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Report to the Regional Land Transport Committee
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Air Quality Management and Motorised Land Transport

1. Purpose

To inform the Committee of the programmes that will be implemented over the next three years to address air discharge problems associated with motorised land transport in the Region.

2. Background

The Regional Air Quality Management Plan (“the Air Plan”) became operative on 8 May 2000. During the 1999/2000 financial year, a review was carried out by the Environment Division to prioritise air quality and emission problems in the Region, and set targets and priorities for implementing the non-regulatory methods in the Air Plan.

... The major sources of contaminant discharges to air identified through the review are listed in **Attachment 1**. In order of significance, they are motorised land transport, domestic solid fuel burning, odorous industries, industrial sources of fine particulate, outdoor burn-offs, and incineration.

Motorised land transport is the most significant air pollution source in the Region. Transport is responsible for the majority of total emissions to air in the Region of nitrogen oxides (NO_x), sulphur dioxide (SO₂), carbon monoxide (CO), and carbon dioxide (CO₂) and non-methyl volatile organic compounds (NMVOC). It also contributes a significant proportion of inhalable particulates (PM₁₀) emitted to air from all sources throughout the Region. These contaminants are the primary indicators of ambient air quality.

In localised areas of traffic congestion, exhaust emissions can cause the concentration of contaminants in ambient air to exceed maximum acceptable levels for the protection of human health. For example, such exceedences have been recorded for CO at the corner of Vivian and Victoria St.

3. Programmes to be Implemented

... **Attachment 2** provides a brief summary of intended Air Plan implementation projects for the next three years. These projects and timeframes are subject to change to accommodate staff workloads. They will be confirmed for each financial year that they are to be implemented.

The reduction of emissions associated with transport use is a difficult problem. The Council has restricted ability to address this through regulation at the regional level and our ability to influence it through non-regulatory methods alone is also limited.

... The Transport Division already has a series of initiatives underway to implement objectives of the Regional Land Transport Strategy (as listed in **Attachment 3**). These initiatives also contribute to the implementation of Air Plan policies and methods. The programmes of the Environment Division and the Transport Division are effectively heading in the same direction, although for differing objectives. The Transport Division's primary purpose is traffic management, while the Environment Divisions is air quality management.

... The programmes proposed by the Environment Division relating to transport emissions are outlined in **Attachment 4**. Only the School Walking Bus project is confirmed for implementation during the 2000/2001 financial year. The implementation and timing of this project is subject to findings of an independent evaluation of a walking bus network in Christchurch, which will be available later this year.

4. National Initiatives to Control Motorised Land Transport Emissions

The Ministry of Transport ("the Ministry") is in the process of developing and finalising a Vehicle Fleet Emissions Control Strategy, which recommends: adoption of new land transport rules setting emission standards for new and pre-used vehicles being imported into New Zealand, review of petrol specifications, traffic corridor demand management through the implementation of environmental capacity analysis, and amendment of regulation number 28 (relating to smokey vehicles) of the Traffic Regulations 1976.

A traffic corridor demand management model has been developed by the Ministry. Discussion documents will soon be distributed to regional councils and territorial local authorities ("TLAs") and workshops will be held to seek feedback. Ultimately, the model could be a useful management tool for regional councils.

The amendment to the Traffic Regulations will improve police officers' ability to pull over vehicles emitting excessive smoke. TLAs and regional councils may also be given some enforcement abilities, although options have not yet been fully assessed.

Additionally, the Ministry for the Environment is in the process of developing indicators for transport and the environment. Once established, it is expected that regional councils will monitor these indicators.

5. Communication

The Environment and Transport Divisions will continue to keep each other fully informed of projects each is undertaking, and will seek opportunities to co-ordinate projects.

... **Attachment 3** lists other groups and organisations that will be involved in each project. Full project briefs will be developed in co-operation with the relevant groups at the beginning of each financial year that programmes are confirmed for implementation.

6. Recommendation

That the report be received and its contents noted.

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Attachments : 4

Air Discharge Problems in the Region (in order of priority)

Source	Main Contaminants of concern	Potential Effect	Part of Region Affected
Motorised land transport	NO, CO ₂ , CO, SO _x	<ul style="list-style-type: none"> • Potential health effects in congested areas where ambient air quality guidelines are exceeded • General ambient air quality degradation • Contributes to enhanced greenhouse effect 	<ul style="list-style-type: none"> • Congested urban areas (i.e., inner city streets and junctions)
Domestic solid fuel burning	PM ₁₀ , NO ₂ (also SO ₂ , CO, CO ₂)	<ul style="list-style-type: none"> • Potential health effects in localised areas during winter months where ambient air quality guidelines are exceeded 	<ul style="list-style-type: none"> • Parts of Masterton, Lower Hutt, and possibly Karori, Carterton and Greytown
Odorous industries	Odour	<ul style="list-style-type: none"> • Nuisance for nearby residents 	<ul style="list-style-type: none"> • Residential areas near landfills, sewage treatment facilities, water pumping stations, meat rendering, fish processing, trade waste and wastewater treatment. • To a lesser extent, food outlets, industries using solvents, chicken sheds and piggeries can also be a problem.
Dust from dry abrasive blasting, quarries, cement and asphalt manufacturers, trucks, furnishers, subdivision, fertiliser transport and application, sand and bark	Fine particulate	<ul style="list-style-type: none"> • Nuisance 	<ul style="list-style-type: none"> • Residential areas near these industries
*Agrichemical spraying	Spray drift (particulate)	<ul style="list-style-type: none"> • Potential health risks (and nuisance) 	<ul style="list-style-type: none"> • Rural areas, particularly where they neighbour residential areas, e.g., Martinborough, Otaki
School incinerators and outdoor burning	Particulate, smoke	<ul style="list-style-type: none"> • Nuisance 	<ul style="list-style-type: none"> • Neighbouring properties and public areas

*Agrichemical spraying has been included in the problems identified because of community concerns expressed during submissions on the proposed Air Plan. The actual scale of this problem still needs to be assessed.

Environment Division Air Quality Projects for 2000/01 – 2002/03

Target	Project Tasks	Timeframe	Internal Involvement	External Involvement	Air Plan Methods
Motorised land transport (See Attachment 3)	<ul style="list-style-type: none"> • School “walking bus” pilot project (two schools) • Corporate travel pilot programme <ul style="list-style-type: none"> – WRC – Two private corporations • Public awareness campaign 	2000/01 2001/02 2002/03 2002/03	<ul style="list-style-type: none"> • Transport Division • Corporate Communications 	<ul style="list-style-type: none"> • Territorial Authorities • School’s boards of Trustees • Two private corporations • General public Wellington City, Porirua, Lower Hutt 	Policy 4.2.23, Method 6.5.2 Also RLTS policies 2.2.4, 5.1.1, 5.1.2
Domestic Solid fuel burning	<ul style="list-style-type: none"> • Case studies of Environment Australia “Breathe the Benefits” and Canterbury Regional Council’s “Clean Air Zone 2000” programmes • Public awareness campaign (Masterton, Carterton, Greytown, Featherston, Upper Hutt, Lower Hutt, Karori) • Solid fuel burner approval programme 	2001/02 2002/03 2002/03	<ul style="list-style-type: none"> • Corporate Communications • Planning and Resources Department, Wairarapa 	<ul style="list-style-type: none"> • Community (fair days, local media) • Territorial authorities • Solid fuel burner retailers, fitters and repairers • Schools 	6.1.9 6.1.13 6.2.1 6.2.2 6.6.4
*Spray painting	<ul style="list-style-type: none"> • Prepare and distribute a pamphlet to spray painting operations explaining Regional Rules and encouraging best practice 	2000	•	<ul style="list-style-type: none"> • Moir St residents • Spray painting operators 	6.1.9
Agrichemical spray drift	<ul style="list-style-type: none"> • Inter-organisation working group (clarify roles, establish the extent of spray drift problems in the Region, develop potential solutions) • Letters to Territorial Authorities and spray contractors explaining the requirements of Rules 1 and 2 of the Air Plan 	2000/01 2000/01	<ul style="list-style-type: none"> • Planning and Resources Department, Wairarapa 	<ul style="list-style-type: none"> • Public Health Services • Environmental Risk Management Authority • Occupational Health and Safety • New Zealand Agrichemical Education Trust • Territorial Authorities • Agrichemical spray contractors 	6.1.10 6.4.1 (6.4.2, 6.4.3, 6.4.4, 6.4.5)

Target	Project Tasks	Timeframe	Internal Involvement	External Involvement	Air Plan Methods
Odour and dust	<ul style="list-style-type: none"> Reverse sensitivity working group Submissions on national guidelines 	2000/01 Ongoing	<ul style="list-style-type: none"> Planning and Resources, Wairarapa 	<ul style="list-style-type: none"> Internal: Environment Division and Wairarapa Division Ministry for the Environment Air Quality Working Group 	6.1.6, 6.1.9, 6.1.10
Outdoor burn-off	<ul style="list-style-type: none"> Clarify responsibilities with Territorial Authorities Raise public awareness 	2001/02 2002/03	<ul style="list-style-type: none"> Corporate communications 	<ul style="list-style-type: none"> Territorial authorities General public Rural fire authorities 	6.1.9 6.1.11 6.1.12 6.1.13 6.3.1 6.3.2 6.3.3 6.6.4
School incinerators	<ul style="list-style-type: none"> Pilot recycling programme for schools 	2002/03	<ul style="list-style-type: none"> Planning and Resources, Wairarapa 	<ul style="list-style-type: none"> One or two schools Territorial Authorities 	6.1.9 6.1.13 6.2.2 6.6.4

*The pamphlet for spray painters is an additional project which the Council committed to doing as partial resolution of the Moir Street residents' Environment Court appeal on the Plan.

Transport Related Environment Division Air Quality Projects for 2000/01 – 2002/03

Project Tasks	Timeframe	Rationale	Internal Involvement	External Involvement
<p>School “Walking Bus” Programme Work with two schools to co-ordinate a group of parent volunteers to walk a predetermined route to and from school at set times, picking up children at stops along the way. Parents are encouraged to send children to school by a safely chaperoned “walking bus”, rather than driving them to and from school each day. This programme has been successful in reducing traffic at the school gate at schools in Auckland. An evaluation is being done for four Christchurch schools.</p>	2000/01	<ul style="list-style-type: none"> • Reduces a localised congestion problem. • Encourages environmentally benign modes of transport. • Raises community awareness of air discharge problems caused by traffic. Shows a local community that they can make a difference locally. 	<ul style="list-style-type: none"> • Transport Division • Corporate Communications 	<ul style="list-style-type: none"> • Wellington City Council • Hutt City Council • Primary schools’ Board of Trustees
<p>Corporate Travel Pilot Programme</p> <ul style="list-style-type: none"> • Wellington Regional Council • Two private corporations <p>Work with willing corporations (beginning with WRC) to identify ways in which the corporation could encourage their employees to travel by environmentally benign modes of transport (e.g., walk to work days, or providing lockable bike sheds), and to reduce contributions to traffic congestion (e.g., through more flexible working hours).</p>	2001/02 2002/03	<ul style="list-style-type: none"> • Traffic congestion is most problematic at rush hours when the majority of the City’s workforce start/finish work. • Most traffic congestion is caused by people who work in the central city. • Working with a couple of corporations will assist us to determine how these problems might be alleviated, and at what cost. 	<ul style="list-style-type: none"> • Transport Division • Corporate Communications 	<ul style="list-style-type: none"> • Two private corporations
<p>Public Awareness Programme Two years from now, the Transport Division will have developed a range of support material (pamphlets, rideshare, web-site, etc.). The next logical step would be to develop an individualised marketing programme. This would be similar to the 'Travel Smart' programme developed in Western Australia. This would target individuals with 'Realistic Transport Choice' alternatives.</p>	2002/03	<ul style="list-style-type: none"> • Information materials need to be well disseminated to be useful. • A co-ordinated effort involving many organisations may serve to saturate the population more effectively than the Regional Council on its own. • A range of promotional methods is more likely to be effective than information material on its own (e.g., guided walks and rides to work, competitions, etc.) 	<ul style="list-style-type: none"> • Transport Division • Corporate Communications 	<ul style="list-style-type: none"> • General public Wellington City, Porirua, Lower Hutt

Transport Division Projects for 2000/2001

Implementation/Action To Date	Air Plan Policy	RLTS Policy
Researching the potential application of teleworking . Building on an Auckland study. Prepare a proposal for Transfund funding "Alternatives to Roothing" budget in 2001	4.2.23	2.2.1, 2.2.4, 5.1.1
E-mail based rideshare programme developed by Lincoln University for the Energy Efficiency and Conservation Authority has been adapted for the WRC. A pilot project will be launched through the WRC, WCC and Victoria University before launching it Region wide in 2001.	4.2.23	2.2.1, 2.2.4, 5.1.1
Develop a pedestrian strategy to input into transport corridor studies 2000/2001.	4.2.23	2.2.4, 1.1.6, 5.1.2
Landuse planning guidelines prepared and promulgated to territorial authorities, Tranz Rail, etc. Set of four: (1) Cyclists (2) Pedestrians (3) Freight (4) Public transport	4.2.23	1.3.1, 1.3.2, 5.1.1, 5.1.2
Regional Council staff belong to the Ministry for the Environments working group for developing environmental indicators for transport use	Method 6.5.1	-
Submissions Lodged On The Vehicle Fleet Emissions Control Strategy	4.2.22, Method 6.5.1	5.1.1
Reviewing public transport services to make them more attractive, e.g., integrated ticketing, customer service, advertising what's available and how to use it, web-site.	4.2.23	1.1.1, 1.1.4, 1.1.5, 1.1.6, 5.1.1
Report on the environmental benefits of electric trolley buses	4.2.23	1.1.1, 1.1.4, 1.1.6, 5.1.1
Review of vehicle quality standards for bus service contracts is underway. This may result in the adoption of emission/environmental standards.	4.2.2	1.1.1, 1.1.4, 5.1.1
Leaflets to be prepared showing safe walking and cycling routes around the city. 2001/2002.	4.2.23	1.1.5, 1.1.6, 5.1.1, 5.1.2
Promotional information leaflet comparing the different environmental impacts of different transport modes to be prepared 2001/02.	4.2.23	5.1.1
Human interest articles to be prepared for publication in Elements promoting the use of public transport and covering effects of different types of transport	4.2.22, 4.2.23	5.1.1, 5.1.2