

# Perth Air Quality Coordinating Committee

# Report Card 2020-21

The <u>Perth Air Quality Management Plan</u> (Perth AQMP) was released in December 2000. The Plan aims to ensure clean air is achieved and maintained throughout the Perth metropolitan region to 2030 and beyond.

The short-term and long-term actions within the Perth AQMP address issues through eight key initiatives: land use and transport planning; vehicle emissions management; health effects research and indoor air quality; monitoring and modelling; industrial emissions management; small to medium enterprise emissions management; haze reduction; and smoke management.

Some highlights include:

## <u>Your Move</u> <u>program</u>



The Your Move program informs and encourages the community to make more trips by walking, bike riding and using public transport in place of some car trips. Boosting the use of active transport options can make better use of walk and bike paths and public transport services, contribute to community health and wellbeing and reduce car use and associated emissions and congestion. The program develops and delivers projects in target communities. In 2020-21 a project was run in the City of Stirling.

The <u>Your Move website</u> makes it easier for all school, workplace and local government program participants to interact, share and use the program resources.

#### Highlights 2020–21

- The Your Move Stirling project was run in partnership with the City of Stirling. It focused on parts of this large local government area that have good public transport services and walk and bike paths, and where formative research indicated interest in making everyday trips on foot, bike, bus or train.
- The project engaged 16,146 residents in phone-based coaching. Participants identify trips they want to make on foot, bike or public transport and receive relevant information and reminders to encourage them to try walking, riding or using public transport more. Of the 7,948 asked at the end of the project, 56 per cent indicated they had reduced their car use and/or walked, cycled, or used public transport more.
- The project also involved the installation of signs to encourage walking and riding to local destinations.
   Ground-based signs were placed on paths to indicate distances to shops, schools, parks and other amenities.
- 21 schools in Stirling participated in the Your Move Schools program, with eight of these schools supported via the Your Move Stirling project to promote active travel by students. School activities included walk and bike to school days, bike skills training, and mapping and marking safe routes to school with path stencils. Surveys are being used to measure how students travelled to schools before and after the project. Six Stirling schools received funds via the Department of Transport Connecting Schools Grants to improve their bike parking facilities.



- Three workplaces took part in the project: The
  City of Stirling administration centre, Department
  of Transport's Tassels Place office and IKEA's
  Perth store. The workplaces took part in an active
  commuter competition, vying for the Your Move
  Cup in March 2021. A total of 91 employees formed
  workplace teams and made as many commutes
  as they could on foot, bicycle or public transport to
  earn points towards the cup.
- The project promoted active transport options to the Stirling community. The next Your Move community project will build on the positive engagement achieved in Stirling but with a greater focus on school engagement. Ten local schools (primary and secondary) will be targeted with an intensive service to shift from car trips to walking, riding, scooting and public transport to school. Some 3,000-4,000 residents will be recruited, being parents and carers from school catchment areas, with a focus on coaching conversations for walking and riding on local trips including school, shopping and leisure trips.

# State Electric Vehicle Strategy for Western Australia



The \$21 million Electric Vehicle (EV) Strategy was released in November 2020. The Strategy provides a pathway for decarbonising road transport, improving air quality and supporting a robust electricity system with increasing levels of renewable energy.

#### Highlights 2020-21

- Leading by example, the Government of Western Australia commits to at least 25 per cent of vehicles acquired for its fleet within eligible segments being electric by 2025-26.
- The infrastructure program outlined in the State Electric Vehicle Strategy will deliver Australia's longest electric vehicle charging network.
   \$20 million is being invested to install up to 90 fast-charging stations across 45 locations.
- Approval was granted for a trial of electric buses to commence on the Joondalup Central Area Transit route in early 2022.
- The State Electric Vehicle Strategy also aims
  to facilitate uptake by developing and updating
  standards, guidelines and requirements for planning
  approval, as well as improving levels of consumer
  awareness and knowledge.



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#### RAC Electric Highway





A first in Australia, the RAC Electric Highway® opened in June 2015 and is an RAC initiative, supported by local governments from Western Australia's south-west, that:

- aims to reduce carbon dioxide emissions from cars and promote the growth in use of alternative vehicles
- builds on an idea by a WA communitybased committee and supports the RAC's sustainable mobility agenda
- will connect Perth with Western Australia's south-west through a series of fastcharging stations.

#### Highlights 2020-21

Progress on the expansion of the RAC Electric Highway® includes:

- expansion in 2020-21 comprising 15 strategically located electric vehicle charging stations – consisting of:
  - 2 ultra-rapid charging stations in West Perth and Australind
  - 12 fast chargers and two AC charging stations
- the RAC Electric Highway® now stretching from Perth through the south-west to Pemberton.

The primary goal of the RAC Electric Highway® is to open the road to the south-west to electric vehicles and in doing so help reduce harmful emissions from cars. RAC has continued to manage the Electric Highway over the past six years and engage with local governments.

#### <u>CleanRun</u>





CleanRun is a Department of Water and Environmental Regulation (DWER) program consisting of a range of targeted initiatives to reduce vehicle emissions including:

- roadside vehicle emissions monitoring and free health checks of vehicle emissions using the remote sensing device (RSD)
- the Smoky Vehicle Reporting Program for community reporting of smoky vehicles.

#### Highlights 2020-21

The <u>2019-2020 Smoky Vehicle Reporting Program</u> – <u>Annual report</u> was published. Key findings in the report included:

- 579 vehicles were reported in 2019-2020 via the reporting form on the DWER website
- two-thirds of reported vehicle owners advised having repaired or serviced their vehicles
- reporter diversity continued to increase with 399 unique reporters in 2019-2020; a more diverse reporter base has demonstratively improved the effectiveness of the program
- diesel vehicles continue to be over-represented in reports with four out of five vehicles reported to be diesels.

# Air Quality Monitoring and Modelling

The objectives of this program are to:

- introduce procedures for the ongoing development of current air quality models and the review of new modelling methods and techniques for application in Perth
- ensure that the existing monitoring network is maintained and improved and assess trends in air quality
- develop future monitoring programs, based on the exposure to and impact of air toxins and acid gases, and evaluate monitoring options, such as mobile monitoring facilities.

This program run by DWER aims to ensure that the existing monitoring network is maintained and improved and assesses trends in air quality. This program incorporates a review of Perth ambient air quality monitoring data and is reviewing and improving monitoring equipment.



#### Highlights 2020-21

- Air quality experts continue to develop new and innovative ways to track air pollution and expand our knowledge of air quality science. This includes technical input into surveillance monitoring campaigns in the vicinity of pollution sources and investigating the use of new technology such as electronic noses (or 'e-Noses') for odour field studies.
- A two to three year program for the development of an advanced regional air quality model for use in priority airsheds including Perth is continuing.
- Continued to access the Pawsey Supercomputing Centre to assist with regional model development, with preliminary work underway.
- Testing of new devices/methodologies including real-time particle sensors for use in non-<u>National</u> <u>Environmental Protection Measure (NEPM)</u> applications is continuing.
- New campaign monitoring programs are undertaken where a need is identified. Where appropriate, these studies are published on the DWER website.
- Collaborated with local universities on the analysis of satellite imagery to better understand how bushfires can affect air quality and on the use of low-cost sensors. Complex dispersion models have been developed with scientific oversight for the Murujuga and Collie priority airsheds.
- The DWER Air Quality team has ensured the department has been able to better manage industry development applications by auditing scientific claims. It has provided more than 100 technical reviews for internal and external clients, including high-profile industry proposals in priority airsheds such as Port Hedland in the Pilbara.



## Report Card 2020-21

#### About the Air Quality Coordinating Committee

The Air Quality Coordinating Committee (AQCC) is comprised of representatives from State Government, industry, business and the community. Its role is to monitor the implementation of the Perth Air Quality Management Plan and review the progress towards achieving its aims.

# AQCC members Membership as at 30 June 2021:

#### State Government

- Sarah McEvoy, Chair (<u>Department of Water and Environmental Regulation</u>)
- Mirella Goetzmann (Department of Health)
- Justin McKirdy (Department of Transport)
- Katie MacWilliams (<u>Department of Biodiversity</u> <u>Conservation and Attractions</u>)
- Jacquie Stone (<u>Department of Planning Lands</u> and Heritage)
- Joscyln Sloan (<u>Department of Mines, Industry</u> <u>Regulation and Safety</u>)

#### Community

- Professor Philip Jennings (<u>Conservation Council of Western Australia</u>)
- Dr Sue Graham-Taylor (Community Member -Pollution Action Network)
- Martin Chape (Community Member)

#### Business and Industry

- Nick Jones (<u>WA Local Government Association</u>)
- Chris Oughton (Kwinana Industries Council)
- Anne Still (Royal Automobile Club of WA)

The Air Quality Coordinating Committee met twice between July 2020 and June 2021.

#### Contact the Air Quality Coordinating Committee

For more information, please contact the secretary:

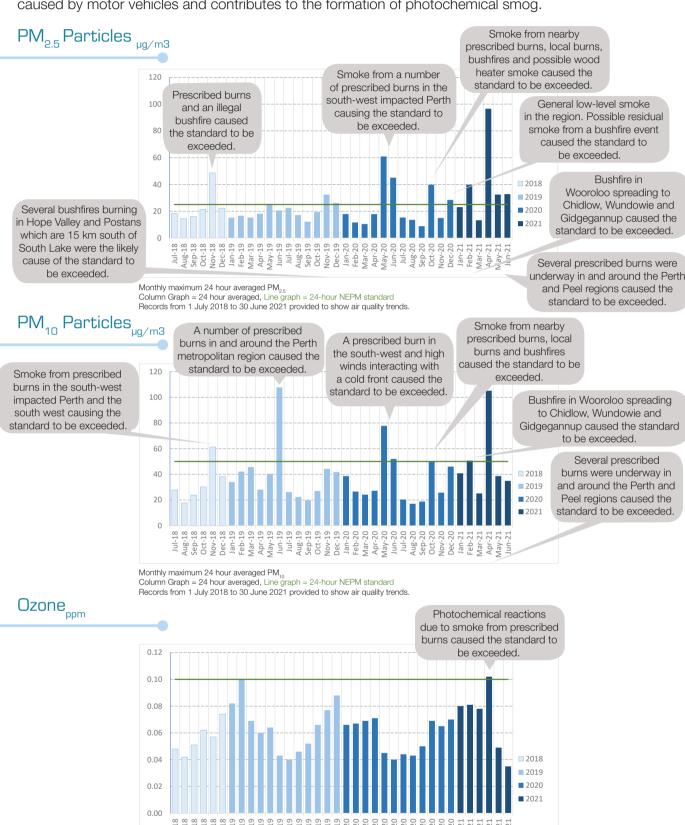
Phone: 6364 6581

Email: AQCCadmin@der.wa.gov.au

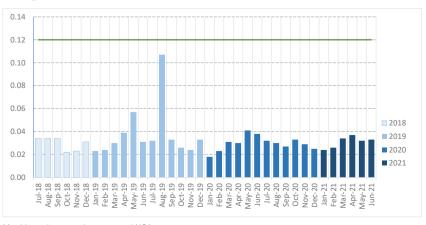
or visit us at the <u>Air Quality Coordinating Committee</u>, <u>Department of Water and Environmental Regulation</u>

## Air pollutant trends 2020-21

The graphs below show the maximum levels for fine particle (PM<sub>2.5</sub>), coarse particles (PM<sub>10</sub>), ozone and nitrogen dioxide from 1 July 2020 to 30 June 2021, recorded at Perth monitoring stations (Armadale, Caversham, South Lake, Duncraig, Mandurah, Rolling Green, Quinns Rocks, Rockingham, Swanbourne and Wattleup). For comparison, the diameter of a human hair is seven times the diameter of the largest coarse particle (PM<sub>10</sub>). The high concentrations of particles were primarily due to natural dust, smoke haze and local vehicle emissions. The precursors for ozone (an indicator of photochemical smog) are produced predominantly by motor vehicles and industry. Nitrogen dioxide in cities is predominantly caused by motor vehicles and contributes to the formation of photochemical smog.



# Nitrogen dioxide



Monthly maximum one hour averaged NO2
Column Graph = 1 hour averaged, Line graph = 1 hour NEPM standard
Records from 1 July 2018 to 30 June 2021 provided to show air quality trends

Monthly maximum one hour averaged O3

Column Graph = 1 hour averaged, Line graph = 1 hour NEPM standard Records from 1 July 2018 to 30 June 2021 provided to show air quality trends

Further details on air pollutant trends in Perth can be found in the <u>WA Air Monitoring Reports</u> which are available on <u>the department's website</u>. <u>An hourly update of air quality in WA</u> is also available on <u>the department's website</u>.