



# VEHICLE EMISSIONS POLICY

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# Vehicle Emissions

- What's the problem?
- Policy context
- Vehicle Emissions Policy



# What's the Problem?

Vehicle exhaust emissions affect:

- Local air pollution
  - smog & hazes
  - air quality stds exceeded in many cities & towns
- Health
  - 399 premature deaths estimated
  - respiratory and cardiovascular illness
- Greenhouse gas emissions (CO<sub>2</sub>)








# Vehicle Exhaust Emissions

- Carbon monoxide (CO)
  - blocks  $O_2$  in blood & poisonous at high concentrations
- Hydrocarbons (HC)
  - respiratory irritants & some carcinogenic
- Oxides of Nitrogen( $NO_x$ )
  - respiratory irritants
- Particulate Matter (PM)
  - affects respiratory function, premature deaths.
- $CO_2$  - greenhouse gas



# Policy Context

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- Addressing vehicle emissions
    - Technical / vehicle based measures
    - Behavioural approaches
    - Providing modal choice
      - includes infrastructure design & provision
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# Policy Context

- New Zealand Transport Strategy objectives include:
  - protecting and promoting public health
  - ensuring environmental sustainability
- Other Government Programmes:
  - Climate Change Programme
  - Sustainable Development Programme of Action.

# Policy Context - Key Programmes

*Local*

**EFFECTS OF EMISSIONS**

*Global*

## Vehicle Emissions Policy

- vehicle performance (new & used)
- maintenance behaviour

## Climate Change / Sustainable Energy

- reducing the carbon intensity of transport

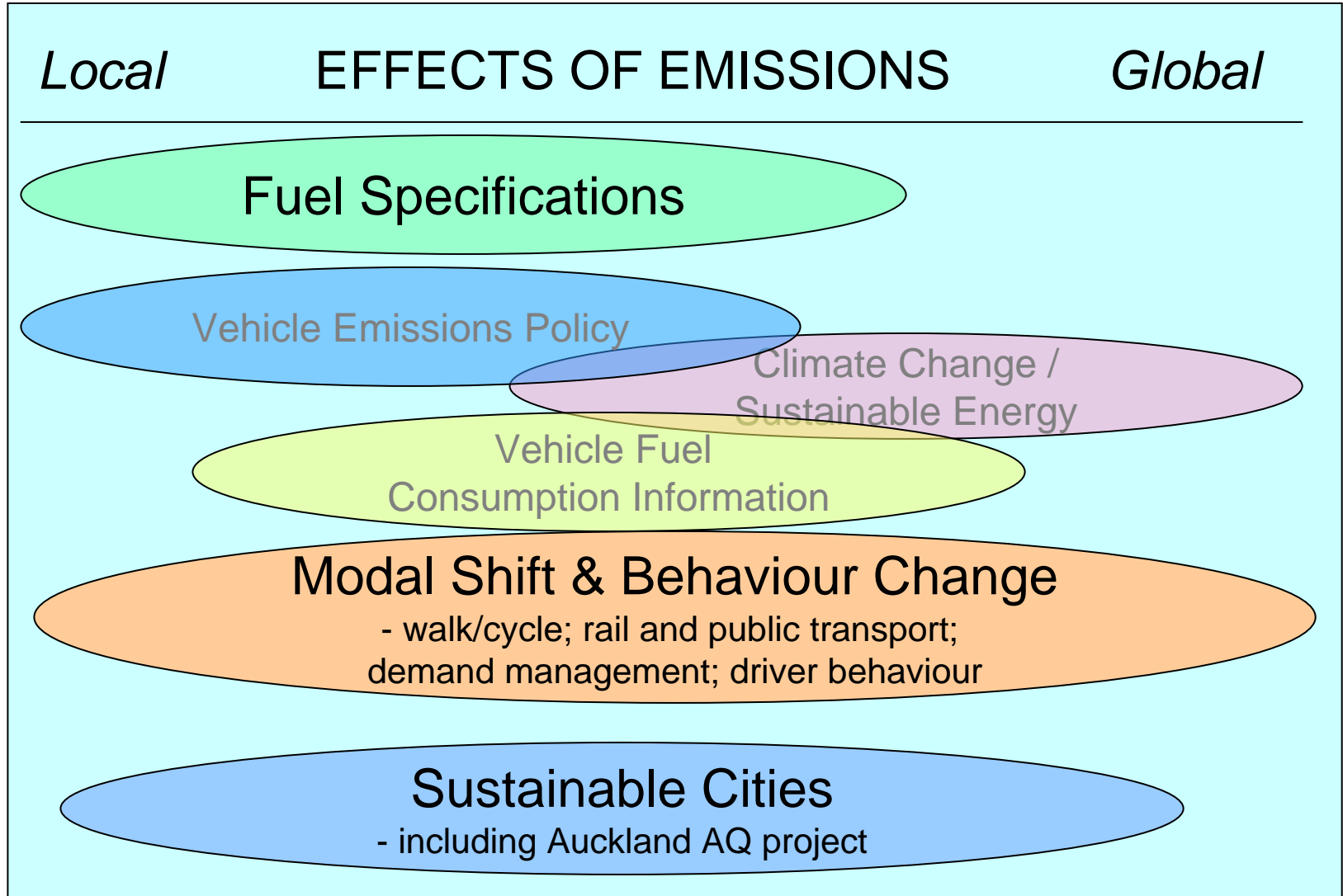
## Vehicle Fuel Consumption Information

- vehicle buying behaviour

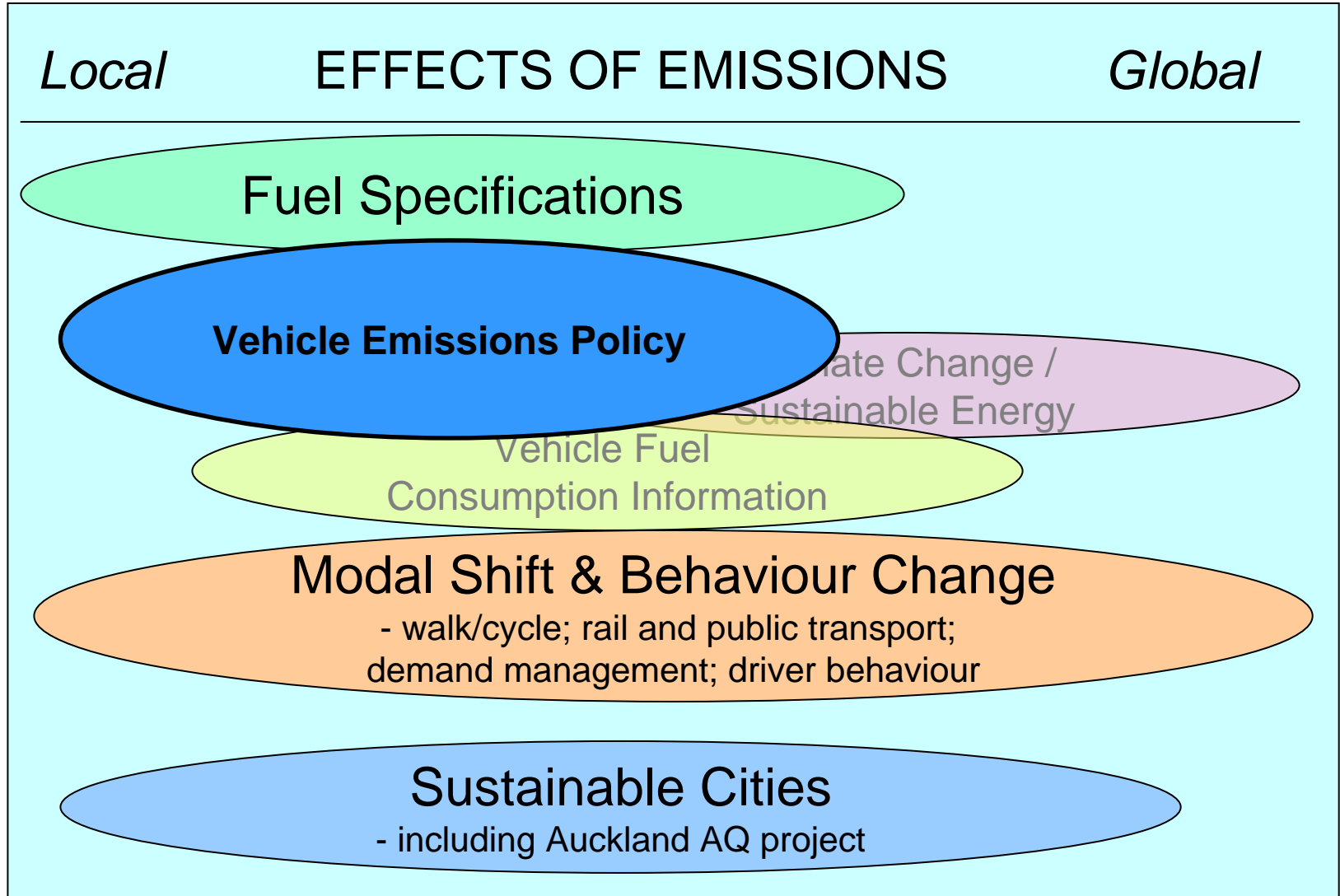
*NB: Land transport focus - predominantly road*



# Policy Context - Other Programmes



# Policy Context - Other Programmes





# Vehicle Emissions Policy Package

- Land Transport Vehicle Exhaust Emissions Rule 2003
- Emissions screening of vehicles
- Public education



# Vehicle Exhaust Emissions Rule 2003








# Emissions Rule Development Process

- A Vehicle Fleet Emissions Control Strategy (VF ECS) recommendation
- Yellow Draft - September 2001
  - 44 submissions
- Green Draft - December 2002
  - changes to align with fuel specifications in 2004 and 2006.
  - 19 submissions



# Vehicle Exhaust Emissions Rule 2003

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- Gazetted in September 2003 and will come into force from
    - 2004/05 for light vehicles
    - 2005/06 for heavy vehicles
  - Requires all vehicles entering NZ to have been built to an international emissions standard from:
    - US, Europe, Japan and Australia.



# Rule Implementation

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- Vehicles built on or after 1990 must comply with:
    - emission standard relevant at date of manufacture
    - less stringent emission standard provided in tables
      - recognises NZ fuel quality standards
      - provides industry lead times
    - a more recent version of the standards listed(ie: the latest standards).



# Implementation Dates

Jan 2004	Jan 2005	Jan 2006
<ul style="list-style-type: none"> <li>• New model (L)</li> <li>• Used Vehicle (L)</li> <li>• Low Volume Vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Existing model (new) (L)</li> <li>• New model (H)</li> <li>• Used model (H)</li> </ul>	<ul style="list-style-type: none"> <li>• Existing model (H)</li> </ul>

See LTSA Info Sheet 2.08



# Proof of Compliance - Light Vehicles

See LTSA Info Sheet 2.08

- Statement of Compliance
- Deregistration Certificate
  - with emissions code characters
- Completion inspection certificate
  - with emissions code characters
- ADR compliance plate
- EEC whole vehicle approval plate
- UN/ECE compliance plate
- FMVSS plate with
  - US EPA plate or
  - proof of first registration in USA



# What is Required for Heavy Vehicles?

- Documentary evidence that vehicle or engine meet the relevant emissions standard Eg:
  - Statement of Compliance from manufacturer
  - Deregistration Certificate.
- International vehicle and engine manufacturers should be able to provide this.



# What happens next for heavy vehicles ?

- Vehicle Exhaust Emissions Rule is addressed in the Entry Certification Manual
- Updated LTSA Infosheet Heavy Vehicles - for release later this year
- Heavy vehicles presented for entry inspection from 1 January 2005 will need to demonstrate compliance



# Emission Screening & Public Education



# Vehicle Emissions Policy - Screening & Education

New initiatives announced by Hon Judith  
Tizard :

- Emissions screening of:
  - Used imports 'at border' prior to licensing;
  - Inservice vehicles as part of the WoF/CoF.
- Public education - to encourage better maintenance



# Vehicle Emissions Policy Work Programme






- Pilot Testing Programme - 2004
- Public education - 2004-2006/07
- Land Transport Rule(s)
  - 18 months - 2 years (2004/05)
- Industry setup & training
  - 6 -12 months (2005/06)
- Compulsory emissions screening
  - from mid 2006

# Why Emission Screening?

- High emissions are due to:
  - Poor maintenance and tampering e.g. fuel system, removing catalytic converter
- ARC report identified worst 10% vehicles produced 40-50% of vehicle emissions
- NZ fleet average age -12 years
- Scope to reduce emissions by identifying high emitters
  - repair where possible, or retire








# Emissions Screening

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- Land Transport Rules need to be developed
  - Screening will target high emitters from mid 2006.
  - Emissions performance standards (pass/fail limit) for different vehicle classes
    - based on vehicle age, engine technology, fuel type and emissions capability.



# Pilot Emissions Testing Programme

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- Commenced in July 2004
  - Will gather data on emissions performance of NZ fleet.
  - Testing at selected sites around NZ
    - Simple testing (expect 20,000 vehicles)
    - Laboratory testing
    - Some high emitting vehicles will be repaired.
  - Potential for social impacts will be assessed



# Public Education

- Aim to gain early adoption of improved maintenance
- Will identify the benefits to vehicle owners
  - reduced fuel costs
  - reduced maintenance costs over long-term
  - reduced vehicle emissions (including in-vehicle air quality )



# Public Consultation

Two opportunities for comment:

- Discussion Paper - mid 2004
- Draft Rule - 2005
  - including:
    - emission test procedures
    - equipment specifications
    - emission limits



# More Information ?

- Check out the MoT website  
[www.transport.govt.nz](http://www.transport.govt.nz)
  - Current Issues/News
- OR  
[www.ltsa.govt.nz](http://www.ltsa.govt.nz)