MITCHELL DAYSH

REGIONAL AIR PLAN FOR SOUTHLAND

EFFICIENCY AND EFFECTIVENESS REVIEW

Under Section 35 of the Resource Management Act 1991

22 June 2020

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EXECUTIVE SUMMARY

The Resource Management Act 1991 (the "**RMA**") requires regional and district plans to be reviewed every 10 years. To inform these reviews, the RMA requires councils to monitor the efficiency and effectiveness of plans. This report provides an evaluation of the efficiency and effectiveness of the Regional Air Plan for Southland (the "**Air Plan**") to inform an upcoming review of the Plan.

The evaluation assesses whether the Air Plan achieves its intended outcomes, evaluating the performance of the rules, methods, and objectives and policies. The evaluation considers legislative and policy changes over time, and whether the Air Plan aligns with these. Consideration is given to whether evolving issues and community aspirations are being achieved. The efficiency of the Plan is evaluated, along with its design and usability.

There are a number of change factors which will significantly influence the upcoming Air Plan review. These include the introduction of National Planning Standards, the National Environmental Standard for Air Quality, the Regional Policy Statement, national guidance, and changes in land use and community perceptions regarding air quality. Community tolerance of poor air quality is reducing.

The outputs of the current Air Plan are largely effective, meaning Environment Southland is delivering what Plan requires. Environment Southland is delivering well on most of the consenting, monitoring, compliance, enforcement and non-regulatory requirements in the Plan. Reviewing these outputs has signalled where there is a need to update the Plan through the review process. However, measuring uptake to efficient small-scale fuel burning appliances is needed both in terms of numbers and locations to understand the effectiveness of the current ambient air quality rules. There is also a gap in community understanding regarding industrial and trade premises air emissions, and although there is a good level of tangata whenua involvement in air quality management by Environment Southland, tangata whenua values could be better integrated in the Air Plan.

In reviewing the achievement of the Air Plan issues and outcomes, the outcomes are considered to be mostly achieved. The plan is not yet compliant with the National Environmental Standard for Air Quality. Matters to address in the upcoming review include outdated, complex and technical provisions, ineffective provisions, gaps, and the high-level nature of objectives and policies. In particular, there are opportunities to improve how discharges to air are regulated for industrial and trade premises, and the management of dust and odour.

In the upcoming Air Plan review, testing the usability of provisions to address the above matters, and assessing economic, social and health costs and benefits will be needed.

Addressing the above matters will be necessary to ensure the Air Plan appropriately manages air quality in Southland in accordance with the purpose and principles of the RMA and does so in a way that is both efficient and effective for those using the Plan.

1. INTRODUCTION

1.1 PURPOSE

The purpose of this report is to provide an evaluation of the efficiency and effectiveness of the Regional Air Plan for Southland ("**the Air Plan**" or "**the Plan**"). The evaluation has been prepared to meet Environment Southland's requirements under section 35(2)(b)[1] of the Resource Management Act 1991 ("**the RMA**" or "**the Act**").

The report assesses whether the Air Plan achieves its intended outcomes. The assessment includes an evaluation of the performance of the rules and methods in achieving the objectives, policies and outcomes of the Air Plan. A risk based (or traffic light) approach has been adopted to rank performance of each element of the Air Plan.

The evaluation considers legislative changes and other central and local Government policy directions that have arisen since the Air Plan was made operative and whether the Air Plan aligns with these directives. Consideration has also been given to emerging issues, and whether evolving community aspirations and expectations are being achieved. The efficiency of the Air Plan is evaluated, along with its usability.

Based on the outcomes of the review, this report identifies matters that Environment Southland should consider addressing via the upcoming review of the Air Plan.

1.2 PLAN SUBJECT TO REVIEW

The Air Plan is set out in two separate parts. Stage 1, being the first half of the Air Plan, contains provisions relating to home heating, outdoor burning, the application of agrichemicals and fertilisers, and fire training. The Stage 1 provisions replaced section 6 of the Regional Air Quality Plan for Southland 1999. Stage 1 sought to address non-compliance with national ambient air quality standards for PM_{10} and was made operative in October 2016.

The second half of the Air Plan comprises the Stage 2 provisions, which are the remaining, provisions from the Regional Air Quality Plan for Southland 1999. The Stage 2 provisions include those relating to ambient air quality, air discharges from industrial or trade premises, odour, and motor vehicle emissions.

The objectives for this evaluation, as set by Environment Southland ("**the Council**"), focus largely on the Stage 2 provisions. These objectives are set out as follows (paraphrased):[2]

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[1] Refer to Section 1.3 of this report for the full description of section s35(2) RMA.

[2] Regional Air Plan for Southland – Efficiency and Effectiveness Review Scope, Environment Southland, October 2019 (page 2).

- *Determine whether the purpose of the Plan (section 1.3) has been met;*
- *Determine whether the methods were implemented;*
- *Assess whether a 'Monitoring and Review' (section 10) has been undertaken;*
- *Determine the effectiveness and suitability of the Air Plan in accordance with section 10 'Monitoring and Review'; and*
- *Report on matters to address through the Schedule 1 Air Plan review process.*

The evaluation is, however, also required to assess the Stage 1 2016 elements of the Air Plan with the Project Scope stating:

> *This efficiency and effectiveness review is to include all provisions from the date they became operative in 1999, as well as the Stage 1 provisions which became operative in 2016. The review must also consider the differences in the development and purpose of the 1999 provisions, compared with the elements added in 2016 and changes in plan drafting since 1999.*

It is therefore the full Air Plan that is subject to evaluation, with greater detail being required in the evaluation of the Stage 2 provisions.

1.3 STATUTORY REQUIREMENTS

Under the RMA, local authorities must commence a review of their district or regional plans within ten years of the plan becoming operative. A partial review, being Stage 1 of the Air Plan, was made operative in 2016. 21 years have passed since the Stage 2 provisions were made operative in 1999. Therefore, the balance of the Air Plan, being the Stage 2 provisions, requires review in accordance with the Act. This assessment of efficiency and effectiveness will be utilised to inform the upcoming review of the Stage 2 provisions and potentially the Stage 1 provisions if Council considers this necessary.

This evaluation is undertaken to satisfy Council's requirement to monitor the efficiency and effectiveness of its plans under section 35(2)(b) of the RMA:

> *35 Duty to gather information, monitor, and keep records*
>
> *(2) Every local authority shall monitor…*
>
> *(b) the efficiency and effectiveness of policies, rules, or other methods in its policy statement or its plan; and …*
>
> *and take appropriate action (having regard to the methods available to it under this Act) where this is shown to be necessary.*

This report gives effect to this requirement and will be utilised to inform the upcoming review of the Air Plan.[3]

[3] In accordance with Schedule 1 of the RMA.

1.4 APPROACH AND METHODOLOGY

1.4.1 Methodology for Measuring Efficiency and Effectiveness

Based on previous assessments undertaken by Environment Southland and other councils around New Zealand,[4] an evaluation must consider:

- Whether plan implementation has been efficient and effective to date;
- Whether state of the environment and consent and compliance monitoring results are in line with the objectives set in the plan; and
- Issues that have arisen through plan development and implementation.

Measuring efficiency involves the evaluation of whether the costs of the policies, rules and other methods are reasonable for the benefits gained. Costs and benefits are evaluated in monetary and non-monetary terms.

Measuring effectiveness involves the evaluation of whether the outcomes and objectives sought by a plan's policies have been achieved. Assessing change factors, being the legislative and policy changes and emerging issues and trends since the Air Plan was made operative, are of particular importance in assessing the achievement of the purpose of the RMA and other higher order documents. In the case of the Air Plan, 21 years have passed since the Stage 2 provisions were made operative, which means the statutory context of today is very different to the statutory context the Air Plan was prepared under.

The evaluation in this report comprises a desktop evaluation of the effectiveness and efficiency of the Air Plan, informed by engagement with Council staff, Te Ao Mārama Incorporated ("**Te Ao Mārama**"), and key stakeholders.

Prior to commencing work on the evaluation and proposed methodology, an engagement approach was prepared to inform the review process and reporting.[5] This guided how engagement was undertaken, and is attached as **Appendix A**.

In order to assess efficiency and effectiveness, a framework of five questions informs the analyses and evaluation reporting. These questions are set out diagrammatically in Figure 1 below.

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[4] See for example - https://www.es.govt.nz/repository/libraries/id:26gi9ayo517q9stt81sd/hierarchy/about-us/plans-and-strategies/regional-plans/coastal-plan/documents/An%20assessment%20of%20the%20Effectiveness%20and%20Efficiency%20of%20the%20Regional%20Coastal%20Plan%20for%20Southland%20%28June%202019%29.pdf and https://api.ecan.govt.nz/TrimPublicAPI/documents/download/3459865

[5] Environment Southland Air Plan Efficiency and Effectiveness Evaluation, Project and Engagement Methodology, 29 November 2019.

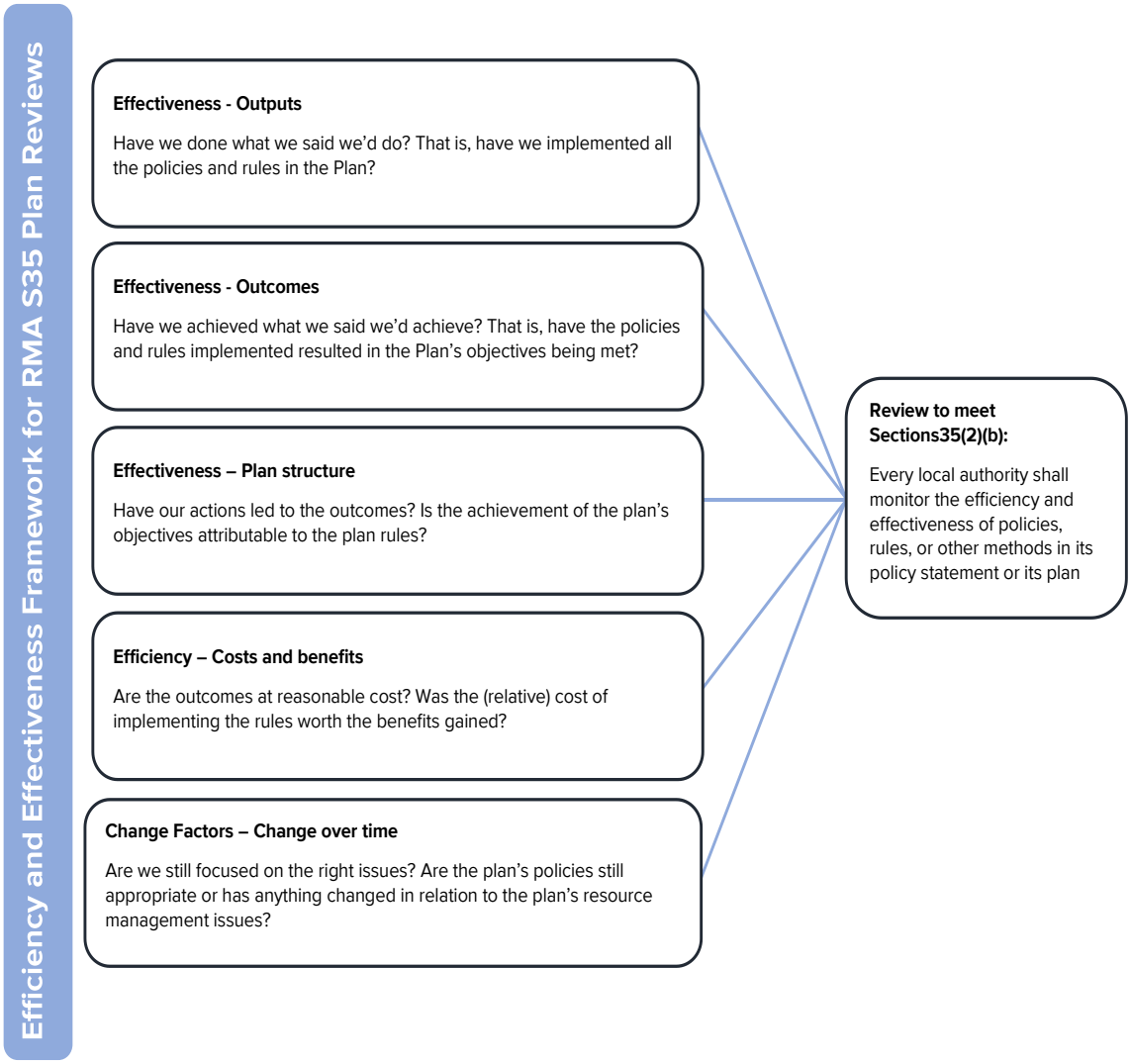

Figure 1: Efficiency and Effectiveness Framework for Evaluation

The purpose of these questions is to 'prove' a plan's policy intervention logic. To assess observed cause and effect relationships between a plan's outputs (policies) and actions (applying the rules and methods), compared to observed outcomes 'on the ground' measured through Council monitoring programmes, state of the environment reporting and engagement with key stakeholders (as set out below in Figure 2) has been undertaken. Progress towards meeting the plan's objectives and anticipated environmental results can then be assessed.

It is noted that this evaluation does not consider what methods or management options should be used to address the gaps found during the efficiency and effectiveness review and does not consider matters which are covered under the Operative Regional Coastal Plan for Southland 2013 (seaward of mean high water springs) ("**Coastal Plan**").

An assessment of the options available to address the gaps and issues identified during the efficiency and effectiveness review will be subsequently undertaken by Environment Southland in the upcoming Air Plan review.[6] A scoping report prepared by Emission Impossible in 2018, titled *Scoping the Regional Air Plan Review, 14 August 2018* goes some way in identifying how preliminary gaps and issues could be resolved through the upcoming review of the Air Plan. A full assessment of issues and options will be required for the review. However, the scoping reporting provides a good starting point for this work.

1.4.2 Engagement with Te Ao Mārama and Stakeholders

To inform the efficiency and effectiveness evaluation, and in particular the observed outcomes 'on the ground', the outcomes of previous consultation and engagement processes relating to feedback on air quality has been undertaken. This has included submissions on the Stage 1 review of the Air Plan, and engagement feedback set out in the Stage 2 review scoping report.[7]

Along with this, engagement has been undertaken with Te Ao Mārama[8], key staff including consents, compliance, monitoring, scientific and policy staff, and key stakeholders including the Ministry for the Environment ("**MfE**") and the three Southland territorial local authorities (district councils), being Gore District Council, Southland District Council and Invercargill City Council. This is illustrated in **Figure 2** below:

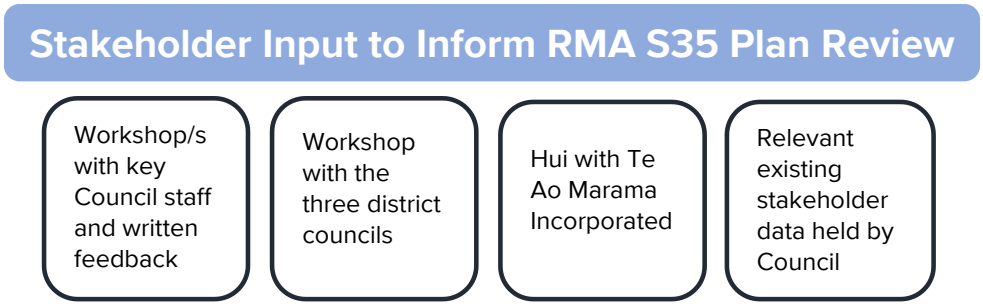

Figure 2: Stakeholder Input to Air Plan Effectiveness and Efficiency Evaluation

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6 It is noted that the 2018 Scoping Report, Scoping the Regional Air Plan Review, 14 August 2018, prepared for Environment Southland, already goes some way in identifying opportunities to address gaps and issues in the Air Plan.
Te Taiao Tonga, by Louise Wickham, Emission Impossible.

7 Titled Scoping the Regional Air Plan Review, 14 August 2018, prepared for Environment Southland
Te Taiao Tonga, by Louise Wickham, Emission Impossible.

8 Te Ao Marama Inc. represents the four rūnanga in Murihiku matters on matters regarding the management of resources under the RMA and the Local Government Act 2002.

The outcomes of engagement with key stakeholders are summarised in **Appendix B** attached, and the consideration of this feedback is integrated throughout the report.

1.4.3 Data Sources and Information Reviewed

To inform the efficiency and effectiveness evaluation, the following data sources and information provided by Environment Southland have been reviewed:

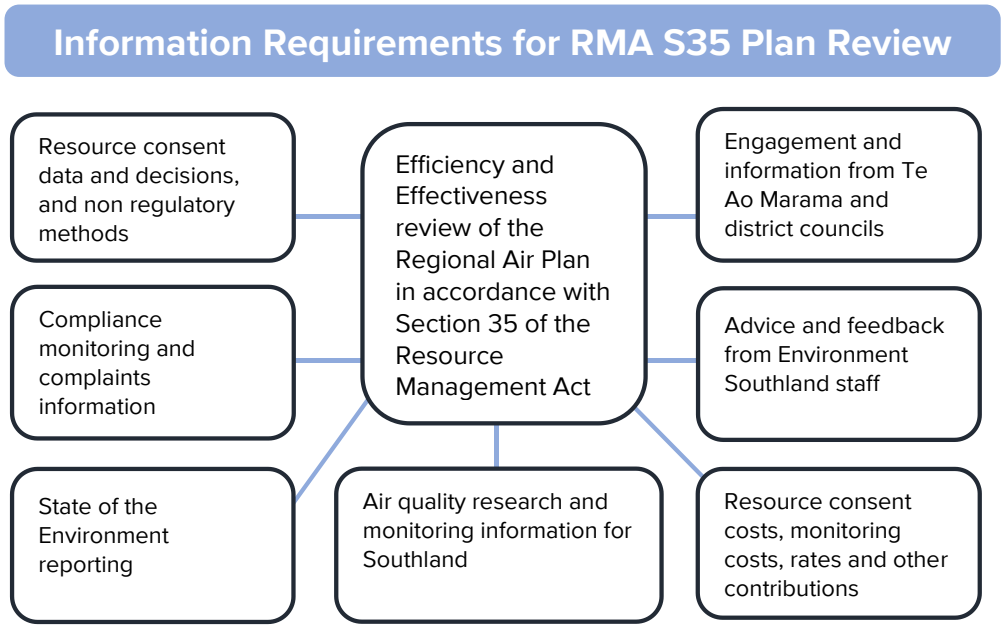

Figure 3: Information Requirements for Efficiency and Effectiveness Review[9]

1.5 REPORT STRUCTURE

This report is structured into the following sections:

- **Introduction** – Sets out the report purpose, a description of the Air Plan, the requirements for assessing efficiency and effectiveness, and the methodology used.
- **Background** – Provides background information regarding Southland's environmental context and air resource and the structure of the Air Plan.
- **Change Factors** – Identifies changes since the promulgation of both the 1999 and 2016 Air Plans, including legislative and statutory document changes and community values and aspirations.

[9] A full outline of information requirements is in the Regional Air Plan for Southland – Efficiency and Effectiveness Review Scope.

- **Effectiveness of Air Plan Outputs** – Assesses whether the Air Plan provisions have been implemented; evaluates resource consents, plan monitoring and compliance, and implementation of non-regulatory methods and Te Ao Mārama involvement.
- **Effectiveness of Air Plan Outcomes** – Assesses whether the outcomes in the Air Plan have been addressed and the achievement of objectives and policies.
- **Effectiveness of Air Plan Structure** – Evaluates the usefulness and suitability of the Air Plan in regard to structure and content and the appropriateness of the provisions.
- **Efficiency of Air Plan** – Evaluates the costs resulting from the Air Plan against the benefits of the Plan, including Council administration costs, resource consents holders and applicants, and the broader costs associated with Plan compliance.
- **Identification of Matters for Air Plan Review and Conclusion** – Based on the evaluations in the preceding chapters, these sections identify the matters for consideration in upcoming review of the Air Plan.

2. BACKGROUND

2.1 SOUTHLAND REGION GEOGRAPHY AND CLIMATE

Southland is the second largest region in New Zealand, covering an area of 34,000km^2 (refer Figure 4 below). Its coastal boundaries extend from Awarua Point (Fiordland) on the West Coast to Waiparau Head (Catlins) on the East Coast, and includes Rakiura / Stewart Island. 53% of Southland's land area is managed as public conservation land, with 85% of the remaining land primarily used for agricultural purposes.[10]

The region has a total population of 97,467 with over half of the population living in the Invercargill City area (54,204).[11] Other populated areas include Gore (7,353), Winton (2,211), Te Anau (1,911) and Mataura (1,509).[12] The proportion of the region's population living in rural areas is approximately twice the national average of New Zealand.[13]

The climate has an important influence over air quality in the region as wind has a dispersal effect on pollutants, while the cooler temperatures result in greater uses of home heating and associated air discharges. In the cooler months, when cold temperatures are coupled with temperature inversion effects and slower average wind speeds, air quality decreases.

Southland lies within the Southern Hemisphere's westerly wind belt. Coastal Southland near Foveaux Strait can experience periods of strong and persistent westerly winds. Average wind speeds in Invercargill are around 18km/h, while the average annual temperature in the City is around 9.9°C. Across Southland, the temperatures generally range from a high of 30°C in the summer months to a low of -8°C in the winter.[14]

2.2 AIR QUALITY IN SOUTHLAND

Section 1.1 of Stage 2 Air Plan identifies the main air quality issues of concern as:

- *the effect of discharges of contaminants into air on the air's quality, the health of people and communities, and the environment;*
- *the release of greenhouse gases or ozone depleting substances into air; and,*

[10] Southland's Air / Ngā Hau o Murihiku State of the Environment Report, Te Ao Marama Inc. & Environment Southland, 2014.

[11] Figures based on 2018 census usually resident information.

[12] Based on 2013 census figures.

[13] Southland's Air / Ngā Hau o Murihiku State of the Environment Report, Te Ao Marama Inc. & Environment Southland, 2014.

[14] Ibid.

- *the effect of discharges of contaminants into air which are or can be noxious, dangerous, offensive, or objectionable (such as odour, smoke or dust) on the environment or amenity values.*

The table below from Southland's Air / Ngā Hau o Murihiku State of the Environment Report 2014, sets the jurisdiction for air quality management at a local, regional, national and international level.

Table 1: Management Responsibility for Air Quality Issues

Air Quality Issue	International	National	Regional	Local
Greenhouse gasses				
Ozone				
Particulate matter (PM_{10}),NO_x, CO and SO_2				
Odour				
Dust				
Dioxins				

The Air Plan is therefore the relevant document for the management of the adverse effects of discharges involving particulate matter, odour, dust and dioxins to air. Regulation regarding ozone and greenhouse gases is undertaken at a national level.

Air quality in most areas of Southland is generally good. However, air quality monitoring of PM_{10} and $PM_{2.5}$ to date has identified that Gore and Invercargill experience poorer air quality during the winter months, exceeding the National Environmental Standard for Air Quality ("**NES-AQ**") standards for ambient air quality[15]. This is largely attributed to the burning of wood and coal fires, coupled with cold temperatures, temperature inversion effects and slow winds. Cold, still nights in Gore and Invercargill are therefore characterised by higher levels of PM_{10}. This adversely affects the health and amenity of residents in these areas and can disproportionately affect those that are more vulnerable to these effects such as the young, the elderly and those with health conditions.

The climate has an important influence over air quality in the region as wind has a dispersal effect on pollutants, while the cooler temperatures result in greater uses of home

[15] In assessing the latest annual monitoring report, neither the Invercargill nor Gore airsheds met the NES-AQ PM_{10} standard during 2017. There were 14 exceedances of the 50 $\mu g/m^3$ standard for PM_{10} in Invercargill and two exceedances in the Gore airshed.

heating and associated air discharges. In the cooler months, when cold temperatures are coupled with temperature inversion effects and slow winds, air quality decreases.

Environment Southland have air quality monitoring stations which monitor PM_{10} and $PM_{2.5}$ in Invercargill (two sites[16]), Gore and Winton. These are illustrated in Figure 4 below:

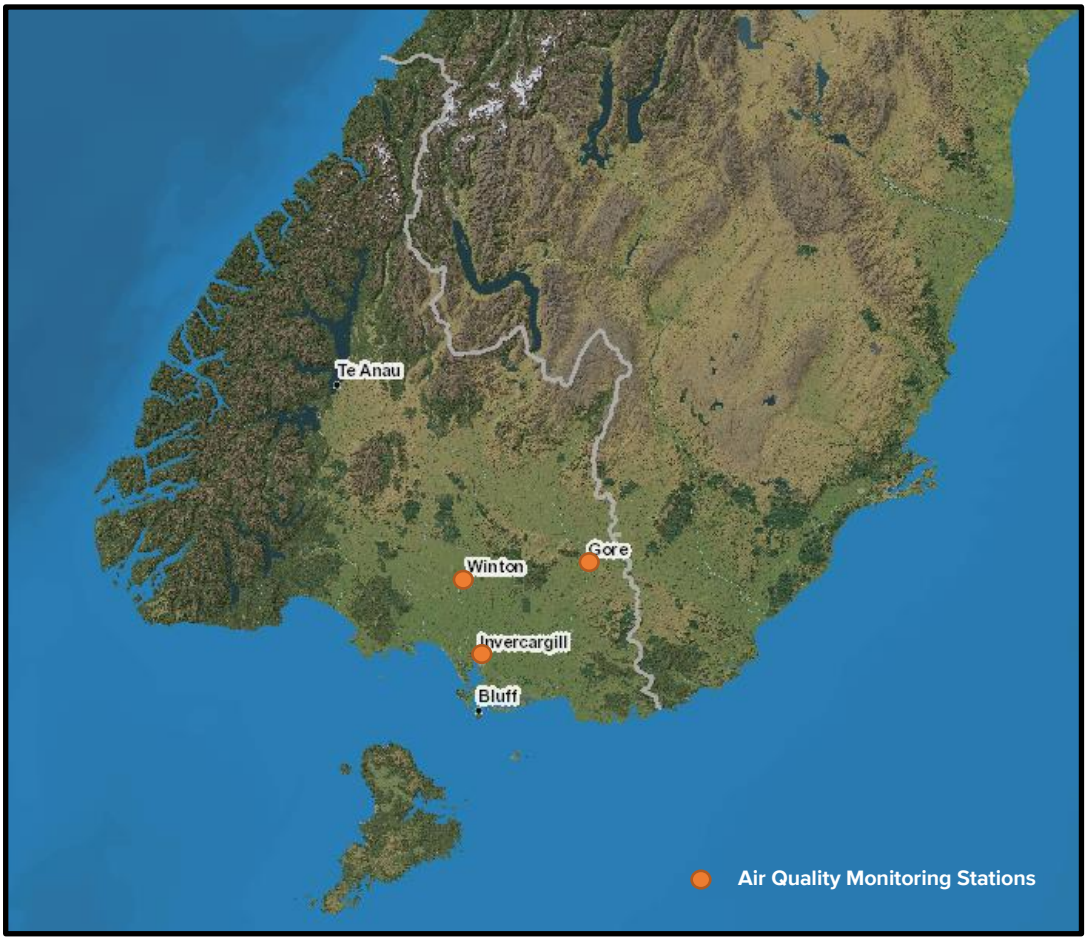

Figure 4: Map of Southland Region, Catchments and Air Quality Monitoring Sites

Historic monitoring of PM_{10} in other urban areas[17] has demonstrated that at the time, the NES-AQ limits for PM_{10} in these areas were met. Air quality is therefore likely to be generally good in other areas of Southland. However, as with the larger centres, air quality is likely to be poorer during winter months when wood and coal are used for domestic home heating.

[16] Located at Ponoma Street and Glengary Crescent, Invercargill.

[17] Including Matarua Bluff, Riverton, Edendale, Te Anau and Wallacetown.

2.3 OVERVIEW OF THE AIR PLAN

The Air Plan is split into two stages. These are summarised below:

- **Stage 1 comprises the first half of the Air Plan**. Stage 1 contains the updated policy framework and new rules for domestic home heating, outdoor burning, the application of agrichemicals and fertilisers, and fire training. Stage 1 replaces Section 6 of the 1999 Air Plan.
- **Stage 2 comprises the second half of the Air Plan.** Stage 2 encompasses the remaining framework from the 1999 Air Plan and relates to industrial and commercial discharges, odour, and motor vehicle emissions. This report informs the upcoming review of the Air Plan, which will primarily focus on the Stage 2 provisions.

2.3.1 Air Plan Stage 1

Stage 1 of the Air Plan focuses on activities which may result in exceedances of the NES-AQ for PM_{10} within the Gore and Invercargill airsheds, outdoor burning, the application of agrichemicals and fertilisers, and fire training.

It sets out domestic and home heating rules which focus on reducing PM_{10} in ambient air in order to meet the NES-AQ requirements. Stage 1 also focuses on how this is measured and reported in accordance with the NES-AQ, as well as setting out other measures to ensure domestic home heating does not result in localised air quality problems.

Outdoor burning rules and fire training rules focus on minimising localised health and amenity effects, with stricter rules in the airsheds. The Plan aims to reduce 24-hour average PM_{10} concentrations in Invercargill by 66% and in Gore by 35%, to meet the NES-AQ for PM_{10} (one allowable exceedance) by September 2021.

The main measures included in the Air Plan for Invercargill and Gore include:

- A ban on the use of open fires from 1 January 2016;
- Applying the NES-AQ emission limits for wood burners to all solid fuel burners;
- The staged phase out of older burners with cut-off dates in 2019, 2022, 2025, 2030 and 2034 in Invercargill. For Gore, the cut-off dates are similar, with the exception that it is to commence in 2020; and,
- Restricting permitted outdoor burning outside of May to August.

An overview of Stage 1 of the Air Plan is provided in Figure 5 below:

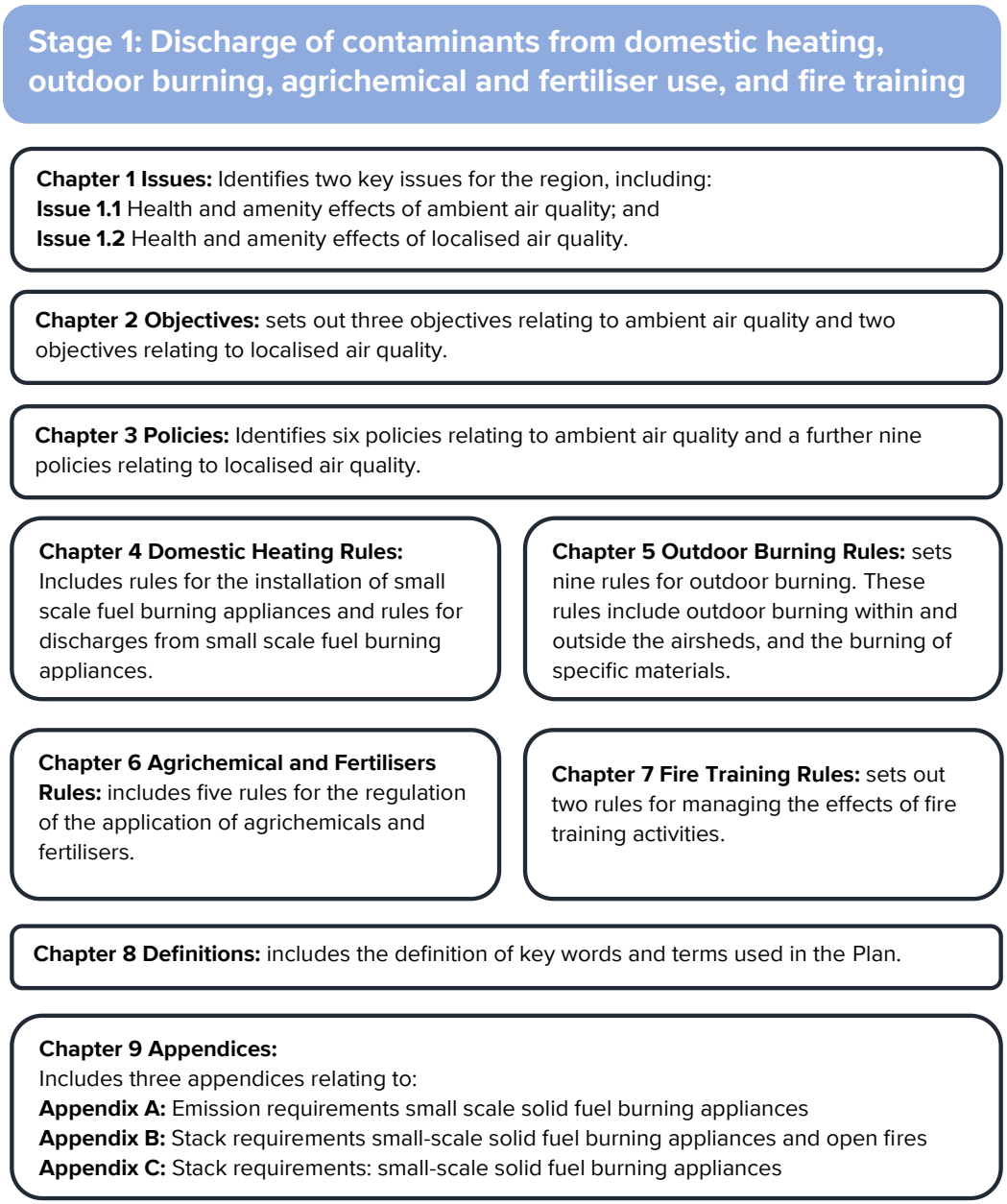

Figure 5: Overview of Stage 1 of the Air Plan

2.3.2 Air Plan Stage 2

The 1999 Air Plan is formatted quite differently from the 2016 Air Plan outline above. It is divided into sections relating to different air quality topics, with each section including its own set of objectives, policies and methods, which in some instances include rules. A set of principal reasons and outcomes are also included in each section.

An overview of Stage 2 of the Air Plan is provided in Figure 6 below:

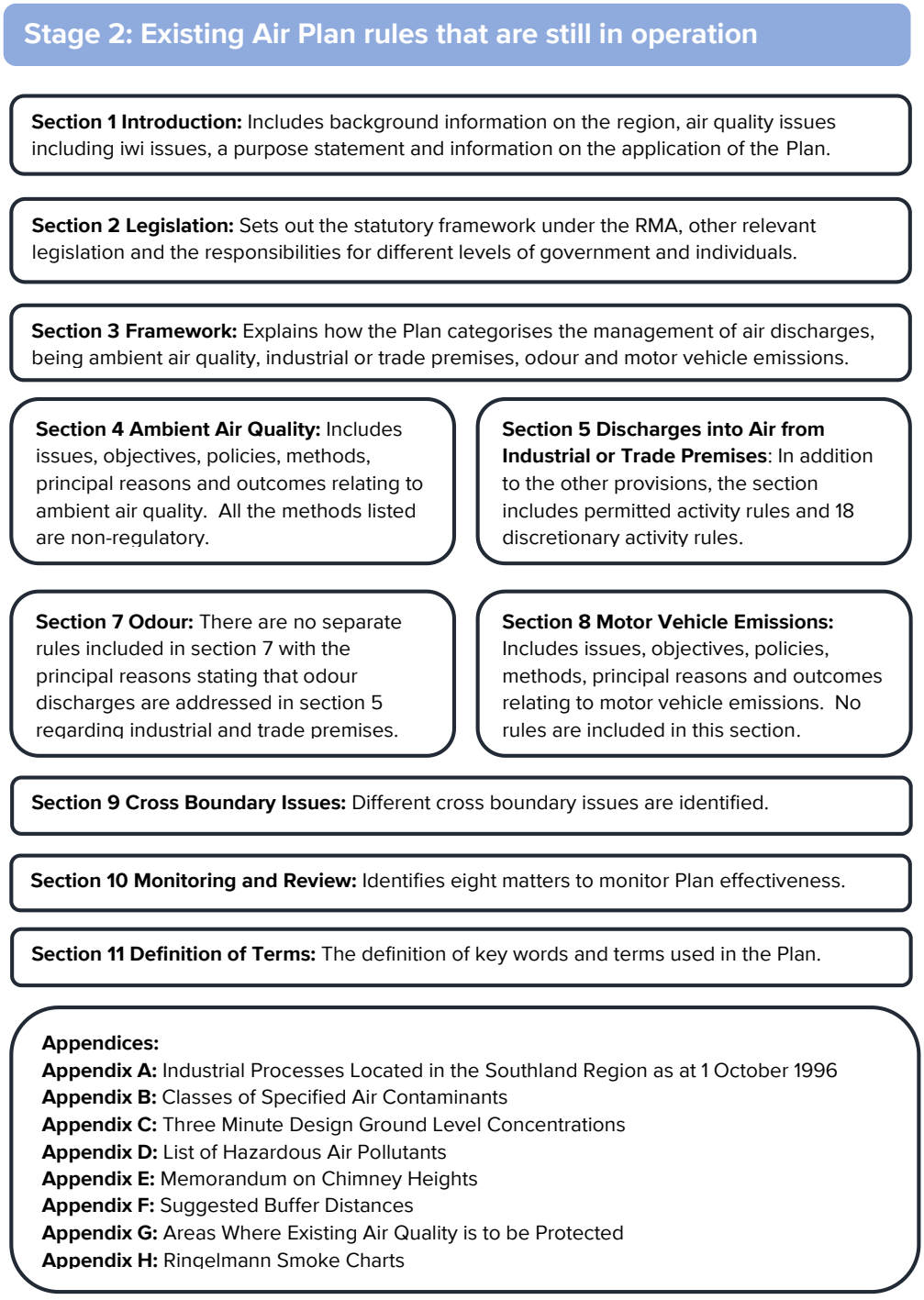

Figure 6: Overview of Stage 2 of the Air Plan

3. CHANGE FACTORS

Approximately 21 years have passed since the Stage 2 provisions of the Air Plan were made operative in 1999. During that time, there have been changes to both the legislative environment relating to air discharges, as well as changes in community values and aspirations. In this section, the report identifies and evaluates the changes in both of these environments since the Stage 1 and Stage 2 Air Plan provisions were made operative in 1999 and 2016 respectively.

Given that a number of years have passed since the Air Plan was originally made operative, some of these change factors will have a significant impact on the upcoming Air Plan review. In summary:

- **National Planning Standards:** The national planning standards have effect as of 2019 and set directions for the structure and content of district and regional plans and the upcoming Air Plan review must follow this new structure. The structure does not fully align with either the Stage 1 or Stage 2 provisions, so a comprehensive rework of the Air Plan to fit this structure will likely be required.
- **NES-AQ:** Several inconsistencies with the current NES-AQ will be required to be resolved in the Air Plan review. Additionally, the consultation document[18] on the proposed changes to the NES-AQ signal significant changes for all regional air plans to transition measuring and regulating $PM_{2.5}$ emissions, in addition to PM_{10}.
- **Southland Regional Policy Statement:** The Southland Regional Policy Statement ("**RPS**") contains a number of directive policies which in some cases provide stronger direction to the regulation of air discharges than that provided for in the Stage 2 provisions of the Air Plan. These policies will need to be given effect to in the review of the Air Plan.
- **Other changes:** Several MfE good practice guidance documents have been developed in the last several years which, when the Air Plan is reviewed, will influence the associated guidance that is provided both within and outside the Air Plan.
- **Emerging issues and perceptions:** Community practices, perceptions and concerns regarding the environment and air quality have changed over time. There is a lower tolerance for poor air quality, industrial emissions and other emissions such as dust from unsealed roads and quarrying in the rural environment. Land uses have changed over time, and there is a greater awareness of climate change.

[18] Ministry for the Environment. 2020. Proposed amendments to the National Environmental Standards for Air Quality: particulate matter and mercury emissions – consultation document. Wellington: Ministry for the Environment.

An assessment underpinning the above findings is set out in Sections 3.1 to 3.4 below.

3.1 NATIONAL LEGISLATIVE AND POLICY CHANGES

Since Stage 2 of the Air Plan was made operative in 1999, and Stage 1 in 2016, there have been many changes to the regulatory and policy environment, including:

- 13 Resource Management Amendment Acts between 2002 and 2017;
- The introduction of five national policy statements[19] relating to urban development capacity, freshwater management, renewable electricity generation, electricity transmission and the coastal environment between 2008 and 2018;
- The introduction of six national environmental standards[20] relating to drinking water, telecommunication facilities, electricity transmission activities, contaminated soil and plantation forestry between 2004 and 2019; and,
- The introduction of New Zealand's National Planning Standards[21] in 2019.

A number of new and amendments to existing national policy statements and environmental standards have also recently been proposed by MfE, including:

- A proposed new National Policy Statement for Urban Development ("**NPS-UD**"). This will replace the existing National Policy Statement for Urban Development Capacity and will likely take effect early to mid-2020;
- Proposed amendments to the National Policy Statement for Freshwater Management ("**NPS-FM**"), due to take effect mid-2020;
- A proposed new National Policy Statement for Indigenous Biodiversity ("**NPS-IB**"). The timeframe for implementation is unknown;
- Proposed amendments to the National Environmental Standard for Air Quality 2004 ("**NES-AQ**"). Public consultation on this has recently concluded;
- A proposed new National Environmental Standard for the Outdoor Storage of Tyres ("**NES-OST**"). The timeframe for implementation of the NES-OST is unknown; and

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[19] Including the National Policy Statement on Urban Development Capacity 2016, the National Policy Statement for Freshwater Management 2011, the National Policy Statement for Renewable Electricity Generation 2008; the National Policy Statement on Electricity Transmission 2008 and the New Zealand Coastal Policy Statement 2010.

[20] Including the National Environmental Standards for Air Quality 2004, the National Environmental Standard for Sources of Drinking Water 2008, the National Environmental Standards for Telecommunication Facilities 2016, the National Environmental Standards for Electricity Transmission Activities 2009, the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2012 and the National Environmental Standards for Plantation Forestry 2018.

[21] The National Planning Standards November 2019.

- A proposed new National Environmental Standard for Marine Aquaculture ("**NES-MA**"). The NES-MA is likely to take effect in 2020.

Of the above, the introduction of the NES-AQ in 2004, subsequent amendments in 2011, and associated upcoming changes, are of most relevance to the efficiency and effectiveness evaluation. The MfE good practice guidance documents are also particularly relevant, as are The National Planning Standards, which will influence the structure of any future plan changes moving forward.

3.1.1 National Environmental Standards for Air Quality 2004

The National Environmental Standards for Air Quality ("**NES-AQ**") first came into effect in October 2004. The purpose of the NES-AQ is to set a minimum level of health protection for all New Zealanders. At that time, there was a strong need for action on ambient levels of particulate matter less than 10 micrometres (PM_{10}) in most parts of the country, largely due to emissions from solid fuel domestic heating appliances in winter.

A national review of the NES-AQ was undertaken during 2009 to 2011 due to community concerns around the stringency of the ambient standard, the lack of equity for industrial air pollution sources, and the difficulty in achieving the original times for meeting the thresholds in the 2004 NES-AQ. As a result, further amendments were made to the NES-AQ in 2011 to address these matters.

The operative NES-AQ sets outs 14 separate but interlinked standards. These include:

- seven standards banning activities the discharge significant quantities of dioxins and other toxics into the air;
- five standards for ambient (outdoor) air quality;
- a design standard for new wood burners installed in urban areas; and
- a requirement for landfills over 1 million tonnes of refuse to collect greenhouse gas emissions.

MfE are currently consulting on changes to the NES-AQ namely to incorporate additional standards for $PM_{2.5}$. Submissions on this consultation process closed on 24 April 2020. This process will likely result in a review to the NES-AQ.

The proposed changes that were consulted on would require regional councils to:

- monitor daily and monthly averages of $PM_{2.5}$ and notify breaches, in addition to the existing monitoring requirements for PM_{10}, and update their particulate monitoring requirements;
- implement new emission and efficiency standards for solid fuel burners; and

- Prohibit use of mercury in industrial processes specified in Annex B of the Minamata Convention and incorporate by reference international best practice guidelines for emissions that may contain mercury.

A MfE comparison of the proposed changes and existing provisions is attached as **Appendix C**.

The $PM_{2.5}$ changes are proposed as the NES-AQ only currently addresses the emission of PM_{10}, and measuring $PM_{2.5}$ is a better indicator of the health impacts of air discharges, as it is more hazardous to people's health than the larger PM_{10} particles. This will bring New Zealand in line with current practice internationally.

The new $PM_{2.5}$ standards are proposed to retain all the requirements of the current PM_{10} standard, including monitoring, public notification of breaches and replace the mitigation measures for breaching the standards[22] (e.g. declining or offsetting discharges in airsheds and prohibiting open fires). A transition period is proposed to allow councils to purchase equipment and implement $PM_{2.5}$ monitoring so that these are in place before the standards apply and to transition provisions onto the $PM_{2.5}$ regime.

The emissions standard for newly installed, solid-fuel burners is proposed to be reduced from the current standard of 1.5g/kg to 1.0g/kg. Additionally, all types of solid-fuel burners will now be regulated under the existing burner regulations that prohibit discharges from newly installed, domestic burners unless they meet the emissions limit and thermal efficiency standards.

MfE have estimated the total costs of the proposed amendments to be $97.7 million over 10 years, and the total benefits in terms of avoided health costs as $820.2 million over 10 years.

Once the new reviewed NES-AQ is gazetted, regional councils would need to amend their plans as soon as practicable to remove any duplicate or conflicting provisions. Provisions that are more stringent than the NES-AQ can be kept (if existing) or developed.

Preliminary reporting was undertaken in 2017 to understand what impacts future changes would have on the Southland Region and the existing ambient air quality targets in the Air Plan[23]. To prepare for the upcoming potential changes, Council has been monitoring $PM_{2.5}$ in Gore, Winton and Invercargill for more than last 12 months.

Based on the monitoring data gather to date, reporting $PM_{2.5}$ exceedances is likely to result in a significantly greater number of reported exceedances for the current air quality

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22 Which will replace the current mitigation standards for PM_{10}.

23 Assessment of the impacts of regulatory measures targeting domestic home heating on annual average $PM_{2.5}$ in Invercargill and Gore, 2017, prepared for Environment Southland by Environet.

conditions. There is currently no information available about how long the transition period may be in the proposed changes to the NES-AQ. An adequate transition period will be needed to address these changes proactively and effectively with Southland stakeholders and communities.

There is an opportunity for the timing of the upcoming review of the Air Plan to align with any future changes which may be required by the amended future NES-AQ.

3.1.2 National Planning Standards

The National Planning Standards can into force in 2019 and contain prescriptive requirements around the structure and format of plans[24] that regional councils must adopt within 10 years. At a high level, any future proposed Air Plan will be required to:

- Structure the Air Plan in three parts. Specifically, the Plan will need to be separated into three distinct sections comprising of:

  Part 1: Introduction and General Provisions,

  Part 2: Management of Resources, and

  Part 3: Appendices and Maps.

- Within Part 1: Introduction and General Provisions, the Air Plan will be required to establish five sections addressing the following matters: Introduction, How the Plan Works, Interpretation, National Direction and Instruments and Tangata Whenua / Mana Whenua. These must be addressed in this order.
- Within Part 2: Management of Resources, the Air Plan will be required to establish two sections relating to integrated management (optional), and domains (specifically air).
- Within Part 3: Appendices and Maps, the appendices and maps must be separated into two separate chapters.

Refer to **Appendix D** attached for a more detailed breakdown of what each section is required to contain.

The current structure of both Stages 1 and 2 of the Air Plan do not currently accord with the mandatory structure set out in the National Planning Standards. A high-level evaluation of the alignment of Stages 1 and 2 with the National Planning Standards is set out in Table 2 below. Note that the evaluation in Table 2 is not intended to be a complete or fulsome evaluation of all of the changes required to achieve alignment. Overall, the Air Plan will require a reasonable degree of restructure and updates (particularly to the naming conventions) in order to achieve alignment.

[24] Enabled in accordance with sections 58B–58J of the RMA.

Table 2: High level evaluation of alignment of Stages 1 and 2 of the Air Plan with the National Planning Standards 2019

Part 1 Introduction and General Provisions		
Section	**Evaluation of Stage 1 alignment**	**Evaluation of Stage 2 alignment**
Introduction **How the plan works** **Interpretation** **National Direction Instruments** **Tangata Whenua / Mana Whenua**	Stage 1 requires restructuring to align with this section of the planning standards. Primarily: ○ The introduction would need to be reworked into a purpose statement. ○ The contents page would remain. ○ The definitions require relocation from the rear of the Plan to the introductory section. Abbreviations used in the Plan also require definition at the front end. ○ The relevance of all of the national policy statements and environmental standards requires clear articulation within this section. A new section would be required that describes the relationship between spatial layers. A new section relating to Tangata Whenua / Mana Whenua is required. The definitions require updating to align with the standardised definitions. Such changes may result in substantive changes to the provisions if the nature of the definitions is substantively different.	Stage 2 introductory sections are located across five chapters of the Air Plan. These require significant consolidation and refinement in order to be located within the relevant sections identified in the planning standards. More specifically: ○ The introductory section requires consolidation and rework with the "purpose" statement. ○ The statutory context addresses a number of pieces of legislation that are not generally considered relevant in a planning context. ○ The contents page would remain. ○ The definitions and cross boundary issues require relocation from the rear of the Plan to the introductory section. All abbreviations used in the Plan also require definition at the front end. Stage 2 predates all of the national policy statements and environmental standards. A new section would therefore be required to address these legislative changes. A new section would be required that describes the relationship between spatial layers. A new section relating to Tangata Whenua / Mana Whenua is required. The definitions require updating to align with the standardised definitions. Such changes may result in substantive changes to the provisions if the nature of the definitions is substantively different.

Part 2 Management of Resources		
Integrated Management **Domains (Air)**	Stage 1 sets out the provisions in separate chapters as follows: Chapter 1: Issues, Chapter 2: objectives, Chapter 3 Policies, Chapters 4-7 Rules. Immediately following each rule is an explanation for the rule. The above structure does not align with the planning standard requirements. ○ Stage 1 includes separate chapters for each provision type (i.e. issues, objectives, policies, etc). The planning standard requires that provisions be grouped by provision type and contained within a single chapter. The existing seven chapters containing issues, objectives, policies and rules will therefore require consolidation into a single chapter to align with the planning standards. ○ The nomenclature requires updating to align with the planning standards. For example, if "explanations" require renaming to "Principal Reasons". ○ Provision referencing requires updating to align with the naming conventions. For example, AIR-OB1 (for Objective 1), AIR-POL1 (for Policy 1) and AIR-RU1 (for Rule 1).	Stage 2 sets out the provisions based on topics. E.g., for each topic, there is an introduction, followed by the associated objectives, policies, method, principal reasons and outcomes. The above structure does not align with the planning standards. ○ The standards do not provide for an introduction at the start of each "sub-section". ○ The sub-sections are currently grouped into separate chapters. These would need to be located within a single chapter. ○ The issue statements are currently located at the front end of the Stage 2 Air Plan. These would need to be brought into this section. The use of principal reasons is consistent with the planning standards. While Stage 2 uses "Outcomes", these are akin to "Anticipated Environmental Results" and could therefore be updated with relative ease. Provision referencing requires updating to align with the naming conventions. For example, AIR-OB1 (for Objective 1), AIR-POL1 (for Policy 1), AIR-RU1 (for Rule 1) and AIR-ME1 (for Method 1).
Part 3 Appendices and Maps		
Appendices **Maps**	Minor amendments are required to the appendices structure to create alignment with the planning standards. For example, updates to the naming convention.	Minor amendments are required to the appendices structure to create alignment with the planning standards. For example, updates to the naming convention.

3.2 REGIONAL STATUTORY AND NON-STATUTORY POLICY CHANGES

3.2.1 Southland Regional Policy Statement 2017

In 2017, the second generation Southland Regional Policy Statement ("**RPS**") become operative. The RPS provides an overview of the significant resource management

challenges for the Southland Region, including issues of significance to tangata whenua, and includes objectives, policies and methods for resolving such issues. The RPS also contains measures to indicate whether the objectives have been achieved.

Air quality related matters are specifically addressed within Chapter 9 of the RPS. It is recognised as a key resource management issue for the region that the discharge of contaminants to air (including odour, particulate matter, dust and chemicals) can have adverse effects on the environment, amenity values and community wellbeing. A second issue relates specifically to the gazetted airsheds in Invercargill and Gore, where discharges to air from burning solid fuel for domestic heating can result in elevated levels of particulate matter and poor winter air quality. Both these factors can have adverse effects on human health and the environment.

To address these issues, the RPS contains objectives that seek to:

- Enable the discharge of contaminants into air while managing the adverse effects of those contaminants on human health and wellbeing, and the environment;[25] and,
- Ensure that new activities do not hinder the region's ability to achieve compliance with national environmental standards and guidelines for ambient air quality.[26]

Associated policies seek to achieve the above outcomes by:

- Seeking to avoid, remedy or mitigate the adverse effects of discharges of contaminants to air on human health, cultural and amenity values and the environment;[27]
- Avoiding the establishment of new activities that are potentially incompatible with existing activities lawfully discharging to air;[28]
- Improving areas with poor air quality, focusing in particular on reducing adverse effects of activities that discharge particulate matter;[29]
- Maintaining or enhancing air quality in areas where compliance with national environmental standards or guidelines for ambient air quality has been achieved or surpassed; [30] and

[25] Objective AQ.1 Discharge of contaminants.

[26] Objective AQ.2 New activities.

[27] Policy AQ.1 Adverse effects of discharges.

[28] Policy AQ.2 Incompatible land uses.

[29] Policy AQ.3 Areas with poor air quality.

[30] Policy AQ.4 Maintain or enhance air quality.

- Promoting and facilitating the adoption of best practicable options (BPO) to improve air quality.[31]

The chapter also contains methods to ensure the objectives are being achieved. With respect to the regional council, these methods provide guidance around the key issues to be addressed within the regional Air Plan; the monitoring and research to be undertaken, as well as the public awareness, information sharing and education work to be undertaken. A number of methods also guide the development of District Plans as well as encourage the use of financial incentives, strategies, the development of industry guidelines and programmes and bylaws to address air quality matters. Community and stakeholder consultation and collaboration is also a focus of the methods. For a detailed overview of the planning methods pertaining to air quality, refer to **Appendix E** attached.

The RPS also identifies a number of key resource management issues for tangata whenua, along with a number of objectives and policies that seek to address each of the issues. The objectives and associated policies specifically seek to:

- Ensure the principles of the Te Tiriti o Waitangi are taken into account in a systematic way through effective partnerships between tangata whenua and local authorities, which provide the capacity for tangata whenua to be fully involved in council decision-making processes;[32]
- Encourage all local authority resource management processes and decisions take into account iwi management plans; [33]
- Ensure mauri and wairua are sustained or improved where degraded, and mahinga kai and customary resources are healthy, abundant and accessible; [34]
- Appropriately manage and protect wāhi tapu, wāhi taonga and sites of significance;[35] and,
- Ensure Māori are able to develop and use their land and resources and provide for their social, economic and cultural wellbeing, in a manner that is sustainable.[36]

The RPS policies in several cases provide stronger direction to the regulation of air discharges than that provided for in the Stage 2 provisions of the Air Plan, particularly regarding managing reverse sensitivity, adopting the BPO and ensuring new discharges do not hinder the achievement of the NES-AQ standards. The RPS also provides a strong

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[31] Policy AQ.5 Promote best practicable option.

[32] Objective TW.1 Decision making and partnerships with tangata whenua.

[33] Objective TW.2 Provision for iwi management plans.

[34] Objective TW.3 Tangata whenua spiritual values and customary resources.

[35] Objective TW.4 Sites of cultural significance.

[36] Objective TW.5 Provision for Māori land and resources.

level of direction regarding tangata whenua values. These policies will need to be given effect to in the review of the Air Plan.

3.2.2 Compliance Policies October 2017

In 2017, the Council produced three compliance policies[37] to help provide clarity around Environment Southland's compliance monitoring enforcement programmes. Collectively, these policies identify how the compliance team will prioritise compliance monitoring and the approach they will use for enforcement.

With respect to monitoring, a risk-based monitoring approach is used where activities that carry a higher risk of harm to human health or the environment are given greater compliance monitoring priority.

The Council has also adopted a proactive "4E's" policy when undertaking compliance monitoring and enforcement programmes, with the focus of each "E" being around engagement, education, enablement and enforcement, as follows:

- **Engage:** consult with monitored parties, stakeholders and the community on matters that may affect them to facilitate greater understanding of challenges and constraints, engender support and identify opportunities to work with others.
- **Educate:** alert monitored parties to what is required to be complied with consent conditions, and where the onus lies to be compliant. Education also involved informing the community and stakeholders about regulations to encourage a better understanding of what is compliant and what is not.
- **Enable:** provide opportunity for monitoring parties to be exposed to industry best practice and regulatory requirements.
- **Enforce:** where breaches of regulation or non-compliance are identified, utilise an array of enforcement tools to bring about positive behavioural change.

The proactive engagement approach is further set out in the enforcement policy, with the introduction of a "three contact concept" which is intended to keep both the public and consent holders as informed as possible. The three contact concept promotes contact:

1. **Prior** to an issue arising;
2. **Present,** at the time of an incident; and,
3. **Post,** during the investigation stage.

The third compliance policy relates to the Council's Diversion Scheme and is only triggered if enforcement action is necessitated through prosecution. The Diversion

[37] Environment Southland Compliance Policies, October 2017.

Scheme policy sets out how the Council will lawfully exercise its prosecutorial discretion to provide non-compliant consent holders an opportunity to complete specified requirements within a fixed timeframe to avoid prosecution or conviction.

3.2.3 Compliance Plan 2019

In 2019, the Council released its compliance plan for the 2019 calendar year. The objective of the compliance plan was to identify the Council's compliance priorities for 2019. The priorities chosen were based on the risk-based approach outlined in the 2017 compliance monitoring policy. Of relevance to this evaluation is compliance priority 2, which involves "reducing discharges from domestic burning, improving air quality". The issues, actions, outputs and outcomes associated with this policy are set out in Table 3 below:

Table 3: Compliance Plan actions relating to air quality

Issue	Action	Regulatory Outputs	Outcome
Domestic smoke discharges within the airshed			
Air pollution (from domestic burning) within air sheds has been identified as a major factor in health related issues	*Undertake an education and enforcement programme that ensures burning is conducted in accordance with the Regional Air Plan*	• *Proactive education of correct burning processes* • *Information freely available on website* • *Increase of appropriate regulatory action where breaches of consent conditions, legislation, NES or plan rules are identified*	• *Improved compliance with plan rules* • *Increased understanding of the domestic heating practices to assist in regulating and improving environmental performance*
Large and small- scale industrial discharges			
Air emissions from industrial activities are a significant community concern	*Undertake a monitoring project with all industrial air discharges to ensure they are consistent with consent conditions utilising ground inspections, auditing samples and auditing results*	• *Compliance audit reports on premises audited as part of strategic compliance review* • *Increased monitoring of industries that have received enforcement action in previous years* • *Report performance in compliance monitoring report*	• *Improved compliance with consent conditions* • *Increased understanding of the industry's practices to assist in regulating the industry and improving environmental performance*

Issue	Action	Regulatory Outputs	Outcome
		• *Complete audit samples* • *Appropriate regulatory action where breaches of consent conditions, legislation, NES or plan rules are identified*	
Outdoor burning			
Air emissions from outdoor burning are a significant community concern	*Undertake an education and enforcement programme that ensures burning is conducted in accordance with the Air Plan.*	• *Education of correct burning processes* • *Information available on website* • *Increase regulatory action for breaches of conditions, legislation, NES or rules*	• *Improved compliance with plan rules* • *Increased understanding of the outdoor burning practices to assist in regulating and improving performance*

3.3 OTHER CHANGES

MfE have produced good practice guides since the Stage 2 provisions were made operative in 1999 to help regional councils meet their obligations under the Act by providing a nationally consistent approach to monitoring, assessing and managing air discharges. These include:

- Good practice guide for air quality monitoring and data management;
- Good practice guide for assessing discharges to air from land transport;
- Good practice guide for assessing discharges to air from industry;
- Good practice guide for atmospheric dispersion modelling;
- Compliance monitoring and emission testing of discharges to air;
- Good practice guide for assessing and managing odour;
- Good practice guide for assessing and managing dust;
- Good practice guide for monitoring and management of visibility in New Zealand;
- Good practice guide for preparing emissions inventories; and
- Ambient Air Quality Guidelines.

Council staff have contributed to the development of a number of these guidance documents and a review of a sample of resource consents demonstrates that the good practice guides are used by Council staff in the assessment of resource consent applications for discharges to air[38]. Although Council's practice is in accordance with the guidance, the provisions in the Air Plan need to catch up. As the Stage 2 provisions of the Air Plan were made operative prior to this guidance, the guidance, explanations and provisions in the Air Plan will require updating so that they are consistent with the guidance where applicable.

Additionally, MfE is the early stages of considering a comprehensive review of all environmental regulation in New Zealand. National consultation on reform issues and options has recently closed[39]. This may include significant future changes to the RMA and related legislation, including integrated resource management, and climate change.

3.4 EMERGING ISSUES AND PERCEPTIONS

In addition to the regulatory changes factors, community practices, perceptions and concerns regarding the environment and air quality have also changed over time. Upon review the outcomes of engagement through this process, complaints received by Council, engagement on the 2018 Scoping Report, and submissions in the Stage 1 review, it has been observed that:

- Transitioning existing activities to the best practicable option over time is a challenge and some stakeholders consider there could be different requirements for achieving the best practicable option for new industry and existing industry;
- Some stakeholders consider that the review could recognise where existing consent holders have a good compliance record when setting consent durations;
- Changes in rural land use have changed over time and the increase in more intensive agricultural activities will necessitate the consideration of how these should be addressed in the air plan review. For example, odour from intensive dairy activities (effluent, feedlots, wintering), dust from rural based larger scale quarries;
- Some stakeholder consider that combustion activities should be lowered, particularly for industrial and trade premises (not addressed in the Stage 1 review);
- There is a need to improve the integrated management of air quality across district and regional functions. E.g. the management of dross, reverse sensitivity, odour, dust from gravel roads and increased heavy transport;

[38] For example, in APP-20136298, APP20181437.

[39] Transforming the resource management system: opportunities for change, issues and options paper, Resource Management Review Panel, 2019.

- Community perceptions regarding air quality has been changing over time and have even changed since the Stage 2 review. Communities are much less tolerant of air discharges and are more aware of the effects of outdoor burning, burning coal and burning wet wood. Some questioned if outdoor burning should be prohibited outright;
- Communities are much more aware of the impacts of climate change and the impacts discharges have on climate change. Climate change impacts and implications (e.g. meteorological changes) will need to be assessed when preparing the upcoming Air Plan review. There will likely be a strong community expectation that Environment Southland as the regulator is taking appropriate action on climate change and air emissions;
- The Stage 1 review highlighted the need for Council to carefully review the provisions regarding industrial and trade premises and provide good information about what these activities contribute in terms of effects on air quality. Some consider these discharges to be a significant contributor to poor air quality in Southland. Greater public information of the contribution of industry to particulate and other emissions is needed.

4. EFFECTIVENESS OF AIR PLAN OUTPUTS

This section of the report evaluates whether the Plan provisions have been implemented. It evaluates whether the methods and rules have been implemented through resource consents and plan monitoring and compliance, the implementation of non-regulatory methods, and Te Ao Mārama involvement.

In summary, the outputs of the Plan are effective. Environment Southland is delivering well on most of the required consenting, monitoring, compliance, enforcement and non-regulatory requirements:

- **Resource consents:** With regards to the Stage 2 rules in the Air Plan, the resource consent process has been effective in regulating discharges to air from industrial and trade premises. Processing costs are reasonable, and the proportion of the notified consents is appropriate compared to national data. The effectiveness of the Stage 1 ambient air quality rule framework is difficult to assess without longer term air quality monitoring data and data regarding the update of the provisions over time.
- **Compliance monitoring:** Council's monitoring of ambient air quality is comprehensive, and the regular reporting of compliance results over time is helpful in understanding emission trends. It is noted however that as yet, monitoring has not demonstrated an improvement in air quality in the Invercargill and Gore airsheds. The monitoring of resource consents also appears to be operating effectively, with annual reports demonstrating environmental performance by industry/major consent holders.
- **Incidents and enforcement:** The use of compliance and enforcement tools is effective. Council utilises the full suite of enforcement tools available, and the complaints and incidents system is responsive.
- **Transfer of powers:** The methods regarding the transfer of powers have not been utilised to regulate air discharges.
- **Non-regulatory methods:** Environment Southland are very effective in the implementation of non-regulatory methods. Council provides a good level of information and educational material offering guidance, assistance and support to individuals, communities and businesses regarding ambient air quality (relating to home burners in particular), odour and vehicle emissions. However, other than identifying that industry and trade contribute little to PM_{10} concentrations in Southland, it is noticeable that there is less information and guidance regarding industrial and trade air emissions than there is for other air quality issues.
- **Tangata whenua involvement:** Overall, there is a good level of tangata whenua involvement in air quality management by Environment Southland. Te Ao Mārama involvement in the resource consent process is working effectively. Additionally, the partnership approach taken to the State of the Environment Report was effective, and

Te Ao Mārama have expressed a view that the same approach should be adopted for environmental reporting and policy and plan development in the future. Allowing sufficient time and resources for a collaborative and partnership approach will be critical for its success.

An assessment underpinning the above findings is set out in Sections 4.1 to 4.6 below.

4.1 APPLICATION OF REGIONAL RULES

Regional plans are required to state the objectives for the region, the policies to implement the objectives, and the rules (if any) to implement the policies.[40] Rules in regional plans have two purposes:

- assisting the Council to carry out its functions under the RMA; and
- achieving the objectives and policies of the Plan.

In accordance with s68(c)of the RMA, regional councils shall have regard to the actual or potential effect on the environment of activities, including, in particular, any adverse effect when making a rule.

Rules are utilised in Stage 1 of the Air Plan as the primary method to achieve the objectives and policies regarding discharges of contaminants from domestic heating, outdoor burning, agrichemical and fertiliser use and fire training. In Stage 2 of the Air Plan, rules are not utilised to manage ambient air quality, odour or motor vehicle emissions. Instead, Stage 2 relies on non-regulatory methods to manage these discharges.[41] Conversely, rules and regulatory methods are utilised to manage the discharge of contaminants into air from industrial or trade premises.

The rules relating to industrial and trade premises are the key regulatory methods for achieving the outcomes, objectives and policies of the Air Plan. The rules cover the full ambit of activity classifications from permitted activities through to prohibited activities. The majority of the rules outline activities which are permitted (often with conditions) or require resource consent. As permitted activities do not require resource consent, they are not specifically monitored by the Council (aside from the wider monitoring of PM_{10} concentrations considered subsequently in this report), therefore this section focuses on those rules that require resource consent to be obtained.

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[40] Section 68(1) of the RMA.

[41] It is noted that the rules used to manage the discharge of contaminants into air from industrial or trade premise also manage odour.

4.1.1 National Context

The Ministry for the Environment maintains a "National Monitoring System" which contains annual information provided by local authorities around New Zealand regarding their functions and processes under the Act. This database is used by the Ministry to monitor whether Councils are fulfilling their responsibilities under the RMA, to provide an evidence base for any legislative or policy changes, and to measure the success of RMA reforms. The database can also be utilised by Councils to benchmark their performance with other Councils around the county.

To provide national context, based on data from the last two reported financial years (2016/2017 and 2017/2018), a total of 436 applications were made for air discharge permits nationwide. Of these applications, 403 were granted, two were declined, 16 were returned as incomplete, and 15 were withdrawn. The distribution of granted consents is illustrated in Figure 7 below.

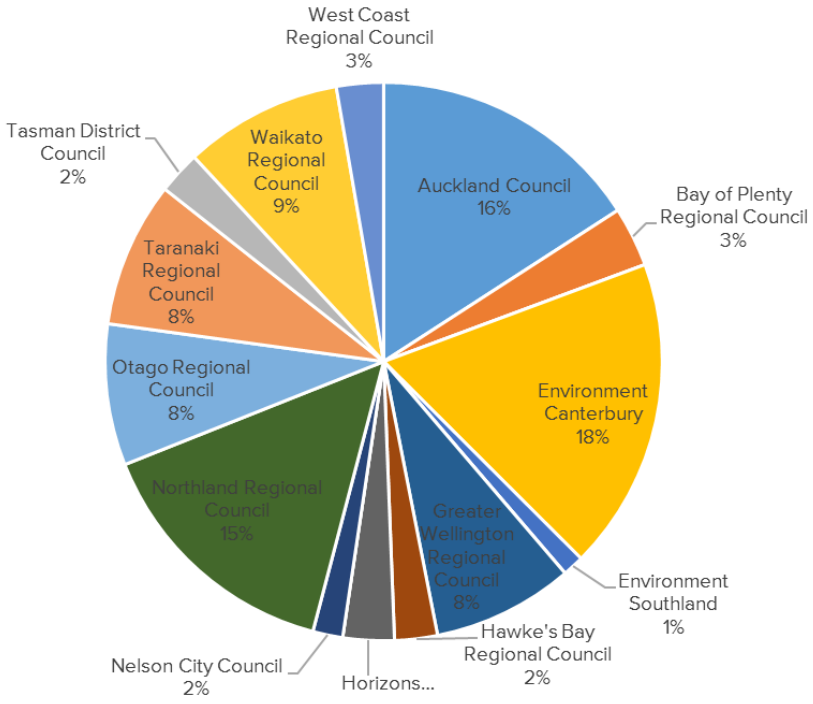

Figure 7: Nationwide distribution of air discharge permits granted for the two financial years from 2016/207 and 2017/2018[42]

Of the 436 applications received nationally, 6% were publicly notified, 5% limited notified and 85% non-notified. 4% were not notified at all as they were returned as incomplete or

[42] Data sourced from the Ministry for the Environment's National Monitoring System.

were withdrawn before notification. One application was withdrawn post public notification.

1% of all applications were in the Southland Region. All of the applications granted by Environment Southland during this period were granted on a non-notified basis.

4.1.2 Resource Consent for Air Discharges in Southland

305 air discharge permits have been lodged since the Air Plan was originally made operative in March 1999. Of these, 207 have been granted. Of the 98 not granted, two were declined due to the level of adverse effects, and the others were returned as either incomplete, were discontinued or were 'rolled up' into other consents.

Of the air discharge consents granted, 120 are current and have not yet expired, 88 have expired, and approximately 30 have been superseded by variation consents.[43] An average of 10 resource consents were approved annually.

Figure 8 below illustrates the number of resource consents[44] granted each year:

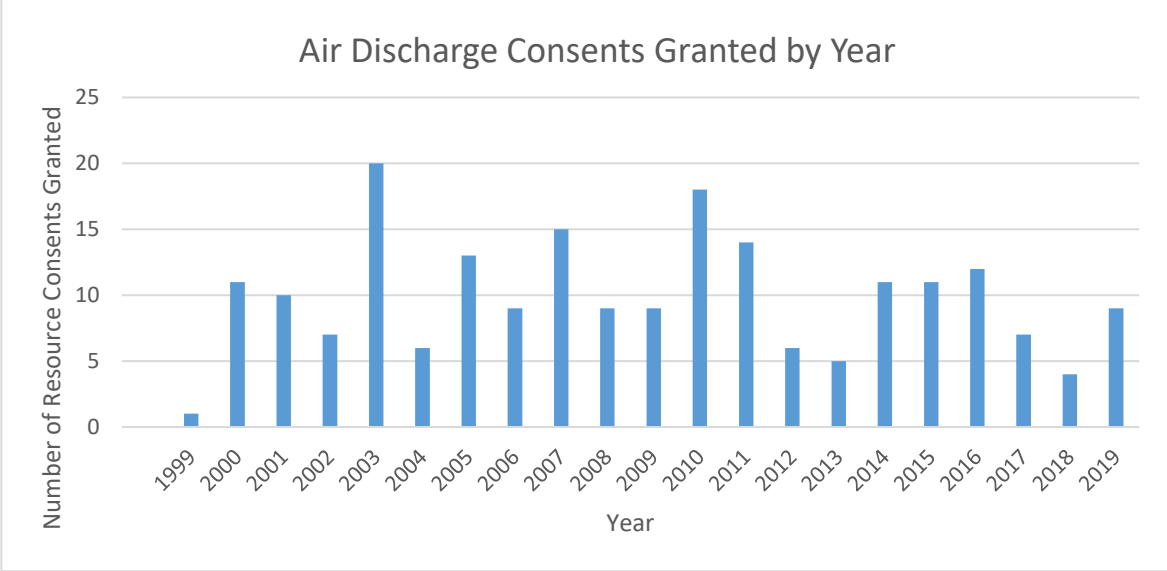

Figure 8: Air Discharge Consents Granted by Year[45]

In terms of the types of air discharge consents processed, based on the dataset provided, almost all resource consents processed since Stage 1 of the Air Plan was made operative

[43] Variation resource consents have been recorded inconsistently in the dataset, so this number is not likely to be reflective of the total number of variation resource consents approved, particularly where multiple iterative variations have been issued against the same consent.

[44] All consents lodged post March 1999 and inclusive of variations and deemed permitted activities.

[45] Data sourced by Discharge to Air Apps and Auths dataset provided by Environment Southland on 22 January 2020.

(2016) have been for discharges from industrial and trade premises.[46] Of these consents, only two have been for other air discharge activities, being the discharge of contaminants to air from heli-spraying.

4.1.3 Notification

Since March 1999, Environment Southland have made eight decisions to either publicly or limited notify air discharge permit applications. Four of these decisions required public notification and four required limited notification. Of these, six proceeded to a decision, and of those, all were approved.[47]

4.1.4 Fees, Charges and Processing Costs

Resource costs and processing fees for air discharge consents are not fixed and are on a time charge basis. Based on a sample of approved air discharge consents from 2014 to 2019, processing fees ranged from $0[48] to $251,603[49], with an average processing cost of $10,035 and a median processing cost of $3,225. **Figure 9** illustrates the range of processing costs below:

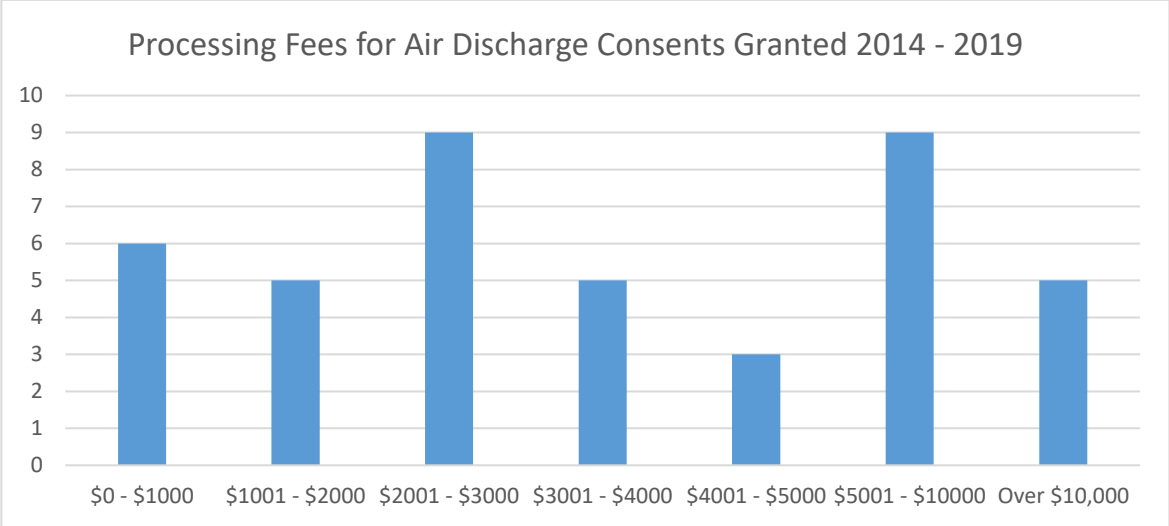

Figure 9: Processing Fees for Air Discharge Consents Granted 2014 - 2019[50]

[46] Data sourced by Air Consents Data for Air Plan Review dataset provided by Environment Southland on 19 December 2019.

[47] Data source by Apps Auths dataset provided by Environment Southland on 20 February 2020.

[48] Three of the 42 resource consents recorded the processing charge as $0, APP-20147475, APP-20158062 and APP-20158062.

[49] APP-20169938, APP-20171524 and APP-20158595.

[50] Data sourced by Air Consents Data for Air Plan Review dataset provided by Environment Southland on 19 December 2019.

Of the 42 resource consents approvals, over half of these were processed for less than $5,000, and only five were processed over $10,000. **Figure 10** illustrates this below:

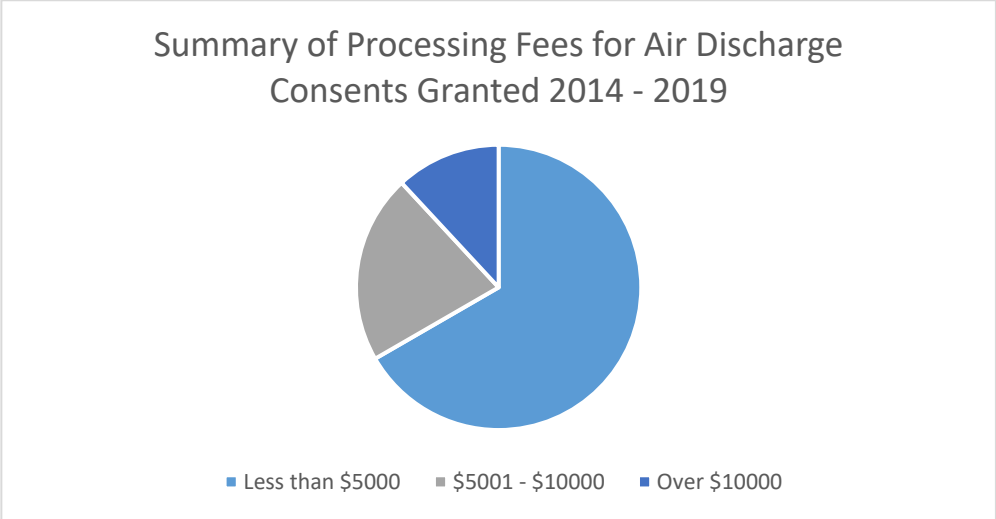

Figure 10: Summary of Processing Fees for Air Discharge Consents Granted 2014 - 2019[51]

When comparing the consent processing costs of Environment Southland against the processing costs nationally, based on a review of national 2017/18 and 2018/19 MfE data, the processing costs at Environment Southland are generally lower than other regional councils[52].

For the 2017/2018 year, Environment Southland processed four non notified air discharge permits with an average costs of $2,411, against an average national cost for non-notified air discharge permits of $3,453. For the 2018/19 year, Environment Southland processed five non notified air discharge permits with an average costs of $2,152, against an average national cost of $4,869.

4.1.5 Analysis of the Application of Rules

With regards to the Stage 2 rules, overall, the resource consent process has been effective in regulating discharges to air from industrial and trade premises. Processing costs are in most cases reasonable[53], and the proportion of the notified consents is appropriate.

As the Stage 1 provisions provide a permitted framework, followed by a cascade of discretionary and non-complying rules, it can be assumed anecdotally that outdoor

[51] Data sourced by Air Consents Data for Air Plan Review dataset provided by Environment Southland on 19 December 2019.

[52] Data Source from the Ministry for the Environment National Monitoring System – 2017/18 and 2018/19 years.

[53] It is noted that the processing fees for APP-20158002 was $251,602.

burning, spraying and fire training activities are largely operating in Southland in accordance with the permitted framework where all persons are compliant with the rules. Outdoor burning complaints and spray drift complaints received by Council staff indicate that some activities are not always compliant. The rules are reliant on people operating within the permitted framework, and although complaints and incidents are responded to promptly, as this process is reactive to complaints, it is not easy to quantify the level of non-compliance (especially in instances where no complaints to Environment Southland are made).

As the small-scale fuel burning appliance rules operate under a permitted/prohibited framework, no resource consents have been approved for these activities where the appliances do not comply with the Plan. The effectiveness of this framework is difficult to assess without longer term air quality monitoring data and data regarding the uptake to more efficient home heating over time. In particular, there are difficulties in being able to measure the individual uptake to more efficient household burners. As such it may be the case that there are currently discharges to air in the Gore and Invercargill airsheds that are not compliant and are therefore prohibited activities.

4.2 COMPLIANCE MONITORING

This section of the report evaluates the results of compliance monitoring in accordance with the Air Plan methods and requirements of the RMA.

Methods 4.4.1 and 4.4.3 of Stage 2 of the Air Plan relate to the establishment and maintenance of a monitoring programme and associated database to measure and evaluate ambient air quality. Method 4.4.6 sets out that discharges of contaminants from consented activities will be monitored. Method 8.4.2 also sets out that concentrations of pollutants at selected intersections at times of peak traffic flow will be monitored.

Overall, monitoring of both ambient air quality and of approved response consents is effective in achieving the Air Plan methods. However, it is noted that the results of this monitoring in relation to ambient air quality demonstrates that there is still a way to go to achieve good ambient air quality in the Invercargill and Gore airsheds in winter.

4.2.1 Monitoring of Ambient Air Quality

Monitoring in the Invercargill and Gore airsheds, and in Winton is undertaken by Environment Southland to monitor PM_{10} concentrations over time in accordance with the NES-AQ and Ambient Air Quality Guidelines 2002. Air quality monitoring of PM_{10} has been carried out in Invercargill since 2003, in Gore since 2006, and in Winton since 2013. Environment Southland has recently also commenced air quality monitoring of $PM_{2.5}$ in these same areas.

Recent Environment Southland monitoring publications include:

- annual monitoring reports[54] assessing PM_{10} concentrations for the previous year;
- the state of the environment report prepared by Te Ao Mārama Inc and Environment Southland in 2014;[55] and
- comprehensive reports which asses the trends in in PM_{10} concentrations over time in Invercargill[56] and Gore.[57]

Periodic monitoring of a number of Southland's smaller towns show relatively low and complaint levels of PM_{10}. Although not a gazetted airshed, one exceedance was recorded in Winton during 2016.[58]

Invercargill and Gore are the only towns where monitoring results have shown PM_{10} levels in excess of the NES-AQ.[59] Overall, the monitoring results suggest that there has been no improvement in air quality, nor has there been a significant decrease.[60] However, feedback from some stakeholders have raised whether monitoring is occurring in the correct locations to accurately measure ambient air quality and particulate emissions from domestic burning.

Annual Monitoring Reports

The annual monitoring reports summarise the PM_{10} monitoring undertaken in the Southland region each year. The reports compare the data to the NES-AQ PM_{10} standard of 50 $\mu g/m^3$ (24-hour average). The data in the annual reports is also compared to the

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54 Annual air quality monitoring reports have been produced every year for the years 2007 to 2017. No report was produced for the 2018 year. The annual average limit for PM_{10} in AAQG is the same as that used by the World Health Organisation.

55 Southland's Air, Nga Hau o Murihiku, State of Environment Report, Te Ao Marama Inc, Environment Southland, 2014.

56 Assessing Trends in PM_{10} concentrations in Invercargill from 2009 – 2017, prepared by Environet Limited, dated June 2017.

57 Assessing Trends in PM_{10} concentrations in Gore from 2006 – 2017, prepared by Environet Limited, dated June 2017.

58 The 24-hour average concentration was 55 $\mu g/m^3$, above the 50 $\mu g/m^3$ limit.

59 Being 50 $\mu g/m^3$, with one allowable exceedance.

60 The data in Southland's Air, Nga Hau o Murihiku, State of the Environment Report, Te Ao Marama Inc, Environment Southland, 2014 does illustrate a small increase in the number of exceedances in the Invercargill and Gore airsheds for the periods of 2008-2012.

Ambient Air Quality Guidelines 2002[61] ("**AAQG**") annual average PM_{10} limit of 20 µg/m^3 and MfE's air quality Environmental Performance Indicator ("**EPI**") categories.[62]

The air quality in the Gore airshed does not comply with the NES-AQ. The NES-AQ for PM_{10} allows for one breach of the standard per year and must be achieved by 1 September 2016 for those airsheds with an average of less than 10 exceedances per year over the preceding five year period. Based on the last annual monitoring report produced in 2018,[63] the Gore airshed was required to comply with the PM_{10} standards from 1 September 2016.

The air quality in the Invercargill airshed does not comply with the NES-AQ. Under the NES-AQ, airsheds with average of 10 exceedances or more over that five year period have until 1 September 2020 to meet the standard of no more than one exceedance, but must achieve not more than three exceedances by 2016. The Invercargill airshed falls into this category and has until 1 September 2020 to meet the standard, with an interim target of no more than three exceedances from 1 September 2016.

In assessing the latest annual monitoring report, neither the Invercargill nor Gore airsheds met the NES-AQ PM_{10} standard during 2017. There were 14 exceedances of the 50 µg/m^3 standard for PM_{10} in Invercargill[64] and two exceedances in the Gore airshed. This was however a reduction in five exceedances during the previous year recorded in Gore.[65]

Overall, for the 2017 period, the Air Plan exceeded the NES-AQ PM_{10} standards for ambient air quality within the Invercargill and Gore airsheds. With regards to the ambient air quality outcomes in Stage 2 of the Air Plan, the objectives and policies seek to achieve good ambient air quality. In the current context of the Air Plan, good ambient air quality is that which is considered to achieve the NES-AQ PM_{10} standards.

Good ambient air quality is achieved most times throughout the year in Southland. However, as the NES-AQ PM_{10} standards are not achieved during winter months in Invercargill and Gore, the air quality within these areas is considered poor. It is noted that ambient air quality has also not diminished, and in the case of Gore, appears to be improving. This is evaluated further in the following section on long-term trends.

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61 Prior to 2002, these were the ambient Air Quality Guidelines 1994.

62 PM_{10} concentrations in Invercargill, Gore and Winton were measured using beta attenuation monitors (**BAMs**) which is an NES-AQ approved method, adjusted for gravimetric equivalency and supplemented by High Volume samplers.

63 For the preceding 2017 calendar year.

64 The Pomona Street site in Invercargill recorded all 14 exceedances of the standard. The maximum 24-hour average PM_{10} concentration measured in the Invercargill airshed was 89 µg/m^3. The annual average PM_{10} concentration for Invercargill was 20.3 µg/m^3, just above the AAQG guideline value of 20 µg/m^3.

65 The maximum PM_{10} concentration measured in Gore was 56 µg/m^3 (24hour average) above the 50 µg/m^3 limit. The annual average PM_{10} concentration for Gore was 18.6 µg/m^3, below the AAQG guideline of 20 µg/m^3.

State of the Environment 2014 and long-term trends

The 2014 State of the Environment Report provides a useful summary of the air quality monitoring in Southland between 2003 and 2012.[66] The report considers annual variations in PM_{10} concentrations and 24-hour PM_{10} limits to monitor air quality over time.[67]

The following table from the report illustrates that Invercargill and Gore have annual average PM_{10} concentrations above the World Health Organisation (2006) and Ambient Air Quality Guideline (2002) limit of 20µg/m^3, whilst Te Anau consistently records an annual average of 6µg/m^3, indicating that the town typically experiences good air quality.

Table 4: Annual Average PM_{10} Concentrations in Southland 2003-2013 mg/m^3

	Calendar Year									
Testing Site	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Invercargill at Miller Street	18*	19*	20*	15*	14	14				
Invercargill at Pomona Street						22*	**22**	**24**	**22**	**24**
Invercargill at Glengarry Cr							18			
Invercargill at North Road							16			
Gore			21*	22*	18	20	18	**22**	**21**	**23**
Mataura			15*	15*						
Winton					11*	15*	11*	13*		
Te Anau								6*	6	6
Edendale				10*						
Riverton									10*	11*
Bluff					6*					
Wallacetown								12*		

The report concludes that the 24-hour average PM_{10} limit of 50 µg/m^3 [68] was regularly exceeded during the winter months in Invercargill and Gore during the monitoring period, but that no long-term trends could be observed.[69] Similarly, climatic variations were not

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66 No subsequent State of the Environment report has been prepared.

67 The report summarises that the annual average PM_{10} concentrations are a useful starting point, despite their limitations, as they assist in determining whether a town is likely to have poor air quality, and provide information on long-term population exposure, but can hide very poor seasonal air quality (eg winter time exceedances of the PM_{10} 24-hour standard).

68 As required by the National Environmental Standards for Air Quality (NES-AQ).

69 However, we note that the annual exceedances in Table 4 do demonstrate that the number of exceedances has increased from 2008 – 2012 in both airsheds.

taken into account. The long-term trends for Invercargill and Gore for the 24-hour average PM_{10} limit are considered further below.

Long term trends in PM_{10}

In considering the trends in PM_{10} concentrations over time to the outcomes of the Air Plan and NES-AQ, two reports were produced for Environment Southland for the Invercargill and Gore airsheds for the periods of 2009-2018 and 2008-2017 respectively.[70]

Invercargill

For Invercargill, evaluations of trends between 2004 and 2009 indicated improvements had occurred in the absence of regulations. In 2012, further analysis of data for the period 2009 to 2012 suggested no significant improvement in concentrations.

The report evaluated PM_{10} concentrations factoring in meteorological conditions that influence ambient air quality. The findings of the report concluded that concentrations of PM_{10} were highest when the wind speed between 5pm and midnight was less than 1.3m/s^{-1} and where there were 11 hours or more throughout the day when the temperature was less than 5°C. The second highest pollution dataset was characterised by wind speeds between 5pm and midnight of less than 1.3 m/s^{-1} and less than 11 hours throughout the day when hourly average temperatures were less than 5°C. These two sets of meteorological conditions accounted for 94% of the exceedances of 50µg/m^3 between 2009 and 2016. An evaluation of trends in PM_{10} concentrations on days when these meteorological conditions occurred showed no downward trend in PM_{10} concentrations from 2009 to 2016. Overall, the report concluded there is no clear trend to indicate that PM_{10} concentrations in Invercargill have substantially increased or decreased since 2006.

Gore

For Gore, air quality monitoring of PM_{10} has been carried out since 2006. The Gore airshed is non-compliant with the National Environmental Standard (NES) for PM_{10} as the concentration limit of 50 µg/m^3 (24-hour average, with one allowable exceedance per year, Ministry for Environment, (2004)) is breached during the winter months. Variations in the magnitude of concentrations and frequency of exceedances each year are influenced by meteorological conditions. This makes it difficult to assess any underlying trends in PM_{10} emissions.

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[70] Assessing trends in PM_{10} concentrations in Gore from 2006 – 2017, dated 2017, prepared for Environment Southland by Emily Wilton, Environet Ltd; and Assessing trends in PM_{10} concentrations in Invercargill from 2009 – 2017, dated 2017, prepared for Environment Southland by Emily Wilton, Environet Ltd.

> The 2017 Report followed on from a previous report prepared in 2011, and draws similar conclusions to the previous report, finding that concentrations of PM_{10} were highest when there were more than five hours per day when the hourly average wind speed was less than 1 ms-1 and the average wind speed between 5pm and midnight was less than 0.8 ms-1. Meteorological conditions accounted for 83% of the exceedances of 50 µg/m^3 between 2006 and 2016 in Gore.

The findings for both Invercargill and Gore indicate that climate conditions are a significant contributing factor in PM_{10} exceedances, and that there are no clear trends to indicate that PM_{10} concentrations in Gore or Invercargill have substantially increased or decreased since 2006. Notwithstanding the impact climatic conditions have on PM_{10} levels, reducing the discharge of PM_{10} irrespective of climate is necessary to ensure that over time the NES-AQ requirements can be met. Further monitoring and evaluation of the uptake of efficient small-scale fuel burning appliances, and the contribution of industry and trade to ambient air quality is needed to understand how this transition can contribute to reductions in PM_{10} so that air quality in the airsheds is safe during winter months.

4.2.2 Monitoring of Resource Consents

Method 4.4.6 of Stage 2 of the Air Plan sets out that discharges of contaminants from consented activities will be monitored.

As set out previously, in 2017 Council produced three compliance policies[71] to help provide clarity around Council's compliance monitoring enforcement programmes. Collectively, these policies identify how the compliance team will prioritise compliance monitoring and the approach they will use for enforcement. These policies seek to apply a risk-based monitoring approach so that activities that carry a higher risk of harm to human health or the environment are given greater compliance monitoring priority, and a proactive approach to monitoring. The third compliance policy relates to the Council's Diversion Scheme, which is triggered if enforcement action is necessitated through prosecution, and sets out how the Council will lawfully exercise its prosecutorial discretion to provide non-compliant consent holders an opportunity to complete specified requirements within a fixed timeframe to avoid prosecution or conviction.

The Compliance Plan also sets out the Council's compliance priorities on an annual basis. For the 2019 year, the Plan sought to undertake a monitoring project with all industrial air discharges to ensure they are consistent with consent conditions. Data relating to the completion of this project is not yet available.

Environment Southland publishes annual compliance monitoring reports which summarise the activities of Council's compliance monitoring and enforcement and technical teams

[71] Environment Southland Compliance Policies, October 2017.

throughout the Southland region in accordance with their compliance plan and compliance policies. The compliance reports assess plan compliance by industry rather than consent type. A traffic light system is used to monitor performance with air discharge consents for major consent holders in the meat processing, dairy, fertiliser, mining and quarrying, landfills, sawmill and manufacturing industries and for sewerage and stormwater discharges. For complaints and self-reported incidents, where complaints are received these are investigated and formal warnings and/or infringement notices for consents condition breaches are issued if staff find there is a breach. Compliance with consent conditions is also reported on in the same manner.

The annual monitoring report demonstrates that complaints and resource consent conditions are regularly monitored, and this monitoring is prioritised by risk. The monitoring approach appears to be effective and transparent and therefore gives effect to Method 4.4.6.

4.3 TRANSFER OF POWERS

Stage 2 Method 7.4.4 regarding odour and Method 5.4.5 regarding industrial and trade discharges provide for the transfer of powers to territorial authorities where discharges have only a limited or localised environmental or public health nuisance impact. These methods are enabling and do not require the transfer of powers, but signal where this may be appropriate. The General issues in 1.2.2 also set out that powers may also be transferred for

- *discharges of dust into air from gravel roads;*
- *discharges of contaminants into air from yard fires;*
- *discharges of contaminants into air from fires on beaches;*
- *discharges of dust into air from stockpiles;*
- *nuisance discharges of contaminants into air from domestic home fires.*

Section 33 of the Act provides for the transfer of powers of local authority functions to another public authority if it has followed the special consultative procedures under the Local Government Act and both authorities have agreed to the transfer.[72]

No powers have been transferred to local authorities or any other public authorities since the Air Plan was notified in 1999.

Feedback has been received by some Council staff that the transfer of powers relating to the discharge of dust and odour may help simplify and clarify responsibilities between Environment Southland and the local authorities. This may assist in addressing any

[72] S33(1)-(9) of the Act.

crossover in responsibilities under the RMA and the Health Act 1956. This will need to be carefully considered in the upcoming review.

Notwithstanding this, with regards to the management of dust, the MfE Good Practice Guide for Assessing and Managing Dust contains guidance to inform the upcoming review. This sets out that dust management functions should sit either at the regional level, or by taking a combined approach where there is agreement between the councils:

> *With respect to dust emissions, district plans requirements are often similar to those of regional plans. In some cases, district plans have included prescriptive controls on the nature of the dust-generating activity. There is also often practical cross-over between requirements for stormwater management, sedimentation, and erosion control measures with requirements for dust control measures…*
>
> *There are two options for exercising local government dust management functions, either:*
>
> 1. *the effects of dust emissions should primarily be controlled at the regional level, or*
> 2. *a combined approach is taken, where dust emissions associated with any land use are controlled at the district level and dust emissions associated with any activity requiring consent for discharges to air, are controlled at the regional level.*

Ideally, duplication between district and regional plans should be avoided. This guide recommends that regional councils and territorial authorities reach agreement as to which approach is used, and that this approach follows through into planning documents, consents and enforcement…Although this could be addressed through a transfer of powers, this does not necessarily need to wait for the Plan Review as a transfer of powers can be completed at any stage. The transfer of powers does not necessarily need to be signaled in a plan. Additionally, a transfer of powers be not be necessary depending on what the intended outcome for dust management is. The upcoming Plan Review will enable Environment Southland to collaborate with the local councils on an agreed approach moving forward, and this can then be incorporated into the Air Plan in the review.

4.4 INCIDENTS AND ENFORCEMENT

Stage 2 Methods 5.4.3 and 7.4.2 set out that a procedure will be developed and implemented by the Council, together with territorial authorities and the Public Health Service, to investigate and resolve complaints regarding discharges of contaminants into air which are causing a public health nuisance. Method 5.4.2 also sets out that enforcement procedures will be used to deter unauthorised activities. Council also have an obligation to report on complaints and incidents, and to undertake enforcement action in accordance with the Act.

4.4.1 Complaints and Incidents

Environment Southland operates a 24 hour environmental incident response system to address complaints and incidents reported by the public, by the party responsible, or as identified by Council staff. From 2013–2019, 396 complaints or incidents have been received that relate to air quality.[73]

Since Stage 1 of the Air Plan was made operative in 2016, there has been an increase in odour and smoke complaints, and incidents have become a higher priority for Council, with a 21% increase in all incidents that were responded to in the 2017-2018 year. This increase in complaints appears to be due to a reducing tolerance for nuisance smoke and odour and increased awareness of the Stage 1 rules. These complaints are typically coded as a high priority complaint given their short-lived effects, and staff therefore respond to these complaints within one to 24 hours.

Figure 11 below records the number of air quality complaints received from 2013 – 2019, and illustrates how air quality complaints have increased since the Stage 1 Air Plan was made operative:

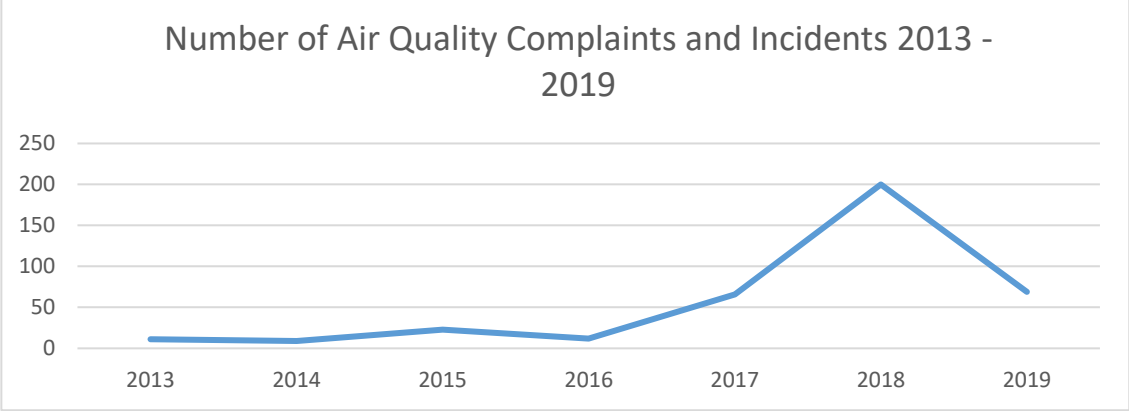

Figure 11: Number of Air Quality Complaints and Incidents 2013 - 2019[74]

4.4.2 Enforcement

Environment Southland utilise the full range of enforcement tools available under the RMA including the use of warning letters where the risk is low, and infringement notices, abatement notices and enforcement orders where these are necessary. Prosecutions are utilised infrequently for significant cases.

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[73] Data sourced from spreadsheet provided from Environment Southland on 31 January 2020, titled List of Enforcements for Air Plan.

[74] Data sourced from spreadsheet provided from Environment Southland on 31 January 2020, titled List of Enforcements for Air Plan.

Letters of direction and warning are used in a minor to moderate situation where Council can work proactively with a co-operative, motivated party. It is designed to prevent further breaches, or to remedy or mitigate the effects of non-compliance. Typically, these letters provide timelines and what action should be taken or ceased. During the 2018/19 year, the Compliance Team issued 57 letters of direction and issued 30 formal warnings.[75]

An infringement notice can be issued to an individual or company that has committed a Resource Management Act offence.

Abatement notices require an offender to comply with the notice within a specified timeframe and non-compliance with an abatement notice is an offence under the Act.

When an activity has been identified as being, or likely to be, harmful for the environment, the abatement notice requires that the activity is stopped and/or requires the person to take action to address the adverse effects. Abatement notices are issued for a breach to a rule or a condition of resource consent. Unlike enforcement orders, they are issued by compliance officers and do not require an application to be made to the Environment Court. 13 abatement notices have been issued for air discharges since 2013[76] and associated cost recovery was undertaken.

Enforcement orders are similar to abatement notices but require an application to the Environment Court and are subsequently issued by the Environment Court. Enforcement orders offer more options than an abatement notice, providing the ability to recover clean-up costs or restoration in avoiding, remedying or mitigating adverse effects. Enforcement orders can be issued at sentencing, or prior to enforcement action being taken, or alternatively they can be used as a sole form of enforcement action.

One enforcement order was issued in 2017 relating to the unauthorised storage of animal by-products at a truck yard which had an offensive odour. This resulted in a prosecution and the party was fined $53,400.

4.5 NON-REGULATORY METHODS

Overall, Environment Southland is effective in the application of non-regulatory methods. Council provides a good level of information and educational material offering guidance, assistance and support to individuals, communities and businesses regarding ambient air quality, odour and vehicle emissions. These are effective in achieving the methods set out in Stages 1 and 2 of the Air Plan. The district councils also play a key role in advocating for

[75] No specific statistics have been provided as to how many of these relate to air discharges.

[76] Data sourced from spreadsheet provided from Environment Southland on 31 January 2020, titled List of Enforcements for Air Plan.

clean home heating appliances, and administering grants, loans and in some areas reduced or free building consents for efficient burners.

However, other than identifying that industry and trade contribute little to PM_{10} concentrations in Southland, it is noticeable that there is less public information and guidance regarding industrial and trade air emissions than there is for other air quality issues. This is a gap, as there is a specific method in the Air Plan relating to the production and distribution of educational information relating to industrial and trade premises.

4.5.1 Advocacy

In Stage 2, Method 4.4.5 regarding ambient air quality, Method 7.4.6 regarding odour and Methods 8.4.1 and 8.4.5 and 8.4.6 regarding motor vehicle emissions, all outline Council's intent to advocate for change to policy or legislation where appropriate[77], being (paraphrased):

- *Where monitoring has shown that ambient air quality degradation exceeds guideline levels, appropriate solutions will be advocated.*
- *Advocate buffer zones around odorous, and potentially odorous, activities.*
- *Advocate to the Land Transport Safety Authority regarding controlling discharges of smoke into air from motor vehicles, to central government regarding vehicle emissions, the use of alternative fuels, the retention of public transport subsidies and to road controlling authorities regarding adverse effects from vehicle discharges.*

Since the Air Plan was made operative in 1999 and 2016, Environment Southland has made a number of submissions and has been involved in a range of planning process, both within the region and nationally, which relate to air quality. This includes contributing to the current NES-AQ and proposed changes to the NES-AQ.

4.5.2 Guidelines, Information, Education and Public Awareness

Since the Air Plan was made operative in 1999 and 2016, Environment Southland has produced material to inform, educate and raise public awareness of air quality and how people can contribute to better air quality in Southland.

The Stage 1 policies seek to establish incentive programmes, education programmes and other non-regulatory approaches to encourage people and communities to improve air quality.[78]

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[77] There are no advocacy methods in Stage 1 of the Air Plan.

[78] Policies 3.3, 3.5 and 3.6.

In Stage 2, Methods 4.4.2, 4.4.4 and 4.4.7 regarding ambient air quality, Method 7.4.5 regarding odour, Methods 8.4.3 and 8.4.4 regarding motor vehicle emissions, and Method 5.4.4 regarding industry and trade, all outline Council's intent to provide guidelines, information, education and increase public understanding and awareness.[79] These are summarised below:

- **Ambient air quality:** Provide educational material particularly targeted to the users of solid fuel domestic heaters and open fires, make information regarding the effects of discharges of contaminants into air on horticultural species, available to interested persons/organisations upon request.
- **Odour:** Provide educational material, and in particular target these to industry.
- **Motor vehicles:** Support and promote industry group initiatives to prevent the discharge to the atmosphere of ozone depleting substances from motor vehicle air conditioning systems, provide educational material, particularly regarding public transport and alternative fuels.

Environment Southland uses a variety of channels and formats in the production and dissemination of guidelines, advice, information and educational material to improve how individuals and business can contribute to improving air quality and improving discharges.

Current examples include:

Carbon Neutral Advantage – addressing ambient air quality and vehicle emissions

The Carbon Neutral Advantage initiative launched in 2019[80] aims to bring businesses and communities together to equip the Southland economy for a low emission future. This initiative will help businesses respond to the challenge of climate change and carbon trading by accelerating the uptake of new technology and offsetting opportunities. It seeks to support businesses and communities to transition to a low emission environment, identify opportunities and share learning to lower greenhouse gas emissions in Southland and provide warmer homes and cleaner and healthier communities.

Breathe Easy Southland Website – addressing ambient air quality and odour

The Breathe Easy Southland Website[81] provides information to inform and educate the public about air quality in Southland, the impact of PM_{10} on health, and the Air Plan and

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79 There are no advocacy methods in Stage 1 of the Air Plan, however the ambient air quality methods in the Stage 2 provisions relate to domestic heating.

80 Environment Southland, along with eight other organisations, is a shareholder of Great South, Southland's Regional Development Agency, of which the Carbon Neutral Advantage Programme is an initiative. https://greatsouth.nz/initiatives/carbon-neutral-advantage

81 https://www.breatheeasysouthland.co.nz/

NES-AQ. The websites provide information regarding how people can improve how they heat their homes to reduce PM_{10} emissions, and the assistance and incentives that are available. This includes:

- Education information about PM_{10} and air quality issues in Southland (such as temperature inversion and impact of PM_{10} on health);
- Links to the Land, Air, Water, Aotearoa ("**LAWA**") site which spatially and graphically displays PM_{10} monitoring results;
- Educational and instructive videos about efficient domestic woodfire burning; and
- Information brochures/printed resources:
    - "Warm Up Wisely"[82] which advises on how to get the best from you wood burner in terms of efficient use and fuel.
    - ''Breathe Easy…. Home heating and outdoor burning"[83] which provides advice on Stage 1 Air Plan rules for those within the Invercargill and Gore airsheds, how to comply, and how to contribute to improving air quality.
    - Numerous other 'Breathe Easy' brochures regarding home heating, airsheds, rural properties and information about clean air.
    - "Outdoor burning" fact sheet setting out outdoor burning requirements and tips on how to minimise smoke nuisance to neighbours.
    - Link to other Environment Southland resources, including a list of prohibited fuels, and the 2014 Southland State of the Environment Report for Air;
    - Links to other useful websites for domestic burning, including information from MfE, Consumer Guide, the Energy Efficiency and Conservation Authority and the Southland Warm Homes Trust.
    - Links to websites for rural landowners regarding recycling options to reduce burning, such as AgRecovery, Plasback NZ and Southland Disability Enterprises.

Good Practice Guides

Environment Southland contributes to the development of MfE good practice guides to ensure best practice guidance is available to practitioners (both Council staff and other practitioners), and to achieve a good level of national consistency for Regional Council, meaning air quality under the RMA. This includes the review and development of good

[82] Warm Up Wisely, Environment Southland, August 2016.

[83] Breathe Easy…. Home heating and outdoor burning, Environment Southland, August 2016.

practice guides for monitoring, industrial discharges, modelling, odour, dust, visibility and ambient air quality.[84]

Summary

Environment Southland provides a good level of information and educational material offering guidance, assistance and support to individuals, communities and businesses regarding ambient air quality, odour and vehicle emissions. These are effective in achieving the methods set out in Stage 2 of the Air Plan. This is also effective in assisting the achievement of the rule in Stage 1 of the Air Plan regarding domestic home heating and outdoor burning.

It is noted however, other than identifying that industry and trade contribute little to PM_{10} concentrations in Southland, it is noticeable that there is less information and guidance available from Council to communities and industry regarding industrial and trade air emissions.

4.5.3 Awareness and Support for Complimentary Initiatives

There are a number of non-regulatory initiatives undertaken by other councils or organisations, or in collaboration with these parties. The district councils generally consider it is important to continue to incentivise changes to behaviours where this results in air quality improvements over time to protect human health.

Southland District Council has offered free building consents for clean burning solid fuel heaters in Winton, and Invercargill City Council operates the Clean Air Loans Scheme. Other subsidies are available from Awarua Synergy and the Warm Homes Trust. Southland District Council contributes to the Warm Homes Trust. Grants, subsidies and low interest or interest free loans are also available through EECA and/or several banks. These incentives are a key part of enabling the proactive uptake to efficient burners. Undertaking further analysis to understand the roles different incentives have are in improving uptake will assist in informing the upcoming review and understanding and improving integrated management across organisations.

4.5.4 Codes of Practice

Methods 7.4.1 and 5.4.1 in Stage 2 encourage the formation and adoption of industry Codes of Practice for odour and the discharge of contaminants from industry and trade.

[84] All MfE best practice guides relating to air quality are available at https://www.mfe.govt.nz/air/air-guidance-and-wood-burners/good-practice-guides-councils.

Environment Southland contributed to the development of the MfE Good Practice Guide for Assessing and Managing Odour 2016 ("**Good Practice Guide – Odour**")[85] which replaced previous guidance in 2003. The guide outlines good practice in assessing and managing odours that cause offensive and objectionable effects, and is utilised as a resource for both Council and members of the public who may be affected by adverse odour effects. It provides recommendations and advice regarding good practice for minimising odour and how to investigate, monitor, and measure odour.

Council also contributed to the development of the MfE Good Practice Guide for Assessing Discharges to Air from Industry 2016 ("**Good Practice Guide – Industry**") which replaced previous guidance in 2008. The guide is targeted at Council practitioners assessing the effects of discharges to air from industrial sources, but is also utilised by industry, and provides expert advice on best practice and to provide a nationally consistent approach.

Although these are not gazetted industry codes of practice, the good practice guides are used in Southland by applicants (businesses and industries) and Council practitioners. This meets the intent of the methods.

4.5.5 Formal Agreements

There are no specific methods or rules that encourage the establishment of formal agreements to manage air discharges. However, Rule 8.2 of the Coastal Plan provides for discharges to air from the Bluff Port Zone as a permitted activity, provided there is a written agreement with Council.[86]

A formal agreement between Environment Southland and South Port is in place regarding discharges to air, land and water within the Coastal Marine Area ("**CMA**"). The agreement was established between the Council and South Port in 2006, and weas reviewed and re-signed in 2012.[87] The agreement is not strictly non-regulatory as it affects the way activities occur which would otherwise be regulated by the Coastal Plan. The Coastal plan provides comprehensively for all activities affecting the CMA. As these agreements relate to air discharge activities within the CMA, agreements in managing discharges to air in the CMA

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[85] Ministry for the Environment. 2016. Good Practice Guide for Assessing and Managing Odour. Wellington: Ministry for the Environment.

[86] *Except as provided in Rule 8.6(1), within the Bluff Port Zone, discharges to air arising from the activities described below are a permitted activity provided that they are undertaken in accordance with a written agreement with Environment Southland.*

The activities to which this Rule applies are as follows:

a the loading, unloading, transport, conveyance and storage of cargo;

b the erection, placement, maintenance, repair, alteration, extensions, removal or demolition of structures or any building, equipment, device or other facility attached to any structure including the use of dry abrasive blasting for the undertaking of spot repairs.

[87] Discharge Agreement Between Southland Regional Council and South Port New Zealand 2012.

will require careful review in the current review of the Coastal Plan, and a good level of alignment between these two documents will need to be achieved.

4.6 TANGATA WHENUA INVOLVEMENT

Section 1.2.1 of Stage 2 of the Air Plan sets out that in the past there was little consultation with iwi regarding the discharge of contaminants to air, but that consultation with tangata whenua on the Air Plan has highlighted three main issues for tangata whenua regarding air quality. The Air Plan seeks to address the issues (paraphrased):

> *The need to maintain a high quality of ambient air; and to ensure that air discharges such as dust, smoke and odour do not affect the amenity values of areas of cultural or historical significance; and to protect ecosystem health.*

The Air Plan refers to Section 8 of the RMA which requires the Principals of Te Tiriti o Waitangi to be taken into account and therefore that *"iwi are more involved than ever before with issues such as Air Quality Management*", and in Section 1.3 the Air Plan states that one of its key purposes is to *"recognise and provide for Maori culture and traditions in relation to air".*

Several of the Air Plan objectives, policies and outcomes seek to (paraphrased):

- *Recognise and provide for Maori cultural and traditional beliefs when dealing with air discharges;*[88] *and*
- *Recognise Maori and traditional values and ensure these are taken into account in industrial or trade premises air discharges.*[89]

Council gives effect to these provisions through the Charter of Understanding, resource consent processes, and a partnership approach to State of the Environment reporting. Te Ao Mārama have advised the process of providing input to resource consent applications works well, and that the partnership approach to the State of the Environment Report, Southland's Air / Ngā Hau o Murihiku State of the Environment Report was effective. How Environment Southland gives effect to these provisions in practice is detailed further below.

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88 Objective 2.5 and Policy 5.2.2 of Stage 2 of the Air Plan.

89 Policy 5.3.5 and Outcome 5.7 of Stage 2 of the Air Plan.

4.6.1 The Charter of Understanding

The Council is a signatory to the Charter of Understanding – He Huaraki mō Ngā Uri Whakatapu (A Pathway for Generations Coming Through) ("**the Charter**") between Te Ao Mārama and the district and regional Councils south of the Clutha River.[90]

The Charter was adopted in March 2016 and sets out the basis and conduct of the councils and rūnanga in the context of the Local Government Act 2002 and the RMA, and provides an agreed approach to the contribution of tangata whenua to the decision making process via Te Rōpū Taiao. Te Rōpū Taiao is a joint management committee between the local councils and tangata whenua of Murihiku and deals with higher level decision making concerning resource management. Te Rōpū Taiao also assists the councils in their relationship with matawaka living in te takiwa o Murihiku.

The Charter outlines a common goal shared by the councils and rūnanga to provide for the *"sustainable management of the Region's environment and for the social, cultural and economic needs of communities, for now and into the future".* The Charter sets out that in pursuit of this goal, the signatories agree that (paraphrased):

- *Relationships are based on good faith, co-operation, and understanding;*
- *There is commitment to work towards solutions with reasonableness and honesty of purpose;*
- *Parties respect and accommodate different cultural values and ways of working, recognising different philosophies and practices of environmental and local government management and acknowledging that tangata whenua are working to restore an iwi environmental management system;*
- *Issues relating to Maori are appropriately addressed in decision-making;*
- *The relationship of tangata whenua and their culture, traditions and values with their ancestral land, water, sites, waahi tapu, valued flora and fauna, and other taonga is considered in all significant decisions regarding land and water.*

The Charter sets out how the parties will act in accordance with the Principals of Te Tiriti o Waitangi, principals of governance, and sets out how this will work operationally, and how the parties will move towards a partnership approach.

The Charter sets out Council's commitment to involve tangata whenua in resource consent processing. In summary, this involves (paraphrased):

[90] The Charter is an agreement between Environment Southland, Invercargill City Council, Southland District Council, Gore District Council, Queenstown Lakes District Council, Clutha District Council and Otago Regional Council and T Ao Marama Incorporated who represent the four papatipu rūnanga in Murihiku, being Te Rūnaka O Awarua, Hokonui Rūnanga, Ōraka/Aparima Rūnanga and Waihōpai Rūnaka.

- *Ensuring sufficient information is provided by applicants on any potential impacts on tangata whenua;*
- *Encouraging consultation with tangata whenua via Te Ao Mārama Inc;*
- *Developing procedures for referral of applications to Te Ao Mārama;*
- *Recognition and provision for tikanga Māori and te reo Māori, where appropriate;*
- *Appointment of certified[91] Māori Hearing Commissioners where appropriate;*
- *Protection of information that is considered sensitive and confidential by tangata whenua;*
- *Provision of interpreters where necessary.*

The Charter sets out the three ways in which tangata whenua are involved in consent processing. These are where the applicant proactively engages with iwi or hapu while developing their proposal, where the application affects a statutory acknowledgement area, or where the consent officers identify tangata whenua and Rūnaka via Te Ao Mārama Inc as an affected party. These avenues for involvement are considered further below utilising a sample of recently approved resource consents. There are several other ways in which tangata whenua are engaged regarding the Air Plan and these are also explored further below.

4.6.2 Involvement in the Resource Consent Process

The Air Plan does not explicitly direct or advise whether consultation should be undertaken with Te Ao Mārama, and there is no specific advice on the Environment Southland website regarding consulting with Te Ao Mārama on air discharge consents. However, the Regional Policy Statement 2017 recognises that consultation, particularly during early stages of any proposed undertaking which may affect Ngai Tahu interests and full consideration of their views is considered essential.[92] The resource consent applications form also asks for "evidence of any consultation undertaken", which includes reference to consultation with iwi *(e.g. Te Runanga O Ngai Tahu, Te Ao Mārama Inc)* and for comments on any cultural effects or physical effects on natural or physical resources of cultural value.[93] This demonstrates that Council anticipates consultation with tangata whenua when preparing resource consent applications for air discharges.

As set out in the Charter, Te Ao Mārama are regularly provided with a list of resource consent applications as lodged so that additional information regarding resource consents can be requested, and Te Ao Mārama can identify where they may consider tangata

[91] Where Making Good Decisions certification has been obtained.

[92] Southland Regional Policy Statement 2017 Chapter 3, page 19.

[93] Application to Discharge Contaminants to Air (PART B).

whenua to be potentially adversely affected by a resource consent application. Where pre-application meetings with Council are undertaken for larger scale resource consents, Council provides advice to applicants regarding consideration of iwi values and adverse effects on tangata whenua, and whether consultation with Te Ao Mārama is recommended. Where resource consent applications are limited or publicly notified, the Charter of Understanding enables the appointment of Maori commissioners.[94]

Te Ao Mārama have advised the process of providing input to resource consent applications works well.

Statutory Acknowledgement areas

The Ngāi Tahu Claims Settlement Act 1998 identifies taonga species, and establishes tōpuni, statutory acknowledgements, dual place names and nohoanga sites. These instruments recognise the special association of Ngāi Tahu with specific resources and areas and assist with Ngāi Tahu participation in processes under the RMA.

Where a proposal is in or near a Statutory Acknowledgement Area, the internal procedures Council follows are:

- The consent officers send a copy of the application and request for any comments to be provided back to the Council.
- Any comment is taken into account when determining whether or not the application will be publicly notified or if iwi groups are considered adversely affected.

In accordance with Section 95 of the RMA, where an air discharge is within or adjacent to a statutory acknowledgement area, if tangata whenua are considered adversely affected by the activity, then unless written approval from Te Ao Mārama has been provided, they would be considered to be an adversely affected party.

Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008

The Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 ("**Iwi Management Plan**") is a consideration in the processing of air discharge consents when the consent officer assesses the application in accordance with section 104 of the RMA.

Chapter 3.2 O Te Pu Hau, Air, describes the issues and policies associated with air quality and associated adverse effects on the land, water, coast, mahinga kai, biodiversity and wāhi tapu/wāhi taonga. The Iwi Management Plan describes air quality issues to tangata whenua associated with the effects of (paraphrased):

[94] With Making Good Decisions Accreditation.

- ***Industry and farming:*** *Discharges from industrial, manufacturing and trade premises and how this impacts on mahinga kai, taonga species, biodiversity, wāhi tapu and wāhi taonga, effects on cultural and environmental health, and effects of spray drift.*
- ***Burning:*** *Vegetation burning on or near wāhi tapu or wāhi taonga sites can impact the tapu of the site and have damaging and corrosive effects, and impacts on air quality from local of industrial burning.*
- ***Social/cultural effects and iwi engagement:*** *Impacts on cultural wellbeing from poor air quality, culturally offensive discharges, vehicle emissions, light pollution, odour, lack of understanding of effects on cultural wellbeing, use of technical/jargon information.*
- ***Urban and tourism pressure:*** *increased impacts from growth and associated emissions such as domestic home heating.*

The Iwi Management Plan sets out 20 policies to address these issues**.** In summary, these seek to discourage discharges that will have an impact on mahinga kai, taonga species, biodiversity, wāhi tapu and wāhi taonga, greater advocacy, encourage new and best practice and technologies that reduce air emissions, participate in initiatives to reduce air discharge effects, and discourage and prevent discharges to air that will have impacts on cultural well-being and community health. These must be considered in the upcoming Air Plan review, and the relevant policies are attached as **Appendix F**.

A sample of resource consents have been reviewed to assess how the Iwi Management Plan is considered in the assessment of applications for discharges to air. These resource consents[95] demonstrate that the Council considers the Iwi Management Plan in accordance with section 104(1)(c) of the Act, and assesses the applicable objectives and policies within the Iwi Management Plan that relate to the consideration of the application.

Consideration of adversely affected parties

Where adverse effects on tangata whenua are considered to be minor or more than minor in accordance with s95 of the RMA, Te Ao Mārama are notified and the applicant is advised by the consent officer to approach Te Ao Mārama advising that written approval is required to be obtained or the consent will be limited-notified. From the sample of resource consents provided by the Council, resource consent applicants provide written approval from Te Ao Mārama (either proactively or after being informed that Te Ao Mārama are considered to be an affected party).

[95] APP-20136298, APP-20157746, APP-2015859, APP-20171236, APP-20181617.

4.6.3 Compliance, Monitoring and Reporting

Te Ao Mārama are not active in the day-to-day compliance and monitoring activities undertaken by Council but are involved as a partner in these activities in specific circumstances.[96]

The first State of the Environment Report, Southland's Air / Ngā Hau o Murihiku State of the Environment 2014, was prepared through a collaborative partnership between Environment Southland and Te Ao Mārama. It brings both a technical and cultural perspective to air quality in Southland.

To inform the development of the State of the Environment Report, Te Ao Mārama prepared Hā nui o Raki, a report on Nhai Tahu ki Murihiku cultural associations and values for Air in December 2013 (Hā nui o Raki). Hā nui o Raki considered cultural perspectives on air and how its state can impact on tangata whenua values, by collating information contained in the literature, unpublished data and interviews with Ngai Tahu whānui. An excerpt of air quality indicators from Hā nui o Raki is provided in Figure 12 below:

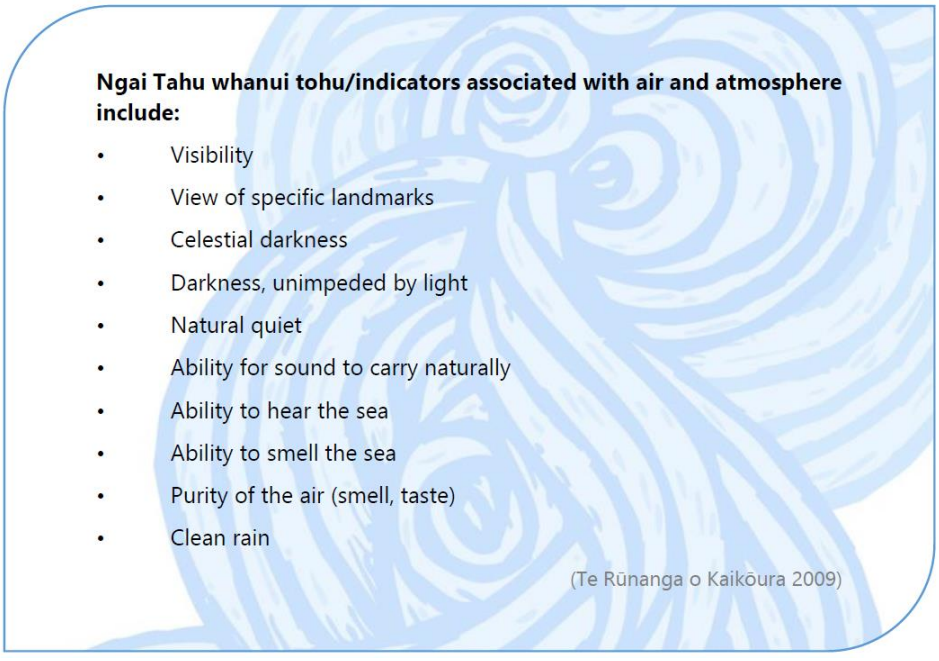

Figure 12: Ngai Tahu whanui air quality indicators from Hā nui o Raki

Te Ao Mārama have advised the partnership approach to the development of the State of the Environment Report, was positive and effective, and Te Ao Mārama would like to see the same approach taken for environmental reporting and policy and plan development in the future.

[96] Te Ao Marama is involved in the working group regarding the recent issue with dross in Mataura.

4.6.4 Summary on Tangata Whenua Involvement

Overall, there is a good level of tangata whenua involvement in air quality management by Environment Southland and this gives effect to the objectives and policies in the Air Plan.[97] The Charter of Understanding guides how Environment Southland and Te Ao Mārama work together. Te Ao Mārama involvement in the resource consent process is working effectively, both in how cultural values are considered in assessing resource consents, consultation processes, and decision-making processes.

Additionally, the partnership approach taken to the State of the Environment Report was effective, and Te Ao Mārama would like to see the same approach to continue to be taken for environmental reporting and policy and plan development in the future.

However, allowing sufficient time, and ensuring sufficient resources are available for a collaborative and partnership approach is critical to its success, particularly where there are other significant resource management processes underway. Te Ao Mārama staff were very aware of the significant resource management work programme at Environment Southland, and the difficulty they may have with being able to meaningfully and effectively engage in all projects.

Although the level of tangata whenua involvement in air quality management by Environment Southland is good, there is an opportunity in the upcoming review to better integrate tangata whenua values more effectively in the Air Plan. There is no explanation or context regarding the importance of air to tangata whenua as taonga and the air quality values and threats of concern to tangata whenua. The issues, objectives and policies in the provisions are relatively high level. The contributions Te Ao Mārama have already made to the 2014 Stage of the Environment Report, and the tangata whenua objectives and policies in the 2017 RPS provide a good starting point to understand tangata whenua values relating to air quality.

[97] Objective 2.5 and 5.2.2, Policy 5.3.5 and Outcome 5.7.

5. EFFECTIVENESS OF AIR PLAN OUTCOMES

This section of the report assesses whether the issues and outcomes stated in the Air Plan have been addressed, including the achievement of the Plan objectives, policies methods and rules. The outcome assessment is evaluated utilising a 'traffic light' rating system to provide an overall rating for each Plan outcome:

Table 5: Rating of Air Plan Outcomes:

Rating	Explanation
	Not enough information to determine whether the outcome has been achieved
	Outcome has not been achieved
	Outcome may have been achieved or may have been partially achieved
	Outcome has been achieved

Each Stage 2 outcome, along with its associated objectives, policies and methods (including rules) has been evaluated. This evaluation is set out in the following sections below. Stage 1 issues are also evaluated, albeit at a higher level.

The evaluation alongside the specific Air Plan provisions for reference, is provided at **Appendix G** attached. The

A high-level summary of the evaluation is provided in the table below:

Table 6: Summary of Outcomes Evaluation

Rating	Section / Topic	Outcome	Summary comments
Stage 1 Provisions			
	Ambient Air Quality	Issue 1.1: Health and amenity effects of ambient air quality	Partially achieved – minor issues with rules noted and effectiveness of incentives require review, no overall improvement in ambient air quality
	Localised Air Quality	Issue 1.2 Health and amenity effects of localised air quality	Partially achieved – issues regarding dust, outdoor burning and spray drift require addressing
Stage 2 Provisions			
	Ambient Air Quality	Outcome 1: Increased knowledge regarding ambient air quality	Mostly achieved – but out of date so some content is no longer relevant or useful. No monitoring of discharges other than PM_{10} and $PM_{2.5}$.

Rating	Section / Topic	Outcome	Summary comments
	Ambient Air Quality	Outcome 2: Good ambient air quality which provides the community with all the benefits of clean air	Mostly achieved – but out of date so some content is no longer relevant or useful.
	Industry and trade	Outcome 1: protection of the health of people and communities and environmental health	Mostly achieved – but out of date so some content is no longer relevant or useful.
	Industry and trade	Outcome 2: Protection of amenity values such as odour, dust and smoke, from industrial or trade premises	Mostly achieved – but out of date so some content is no longer relevant or useful. Dust in rural areas could be better addressed.
	Industry and trade	Outcome 3: recognition and provision for Maori cultural and traditional beliefs	Outcome achieved – however provisions are high level and not well integrated.
	Industry and trade	Outcome 4: reduction in the discharge greenhouse gases	Not currently necessary or within Councils powers.
	Industry and trade	Outcome 5: reduction in the use and discharge of ozone depleting substances into air in the region	Not currently necessary or within Councils powers.
	Odour	Outcome 1: protection of the health of people and communities and environmental health	Mostly achieved – but out of date so some content is no longer relevant or useful.
	Odour	Outcome 2: Protection of amenity values such as odour, dust and smoke, from industrial or trade premises	Mostly achieved – but out of date so some content is no longer relevant or useful.
	Motor Vehicle Emissions	Outcome 1: Protection of the health of people and communities from any adverse effects of discharges of contaminants into air from motor vehicles	Not currently necessary or within Council's powers.
	Motor Vehicle Emissions	Outcome 2: Protection of cultural and amenity values from any adverse effects of discharges of contaminants into air from motor vehicles	Not necessary or within Council's powers.

An assessment underpinning the above findings is set out in Sections 5.1 to 5.6 below.

5.1 AIR PLAN STAGE 2 - INTRODUCTION, LEGISLATION AND FRAMEWORK

Section 1 Introduction of the Air Plan, and Section 2 legislation includes background information on the Southland Region, air quality issues including iwi issues, a purpose statement, information on the application of the Plan, and associated legislative context. A lot of the information that sets out the context of the Southland Region, the monitoring that is undertaken, the air quality issues the Plan seeks to address, and the applicable legislation and higher order documents (such as the Regional Policy Statement), is out of date both in terms of applicability to current air quality issues, and current legislation and practice. Tangata whenua values could be better integrated in this section, and in the balance of the Air Plan, and better integration could be achieved by taking a partnership approach to the plan development process.

Section 3 Framework explains the categories used in the management of discharges of contaminants to air, being ambient air quality, discharges of contaminants into air from industrial or trade premises, odour, and motor vehicle emissions. The effectiveness of the objectives, policies and environmental outcomes of these are assessed in the following sections of the report.

5.2 AIR PLAN STAGE 2 - AMBIENT AIR QUALITY

The introductory section of Section 4 Ambient Air Quality sets out a description of ambient air quality, explains that the quality of ambient air is a reflection of the cumulative effects of the discharge of contaminants into air from anthropogenic[98] activities, and sets out the benefits of clean air. The introduction refers to the MfE's Ambient Air Quality Guidelines 1994, which have been replaced by more current guidelines that were produced in 2002.

5.2.1 Ambient Air Quality Issues and Outcomes

The introduction sets out that the resource manages issues for ambient air quality are:

- *Lack of information about ambient air quality in Southland; and*
- *Poor ambient air quality can adversely affect the health of people and communities and environmental health; …*

The outcomes that the ambient air quality objectives, policies and methods seek to achieve are:

- *Increase knowledge about Southland ambient air quality, in particular, identification of any areas where ambient air quality may be degrading; and*
- *Good ambient air quality which provides the community with all the benefits of clean air.*

[98] Anthropogenic – Made by people.

A summary of the achievement of the outcomes is provided below:

Rating	Section / Topic	Outcome	Summary comments
	Ambient Air Quality	Outcome 1: Increased knowledge regarding ambient air quality	Mostly achieved – but out of date so some content is no longer relevant or useful. No monitoring of discharges other than PM_{10} and $PM_{2.5}$.
	Ambient Air Quality	Outcome 2: Good ambient air quality which provides the community with all the benefits of clean air	Mostly achieved – but out of date so some content is no longer relevant or useful.

5.2.2 Analysis of Performance of Ambient Air Quality Provisions

Rating	Outcome
	Outcome 1: Increased knowledge regarding ambient air quality

Council has a monitoring programme in place for PM_{10} and $PM_{2.5}$ in Invercargill and Gore (both gazetted air sheds under Stage 1 of the Air Plan), and Winton (since 2013), and provides a good level of data for these areas. Apart from Winton, no other areas of Southland are monitored regularly for PM_{10}[99], and no other forms of air quality monitoring is undertaken. As Method 4.1.1 regarding the establishment of a monitoring programme sets out in its explanation that sulphur dioxide, carbon monoxide, nitrogen dioxide, lead, fluoride, hydrogen sulphide and ozone will be monitored, the method and associated Policy 4.3.2 regarding the measurement of ambient air quality is considered to have been only partially met. It is noted that the NES-AQ also contains limits for contaminants of concern and it is not certain whether the NES-AQ limits are breached in Southland.[100]

Policy 4.3.1 which requires that regard be had to MfE 1994 ambient air quality guidelines is ineffective as it is not current, however, Method 4.4.2 provides more flexibility on enabling the consideration of available guidelines. The national ambient air quality guidelines should guide the content of the policies and rules so that where possible these provisions can 'stand-alone', however it is considered appropriate to refer to the need to consider

[99] Historic intermittent monitoring has occurred in Matarua Bluff, Riverton, Edendale, Te Anau and Wallacetown.

[100] The 2014 State of the Environment Report states: *Contaminants such as carbon monoxide and nitrogen dioxide are not monitored by Environment Southland. A risk assessment has indicated that concentrations of those contaminants are unlikely to be elevated above the guideline limits* and *Environment Southland's Air Quality Monitoring Strategy (2013) identified sulphur dioxide (SO2) and benzo(a) pyrene (BaP) as contaminants that warrant further investigation. BaP has been strongly correlated with PM1086 so it is likely that BaP concentrations will be elevated in Southland's two airsheds.*

national guidelines in the methods as it provide flexibility of these guidelines are updated. Policy 4.3.1 is not achieved, but only because it is out of date, whereas Method 4.1.2 is considered to be met.

To store and analyse air quality monitoring data in accordance with Method 4.4.3, Council utilises Hilltop as its database to store air quality information, and the publicly available information from this is accessed from the national LAWA website. Council has a range of information and educational sources available to the community regarding ambient air quality. This is set out comprehensively in Section 4.5 of this report and includes information on air quality monitoring via the national LAWA platform, the Breathe Easy Southland website, and the GIS spatial application Beacon. Method 4.4.3 relating to the establishment of a database, and Method 4.4.4 regarding education are therefore considered to have been met.

Rating	Outcome
	Outcome 2: Good ambient air quality which provides the community with all the benefits of clean air

Policy 4.3.5 seeks that ambient air quality is protected throughout the Southland Region and the methods and rules in this section seek to give effect to this policy. As set out in the assessment for Outcome 1 above, Environment Southland provides a good level of educational information and environmental data relating to air quality. Additionally, Section 4.2.2 of this report sets out how resource consent conditions are monitored and reported on annually, and how compliance issues are addressed through the use of warnings and letters, abatement notices, enforcement orders and prosecutions. Method 4.6.6 regarding consent monitoring is therefore considered to be met.

Notwithstanding this, ambient air quality is not compliant with the NES-AQ within the Gore and Invercargill airsheds. Monitoring undertaken to date indicates that ambient air quality is likely to be compliant throughout the rest of the region,[101] and Policy 4.3.5 to protect ambient air quality is therefore only partially achieved.

5.3 AIR DISCHARGES FROM INDUSTRIAL OR TRADE PREMISES

The introduction of Section 5 Discharge of Contaminants into Air from Industrial or Trade Premises is short compared to the other sections of Part 2 of the Air Plan. It sets out that discharges to air from industrial and trade premises can have adverse effects and that these effects can be cumulative. It references out-of-date data from 1995. Notwithstanding this, the introduction is written simply, and is easy to understand.

[101] Based on historic, intermittent monitoring data in smaller towns in Southland.

In addition to issues, objectives, policies, methods, principal reasons and outcomes, this section includes permitted activity rules and conditions as well as some 18 discretionary activity rules for different air discharges from industrial and trade premises.

5.3.1 Industrial and Trade Premises Issues and Outcomes

The introduction sets out that the resource managed issues for discharges from industrial and trade premises are (paraphrased):

- *Odour, dust and smoke discharges can adversely impact amenity values;*
- *The potential to adversely affect the health, communities and the environment;*
- *The potential to adversely impact Maori cultural or traditional beliefs due to the siting of the discharge or the nature of the discharge;*
- *Greenhouse gas discharges contribute to global warming; and*
- *Ozone depleting substances being discharged could damage the ozone layer.*

The outcomes the industrial and trade premises objectives, policies and methods seek to achieve are (paraphrased):

- *protection of the health of people and communities and environmental health;*
- *protection of amenity values from odour, dust and smoke;*
- *recognition and provision for Maori cultural and traditional beliefs;*
- *reduction in the discharge greenhouse gases; and*
- *reduction in the use and discharge of ozone depleting substances.*

A summary of the achievement of the outcomes is provided below:

Rating	Section / Topic	Outcome	Summary comments
	Industry and trade	Outcome 1: protection of the health of people and communities and environmental health	Mostly achieved – but out of date so some content is no longer relevant or useful.
	Industry and trade	Outcome 2: Protection of amenity values such as odour, dust and smoke, from industrial or trade premises	Mostly achieved – but out of date so some content is no longer relevant or useful. Dust could be better addressed.
	Industry and trade	Outcome 3: recognition and provision for Maori cultural and traditional beliefs	Outcome achieved – however provisions are high level and not well integrated.
	Industry and trade	Outcome 4: reduction in the discharge greenhouse gases	Not currently necessary or within Councils powers.

Rating	Section / Topic	Outcome	Summary comments
	Industry and trade	Outcome 5: reduction in the use and discharge of ozone depleting substances into air in the region	Not currently necessary or within Councils powers.

5.3.2 Analysis of Performance of industrial and Trade Premises Provisions

Health of people, communities and the environment, and protection of amenity values

Rating	Explanation
	Outcome 1: protection of the health of people and communities and environmental health
	Outcome 2: Protection of amenity values from discharges of contaminants into air such as odour, dust and smoke, from industrial or trade premises

The objectives and policies that relate to Outcomes 1 and 2 seek to avoid, remedy or mitigate adverse effects, protect the environment from adverse effects, to require upgrades and changes where adverse effects are significant, and to avoid localised effects for discharges that do not require consent.[102]

These provisions are largely given effect to through the application of rules and the resource consent process,[103] via non-regulatory methods relating to codes of practice, complaint resolution, and education,[104] and via regulatory methods regarding enforcement code, transfer of powers and maintaining a database.[105]

As discussed previously in this report, Method 5.4.1 regarding encouraging industry codes of practice has not been met, however the MfE good practice guides regarding odour and discharges from industrial and trade premises are used in Southland, achieving the intent of the method.

In terms of giving effect to Methods 5.4.2 and 5.4.3 regarding complaint resolution and enforcement, as set out in Section 4.4 of this report, Environment Southland operates a 24 hour environmental incident response system to address complaints and incidents reported by the public, by the party responsible, or as identified by Council staff. Responses are prioritised by risk, and all complaints and incidents are logged and

[102] Objective 45.2.1 and Policies 5.3.1 – 5.3.4 inclusive.

[103] Method 5.4.7 Rules, Method 5.4.8 Resource Consents.

[104] Method 5.4.1 Codes of Practice, Method 5.4.3 Complaint Resolution, Method 5.4.4 Education.

[105] Method 5.4.2 Enforcement, Method 5.4.5 Transfer of Powers, Method 5.4.6 Database.

responded to. Although staff have advised that capacity to respond can be a challenge, a review of the data illustrates that responses are efficient and relatively consistent.

Based on the data reviewed from this system,[106] responses are timely and enforcement options are investigated and pursued if appropriate. Council utilises the full range of enforcement tools available under the RMA, including the use of warning letters where the risk is low, and infringement notices, abatement notices and enforcement orders where these are necessary. Prosecutions are utilised infrequently for significant cases. These methods are therefore efficiently and effectively given effect to.

Ensuring that Council is well resourced to continue to respond in an efficient manner, and that there is sufficient clarity in policies and rules and sufficient capacity to investigate incidents and complaints well, is important to guarantee that the system continues to be effective.

As set out in Section 4.5.2 of this report, Environment Southland provides useful material in a variety of formats to inform, educate and raise public awareness of air quality and how people can contribute to better air quality in Southland. However, other than identifying that industry and trade contribute little to PM_{10} concentrations in Southland, it is noticeable that there is less information and guidance regarding industrial and trade air emissions than there could be even though Method 5.4.4 enables this.

Method 5.4.6 requires the establishment and maintenance of a database of information regarding discharges of hazardous air pollutants listed in Appendix D of the Air Plan. Council staff have confirmed that no such database has been established, and staff rely on the resource consents database to access this information. This method has not been achieved.

Also discussed previously, Method 5.4.5 providing for the transfer of powers from Environment Southland to Territorial Authorities, has not been implemented as no powers have been transferred.

In terms of the application of rules and the requirement for resource consents, feedback from both Environment Southland staff and Te Ao Mārama suggest that the rules are overly technical and difficult to interpret and understand. Many of these rules originate from the Clean Air Act 1972, and the types of activities and processes addressed in the rules are not reflective of current activities and processes today. Upon reviewing the provisions, it is clear there is difficulty in understanding and interpreting the rules, and that the review of the Air Plan presents an opportunity to simplify and consolidate the rules.

[106] Data sourced from spreadsheet provided from Environment Southland on 31 January 2020, titled List of Enforcements for Air Plan.

The information requirements associated with the rules, the appendices referred to in the rules, and the guidance regarding best practice (such as the MfE good practice guides), would also require review and revision to reflect current best practice and national literature.

A number of issues have been identified through this evaluation. In particular:

- The Ringelmann smoke chart figure is missing from Appendix H and the method is also ineffective and outdated for measuring smoke discharges.
- Combustion activity thresholds are high (e.g. thresholds for 5MW boilers) and should be lowered.[107]
- Particulate matter thresholds in the rules are out-of-date and often difficult to measure (e.g. dust), not consistent with the MfE good practice guides, and do not cover all the activities and instances in which dust is discharged.[108] Dust discharged from unsealed roads may be a contributor to particulate affecting air quality and this is a local issue in a number of rural areas, and where the consents team receive a number of complaints. The issues regarding dust are much broader than industrial and trade premises and will require addressing more broadly in the Air Plan review.
- Not all prohibited activities in the NES-AQ are in the Air Plan.[109] Some activities are still provided for as discretionary activities even though they are prohibited in the NES-AQ.
- The Plan does not address the combustion of used oil wells[110] and the combustion of used oil may be a common practice that is going unnoticed.
- Appendix F regarding suggested buffer distances is outdated and should be updated to reflect current MfE guidance and national practice (in particular, feedlots).

In addition to this feedback, the 2018 Annual Air Quality Monitoring Report identified that the current Plan has no scope for prosecution of discharges to air that are not within the

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[107] Refer to The Environment Southland Scoping Report 2018 prepared by Emission Impossible.

[108] Dust from roads was raised as an issue from both Council staff and stakeholders. The 2019 report Health Impacts of PM_{10} from Unsealed Roads in Northland prepared by Emission Impossible for the Ministry of Health demonstrates that particulate emissions from the case study breached the NES-AQ limits where vehicle movements were higher.

[109] The Environment Southland Scoping Report 2018 prepared by Emission Impossible notes that 5.5.2 (2)(b)(i) of the existing plan provides that any combustion process for recovery of metals from insulated cable is a discretionary activity. However, Regulation 9 of the NES-AQ prohibits the burning of coated wire (in the open).

[110] The Environment Southland Scoping Report 2018, prepared by Emission Impossible, notes that with respect to industrial sources, the existing Plan provides that any combustion of fuel with a lead content > 250 parts per million of lead is a discretionary activity (Rule 5.52). However, it is unclear how this relates to existing used oil in Southland, and if or how this is enforced.

strict confines of the current rules. This can create problems with non-consented discharges to air that nonetheless cause, or have the potential to cause, adverse effects.

A notable example was the (non-consented) storage of an aluminium dross by-product at a disused former paper mill in Mataura. Storage of hazardous substances is not normally associated with discharges to air, but in this case, if water had contacted the material it could react to generate inter alia ammonia and hydrogen gas. Environment Southland was concerned with the storage, however, Gore District Council granted a retrospective land use consent to store the product. Since the 2018 Report, a flood event in 2020 saw the evacuation of residents in Mataura in the response to the potential for ammonia release.

The Air Plan does not contain any rules to address this issue, and the 2018 Scoping Report recommended the development of a catch-all to address circumstances like this in the future,[111] where the Plan does not contain specific rules to control the discharge.

Additionally, the objectives and policies are high level, and some repeat the act without adding any specificity as to how adverse effects should be appropriately managed.[112] However, it is noted that Policy 5.3.2, requiring the upgrading or change in process of existing industrial and trade processes where they are having significant adverse effects on ambient air quality, is sufficiently directive and therefore useful to inform the Council's assessment in attendance with section 104 of the Act, where adverse effects may be significant. Policy 5.3.4: *Avoid localised adverse effects from discharges of contaminants into air which do not require a resource consent* is not clear in what it is seeking to achieve.

Overall, some methods are implemented well and others, such as education, could be implemented more effectively. Air discharges from industrial and trade premises are regulated in accordance with the Plan rules, but improvements can be made so these rules are simpler to understand, the thresholds and triggers are appropriate in managing adverse effects, and the information that relates to them is current. Outcomes 2 regarding the protection of amenity values from discharges of contaminants into air such as odour, dust and smoke, from industrial or trade premises, is therefore considered to be partially met.

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111 Section 3.3 of the The Environment Southland Scoping Report 2018, prepared by Emission Impossible.

112 Objective 5.2.1 Adverse Effects upon the Environment: *To avoid, remedy or mitigate any adverse effects upon the environment (including the health of people and communities and amenity values) from the discharges of contaminants into air from industrial or trade premises.*

Recognition and provision for Maori cultural and traditional beliefs

Rating	Explanation
	Outcome 3: recognition and provision for Maori cultural and traditional beliefs

Objective 5.2.2 seeks to ensure that Maori cultural and traditional beliefs are recognised and provided for in the consideration of air discharge consents from industrial and trade premises. Policy 5.3.5 requires Maori cultural and traditional values to be recognised, and to ensure these are taken into account. These provisions are largely given effect to through the resource consent process.

As set out in Section 4.6 of this report, regarding tangata whenua involvement in air quality, Te Ao Mārama are involved in contributing feedback to resource consents for air discharges. Te Ao Mārama are regularly provided with a list of resource consent applications as lodged so that additional information regarding resource consents can be requested, and Te Ao Mārama can identify where they may consider iwi or hapu to be potentially adversely affected by a resource consent application.

Where pre-application meetings with Council are undertaken for larger scale resource consents, Council provides advice to applicants regarding consideration of cultural values and adverse effects on tangata whenua, and whether consultation with Te Ao Mārama is recommended.

In terms of assessing resource consent applications received:

- Where adverse effects on iwi or hapu are considered to be minor or more than minor in accordance with s95 of the RMA, Te Ao Mārama are notified as adversely affected persons.
- Council's process of considering and reporting on the objectives and policies in the Iwi Management Plan in accordance with section 104(1)(c) of the Act is appropriate and is consistently applied.

Overall, Maori cultural and traditional beliefs are recognised and provided for in resource consent processes for air discharges from industrial and trade premises. Te Ao Mārama are regularly provided with a list of resource consents that have been lodged for them to register their interest. The process of considering adversely affected persons is effective, in accordance with s95 of the Act, and Iwi Management Plan objectives and policies are appropriately considered in Council assessments of resource consent applications.

Notwithstanding this:

- Cultural values are not well integrated in this section, and in the balance of the Air Plan, and better integration could be achieved through the Air Plan review;

- The objectives and policies are relatively generic, and providing more specificity regarding cultural values and concerns regarding air quality is recommended;[113]
- Te Ao Mārama's feedback on the usability of the Air Plan is that it is overly technical, and the use of technical terms makes understanding the Plan, and particularly the industrial and trade premises rules, difficult to understand.

Greenhouse gas emissions and ozone depleting substances

Rating	Explanation
	Outcome 4: reduction in the discharge greenhouse gases
	Outcome 5: reduction in the use and discharge of ozone depleting substances into air in the region

The objectives and policies relating to greenhouse gas emissions and ozone depleting substances seek to protect the environment from the discharge of ozone depleting substances and avoid, remedy or mitigate the discharge of greenhouse gases.[114] There are a number of methods in Section 5.4 of the Air Plan that relate to these outcomes, objectives and policies.

Environment Southland have not launched any Council initiatives regarding the reduction of ozone depleting or greenhouse gas emissions.[115] However, as set out previously in Section 5.3 of this report, Environment Southland is a party to the Carbon Neutral Advantage initiative launched in 2019.[116] The initiative seeks to support businesses and communities to transition to a low emission environment, identify opportunities and share learnings to lower greenhouse gas emissions in Southland, and provide warmer homes and cleaner and healthier communities. This goes some way to promoting the reduction of greenhouse gas emissions in accordance with Policy 5.3.3. Staff are also not aware of undertaking any work to give effect to these methods.

Notwithstanding that these outcomes and methods have not been given effect to, section 70A of the RMA ,relating to the discharge of greenhouse gas emissions, states:

> *when making a rule to control the discharge into air of greenhouse gases under its functions under section 30(1)(d)(iv) or (f), a regional council must not have regard to the effects of such a discharge on climate change, except to the extent that the use*

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113 For example, the Iwi Management Plan and the 2014 State of the Environment Report provide more information regarding Te Ao Marama air quality values.

114 Objective 5.2.3, Objective 5.2.4, Policy 5.3.3.

115 Based on the information provided by Environment Southland and conversations with Council staff.

116 Environment Southland, along with eight other organisations is a shareholder of Great South, Southland's Regional Development Agency, of which the Carbon Neutral Advantage Programme is an initiative. https://greatsouth.nz/initiatives/carbon-neutral-advantage

and development of renewable energy enables a reduction in the discharge into air of greenhouse gases, either—

(a) in absolute terms; or

(b) relative to the use and development of non-renewable energy.

Section 70B of the RMA states:

If a national environmental standard is made to control the effects on climate change of the discharge into air of greenhouse gases, a regional council may make rules that are necessary to implement the standard, provided the rules are no more or less restrictive than the standard.

These sections of the Act were inserted into the RMA in 2004 by Section 6 of the Resource Management (Energy and Climate Change) Amendment Act 2004.

The purpose is to provide a national approach to the assessment of effects of the discharge of greenhouse gas emissions into air. As no NES has been promulgated, Environment Southland cannot regulate greenhouse gas discharges in the Air Plan under section 70A of the RMA.[117]

As ozone depleting substances are also greenhouse gasses, they are also not able to be regulated in the Air Plan for the same reasons as above. Notwithstanding this, ozone depleting substances have been phased out in New Zealand over time.[118]

Consideration should therefore be given to the removal of the greenhouse gas and ozone depleting provisions in the upcoming review of the Air Plan.[119]

5.4 ODOUR

The introductory section of Section 7 Odour sets out a description of odour effects, the difficulties in measuring and assessing odour effects, and how odour is assessed in terms of frequency, intensity, duration, and offensiveness. The section includes issues, objectives, policies, methods, principal reasons and outcomes relating to odour. There are no separate rules included in this section, with the principal reasons setting out that rules pertaining to odour discharges from activities are assessed in Section 5, regarding

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[117] In *Genesis Power Ltd v Greenpeace NZ Inc [2008] 1 NZLR 803; (2007) 14 ELRNZ 1; [2008] NZRMA 125 (CA),* the Court of Appeal declared to the effect that, in considering an application for a discharge permit relating to the discharge to air of greenhouse gases associated with a thermal power station, the regional council must not have regard to the effects of that discharge on climate change. The Court noted that there is a close similarity of language between ss70A and 104E. As for s104E, the Court held that s70A can be fairly construed in the context of a clear legislative policy of nationalising New Zealand's approach to the emission of greenhouse gases.

[118] For example, chlorofluorocarbons (CFCs) have not been imported into New Zealand since 1996, and hydrochlorofluorocarbon (HFC) imports were phased out in 2015.

[119] Unless this changes through upcoming national reform.

discharges from industrial and trade premises. It also notes that other methods such as encouragement of codes of practice and buffer zones and information will also assist in managing odour effects. If retained, the introductory section should be updated to reflect current information regarding odour and its adverse effects.

5.4.1 Odour Issues and Outcomes

The introduction sets out that the resource management issues for odour is:

> *The discharge of odorous compounds to air has the potential to adversely impact upon the health of people and communities and cultural and amenity values.*

The outcomes the odour objectives, policies and methods seek to achieve are:

- *protection of the health of people and communities from any adverse effects of odour discharges; and*
- *protection of cultural and amenity values from any adverse effects of odour discharges.*

A summary of the achievement of the outcomes is provided below:

Rating	Section / Topic	Outcome	Summary comments
	Odour	Outcome 1: protection of the health of people and communities and environmental health	Mostly achieved – but out of date so some content is no longer relevant or useful.
	Odour	Outcome 2: Protection of amenity values such as odour, dust and smoke, from industrial or trade premises	Mostly achieved – but out of date so some content is no longer relevant or useful.

5.4.2 Analysis of Performance of Odour Provisions

As there are no rules which specifically relate to the discharge of odour, and the objectives and policies in the odour section of the Air Plan rely on the implementation of the methods to achieve the outcomes. The objectives and policies are substantially similar to the outcomes in this section, and do not provided any additional specificity regarding protection from odours. The objectives seek 'to protect' the health of people and communities, and cultural and amenity values from the adverse effects of odour discharges, and the policies seek to 'avoid, remedy or mitigate' the impacts of odours.[120]

Method 7.4.4 provides for the transfer of powers from Environment Southland to territorial authorities where discharges have only a limited or localised environmental or public

[120] Objectives 7.2.1 and 7.2.2 and Policies 7.3.1 and 7.3.2.

health nuisance impact. These methods are enabling, and do not require the transfer of powers, but signal where this may be appropriate. No powers have been transferred to local authorities or any other public authorities since the Air Plan was notified in 1999.

Method 7.3.4 requires the consideration of odour discharges in resource consents. This is given effect to in the consideration of air discharge consents for industrial and trade premises.[121] Upon reviewing samples of approved resource consents for air discharges from industrial and trade premises, adverse odour effects, and the objectives and policies of Section 7 Odour, have been appropriately assessed by Council. This method has therefore been met.

Method 7.4.1 regarding encouraging industry codes of practice has not been met, however, as set out in Section 4.5.3 of this report, MfE good practice guides regarding odour and discharges from industrial and trade premises are used in Southland by applicants (businesses and industries) and Council.

With regards to Method 7.4.2 regarding the development of a complaints procedure, Council have robust complaints procedures and incidence response and enforcement systems in place. This method is therefore considered to be met.

No information has been found which demonstrates whether Method 7.4.5 regarding the use of buffer zones in resource consent processes, has been applied and advocacy to district councils has been undertaken. District Council planning staff that were spoken to were not aware of the use of these specific buffer zones in resource consent processes or in their district plans but do address reverse sensitivity effect regarding odour to some extent. Using buffers in district plans is a common way of managing adverse reverse sensitivity effects associated with existing activities that generate odours in New Zealand. Gore District Council, in particular, were interested in better understanding from Environment Southland the location of emissions from existing industry and trade in order to investigate the use of appropriate buffers.

The outcomes to protect the health of people and communities, and cultural and amenity values from the adverse effects of odour are therefore only partially met. Engagement with Council staff has raised concerns regarding the absence of rules to manage odour beyond the boundary that is objectionable and/or offensive. Currently, the only way to address adverse odour effects through the resource consent process, is if the odour is associated with a discharge to air from an industrial or trade premises requiring consent under the rules in Section 5.2. Therefore, odour can only be considered for specific discharges and only from industrial or trade premises. This leaves a potential gap in the Air Plan whereby

[121] In accordance with the explanation under Method 7.4.3 which references Rule 5.5.2, and the principal reasons in 7.5.

other activities which generate adverse odour effects which are offensive and/or objectionable, are not able to be addressed through plan rules.[122]

Additionally, as the objectives and policies are very generic, their usefulness in guiding a substantive assessment in assessing a resource consent application is limited, particularly where adverse effects of the discharge are no more than minor.

5.5 MOTOR VEHICLE EMISSIONS

Section 8 Motor Vehicle Emissions includes issues, objectives, policies, methods, principal reasons and outcomes relating to motor vehicle emissions. Much of the material referenced in the introduction section is out-of-date. No rules are included in this section, with methods focussing on advocacy and education.

5.5.1 Motor Vehicle Emissions Issues and Outcomes

The introduction sets out that the resource management issues for motor vehicle emissions are (paraphrased):

- *Motor vehicle discharges have the potential to adversely impact the health of people and communities, environmental health and cultural and amenity values; and*
- *Greenhouse gas discharges may be contributing to global warming; and*
- *There are still ozone depleting substances used in southland which could further damage the ozone.*

The outcomes the motor vehicle emissions objectives, policies and methods seek to achieve are:

- *protection of the health of people and communities from any adverse effects of discharges of contaminants into air from motor vehicles; and*
- *protection of cultural and amenity values from any adverse effects of discharges of contaminants into air from motor vehicles.*

[122] It is noted that in some cases section 87B of the Act *certain activities to be treated as discretionary activities or prohibited activities* can be relied upon. E.g. discharges to air from industrial and trade premises.

Rating	Section / Topic	Outcome	Summary comments
	Motor Vehicle Emissions	Outcome 1: Protection of the health of people and communities from any adverse effects of discharges of contaminants into air from motor vehicles	Not currently necessary or within Councils powers.
	Motor Vehicle Emissions	Outcome 2: Protection of cultural and amenity values from any adverse effects of discharges of contaminants into air from motor vehicles	Not currently necessary or within Councils powers.

5.5.2 Analysis of Performance of Motor Vehicle Emissions Provisions

The motor vehicle emissions objectives and policies seek to protect the health of people, communities and the environment, and to protect cultural and amenity values by avoiding remedying or mitigating adverse effects from motor vehicle discharges, and promoting the reduction of greenhouse gas discharges to air.[123] In particular, the methods seek to support and promote industry group initiatives to prevent the discharge to the atmosphere of ozone depleting substances from motor vehicle air conditioning systems, provide educational material, particularly regarding public transport, and alternative fuels.

Environment Southland have not launched any Council initiatives regarding the reduction of motor vehicle emissions and greenhouse gas emissions. However, as set out previously in Section 4.5 of this report, Environment Southland is a party to the Carbon Neutral Advantage initiative launched in 2019.[124] The initiative seeks to support businesses and communities to transition to a low emission environment, identify opportunities and share learnings to lower greenhouse gas emissions in Southland, and provide warmer homes and cleaner and healthier communities. This goes some way to promoting the reduction of greenhouse gas emissions in accordance with Policies 8.3.2 and 8.4.4 regarding education, and Policy 8.4.3 regarding supporting industry group initiatives.

However, no information has been provided to demonstrate how Method 8.4.1 regarding advocacy to the Land Transport Safety Authority, Method 8.4.2 regarding monitoring at intersections, Method 8.4.5 regarding advocacy to central Government, and Method 8.4.6 regarding advocacy to road controlling authorities, are achieved. Based on discussions

[123] Objective 8.2.1 and associated policies, and Objective 8.2.2 and associated policies.

[124] Environment Southland, along with eight other organisations, is a shareholder of Great South, Southland's Regional Development Agency, of which the Carbon Neutral Advantage Programme is an initiative. https://greatsouth.nz/initiatives/carbon-neutral-advantage

with Council staff, staff are also not aware of undertaking any work to give effect to these methods.

Notwithstanding that these outcomes and methods have not been given effect to, section 70A of the RMA relating to the discharge of greenhouse gas emissions states:

> *when making a rule to control the discharge into air of greenhouse gases under its functions under section 30(1)(d)(iv) or (f), a regional council must not have regard to the effects of such a discharge on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gases, either—*
>
> *(a) in absolute terms; or*
>
> *(b) relative to the use and development of non-renewable energy.*

Section 70B of the RMA states:

> *If a national environmental standard is made to control the effects on climate change of the discharge into air of greenhouse gases, a regional council may make rules that are necessary to implement the standard, provided the rules are no more or less restrictive than the standard.*

These sections of the Act were inserted into the RMA in 2004 by section 6 of the Resource Management (Energy and Climate Change) Amendment Act 2004. The purpose is to provide a national approach to the assessment of effect of the discharge of greenhouse gas emissions into air. As no NES has been promulgated, and Environment Southland cannot regulate greenhouse gas discharges in the Air Plan under s70A of the RMA, this section of the Air Plan is considered redundant. Consideration should therefore be given to its deletion through the upcoming review of the Air Plan[125].

5.6 STAGE 1 – AMBIENT AIR QUALITY

Rating	Section / Topic	Outcome	Summary comments
	Ambient Air Quality	Issue 1.1: Health and amenity effects of ambient air quality	Partially achieved – minor issues with rules noted and effectiveness of incentives require review, no overall improvement in ambient air quality
	Localised Air Quality	Issue 1.2 Health and amenity effects of localised air quality	Partially achieved – issues regarding dust, outdoor burning and spray drift require addressing

[125] Unless any upcoming national reform changes this situation.

Stage 1 of the Air Plan focuses on ambient air quality within the Gore and Invercargill airsheds outdoor burning, the application of agrichemicals and fertilisers, and fire training. It sets out domestic and home heating rules which focus on reducing PM_{10} in ambient air in order to meet the NES-AQ requirements, how this is measured and reported in accordance with the NES-AQ, as well as setting out other measures to ensure domestic home heating does not result in localised air quality problems. Outdoor burning rules and fire training rules focus on minimising localised health and amenity effects regionally, with stricter rules in the Invercargill and Gore airsheds in an attempt to reduce PM_{10} concentrations during the winter months to meet the NES-AQ for PM_{10} (one allowable exceedance) by September 2021.

The issues these provisions seek to address are:

- Issue 1.1 Health and amenity effects of ambient air quality; and
- Issue 1.2 Health and amenity effects of localised air quality.

The objectives and policies regarding ambient air quality seek to improve air quality where concentrations exceed the NES-AQ, to maintain good air quality and improve it where it is degraded to reduce the effects on health and the environment[126]. The policies require the setting of emission limits and restricting burning in the Invercargill and Gore airsheds, phasing out inefficient small-scale fuel burners in the airsheds, and using education and other non-regulatory methods.

The objectives and policies do not require compliance with the NES-AQ, but seek that air quality in the airsheds is improved. The objectives do not sufficiently give effect to the NES-AQ as compliance should be required. Stating that improvement will be made towards compliance is not considered to give full effect the NES-AQ.

The associated policies regarding emission limits, burning restrictions, phase outs, and education and other methods are all considered to be partially met. The Air Plan contains rules for emission limits, phaseout and outdoor burning in Chapters 4 and 5, and as set out in Section 4.5 of this report, Environment Southland employs its non-regulatory methods regarding ambient air quality relatively effectively. Notwithstanding this, several gaps and issues have been identified:

- The airsheds are not mapped or scheduled in the Plan;
- More accurate measuring and associated communication of the uptake of the phaseout rules is needed to ensure property owners achieve compliance, and to understand more fully how this is impacting on PM10 emissions;

[126] Objectives 2.1 – 2.3 inclusive and Policies 3.1-3.6.

- Feedback on the different loan and grant schemes has been supportive, but feedback on the uptake and efficiency of administering the schemes on the ground has been variable. Community feedback, in particular, demonstrates that cost is the biggest barrier, and the effectiveness of these schemes to bridge these costs needs to be better understood.[127] A comprehensive review of all incentives in Southland is recommended to understand the efficiency and effectiveness of the schemes and opportunities for improvement to increase uptake and transition;
- Solid fuel cooking stove rules only apply in the Invercargill and Gore airsheds, and only regulate solid fuel, not multi-fuel or second hand burners;
- There is variability in terminology throughout the Chapter 4 rules making some parts of the rules difficult to interpret regarding burning appliances.[128] For example, Appendix A relates to wood fuel only but is not named as such;
- There is an opportunity for the rules and explanations to be updated so that they are current (e.g. removing the requirements for compliance for dates that have now passed), and give effect to any future changes of the NES-AQ.

The objectives and policies regarding localised air quality seek to avoid, remedy and mitigate localised air quality effects (including amenity) and to ensure Maori culture and traditional beliefs are recognised and provided for. The policies seek to ensure effects of smoke from domestic heating, agrichemical and fertiliser drift, odour, particulate and dust, outdoor burning, fire training, and hazardous pollutants is avoided, remedied or mitigated. These policies are specific to each of the listed air discharge activities and are supported by Policy 3.12 regarding adverse effects on the receiving environment, health and wellbeing, cultural, spiritual and tradition values, water quality and navigable airspace.

The policies are met by the implementation of the rules and associated non-regulatory methods. As discussed previously, the non-regulatory methods regarding the above air discharge activities are generally employed effectively; but there are exceptions to this which are discussed further below.

Notwithstanding this, feedback was received from both Environment Southland staff and stakeholders on outdoor burning and difficulties with enforcing these rules. Outdoor burning was still occurring in the airsheds during prohibited times, and difficulties with

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[127] This is evaluated in detail in Enhancing Community Buy-In with the Southland Regional Air Plan, prepared by Jack Cowie, Dylan Cliff, Viyvienne Evans, Livi Geddes, Kelsey Newman-Weaver, James Nichol and Brenna Sherson, 2019.

[128] District Councils were not always clear on how the rules apply to multi-fuel appliances, and Council staff have raised similar issues regarding interpretation.

enforcing the outdoor burning rules outside the airshed were also discussed.[129] Wood fired hot tubs is an activity which may require regulation in the rules.

Dust on roads, transport yards, bulk handling areas, and abrasive blasting were also raised as amenity and health issues, and complaints in Southland have been increasing based on feedback from the resource consents team.[130] Given the complaints Council staff receive regarding road dust, and the need for resource consent in order to supress road dust with used oil or similar products, this will be a key use for the upcoming Air Plan review to address. Environment Southland will need to work closely with the district councils as the road controlling authorities on rules regarding road dust.

Also raised as an issue is the accreditation requirements regarding AIRCARE. Environment Southland staff advised the accreditation does relate well to air quality and therefore does not relate specifically to the purpose of the rule.

[129] The 2018 Scoping Report *noted we are uncertain if this is an issue for the plan, or if the bar is being set too high for enforcement (for which an abatement notice simply requires the burden of proof be the balance of probabilities).* We concur that it is not certain as to whether this is a plan or implementation issue. The 2018 Scoping Report identified options to address this and their other various other options and non-regulatory methods that would need to be further explored to identify the most appropriate and effective option.

[130] The 2018 Scoping Report raised this as an issue that could potentially be addressed by a new catchall rule to manage discharges that are offensive or objectionable at the boundary.

6. EFFECTIVENESS OF AIR PLAN STRUCTURE

This section of the report evaluates usefulness and suitability in regard to structure and content; and the appropriateness and design of the policies, environmental results anticipated and methods.

As well as delivering outputs and outcomes, plans need to be effective in the way they are used. Key factors which contribute or otherwise to the usability and suitability of the Plan include the plan's structure:

- Use of supporting information.
- Appropriateness and design of objectives, policies and rules.
- Explanations.
- Environmental results.
- Plan effectiveness and suitability monitoring.

This section discusses each of these matters and is based on the authors' experience using and navigating the Plan.

6.1 STRUCTURE

The structure of the Air Plan varies between the Stages 1 and 2. It was observed that during engagement with stakeholders, this affected the usability and navigation of the Plan. The upcoming review of the Air Plan will therefore need to adopt a structure that is consistent for the Air Plan.

The 2018 Scoping Report made recommendations to adopt the Stage 1 structure of the Plan and integrate the Stage 2 content into it. However, when the Air Plan is reviewed, the structure of the Plan in its entirety will be required to fit with the structure prescribed in the National Planning Standards. Without limiting the necessity to ensure that the Air Plan review is structured in accordance with the new national planning template,[131] this section of the report sets out observations on the efficiency and effectiveness of the current structure.

6.1.1 Table of Contents, Navigation and Integration

As the Air Plan is split into two distinct parts, there is currently no complete Table of Contents at the beginning of the Plan. It was observed when working with stakeholders that this made the Plan hard to navigate. Unless Air Plan users have a good knowledge of the Air Plan, it is difficult to know which part of the Air Plan different provisions fall under.

[131] As discussed in Section 4.1.2.

This is a real issue for plan users, including Council staff, who are not familiar with the Air Plan.

Notwithstanding this, the Table of Contents sections in each part of the Plan is clear and easy to follow. Navigation by the Table of Contents could be significantly improved if the Plan was converted into an EPlan format, so users are able to navigate the Plan more effectively.

Cross referencing is not used at all in Stage 2. This makes it difficult for users to easily understand how the Plan provisions link together, especially regarding what policies relate to what rules. Cross referencing is used in Stage 1 to link the policies to the applicable rules that relate to this. This is effective and aids in navigating the Plan and understanding the policies that may apply if a resource consent is required.

6.1.2 Hierarchy and Order

The hierarchy and order of each stage is simple and easy to understand, but there are inconsistences between Stages 1 and 2. In Stage 2, objectives and policies are grouped in each chapter. Stage 1 provides a simpler order of provisions by setting out all objectives and policies first, followed by all rules.

6.1.3 Types of Provisions

When the Air Plan was notified, section 67 of the RMA required regional plans to include:

- The issues to be addressed and the objectives sought to be achieved
- The policies in regard to the issues and objectives, and an explanation of those policies
- The methods being used or to be used to implement the policies, including any rules
- The principal reasons for adopting the objectives, policies and methods of implementation
- Information to be submitted with a resource consent application
- Environmental results anticipated from the implementation of the policies and methods
- Processes to be used to deal with issues which cross local authority boundaries, and issues between territorial authorities and between regions
- Procedure for monitoring and reviewing the effectiveness of the plan as a means of achieving its objectives and policies
- Any other information considered appropriate
- Additional matters appropriate for fulfilling the Council's functions, powers and duties

Since 2005, section 67 has only required regional plans to contain:

- Objectives for the region;
- Policies to implement the objectives; and
- Rules (if any) to implement the policies.

Stage 1 of the Air Plan contains a plan framework section, issues, objectives, policies, rules and explanations to the rules, definitions and appendices. This framework is simple and easy to understand. However, the explanations are lengthy, and reducing these to simpler statements, if needed at all, would reduce the complexity and length of the Plan.

Stage 2 of the Plan contains a background section with a number of sections including issues, purpose and application, a legislation section, and a framework section. Chapters 4 to 8 are then organised by topic, and each chapter contains an introduction, issues, objectives and policies, methods and rules, all with explanations, principal reasons, information requirements in some instances, and outcomes. The subsequent sections address cross boundary issues, minoring and review, definitions and appendices. The definitions contain some overlaps and inconsistencies. A lot of the detailed information in the Air Plan is no longer required by s67 of the RMA and is not mandatory in the National Planning Standards. Limiting these provisions to only the objectives, policies, rules, definitions and appendices will simplify the Plan. Simple explanations to the rules could assist with understanding, without adding too much additional complexity.

6.1.4 Use of Supporting Information

Both Stage 1 and Stage 2 include supporting information in appendices. Some appendices are required as they link to rules in the Plan.[132] Others provide guidance to mitigate adverse effects,[133] while others provide content and information only.[134] There is variability in the usefulness of the different appendices. Supporting information should be included in plans if it links to a rule or policy. If the information is for context or guidance only, then typically it should sit outside the plan. If the guidance it critical to the application of the rules through the resource consent process, incorporating guidance by reference is a more efficient way of ensuring the relevant guidance is used, without increasing the length and complexity of the plan. Incorporating guidance by reference means that it will also be able to be more easily updated to meet best practice as time goes on, without needing to undertake a plan change.

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[132] For example, Stage 1 Appendix B sets out stack requirements that must be met for small scale fuel burning appliances in Rules 4.2 – 4.4.

[133] For example, Stage 2 Appendix F: Suggested Buffer Distances.

[134] For example, Appendix A: types of Industrial Processes Located in Southland Region as at 1 October 1996.

6.2 APPROPRIATENESS AND DESIGN OF OBJECTIVES, POLICIES AND RULES

Overall, for the length of the Air Plan, it contains relatively few rules. A significant portion of the Air Plan is devoted to context and explanations. The objectives, policies, methods and rules comprise a much smaller portion of the Air Plan than these explanations. For overall efficiency, simplicity, and ease of use, focusing the Plan on the provisions, and drafting the provisions to 'stand on their own' will improve its usability.

Additionally, Mana whenua values are not well integrated in the Air Plan. Stage 1 contains no introduction of section or section regarding Te Ao Mārama's air quality values. Stage 2 contains an Iwi Issues section; however, the section is general in nature, affecting how cultural values are integrated into the rest of the Plan.

Specific feedback relating to the appropriateness and design of the objectives, rules, explanations is provided below. Overall, the Stage 2 objectives and policies are high level, however the rules are overly technical and difficult to understand. Simplifying the rules, and ensuring objectives and policies are more directive in order to appropriately manage adverse effects, will need to be explored in the upcoming review.

6.2.1 Objectives and Policies

In the Stage 2 section of the Air Plan, the objectives and policies are high level, and some repeat the Act without adding any specificity as to how adverse effects should be appropriately managed.[135]

Objectives should be statements of what is to be achieved, should be specific, relate to the plan issue, and be written positively. The issues should avoid restating the provisions or terms in the RMA. Policies are the courses of action to be undertaken to achieve or implement the objective, and should be ordered to provide clear direction to those making decisions on rules or implementing methods. Policies should not be ambiguous and should be clear enough to be interpreted consistently.

In the upcoming review of the Air Plan, objectives and policies will need to be written so that they provide clear direction as to how adverse effects of air discharges need to be addressed. Where the Air Plan needs to provide clear direction to address particular issues (e.g. the appropriateness of the use of masking agents, or how to improve air discharges over time for existing industry), objectives and policies will need to be explicit in what they seek to achieve in order to effectively guide decision making.

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[135] For example, Objective 5.2.1 Adverse Effects upon the Environment: *To avoid, remedy or mitigate any adverse effects upon the environment (including the health of people and communities and amenity values) from the discharges of contaminants into air from industrial or trade premises.*

6.2.2 Rules

Overall, the sequence and cascades of the rules are clear. However, the rules contain a large number of conditions which must be met in order for the rule to apply, otherwise a higher activity standard is triggered. The rules also contain lengthy descriptions of the types of activities that are captured by them.

The rules in many cases are overly technical, and the use of technical terms makes understanding the rules, and particularly the industrial and trade premises rules, difficult to understand. When the rules are coupled with lengthy explanations, multiple definitions and footnoting, and cross reference to detailed and technical appendices, it can be difficult to interpret and apply to rules correctly and consistently. If activity/discharge were more effectively grouped, this would simplify the rules. The complexity of the rules also results in additional Council staff time assisting applicants to understand and apply the rules to assess whether a resource consent is required.

Quality Planning advises that "*Rules should be worded clearly enough to enable the plan user to judge the meaning and effect of the rule at face value without having to resort to using explanations or seeking advice from those who wrote it.*" There is always a tension in writing rules which seek to regulate often complex activities in a way which is simple and easily to understand, without excluding crucial information needed to regulate effectively. In the upcoming Air Plan review, it will be crucial to test the drafting of rules by consent officers to ascertain whether rules drafting is clear and interpreted simply and consistently.

6.2.3 Explanations and Principal Reasons

The Air Plan includes a significant amount of explanatory text to support the provisions. Almost every objective, policy and rule have a subsequent explanation. While explanations can be useful for providing the factual basis for the provisions, explanations cannot enlarge the scope of (or contradict) the content of the provision they relate to. The explanations and principal reasons are lengthy, and reducing these to simpler statements, if needed at all, would reduce the complexity and length of the Air Plan.

Current planning practice has moved away from the use of explanations on the basis that provisions should be able to 'stand on their own.' This is practical and has an added benefit of reducing the overall size and complexity of plans. Explanations are helpful for plan users to understand the purpose and reasons for rules; but are not used in the resource consent process and plan users are often only interested in understanding what they can and cannot do, rather than the reasons that underpin this. Keeping explanations only where they are really needed and keeping them short and simple will aid in understanding the rules, without making the plan unnecessarily long and cumbersome to navigate.

6.2.4 Environmental Results

Anticipated environmental results may be included in regional plans in accordance with s67(2) of the Act. They are not mandatory. The outcomes in Stage 2 of the Air Plan are the anticipated environmental results, being the result of the implementation of the objectives, policies, rules and methods. Anticipated environmental results should be clearly linked to the provisions of the Plan, be measurable (e.g. can it be established whether or not the result has been achieved?) and focus on what is to be achieved over the life of the Plan.[136]

The outcomes in Stage 2 of the Air Plan are generally clear. There is no anticipated environmental result in Stage 1. There has been a move away from the use of anticipated environmental results in second generation plans. The exclusion of anticipated environmental results in the Stage 1 provisions does not appear to impact on how Stage 1 is understood and applied. The need for the inclusion of anticipated environment results should be evaluated in the upcoming review of the Air Plan.

6.3 MONITORING AND REVIEW

Section 10 of Stage 2 provides a list of the matters to be monitored to measure the effectiveness of the Air Plan and to assist in determining whether a review is required. The table below provides an overview of the monitoring requitements, and a summary setting out whether these have been given effect to and how.

Section 10 also states that prior to the review process being instigated, the Council will consult with any sectors concerned. Engagement to inform this efficiency and effectiveness review has been undertaken with Te Ao Mārama, Invercargill City Council, Southland District Council and Gore District Council. It is anticipated that Council will continue to engage with these parties and all other stakeholders in the early stages of the Plan review to inform the draft plan prior to notification.

Table 7: Monitoring and Review Requirements

Monitoring and Review Requirement	Assessment
The amount and type of educational materials produced and/or distributed by the Southland Regional Council, and any advocacy or encouragement by the Regional Council to other organisations with regard to educational materials;	Environment Southland's education and advocacy material have been reviewed in Section 3.5 of this report. Environment Southland provides a good level of information and educational material.

[136] Quality Planning.

Monitoring and Review Requirement	Assessment
	However, it is noticeable that there is less information and guidance regarding industrial and trade air emissions.
The advocacy and encouragement measures the Regional Council undertakes with respect to transport planning and engineering, codes of practice, buffer zones, and obtaining information;	As above, Environment Southland provides a good level of information and educational material. No codes of practice have been prepared, but the need for this has been replaced by the provision of national MfE guidance. However, it is noted that the guidance regarding buffer zones required updating.
The database system set up by the Regional Council to collate the information required by rules (such as consent conditions), or from ambient air quality monitoring, and the use of this information;	Regional consenting information and ambient air quality information has been reviewed.
In conjunction with the Regional Solid Waste Management Plan, the database identifying the known discharges of greenhouse gases into air and any management practices put in place to reduce these emissions;	Council has not undertaken any work in this regard. However, this is a national government function, and the provisions regarding greenhouse gases in the RPS can therefore be removed through the upcoming Air Plan review.
Complaints, including their resolution, regarding unauthorised or non-complying activities, location of air discharges with regard to sites protected under the Historic Places Act, performance of territorial authorities carrying out duties under a transfer of power, and any nuisance complaints regarding discharges to air;	Council's complaints and incidents information has been reviewed. No transfers of powers are in place.
The occasions when enforcement procedures are used and any outcome;	Council's enforcement information has been reviewed and the use of warnings, abatement notices and enforcement orders is effective.
The management of incinerators and the health concerns taken into consideration during the	Air discharges from incineration are assessed by Council in resource consents.

Monitoring and Review Requirement	Assessment
application/consent process for solid waste and/or offal incinerators;	
Monitor design ground level concentration (refer Appendix C) and ambient air quality guideline (refer Policy 4.3.1) changes.	The upcoming plan review will need to be consistent with current MFE good practice regarding dispersion modelling[137], and the ambient air quality requirements in the NES-AQ.

[137] Good Practice Guide for Atmospheric Dispersion Modelling.

7. EFFICIENCY OF AIR PLAN

This section of the report evaluates the costs resulting from the Plan against the benefits of the Plan. The costs considered in this assessment include Council administration costs; costs incurred by resource consent applicants and holders, and the broader economic costs associated with Plan compliance.

The assessment also identifies where further research and assessment of the broader costs of plan implementation is needed to inform the Air Plan review. This is wider than consent processing costs and will need to consider the costs associated with consent holder responsibilities to implement new technology over time and monitoring and reporting. This will aid in understanding how these costs may impact on regional economic development and growth.

7.1 ADMINISTRATION COSTS OF THE AIR PLAN FOR COUNCIL

The primary costs to the Council arise from resource consent and compliance activity which implements and enforces the Plan's provisions, monitoring costs, and communication engagement costs.

7.1.1 Resource Consent Processing and Monitoring

Air discharge applications are processed on a cost recovery basis, meaning that the applicant is charged for the actual costs of processing the application. This often includes planning costs and the costs associated with a review or input by an air quality scientist. The costs are therefore borne by the resource consent applicants, not the Council.

Resource consent compliance monitoring charges are a mixture of fixed fees and actual costs.[138] No data is available to determine what proportion of the actual costs the fixed fees recover from consent holders from the information available.

7.1.2 Other Administration Costs

The Council incurs other costs relating to administering the Plan, such as communication and engagement in implementing the non-regulatory methods, investigating complaints and incidents, and air quality monitoring. These costs are not identified or quantified in the Council's financial reporting.

7.2 COSTS OF THE AIR PLAN FOR APPLICANTS AND CONSENT HOLDERS

In addition to Council administration costs, there are costs to applicants and consent holders associated with:

[138] Charges include actual costs for disbursements, a fee per kilometre for vehicle usage, and staff time.

- Technology to mitigate adverse air discharge effects;
- The preparation of resource consent applications, including the costs of technical expertise and planning expertise;
- Payment of Council processing fees;
- Payment of ongoing Council monitoring fees for the monitoring of consent conditions;
- Costs of ongoing monitoring and reporting to Council to meet conditions of consent.

No analysis of these costs has been undertaken as part of the efficiency and effectiveness review. A full analysis should be undertaken to inform the Air Plan review, and to inform the required evaluation report in accordance with s32 of the RMA.[139] This must include an analysis of the economic growth that is anticipated to be provided or reduced and employment that is anticipated to be provided or reduced, and a quantification of these costs, if practicable.

7.3 BROADER ECONOMIC COSTS OF THE AIR PLAN

The broader economic costs of the Plan are those costs to individuals, communities, businesses and organisations in Southland.

The Stage 1 ambient air quality rules require the replacement of small-scale solid fuel burning appliances with efficient burners over time in the Invercargill and Gore airsheds. There are economic costs associated with replacing domestic heating appliances that are borne by residents. This has a larger impact on low-income householders, where the cost to transition to a new heating appliance may be prohibitive. This also has an impact on older housing stock, where insulation and glazing improvements may be a higher priority for creating a warmer and healthier home, than upgrading of heating appliances. Undertaking additional work to understand the actual uptake of the rules, and then whether these economic costs are impacting on uptake is important to understand the effectiveness and efficiency of the rules.

The Stage 2 industrial and trade premises provisions, which trigger the majority of the resource costs processed by the Council, place costs on resource consent applicants to obtain resource consent approvals. In addition to resource consent processing fees, these costs include costs associated with:

- Technical and planning expertise to inform the preparation of the resource consents application;

[139] Section 32(2) states: "*An assessment under subsection (1)(b)(ii) must (a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions....*"

- Investment in technology to avoid, remedy or mitigate the adverse effects of discharges to air; and
- Ongoing monitoring and responding to meet conditions of consent.

The investment in new technology, in particular, can be a substantial cost to resource consent applicants where improvements are needed to mitigate the adverse effects of existing industrial activities discharging to air.

The Southland Regional Development Strategy seeks to grow the population in Southland to 105,000 residents by 2025. Some of the key objectives to achieve this include the development of new industries, to realise the future potential of existing industries such as manufacturing, to promote and support new innovations in existing industries, and to remove barriers to doing business in Southland.[140] Regulating discharges to air by industry and trade are a cost factor in the growth of industry in Southland.

Effective engagement with consent holders and market information will be required to inform an economic assessment to not only consider the costs of the consenting and monitoring process, but the broader costs relating to plan implementation (e.g. constraints on activities, investment in technology, operational costs etc).

7.4 OTHER COSTS

Other non-market costs and benefits of the Plan will require careful evaluation in the upcoming review. Understanding the health and social costs and benefits of the current provisions, against the health and social costs and benefits of any future changes should be evaluated and quantified if practicable.

7.5 BENEFITS OF THE AIR PLAN

The purpose of Stage 2 of the Air Plan is:

1. *to protect the region's air quality, and to enhance air quality in areas where it has been degraded;*
2. *to protect the life-supporting capacity of the global atmosphere;*
3. *to provide for the co-ordinated and integrated management of air quality within the region;*
4. *to recognise and provide for Maori culture and traditions in relation to air.*

The outcomes set out what achieving this purpose should look like and are evaluated in Section 5 of this report. Most outcomes have been partially of fully achieved.

[140] Southland Regional Development Strategy, 2015.

The outcomes relating to ozone, greenhouse gases and global atmosphere have not been achieved. However, this is not a function of regional councils under the RMA.

Overall, the Air Plan is generally effective in regulating most industrial and trade discharges, and the non-regulatory methods regarding air discharges and air quality are effective. The resource consent costs reviewed appear to be effective in protecting air quality.

Within the parameters of the Plan, based on engagement with the district councils, there is a good level of coordination and integration in the management of air quality.

The effectiveness of the domestic ambient air quality provisions in Stage 1 is not yet known. Ambient air quality monitoring to date demonstrates that air quality does not appear to be significantly deteriorating, but nor is it improving. Based on the annual reporting of PM_{10} exceedances in the Invercargill and Gore airsheds since the Stage 1 rules were made operative, it does not appear that the current NES-AQ targets will be met in 2021.

Without the regulation contained in the Air Plan, although there have been no significant improvements in air quality in Southland, it is likely that air quality would have deteriorated further. The Air Plan therefore has benefit in the protection of air quality in Southland.

8. IDENTIFICATION OF MATTERS FOR THE AIR PLAN REVIEW

The RMA requires regional and district plans to be reviewed every 10 years. With regards to assessing the efficiency and effectiveness of district and regional plans to inform these reviews, section 35(2) of the RMA states that local authorities must *'…take appropriate action … where this is shown to be necessary'* as a result of monitoring of effectiveness of plans.

This section summarises the key matters that have arisen through the efficiency and effectiveness evaluation that will require addressing in the upcoming review of the Air Plan.

8.1 CHANGE FACTORS

Are we still focused on the right issues? Are the plan's policies still appropriate or has anything changed in relation to the plan's resource management issues?

Given that a number of years have passed since the Air Plan was originally made operative, there are a number change factors which will significantly influence the upcoming Air Plan review. In summary:

- **National Planning Standards:** The structure and conventions used in both Stage 1 and Stage 2 do not fully align with the new standards, so a comprehensive rework of the Air Plan to fit this structure will likely be required.
- **Operative NES-AQ and review of NES-AQ:** Inconsistencies with the current NES-AQ will be required to be resolved in the Air Plan review, and the consultation document on the proposed changes to the NES-AQ signals significant changes for all regional air plans to transition to measuring and regulating $PM_{2.5}$ emissions in addition to PM_{10}.
- **RPS 2017:** The RPS contains a number of directive policies which in some cases provide stronger direction to the regulation of air discharges than that provided for in the Stage 2 provisions of the Air Plan. These policies will need to be given effect to in the review of the Air Plan.
- **Other changes:** Several MfE good practice guidance documents have been developed in the last several years. When the Air Plan is reviewed, these will influence the associated guidance that is provided both within and outside the Plan.
- **Emerging issues:** Community practices, perceptions and concerns regarding the environment and air quality have changed over time. There is a lower tolerance for poor air quality and industrial emissions, land uses have changed, and there is a greater awareness of climate change. The reliance on used oil on roads to suppress dust now requires resource consent under the Proposed Regional Land and Water Plan and with Council staff receiving an increasing number of dust complaints, dust on roads is an issue that the Air Plan review will need to address carefully. Dust and

odour were both raised as issues which require better integrated management with local authorities in the upcoming review.

8.2 REVIEWING PLAN OUTPUTS

Have we said what we said we'd do? That is, have we implemented all the policies and rules in the Plan?

In summary, the Air Plan has been implemented and the outputs of the current Air Plan are effective. Environment Southland is delivering well on most of the required consenting, monitoring, compliance, enforcement and non-regulatory requirements in the Plan. Although most of these outputs are achieved, reviewing them has signalled where there is a need to update the Plan through the review process. In particular:

- **Measuring uptake to efficient burners:** The effectiveness of the Stage 1 ambient air quality rule framework is difficult to assess without data regarding the actual uptake of the small-scale fuel burning provisions. This data is critical in measuring the implementation of the transition rules, and how this transition is impacting on the PM_{10} reduction targets. Anecdotally, it appears that Council may not be able to achieve the NES-AQ emission targets by the end of 2020, and being able to quantify the extent to which this is linked to the implementation of the transition rules will assist in determining next steps for how to achieve the limits. This can influence any potential change that may be needed to the ambient air quality provisions in the future.
- **Transfer of powers:** The methods regarding the transfer of powers have not been utilised to regulate air discharges. These are otherwise provided for in the RMA and Local Government Act, and unless there is a specific need to reference them in the methods, these provisions could be removed in the upcoming review.
- **Non-regulatory methods:** Environment Southland is effective in the implementation of non-regulatory methods regarding ambient air quality, odour and vehicle emissions. However, there is less information and guidance regarding industrial and trade premises air emissions than there is for other air quality issues. This is a gap that could potentially be addressed in the methods in the upcoming review.[141]
- **Tangata whenua involvement:** Overall, there is a good level of tangata whenua involvement in air quality management by Environment Southland, despite a lack of integration of tangata whenua values in the Air Plan. A partnership approach with Te Ao Mārama will ensure a good level of integration of tangata whenua values is achieved. Allowing sufficient time, and ensuring sufficient resource is available for a collaborative and partnership approach, will be critical for its success.

[141] However, it is noted that the Air Plan does not need to be reviewed for this gap to be filled. As this is a non-regulatory issue, Council is able to address this gap now without needing to review the Plan.

8.3 REVIEWING PLAN OUTCOMES

Have we achieved what we said we'd achieve? That is, have the policies and rules implemented resulted in the Plan's objectives being met?

In reviewing the achievement of the Air Plan issues and outcomes, the outcomes are considered to have been mostly achieved. The reasons for the outcomes not having been fully achieved relate to a number of matters that are able to be addressed in the upcoming review – namely relating to outdated and overly complex and technical provisions, ineffective provisions, gaps in provisions, and the high level nature of objectives and policies. In summary:

- **Ambient air quality:** The objectives and policies in both Stage 1 and Stage 2 do not sufficiently give effect to the NES-AQ. As set out previously, more accurate measuring of the uptake of the phaseout rules in Stage 1 is needed to ensure property owners are compliant and to understand more fully how this is impacting on PM_{10} emissions to inform the future Plan review. Some minor issues have been identified with the ambient air quality provisions rules and resolving these could improve the effectiveness of Stage 1. The explanations in Stage 2 are considerably out-of-date, and the explanations in Stage 1 are lengthy. There is an opportunity to reduce and simplify a lot of content.
- **Industrial or trade premises:** The key issues to be resolved in this section are the high-level nature of the objectives and policies, and the outdated, complex and technical nature of the rules. In particular, the combustion thresholds require review against current national best practice, alignment with the NES-AQ is needed, and associated guidance in appendices and explanations requires a comprehensive update. Tangata whenua values require better integration in this section. The greenhouse gas and ozone outcomes have not been achieved. However, as the regulation of these is not a regional council responsibility under the RMA, there is no need to consider carrying this section on in the Plan going forward.
- **Odour:** There is a gap in the Air Plan whereby other activities, other than the industrial and trade premises captured by the rules, which generate adverse odour effects which are offensive and/or objectionable, are not able to be addressed through the Air Plan rules. There is also a need for the Air Plan review to take a more integrated management approach to odour management with district councils. In particular, reverse sensitivity effects, the establishment of buffer distances, the relationship between air discharge permits and land use consents relating to the establishment of sensitive activities and other district council responsibilities.
- **Dust:** Dust was identified by staff as a significant gap in the Plan provisions and outcomes. As with odour, there is also a need for the Air Plan review to address gaps in the plan for the management of dust. A more integrated management approach to

dust may be needed and clarifying responsibilities for the management between local authorities and Environment Southland int eh upcoming review will assist.

- **Motor vehicle emissions:** These outcomes have not been achieved. However, as the regulation of motor vehicle emissions is not a regional council responsibility under the RMA, there is no need to consider carrying this section on in the Plan going forward. This will not limit any advocacy Council wishes to pursue in the future – this would simply sit outside the Air Plan and would likely be addressed through the future Climate Change Response Strategy instead.

8.4 REVIEWING PLAN STRUCTURE AND DESIGN

Have our actions led to the outcomes? Is the achievement of the plan's objectives attributable to the plan rules?

The structure of the Air Plan varies between the Stages 1 and 2. It was observed that during engagement with stakeholders, this affected the usability and navigation of the Plan. The upcoming review of the Air Plan will therefore need to adopt a structure that is consistent. Additionally, the structure of the Plan in its entirety will be required to fit with the structure prescribed in the National Planning Standards. Specific drafting guidelines for the review will also aid in ensuring there is consistency in drafting style.

Utilising an EPlan format when undertaking the upcoming review will also aid navigation. Setting up an EPlan software package and associated submission and reporting database for a plan review can take some months, and this will need to be established in advance of the review.

A lot of the content and explanations in Stage 1, and especially in Stage 2, are no longer requirements for regional plans under the RMA. The subsequent review should explore opportunities to limit plan content to only that necessary to understand the objectives, policies, and rules so that the Air Plan is simpler to use and understand. The use of supporting information will also require rationalising and updating to reflect current national practice.

As discussed previously, there is an opportunity in the upcoming review to better integrate tangata whenua values more effectively in the Air Plan. The contributions Te Ao Mārama have already made to the 2014 State of the Environment Report, and the tangata whenua objectives and policies in the 2017 RPS provide a good starting point to understand tangata whenua values relating to air quality.

The high-level nature of many of the objectives and policies will require addressing to ensure those that form the review provide clear direction as to how adverse effects of air discharges need to be addressed. Conversely, the detailed and technical nature of the rules will require careful review to ensure that any new rules cover the range of industrial and air discharge activities well, and that there is a backstop in place (such as catchall

rules or other rules which could address road dust and other discharges) to address any discharge which may not be covered by the more specific rules.

8.5 EFFICIENCY

Are the outcomes at reasonable cost? Was the (relative) cost of implementing the rules worth the benefits gained?

Resource consenting costs have been generally reasonable and coupled with the other Air Plan implementation costs has contributed to the implementation of the Plan.

A comprehensive understanding of the costs of any proposed changes in the upcoming review will be required. This is much wider than consent processing costs. Effective engagement with consent holders and market information will be required to inform an economic assessment and other non-market costs and benefits of the Plan (such as health and social impacts) will require careful evaluation in the upcoming review.

It is also that noted not everything necessarily benefits from a regulatory-only approach and as part of the upcoming review it will be important to assess aspects of air quality which are more efficiently addressed through a non-regulatory and / or incentives based approach.

9. CONCLUSIONS

This efficiency and effectiveness evaluation identifies a number of matters that will require addressing in the upcoming review of the Air Plan. The review will need to respond to a very different set of regulatory requirements to those that existed in 1999. Significant national work has been done since that time to understand air quality in New Zealand and in Southland, and to guide the preparation and review of the Air Plan. Additionally, the upcoming review provides an opportunity to improve the effectiveness of the Air Plan provisions where these are out of date, are too high level or conversely too complex, to address gaps and to simplify the Plan. Addressing these matters will ensure that the Air Plan appropriately manages air quality in Southland in accordance with the purpose and principles of the RMA.

APPENDIX A

Project and Engagement Methodology

MITCHELL DAYSH

ENVIRONMENT SOUTHLAND

AIR PLAN EFFICIENCY AND EFFECTIVENESS EVALUATION

Project and Engagement Methodology

29 November 2019

TABLE OF CONTENTS

REPORT INFORMATION

Report Status	Draft for Environment Southland Feedback
Our Reference	MDL001061
Author	Kirsty O'Sullivan
Review By	Lisa Miers

1. INTRODUCTION

Environment Southland is undertaking a staged review of the Southland Regional Council Regional Air Plan (the Air Plan).

Stage 1 of the review is complete and focused on the provisions relating to home heating, outdoor burning, the application of agrichemicals and fertilisers, and fire training. Stage 1 was made operative on 5th October 2016 and replaces section 6 of the Regional Air Quality Plan for Southland 1999 (the 1999 Air Plan).

Stage 2 of the review, relating to ambient air quality, air discharges from industrial or trade premises, odour, and motor vehicle emissions, will commence once the proposed changes to the National Environmental Standard for Air Quality are in effect. The Stage 2 provisions have yet to be reviewed.

The purpose of this report is to set out the methodology proposed to undertake an evaluation of the efficiency and effectives of the remaining Stage 2 provisions of the Air Plan, and the stage 1 provisions (albeit to a lesser extent). The report also details the stakeholder engagement strategy proposed to inform the evaluation.

2. OBJECTIVES OF THE EVALUATION

Environment Southland has identified five objectives for the evaluation.

The objectives of the evaluation are as follows:

- Determine whether the overarching purpose of the Plan (section 1.3) has been met;
- Determine whether the methods of implementation (sections 4.4, 5.4, 7.4 and 8.4) were implemented;
- Assess whether a 'Monitoring and Review' (section 10) has been undertaken;
- Determine the effectiveness and suitability of the Air Plan in accordance with section 10 'Monitoring and Review'; and
- Report on matters to be addressed through the Schedule 1 Air Plan review process.

While the above objectives primarily focus on Stage 2 components of the Air Plan, the evaluation is also required to consider the Stage 1 provisions, albeit at a higher level.

3. CONSULTATION APPROACH

Our consultation approach to working with key stakeholders will be undertaken in accordance with the following key principals:

Early - consultation should occur as soon as possible when the details of the project have flexibility to change in response to issues raised by interested and affected parties.

Transparent - we will be open about what the review seeks to achieve, what scope they have to influence the review and what elements cannot be altered.

Open mind - we will maintain an open view regarding people's responses and to the benefits that might arise from consultation.

Two-way process - consultation is intended as an exchange of information and requires both the project team and those consulted to put forward their points of view, and to listen to and consider other perspectives.

Not a means to an end - while consultation is not an open-ended, never-ending process, it should not be seen merely as an item on a list of things to do that should be crossed off as soon as possible. The purpose is to understand the stakeholders views regarding the Air Plan. Their views matter and will be considered and reported on in the report.

Ongoing - we acknowledge that this is the start of engagement with stakeholders on a subsequent review of the Air Plan.

Agreement not necessary - consultation does not mean that parties have to agree and understanding where parties do not agree is useful in understand what opportunities may exist in the future to address matters raised by stakeholders.

4. PROPOSED METHODOLOGY

Based on previous assessments undertaken by Environment Southland and other Councils around New Zealand,[1] it is clear that the evaluation must consider:

- Whether plan implementation has been efficient and effective to date;
- Whether state of the environment and consent and compliance monitoring results are in line with the objectives set in the plan; and
- Issues that have arisen through plan development and implementation.

Measuring efficiency involves the evaluation of whether the costs of the policies, rules and other methods are reasonable for the benefits gained. Costs and benefits are evaluated in monetary and non-monetary terms. Measuring effectiveness involves the evaluation of whether the objectives and anticipated environmental results sought by a plan's policies have been achieved.

For the purposes of this evaluation, it is proposed that a desktop evaluation of the efficiency and effectiveness of the Stage 2 Air Plan will be completed. This evaluation will be based on information obtained from a variety of sources, as shown in Figure 1 below.

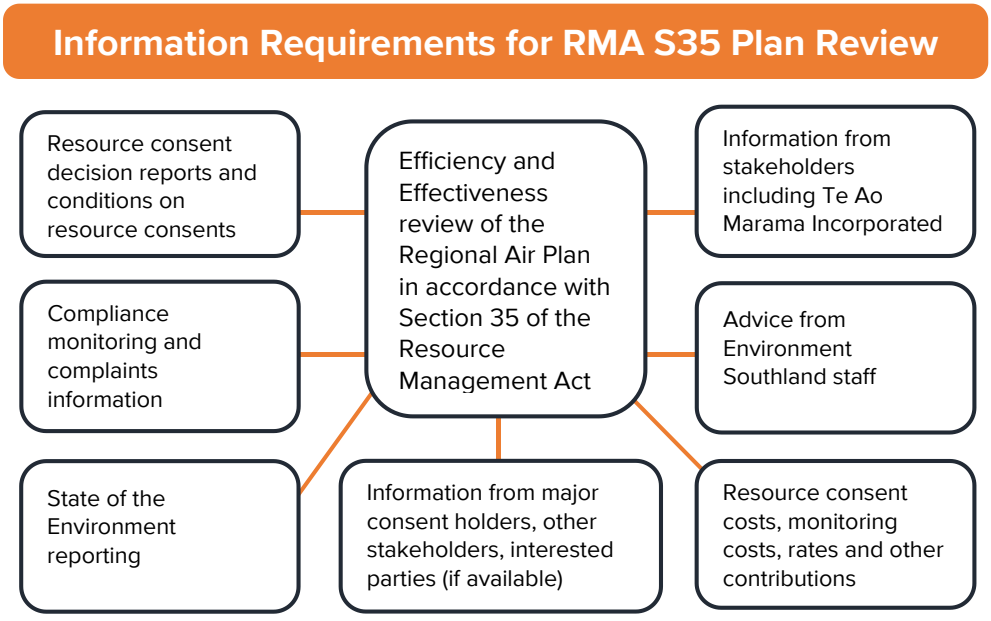
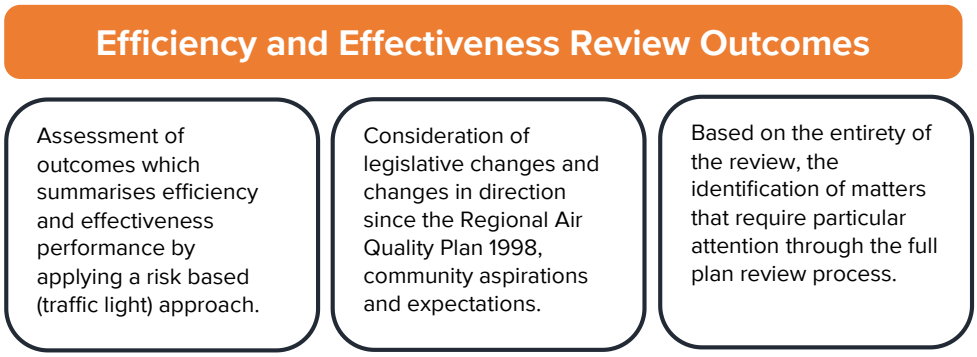


Figure 1: Sources of information to inform effectiveness and efficiency evaluation.

[1] See for example - https://www.es.govt.nz/repository/libraries/id:26gi9ayo517q9stt81sd/hierarchy/about-us/plans-and-strategies/regional-plans/coastal-plan/documents/An%20assessment%20of%20the%20Effectiveness%20and%20Efficiency%20of%20the%20Regional%20Coastal%20Plan%20for%20Southland%20%28June%202019%29.pdf
And https://api.ecan.govt.nz/TrimPublicAPI/documents/download/3459865

The efficiency and effectiveness report to be produced from the review is detailed on page 6 of the previous proposal from Mitchell Daysh. The report will deliver a traffic light approach to prioritise the report outcomes, will identify changes in legislation, expectations and aspirations, and will identify matters to be addressed in the subsequent plan review:



The methodology proposed to undertake the review is shown in Figure 2 and comprises of three key phases:

- Project Initiation;
- Data Gathering (comprised of two parts – preliminary analysis and stakeholder engagement); and
- Evaluation and Reporting.

As shown in Figure 2, the three phases are not linear, with some workstreams occurring concurrently. This approach is proposed to minimise the amount of time lost to a late start to the project and the potential time lost over the summer holiday period.

Each of the workstreams is discussed in more detail in the following sections.

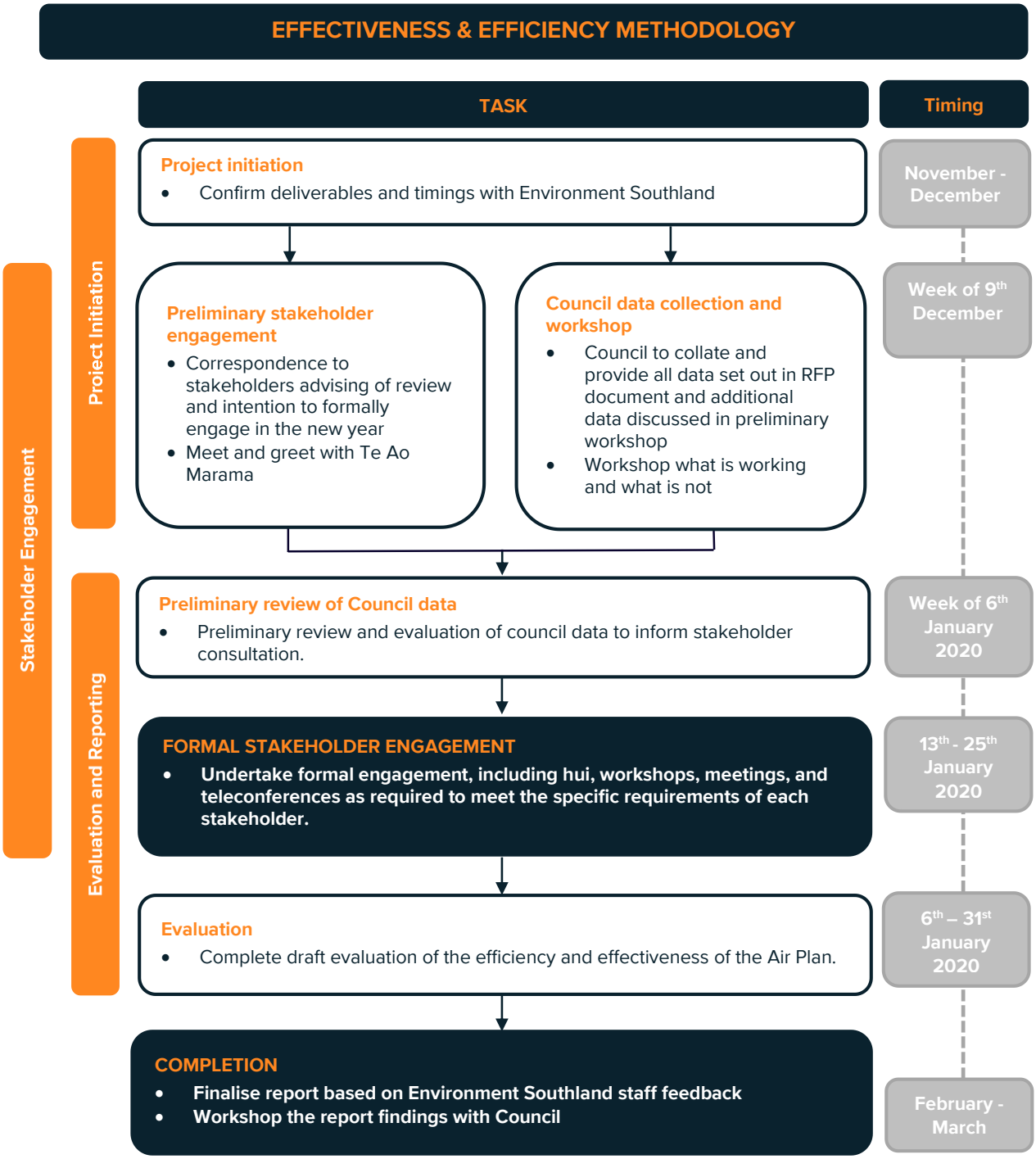


Figure 2: Methodology for effectiveness and efficiency evaluation and indicative timings.

5. KEY PHASES

5.1 PHASE 1: PROJECT INITIATION

Project initiation – end of November to early December 2019

The first phase of the project will involve the general project initiation with Environment Southland. It is proposed that this will commence by video conferencing with the Environment Southland lead and to confirm the project deliverables, timing and key risk management items.

Preliminary Engagement with Stakeholders and Staff – early to mid-December 2019

Once timeframes are confirmed, preliminary engagement with key stakeholders will commence. In the first instance, this will comprise of a short letter to stakeholders advising of the pending review and our intention to formally engage with them in the new year. Letters will be followed up with a telephone call to ensure meeting dates for the new year are set and confirmed before stakeholders break for the summer holidays. Depending on availability and timing, an initial meet and greet could be arranged with Te Ao Marama to introduce them to review and how they can be involved.

A preliminary workshop will also be held with key members of the Environment Southland and Mitchell Daysh team as part of this first phase. The purpose of the workshop is to understand the Council staff's preliminary perspective of the Air Plan, including which parts are working well and which are not, recurring consenting issues or themes and existing gaps in the Air Plan or Council's technical information. To help facilitate discussions during this workshop, Mitchell Daysh will prepare and pre-circulate a set of questions for the Council staff to consider prior to the workshop.

5.2 PHASE 2: DATA GATHERING

Preliminary data gathering – Week commencing 9th December 2019

A key component of the data gathering phase will be the analysis of Environment Southland's technical and consenting data. This data will form the basis of the effectiveness and efficiency review. While we have identified that this work will commence the week of 9th December, some of this could commence in advance of this date subject to Environment Southland staff availability. In order for the project deliverables to remain on schedule, all data will need to be provided to Mitchell Daysh before the summer holiday period commences in a form suitable for policy analysis.

This data should include:

- Air-related consents (including granted, declined, lapsed, operative, type and notification);
- Compliance information (including incidents, enforcement and consent monitoring);
- Air quality research and monitoring information for Southland (internal and external);
- Information from Te Ao Marama (including involvement in consents and wāhi tapu);
- Information on non-regulatory methods (including education, provision of information, industry codes of practice and guidelines);
- Bluff Port Zone Discharge Agreement;
- Costs (including Council, user and ratepayer);
- Anecdotal information (for example, user surveys, public consultations and communication with Councillors);
- Formal submissions or correspondence with territorial authorities regarding District Plan controls;
- Formal submissions or correspondence with local and central government agencies regarding strategies or policies for managing vehicle emissions;
- Any formal submissions or correspondence from organisations and the public on the long term plan, annual plan and/or other public consultation processes where feedback regarding the Air Plan and its implementation has been provided;
- Advice from Environment Southland and territorial authority staff as agreed during the course of the review; and
- Case law and legal opinions received regarding the Air Plan and its implementation.

Stakeholder Engagement – mid to late January 2020

Formal engagement with key stakeholders will commence in mid to late January 2020. Actual timing will be dependent on their availability.

We envisage that the best mechanism to engage with relevant stakeholders will become apparent once preliminary data analysis has commenced. It may also be influenced by the availability of the stakeholders. In our initial view however, we anticipate that the following engagement approaches will be used for each of the respective stakeholders:

- **Te Ao Marama:** arrange a hui with Te Ao Marama to discuss air discharge practices in the region and any issues arising.
- **Territorial Authorities:** Our view preliminary view is that engagement will need to best fit the varying capacities of each of the Councils and their relevant staff as follows:

- Engagement with Council policy teams who implement the Air Plan methods (such as the establishment of buffers using land use zones).
- Departments that hold air discharge permits (such as wastewater departments); and,
- Department responsible for facilitating warmer home initiatives and other air quality related initiatives.

Due to the number of people likely to be involved in the above discussions, we consider workshop/s would be the most efficient way to seek this feedback from the above Council departments. However, if coordinating the various council inputs is difficult in terms of timing, this could also be undertaken via email and/or videoconferencing.

- **Ministry for the Environment:** A short video conference with Ministry air quality leads to understand the nature and type of policy changes on the horizon.
- **Environment Southland Team:** Hold a second, targeted workshop with Environment Southland team to tease out any specific issues identified during stakeholder engagement and via Mitchell Daysh's preliminary evaluation work. Mitchell Daysh will also use this workshop as an opportunity to work through any gaps identified in the data provided by Council.

Where practicable, we will seek to consolidate the above engagement to minimise travel to and from Invercargill.

We intend to update Environment Southland early January with respect to the specific engagement approach used for each stakeholder group. This will be informed by our preliminary workshop held with the Environment Southland team (mid December) and our preliminary data analysis and review (refer to Phase 3). It is likely to include a combination of hui, in person workshops, written feedback and video conferences and will be tailored to the specific needs or requirements of stakeholders.

Due to the dependence of third parties during this stage of work, stakeholder engagement presents the greatest challenge to meeting the overall deliverable dates.

5.3 PHASE 3: EVALUATION

Preliminary Evaluation - early January 2020

Evaluation will comprise of two parts. Preliminary evaluation will commence early January following receipt of data from Environment Southland. This evaluation will help shape stakeholder engagement and ensure that it is targeted to meet the needs to the evaluation process. Any gaps in the data will also be identified during this preliminary evaluation and worked through with the Environment Southland team at the second workshop.

Detailed evaluation and completion of draft report – late January 2020

The second phase of the evaluation process will involve the detailed analysis of the effectiveness and efficiency of the Air Plan, drawing on the information collected during Phase 1 and 2. At this stage, we consider that it is feasible for this to be delivered late January, however note the following two factors are both outside of Mitchell Daysh's control and will influence the timing of the report:

- Timing delivery of Council data; and,
- Availability of stakeholders mid to late January.

We also recommended in our proposal that Environment Southland consider a broader and fulsome assessment of costs. Specifically, we consider it would be beneficial to understand the wider implementation costs of the Air Plan, beyond processing and consent fees.

In order to undertake this piece of work, additional stakeholder engagement wold be required along with expert economic advice. While ideally this would form part of the overall efficiency and effectiveness report, it could be undertaken as an addendum to the final report if timeframes are at issue.

5.4 PROJECT COMPLETION

February – March 2020

Once the complete draft report has been provided to Environment Southland, and any required amendments in response to feedback have been made, the report can be finalised. We will the workshop the report findings with Environment Southland.

B

APPENDIX B

Summary of Key Stakeholder Engagement

MITCHELL DAYSH

Regional Air Plan for Southland - Efficiency and Effectiveness Review under Section 35 of the Resource Management Act 1991

Summary of Engagement with Key Stakeholders

March 2020

INTRODUCTION

Environment Southland is preparing to undertake an upcoming review of part of the Regional Air Plan for Southland (the Air Plan). Stage 1 of the Air Plan review was completed in 2016 and involved a review and update to the provisions relating to home heating, outdoor burning, application of agrichemicals and fertilisers, and fire training. Stage 2 of the review will focus on the remaining chapters of the plan, including;

- Ambient air quality;
- Air discharges from industrial or trade premises;
- Odour; and
- Motor vehicle emissions.

While the review will primarily focus on the Stage 2 components of the Air Plan, the evaluation will also consider the Stage 1 provisions, albeit at a higher level.

This document summarises the consultation that has been undertaken with Environment Southland staff, Te Ao Mārama Incorporated (Te Ao Mārama), the Ministry for the Environment (MfE), and the three Territorial Local Authorities in Southland, being Southland District Council, Invercargill City Council, and Gore District Council to inform the efficiency and effectiveness review.

CONSULTATION APPROACH

The consultation approach undertaken was guided by the following principals:

Early - Consultation should occur as soon as possible when the details of the project have flexibility to change in response to issues raised by interested and affected parties. This meant engaging with as many stakeholders as possible prior to the preparation of the efficiency and effectiveness report to ensure that their feedback is appropriately understood and reflected in the report.

Transparent - Being open about what the review seeks to achieve, what scope stakeholders have to influence the review, what elements cannot be altered, and that the efficiency and effectiveness review will be utilised to inform the Stage 2 review of the Air Plan.

Open mind - An open view was maintained regarding people's responses and to the benefits that might arise from consultation.

Two-way process - Engagement with parties involved an exchange of information and required both the project team and those consulted to put forward their points of view, and to listen to and consider other perspectives.

Not a means to an end - While consultation is not an open-ended, never-ending process, it should not be seen merely as an item on a list of things to do that should be crossed off as soon as possible. The purpose of the engagement was to understand people's views regarding the Air Plan. Their views matter and are considered and reported on in the efficiency and effectiveness report. This summary assists in understanding and consolidating the key points and themes raised.

Ongoing - Acknowledging to all parties that this is the start of a wider engagement process on a subsequent review of the Air Plan.

Agreement not necessary - Consultation does not mean that parties have to agree, and understanding where parties do not agree is useful in understanding what opportunities may exist in the future to address matters raised by stakeholders. Not all views regarding the Air Plan were the same, and it is not the role of the efficiency and effectiveness report to seek consensus on these views, but to identify matters which will require further investigation in the upcoming review of the Air Plan.

CONSULTATION UNDERTAKEN

Letters were sent to Te Ao Mārama, Invercargill City Council, Southland District Council and Gore District Council describing the purpose of the efficiency and effectiveness review, inviting their feedback in the new year. The letters were followed by phone calls and emails with each party to confirm a time and date to seek feedback, and an agenda setting out key questions to prompt discussion on the day.

The subsequent approach varied depending in the availability and interest of each party in the process. In tandem, workshops were set up with Environment Southland staff to seek practitioner perspectives of the efficiency and effectiveness of the Air Plan.

The table below provides a summary of the engagement undertaken:

Workshop / Hui	Date and Location
Workshop with Environment Southland team leader – Ecosystem Drivers	20 January 2020, 1.30pm – 2.30pm, Environment Southland
Workshop with Environment Southland key policy, resource consents, and monitoring and compliance staff	20 January 2020, 3.00pm – 4.30pm, Environment Southland
Workshop with Southland District Council staff	21 January 2020, 8.30am – 9.30am, Southland District Council
Workshop with Invercargill City Council Staff	21 January 2020, 2.00pm – 3.30pm, Southland District Council
Videoconference with Gore District Council staff	4 March, 2.00pm – 2.45pm

FEEDBACK RECEIVED

ENVIRONMENT SOUTHLAND

To prepare for the workshops, Environment Southland staff were sent a feedback template summarising all the Air Plan provisions by outcome, to utilise as a template to record initial feedback to prepare for the workshop, and a workshop agenda with key questions and prompts for staff to assist in drawing out feedback on the efficiency and effectiveness of the Air Plan. The workshop was facilitated by moving through each section of the Air Plan, and flipcharts were used to record and discuss feedback.

A summary of feedback from these sessions is provided below:

- **Upcoming review of the National Environmental Standards for Air Quality (NES):** Environment Southland staff are on the National Air Quality working group and have provided feedback to a review of the NES over the years. Feedback was provided on a draft discussion document in 2019 and staff understand that this will be released as a public discussion document in the future.

- **Ambient Air Quality:**
  - Aside from air discharges, other matters that may influence ambient air quality monitoring include sea spray and the recent Australian bushfires.
  - In addition to PM_{10}, $PM_{2.5}$ is also monitored in Invercargill, Gore and Winton.
  - In wintertime, weekly alerts are included in the newspapers to make residents aware of PM_{10} levels.
  - Uptake on clean air loans and grants could be higher, and often insulation is a higher priority than efficient heating. There are two different schemes and the effectiveness of the schemes requires assessment.
  - The transition to new ambient air quality rules is measured by PM_{10} monitoring. Installation of new fuel burners is assessed by local Council staff during building consents to ensure they are on the Ministry for the Environment's list of approved burners. Building consent applications for other burners that are not on the list are sent to Environment Southland to review if compliance with the Air Plan is achieved.
  - There are difficulties enforcing and monitoring success of phase out rules as Environment Southland staff cannot enter properties, and a very good level of data of existing burners is required to monitor uptake effectively. There is a need to compare the rate of change to burner numbers prior to 2014 and to take a proactive approach to ensuring the transition is effective. There is also difficulty in understanding and interpreting the rules. There is a loophole in the Air Plan for solid fuel cooking appliances.
  - Need to ensure information is included in LIMs.
  - Coal burning, coal quality and fire banking is a concern. Plan to monitor sulphur dioxide in the future, potentially in the next round of the Long-Term Plan. The notified version of the Stage 1 Air Plan review originally sought a 1% sulphur limit on coal.
  - Council receives spray drift complaints, especially in market gardens. This can be tricky to monitor and respond to and spray drift is often compliant. There are issues with the requirement of an AIRCARE accreditation as the accreditation does not only address air quality and does not relate specifically to the purpose of the rule.
  - Compliance team find it difficult to enforce outdoor burning provisions at times. This receives the most complaints. People are often not aware of the ban in airsheds. Rubbish and green waste is often burned and this is a historical practice. Other outdoor burning issues that arise relate to burning for food, cultural reasons, hot-tubs, and Guy Fawkes.
- **Industrial and trade premises:**
  - MFE definitions are very broad. Rule in Plan for non-industry (ponds)?
  - Rules in the Air Plan work but are difficult to interpret, highly technical and in some cases have a high upper threshold. In some cases, the rules are out of date and not needed. In

some cases thresholds are too high (e.g. 5WW boilers). Electromagnetic emissions are no longer needed, ringlemann chart missing and outdated, lead content of oil.

- Permitted activities are inconsistent and can be difficult to enforce or determine.
- Use of masking agents is an issue when systems fail, not an excuse to emit and shouldn't be a fallback (especially as they are a discretionary activity).
- Regular monitoring is undertaken, but on some consents, the conditions may be outdated and ineffective.
- During winter when PM_{10} levels are higher, a very small percentage of this is from industry and trade which is not well understood by some of the public.
- Concerns regarding big chimneys and plumes are more of a visual and amenity issue and approximately 4% of PM_{10} on a winter's day is attributed to industry.

- **Odour:**
  - Some odour complaints addressed by the use of masking agents – but this requires resource consent and should not be relied upon as a solution.
  - Most odour complaints are in relation to effluent ponds / wastewater treatment plants. Some complaints in relation to Southland District and Invercargill City treatment plants.
  - Gaps in the Plan. Reference to MfE best practice guide needed. The Appendix F buffers are helpful but out of date. Bioactive solids, thresholds for emissions and differentiation of odours. Possibility of industry or trade waste permits for odours. Where activities are consented, generally performance is improving.

- **Other matters:**
  - **Complaints:** Capacity to respond to complaints can be limited but complaints need to be responded to promptly. Issues with activities on paper roads.
  - **Dust:** No catch-all rule to address dust in the Air Plan. Dust from transport and bulk handling yards need a limit. Dust on roads can be an amenity issue and complaints in Southland have been received occasionally. A report on the effects from dust on roads has been published in Northland which may be of benefit. This assessed health impacts associated with small particulate. The oiling of roads to control dust was previously permitted in the Land and Water Plan but is now a discretionary activity. The responsibility of dust suppression should fall on the emitter.
  - **Dross:** Recent issues tied to land use and no rules in the Air Plan.
  - **Fireworks displays:** These have been an issue in Auckland where fireworks displays result in exceedances. This could be an issue in the future as there isn't anything in the Air Plan to capture it.

- **Other provisions:** Policies are too high level and a lot of material refenced is out of date and no reference is made to current MfE best practice guides. No policy on modelling.

TE AO MĀRAMA

Te Ao Mārama were provided with an agenda with key questions and prompts to assist with providing feedback on the efficiency and effectiveness of the Air Plan.

A summary of feedback is provided below:

- Measuring the uptake of the Stage 1 phase out rules is important to ensuring the emission limits for PM_{10} are achieved over the long term. It is important to be able to measure and see this progress.
- Te Ao Mārama informed the development of the Stage 1 review of the Air Plan.
- Climate change is also a factor in ambient air quality. More warmer nights in the future could result in less breaches of emission limits.
- A partnership approach with Environment Southland is adopted for the Coastal Plan Review and was adopted for the Southland Air / Ngā Hau o Murihiku State of the Environment Report 2014. These approaches both worked very well.
- Te Ao Mārama are conscious of the level of involvement needed and how much time this takes. There are a lot of planning and policy projects taking place in Otago and Southland at the moment.
- As Te Ao Mārama has been busy on the Water and Land Plan, and now also busy on the Coastal Plan, adequate time will be needed to engage well on the Air Plan too, and it may be difficult to do this at the same time when several other policy changes are underway.
- Supportive of Breathe Easy Southland, the Warm Homes Trust and Clean Air Loans schemes.
- Air quality issues:
  - Tiwai smelter and dust emissions.
  - Bad lungs in winter when PM_{10} levels are higher.
  - Outdoor burning of wet vegetation causing smoke and complaints.
  - Odour – the smell of water when water is not healthy.
  - Dross and associated air quality issues, exclusion and evacuations and recovery.
  - People, cultural and social values should be front of mind when writing the Air Plan.
  - The Air Plan is difficult to understand and has too many scientific terms and acronyms. It can make providing feedback difficult without having someone available with technical expertise.
  - Cultural values need to be integrated into the Plan.

- Values on climate change have changed over time, even since the Stage 1 review. There is an opportunity to reflect on the first stage regarding coal and other issues. Understand that Environment Southland is in the early stages of the Climate Change Action Plan, this will have an influence on the Air Plan.
- Is outdoor burning needed anymore? This is a historic practice and views may be changing on this over time too.
- Taking a holistic approach, air quality is visual, and has a smell (which can be affected by heat) and taste.

- Resource consent process for air discharges is working well. Te Ao Mārama are approached by applicants, or after a notification decision has been made. Do not provide input to too many (up to 10 in the last few years) but providing input works well and Council is responsive. Often liaise with Public Health South when responding to consents.

TERRITORIAL LOCAL AUTHORITIES

Territorial local authorities were provided with a workshop agenda with key questions and prompts to assist with providing feedback on the efficiency and effectiveness of the Air Plan. A summary of feedback is provided below:

- **The Air Plan:** Where possible, removing duplication between district and regional planning documents and improving collaboration is supported.
- **Ambient Air Quality:** Councils consider it was important to continue to incentivise changes to behaviours for home heating, and monitoring the effectiveness of the provisions by Environment Southland is important to assess PM_{10} levels are reducing over time. Non-regulatory messaging is important to ensure the transition is successful. Are monitoring stations in the right locations to correctly measure PM_{10}? The transitional rules are not always clear. For example, are new multifuel burners compliant?
- **Dust:**
  - Some dust complaints received by Councils. In Invercargill, this relates to transport companies. Dust from development is managed by conditions on land use consents, but mainly to manage nuisance and incidents only.
  - Complaints relate to dust on roads, and as the Water and Land Plan now requires resource consent, Envirosouth have a global consent in place to supress dust with oil. Some complaints are received about animal odours in small urban areas. Received occasional calls regarding spray drift and chimney smoke. Complaints sometimes received on septic tanks and the Council works together with Environment Southland to resolve these. Some dust from fertiliser sheds, and not sure if spray booths are regulated, if they are not, they should be. Sometimes waste oil is burned. Bylaws address odour to some extent from the keeping of animals and pigs.

- **Odour:** Some odour complaints are received, most in Invercargill are forwarded on to Environment Southland. No issues raised with crematorium in Invercargill. Odour complaints in Invercargill often relate to food premises and this is addressed with Council's Environmental Health team.
- **Clean air loans and grants:**
  - Invercargill operate the Clean Air Loans Scheme. Uptake has slowed over the years and there are other subsidies available through EECA and banks like ANZ (where low or no interest loans are available). An uptake of 168 homes overall on low interest loans. Other subsidies are available from Awarua Synergy and the Warm Homes Trust. The scheme is supported by Council, and benefits the residents who use it, but is quite administrative.
  - Southland District Council contribute to grants through the Warm Homes Trust. 60-70 homes have benefited in Southland District, and $1 spent results in $6-$7 saved in health costs. Anecdotally, potentially the fund limits may be too low and there are few service providers which may affect uptake.
- **Use of buffers:** Invercargill City Council buffer heavy industry with light industry, and buffer light industry with commercial activities. Poultry farms can be an issue in rural areas, no intensive farming setback. This is otherwise addressed at a policy level.
- **Other discharges:** Cruise ship discharges is a concern for Southland District Council in Milford Sound. Understand work is being done at a national level.

SUMMARY OF KEY THEMES

There were a number of key themes that emerged from engagement with Te Ao Mārama, Environment Southland staff and the district councils.

The proactive approach to engaging with key parties at this early stage in the plan review process was welcomed by stakeholders. In particular, Te Ao Mārama are supportive of a partnership approach to the upcoming review of the Air Plan but will need to ensure that there is adequate capacity and time to do this well. Ensuring that cultural values are integrated in the Plan will be important for the upcoming review, climate change requires consideration, and a forward-thinking approach to changing values over recent time will be needed.

With regards to the Stage 1 Ambient Air Quality provisions, being able to effectively measure the uptake of efficient burners overtime, and whether this results in reductions in PM_{10} is critical. The proactive non-regulatory approach to this in terms of information, support and the loans and grants schemes were supported, but being able to review how these come together to maximise effectiveness is important. Several specific issues with the current rules were raised by Environment Southland staff. Additionally, there are some difficulties with monitoring and compliance for spray drift and outdoor burning.

With regards to the Stage 2 provisions, most of the feedback received related to industry and trade, and dust and odour. Staff, in particular, consider objectives and policies were too high level, and rules were too detailed/specific.

The Air Plan review will need to address those provisions that are overly technical, no longer relevant and/or out of date, and the current good practice guidance will need to be reflected. Thresholds for consents will require careful review (too high/too low), and addressing gaps and loopholes will be important (e.g. odour and dust). Ensuring consent conditions are effective, and enforceable is important.

C

APPENDIX C

MfE Comparison Table of NES-AQ 2004 Standards and Proposed NES-AQ

Summary of current and proposed provisions

Table 3: Summary of current and proposed provisions

Note: This table only includes the provisions we expect to amend

Proposed amendments	Current NESAQ provisions	Proposed provisions
Particulate matter		
$PM_{2.5}$	None	Daily average $PM_{2.5}$ standard – 25 µg/m^3 (three or fewer exceedances allowed in a 12-month period) Annual average $PM_{2.5}$ standard – 10 µg/m^3 Monitoring required in all airsheds Publicly notify breaches Replace PM_{10} with $PM_{2.5}$ for 'offset' and open fires provisions
PM_{10}	Daily average PM_{10} standard – 50 µg/m^3 One exceedances of daily PM_{10} allowed from 1 September 2020	PM_{10} standard retained Monitoring requirements retained Publicly notify breaches
'Offset' discharges in polluted airsheds	'Polluted' if daily PM_{10} standard breached, averaged where possible over previous five years Polluted until PM_{10} standard not breached in previous five years New resource consent applications that will increase PM_{10} by more than 2.5 µg/m^3 in a polluted airshed must be declined, unless discharges will be offset elsewhere in airshed	Reflect change from PM_{10} to $PM_{2.5}$ standards 'Polluted' if either daily or annual $PM_{2.5}$ standards breached, where possible averaged over previous five years Meaningful data required to calculate average exceedances Polluted until neither $PM_{2.5}$ standard has been breached in previous five years PM_{10} standard used where airshed does not yet have adequate meaningful $PM_{2.5}$ data Decline new consent applications to discharge $PM_{2.5}$ in a polluted airshed, unless offset within the same airshed
Solid-fuel burners		
Emissions standard for burners	No more than 1.5g/kg	No more than 1.0g/kg Specify updated and/or appropriate methods for measuring
Thermal efficiency standard for burners	No less than 65 per cent	No less than 65 per cent (no change) Specify updated and/or appropriate methods for calculating
Application of standard for burners	Applies to new wood burners	Applies to all new domestic solid-fuel burners including open fires, wood, coal, pellet, and multi-fuel burners, cookers and water boilers
	Applies only to properties of less than two hectares	Applies only to properties of less than two hectares (no change)

Solid-fuel burning, open fires prohibited	Prohibit discharges indefinitely from newly installed, solid-fuel open fires when PM_{10} standard is breached	Reflect change from PM_{10} standard to $PM_{2.5}$ standards Applies indefinitely when either daily or annual $PM_{2.5}$ standard is breached
Monitoring		
Monitoring methods	Specified in Schedule 2 of the NESAQ Various Australian/New Zealand standards and United States Code of Federal Regulations for monitoring PM_{10}	Specify updated and appropriate methods for monitoring PM_{10} and $PM_{2.5}$ in Schedule 2 of the NESAQ
Mercury		
Use of mercury in industrial processes	None	Prohibit use of mercury in certain industrial processes specified in Annex B of the Minamata Convention
Emissions that may contain mercury	None	Incorporate by reference international best practice guidelines for emissions sources specified in Annex D of the Minamata Convention

D

APPENDIX D

Summary of 2017 National Planning Standard Requirements

National Planning Standards – Regional Plan Structure	
The table below provides a high-level overview of the Regional Plan structure required by the National Planning Standards. The mandatory directions with respect to each part are set out at the start of each part. Other directions with respect to specific sections of the Plan are described under each section heading. Chapters identified in bold are mandatory for inclusion in a regional plan. Refer to the National Planning Standard Guidance document for further information: https://www.mfe.govt.nz/sites/default/files/media/RMA/national-planning-standards-november-2019.pdf <u>Mandatory directions for all parts</u> 1. All parts and their titles in the above table must be included, in the order shown. Additional parts must not be included. 2. Chapters and sections that are black in Table 3 must be included, in the order shown. 3. Unless otherwise specified, chapters and sections that are grey must be included if relevant to the regional plan, in the order shown. 4. If a chapter in the table is included, its associated heading must also be included. 5. Local authorities must add sections and subsections within chapters where appropriate to organise related provisions.	
Part 1 – Introduction and General Provisions	
Introduction	
Chapters	› Foreword or Mihi. › Contents: In paper or PDF versions of a policy statement or plan, a contents page detailing all parts, chapters, sections, and any subsections must be included in the Contents chapter. › Purpose: If the statutory purpose of the policy statement or plan is included, it must be located in the Purpose chapter. › Description of the region: If key information (including issues) about the region or district relevant from a resource management perspective is included in the plan, it must be located in Description of the region, or Description of the district chapter.
How the Plan Works	
Chapters	› Statutory context: If the following matters are addressed, they must be located in the Statutory context chapter: a. A list of all RMA planning documents relevant to the region or district, and how they relate to each other and to the policy statement or plan. b. How Māori and Treaty of Waitangi matters in Part 2 of the RMA including but not limited to sections 6(e), 6(f), 6(g), 7(a) and 8, are addressed. c. Information or a reference and link to information, required by any existing or pending Treaty of Waitangi settlement legislation or related statutory documents.

	d. A list of other plans that are relevant to the context or content of the policy statement or plan under sections 61(2) and (2A), 66(2) and (2A) and 74(2) and (2A) of the RMA. e. Other legislation that directs changes to an RMA plan. › General approach: If the following matters are addressed, they must be located in the General approach chapter: a. An explanation of the approach to integrated management, including (where relevant) hapū or iwi management values or practices. b. The steps plan users should take to determine if an activity is provided for by the policy statement or plan. c. How resource consent applications subject to multiple zones or chapters are treated. d. An outline of administrative or other provisions of the RMA that apply. e. Information to be submitted with a resource consent application. f. How controlled and restricted discretionary activities will be assessed in addition to the specific requirements in individual rules. g. Any other matter that assists with the use of the plan. › Cross boundary matters: If the following matters are addressed, they must be located in the Cross boundary matters chapter: a. Processes and other provisions for dealing with issues that cross jurisdictional boundaries. b. Processes and other provisions for dealing with issues between local authorities. › **Relationship between spatial layers:** The relationships between spatial layers chapter must include an explanation of how spatial layers relate to one another (further detail may be included in specific chapters).
Interpretation	› **Definitions:** a. Definitions must be located in the Definitions chapter. b. Definitions must be included in a single list, which includes both terms required by the planning standards, and additional terms the local authority chooses to define. › **Abbreviations:** a. Abbreviations must be located in the Abbreviations chapter. b. Abbreviations must be listed numerically and then alphabetically. › Glossary: If a glossary is provided, it must be located in the Glossary chapter.
National Direction Instruments	
Chapters	› **National policy statements and New Zealand Coastal Policy Statement** a. A national policy statement and New Zealand Coastal Policy Statement table must be provided in the form shown in the National Planning Standards. b. Policy statements or plans must provide a link to the document listed.

	c. for each national policy statement or New Zealand Coastal Policy Statement the following commentary must be provided: i The ['policy statement' or 'plan'] has been reviewed [insert any relevant review dates and references to relevant changes]. ii This national policy statement does not apply to the ['policy statement' or 'plan']. iii The ['policy statement' or 'plan'] has not yet been reviewed. › **National environmental standards** a. A national environmental standards table must be provided in the form set out in the National Planning Standards. b. Plans must provide a link to the national environment standards listed. › **Regulations** a. A regulations table must be provided in the form set out in the National Planning Standards. b. Plans must provide a link to the regulations listed. › Water conservation orders a. A water conservation order table must be provided in the form set out in the National Planning Standard in the Water conservation orders chapter, if one or more water conservation orders are located in the region or district. b. Plans must provide a link to the water conservation order when it is included. c. For each water conservation order, the following commentary must be used: i. The ['policy statement' or 'plan'] has been reviewed [insert any relevant review dates and references to relevant changes]. ii. The ['policy statement' or 'plan'] has not yet been reviewed.
Tangata Whenua / Mana Whenua	
Chapter:	› **Tangata whenua / mana whenua** a. The provisions under the [Tangata whenua/Mana whenua] heading must only include context and process-related provisions. Other tangata whenua/mana whenua provisions must be integrated throughout the policy statement or plan where the local authority determines it is appropriate. b. Chapters and sections under this heading may be structured as appropriate but must comply with the National Planning Standards. c. Matters to consider for provisions under the [Tangata whenua/Mana whenua] heading: i. Recognition of hapū and iwi. › a history of the hapū or iwi within the rohe. › the relationship of hapū or iwi with their rohe. › environmental management perspectives and values of hapū or iwi. › a description of resources of significance to tangata whenua/mana whenua.

	- where agreed with the iwi authorities, a list of relevant iwi authorities. Where possible this should include links to iwi authority websites. - where agreed with iwi authorities, a description of the relationship of hapū or iwi with ancestral lands, water, sites, wāhi tapu, and other taonga, and interests in resource management. - an explanation of how hapū or iwi values have been considered when preparing the plan, or are reflected in the plan. - an overview of resource management arrangements from any Treaty settlement and post-treaty settlement agreements. - a list of any statutory acknowledgements for the district and region, and a brief explanation of how they affect the policy statement or plan and are reflected in policy statement or plan provisions. Where possible this should include a link to the relevant statutory acknowledgement legislation. - if a statutory acknowledgement requires a specific resource management process, identification of that process. ii. Tangata whenua/mana whenua – local authority relationships. - a list of formal relationship agreements between tangata whenua/mana whenua and the local authority as they relate to resource management functions. These may include memoranda of understanding, mana whakahono a rohe or iwi participation arrangements, co-management agreements, joint management agreements, or transfer of powers under RMA section 33. Where agreed with tangata whenua/mana whenua, this list should include links to these relationship agreement documents. iii. Hapū and iwi planning documents. - a list of hapū or iwi planning documents lodged with the local authority. Where agreed with tangata whenua/mana whenua, this should include links to the planning documents. - a description of how the local authority has taken the hapū or iwi planning documents into account in the policy statement or plan. - an explanation of how hapū or iwi planning documents are used. - if relevant and agreed, parts of the hapū or iwi planning documents. iv. Involvement and participation with tangata whenua/mana whenua. - any specific involvement and participation or RMA consultation processes with tangata whenua/mana whenua: required by the RMA, in relationship agreements, or in hapū or iwi planning documents. - a description of best practice involvement, participation or RMA consultation processes with hapū or iwi, as agreed with specific hapū or iwi. This may include a link or reference to external best practice processes documents. - an explanation of the purpose of any involvement, participation or RMA consultation processes. - how the involvement, participation or RMA consultation processes are given effect to.

Part 2 – Management of Resources

Mandatory Directions for Part 2

6. Objectives addressing the integrated management of resources or providing strategic direction on resource management, must be located in the Integrated objectives chapter.
7. Policies addressing the integrated management of resources or providing strategic direction on resource management, must be located in the Integrated policies chapter.
8. The Coastal marine area section must be included unless a separate regional coastal plan or proposed regional coastal plan exists for the region.
9. Provisions (excluding the provisions under the Integrated management heading) that:
    a. Apply only to an identified area must be located in the relevant chapter under the Area-specific matters heading.
    b. Apply predominantly to only one topic (but not only to an identified area) must be located in the relevant chapter under the Topics heading.
    c. Apply to more than one topic must be located in the relevant chapter under the Domains heading.
10. Any other matter addressed by the regional plan not covered by the structure in the table above must be included as a new chapter, inserted alphabetically under the Topics heading in Part 2. Additional chapters must not be synonyms or subsets of the chapters in the table.
11. Each identified area under the Area-specific matters heading must have its own chapter.
12. If overlays are used, their provisions must be located in the relevant Domain, Topic and Area chapters and sections.

Integrated management	
Chapters	› Integrated objectives. › Integrated policies.
Domains	
Chapters	› Air. › Coastal Environment.
Topics	
Chapters	› Energy and infrastructure. › Sites and areas of significance to Maori.
Area Specific Matters	
Chapters	› [Insert name of area if used] area.

Part 3 - Appendices and Maps Mandatory Directions 13. Part 3 must be titled Appendices and Maps, or Appendices, or Maps, depending on whether it contains appendices (including schedules and appendices not located within the relevant chapter) or static maps (in addition to or instead of a GIS viewer) or both.	
Chapters	› Appendices. › Maps.

E

APPENDIX E

Air Quality Planning Methods in the Regional Policy Statement

CHAPTER 9 AIR QUALITY	
The Southland Regional Council will:	**Method AQ.1 – Regional plans** Establish and maintain provisions in regional plans to: (a) control the discharge of contaminants to air; (b) reduce PM10 emissions from domestic solid fuel heating as consistent with any national environmental standards that apply; (c) encourage new discharge activities in existing airsheds where compliance with the national environmental standards or guidelines has not yet been achieved, or that will affect sensitive activities or environments, to adopt the best practicable option, including off-setting opportunities, to maintain or enhance air quality; (d) achieve compliance with relevant national standards.
	Method AQ.2 – Research and monitoring Research, monitor and report on air quality indicators as necessary to: (a) identify changes to air quality in airsheds; (b) achieve compliance with relevant national air quality standards; (c) establish and monitor new airsheds as necessary; (d) ensure consented discharge activities comply with consent conditions; (e) maintain effective conditions or review as necessary to improve ambient air quality.
	Method AQ.3 – Information, education and public awareness Provide advice and information on low or no-emission domestic heating alternatives to the community to: (a) promote and improve awareness of air quality issues from domestic solid fuel heating; (b) encourage the adoption of domestic heating that is compliant with national standards, to avoid or mitigate adverse effects of solid fuel heating on air quality.
Territorial authorities	**Method AQ.4 – District plans** Establish and maintain provisions in district plans: (a) to encourage the appropriate location of new land use activities that discharge contaminants to air that may adversely affect amenity, community and health or the quality of the environment; (b) to control the location of sensitive activities (e.g. residential) that are potentially incompatible with existing activities that lawfully discharge contaminants to air, to avoid reverse sensitivity effects.
Local authorities will	**Method AQ.5 – Financial incentives** Consider providing support and financial incentives as necessary in airsheds to: (a) improve domestic home heating efficiency; (b) adopt forms of domestic heating compliant with national standards; to improve ambient air quality and meet any relevant national standards.

	Method AQ.6 – Support and promote Support, encourage and promote the development of industry guidelines and programmes to avoid or mitigate adverse effects on air quality, including from: (a) the spray application of agrichemicals, paints or other contaminants; (b) odour discharged to air from industrial, agricultural or manufacturing processes; (c) the discharge of particulates (including dust) or hazardous substances discharges from industrial, commercial, construction or extractive activities; (d) combustion or other processes that discharge to air.
	Method AQ.7 – Strategies Establish, implement and promote strategies that: (a) encourage commercial and industrial processes to adopt low or no-emission fuel or processes and where practicable renewable energy fuel combined with modern burning technologies; (b) promote the progressive adoption of domestic heating alternatives compliant with national standards; (c) encourage the installation of insulation into established housing stock, and the adoption of efficient low or no-emission domestic heating alternatives; (d) increase the efficiency, effectiveness and use of public transport services in urban areas; (e) encourage walking and cycling; (f) encourage the adoption of efficient vehicles and renewable energy transport fuels.
Local authorities will be encouraged to:	**Method AQ.8 – Consultation** Consult with the community, industry, stakeholders and tangata whenua, and take into account Te Tangi a Tauira and other relevant iwi planning documents to inform resource management decisions that may affect air quality, amenity values, the quality and life supporting capacity of soils and water, cultural values and community wellbeing. Consultation may include, but is not limited to, tools such as Health Impact Assessments.
	Method AQ.9 – Collaboration and protocols Work with other local authorities and establish information and communication protocols to promote effective integrated management of air quality.
	Method AQ.10 – Bylaws and legislation Establish and maintain bylaws as necessary, and exercise authority under other legislation, to progressively improve the standard of domestic heating discharges and enhance overall air quality in the airsheds.
	Method AQ.11 – Other methods Collaborate with other local authorities, tangata whenua and interested stakeholders to investigate additional methods that may be used to implement the policies of this chapter of the RPS.

CHAPTER 5 RURAL LAND / SOILS	
The Southland Regional Council will:	**Method Rural.1 Regional plans** Establish and maintain provisions in regional plans that: (a) manage the effects of rural land development on: i. indigenous vegetation, including the effects of aerial spraying; ii. steep, mid and high-altitude land, and land that is structurally degraded or vulnerable to structural degradation, taking into account soil classification and land capability classes; iii. water quality and quantity; and iv. the beds and margins of lakes, rivers, streams and wetlands; (b) manage the effects of mineral extraction activities on: i. high value soils; ii. water quality and quantity; iii. air quality; (c) control the quality and location of on-site wastewater discharges to rural land to avoid or mitigate adverse effects on the quality and life supporting capacity of soil and water resources; (d) maintain or enhance soils that are prone to sediment loss or erosion, nutrient loss, or that are structurally degraded or vulnerable to structural degradation.

	CHAPTER 11 CONTAMINATED LAND	
	Method	
The Southland Regional Council will:	**Method CONTAM.1 – Regional plans** Establish and maintain provisions in regional plans to: (a) avoid, remedy or mitigate adverse effects of discharges from contaminated land on: i. water, soil or air quality, including the coastal marine area, rivers or lakes; ii. community health and safety; iii. areas, sites or items of historic or cultural sensitivity; (b) recognise and support the implementation of relevant national guidelines, codes of practice, and environmental accords, where these help achieve Objective CONTAM.1 and Objective CONTAM.2.	

F

APPENDIX F

Ngai Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan – Air related policies

Section 3.2 O Te Pū Hau	
Regional Issues of general concern: › The effect of discharges of contaminants into air on the air's quality, the health of people and communities and the environment; › The release of greenhouse gases or ozone depleting substances into the air; › The effect of discharges of contaminants to the air which can be noxious, dangerous, offensive and objectionable (i.e. odour, smoke or dust) on the environment or amenity values.	
Section 3.21 Discharge to Air	
Ngā Take - Issues	
Effects from industry and farming › Discharges to air from industrial and trade premises impact on mahinga kai, taonga species, e.g. tītī, biodiversity and wāhi tapu, wāhi taonga. › Discharges to air from chemical, fertiliser and other industrial manufacturing. › The inappropriate storage and use of potentially hazardous chemicals can contribute to increased toxic emissions and have detrimental effects on cultural and environmental health. › Spray drift through wind dispersal from toxins, fertiliser and effluent spread during farming operations.	
Burning › Vegetation clearance through burning on or adjacent to wāhi tapu, wāhi taonga sites can impact the tapu of the site and have damaging and corrosive effects. › Impacts on air quality from localised burning and industrial power generation.	
Social / cultural effects and iwi engagement › Impacts on cultural well-being from poor air quality and airborne diseases. › Discharges to air can be culturally offensive, e.g. from crematoriums or hospital waste. › Increased vehicle emissions from increased reliance on motorised vehicles. › Increased duration and intensity of offensive odours. › Lack of understanding of effects on cultural well-being, hinengaro (mind), wairua (spirit), mauri (life force), tinana (body) from increased levels of air pollution. › Poor and reduced visibility of the celestial world (moon, stars) as a result of discharge and increased pollution. › Use of highly technical information and jargon to explain air quality problems and poor dissemination of readily understood air quality information.	
Urban and tourism pressures › Increased impact from urban population growth and increasing tourism sector. › Emissions from domestic home heating.	

Ngā Kaupapa - Policy
Industry and farming 1. Discourage discharges from industrial and trade premises that will have an impact on mahinga kai, taonga species, biodiversity, wāhi tapu and wāhi taonga. 2. Ensure that the processes used during activities that discharge to air are supervised and monitored to ensure that contaminant emissions are minimised. 3. Encourage existing activities that emit contaminants to air to evaluate, and where practical implement new technologies to reduce adverse effects on air quality. 4. Require new discharges to air to provide for periodic review and evaluation in advances of technologies to reduce adverse effects on air quality and to report on implementation of such technologies. 5. Support and advocate for controlled use and appropriate storage of highly toxic and hazardous substances within the region. 6. Participate in the development of industry guidelines or codes of practice to avoid the adverse effects of activities on air quality such as application of chemicals, cleaning methods, and spray painting techniques. 7. Best management methods for the application of fertiliser and effluent spread from farming operations shall be encouraged. Consideration should include factors relating to wind velocity and direction, groundwater and surface water proximity, application rates and topography.
Burning 8. Advocate for use of technical equipment that removes the need for burning of waste material. For example, mulching of organic material.
Social / cultural effects and iwi engagement 9. Discourage and prevent discharges to air that will have impacts on cultural well-being and community health. 10. Ensure that discharges of contaminants into the air such as dust, smoke and odour do not affect the amenity values of areas which are of cultural and historical significance to iwi. 11. Support local initiatives advocating for improved efficiency of motorised vehicles to reduce emissions and congestion. 12. Engage Ngāi Tahu ki Murihiku early in the consenting and permitting process for activities whereby there is discharge to air, particularly agrichemical and aerial spraying/topdressing and activities causing offensive odours. Discharges must not cause objectionable or offensive odour to the extent that it causes adverse effects beyond the boundaries of the consent holder's property. 13. Advocate for robust consent conditions with a maximum twenty-five years. Changes to consent conditions must be notified to affected parties and all consent conditions monitored routinely. 14. Actively engage Ngāi Tahu ki Murihiku early in consultation during the establishment, implementation and monitoring of national and regional air quality guidelines/regulations. Such guidelines shall provide for the Treaty of Waitangi, and sections 6, 7 and 8 of the Resource Management Act 1991. 16. The duration for making informed decisions must be reflective of the potential risk of such activities. 17. Increase awareness of Mātauranga Māori about the interconnectedness of the environment and the impacts of cumulative effects on air quality. 18. Discourage the establishment of crematoriums near areas of cultural and historical significance.

19. Te Ao Mārama Inc. will continue to liaison with local authorities and agencies to advocate for the importance of improved public awareness in respect to air quality.

Urban and tourism pressures

20. Advocate and support improved and clean forms of domestic home heating.

Section 3.2.2 Amenity Values

Ngā Take – Issues

Visual amenity and intrusion

- Visual impediment as a result of air pollution can impact on the qualities and values associated with a place, environment or landmark.
- Activities associated with the emission of dust, unacceptable and intense odour and smoke can be visually, physically and environmentally intrusive.

Effects of development / industry on amenity values

- Increased transportation can alter appreciation for a place, environment or landmark.
- Inappropriately designed, and placement of development can affect visual amenity values.

Ngā Kaupapa - Policy

Visual amenity and intrusion

1. Limit through promotion of improved production and techniques, visual and physical effects from activities associated with exhaust emissions, dust, unacceptable and intense odour, smoke and lighting.
2. Ensure, where avoidable, that impacts from activities that create effects such as glare, shading, or electrical disturbance do not interfere with the amenity values associated with a place, environment or neighbouring property.

Effects of development/industry on amenity values

3. Ngāi Tahu ki Murihiku shall actively participate in interagency and cross boundary decision making in respect to development, design and placement of structures, and where appropriate may provide qualified recommendations for the protection of amenity values.
4. Ngāi Tahu ki Murihiku shall provide qualified recommendations with respect to concerns raised related to odour and offensive discharge, from rural, urban and industrial activities.
5. Encourage those among the community who undertake domestic or farming activities such as burning, agrichemical and effluent spread, to adopt best management practices to reduce effects on neighbouring amenity values.
6. Where there may be visual impacts on the natural and cultural landscapes as a result of development, encourage the integration of landscaping techniques which utilise reserve planting or vegetation screens to soften intrusion.

APPENDIX G

Evaluation of Plan Outcomes

Plan Section/Provision	What works? What doesn't? Why?	Rating
Stage 1 Ambient Air Quality		
Ambient Air Quality: **Issue 1.1 Health and amenity effects of ambient air quality -** Poor ambient air quality from the accumulation of contaminant discharges to air can have adverse effects on the environment, amenity values, human health, social and cultural wellbeing. **Objective 2.1 Compliance with NESAQ by improving ambient air quality -** Improve air quality in areas where concentrations of contaminants exceed NESAQ. **Objective 2.2 Maintain or enhance ambient air quality -** To maintain ambient air quality in those parts of the Southland region that have good air quality and enhance air quality in those parts of the region where it is poor or has been degraded, to reduce adverse effects on human health and the environment. **Objective 2.3 Ambient air quality -** Invercargill and Gore To reduce adverse effects on human health and the environment by ensuring that the ambient air quality in the Invercargill and Gore airsheds is improved towards complying with the NESAQ. **Policy 3.1 Emission limits -** Set emission limits for new installations of small-scale solid fuel burners and boilers in the Invercargill and Gore airsheds. *Rules 4.2, 4.3, 4.4 and 4.5.* **Policy 3.2 Phase out -** Phase out the use of open fires from 1 January 2017 and small scale solid fuel burning appliances, excluding pellet burners and solid fuel cooking stoves, that do not meet specified emissions criteria no less than 20 years after installation in the Invercargill and Gore airsheds. *Rules 4.6 and 4.7.* **Policy 3.3 Incentives programme** - Establish a targeted incentives programme within the Invercargill and Gore airsheds to: (a) encourage the use of cleaner heating options to reduce PM10 in high concentration areas; and (b) promote incentives to assist and encourage people to install and/or convert to cleaner forms of heating within airsheds. **Policy 3.4 Outdoor burning in the Invercargill and Gore airsheds** - Restrict discharges to air from outdoor burning and burning green waste within Invercargill and Gore airsheds between May and August inclusive. *Rules 5.1, 5.2 and 5.3.* **Policy 3.5 Education - Inform the community and business sectors of:** • the effects of discharges on ambient air quality, • how clean forms of heating and improved insulation are available to all households to mitigate adverse health effects, and • best practice guidance to minimise the effects of discharges from domestic heating and outdoor burning sources. **Policy 3.6 Ambient air quality** -Use non-regulatory methods, in addition to rules for small scale solid fuel burners and outdoor burning, to maintain and enhance air quality including: (a) advocating for the installation of cleaner forms of heating; (b) advocating for the installation of improved insulation technology to improve energy efficiency in dwellings; (c) a good wood scheme; (d) collaborating with territorial authorities and Government; (e) undertaking education on how to enhance air quality; (f) financial and economic incentives; (g) best practice guidance for woodburner operation and outdoor burning. **Methods:** Refer to Rules 4.1-4.9 for small scale appliances and 5.1-5.9 regarding outdoor burning, 6.1-6.5 regarding agrichemicals and fertilisers, and 7.1-7.2 regarding fire training.	Stage 1 of the Air Plan focuses on ambient air quality within the Gore and Invercargill airsheds outdoor burning, the application of agrichemicals and fertilisers, and fire training. It sets out domestic and home heating rules which focus on reducing PM_{10} in ambient air in order to meet the NES-AQ requirements, how this is measured and reported in accordance with the NES-AQ, as well as setting out other measures to ensure domestic home heating does not result in localised air quality problems. Outdoor burning rules and fire training rules focus on minimising localised health and amenity effects regionally, with stricter rules in the Invercargill and Gore airsheds in an attempt to reduce PM_{10} concentrations during the winter months to meet the NES-AQ for PM_{10} (one allowable exceedance) by September 2021. The issues these provisions seek to address are: • Issue 1.1 Health and amenity effects of ambient air quality; and • Issue 1.2 Health and amenity effects of localised air quality. The objectives and policies regarding ambient air quality seek to improve air quality where concentrations exceed the NES-AQ, to maintain good air quality and improve it where it is degraded to reduce the effects on health and the environment.[1] The policies require the setting of emission limits and restricting burning in the Invercargill and Gore airsheds, phasing out inefficient small-scale fuel burners in the airsheds, and using education and other non-regulatory methods. The objectives and policies do not require compliance with the NES-AQ, but seek that air quality in the airsheds is improved. The objectives do not sufficiently give effect to the NES-AQ as compliance should be required. Stating that improvement will be made towards compliance is not considered to give full effect the NES-AQ. The associated policies regarding emission limits, burning restrictions, phase outs, and education and other methods are all considered to be partially met. The Air Plan contains rules for emission limits, phaseout and outdoor burning in Chapters 4 and 5, and as set out in Section 4.5 of this report, Environment Southland employs its non-regulatory methods regarding ambient air quality relatively effectively. Notwithstanding this, several gaps and issues have been identified: • The airsheds are not mapped or scheduled in the Plan; • More accurate measuring of the uptake of the phaseout rules is needed to ensure property owners achieve compliance, and to understand more fully how this is impacting on PM_{10} emissions; • Feedback on the different loan and grant schemes has been supportive, but feedback on the uptake and efficiency of administering the schemes on the ground has been variable. Community feedback, in particular, demonstrates that cost is the biggest barrier, and the effectiveness of these schemes to bridge these costs needs to be better understood.[2] A comprehensive review of all incentives in Southland is recommended to understand the efficiency and effectiveness of the schemes and opportunities for improvement to increase uptake and transition; • Solid fuel cooking stove rules only apply in the Invercargill and Gore airsheds, and only regulate solid fuel, not multi-fuel or second hand burners; • There is variability in terminology throughout the Chapter 4 rules making some parts of the rules difficult to interpret regarding burning appliances.[3] For example, Appendix A relates to wood fuel only but is not named as such;	

[1] Objectives 2.1 – 2.3 inclusive and Policies 3.1-3.6.

[2] This is evaluated in detail in Enhancing Community Buy-In with the Southland Regional Air Plan, prepared by Jack Cowie, Dylan Cliff, Viyvienne Evans, Livi Geddes, Kelsey Newman-Weaver, James Nichol and Brenna Sherson, 2019.

[3] District Councils were not always clear on how the rules apply to multi-fuel appliances, and Council staff have raised similar issues regarding interpretation.

Plan Section/Provision	What works? What doesn't? Why?	Rating
Issue 1.2 Health and amenity effects of localised air quality - Discharges of contaminants to air can have localised adverse effects on the environment, amenity values, human health, social and cultural wellbeing. **Objective 2.4 Localised air quality -** To avoid, remedy or mitigate any adverse effects upon the localised air quality environment (including health and amenity effects) from the discharge of contaminants into air. **Objective 2.5 Localised air quality: Maori culture and traditions -** To ensure that Maori cultural and traditional beliefs are recognised and provided for when dealing with discharges to air. **Policy 3.7 Objectionable smoke from domestic heating appliances -** That small-scale solid fuel burning appliances be installed, maintained and operated in such a way as to avoid adverse effects from offensive or objectionable smoke from the appliance beyond the property boundary. *Rules 4.2 – 4.4.* **Policy 3.8 Agrichemical and fertiliser drift -** Any discharge from the application of agrichemicals or fertiliser which is likely to have an offensive or objectionable effect beyond the boundary of the target property, shall be managed such that the effect is suitably avoided, remedied or mitigated. **Policy 3.9 Odour -** Any discharge of odour which is likely to have an offensive or objectionable effect beyond the property boundary, shall be managed such that the effect is suitably avoided, remedied or mitigated. **Policy 3.10 Particulate and dust -** Any discharge of smoke or dust which is likely to have an offensive or objectionable effect beyond the property boundary, shall be managed such that the effect of smoke or dust is suitably avoided, remedied or mitigated. *Rule 5.1.* **Policy 3.11 Hazardous air pollutants -** Require activities that result in the production of hazardous air pollutants to avoid or mitigate harmful concentrations of contaminants beyond the property boundary. **Policy 3.12 General adverse effects on the environment -** Require any discharges of contaminants to air to avoid, remedy or mitigate adverse effects on: (a) the receiving environment; (b) human health and wellbeing; (c) cultural, spiritual and traditional values; (d) water quality; (e) navigable airspace. **Policy 3.13 Localised air quality -** Require applications that seek to discharge contaminants to air, to comply with the NESAQ and have regard to the appropriate ambient air quality guidelines. **Policy 3.14 Outdoor burning -** Any discharge from outdoor burning which is likely to have an offensive or objectionable effect beyond the property boundary, shall be managed such that the effect is suitably avoided, remedied or mitigated. **Policy 3.15 Fire Training -** Enable the discharge to air from fire training activities provided that where the discharge may increase PM10 concentrations during May to August inclusive, the effects of the discharge are suitably avoided, remedied or mitigated.	• There is an opportunity for the rules and explanations to be updated so that they are current (e.g. removing the requirements for compliance for dates that have now passed), and give effect to any future changes of the NES-AQ. The objectives and policies regarding localised air quality seek to avoid, remedy and mitigate localised air quality effects (including amenity) and to ensure Maori culture and traditional beliefs are recognised and provided for. The policies seek to ensure effects of smoke from domestic heating, agrichemical and fertiliser drift, odour, particulate and dust, outdoor burning, fire training, and hazardous pollutants is avoided, remedied or mitigated. These policies are specific to each of the listed air discharge activities and are supported by Policy 3.12 regarding adverse effects on the receiving environment, health and wellbeing, cultural, spiritual and tradition values, water quality and navigable airspace. The policies are met by the implementation of the rules and associated non-regulatory methods. As discussed previously, the non-regulatory methods regarding the above air discharge activities are employed effectively. Notwithstanding this, feedback was received from both Environment Southland staff and stakeholders on outdoor burning and difficulties with enforcing these rules. Outdoor burning was still occurring in the airsheds during prohibited times, and difficulties with enforcing the outdoor burning rules outside the airshed were also discussed.[4] Wood fired hot tubs is an activity which may require regulation in the rules. Dust on roads, transport yards, bulk handling areas, and abrasive blasting were also raised as amenity and health issues, and complaints in Southland have been increasing based on feedback from the resource consents team.[5] Given the complaints Council staff receive regarding road dust, and the need for resource consent in order to supress road dust with used oil or similar products, this will be a key use for the upcoming Air Plan review to address. Environment Southland will need to work closely with the district councils as the road controlling authorities on rules regarding road dust.	
4 Ambient Air Quality		
Outcome: 1. increased knowledge about Southland's ambient air quality, in particular, identification of any areas where ambient air quality may be degrading. **Issue: 1.** lack of information about ambient air quality in Southland. **Objective 4.2.1 Ambient Air Quality -** To maintain good ambient air quality for Southland. **Policy 4.3.1 Ambient Air Quality Guidelines -** Have regard to ambient air quality guidelines (MFE 1994). **Policy 4.3.2 Measurement -** Measure ambient air quality.	The introductory section of Section 4 Ambient Air Quality sets out a description of ambient air quality, explains that the quality of ambient air is a reflection of the cumulative effects of the discharge of contaminants into air from anthropogenic activities, and sets out the benefits of clean air. The introduction refers to the MfE's Ambient Air Quality Guidelines 1994, which have been replaced by more current guidelines that were produced in 2002. Council has a monitoring programme in place for PM_{10} and $PM_{2.5}$ in Invercargill and Gore (both gazetted air sheds under Stage 1 of the Air Plan), and Winton (since 2013), and provides a good level of data for these areas. Apart from Winton, no other areas of Southland are monitored regularly for PM_{10},[6] and no other forms of air	

[4] The 2018 Scoping report *noted we are uncertain if this is an issue for the plan, or if the bar is being set too high for enforcement (for which an abatement notice simply requires the burden of proof be the balance of probabilities).* We concur that it is not certain as to whether this is a plan or implementation issue. The 2018 Scoping Report identified options to address this and their other various other options and non-regulatory methods that would need to be further explored to identify the most appropriate and effective option.

[5] The 2018 Scoping Report raised this as an issue that could potentially be addressed by a new catchall rule to manage discharges that are offensive or objectionable at the boundary.

[6] Historic intermittent monitoring has occurred in Matarua Bluff, Riverton, Edendale, Te Anau and Wallacetown.

Plan Section/Provision	What works? What doesn't? Why?	Rating
Method 4.4.1 Monitoring Programme - The SRC will establish a monitoring programme to measure current and future ambient air quality. **Method 4.4.2 Use of Guidelines -** Ambient air quality measurements in the Southland region will be compared with available guidelines in order to give an indication of the ambient air quality in the region. **Method 4.4.3 Database -** The SRC will set up and maintain a comprehensive air quality database. **Method 4.4.4 Education -** Production, distribution and evaluation of educational materials, particularly targeted to the users of solid fuel domestic heaters and open fires.	quality monitoring is undertaken. As Method 4.1.1 regarding the establishment of a monitoring programme sets out in its explanation that sulphur dioxide, carbon monoxide, nitrogen dioxide, lead, fluoride, hydrogen sulphide and ozone will be monitored, the method and associated Policy 4.3.2 regarding the measurement of ambient air quality is considered to have been only partially met. It is noted that the NES-AQ also contains limits for contaminants of concern and it is not certain whether the NES-AQ limits are breached in Southland.[7] Policy 4.3.1 which requires that regard be had to MfE 1994 ambient air quality guidelines is ineffective as it is not current, however, Method 4.4.2 provides more flexibility on enabling the consideration of available guidelines. The national ambient air quality guidelines should guide the content of the policies and rules so that where possible these provisions can 'stand-alone', however it is considered appropriate to refer to the need to consider national guidelines in the methods as it provide flexibility of these guidelines are updated. Policy 4.3.1 is not achieved, but only because it is out of date, whereas Method 4.1.2 is considered to be met. To store and analyse air quality monitoring data in accordance with Method 4.4.3, Council utilises Hilltop as its database to store air quality information, and the publicly available information from this is accessed from the national LAWA website. Council has a range of information and educational sources available to the community regarding ambient air quality. This is set out comprehensively in Section 4.5 of this report and includes information on air quality monitoring via the national LAWA platform, the Breathe Easy Southland website, and the GIS spatial application Beacon. Method 4.4.3 relating to the establishment of a database, and Method 4.4.4 regarding education are therefore considered to have been met.	
Outcome: 2. good ambient air quality which provides the community with all of the benefits of clean air. **Issue: 2.** poor ambient air quality can adversely affect the health of people and communities and environmental health. **Objectives and Policies:** As above, and… **Policy 4.3.5 Protection -** Protect ambient air quality throughout the Southland region. **Method 4.4.4 Education -** Production, distribution and evaluation of educational materials, particularly targeted to the users of solid fuel domestic heaters and open fires. **Method 4.4.5 Advocacy** - Where monitoring has shown that ambient air quality degradation exceeds guideline levels appropriate solutions will be advocated. **Method 4.4.6 Consent Monitoring -** Discharges of contaminants into air from consented activities will be monitored and, where relevant, the monitoring information compared to ambient air quality monitoring data. **Method 4.4.7 Information -** The Regional Council will make information regarding the effects of discharges of contaminants into air on horticultural species available to interested persons/ organisations upon request.	Policy 4.3.5 seeks that ambient air quality is protected throughout the Southland Region and the methods and rules in this section seek to give effect to this policy. As set out in the assessment for Outcome 1 above, Environment Southland provides a good level of educational information and environmental data relating to air quality. Additionally, Section 4.2.2 of this report sets out how resource consent conditions are monitored and reported on annually, and how compliance issues are addressed through the use of warnings and letters, abatement notices, enforcement orders and prosecutions. Method 4.6.6 regarding consent monitoring is therefore considered to be met. Notwithstanding this, ambient air quality is not compliant with the NES-AQ within the Gore and Invercargill airsheds. Monitoring undertaken to date indicates that ambient air quality is likely to be compliant throughout the rest of the region,[8] and Policy 4.3.5 to protect ambient air quality is therefore only partially achieved.	
5 Discharges of Contaminants into Air from Industrial or Trade Premises		
Outcome: 1. protection of the health of people and communities and environmental health from the effects of discharges of contaminants into air from industrial or trade premises. **Issue: 2:** discharges of contaminants into air from industrial of trade premises have the potential to adversely affect the health of people and communities and environmental health. **Objective 5.2.1 Adverse Effects upon the Environment** To avoid, remedy or mitigate any adverse effects upon the environment (including the health of people and communities and amenity values) from the discharges of contaminants into air from industrial or trade premises.	The introduction of Section 5 Discharge of Contaminants into Air from Industrial or Trade Premises is short compared to the other sections of Part 2 of the Air Plan. It sets out that discharges to air from industrial and trade premises can have adverse effects and that these effects can be cumulative. It references out-of-date data from 1995. Notwithstanding this, the introduction is written simply, and is easy to understand.	

[7] The 2014 State of the Environment Report states: *Contaminants such as carbon monoxide and nitrogen dioxide are not monitored by Environment Southland. A risk assessment has indicated that concentrations of those contaminants are unlikely to be elevated above the guideline limits* and *Environment Southland's Air Quality Monitoring Strategy (2013) identified sulphur dioxide (SO2) and benzo(a) pyrene (BaP) as contaminants that warrant further investigation. BaP has been strongly correlated with PM1086 so it is likely that BaP concentrations will be elevated in Southland's two airsheds.*

[8] Based on historic intermittent monitoring data in smaller towns in Southland.

Plan Section/Provision	What works? What doesn't? Why?	Rating
Policy 5.3.1 Protection of the Environment - Protect the environment from adverse effects from the discharge of contaminants into air from industrial or trade premises. **Policy 5.3.2 Upgrading or Change in Process of Existing Facilities -** Require the upgrading or change in process of existing industrial and trade processes where they are having significant adverse effects on ambient air quality. **Policy 5.3.4 Localised Adverse Effects -** Avoid localised adverse effects from discharges of contaminants into air which do not require a resource consent. **Method 5.4.1 Codes of Practice** Encourage industry groups to prepare guidelines and/or codes of practice which will minimise any adverse effects from discharges of contaminants into air. **Method 5.4.2 Enforcement** Use of enforcement procedures to deter unauthorised activities. **Method 5.4.3 Complaint Resolution -** A procedure will be developed and implemented by the SRC, together with territorial authorities and the Public Health Service, to investigate and resolve complaints regarding discharges of contaminants into air which are causing a public health nuisance. **Method 5.4.4 Education** - Production, distribution and evaluation of educational materials. **Method 5.4.5 Transfer of Powers -** Transfer of powers. **Method 5.4.6 Database -** Collate and maintain a database of information regarding discharges of hazardous air pollutants listed in Appendix D. **Method 5.4.7 Rules -** Application of rules. **Method 5.4.8 Resource Consents -** Consent conditions on resource consents.	In addition to issues, objectives, policies, methods, principal reasons and outcomes, this section includes permitted activity rules and conditions as well as some 18 discretionary activity rules for different air discharges from industrial and trade premises. The objectives and policies that relate to Outcomes 1 and 2 seek to avoid, remedy or mitigate adverse effects, protect the environment from adverse effects, to require upgrades and changes where adverse effects are significant, and to avoid localised effects for discharges that do not require consent.[9] These provisions are largely given effect to through the application of rules and the resource consent process,[10] via non-regulatory methods relating to codes of practice, complaint resolution, and education,[11] and via regulatory methods regarding enforcement code, transfer of powers and maintaining a database.[12] As discussed previously in this report, Method 5.4.1 regarding encouraging industry codes of practice has not been met, however the MfE good practice guides regarding odour and discharges from industrial and trade premises are used in Southland, achieving the intent of the method. In terms of giving effect to Methods 5.4.2 and 5.4.3 regarding complaint resolution and enforcement, as set out in Section 4.4 of this report, Environment Southland operates a 24 hour environmental incident response system to address complaints and incidents reported by the public, by the party responsible, or as identified by Council staff. Responses are prioritised by risk, and all complaints and incidents are logged and responded to. Although staff have advised that capacity to respond can be a challenge, a review of the data illustrates that responses are efficient and relatively consistent.	
Outcome: 2. protection of amenity values from discharges of contaminants into air such as odour, dust and smoke, from industrial or trade premises **Issue 2:** some discharges of contaminants into air, such as odour, dust and smoke, can adversely impact on the amenity values of a location or area **Objectives and policies:** As above. **Methods:** As above.	Based on the data reviewed from this system,[13] responses are timely and enforcement options are investigated and pursued if appropriate. Council utilises the full range of enforcement tools available under the RMA, including the use of warning letters where the risk is low, and infringement notices, abatement notices and enforcement orders where these are necessary. Prosecutions are utilised infrequently for significant cases. These methods are therefore efficiently and effectively given effect to. Ensuring that Council is well resourced to continue to respond in an efficient manner, and that there is sufficient capacity to investigate incidents and complaints well, is important to guarantee that the system continues to be effective. As set out in Section 4.5.2 of this report, Environment Southland provides useful material in a variety of formats to inform, educate and raise public awareness of air quality and how people can contribute to better air quality in Southland. However, other than identifying that industry and trade contribute little to PM_{10} concentrations in Southland, it is noticeable that there is less information and guidance regarding industrial and trade air emissions than there could be even though Method 5.4.4 enables this. Method 5.4.6 requires the establishment and maintenance of a database of information regarding discharges of hazardous air pollutants listed in Appendix D of the Air Plan. Council staff have confirmed that no such database has been established, and staff rely on the resource consents database to access this information. This method has not been achieved. Also discussed previously, Method 5.4.5 providing for the transfer of powers from Environment Southland to Territorial Authorities, has not been implemented as no powers have been transferred. In terms of the application of rules and the requirement for resource consents, feedback from both Environment Southland staff and Te Ao Mārama suggest that the rules are overly technical and difficult to interpret and understand. Many of these rules originate from the Clean Air Act 1972, and the types of activities	

[9] Objective 45.2.1 and Policies 5.3.1 – 5.3.4 inclusive.

[10] Method 5.4.7 Rules, Method 5.4.8 Resource Consents.

[11] Method 5.4.1 Codes of Practice, Method 5.4.3 Complaint Resolution, Method 5.4.4 Education.

[12] Method 5.4.2 Enforcement, Method 5.4.5 Transfer of Powers, Method 5.4.6 Database.

[13] Data sourced from spreadsheet provided from Environment Southland on 31 January 2020, titled List of Enforcements for Air Plan.

Plan Section/Provision	What works? What doesn't? Why?	Rating
	and processes addressed in the rules are not reflective of current activities and processes today. Upon reviewing the provisions, it is clear there is difficulty in understanding and interpreting the rules, and that the review of the Air Plan presents an opportunity to simplify and consolidate the rules. The information requirements associated with the rules, the appendices referred to in the rules, and the guidance regarding best practice (such as the MfE good practice guides), would also require review and revision to reflect current best practice and national literature. A number of issues have been identified through this evaluation. In particular: • The Ringelmann smoke chart figure is missing from Appendix H and the method is also ineffective and outdated for measuring smoke discharges. • Combustion activity thresholds are high (e.g. thresholds for 5MW boilers) and should be lowered.[14] • Particulate matter thresholds in the rules are out-of-date and often difficult to measure (e.g. dust), not consistent with the MfE good practice guides, and do not cover all the activities and instances in which dust is discharged[15]. Dust discharged from unsealed roads may be a contributor to particulate affecting air quality and this is a local issue in a number of rural areas, and where the consents team receive a number of complaints. The issues regarding dust are much broader than industrial and trade premises, and will require addressing more broadly in the Air Plan review. • Not all prohibited activities in the NES-AQ are in the Air Plan.[16] Some activities are still provided for as discretionary activities even though they are prohibited in the NES-AQ. • The Plan does not address the combustion of used oil wells[17] and the combustion of used oil may be a common practice that is going unnoticed. • Appendix F regarding suggested buffer distances is outdated and should be updated to reflect current MfE guidance and national practice (in particular feedlots). In addition to this feedback, the 2018 Annual Air Quality Monitoring Report identified that the current Plan has no scope for prosecution of discharges to air that are not within the strict confines of the current rules. This can create problems with non-consented discharges to air that nonetheless cause, or have the potential to cause, adverse effects. A notable example was the (non-consented) storage of an aluminium dross by-product at a disused former paper mill in Mataura. Storage of hazardous substances is not normally associated with discharges to air, but in this case, if water had contacted the material it could react to generate inter alia ammonia and hydrogen gas. Environment Southland was concerned with the storage, however, Gore District Council granted a retrospective land use consent to store the product. Since the 2018 Report, a flood event in 2020 saw the evacuation of residents in Mataura in the response to the potential for ammonia release. The Air Plan does not contain any rules to address this issue, and the 2018 Scoping Report recommended the development of a catch-all to address circumstances like this in the future,[18] where the Plan does not contain specific rules to control the discharge.	

[14] Refer to The Environment Southland Scoping Report 2018 prepared by Emission Impossible.

[15] Dust from roads was raised as an issue from both Council staff and stakeholders. The 2019 report Health Impacts of PM_{10} from Unsealed Roads in Northland prepared by Emission Impossible for the Ministry of Health demonstrates that particulate emissions from the case study breached the NES-AQ limits where vehicle movements were higher.

[16] The Environment Southland Scoping Report 2018 prepared by Emission Impossible notes that 5.5.2 (2)(b)(i) of the existing plan provides that any combustion process for recovery of metals from insulated cable is a discretionary activity. However, Regulation 9 of the NES-AQ prohibits the burning of coated wire (in the open).

[17] The Environment Southland Scoping Report 2018, prepared by Emission Impossible, notes that with respect to industrial sources, the existing Plan provides that any combustion of fuel with a lead content > 250 parts per million of lead is a discretionary activity (Rule 5.52). However, it is unclear how this relates to existing used oil in Southland, and if or how this is enforced.

[18] Section 3.3 of the The Environment Southland Scoping Report 2018, prepared by Emission Impossible.

Plan Section/Provision	What works? What doesn't? Why?	Rating
	Additionally, the objectives and policies are high level, and some repeat the act without adding any specificity as to how adverse effects should be appropriately managed.[19] However, it is noted that Policy 5.3.2, requiring the upgrading or change in process of existing industrial and trade processes where they are having significant adverse effects on ambient air quality, is sufficiently directive and therefore useful to inform the Council's assessment in attendance with section 104 of the Act, where adverse effects may be significant. Policy 5.3.4: *Avoid localised adverse effects from discharges of contaminants into air which do not require a resource consent* is not clear in what it is seeking to achieve. Overall, some methods are implemented well and others, such as education, could be implemented more effectively. Air discharges from industrial and trade premises are regulated in accordance with the Plan rules, but improvements can be made so these rules are simpler to understand, the thresholds and triggers are appropriate in managing adverse effects, and the information that relates to them is current. Outcomes 2 regarding the protection of amenity values from discharges of contaminants into air such as odour, dust and smoke, from industrial or trade premises, is therefore considered to be partially met.	
Outcome: 3. recognition and provision for Maori cultural and traditional beliefs with regard to discharges of contaminants into air from industrial or trade premises **Issue: 3.** discharges of contaminants into air from industrial or trade premises have the potential to adversely impact upon Maori cultural or traditional beliefs, due to either the siting of the discharge of contaminants or the contaminants discharged into air **Objective 5.2.2 Maori Culture and Traditions -** To ensure that Maori cultural and traditional beliefs are recognised and provided for when dealing with discharges of contaminants into air from industrial or trade premises. **Policy 5.3.5 Maori Culture and Traditions -** Recognise Maori cultural and traditional values with regard to the air environment and ensure that these are taken into account with regard to discharges to air from industrial or trade premises. **Methods:** As above, none specific to Maori values.	Objective 5.2.2 seeks to ensure that Maori cultural and traditional beliefs are recognised and provided for in the consideration of air discharge consents from industrial and trade premises. Policy 5.3.5 requires Maori cultural and traditional values to be recognised, and to ensure these are taken into account. These provisions are largely given effect to through the resource consent process. As set out in Section 4.6 of this report, regarding tangata whenua involvement in air quality, Te Ao Mārama are involved in contributing feedback to resource consents for air discharges. Te Ao Mārama are regularly provided with a list of resource consent applications as lodged so that additional information regarding resource consents can be requested, and Te Ao Mārama can identify where they may consider iwi or hapu to be potentially adversely affected by a resource consent application. Where pre-application meetings with Council are undertaken for larger scale resource consents, Council provides advice to applicants regarding consideration of cultural values and adverse effects on tangata whenua, and whether consultation with Te Ao Mārama is recommended. In terms of assessing resource consent applications received: • Where adverse effects on iwi or hapu are considered to be minor or more than minor in accordance with s95 of the RMA, Te Ao Mārama are notified as adversely affected persons. • Council's process of considering and reporting on the objectives and policies in the Iwi Management Plan in accordance with section 104(1)(c) of the Act is appropriate and is consistently applied. Overall, Maori cultural and traditional beliefs are recognised and provided for in resource consent processes for air discharges from industrial and trade premises. Te Ao Mārama are regularly provided with a list of resource consents that have been lodged for them to register their interest. The process of considering adversely affected persons is effective, in accordance with s95 of the Act, and Iwi Management Plan objectives and policies are appropriately considered in Council assessments of resource consent applications. Notwithstanding this: • Cultural values are not well integrated in this section, and in the balance of the Air Plan, and better integration could be achieved through the Air Plan review; • The objectives and policies are relatively generic, and providing more specificity regarding cultural values and concerns regarding air quality is recommended;[20] • Te Ao Mārama's feedback on the usability of the Air Plan is that it is overly technical, and the use of technical terms makes understanding the Plan, and particularly the industrial and trade premises rules, difficult to understand.	

[19] Objective 5.2.1 Adverse Effects upon the Environment: *To avoid, remedy or mitigate any adverse effects upon the environment (including the health of people and communities and amenity values) from the discharges of contaminants into air from industrial or trade premises.*

[20] For example, the Iwi Management Plan and the 2014 State of the Environment Report provide more information regarding Te Ao Marama air quality values.

Plan Section/Provision	What works? What doesn't? Why?	Rating
Outcome: 4. reduction in the discharge greenhouse gases. **Issue: 4.** the discharge of greenhouse gases into air may be contributing to a global warming effect. **Objective 5.2.4 Greenhouse gases** - Avoid, remedy or mitigate adverse effects from the discharge of greenhouse gases into air. **Policy 5.3.3 Reduction of Greenhouse Gases and Ozone Depleting Substances -** Promote the reduction of discharges into air of greenhouse gases and ozone depleting substances. **Methods:** As above, none specific just to greenhouse gasses.	The objectives and policies relating to greenhouse gas emissions and ozone depleting substances seek to protect the environment from the discharge of ozone depleting substances and avoid, remedy or mitigate the discharge of greenhouse gases.[21] There are a number of methods in Section 5.4 of the Air Plan that relate to these outcomes, objectives and policies. Environment Southland have not launched any Council initiatives regarding the reduction of ozone depleting or greenhouse gas emissions.[22] However, as set out previously in Section 5.3 of this report, Environment Southland is a party to the Carbon Neutral Advantage initiative launched in 2019.[23] The initiative seeks to support businesses and communities to transition to a low emission environment, identify opportunities and share learnings to lower greenhouse gas emissions in Southland, and provide warmer homes and cleaner and healthier communities. This goes some way to promoting the reduction of greenhouse gas emissions in accordance with Policy 5.3.3. Staff are also not aware of undertaking any work to give effect to these methods. Notwithstanding that these outcomes and methods have not been given effect to, section 70A of the RMA relating to the discharge of greenhouse gas emissions, states: *when making a rule to control the discharge into air of greenhouse gases under its functions under section 30(1)(d)(iv) or (f), a regional council must not have regard to the effects of such a discharge on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gases, either—* *(a) in absolute terms; or* *(b) relative to the use and development of non-renewable energy.* Section 70B of the RMA states: *If a national environmental standard is made to control the effects on climate change of the discharge into air of greenhouse gases, a regional council may make rules that are necessary to implement the standard, provided the rules are no more or less restrictive than the standard.* These sections of the Act were inserted into the RMA in 2004 by Section 6 of the Resource Management (Energy and Climate Change) Amendment Act 2004. The purpose is to provide a national approach to the assessment of effects of the discharge of greenhouse gas emissions into air. As no NES has been promulgated, Environment Southland cannot regulate greenhouse gas discharges in the Air Plan under section 70A of the RMA.[24] As ozone depleting substances are also greenhouse gasses, they are also not able to be regulated in the Air Plan for the same reasons as above. Notwithstanding this, ozone depleting substances have been phased out in New Zealand over time.[25] Consideration should therefore be given to the removal of the greenhouse gas and ozone depleting provisions in the upcoming review of the Air Plan.[26]	
Outcome: 5. reduction in the use and discharge of ozone depleting substances into air in the region. **Issue: 5.** there are still ozone depleting substances used in the Southland region and these, if released to the atmosphere, could further damage the protective ozone layer **Objective 5.2.3 Ozone depleting substances -** To protect the environment from the discharge of ozone depleting substances into air. **Policy 5.3.3 Reduction of Greenhouse Gases and Ozone Depleting Substances -** Promote the reduction of discharges into air of greenhouse gases and ozone depleting substances. **Methods:** As above, none specific just to ozone depleting substances.		

[21] Objective 5.2.3, Objective 5.2.4, Policy 5.3.3.

[22] Based on the information provided by Environment Southland and conversations with Council staff.

[23] Environment Southland, along with eight other organisations is a shareholder of Great South, Southlands Regional Development Agency, of which the Carbon Neutral Advantage Programme is an initiative. https://greatsouth.nz/initiatives/carbon-neutral-advantage

[24] In *Genesis Power Ltd v Greenpeace NZ Inc [2008] 1 NZLR 803; (2007) 14 ELRNZ 1; [2008] NZRMA 125 (CA),* the Court of Appeal declared to the effect that, in considering an application for a discharge permit relating to the discharge to air of greenhouse gases associated with a thermal power station, the regional council must not have regard to the effects of that discharge on climate change. The Court noted that there is a close similarity of language between ss70A and 104E. As for s104E, the Court held that s70A can be fairly construed in the context of a clear legislative policy of nationalising New Zealand's approach to the emission of greenhouse gases.

[25] For example, chlorofluorocarbons (CFCs) have not been imported into New Zealand since 1996, and hydrochlorofluorocarbon (HFC) imports were phased out in 2015.

[26] Unless this changes through upcoming national reform.

Plan Section/Provision	What works? What doesn't? Why?	Rating
7 Odour		
Outcome 1: The discharge of odorous compounds to air has the potential to adversely impact upon the health of people and communities and cultural and amenity values. **Issue: 1**. protection of the health of people and communities from any adverse effects of odour discharges. **Objectives and policies:** **Objective 7.2.1 -** Protection of the health of people and communities - To protect the health of people and communities from any adverse effects from odour discharges. **Policy 7.3.1 -** The health of people and communities - Avoid, remedy or mitigate the impact on the health of people and communities from offensive or objectionable odours. **Method 7.4.1 Codes of Practice -** Encourage the formation and adoption of industry Codes of Practice which pertain to the reduction, control or mitigation of odour effects. **Method 7.4.2 Complaints -** A procedure will be developed and implemented by the SRC, together with territorial authorities and the Public Health Service, to investigate and resolve complaints regarding discharges of contaminants to air which are causing a public health nuisance. **Method 7.4.3 Resource Consents -** Consider odour effects in all air discharge resource consents. **Method 7.4.4 Transfer of powers...** Where discharges have only a limited or localised environmental or public health nuisance impact, it is appropriate for territorial authorities to maintain the management of these discharges within their own boundaries. **Method 7.4.5 Buffer Zones -** Advocate buffer zones around odorous, and potentially odorous, activities. **Method 7.4.6 Education -** Production, distribution and evaluation of educational materials.	The introductory section of Section 7 Odour sets out a description of odour effects, the difficulties in measuring and assessing odour effects, and how odour is assessed in terms of frequency, intensity, duration, and offensiveness. The section includes issues, objectives, policies, methods, principal reasons and outcomes relating to odour. There are no separate rules included in this section, with the principal reasons setting out that rules pertaining to odour discharges from activities are assessed in Section 5, regarding discharges from industrial and trade premises. It also notes that other methods such as encouragement of codes of practice and buffer zones and information will also assist in managing odour effects. If retained, the introductory section should be updated to reflect current information regarding odour and its adverse effects. As there are no rules which specifically relate to the discharge of odour, and the objectives and policies in the odour section of the Air Plan rely on the implementation of the methods to achieve the outcomes. The objectives and policies are substantially similar to the outcomes in this section, and do not provided any additional specificity regarding protection from odours. The objectives seek 'to protect' the health of people and communities, and cultural and amenity values from the adverse effects of odour discharges, and the policies seek to 'avoid, remedy or mitigate' the impacts of odours.[27] Method 7.4.4 provides for the transfer of powers from Environment Southland to territorial authorities where discharges have only a limited or localised environmental or public health nuisance impact. These methods are enabling, and do not require the transfer of powers, but signal where this may be appropriate. No powers have been transferred to local authorities or any other public authorities since the Air Plan was notified in 1999. Method 7.3.4 requires the consideration of odour discharges in resource consents. This is given effect to in the consideration of air discharge consents for industrial and trade premises.[28] Upon reviewing samples of approved resource consents for air discharges from industrial and trade premises, adverse odour effects, and the objectives and policies of Section 7 Odour, have been appropriately assessed by Council.[29] This method has therefore been met. Method 7.4.1 regarding encouraging industry codes of practice has not been met, however, as set out in Section 4.5.3 of this report, MfE good practice guides regarding odour and discharges from industrial and trade premises are used in Southland by applicants (businesses and industries) and Council. With regards to Method 7.4.2 regarding the development of a complaints procedure, Council have robust complaints procedures and incidence response and enforcement systems in place. This method is therefore considered to be met. No information has been found which demonstrates whether Method 7.4.5 regarding the use of buffer zones in resource consent processes, has been applied and advocacy to district councils has been undertaken. District Council planning staff that were spoken to were not aware of the use of these specific buffer zones in resource consent processes or in their district plans but do address reverse sensitivity effect regarding odour to some extent. Using buffers in district plans is a common way of managing adverse reverse sensitivity effects associated with existing activities that generate odours in New Zealand. Gore District Council in particular were interested in better understanding from Environment Southland the location of emissions from existing industry and trade in order to investigate the use of appropriate buffers. The outcomes to protect the health of people and communities, and cultural and amenity values from the adverse effects of odour are therefore only partially met. Engagement with Council staff has raised concerns regarding the absence of rules to manage odour beyond the boundary that is objectionable and/or offensive. Currently, the only way to address adverse odour effects through the resource consent process, is if the odour is associated with a discharge to air from an industrial or trade premises requiring consent under the rules in	
Outcome 2. protection of cultural and amenity values from any adverse effects of odour discharges **Issue:** The discharge of odorous compounds to air has the potential to adversely impact upon the health of people and communities and cultural and amenity values. **Objective 7.2.2 Protection of cultural and amenity values -** To protect areas of cultural and amenity value from any adverse effects from odour discharges. **Policy 7.3.2 Areas of Cultural or Amenity Value** - Avoid, remedy or mitigate the impact of offensive or objectionable odours on areas of cultural or amenity value. **Method 7.4.1 Codes of Practice -** Encourage the formation and adoption of industry Codes of Practice which pertain to the reduction, control or mitigation of odour effects. **Method 7.4.2 Complaints** - A procedure will be developed and implemented by the SRC, together with territorial authorities and the Public Health Service, to investigate and resolve complaints regarding discharges of contaminants to air which are causing a public health nuisance. **Method 7.4.3 Resource Consents -** Consider odour effects in all air discharge resource consents. **Method 7.4.4 Transfer of powers**... Where discharges have only a limited or localised environmental or public health nuisance impact, it is appropriate for territorial authorities to maintain the management of these discharges within their own boundaries. **Method 7.4.5 Buffer Zones -** Advocate buffer zones around odorous, and potentially odorous, activities. **Method 7.4.6 Education -** Production, distribution and evaluation of educational materials.		

[27] Objectives 7.2.1 and 7.2.2 and Policies 7.3.1 and 7.3.2.

[28] In accordance with the explanation under Method 7.4.3 which references Rule 5.5.2, and the principal reasons in 7.5.

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	Section 5.2. Therefore, odour can only be considered for specific discharges and only from industrial or trade premises. This leaves a potential gap in the Air Plan whereby other activities which generate adverse odour effects which are offensive and/or objectionable, are not able to be addressed through plan rules[30]. Additionally, as the objectives and policies are very generic, their usefulness in guiding a substantive assessment in assessing a resource consent application is limited, particularly where adverse effects of the discharge are no more than minor.	
8 Motor Vehicle Emissions		
Outcome: 1. protection of the health of people and communities from any adverse effects of discharges of contaminants into air from motor vehicles **Issue:** **1.** discharges of contaminants into air from motor vehicles have the potential to adversely impact upon the health of people and communities and environmental health and cultural and amenity values. **2.** the discharge of greenhouse gases into air may be contributing to a global warming effect. **3.** there are still ozone depleting substances used in the Southland Region and these, if released to the atmosphere, could further damage the protective ozone layer. **Objective 8.2.1 -** The health of people and communities and Environmental Health - To protect the health of people and communities and environmental health from any adverse effects of discharges of contaminants into air from motor vehicles. **Policy 8.3.1 -** Adverse effects Avoid, remedy or mitigate adverse effects from the discharges of contaminants into air from motor vehicles. **Policy 8.3.2 Reduction of greenhouse gases -** Promote the reduction of discharges of greenhouse gases into air. **Method 8.4.1 Land Transport Safety Authority -** The SRC will request the Land Transport Safety Authority set a date for the implementation of an amendment regulation controlling discharges of smoke into air from motor vehicles. **Method 8.4.2 Monitoring -** Monitor to determine concentrations of pollutants at selected intersections at times of peak traffic flow. **Method 8.4.3 Industry group initiatives -** Support industry group initiatives to prevent the discharge to the atmosphere of ozone depleting substances from motor vehicle air conditioning systems. **Method 8.4.4 Education -** Production, distribution and evaluation of educational materials. **Method 8.4.5 Advocacy to Central Government -** The SRC will advocate that central government investigate vehicle emissions, the use of alternative fuels, and the retention of public transport subsidies. **Method 8.4.6 Advocacy to road controlling authorities -** The SRC will advocate that road controlling authorities develop strategies, as part of their transport planning function, to avoid or mitigate adverse effects from vehicle discharges into air.	Section 8 Motor Vehicle Emissions includes issues, objectives, policies, methods, principal reasons and outcomes relating to motor vehicle emissions. Much of the material referenced in the introduction section is out-of-date. No rules are included in this section, with methods focussing on advocacy and education. The motor vehicle emissions objectives and policies seek to protect the health of people, communities and the environment, and to protect cultural and amenity values by avoiding remedying or mitigating adverse effects from motor vehicle discharges, and promoting the reduction of greenhouse gas discharges to air.[31] In particular, the methods seek to support and promote industry group initiatives to prevent the discharge to the atmosphere of ozone depleting substances from motor vehicle air conditioning systems, provide educational material, particularly regarding public transport, and alternative fuels. Environment Southland have not launched any Council initiatives regarding the reduction of motor vehicle emissions and greenhouse gas emissions. However, as set out previously in Section 4.5 of this report, Environment Southland is a party to the Carbon Neutral Advantage initiative launched in 2019.[32] The initiative seeks to support businesses and communities to transition to a low emission environment, identify opportunities and share learnings to lower greenhouse gas emissions in Southland, and provide warmer homes and cleaner and healthier communities. This goes some way to promoting the reduction of greenhouse gas emissions in accordance with Policies 8.3.2 and 8.4.4 regarding education, and Policy 8.4.3 regarding supporting industry group initiatives. However, no information has been provided to demonstrate how Method 8.4.1 regarding advocacy to the Land Transport Safety Authority, Method 8.4.2 regarding monitoring at intersections, Method 8.4.5 regarding advocacy to central Government, and Method 8.4.6 regarding advocacy to road controlling authorities, are achieved. Based on discussions with Council staff, staff are also not aware of undertaking any work to give effect to these methods. Notwithstanding that these outcomes and methods have not been given effect to, section 70A of the RMA relating to the discharge of greenhouse gas emissions states: *when making a rule to control the discharge into air of greenhouse gases under its functions under section 30(1)(d)(iv) or (f), a regional council must not have regard to the effects of such a discharge on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gases, either—* *(a) in absolute terms; or* *(b) relative to the use and development of non-renewable energy.* Section 70B of the RMA states: *If a national environmental standard is made to control the effects on climate change of the discharge into air of greenhouse gases, a regional council may make rules that are necessary to implement the standard, provided the rules are no more or less restrictive than the standard.*	
Outcome: 2. protection of cultural and amenity values from any adverse effects of discharges of contaminants into air from motor vehicles **Issue: 1.** discharges of contaminants into air from motor vehicles have the potential to adversely impact upon the health of people and communities and environmental health and cultural and amenity values. **Objective 8.2.2 –** Protect cultural and amenity values from any adverse effect of contaminants into air from motor vehicles.		

[30] It is noted that in some cases section 87B of the Act *certain activities to be treated as discretionary activities or prohibited activities* can be relied upon. E.g. discharges to air from industrial and trade premises.

[31] Objective 8.2.1 and associated policies, and Objective 8.2.2 and associated policies.

[32] Environment Southland, along with eight other organisations, is a shareholder of Great South, Southlands Regional Development Agency, of which the Carbon Neutral Advantage Programme is an initiative. https://greatsouth.nz/initiatives/carbon-neutral-advantage

Plan Section/Provision	What works? What doesn't? Why?	Rating
Policy 8.3.1 - Adverse effects Avoid, remedy or mitigate adverse effects from the discharges of contaminants into air from motor vehicles. **Policy 8.3.2 Reduction of greenhouse gases -** Promote the reduction of discharges of greenhouse gases into air. **Methods:** As above.	These sections of the Act were inserted into the RMA in 2004 by section 6 of the Resource Management (Energy and Climate Change) Amendment Act 2004. The purpose is to provide a national approach to the assessment of effect of the discharge of greenhouse gas emissions into air. As no NES has been promulgated, and Environment Southland cannot regulate greenhouse gas discharges in the Air Plan under s70A of the RMA, this section of the Air Plan is considered redundant. Consideration should therefore be given to its deletion through the upcoming review of the Air Plan.[33]	

[33] Unless any upcoming national reform changes this situation.