Clean air FACT SHEET

Air Quality Monitoring

The purpose of this fact sheet is to outline how air emissions are monitored and reported on in Victoria. Victoria's air quality monitoring program provides information on the concentrations of six key pollutants at 19 sites across Victoria. The pollutants are:

- coarse particulate matter (PM_{10})
- fine particulate matter ($PM_{2.5}$)
- ozone
- nitrogen dioxide
- sulfur dioxide
- carbon monoxide

These are pollutants specified in the "National Environment Protection (Ambient Air Quality) Measure" (NEPM AAQ) and monitored and reported on by all Australian states and territories. You can find more information on these pollutants in the fact sheet *Air pollution sources, impacts and trends*. Understanding the concentration of these pollutants:

- enables the Environment Protection Authority Victoria (EPA) to advise Victorians on whether air quality is good, fair or poor in these locations
- informs development of air quality management strategies, and evaluation of the effectiveness of air quality management activities.

There are three key types of monitoring equipment providing information on air quality:

- **General condition monitors:** provide information on general (or "ambient") air quality and pollution over a large area – the 'big picture'. They form the foundation of EPA's monitoring network. Some are fixed and some are mobile.
- **Local condition monitors:** measure local air quality. They are placed in some communities where there are specific pollution concerns – for example, adjacent to the Brooklyn Industrial Estate.
- **Incident air monitors:** these are set up to respond rapidly to a major pollution event – for example, an industrial accident.

Locations of general and local condition monitors are shown at the end of this fact sheet.

Industrial Sites

For individual industrial sites, continuous monitoring is often used to monitor emissions. This information can be used to demonstrate compliance with EPA licence requirements. There is no current statutory requirement to make this emissions monitoring public, although some sites choose to do so. The Environment Protection Amendment Bill 2018 makes environmental information more transparent and accessible, with EPA licence holders being required to make environmental information available – this is expected to increase information available on air emissions.

Hazard reduction burns

Victorians are facing longer bushfire seasons and shorter opportunities to deliver hazard reduction burns. The scale of hazard reduction burning needs to remain large to manage bushfire risk.

Land managers must balance the benefits of hazard reduction burns to reduce future bushfire risk with potential impacts of smoke from these burns on human health and the economic activity.

To support decision making, Forest Fire Management Victoria (FFMVic) and the Bureau of

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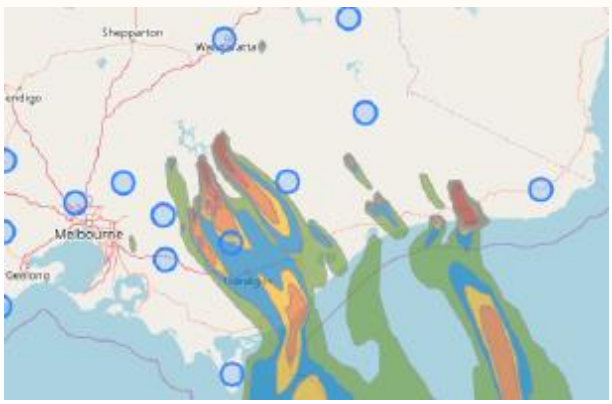
Meteorology have developed a smoke forecasting tool.

The model uses the latest list of burns across public land scheduled for ignition within 24 hours. Smoke dispersion is determined at ground level.

A user friendly, web-based interface is available for agency staff to see forecast smoke from the current scheduled operations. The model generates a smoke and air quality data forecast of 24-36 hours.

In addition, working with the EPA, FFMVic can deploy mobile smoke monitoring equipment to obtain better local knowledge of smoke levels, to assist decision making.

FFMVic are also working closely with the Country Fire Authority to better understand all sources of smoke (from public and private land) at peak times and consider options to manage these to provide the best outcomes for communities.



Major Incidents

Major incidents include bushfires and industrial accidents. EPA has portable air monitoring equipment that can be deployed during a major air pollution incident, to provide continuously updated air quality information for local communities, control agencies and decision makers.

Reporting on air quality

EPA AirWatch is an interactive map and the go-to place for air quality information in Victoria.

www.epa.vic.gov.au/airwatch

It provides air quality data for a range of pollutants and is updated hourly. Clickable icons VG show air quality for each site, coloured icons indicate cautionary health advice based on air quality and incident icons show air quality during major air pollution incidents.

Latrobe Valley air monitoring network expansion

A community co-design panel has developed a blueprint for a more extensive EPA air monitoring network in the Latrobe Valley.

The panel recommended installation of a larger number of lower accuracy sensors to give hyper-local air quality information rather than a smaller number of highly accurate monitors. Under this plan, EPA air monitoring sites in the Latrobe Valley will increase from five to 24.

Community members were supported by EPA air scientists and local experts during the design process.

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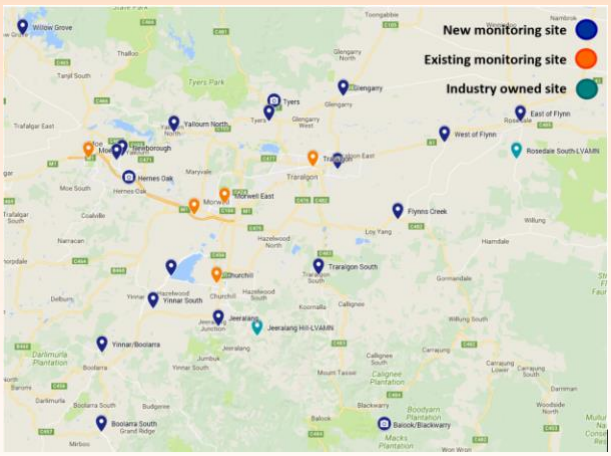
Most of the improvements will be operational in September 2018 with the rest to follow at the end of 2018.

There is more information at www.epa.vic.gov.au/LVAir



Opportunities to improve air monitoring and reporting

The Victorian Auditor-General's report *Improving Victoria's Air Quality* identified a range of means by which Victoria's air quality monitoring and reporting could be improved, recommending:

EPA expand its air monitoring network by:

- Reviewing and updating its current monitoring plan
- Designing and implementing an air quality monitoring program that better aligns coverage with air pollution risks

EPA improve air quality reporting by:

- Introducing a rigorous quality review process to ensure accuracy and reliability of air quality data
- Developing readable and easily accessible annual reports on results collected from all air monitoring

EPA has accepted these recommendations.

The report is available at:

https://www.audit.vic.gov.au/report/improving-victorias-air-quality

EPA is also currently assessing the adequacy of its air monitoring network, in line with Government commitments as part of reforms to Victoria's environment protection framework. This review is identifying actions to improve quality, coverage, data sharing, analysis, accessibility and community engagement.

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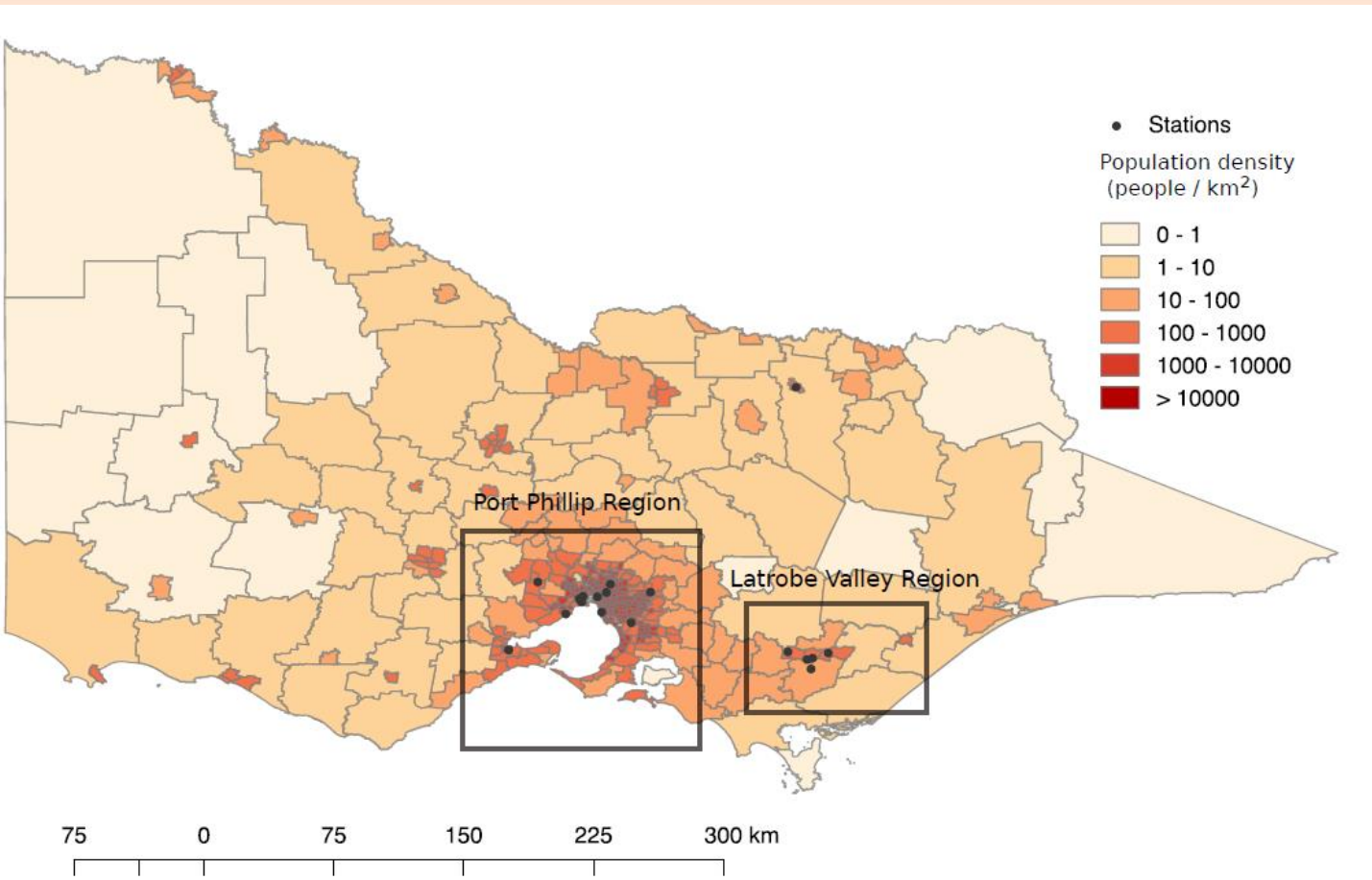
Victoria's air quality monitoring network – general and local condition monitors



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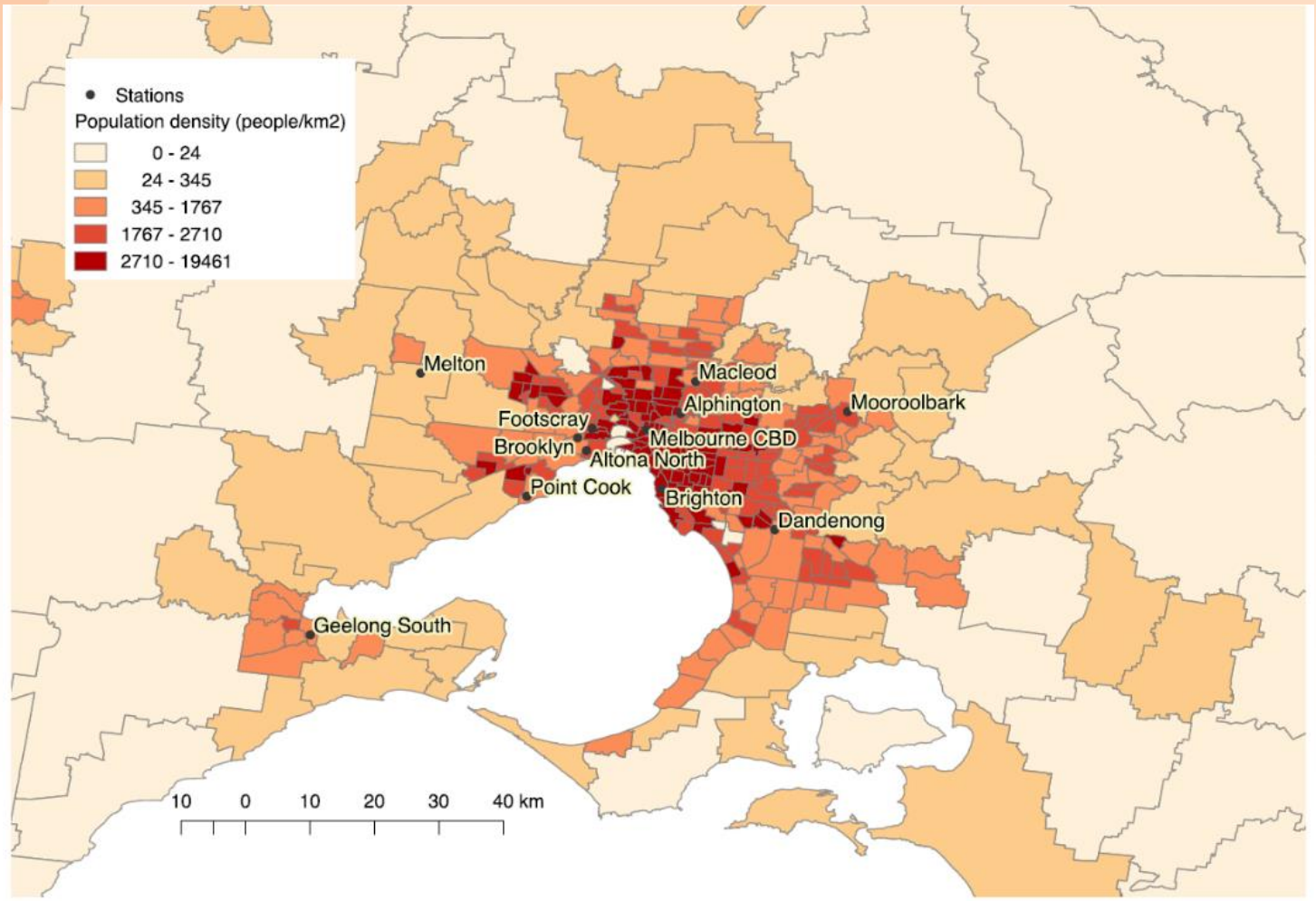

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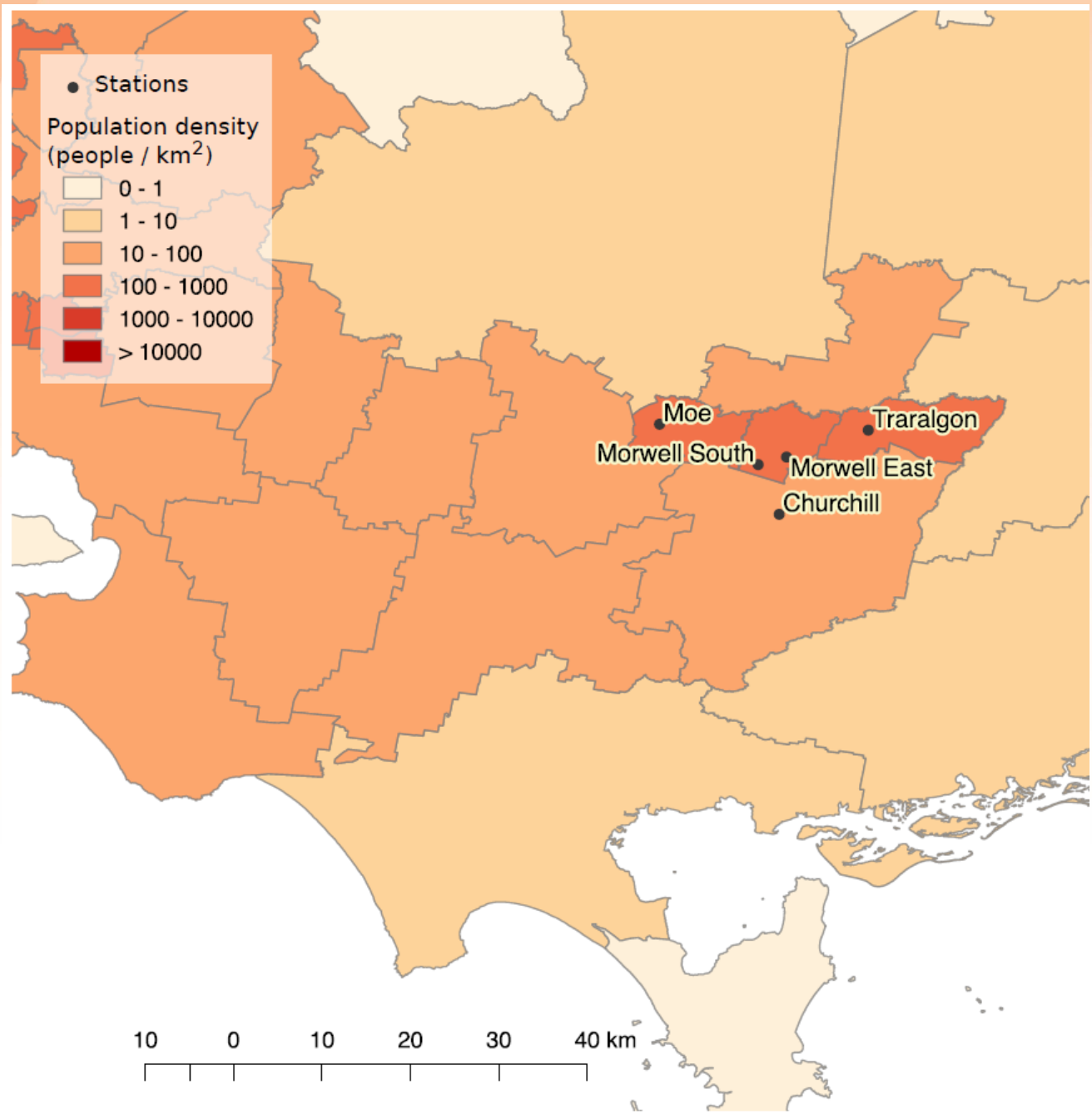

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