

ARE YOU AIR AWARE?

A guide to looking after our air in Tasman





DID YOU KNOW...

The air we breathe has a huge impact on our health.

While the air may look clear and clean most of the time, upon closer inspection there are many small particles in the air that can make their way into our lungs and cause a range of health problems. These small particles are known as particulate matter, or "PM₁₀" for larger particles and "PM_{2.5}" for very small particles. These tiny particles come from many different sources, but in Tasman the biggest contributors are:



Wood burning
(e.g. outdoor fires and indoors for home heating)



Industrial emissions
(e.g. burning wood, coal, gas, diesel for heating or industrial processes)



Exhaust fumes from vehicles

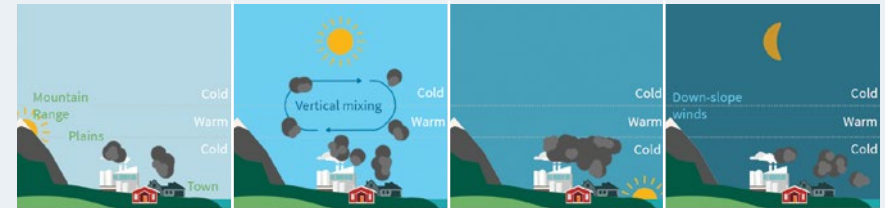


Natural sources (e.g. wind-blown dust, plant pollen, and sea salt)

AIR POLLUTION, WEATHER AND LANDSCAPE

During calm winter nights, pollution can be trapped in a layer of low, cold air due to the combined effects of high emissions and New Zealand's weather and landscape.

Source: Land, Air, Water Aotearoa (LAWA)



EARLY MORNING

As the day starts, pollutants are emitted from towns and cities.

DAYTIME

The sun warms the earth's surface and the sea-breeze disperses the pollutants.

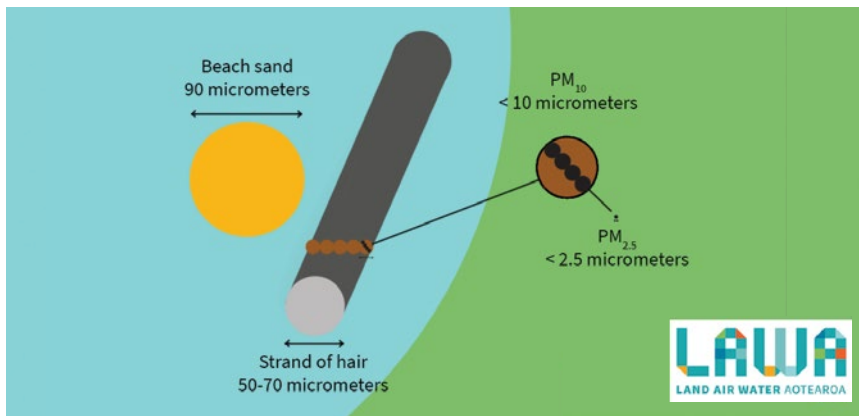
EVENING

Rapid cooling of the ground creates a layer of cold air, trapping emissions.

NIGHT

Cool air drains down the mountains and slowly moves the pollutants toward the coast.

RELATIVE SIZE OF PARTICULATE MATTER (PM)



Source: Land, Air, Water Aotearoa (LAWA)

Smoke trapped in the temperature inversion layer

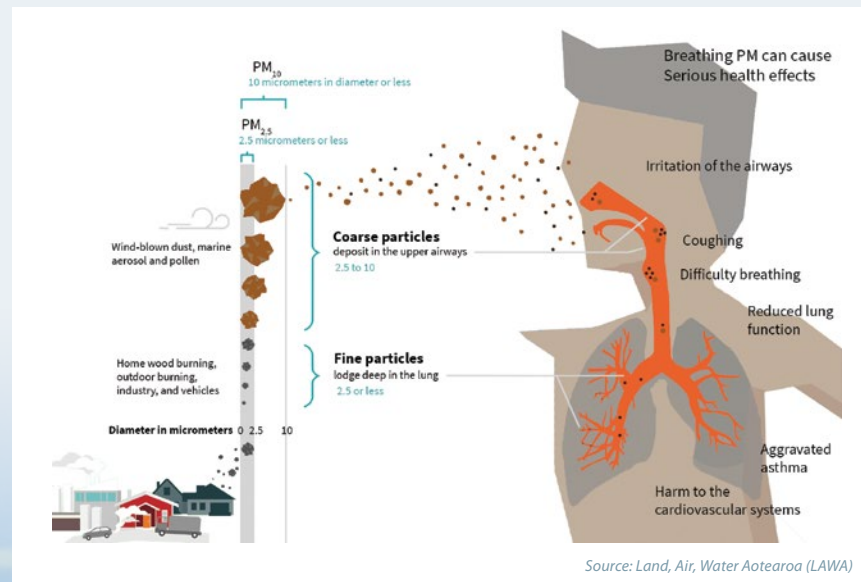


WHAT DOES THIS MEAN FOR OUR HEALTH?

Breathing in particulate matter can contribute to a range of health problems, from minor irritation to severe illness.

In severe cases, particulate matter in the air can contribute to lung cancer, stroke and heart disease. You can read more about air pollution on the LAWA website, lawa.org.nz, search "why is air quality important".

PARTICULATE MATTER (PM) AND HEALTH EFFECTS



MANAGING AIR QUALITY IN TASMAN

The Ministry for the Environment's National Environmental Standards for Air Quality (NES-AQ) set a guaranteed minimum level of health protection for people living in New Zealand. The Ministry is currently reviewing the NES-AQ, and this review will consider the World Health Organisation's (WHO) air quality guidelines that were updated in 2021.

Tasman's air quality is generally good but there are some localised issues and particular types of activities that can contribute to poor air quality.

The Richmond Airshed is classified as 'polluted' under the NES-AQ as it **exceeds** the standard for PM₁₀ a few days each winter. The WHO recommended threshold for PM_{2.5} is regularly exceeded in Richmond throughout winter. These exceedances occur due to a combination of factors:

- In winter people use wood burners for home heating.
- Cool, calm night-time conditions trap woodsmoke and other pollutants in the inversion layer, meaning they don't disperse like they usually would.
- The effect is made worse when wet wood or prohibited items are burned, or fires are damped down overnight. This makes fires smoke more, creating more pollution.
- Older wood burners are inefficient and produce more smoke due to their design, particularly if they are not well maintained.

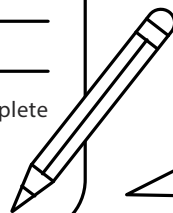
However, poor wood burner practices are not limited to Richmond. The Council is currently undertaking an air monitoring programme to better understand if there are air quality issues in the other towns in Tasman.

OUR PLAN FOR A WARM, DRY, HEALTHY HOME

Actions we're going to take to improve air quality at our place:

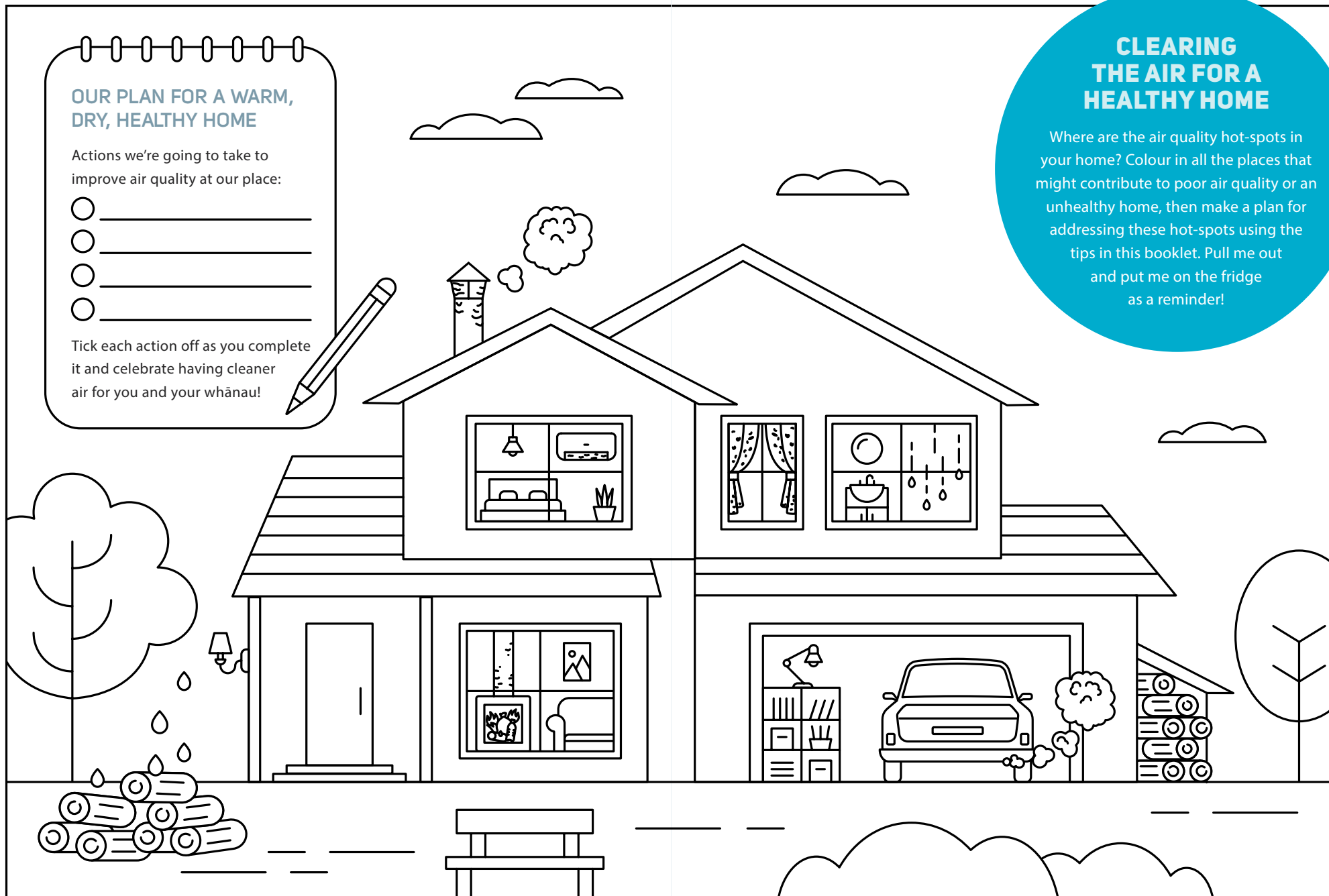
- _____
- _____
- _____
- _____

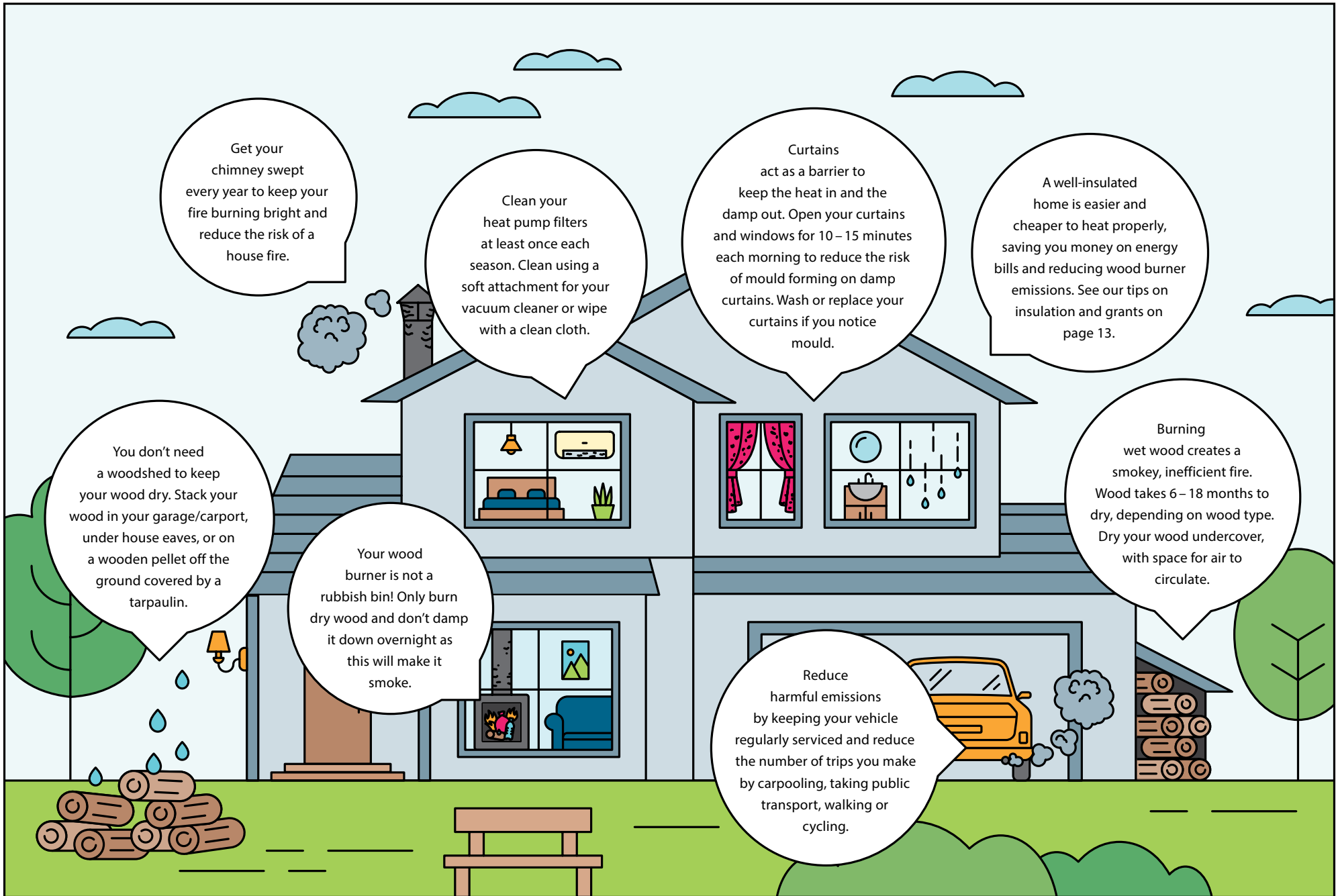
Tick each action off as you complete it and celebrate having cleaner air for you and your whānau!



CLEARING THE AIR FOR A HEALTHY HOME

Where are the air quality hot-spots in your home? Colour in all the places that might contribute to poor air quality or an unhealthy home, then make a plan for addressing these hot-spots using the tips in this booklet. Pull me out and put me on the fridge as a reminder!





Get your chimney swept every year to keep your fire burning bright and reduce the risk of a house fire.

Clean your heat pump filters at least once each season. Clean using a soft attachment for your vacuum cleaner or wipe with a clean cloth.

Curtains act as a barrier to keep the heat in and the damp out. Open your curtains and windows for 10 – 15 minutes each morning to reduce the risk of mould forming on damp curtains. Wash or replace your curtains if you notice mould.

A well-insulated home is easier and cheaper to heat properly, saving you money on energy bills and reducing wood burner emissions. See our tips on insulation and grants on page 13.

You don't need a woodshed to keep your wood dry. Stack your wood in your garage/carport, under house eaves, or on a wooden pallet off the ground covered by a tarpaulin.

Your wood burner is not a rubbish bin! Only burn dry wood and don't damp it down overnight as this will make it smoke.

Reduce harmful emissions by keeping your vehicle regularly serviced and reduce the number of trips you make by carpooling, taking public transport, walking or cycling.

Burning wet wood creates a smokey, inefficient fire. Wood takes 6 – 18 months to dry, depending on wood type. Dry your wood undercover, with space for air to circulate.

MONITORING AIR QUALITY IN TASMAN

An 'airshed' is an air quality management area. Under the NES-AQ, the Council is required to identify and monitor airsheds where air quality standards are likely to be breached. In Tasman, we have identified the Richmond Airshed, and the rest of our district forms a second airshed.

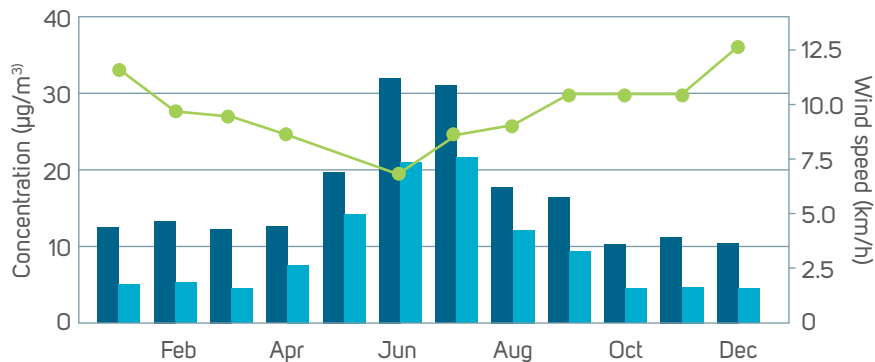
You can view data collected from our permanent air quality monitoring site in Richmond on the LAWA website. Visit lawa.org.nz and search "Richmond" to view real-time data and seasonal trends, including PM₁₀, PM_{2.5} and windspeed.

Check out the diagram on page 3 to learn more about why we have more pollution particles in our air during winter.

The Council also has a targeted monitoring programme to understand if there are air quality issues in the Motueka, Riwaka and Brooklyn areas. The programme spans several years and involves temporary monitoring of PM₁₀ and/or PM_{2.5} over late autumn and winter. This is to understand if there are air quality issues associated with home heating and/or outdoor rural burning in the wider area, which may require permanent monitoring and a need to introduce management tools. Find out more by searching "Motueka air quality study" on our website, tasman.govt.nz.

SEASONAL VARIATION IN PM₁₀ AND PM_{2.5} AT RICHMOND AIR QUALITY MONITORING SITE IN 2021

● PM₁₀ ● PM_{2.5} ● Wind speed (km/h)



Data source: LAWA

WHAT CAN I DO TO HELP OUR AIR STAY HEALTHY?

We all have a role to play in keeping Tasman's air clean. Check out these tips to find out what you can do.

REDUCE SMOKE FROM YOUR WOOD BURNER

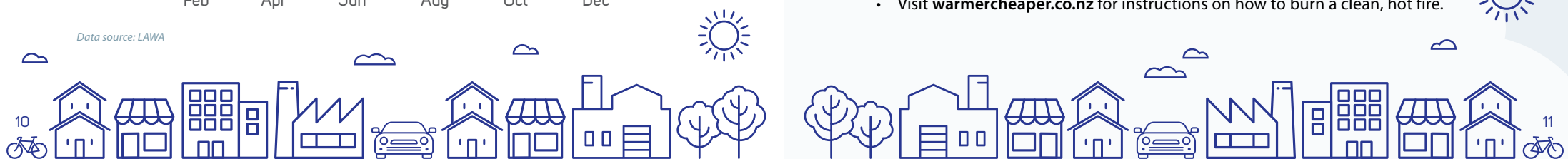
Tip 1: Only burn dry wood

- Dry wood burns hot and clean with less smoke so it's better for your burner and your health. You'll know it's dry if it makes a hollow sound when you tap two pieces together.
- Collect or buy wood early so that it has time to dry before winter. Store it undercover and stack it to allow airflow for drying.
- Freshly cut wood will need to dry for 6–18 months before burning. Read about drying times for different types of wood at consumer.org.nz/articles/firewood.
- Purchase dry wood from a Good Wood supplier. Find an up-to-date list of suppliers on our website tasman.govt.nz/good-wood.



Tip 2: Keep your fire burning bright

- Build your fire up slowly.
- Use plenty of dry kindling or pinecones to start your fire.
- Position wood to allow air flow around the base of the fire.
- Open the air control vent to high for 20–30 minutes whenever you add logs.
- Don't let it smoulder or shut it down overnight – this will release lots of smoke. Open air control vent to encourage bright flames.
- Only burn untreated wood in your fire. Don't burn rubbish, plastics, glossy paper, treated or painted wood – these release toxic chemicals and cause soot build-up.
- When your fire is burning, go outside and look at your chimney to make sure there is minimal smoke.
- Visit warmercheaper.co.nz for instructions on how to burn a clean, hot fire.



Tip 3: Keep your fire and flue clean

- A dirty flue will cause poor draught and a smokey fire.
- A dirty flue could also start a house fire. Some home insurance policies may require regular wood burner and flue maintenance, check with your insurance provider.
- Get your chimney swept every year. Chimney sweeps often book up before winter, so book early!



REDUCE EMISSIONS FROM YOUR VEHICLE

Tip 1: Keep your vehicle serviced

- A regularly serviced vehicle will run smoother, cleaner and generate fewer emissions. Book your vehicle in for a service when it is due.



Tip 2: Check your tyre pressure regularly

- Low tyre pressure increases fuel consumption, so you'll save money and reduce emissions by maintaining correct tyre pressure.
- You'll find the correct tyre pressure for your car on a label inside the driver's door, the fuel flap or in the vehicle handbook. Check your tyre pressure at a service station when your tyres are cold (when you've travelled less than 3km).



Tip 3: Reduce the number of trips you make

- Replace some of your car trips with carpooling, taking the bus, walking, cycling, scootering, skating or whatever form of active transport you like!
- Fewer individual car trips = fewer emissions = cleaner air.



KEEP YOUR HOME HEALTHY, WARM AND DRY

Tip 1: Clean your heat pump filters

- Heat pump filters trap dust that is circulating in the air. Clean them at least once each season using a vacuum cleaner or clean cloth.



Tip 2: Check your insulation

- Good quality insulation is the best way to keep the heat in during winter and out during summer. A well-insulated home is easier and cheaper to heat properly, saving you money on energy bills and reducing wood burner emissions.
- Have a look in your ceiling cavity and underneath your house to check the state of the insulation (if there is any).
- The Healthy Homes Standards require all rental properties to have ceiling and underfloor insulation (where possible), ventilation, and a heating source for the main living room. If you're renting and your home doesn't have any of these, contact your landlord. Find out more at raisethestandard.nz.
- If you own and live in a home built before 2008, you might qualify for an insulation or heating grant if you hold a Community Services Card or live in an area that has been identified as low income. Find out more at eeca.govt.nz or contact our local insulation provider Absolute Energy, absoluteenergy.co.nz/nelson-tasman.



Tip 3: Ensure curtains are clean and thick

- Curtains can get damp from condensation, and if not regularly aired, can grow mould.
- Get in the habit of opening your curtains and your windows for at least 15 minutes every day to allow fresh air to flow through the home.
- Keep your curtains clean. Most curtains can be washed in cold water with mild detergent, but check care labels first. A bathtub works well for this.
- Thick curtains (especially double-layered with a thick lining) that touch the floor, are wider than the window frames and fit tightly against the wall are all helpful in keeping the heat in. Find out more at ecodesignadvisor.org.nz/curtains.



TAKE CARE WITH OUTDOOR BURNING

Tip 1: Comply with outdoor burning restrictions

- All outdoor burning must comply with the discharges to air rules in the Tasman Resource Management Plan.
- Outdoor burns are banned year-round in Richmond and Motueka townships with some exceptions for small cooking fires, outdoor fireplaces and braziers. Other Tasman townships and the outskirts of Richmond and Motueka are zoned 'fire sensitive' and have a ban on outdoor burning from 1 June – 31 August, with the exception of burning diseased horticultural crops. Find out more by searching "air quality management" on our website, tasman.govt.nz.
- You may need to obtain a fire permit from Fire and Emergency New Zealand before lighting an outdoor fire. To check the current fire season and apply for a permit (if necessary), go to checkitsalright.nz.



Tip 2: Follow good practice to minimise smoke

- Where outdoor burning is allowed, every effort must be made to minimise smoke.
- When burning vegetation from garden waste and land management practices, minimise your contribution to air pollution by following Council's 'Good Practice Guide to Outdoor Burning' available on our website, tasman.govt.nz.



Tip 3: Do not burn prohibited materials

- The following materials must not be burned. Find alternative ways to dispose of these items.
 - » Treated timber, particle or fibre board
 - » Rubber products including tyres
 - » Batteries
 - » Bitumen-containing materials
 - » Used or waste oil
 - » Materials associated with the recovery of metals from insulated electrical cables
 - » Materials and metals that are components of motor vehicles or mechanical or electrical equipment
 - » Asbestos or radioactive material
 - » Domestic or industrial rubbish
 - » Plastic or plastic products



Tip 4: Find a better use for your resources

- Recycling or safely disposing of waste prevents toxic chemicals being released into the air when these materials are burned. Recycling also allows valuable resources to be reused, reducing waste.
- Find tips on all the ways you can reduce waste on our website, tasman.govt.nz/rethink-waste.



REPORT SMOKEY CHIMNEYS AND FIRES

- If you notice a neighbour, friend or family member's chimney is smoking, consider sharing the tips in this booklet with them so they know how to burn a bright, clean fire. There's an art to it, and it takes practice!
- If you notice a smokey chimney or outdoor fire that is causing a nuisance, let us know by calling Council on 03 543 8400.



FEELING AIR AWARE?

Take our air quality quiz!

Scan the QR code using the camera on your mobile phone and see how air aware you are now!





MORE INFORMATION

For more information search “air quality” on our website:
tasman.govt.nz



03 543 8400
info@tasman.govt.nz

 **tasman** | Te Kaunihera o
district council | **te tai o Aorere**