



**An alliance of Victorian  
Public Education community campaigns**

**'Every child in Victoria should have access to high quality  
state primary and secondary education in their local community'**

Tuesday 26 June, 2018

Department of Environment, Land, Water and Planning  
air.quality@delwp.vic.gov.au

**Re: Clean Air for All Victorians: Victoria's Air Quality Statement submission**

Our Children Our Schools (OCOS) is an alliance of 33 Victorian, parent led, Public school community campaign groups. We believe that every child in Victoria should have equity of access to high quality State primary and secondary schools in their local community.

We attach our submission for consideration as part of your '*Clean Air for All Victorians: Victoria's Air Quality Statement*' consultation. We trust you will view this submission positively and see how small initiatives in public spaces such as schools, as well as measures relating to travel to schools, can improve air quality.

Thank you for your time in advance and we look forward to an opportunity to discuss our submission with you.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Catherine Hall', is written in a cursive style.

Catherine Hall  
President  
Our Children Our Schools



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OUR CHILDREN OUR SCHOOLS

SUBMISSION: CLEAN AIR FOR ALL VICTORIANS: VICTORIA'S AIR QUALITY STATEMENT

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## Recommendations

Please find on the following pages Our Children Our School's submission to the *Clean Air for All Victorians: Victoria's Air Quality Statement*. More local schools, built according to sustainable design principles, will enable healthy, active and connected communities while also creating improved clean air opportunities.

The *Clean Air Statement* has the opportunity to work across the Department of Education, Department of Health, Active Travel Victoria, other Government Departments and Local Government Authorities in developing and implementing the ideas proposed. We make the following recommendations;

1. **Support and enable active travel to schools.** Please find our more detailed response in Appendix A - Promoting Active Travel to Schools.
  - a. **Provide local public schools for all communities.** Schools within walking or cycling distance of students' homes enables active travel to school, thus reducing cars on the road and their emissions.
  - b. **Introduce an Active Travel Ministerial portfolio.** Governance for this important and broadly beneficial policy area is currently unclear.
  - c. **Improve active travel routes to schools.** This could be achieved by providing each Local Government Authority with additional resources to roll out active travel routes for all Government schools across Victoria in their municipality. The aim could be to ensure that all Government schools have a plan in place by 2021. This initiative would tackle a number of key priorities, including, "*Reducing the occurrence of air pollution*" and "*Tackling emerging air quality challenges*". In turn reducing motor vehicle pollutants Particles, Ozone and Carbon Monoxide, Benzene, toluene, xylenes and formaldehyde.

It is worth noting that a recent New Zealand study has found that the benefits of walking and cycling, especially the positive health effects and reduction in carbon emissions from having fewer cars on the road, outweighed the costs of building better facilities and educational campaigns by a factor of ten to one.<sup>1</sup>

2. We strongly support the Government taking action in "**Improving guidance on the location and design of sensitive uses** (such as education, childcare and aged care facilities) exposed to significant road traffic emissions." Please find our more detailed response in Appendix B - Position of schools near roads with heavy traffic.

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<sup>1</sup> <https://idealogue.co.nz/urban/2018/05/new-victoria-university-wellington-study-biking-and-walking-pays-so-will-more-nz-cities-catch>

3. **Improve the number of trees in publicly owned land lots and along active travel routes to schools;** Please find our more detailed response in Appendix C – Improving the number of trees
  - a. **Minimum percentage of tree canopy targets** for each Government and Non-Government School, childcare and kindergarten site should be in place by 2022. We strongly recommend that government schools and kindergartens are provided with funding to roll out this initiative in the time frame. This initiative would tackle your key priorities “*Tackling emerging air quality challenges*” and “*Empowering communities*”.
  - b. **Funding the planting of additional trees in each school would improve air quality.** Funding for landscaping currently comes from Government schools operating budget and is not always a priority depending on the school. Many schools tend to conduct fundraisers to fund additional plantings. This initiative would tackle your key priorities “*Tackling emerging air quality challenges*” and “*Empowering communities*”.
  - c. **Reduction in ‘food-miles’ carbon footprint by planting fruit trees within school grounds.** This would contribute to healthy eating patterns and provide a fresh fruit component for existing ‘*School Breakfast Clubs*’<sup>2</sup>.
4. **For new schools and upgrades, utilise sustainable design principles considered best practice at time of build.**
  - a. **Installation of solar panels in each Government school and kindergarten** by 2023 reducing the reliance on the power grid. The Government would need to address how this initiative would work in the new vertical style of schools recently built. This initiative would tackle a number of your key priorities “*Reducing the occurrence of air pollution*” and “*Tackling emerging air quality challenges*”.
  - b. **Incorporate passive heating and cooling in school builds and upgrades.**
  - c. **Include natural light wherever possible.**
  - d. **Continue to improve the usage of energy efficient products.**

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<sup>2</sup> <https://www.education.vic.gov.au/about/programs/Pages/breakfastclubs.aspx>

# Appendix A - Promoting Active Travel to Schools



## PROMOTING ACTIVE TRAVEL TO SCHOOL

### Summary

It is now well accepted that Australia is experiencing an obesity and [inactivity epidemic](#) which unfortunately includes our children and puts them at risk.

The *Education State* has set a [specific target](#) for increasing daily activity of students – **Our Children Our Schools (OCOS) believes an efficient way to increase students' regular activity is to focus on daily trips of students to and from school.** This is effectively ten sessions of activity a week for the students which can also 'rub off' on other family members.

So it was pleasing to see the recently released [Victorian Cycling Strategy](#) includes a focus on [active travel to school](#) and makes a similar case to that of OCOS – pointing out many benefits including the fact that getting students cycling (or walking) can positively influence the behaviour of other family members.

OCOS will be asking the State Government to make funds available in the upcoming budget to support and enable active travel to school including providing bike shelters in schools, building walkable neighbourhoods and safe active travel routes, mapping safe routes, supporting bike education and promoting the benefits of active travel to the broader community.

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*Providing bike facilities at schools, including undercover and secure parking, racks, and pumps is likely to improve active travel to schools. 3*

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Additionally, education programs should be rolled out both online and in school newsletters to increase parents' knowledge. One OCOS member who rides to school with their child, fielded several questions from multiple migrant parents about road and other safety rules at her local primary school. She believes as cycling wasn't a promoted form of daily transport, parents did not have basic knowledge about helmets or co-riding.

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<sup>3</sup> CPF, *Active travel to school 2012 survey findings*. 2012: Kensington, VIC.

## Background

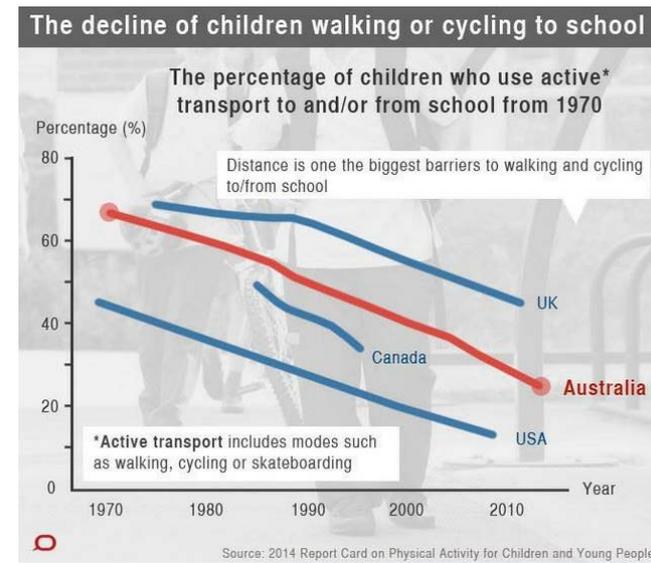
In their [30 Year Strategy, Infrastructure Victoria](#) highlighted the high number of children being driven to school as a key aspect of this public health challenge but did not address this problem directly with strategies.

*Pg 80 Need 4 Enable physical activity and participation*

*A particular challenge is the health and wellbeing of Victorian children. Some key state government indicators show that children are walking to school less and being driven more. In 2013, approximately half of all Victorian children aged 5 to 12 were always driven to school, and in 2014 only one in four children in school years 5, 8 and 11 met the recommended amount of physical activity on all days of the week, with children in rural areas more likely to meet guidelines than children in metropolitan areas.*

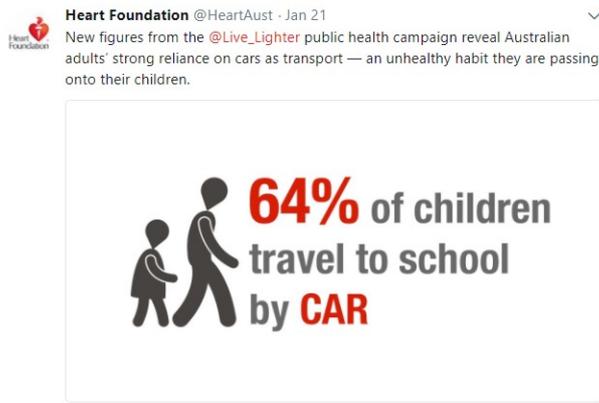
***Infrastructure can enable both incidental and planned physical activity through the provision of walking and cycling networks***

Data published by Active Healthy Kids Australia (refer graph below) shows the significant decline in the percentage of children who use active transport to and/ or from school since 1970 across a number of countries



Source: Active Healthy Kids Australia

Data released on 22nd January, 2018 by [LiveLighter](#) public health campaign, run by the Heart Foundation and Cancer Council Victoria shows that in Australia, 64% of children travel to school by car.



However it doesn't have to be this way. Why not school holiday roads all year round? Data published by VicRoads (refer graph below) shows significant reduction in traffic volumes during school holidays.

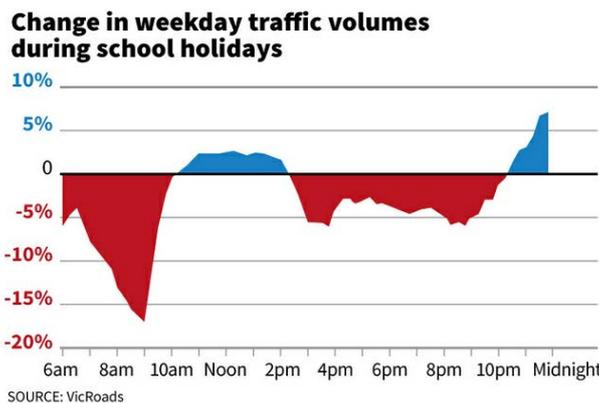
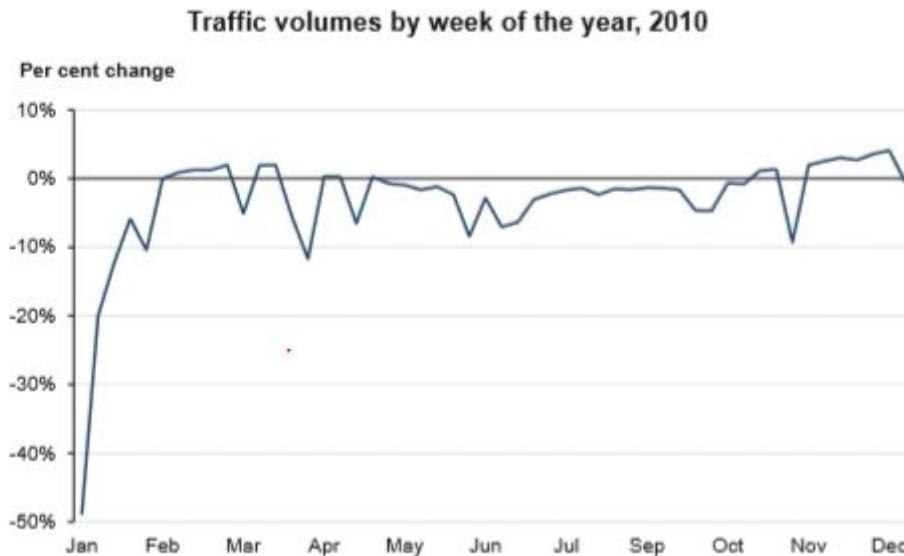


Image Source: <https://www.theage.com.au/national/victoria/how-the-school-holidays-change-the-way-we-travel-20161219-gtdzz6.html>

The 2013 Victorian Auditor-General's [Report on Managing Traffic Congestion](#) identifies car trips to school as a significant contributor to road congestion and suggests demand management (Pgs 23, 24 & 57):

*“The use of cars to drive children to school has risen steeply over the past three decades, contributing to widely dispersed areas of localised congestion. It further notes there is the opportunity for travel demand management measures to encourage mode shift for school journeys.*

*[The graph below] highlights the changes in traffic volumes across the 12 months of 2010, and shows the significant decline in volumes during school holiday periods. This suggests that changes in road use behaviour for school commuting have the potential to reduce current traffic volumes by around 5 to 10 per cent. This could lead to substantial improvements in road network performance and accessibility.”*



Source: Victorian Auditor-General's Office from VISTA 2009.

A key factor in morning peak hour demand management could be travel mode shift for the trip to school. This year the Leader Newspapers' number one 'top tip' for getting ready for school was "Practice **driving** the route to a new school" (Moreland Leader, 22 January 2018). Why not walking, cycling or scooting?

We all need to work together to reverse this trend.

At the announcement for the new Preston High School, it was encouraging to hear Education Minister, James Merlino say that the Government would work with Vic Roads and Council to ensure safe active travel routes to the school. OCOS would like to see this approach formalised for all schools.

Safe active travel will need to be supported with a range of measures including mapped safe routes, separated path infrastructure, where possible, and bike parking provision at schools coupled with education and promotion programs in schools and the broader community.

We believe there is an appetite in communities for positive stories about active travel to school – as evidenced by OCOS's biggest tweet ever being on this topic and receiving 6350 impressions. Some in government may be concerned that cycling can be a contentious topic – we say no one begrudges a child on a bike and a public focus on school-aged active travellers could result in a positive shift in attitude and uptake.

OCOS welcomes the recently released [Victorian Cycling Strategy](#) focus on active travel to school however the stated strategic approach for the Victorian Government to "work with local councils to improve cycling routes and facilities at schools" is going to require clear mechanisms, governance, and of course funding.

## Victorian Policy Context

### Education State target

By 2025: *The proportion of students doing physical activity for an hour a day, five times a week, will grow by 20%.*

### Victorian Cycling Strategy 2018-2028

- 2.3 Support cycling to school: *The Victorian Government will work with local councils to improve cycling routes and facilities at schools, which will help increase the number of children cycling to school.*
- 1.6 Work with local councils to address gaps in strategic cycling corridors: *We will work with local councils to join up strategic cycling corridors on local streets, arterial roads, highways, rail corridors and green spaces. We will work closely with local councils to plan, identify and deliver improvements to strategic cycling corridors and to support the 20-minute neighbourhood concept, especially for cycling to schools, train stations and activity areas.*

### Active Victoria Strategy

#### Direction 3 Additional focus on active recreation

- Key area of change: *School-based actions to improve children's physical literacy and levels of physical activity.*
- *Planning for active recreation infrastructure connected to other community uses and urban development.*

### Plan Melbourne 20 Minute City

*The concept of the 20-minute neighbourhood is simple. It's all about giving Melburnians the ability to 'live locally' - meeting most of their everyday needs within a 20-minute walk, cycle or local public transport trip of their home.*

*Those everyday needs include; schools.....*

## Recommendations

See Appendix 1 for an evidence base for key recommendations.

1. The Victorian Government retrofits or provides secure, covered bike parking at all public schools – possibly via the Victorian School Building Authority.
2. The Victorian Government will fund local governments to mark and/or sign safe routes to school, and undertake targeted infrastructure improvements, in combination with safe route to school maps. (Moonee Valley Council's [mapping for every school in the municipality](#) is a good example of what could be rolled out by all councils)

3. The Victorian Government, wherever possible, will fund walking and cycling paths that are separated from road traffic.
4. When funding Strategic Cycling Corridors, as per the Victorian Cycling Strategy, the Victorian Government will give priority (after black spots) to Corridors that make up routes to schools.
5. For schools being planned, Active Transport Victoria (ATV) will work with the Victorian Planning Authority, Vic Roads, local government and the Department of Education to develop a connected, direct and safe cycling (and walking) network, traffic-calmed areas and street hierarchy and network that will make active transport the preferred option for travel to and from school (consistent with a wider approach for 20 minute neighbourhoods).
6. If, as indicated in the Cycling Strategy, ATV is deemed to be the body tasked with overseeing much of this work, the Victorian Government will staff and fund ATV commensurate with the breadth and scale of the work.
7. The Victorian Government will provide the ATV, or relevant responsible body, with the means to promote active travel and tell positive cycling and walking infrastructure stories. Examples include the Sydney Cycleways social media accounts and Victorian School Building Authority story telling.
8. The Victorian Government will support schools to promote active travel within their school communities including education regarding the benefits and teaching some of the skills required.

## Appendix 1.

### Evidence base for key recommendations

(As provided by researchers working in the field after consultation with OCOS)

- **Local public schools within walking/cycling distance of homes**

There is a need for provision of government schools of consistent high quality within residential areas so that children have good local access to quality education. This will discourage parents from shopping around for schools that are located further away from home and require their children to be driven there. There is evidence from Australia [1] and the UK [2] that freedom of choice of government schools is related to children travelling greater distances to school.

- **Separated bicycle infrastructure**

Concern about road safety is a key reason why parents do not allow their children to cycle to school [1, 3]. Children are more likely to cycle if there are separated bike paths [4]. Recent [research](#) shows that for teenagers, well separated bike paths are even more important than distance in determining a preference for cycling,

- **Reduced speed limits around schools**

If a pedestrian is struck by a vehicle travelling at 30km/h they are likely to suffer only minor injuries. However, if struck at 60km/h they are likely to be killed [5]. According to the World Health Organization [6] traffic speeds should be 30km/h or less in road environments that are shared between motorized vehicles, cyclist and pedestrians. Higher speeds should be allowed only where roads are designed to allow separation of vehicles, cyclist and pedestrians [6].

- **Provision of bike facilities at schools**

Providing bike facilities at schools, including undercover and secure parking, racks, and pumps is likely to improve active travel to schools [7].

- **Preferred routes to school**

Identification of preferred routes to school (e.g. with safer pedestrian/cyclist infrastructure, low traffic volume) are likely to encourage active transport to school [8].

- **Education for children and parents and community**

The promotion of active transport to school can include educational opportunities in the classroom for children and online or via newsletters for parents. They can learn about how active transport can help them to meet the national physical activity guidelines [9] and the related health benefits. There may also be opportunities to learn about walking and cycling as sustainable forms of transport that can help lower carbon emissions and reduce our dependency on fossil fuels.

Promotion and education also needs to occur into the broader community.

- **Training and skills**

Countries that have high rates of active transport to school have implemented school-based skills training for cycling [10]. Australian research also indicates that cyclists will make safer drivers [11].

- **Ongoing encouragement for walking and cycling to school**

Although good for encouraging walking and cycling at the time of the event, single events such as Walk to School month and Ride to School day are not the only solution if parents return to driving their children once these events have ended [3]. There is a need for ongoing and broadly applied programs that provide sustained interest in active travel – which can include driving part way. Research also shows that children who walk and cycle to school are more focused and ready to learn.

- **Promotion of active travel to local destinations**

There is a need to encourage active transport to other neighbourhood destinations and extra-curricular activities so that children who do not reside within walking/cycling distance to school can still feel engaged and benefit from this activity [1, 12]. (Although families should be reminded that active travel can include being driven part-way.) An Australian study found that parents of primary school-aged children made 3-4 car trips per week to transport their children to places that were within walking distance of home [1].

- **Safety from crime**

If road infrastructure supports walking and cycling by reducing road safety concerns, more adults and children will engage in active transport. As a result there will be greater social interaction on neighbourhood streets as well as informal surveillance. This may help to reduce parental perception of 'stranger danger' which tends to be a further barrier to children's active transport [3, 13].

## References

1. Carver, A., A. Timperio, and D. Crawford, *Parental chauffeurs: what drives their transport choice?* Journal of Transport Geography, 2013. **26**(0): p. 72-77.
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6. WHO *Managing Speed*. 2017.
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9. Australian Government Department of Health. *Australia's Physical Activity and Sedentary Behaviour Guidelines*. 2014 May 1999; Available from: <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-publth-strateg-phys-act-guidelines>.

10. Pucher, J. and R. Buehler, *Making Cycling Irresistible: Lessons from The Netherlands, Denmark and Germany*. Transport Reviews, 2008. **28**(4): p. 495-528.
11. Beanland, V. and L.J. Hansen, *Do cyclists make better drivers? Associations between cycling experience and change detection in road scenes*. Accident analysis and prevention, 2017. **106**: p. 420-427.
12. Smith, L., et al., *Is active travel to non-school destinations associated with physical activity in primary school children?* Preventive Medicine, 2012. **54**(3&4): p. 224-228.
13. Mullan, E., *Do you think that your local area is a good place for young people to grow up? The effects of traffic and car parking on young people's views*. Health & Place, 2003. **9**(4): p. 351-60.

## Appendix B - Position of schools near roads with heavy traffic

There is a worldwide move to prevent schools from being built within 500 metres of road with heavy traffic (more than 10,000 vehicles a day). The following articles discuss this in further detail

<https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>

<http://healthnews.uc.edu/news/?/7358/>

*The state of California, for example, has passed a law prohibiting the building of new schools within 500 feet (168 meters) of a busy road. New Jersey is moving a bill through the legislature to require highway entrance and exit ramps to be at least 1,000 feet from schools.*

<https://jagadees.wordpress.com/2017/04/21/questions-and-answers-about-schools-and-traffic-pollution/>

*In Detroit, where the asthma hospitalization rate for kids is nearly three times the statewide rate, the head of the city's health department is concerned about the long-term effects of traffic proximity. "We built highways well into the heart of Detroit," said Dr. Abdul El-Sayed, executive director of the Detroit Health Department. The city has lots of schools near significant traffic, and "we're only now starting to appreciate that maybe these aren't the best places to put our kids," he said.*

<http://www.howpollutedismyroad.org.uk/schools.php>

*Research by the Campaign for Clean Air found that 1,148 schools in London are within 150 metres of roads carrying 10,000 or more vehicles per day, and a total of 2,270 schools are within 400 metres of such roads.*

*I have estimated, based on the Mayor's projections for pollution levels, that in 2020 there will still be 928 schools near polluted roads. That means that many children will go the whole way through primary school near polluted roads.*

*Scientific research indicates that children exposed to higher levels of traffic-related air pollution at school and home may be at increased risk of developing asthma. Scientists say living near roads travelled by 10,000 or more vehicles per day could be responsible for some 15-30 per cent of all new cases of asthma in children; and of COPD (chronic obstructive pulmonary disease) and CHD (coronary heart disease) in adults 65 years of age and older.*

*This map shows those schools within 150m of roads with over 10,000 vehicles a day. Click on a number to zoom in and see all the schools in that area.*

<http://www.bbc.com/news/health-30349398>

*There is a public health crisis in terms of poor air quality.*

*"There are nearly as many deaths now caused by air pollution as there are from smoking, so the main thing is we stop a new generation of children being exposed."*

*She said government "should make it impossible" for new schools, care home or health clinics to be built in pollution hotspots.*

*She added that "well over a thousand" schools were already near major roads and that it "made sound economic sense" to filter the air coming into the buildings.*

*The committee's report says traffic is responsible for 42% of carbon monoxide, 46% of nitrogen oxides and 26% of particulate matter pollution.*

<http://www.theguardian.com/environment/2016/may/19/why-air-pollution-in-schools-is-such-a-big-deal-and-what-to-do-about-it>

*Former London mayor Boris Johnson has been accused of holding back negative findings from a 2013 report on the city's air pollution.*

*The report stated that 433 of London's 1,777 primary schools were in areas where nitrogen dioxide*

*concentrations breached EU limits. Nitrogen dioxide, or NO<sub>2</sub>, is an air pollutant that when inhaled can aggravate respiratory diseases such as asthma, emphysema and bronchitis. It has been estimated that in 2010 there were 5,900 deaths in London associated with long term exposure to NO<sub>2</sub>.*

## Appendix C – Improving the number of trees

Research shows the following benefits to improving the number of trees;

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*“...trees provide direct and indirect benefits to urban landscapes. They enhance the health of our environment, by producing oxygen, absorbing carbon dioxide and trapping airborne pollutants. They reduce glare, deflect wind, provide shade and reduce heating and cooling costs.”<sup>4</sup>*

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Victorian nursery, Dream Time, states the benefits of trees included;

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*“Trees cool the streets and the city*

*Average temperatures in Melbourne have risen 3°C in the last 50 years as tree coverage has declined and the number of heat-absorbing roads and buildings has increased.*

*Trees cool the city by up to 7°C, by shading our homes and streets, breaking up urban “heat islands” and releasing water vapour into the air through their leaves.*

*Trees conserve energy- Two to three trees placed strategically around a single-family home can cut summer air conditioning needs by up to 50 percent. By reducing the energy demand for cooling our houses, we reduce carbon dioxide and other pollution emissions”<sup>5</sup>*

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<sup>4</sup> Pg7 Greater Dandenong's *Leafy Legacy* street tree strategy

<http://www.greaterdandenong.com/document/23514/trees>

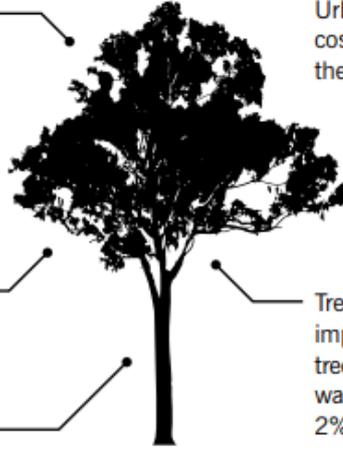
<sup>5</sup> <http://www.dream-time.com.au/navigation-header/http-www-dream-time-com-au-benefits-of-trees-html>

## ENVIRONMENTAL BENEFITS

Trees help filter airborne pollutants and there is up to a 60 per cent reduction in street level particulates where trees are present.

Through photosynthesis a tree can absorb up to 150 kg of CO<sub>2</sub> per annum, some of which is sequestered within the wood of the tree.

Trees provide wildlife habitats for many species.



Shade trees reduce daytime surface temperatures by between 5-20°C. Urban canopy trees are one of the most cost effective mechanisms for reducing the urban heat island effect.

Trees can regulate stormwater flow and improve water quality. For every 5% of tree cover added to a landscape, storm water runoff is reduced by approximately 2%. This reduces localised flooding and pressure on the existing drainage systems.

Source: Draft City Of Greater Dandenong Greening Our City Urban Tree Strategy 2018-2028 pg.10<sup>6</sup>

<sup>6</sup> <http://www.greaterdandenong.com/news/2321/greening-our-city-urban-tree-strategy-2018-2028>