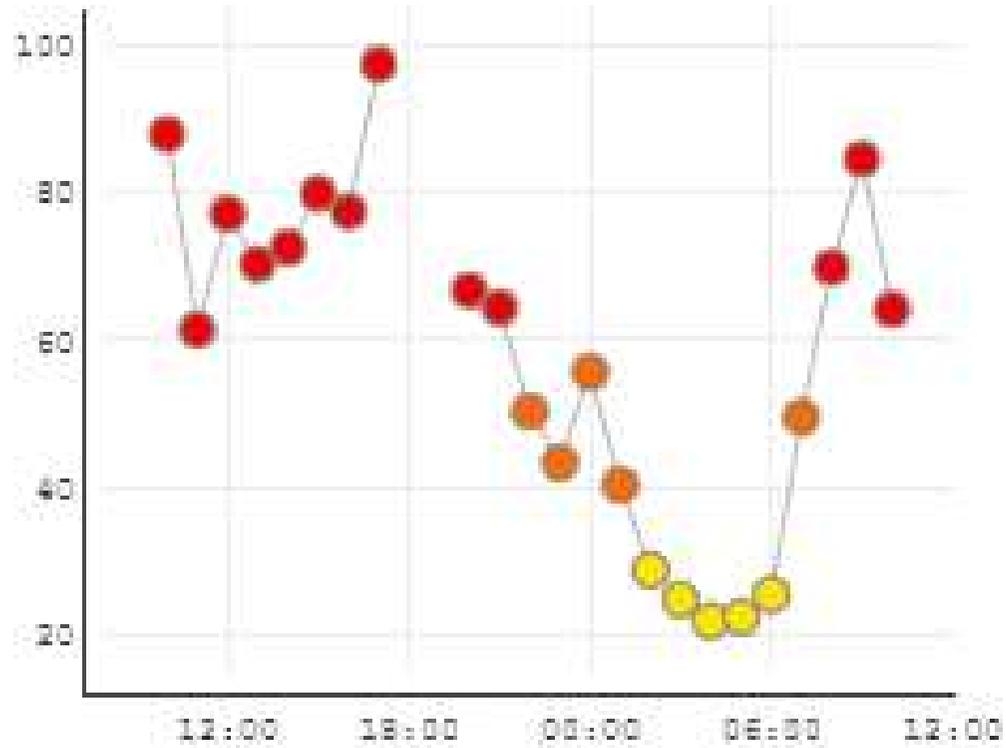
NO2 (µg/m³)



[Frequently Asked Questions](#)

Past 24 hours

NO2 ($\mu\text{g}/\text{m}^3$)



What is the Council doing?

- Improving our own/contractor fleet and estate
- Installing EVCP's borough wide – 290 approx.
- Encouraging staff to travel to work more sustainably
- Issuing oyster cards for work place travel
- Re writing our Air Quality Action Plan 2020- 2025
- Engaging with schools and travel plans.
- Requiring cleaner new buildings through an SPD
- Encouraging modal shift through an Active Travel Strategy.
- Encouraging more active life styles with Public Health
- Leading London on NRMM
- Running AQ projects and bidding for money from DEFRA and GLA
- Monitoring. Declared AQMA 2000
- Adopting and enforcing anti-idling policies.

Monitoring

LBRuT has an extensive air quality monitoring network which has grown over the last 22 years. AQMA declared in 2000.

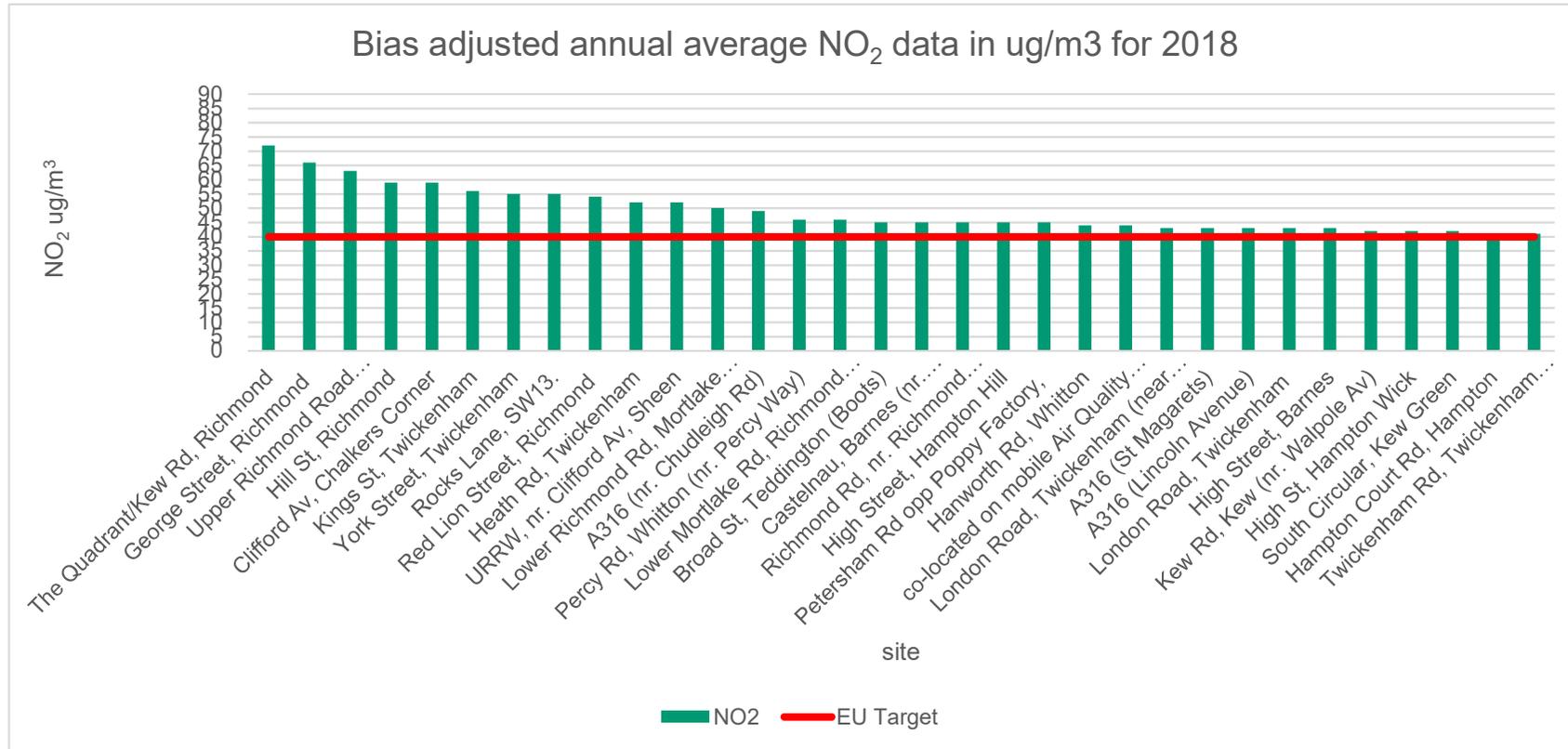
- **3 automatic real time air quality stations**
<http://www.londonair.org.uk/LondonAir/Default.aspx>
- **64 x NO2 diffusion tube monitoring sites**
- **Additional hotspot monitoring**
- **Low cost sensors** - <https://www.breathelondon.org/>

In 2018, over half of these sites exceeded the legal limit.

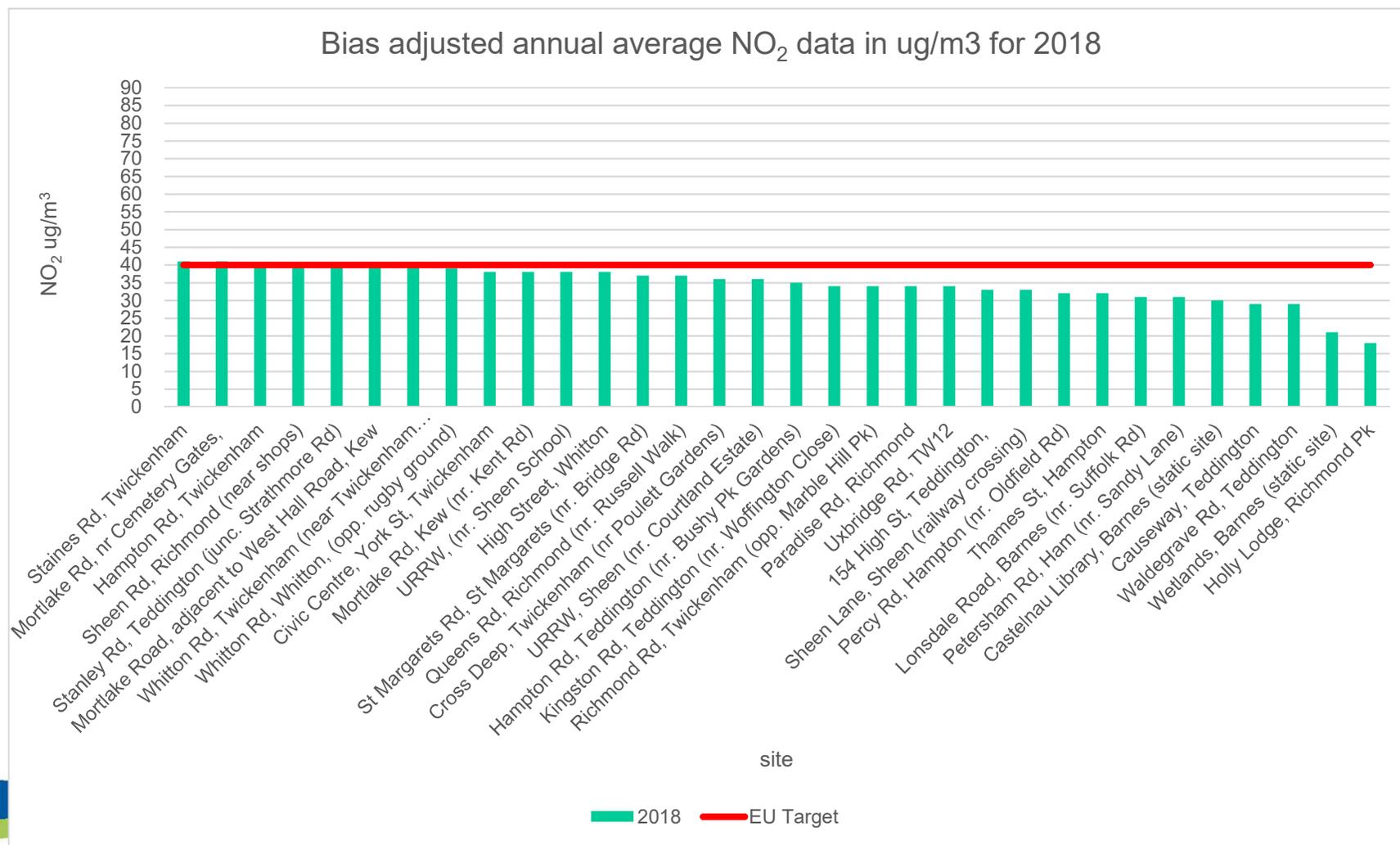
In 2017 2 sites in Richmond town centre were over double the legal objectives.

Air quality is Improving slowly but we need your help to speed things up.

Nitrogen Dioxide Bias Adjusted Annual Average Concentrations for all sites for 2018 (split over 2 graphs)



Nitrogen Dioxide Bias Adjusted Annual Average Concentrations for all sites for 2018 (second graph)



Our Air Quality Action Plan

At the start of September we launched a borough-wide consultation on our Climate Change Strategy and Air Quality Action plan. We commit to:

- Create an environment that is welcoming to sustainable transport and aimed at the pedestrian
- Involve and work in partnership with the community in our actions and commitments
- Tackle the most polluted areas of our borough and take firm action to reduce traffic and create a healthy town centre
- Prioritise protecting our schools and parks

The key ways we will do this are:

- Audit those schools in areas of poor air quality and provide financial support for measures that tackle and reduce exposure for children in the borough.
- Have schools in areas of poor air quality incorporated into our monitoring and review regime.
- Work alongside our Public Health partners to deliver joint health benefits of active travel and healthy lifestyles.
- Tackle idling vehicles at schools as a priority.
- To reduce traffic around schools at drop off and pick up times we will be piloting 'School Streets' at selected schools with a view to extending these in the borough.

Our initial focus was reducing car idling

The Council launched a campaign to reduce car idling at level crossings and outside schools at the start of 2019.

Why?

- Unnecessary pollution
- Idling engines burn fuel less efficiently
- Car idling produces up to 150 balloons of exhaust emissions per minute containing harmful chemicals like cyanide, NOx and PM 2.5

What have we done?

- March – Dec 2019 - 10,342 warnings for idling were issued by traffic wardens
- Idling action events



But what can you do?

- Discuss and work on ways to improve the way you do things:
- Your fleet mix – when can you upgrade/reduce it?
- Can you use/trial cargo or ebikes?
- Think of the positives and calculate reductions in costs
- How can you heat /cool your buildings more efficiently?
- How can you encourage staff to travel to work more sustainably?
- How can you reduce, reuse and re-cycle more?
- Reduce personal deliveries – use a hub
- Sign our anti idling pledge and commit to reducing idling today

Go to: www.richmond.gov.uk/idle free to pledge

Useful contacts

- Check out air quality where you are
<http://www.londonair.org.uk/LondonAir/Default.aspx>
- <https://www.breathelondon.org/>
- 3 day forecasts and help for vulnerable
<https://www.airtext.info/>
- Cut your own exposure by low pollution walking routes
- <http://walkit.com/>

Thank you

Improving Air Quality is NOT just a job for the Council. We all need to work together to ensure that air quality is improved. Businesses have an important role to play.

We are trying to do our bit – what are you doing?

www.richmond.gov.uk/climate_change

www.richmond.gov.uk/idle_free

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