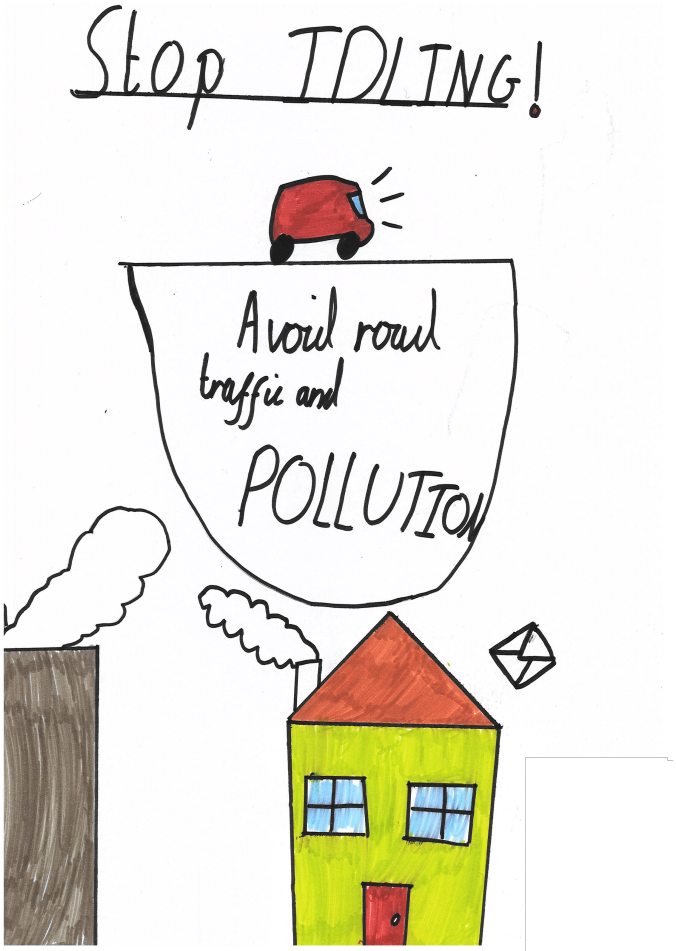
LONDON BOROUGH OF NEWHAM

ANNUAL STATUS SUMMARY REPORT 2019



Newham London

NEWHAM CLIMATE NOW

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Drawings used throughout this report credited to pupils at Sir John Heron primary school.

ANNUAL STATUS SUMMARY REPORT 2019

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This report provides a summary of air quality in the London Borough of Newham during 2019. The full version of ASR has been produced to meet the requirements of the London Local Air Quality Management process.

AIR QUALITY MONITORING

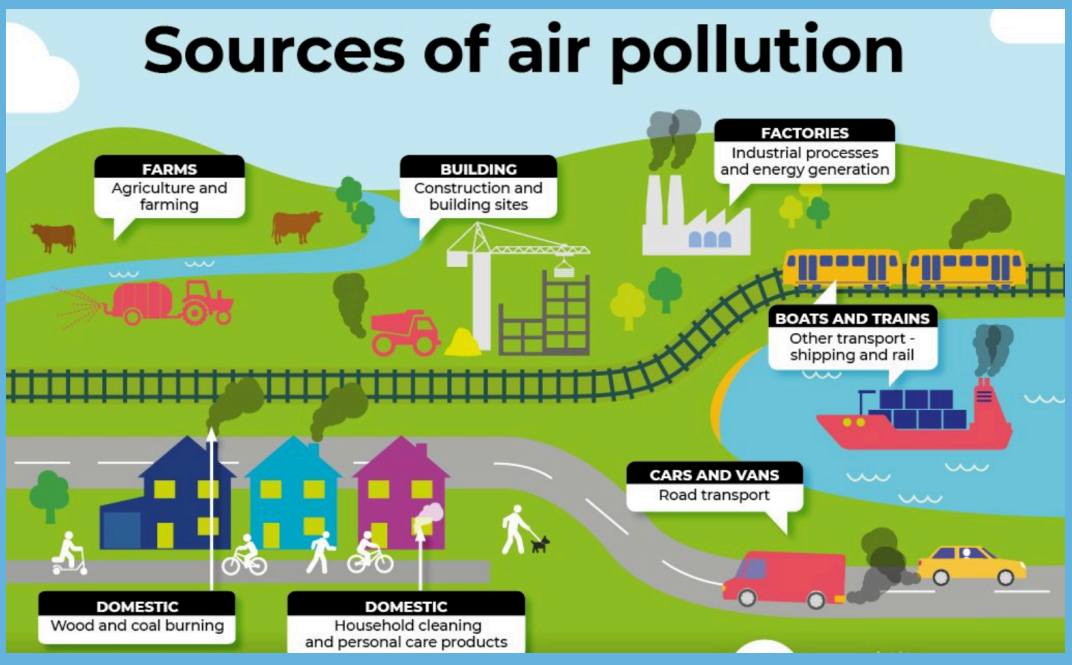
INTRODUCTION

Air pollution is a complex mix of particles and gases of both natural and human origin. Particulate matter (PM) and nitrogen dioxide (NO_2) are both major components of urban air pollution. Air pollutants are emitted from a range of both human-made and natural sources. Many everyday activities such as transport, industrial processes, farming, energy generation and domestic heating can have a detrimental effect on air quality. Air quality monitoring underpins awareness, engagement, planning and mitigation strategy.

At Newham, we deploy one of the largest air quality monitoring networks in the country. The primary purpose of a systematic air quality monitoring network is to distinguish between areas where pollutant levels violate an ambient air quality standard and areas where they do not. Clean air is a fundamental human right. Long-term exposure to polluted air can have permanent health effects such as accelerated ageing of the lungs. Loss of lung capacity and decreased lung function; development of diseases such as asthma, bronchitis, emphysema, and possibly cancer. You can find out more about the projects and incentives we deliver throughout the borough to tackle the issue on our **website**.

For this summary, we selected data that we thought would be the most interesting and applicable for the reader to get a quick but also adequate overview. However, if you are interested in downloading the full **Annual Status Report 2019**, you can find it on our website, and also view real-time air quality data on **Air Quality England** website.

Lastly, we added a few tips and suggestion on how you can help us to clean up the air in Newham. We strongly believe that together we can achieve even greater results in 2020 and the years to come.



AIR QUALITY MONITORING

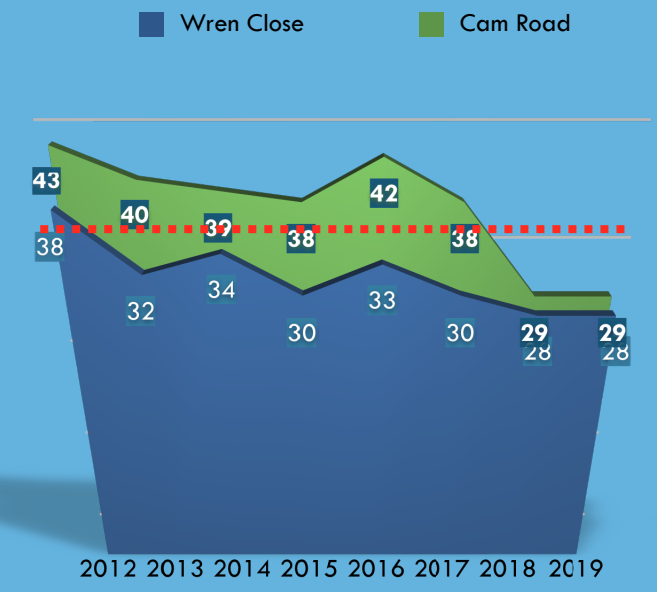
AUTOMATIC MONITORING SITES

At Newham, we have two automatic monitoring stations, in Canning Town and Stratford. The purpose of an automatic air quality monitoring station is mainly for compliance with the national air quality management objectives established by the Government, but most importantly - to protect your and the health of the environment. The air quality objectives take into account EU Directives that set the limit values which are legally required to achieve by target dates. At both sites, we measure NO2 and PM10 concentrations.

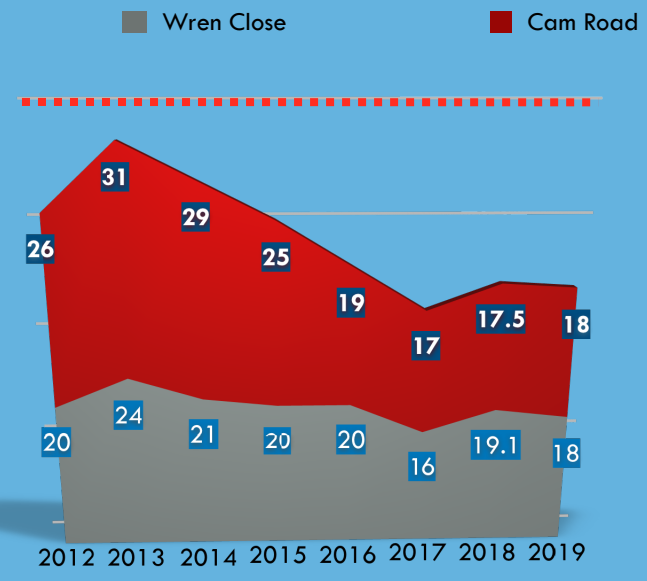
Data from these stations are essential because they can be used for enforcement and are accepted in a court of law. However they only provide air quality data from one fixed location, which may not be representative of local air quality.

The red dotted line represents the threshold of the legal UK Air Quality objective for NO2 and PM10 annual mean of 40 µg/m3. The data represented in the two graphs below clearly shows that for the last couple of years, together, we achieved a significant result in the reduction of air pollution.

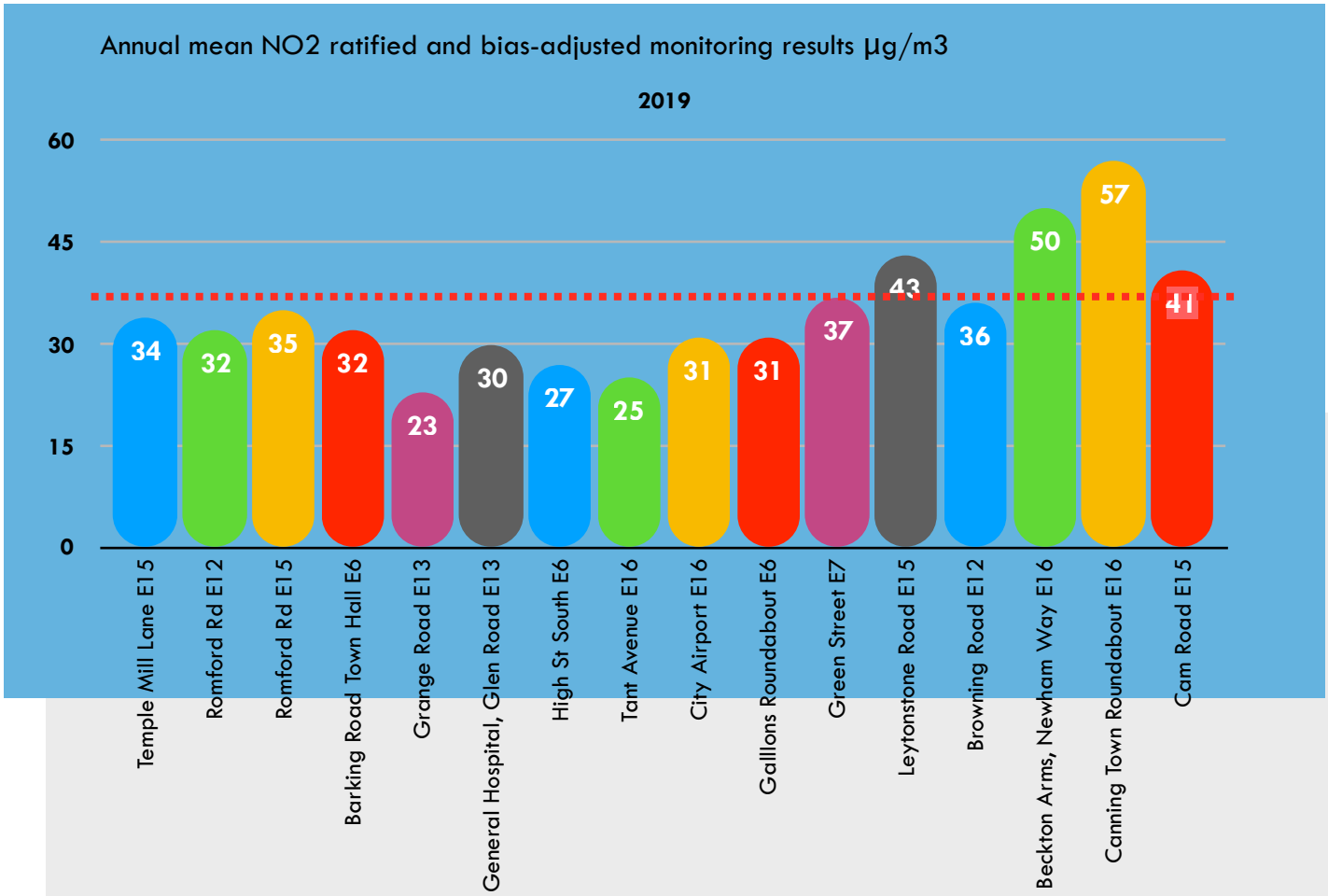
Annual mean NO2 ratified and bias-adjusted monitoring results µg/m3



Annual mean PM10 ratified and bias-adjusted monitoring results µg/m3



DETAILS OF NON-AUTOMATIC MONITORING SITES

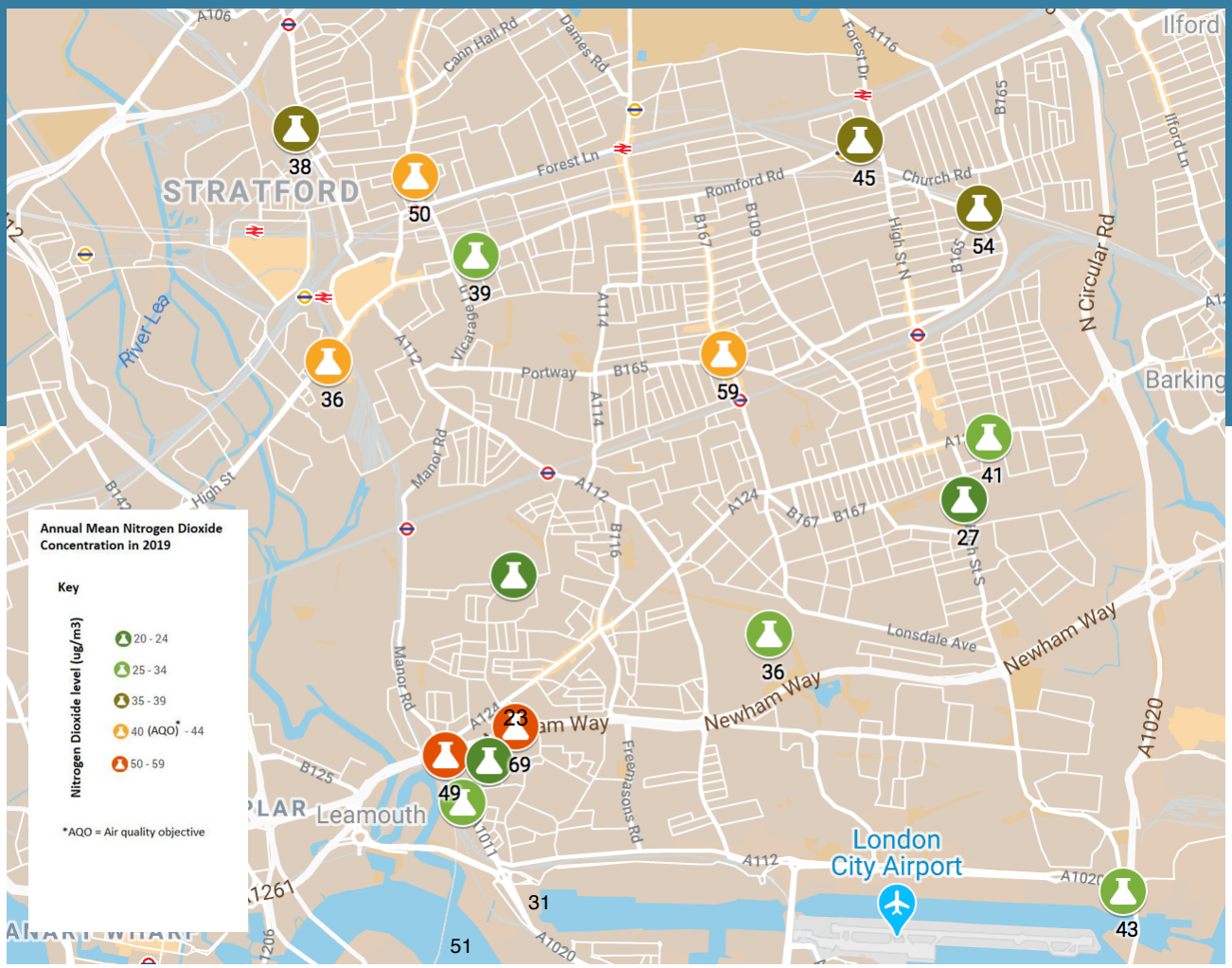


The samples of air quality at the non-automatic monitoring sites are collected monthly and sent off to a lab to be analysed. Every location in the graph above has a diffusion tube placed somewhere safe but not too far from the road. The diffusion tubes are small plastic tubes with a cap at each end, one of which is coloured. Under the coloured cap is a steel mesh disc which is coated with triethanolamine (TEA) a chemical that absorbs nitrogen dioxide. The change in this chemical tells us how much nitrogen dioxide was in the air during the monitoring period. The test results after 12 months are then bias-adjusted, assessed against the UK air quality objectives, and compared against both modelled concentrations, and monthly data from the Council's two automatic monitoring stations on Wren Close and Cam Road.

The red dotted line represents the legal UK Air Quality Objective of NO2 annual mean, which is 40 µg/m3.

"Air pollution is the biggest environmental threat to health in the UK, with between 28,000 and 36,000 deaths a year attributed to long-term exposure" - Public Health England.

LOCATION OF NEWHAM MONITORING SITES WITH ADDED DATA FOR 2019



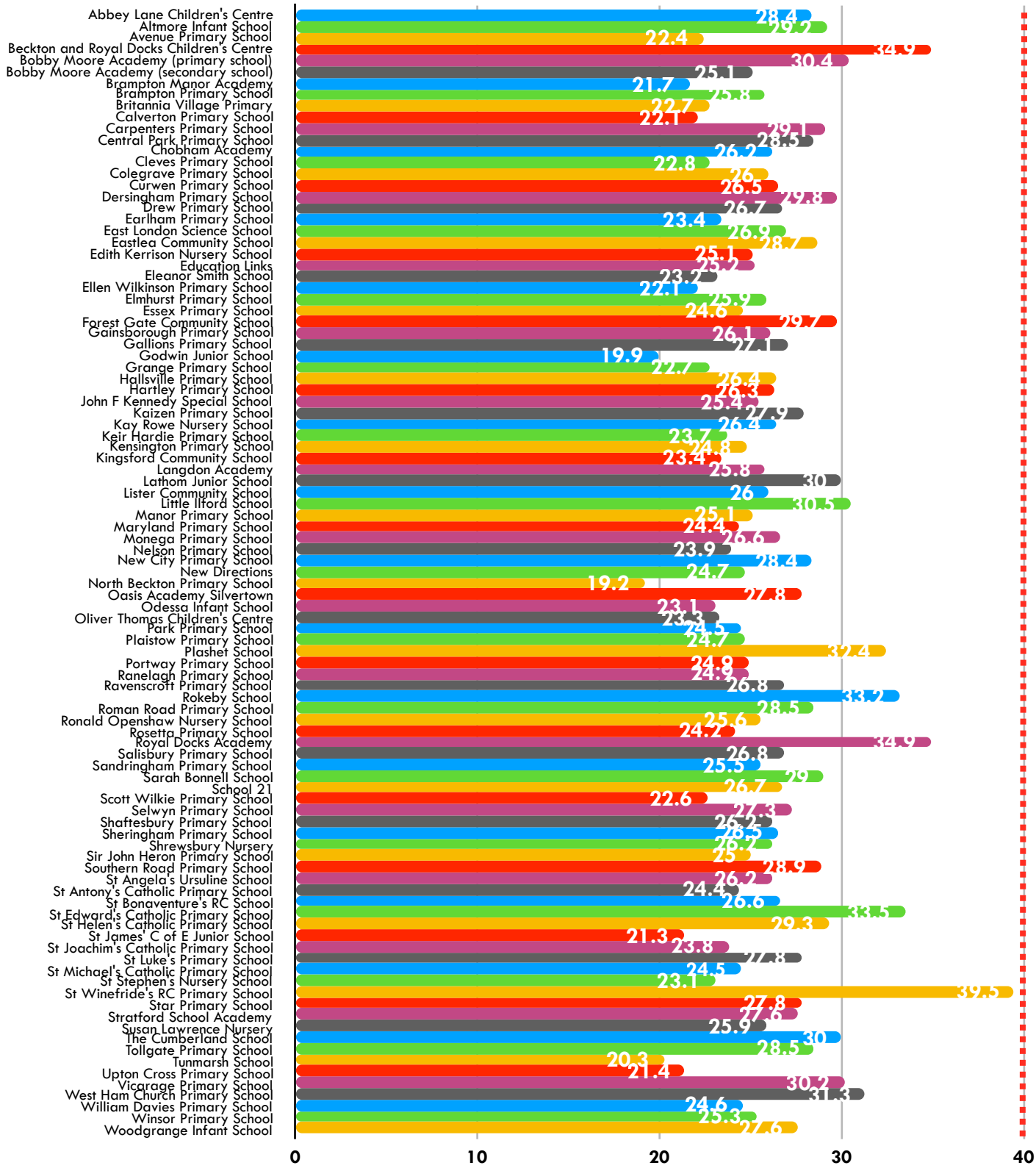
VERY GOOD | GOOD | MODERATE | HIGH | VERY HIGH

Air quality monitoring is substantially improved when continuous monitoring is undertaken using high-density networks. Pollution hot-spots can be identified on a temporal and spatial basis, helping to select the best mitigation measures and then locating diffusion tubes and sensors at, for example, places where new traffic management measures are implemented.

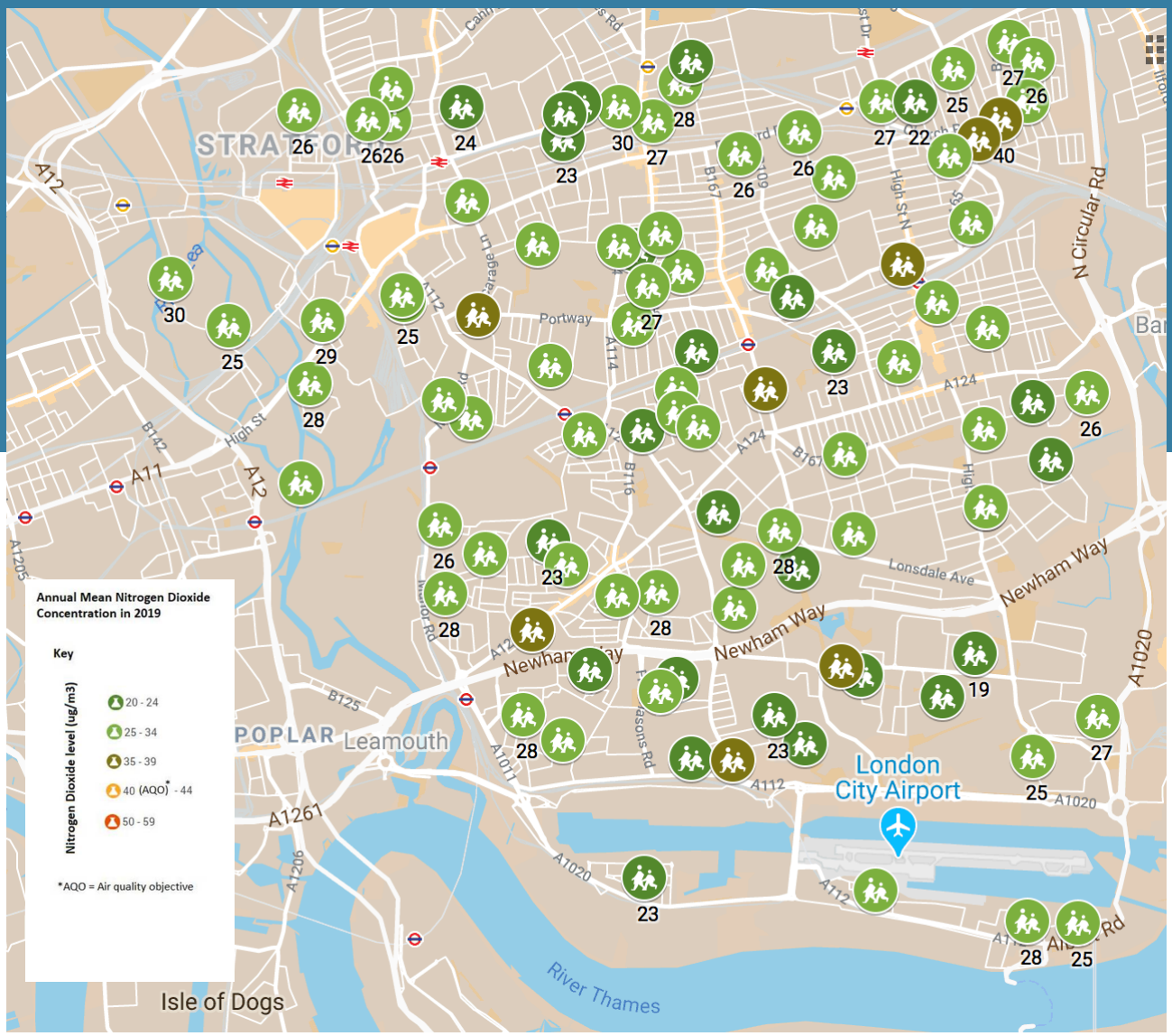
We also hope that by sharing this data publicly, we are helping you to identify pollution hot-spots and make informed decisions. Think about where and how you travel, where you shop and exercise, and most importantly - how you can help solve local air pollution problems.

NEWHAM SCHOOL SITES

As part of the Council initiative to assess the impact of air pollution on children in Newham, nitrogen dioxide diffusion tubes were set up outside all the borough's schools. Each month tubes are collected and sent off for analysis, and a provisional report is sent back to us with the results. Upon 12 months of monitoring, the results are assessed against the UK Air Quality Objectives and compared against both modelled concentrations, and monthly data from the Council's automatic monitoring stations. The final results are then ratified and bias-adjusted.
Even so our immediate actions and primary focus is on the schools affected the most, we invite all schools in the borough to contact us for advice and recommendations.



SCHOOL AIR MONITORING DIFFUSION TUBE LOCATIONS AND RESULTS FOR 2019



VERY GOOD	GOOD	MODERATE	HIGH	VERY HIGH

Perhaps the most significant benefit of air quality monitoring networks is their ability to provide local data. This localised data is an important feature, helping the Council to assess mitigation measures and develop infrastructure that delivers cleaner air.

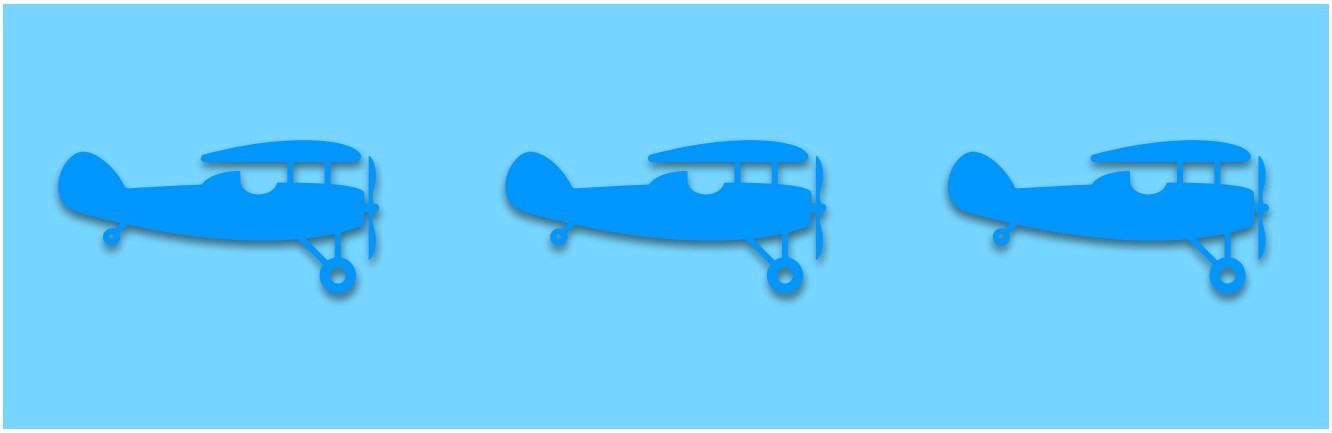
You can read more about our **Salisbury Primary School** project and other clear air for schools initiatives on our **website**.

LONDON CITY AIRPORT SITES

As part of the planning consent, London City Airport runs three real time monitoring stations. These are operated and maintained by Air Quality Consultants to the same standards as the Council's own sites.

You can find monitoring data for London City Airport (LCY) on **London City Airport Air Quality Measurement Programme** website. The website describes where air quality is measured and provides real-time information on air quality levels at the three automatic sites. It also allows users to calculate statistics, prepare graphs of recent air quality levels, and access historical data.
If you would like to learn more about how LCY is managing their impact on local air quality, you can find more information on **www.londoncityairport.com** and **London City Airport Air Quality Monitoring Strategy 2018** which will be replaced with 2020 version this autumn.

London City Airport has also committed to carbon neutrality by 2020, and to be a net zero carbon business by 2050.



AIR QUALITY ACTION PLAN OVERVIEW 2020

The Air Quality Action Report is in the process of being drafted, and we are looking at options and solutions to "build back better" post COVID19:

- We are looking to expand our monitoring network by installing another AQ monitoring station in the East Ham area.
- In early 2020 we purchased 25 hi-tech mobile AQ sensors as part of our "Healthy School Streets" programme. We are receiving data already, but not ready to add to this report. The results will be shared in our future publications.
- Fifty-nine of our schools are part of the TfL STARS project which designs safe plans and encourages students to walk and cycle to/from school.
- We will continue to work with TfL to extend our cycling route network, improve Greenway route and build new Quietway 6 that links 6.5 km from Wanstead Flats though to Barkingside.

- We will ensure that Air Quality policies and our future transport plans and projects are integrated.
- We will maximise our Green infrastructure developments and build safe, green spaces for your enjoyment and to encourage biodiversity.
- We will continue to target car idlers by providing training and resources to our fleet, residents and local businesses.
- Following the success of World Car Free Day in 2019, we will introduce regular, temporary car free days and pedestrianisation schemes throughout the borough.

VEHICLE IDLING ACTION SUMMARY

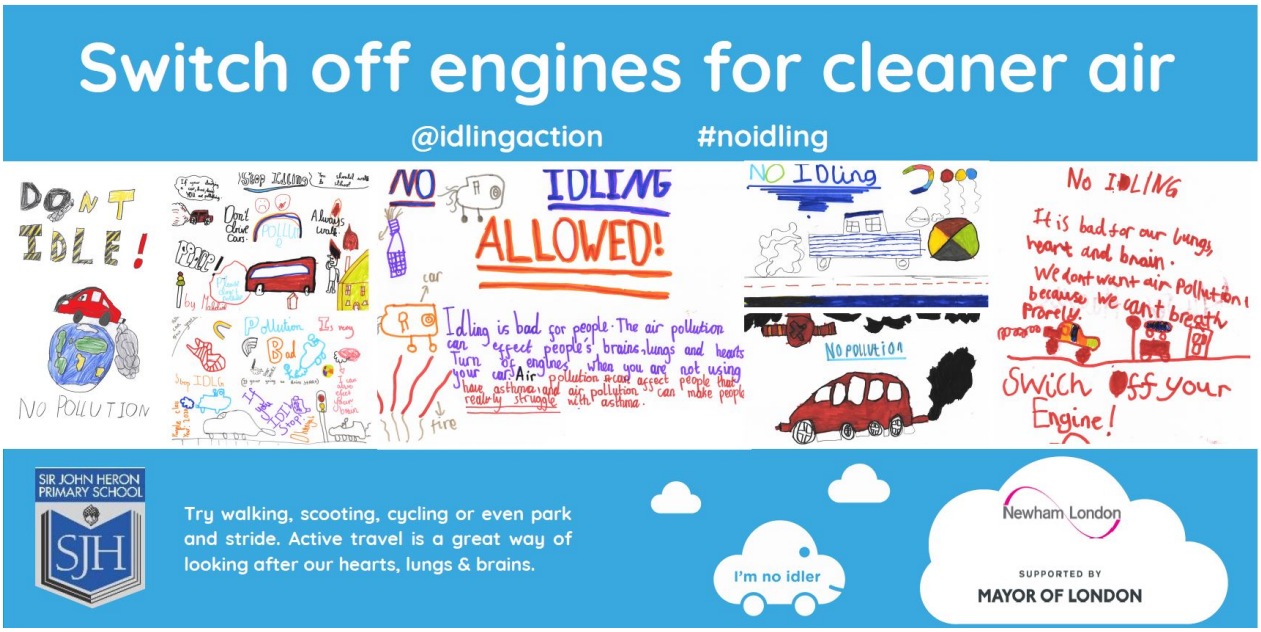
SUMMARY FINDINGS

- 1 school assembly was delivered to 450 KS1 and KS2 students
- 1 school air quality workshop was conducted with 20 KS2 children to create anti-idling banners
- 1 Idling Action event took place at the school
- 8 in total council workshops, providing an overview of the project, were delivered to 62 council enforcement officers
- 1 workshop delivered to two fleet driver instructors from the recycling and refuse team
- 100% of drivers switched off when asked
- 100% of idling vehicles were cars
- 70% of drivers spoken to already had their engines switched off
- 33% pledged to switch off in the future

ACTIVITIES AND OUTCOMES

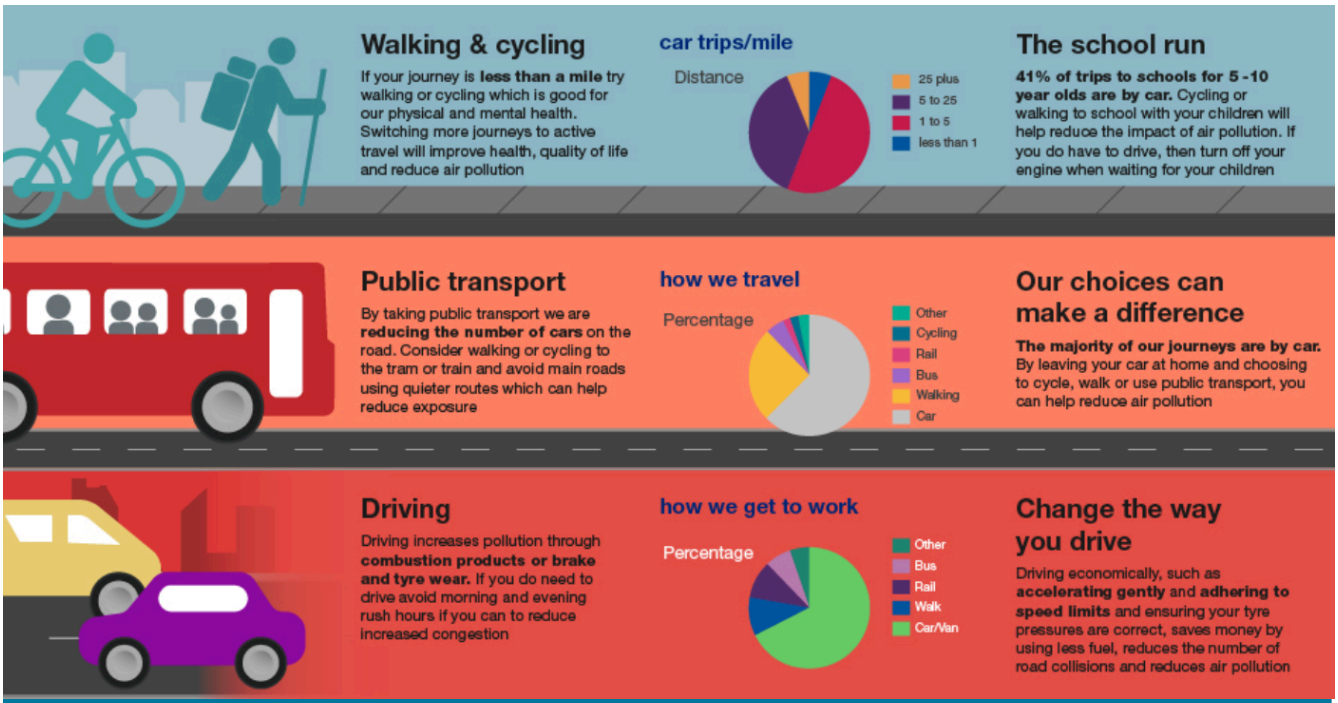
The short 15-minute assembly, delivered at Sir John Heron to the whole student body, gave students and teachers an introduction to the Idling Action project and what we were hoping to achieve at their school. The assembly allowed the students to discuss why clean air is essential for the students of the school and asked them about ways they can avoid and reduce their exposure to pollution and encourage others – family, friends, other students - not to contribute to pollution. Speaking with drivers and asking them not to leave their engine on whilst outside the school was highlighted as an effective way to make a difference, and all students were asked to pass the message on.

The one hour workshop to students, in this case the student council, involved learning about what air pollution is, the sources, and what can be done about it – centralising an anti-idling campaign as an effective way to reduce air pollution they may be exposed to at school. Students then made posters with anti-idling messages, some on which were turned into a banner which can be hung outside the school to prevent drivers idling their engines.



Anti-Idling Banner for Sir John Heron School made from drawings by students. For more information about the project, please visit our **website**.

HOW YOU CAN HELP TO REDUCE AIR POLLUTION



PROTECTING OUR PLANET STARTS WITH YOU

BIKE MORE DRIVE LESS

EDUCATE

When you further your own education, you can help others understand the importance and value of our natural resources.

Volunteer!

Volunteer for cleanups in your community. You can get involved in protecting your watershed too!

reduce REUSE recycle

Cut down on what you throw away. Follow the three "R's" to conserve natural resources and landfill space.

CONSERVE WATER

The less water you use, the less runoff and wastewater that eventually end up in the ocean.

choose sustainable seafood

Learn how to make smart seafood choices at www.FishWatch.gov.

-SHOP- WISELY

Buy less plastic and bring a reusable shopping bag.

Long-lasting light bulbs - ARE A - BRIGHT IDEA

Energy efficient light bulbs reduce greenhouse gas emissions. Also flip the light switch off when you leave the room!

Trees provide food and oxygen. They help save energy, clean the air, and help combat climate change.

PLANT A TREE

Don't send chemicals into our waterways.

Choose nontoxic chemicals in the home and office.

People at the Heart of Everything We Do