



Otago Regional Council

# Refreshing our approach to air quality in Otago

Online webinar – 5 August 2024

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**Tuia ki runga  
Tuia ki raro  
Tuia ki waho  
Tuia ki roto  
Tuia ki te here tangata**

**Ka rongo te pō  
Ka rongo te ao  
Haumi e, hui e  
Tāiki e!**

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**Unite above  
Unite below  
Unite without  
Unite within  
Unite as one**

**Listen to the night  
Listen to the world of light  
We can now come together  
as one!**

# Karakia

# Today's session

- We're here to talk about:
  - ORC's knowledge about air quality
  - key problems for air quality
  - What could be done about those problems
  - Your thoughts and questions
- This session does not address climate change – that's a separate work programme at ORC.
- You can read more about what we're doing and give your feedback at:

**[www.orc.govt.nz/freshair](http://www.orc.govt.nz/freshair)**

# Outline

ORC's role in air management

Air quality in Otago

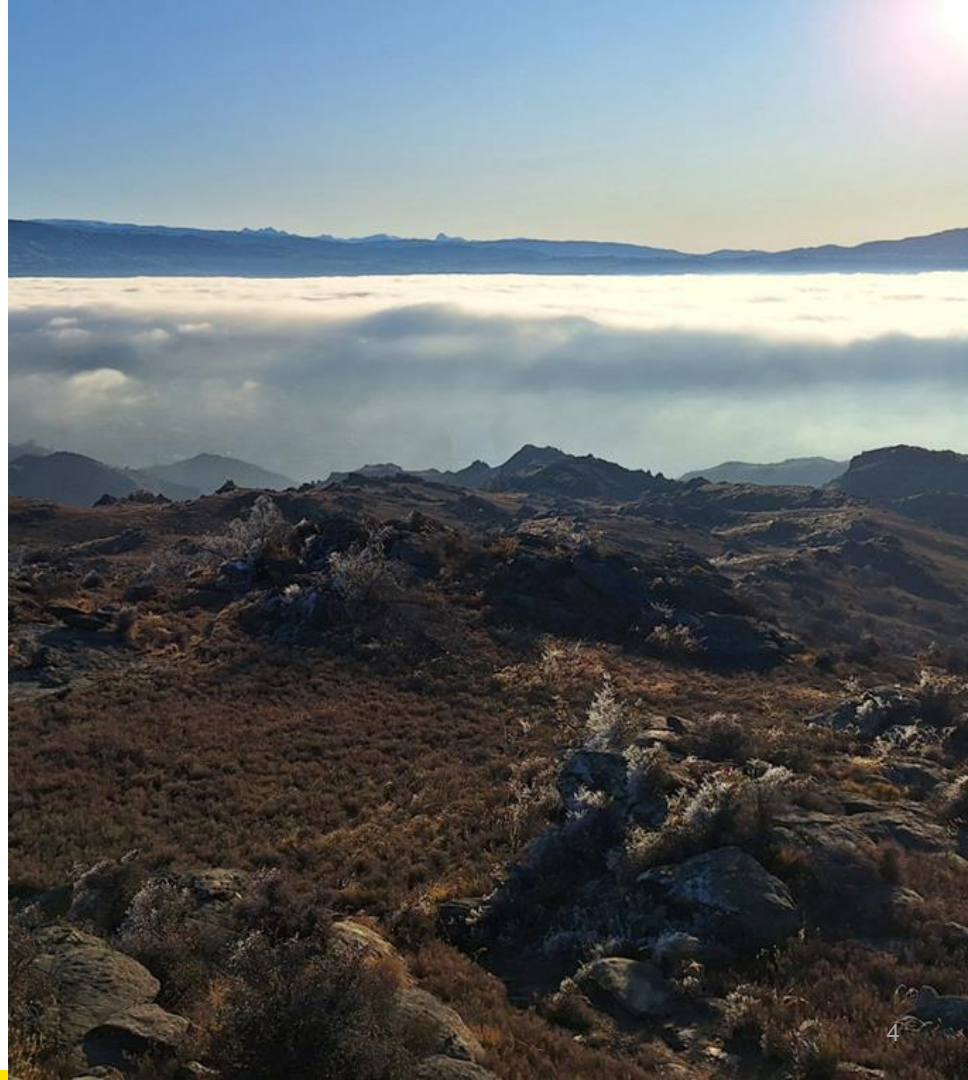
Home heating

Outdoor burning

Vehicle emissions

Other sources

Next steps



# ORC's role in air management

- Under the Resource Management Act 1991, ORC is responsible for controlling air pollution.
- The National Environmental Standards for Air Quality 2004 (NESAQ) set limits on air pollution to protect human health.
- ORC does monitoring and research to understand what causes air pollution in Otago and what could be done about it.
- The Regional Plan: Air (the Air Plan) is due for review, so this is a good time to refresh our wider strategy.

**We'd like to hear your thoughts**

# Air quality in Otago

- Mostly improving in recent years.
- Science shows we still need to rethink how we manage air quality.
- Some Otago towns are among the worst in the country for air pollution.
- Not complying with the NESAQ.
- Poor air quality can harm human health.



# Emission sources



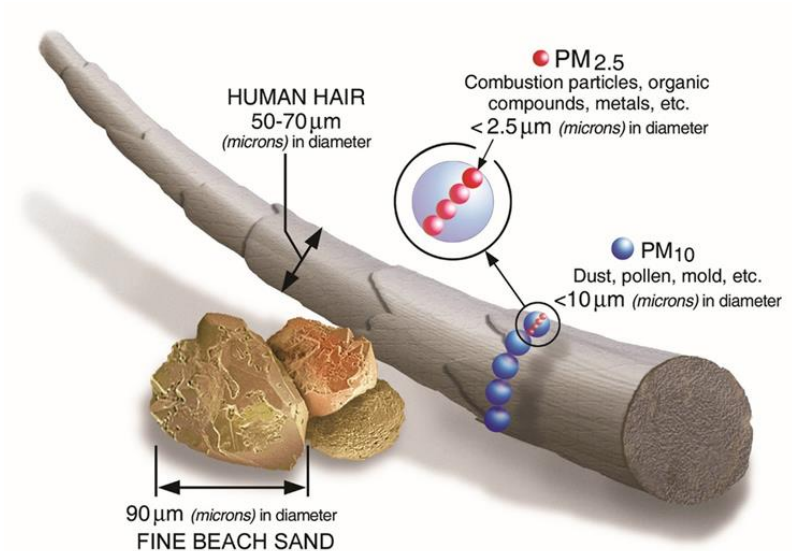
# Pollutants

## Particulate matter (PM)

- Otago's biggest air quality concern.
- Commonly caused by incomplete combustion
- Main source is solid fuel burners used for home heating (wood, coal)

## Nitrogen dioxide (NO<sub>2</sub>)

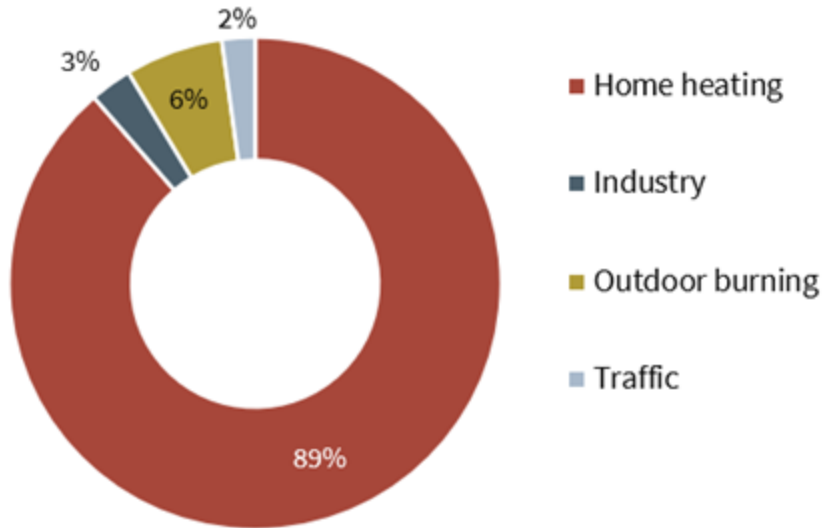
- Main source is vehicle emissions.
- Recent research suggests it's more harmful to health than previously thought.



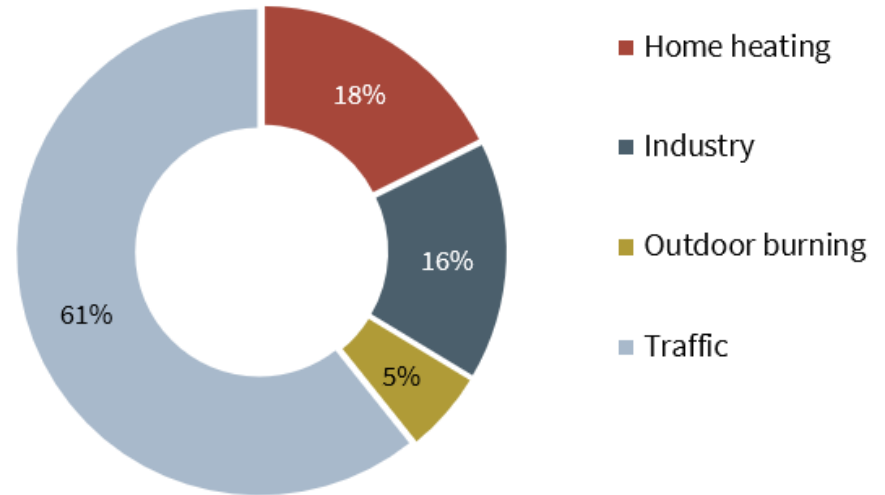


# Pollutants in Otago

## Sources of PM<sub>10</sub> emissions



## Sources of NO<sub>x</sub> (oxides of nitrogen) emissions



# Home heating

- Solid fuel burners used for home heating are the key source of air pollution in Otago.
- In some places, smoke is trapped in inversion layers.
- How much smoke a burner releases depends on:
  - Burner technology
  - Burning practices
- Ultra-low emission burners (ULEBs) are the most efficient
- There should only be smoke when a burner starts up.
- It's also important that people have reliable home heating.



Masport Hurunui ULEB

# What could ORC do?

- Introduce rules for new burners (require new burners to be low emitting, or prevent new burners from being installed).
- Gradually replace some or all burners.
  - Phase out multi-fuel and coal burners, or phase out all higher-emitting burners
  - Phase out all burners
- Financial support to replace higher-emitting burners.
- Education programmes about wood burner best practice.
- Firewood certification scheme for suppliers so people know they are buying dry wood.
- Support improvements to electricity and affordability.
- Support improvements in housing standards and insulation programmes.

Questions/comments?

# Outdoor burning

- Often used in rural areas for things like green waste disposal, disease control and land clearance.
- Some people also burn food waste and other rubbish (even though this isn't allowed).
- Leading cause of air quality complaints to ORC's 24/7 pollution hotline.

# What could ORC do?

- Control when outdoor burning is allowed (e.g. not in winter).
- Require smoke management plans for large/long-lasting burn-offs.
- Require alternatives to burning where they are practicable.
- Ban outdoor burning on small (< 2 ha) properties and require appropriate setbacks.
- Education campaigns about the role of outdoor burning and smoke management.
- Work with other councils to ensure people can get rid of rubbish without burning it.

Questions/comments?

# Vehicle emissions

- Petrol and diesel vehicles emit greenhouse gases and pollutants.
- Main source of nitrogen dioxide (NO<sub>2</sub>) in urban areas.
- NO<sub>2</sub> levels in Otago meet the NESAQ guideline but are close to the limits recommended by the World Health Organisation.



# What could ORC do?

- Create policies that recognise and focus on reducing NO<sub>2</sub> emissions.
- Improve public transport to reduce reliance of private vehicles.
- Decarbonise ORC's fleet vehicles and buses.
- Education campaigns with city/district councils.
- Work with city/district councils on other projects to reduce vehicle emissions.



Questions/comments?

# Other sources of air pollution

- Industrial emissions, odour, dust and agricultural spraying.
- Not a major contributor to poor quality for the region but can have local effects, especially on neighbours.
- Examples:
  - Odour is the source of 33% of air quality complaints to ORC's pollution hotline.
  - Agrichemical sprays can be an issue when they drift where they're not wanted.
  - Dust can present a range of issues depending on its source.

# What could ORC do?

- Ensure dust and odour from permitted industrial and trade activities don't leave the property.
- Require discharge permit applicants to use the best practicable option to minimise impacts on air quality.
- Ensure adequate setbacks or buffers zones to reduce impacts on neighbours.
- Require discharge permit applicants to provide dust or odour management plans.
- Provide information about FIDOL (frequency, intensity, duration, offensiveness and location) assessments.
- Strengthen rules for agrichemical spraying.

Questions/comments?

## Next steps

- Read more about air quality in Otago at [www.orc.govt.nz/environment/air-care](http://www.orc.govt.nz/environment/air-care)
- If you haven't already, please go to our website and complete the survey:

[www.orc.govt.nz/freshair](http://www.orc.govt.nz/freshair)

- We'll use this feedback to develop our revised Air Quality Strategy and Regional Plan: Air.
- Due for public notification by mid-2025.

**Your feedback will influence how ORC manages air quality in the future**

**Kua mutu a mātou mahi  
Mō tēnei wā  
Manaakitia mai mātou katoa  
O mātou hoa  
O mātou whānau  
Āio ki te aorangi**

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**Our work is finished  
For the moment  
Bless us all  
Our colleagues  
Our families  
Peace to the universe**

## Karakia

End