CHAPTER 34: DISCHARGES TO AIR

34.0 INTRODUCTION

The quality of air contributes to an area's amenity values and to the quality of the environment. Emission of contaminants to air may cause nuisance and, at worst case, affect human, animal and plant health.

The air resource is frequently the receiving environment for by-products or waste from industrial processes, transport activities, waste management and agricultural practices. It is also the receiving environment for natural contaminants and may be used as a convenient means of distribution or dispersal of contaminants such as agricultural sprays, which may be appropriate at or near to the point of discharge, but may become a nuisance elsewhere.

Many discharges of contaminants to air are temporary or intermittent, while others are continuous. The adverse effects may vary depending on the nature of the contaminant, the means of discharge, localised climate effects, and the nature and activity of nearby land uses.

The monitoring that has taken place to date in Tasman District indicates that air quality is not a significant issue in either urban or rural areas at present, but that there are some localised areas of concern and some particular types of activities that require managing so that potential future adverse effects are avoided or mitigated.

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The National Policy Statement (NPS) and National Environmental Standards (NES) for Greenhouse Gas Emissions from Industrial Process Heat (IGHG) came into effect in July 2023. The purpose of the NPS and NES is to reduce greenhouse gas emissions from industries that use devices to generate industrial process heat. This national direction is aimed at helping Aotearoa New Zealand achieve net-zero carbon emissions by 2050, contributing to the national response to mitigate climate change and its adverse effects on the environment and the wellbeing of people and communities. The NES regulations prevail over any relevant TRMP rules relating to greenhouse gas emissions from industrial process heat, including discharges from enclosed combustion processes, and discharges to air from industrial and trade premises and trade processes (including, but not limited to Rule 36.3.2.5, Rule 36.3.3.1, and Rule 36.3.7.6).

34.1 AMBIENT AIR QUALITY

34.1.1 Issues

34.1.1.1 Actual and potential adverse health, safety and amenity effects from discharge of contaminants to air.

34.1.1.2 Maintenance and enhancement of air quality, in both rural and urban areas.

34.1.2 Objective

The discharge of contaminants to air in such a way that avoids, remedies or mitigates adverse effects while:

(a) maintaining existing air quality; and

(b) enhancing air quality where existing quality is degraded for natural or human uses or values.

34.1.3 Policies

Refer to Policy sets 5.1.3, 34.2.3.
Refer to Rule sections 17.1 – 17.14, 36.3.

34.1.3.1 To ensure that any discharges of contaminants to air are undertaken in a way that avoids, remedies or mitigates any adverse effects on the receiving environment or surrounding activities.

34.1.3.2 To allow or regulate contaminant discharges to air in relation to their actual or potential contamination effects, including:

(a) adverse effects on human health;

(b) adverse effects on amenity values;

(c) contamination of adjacent sites;

(d) degradation of water quality;

(e) the production of objectionable, noxious or offensive odours.

34.1.3.3 To provide for contaminant discharges to air while maintaining or enhancing the ambient air quality.

34.1.3.4 To provide for management of some actual and potential adverse effects of discharges to air - particularly odour and dust effects - as ancillary to land use activities, and to take them into account when resource consent applications are being considered.

34.1.3.5 To avoid adverse effects of discharges to air from outdoor burning in parts of Motueka and Richmond urban areas by banning the activity in those areas.

34.1.3.6 To mitigate the adverse effects of discharges to air from outdoor burning in rural areas and rural settlements and to ensure best practice is adopted when burning to mitigate adverse cross-boundary effects of fires.

34.1.3.7 To consider other resource management techniques such as buffer areas, separation distances, landscaping or planting requirements, or covenants over the land's title as an alternative means of protecting sensitive areas or activities from the adverse effects of discharges to air.

34.1.3.8 To adopt the best practicable option for discharge of contaminants to air associated with activities which are temporary or informal in nature.

34.1.3.9 To discourage the introduction of new discharges to air in the Coastal Marine Area.

34.1.3.10 To work with other agencies with responsibility for managing air quality, to recognise other statutes regulating discharges to air, and to support nationally co-ordinated policies for the management of motor vehicle emissions, ozone layer depleting substances and substances contributing to global warming.

34.1.3.11 To manage air quality to meet National Environment Standards for ambient air quality, especially in relation to concentrations of PM_{10}.

34.1.3.12 To improve air quality in urban settlements, especially in the Richmond Airshed, where ambient air quality is degraded because of PM_{10} concentrations by:

(a) preventing new solid fuel burners, except pellet fires, from being installed in the Richmond Airshed;

(b) enforcing performance standards for levels of smoke, odour and particulate emissions from chimneys in urban areas, especially the Richmond Airshed;

(c) enforcing standards for small-scale, solid fuel-burning appliances when a property changes ownership in the Richmond Airshed;

(d) ensuring a high level of public awareness about effects of PM_{10} on human health;

(e) advocating and encouraging a reduction in the number of houses using solid fuel, except for pellet fires, for home heating in the Richmond Airshed;

(f) advocating and encouraging improved operation of existing solid fuel appliances to reduce nuisances and levels of PM_{10} being discharged;

(g) advocating and encouraging use of sustainable housing design, including those that take advantage of solar energy and insulation technology;

(h) taking into account effects of vehicle emission on ambient air quality in road transport, cycle and pedestrian strategies.

34.1.3.13 To mitigate the adverse effects of PM_{10} and other contaminant discharges from industries in the Richmond Airshed by regulating discharges according to whether they are likely to be a significant source of PM_{10} in the Airshed, and:

(a) requiring adoption of best practice methods to reduce emissions of PM_{10} and other contaminants;

(b) requiring emissions testing and dispersion modelling for any discharge likely to have a significant effect on ambient air quality, including ambient concentration of PM_{10};

(c) where an existing discharge is likely to be a significant source of PM_{10} in the Airshed, taking into account:

(i) social and economic benefits of allowing the activity to continue;

(ii) level of investment into the activity;

(iii) opportunities to reduce PM_{10} emissions by at least 10 percent.

34.1.3.14 To take into account national guidelines for air quality when considering applications to discharge contaminants into the air.

34.1.3.15 To work closely with Nelson City Council to manage adverse effects of discharges to air that may cross into any airshed in Richmond or Nelson City especially where the airshed exceeds ambient air quality standards for PM_{10}.

34.1.3.16 To take into account potential adverse effects on ambient winter-time PM_{10} concentrations in the Richmond Airshed of discharges to air that may enter the Richmond Airshed.

34.1.3.17 Before granting a resource consent for the discharge of greenhouse gases to air from heat devices on a site, the Council must: **NES-IGHG 12/23**

(a) consider the total discharges of greenhouse gases from all heat devices on the site that the application relates to; and

(b) recognise that, cumulatively, all discharges of greenhouse gases resulting from the production of industrial process heat, regardless of volume, contribute to climate change, and any reduction in greenhouse gas emissions contributes to mitigating climate change.

34.1.3.18 When considering an emissions plan as part of an application for a resource consent for a restricted discretionary activity relating to discharges to air of greenhouse gases from heat devices, the Council must consider:

(a) the timing and content of updates of the emissions plan to be made by the holder of the consent; and

(b) how those updates will reflect changes in technology and best practices.

34.1.20 Methods of Implementation

34.1.20.1 Regulatory

(a) Rules which:

(i) provide for some discharges as permitted activities, and determine activities and/or processes which require resource consents;

(ii) take into account national and international standards in determining rules and conditions on resource consents;

(iii) provide for a range of types of conditions, including adoption of the best practicable option, standards for emissions or, in the receiving environment, financial contributions to offset effects on a resource consent and other conditions appropriate to the circumstances of the application;

(iv) provide for bonds, monitoring and review of conditions;

(v) regulate the discharge of contaminants to air from outdoor burning.

(b) Enforcement and abatement procedures.

(c) The preparation of protocols which describe how complaints or adverse effects of odour or emissions from outdoor burning will be managed.

(d) Rules that establish compliant heating standards and standards of performance for solid fuel appliances.

(e) Enforcement of compliant heating standards at the time a property changes ownership.

(f) Capping the number of solid fuel appliances in the Richmond Airshed.

(g) Rules for industrial sources of PM_{10}.

34.1.20.2 Education and Advocacy

(a) Encouraging producer and user groups to promote energy efficiency, clean production technology, "best practicable option" techniques and other means of minimising discharges and the adverse effects of discharges to air.

(b) Implementation of a public awareness programme to address widespread but minor sources of discharges to air.

(c) Advocating to central government for the formulation of a national approach to improving vehicle standards for emissions, ozone depletion and substances contributing to global warming.

(d) Liaison with rural fire authorities to ensure that all holders of permits to burn are aware of potential adverse effects of smoke discharges to air and methods to avoid creating such effects.

(e) Ensuring good and timely information about air quality is available, including information about operation of solid fuel appliances.

(f) Provision of information about, and encouraging adoption of, insulation and home heating methods that are sustainable and result in reduced emissions to air.

(g) Encouragement and support for wood retailers to establish high standards of performance and be "Good Wood" suppliers, in consultation with Nelson City.

(h) Provision of information about sustainable waste management methods, including about the Agrecovery programme for managing plastic agrichemical containers.

34.1.20.3 Investigations and Monitoring

(a) Establishing and undertaking, in conjunction with Nelson City Council, an integrated air quality monitoring programme, which will include baseline monitoring of winter smog levels in Richmond and monitoring of compliance with Plan rules and resource consents.

(b) Preparation of a waste management plan which, amongst other matters, addresses management of wastes which, but for the provisions of this Plan, may have been burnt. Examples are disposal of garden waste by composting and disposal of rural plastic wastes.

(c) Evaluation of alternative dust control measures to avoid, remedy or mitigate adverse effects of dust from Council's unsealed roads.

(d) When resource consent conditions require self-monitoring, ensuring that information is provided to the Council.

(e) Continuing monitoring of PM_{10} concentrations in Richmond and to gather information about air quality in other townships.

(f) Continuing liaison with Nelson City in the monitoring and reporting of air quality and in managing cross-boundary effects of discharges of contaminants into adjoining airsheds.

(g) Continuing monitoring and investigation of climatic influences on ambient air quality in Richmond and between Richmond and neighbouring airsheds.

(h) Review effectiveness of Plan provisions for improving air quality in Richmond to ensure targets for ambient concentration of PM_{10} can be met by 2013.

34.1.20.4 Works and Services

(a) Transport, cycling and pedestrian strategies that include measures to improve air quality in urban areas.

34.1.30 Principal Reasons and Explanation

Air quality in the District can be adversely affected by activities, generally on a local basis. However, discharges to air are a necessary aspect of many activities and they must be sustainably managed to avoid, remedy or mitigate adverse effects on the District's natural and physical resources. It is appropriate to apply a range of techniques, including regulatory techniques, to the management of these resources, and to monitor air quality on an ongoing basis.

Adverse effects arising from discharges of contaminants to air can have significant implications on sustainable management in the District. There is a range of factors which make contaminant discharges difficult to deal with purely on an effects or standards basis.

The Council will consider odour and dust emissions as effects of land use activities rather than regulating them as discharges to air to avoid overlaps and to ensure the effects of the odour are considered in the context of where they occur.

Discharges to air of smoke and odour from outdoor burning in urban areas cause significant adverse effects, including health, amenity and nuisance effects. The density of houses in the larger urban areas means that cross-boundary effects are nearly impossible to avoid and the costs to Council of responding to complaints about outdoor fires has been significant. The burning of some wastes may also result in the creation of a range of hazardous or toxic chemicals including dioxins. For these reasons, outdoor burning in urban areas in Motueka and Richmond will, with specific exceptions, be prohibited and outdoor burning of some materials will be prohibited in any location.

In rural areas and the smaller rural settlements, burning is still an appropriate option for managing some agricultural and garden waste but people are encouraged to consider alternative options to burning. However, where burning is necessary, Council expects that best practicable options will be adopted to mitigate the adverse effects, particularly cross-boundary effects. It has prepared a guideline which identifies best management practices and will promote and require good practice to mitigate the adverse effects of outdoor fires.

Council will expect a particularly high level of performance for areas it has identified as "Fire Sensitive" at or near Residential Zone locations or where there is a higher density of residential development. These areas are considered to be particularly sensitive to the adverse cross-boundary effects of fire because of the density of development or because of their location at or near Residential Zones. Fires in these areas may also contribute to high levels of particulate matter causing pollution in adjacent urban areas. In Fire Sensitive Areas, burning will not be permitted during winter months when there is a higher risk of poor air quality and when there is a greater risk of creating smoke nuisances.

Council has prepared a protocol to explain how it will respond to complaints about fire and odour nuisances to assist in the implementation and interpretation of the rules. The protocol identifies the criteria used in deciding the reasonableness of any fires in relation to the frequency, intensity, duration, odour and location of any fire. The level of compliance with the good practices guideline will also be taken into account when considering any complaints about outdoor fires.

The Plan seeks to apply regulation only where appropriate, and to rely on a range of other available techniques to avoid, remedy or mitigate the adverse effects of discharges to air. This includes land use rules in other parts of this Plan.

However, there is a range of activities or processes where regulation is desirable, and rules provide that consents must be sought for these. Conditions on resource consents may address air quality in a number of ways, and so the Plan does not limit the Council's discretion to evaluate the adverse effects of regulated activities, or to attach appropriate conditions.

Good air quality is important for people's health and wellbeing. National and international data shows high PM_{10} concentration can increase mortality rates, aggravate respiratory illnesses such as asthma, and result in reduced activity (people work less because of illness or having to care for ill people).

Air quality monitoring in Richmond since 2000 has shown PM_{10} has exceeded 50ug/m^3 regularly during winter months and this exceeds the limits set in national regulations. Council must adopt measures to improve air quality and protect people's health. The national regulations require that air quality does not exceed 50ug/m^3 more than once per year by 2013.

Investigations show that the primary cause of poor air quality is burning solid fuels in domestic appliances. Over 80 percent of PM_{10} comes from this source. About 10 percent each comes from traffic and industry sources.

These policies will guide the Council in managing discharges to air so that the national standards can be met and air quality in Richmond and other urban settlements is suitable for people's good health. The policies and methods take into account social issues related to equity, and people's ability to pay for upgrading poorly-performing, solid-fuel appliances and improving levels of insulation.

Industrial sources of PM_{10} from combustion type processes will be addressed through the establishment of higher performance standards and improved monitoring. Existing industrial sources of PM_{10} are mostly from small-scale boilers for glasshouse and school heating. These sources are unlikely to be a significant source of PM_{10} in the Richmond Airshed, but Council has limited information about the exact nature of the discharges and their cumulative impact on ambient air quality.

Council will help existing boiler operators identify opportunities for reducing PM_{10} emissions and will gather fuel usage data to help assess and monitor the effects of these discharges. Good practice such as good maintenance and operation of industrial boilers will be required to reduce visible smoke emissions to brief periods.

The high levels of PM_{10} will make it difficult for new sources of PM_{10} to become established in the Richmond Airshed.

Transport, cycle and pedestrian policies will take into account the effects of vehicles on ambient air quality.

34.1.40 Performance Monitoring Indicators

34.1.40.1 Changes in ambient air quality on a long-term basis.

34.1.40.2 Consent conditions being achieved.

34.1.40.3 Any need for review of consents and consent conditions over time.

34.1.40.4 Reduction in complaints received.

34.2 DISCHARGE OF PESTICIDES

34.2.1 Issue

Adverse effects from the use of pesticides in the District.

34.2.2 Objective

The reduction in use of pesticides in the District while avoiding, remedying or mitigating the adverse effects of pesticide use.

34.2.3 Policies

Refer to Policy sets 5.1.3, 34.1.3.
Refer to Rule sections 17.5, 17.6, 17.7, 17.8, 36.6.

34.2.3.1 To avoid, remedy or mitigate any adverse effect on human health or the environment from the discharge of pesticides, particularly through spray drift or discharge into water bodies.

34.2.3.2 To promote good practice in the use of pesticides to avoid or mitigate any actual or potential adverse effects of the discharge, particularly adverse effects beyond the property boundary.

34.2.20 Methods of Implementation

34.2.20.1 Regulatory

(a) Rules relating to:

(i) the discharge of pesticides to air, land or water;

(ii) setbacks, separation distances, or planting of spray belts in association with activities that involve or may involve adverse cross-boundary effects resulting from the use of pesticides, particularly in sensitive areas such as dwellings, schools, sensitive production activities, public lands, water bodies, or water supply catchment areas;

(iii) appropriate training for pesticide users.

(b) Action to address pesticide spray drift complaints jointly with appropriate industry user groups, where such groups exist according to established protocol.

(c) Mediation to help resolve conflict where there are problems experienced with spray drift across property boundaries.

(d) Enforcement and abatement action where necessary.

34.2.20.2 Education and Advocacy

(a) Promotion and support of industry codes of practice and individual management practices that avoid, remedy or mitigate adverse effects of the discharge on the environment.

(b) Encouraging appropriate training of pesticide users in the correct use and application of pesticides, including through the "Growsafe" training programme and registered chemical applicators scheme developed by the New Zealand Agrichemical Education Trust.

(c) Liaison with pesticide interest groups in preparing guidelines and providing advice and information on good pesticide spray management practices for all pesticide users.

(d) Promotion and support for land management practices that avoid adverse effects caused by this discharge of pesticides.

34.2.20.3 Investigation and Monitoring

(a) Promotion and support further research and investigation about adverse effects of pesticide use and methods of avoiding or mitigating them, including improved application technology.

34.2.30 Principal Reasons and Explanation

The potential for adverse effects caused by the use of pesticides is a significant issue in the District in both rural and urban areas. Pesticides are an important aspect of agricultural, horticultural and other productive use of the land resource. Because of the significance of the issue, more detailed provisions are included in the Plan than for many other discharges.

It indicates the Council's view that the seriousness of and level of concern about adverse effects resulting from the use of pesticides is a significant issue. The seriousness and level of concern about the issue of pesticide spray drift make it imperative to avoid any significant adverse effects.

Where the use of pesticides is necessary, Policy 34.2.2.2 recognises the need to ensure application is carried out in a safe and responsible manner.

Regional rules are included in the Plan that continue to permit discharge of pesticides according to their effects on the environment and provide certainty for pesticide users and other people with respect to conditions that apply to the discharge activity.

Codes of Practice such as the New Zealand Standard 8409-1995, information and guidelines can be an effective, non-regulatory means of changing resource user behaviour and improving management practices to avoid, remedy or mitigate adverse effects on pesticide use. The Council also recognises the benefits of working with industry and other groups in promoting and advocating sustainable management practices.

Complaints indicate that adverse effects are potentially being caused by the use of pesticides, and the Council is committed to responding to complaints according to an established protocol and to addressing any problems, including through the use of enforcement and abatement procedures.

Issues surrounding the use of pesticides are compounded by the lack of reliable information about avoiding, remedying or mitigating adverse effects. The Council wishes to improve its understanding about the use of pesticides.

34.2.40 Performance Monitoring Indicators

34.2.40.1 Number of complaints received.

34.2.40.2 Level of use of enforcement and abatement procedures.

34.50 Environmental Results Anticipated

34.50.1 Maintenance or enhancement of ambient air quality throughout the District over time.

34.50.2 A reduction in complaints about discharge to air, particularly dust, smoke, pesticide spray and odour nuisance occurrences over time.

34.50.3 Avoidance of land use incompatibilities due to discharges to air.

34.50.4 Continuation of some localised and/or temporary reductions in air quality.

34.50.5 Improved knowledge about the quality of the air resource in the District.