

Horizons and Otago Regional Councils: Management of freshwater resources



Report of the

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Tumuaki o te Mana Arotake

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Management of

freshwater resources

May 2005

*This is the report of a performance audit
we carried out under section 16 of the
Public Audit Act 2001.*

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Foreword

New Zealanders value having sufficient quantities of clean freshwater because it contributes to our economy, recreational activities, and cultural identity.

Regional councils must manage competing priorities to both use and protect our freshwater resources. Accordingly, management of freshwater resources is not a simple task.

This report looks at how the Resource Management Act 1991 framework has been implemented by the Horizons Regional Council and the Otago Regional Council for the management of freshwater in their regions.

The 2 councils were selected for audit – not because of any particular performance issues, but because I wished to identify regional councils with pressures on water allocation and water quality, and plans in place for water management. In doing this, I expected that key messages from the audit would provide the most value for the greatest number of councils.

The 2 councils were assessed against audit criteria based on best practice guidance. These criteria represent high expectations of regional council performance, and while I do not expect that any regional council would meet all of them, they should all aspire to do so.

Overall, I found that Horizons and Otago Regional Councils have made good progress in some areas, such as planning and implementing water allocation frameworks, but improvements need to be made in other areas – particularly compliance and effectiveness and efficiency monitoring.

I thank Horizons and Otago Regional Councils' staff, councillors, and community stakeholders for their assistance and co-operation during the audit.

K B Brady
Controller and Auditor-General

20 May 2005

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Glossary of terms

Allocation limit/volume – the maximum flow or quantity of water in a water body available for use.

Biodiversity – the variability of living organisms. The term includes genetic diversity (genetic differences among individuals within a single species), species diversity (the variety of species within a particular geographical area), and ecosystem diversity – for example, forests, deserts, grasslands, streams, lakes, wetlands, and oceans, and the biological communities that live in them.

Contaminant – includes any substance (including gases, liquids, solids, and micro-organisms), energy or heat, that when discharged into air, water, or onto land, changes or is likely to change the physical, chemical, or biological condition of water, or when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.

Discharge – deliberate or accidental deposit or release of any substance to air, water, or land.

Ecosystem – a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

Effluent – liquid waste (for example, the discharge from wastewater treatment plants and liquid leaching from solid waste).

Environmental Results Anticipated (ERAs) – what might be achieved from the combined effect of the objectives, policies, and methods.

Environmental values – these reflect the community's aspirations for the water in its region, and the level of water quality desired. They can include ecological function and biodiversity, natural character, natural features and landscape, cultural and spiritual values, scenic and amenity values, contact recreation, and mauri and mahinga kai.

Freshwater – all water except geothermal water and coastal water. Freshwater may be surface water or groundwater.

Groundwater – freshwater which occupies or moves through openings, cavities or spaces in geological formations under the ground.

Hapu – sub-tribes.

Iwi – tribal group.

Kaitiakitanga – the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources, and including the ethic of stewardship.

Low flow – flows in a river during the dry season of the year.

Mahinga kai/ Mahika kai – customary places where food is collected or produced.

Mauri – life essence, life force.

Minimum flow – the flow below which the holder of any resource consent to take water must cease taking water from that river.

Non-point source discharge – a discharge of water or contaminant that enters a water body from a diffuse source – for example, fertiliser washed off paddocks into streams.

Permitted activity – an activity allowed by a regional plan without a resource consent if it complies in all respects with any conditions specified in the plan.

Point source discharge – a discharge of water or contaminant that enters a water body at a definable point – for example, a pipe or drain.

Resource consent – a permit to carry out an activity that would otherwise contravene the Resource Management Act. Requirements included as part of the resource consent are known as resource consent conditions.

Riparian margin – a strip of land, usually of varying width, adjacent to a waterway, which contributes to the maintenance and enhancement of the natural functioning, quality and character of the waterway.

Runanga – local representative group or community system of organisation.

Surface water – water in all its physical forms that is over the ground, flowing or not, but excludes coastal water and geothermal water.

Taonga – treasure, prized elements of Māori culture.

Tangata whenua – people of the land.

Tikanga – Māori customary values and practices.

Wāhi tapu – a place sacred to Māori in the traditional, spiritual, religious, ritual, or mythological sense.

Water body – freshwater or geothermal water in a river, lake, stream, pond, wetland, or groundwater that is not located within the coastal marine area.

Water take – the extraction of water from lakes, rivers, streams, or groundwater.

Wetlands – includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.



Summary

New Zealand's unique natural environment contributes to the country's reputation for scenic beauty, recreational opportunities, and a "clean, green" image. However, the activities of people can affect the quality of our environment.

Sufficient quantities of clean freshwater are indispensable for the country's future – whether for economic prosperity, human and ecosystem health, recreation, or cultural identity. (We use the term freshwater to include all water except geothermal and coastal water).

Regional councils are responsible under the Resource Management Act 1991 (RMA) for the management of freshwater resources in their regions.

We carried out a performance audit to assess how 2 regional councils – the Horizons Regional Council (the trading name of the Manawatu-Wanganui Regional Council) and the Otago Regional Council – are applying the RMA framework to manage the quality and quantity of freshwater resources in their regions.

We assessed 4 aspects of regional council activities in relation to freshwater management – planning, implementation, monitoring, and acting on information. One of the aims of our audit was to identify examples of good practice by the 2 councils, or where improvements could be made that would be useful for all regional councils.

Our key findings are similar for both the Horizons and Otago Regional Councils, and we consider that they are largely transferable to other regional councils.

Overall, we found that the Horizons and Otago Regional Councils have made good progress in some areas, such as planning and implementing water allocation frameworks, but improvements need to be made in other areas – particularly compliance and effectiveness and efficiency monitoring.

This summary sets out our key findings, key messages, and examples of good practice and innovation shown by the Horizons and Otago Regional Councils.

Planning

We assessed whether the Horizons and Otago Regional Councils' planning documents (Regional Policy Statements and Regional Plans) provide adequate guidance for the management of freshwater in their respective regions. We considered whether the planning documents comply with the RMA, and if the councils assess plan objectives, policies, methods and Environmental Results Anticipated (ERAs) against best practice.

Key findings

Generally, the planning documents that we looked at met our expectations. Specifically, the 2 councils have made good progress in:

- identifying environmental values related to water bodies in their regions;
- developing a water allocation framework – including setting minimum flows on rivers where there is a high demand for water, and reflecting these flows in resource consents to take water; and
- defining a range of policy instruments for the management of water resources in their regions.

However, the objectives included in both councils' planning documents are not measurable, and many objectives did not provide a clear basis for setting policy direction. Where objectives are not specific:

- council staff and stakeholders can be unsure of the linkages between how issues are being addressed by the policies and methods, and what the plans intend to achieve;
- decision-makers could find it difficult to justify some resource consent conditions, or decisions to grant or decline resource consent applications;
- resource consent applicants can be unsure about the requirements they need to meet, and what level of resource use is acceptable; and
- stakeholders with an interest in environmental protection can be in doubt about what level of protection will be provided.

Objectives that are measurable provide a basis for:

- determining whether progress is being made in achieving the objective; and
- assessing whether the policies and methods that flow from the objective are effective and efficient.

The ERAs set out in the Horizons and Otago Regional Councils' planning documents did not meet our expectations. Rather than a statement of what might be achieved within the lifespan of planning documents, many ERAs simply repeat the objectives, which adds little value.

While the councils had included the procedures for monitoring the effectiveness and efficiency of policies and methods in planning documents, these are not comprehensive, nor are they linked to the objectives and ERAs set out in the planning documents.

Key messages

Planning documents can be significantly improved by the inclusion of simply worded, measurable objectives that clearly set out what the plan intends to achieve, and specifically outline the environmental state sought.

When planning documents are being prepared, more thought needs to be given to the drafting of ERAs. Well-crafted ERAs that state what is intended to be achieved within the life of the plan can provide a solid basis for designing procedures for monitoring the effectiveness and efficiency of policies and methods.

In our view, procedures for monitoring the effectiveness and efficiency of policies and methods should be linked to specific policies and methods, and established during plan development.

Formal training on the content and purpose of planning documents for new and existing council staff should be provided to establish and maintain detailed knowledge of these documents and what they intend to achieve. A clearly understood relationship between issues, objectives, policies, and methods allows council staff to effectively write action plans to implement the policies and methods outlined in the Regional Plan. It also helps to ensure that the action taken will lead to progress in addressing the issues identified.

Examples of good practice and innovation at Horizons and Otago Regional Councils

Identification of environmental values is a key starting point for planning water management. We were pleased to see that both councils had identified environmental values for specific water bodies, and that these were included in planning documents.

Good progress has been made in the complex area of planning and implementing water allocation frameworks.

Implementation

We considered the extent to which the 2 councils have implemented the policies and methods related to:

- working with territorial authorities to manage water resources;
- regulation, education initiatives, and economic instruments; and
- increasing Māori participation and protection of mauri.

We also considered how the councils ensure that their policies and methods are implemented.

Key findings

Improvements could be made in the way the councils and their respective territorial authorities interact to maintain and enhance water quality and quantity. In particular, regional councils and territorial authorities need to work together to ensure that:

- new subdivision development takes account of water availability and natural hazards; and
- the effects of stormwater and leachate from on-site wastewater treatment on water quality are avoided, remedied, or reduced.

Some small rural territorial authorities are continuing to discharge sewage effluent into rivers that is of a quality inconsistent with regional council policies to improve water quality. However, financial constraints or funding priorities can prevent these territorial authorities from upgrading wastewater treatment plants to improve the quality of effluent discharged.

Regulations controlling the point source discharge of contaminants into rivers, streams and lakes have been less effective in improving water quality because of the effect of non-point source discharges on water quality. Agricultural activities are a significant cause of non-point source pollution.

Both the Horizons and Otago Regional Councils provide environmental grants for wetland protection and enhancement, and for riparian management. These grants can encourage community groups and individuals to undertake projects to maintain or enhance water resources that might not be possible without financial assistance. If the community wants better water quality or wetland and biodiversity protection, then these grants can be a useful way of enhancing the environment in these areas.

The majority of education initiatives outlined in both councils' planning documents have been implemented, and stakeholders generally considered that the advice provided by council staff was of a high standard. Education programmes were most effective when the regional councils and community groups worked together to achieve common goals.

While the Otago Regional Council has made good progress in ensuring the local iwi authority and affected runanga are involved in the resource consent process, the Horizons Regional Council has taken few steps to increase Māori participation or protect mauri. Of the Horizons Regional Council assessments of resource consent applications to discharge contaminants to water that we looked at, most did not include any reference to protection and enhancement of mauri. There was no mention of tangata whenua concerns, even when consents dealt with the discharge of human effluent.

Key messages

Where communities want improved sewage effluent quality, consideration should be given to investigating alternative effluent disposal methods or funding sources for wastewater treatment plant upgrades.

It may be timely (as councils prepare second generation planning documents) for regional councils and territorial authorities to review procedures for permitting intensive agricultural activities where there are likely to be significant effects on water quality.

Where water quality is significantly degraded, or likely to become degraded, by non-point source discharges, it may be necessary for regional councils to regulate to reduce the effects of these discharges, or to strengthen the regulation that exists. This may include (but is not limited to) requiring nutrient budgeting, reduced fertiliser application, or the planting of riparian margins.

Introducing or strengthening rules to address the effects of non-point source discharges could usefully be supported by education to ensure that people understand the reasons for taking a regulatory approach, and financial incentives to help change behaviour.

Regional councils and territorial authorities could effectively collaborate to provide education initiatives – in particular, those related to efficiency of water use and preventing stormwater contamination.

The RMA establishes the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga as a matter of national importance. In addition, many regional plans make reference to the protection of



SUMMARY

mauri. Accordingly, whether or not iwi make submissions on consents, regional councils should consider these issues as part of the resource consent process, particularly for resource consents to discharge treated human effluent to water.

Understanding Māori values related to resource management is a key competence for council staff involved in developing resource management policy, making resource consent decisions, and designing monitoring programmes.

When planning documents become operative, the community can rightly expect that the policies and methods outlined in the plans will be implemented. To provide assurance that this is happening, councils need to monitor progress towards implementation, and report this progress – for example, to senior managers or a council committee.

When writing objectives, policies, and methods, it is useful for regional council planners to think about how they will be implemented, how that implementation can be measured, and how it will be determined whether the policy is having the desired effect. Action plans that assign responsibility for individual tasks may be required.

Examples of good practice and innovation at Horizons and Otago Regional Councils

The Horizons Regional Council:

- provides advice on sustainable land management at no cost. This is an incentive for landowners to implement council suggestions;
- uses a good range of economic instruments, including transferable water permits, and reduced compliance inspection fees for consent-holders who comply with their consent conditions; and
- is including conditions in territorial authority consents to take water for community supply, which require the territorial authority to prepare a plan for achieving the efficient use of water in the district or city.

The Otago Regional Council:

- provides educational catchment programmes, which are a good example of the gains that can be made when regional councils and communities co-ordinate their efforts;
- has implemented, or is in the process of implementing, the majority of policies and methods that we looked at in its *Regional Plan: Water*. As the plan became operative in early 2004, this is a significant achievement; and

- provided a comprehensive programme of training and information about the *Regional Plan: Water* to staff and the community as the plan became operative.

Monitoring

We examined how the 2 councils plan and perform the monitoring activities required under the RMA, including state of the environment monitoring, monitoring compliance with resource consent conditions, and monitoring the effectiveness and efficiency of policies and methods.

Key findings

Neither council has produced a monitoring strategy that includes and integrates all the types of monitoring that are required by the RMA.

Both Horizons and Otago Regional Councils regularly undertake state of the environment monitoring for water quality and quantity at a range of sites in their regions. The councils have set threshold limits for acceptable levels for each water quality parameter that they measure. The water quantity information that is collected is useful for stakeholders, including irrigators, recreational users, and those with an interest in the river.

The 2 councils have less information about the volume or rate of water taken during the exercise of resource consents, or as a permitted activity. This means neither council knows how much water is actually being used in their region – they only know how much water is allowed by resource consents or as permitted activities. This gap in information reduces the councils' ability to manage their water resource because some users may hold consents to take large volumes of water, but do not use all of it. This means that more water is potentially available for allocation to other users, but the councils cannot know how much. Both councils are working towards remedying this problem.

There were significant gaps in how compliance monitoring is undertaken at both councils. Specifically, many holders of resource consents to take water fail to send in self-monitoring results, and there is little scrutiny of these results if the councils do receive them.

In both regions, there was no monitoring for some resource consents to discharge contaminants to water. Further, in Otago, self-monitoring data was not reviewed promptly. This means that non-compliance and potential or actual adverse effects may not be detected (and thus addressed) early. Lack of monitoring or lack of analysis of self-monitoring data means there are gaps in the information that the regional council holds in relation to discharges to water.



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In addition, compliance data collected by both councils is not stored in a consistent manner and may not be readily accessible to staff. Collection of monitoring data can be expensive and time-consuming, so it is important that relevant information is available to those who need to use it. Without good information, council staff will not be able to effectively review and plan future activities – for example, targeted education or monitoring where problems are identified – or to amend planning documents where required.

Monitoring the effectiveness and efficiency of policies and methods is limited. The Horizons Regional Council does no effectiveness and efficiency monitoring. The Otago Regional Council has done some effectiveness and efficiency monitoring but has not linked it back to specific policies and methods.

Key messages

Monitoring strategies should be prepared as part of the plan development process. An integrated approach to designing and implementing a monitoring programme allows a regional council to:

- consider its plan objectives, with all of its monitoring requirements, and establish strong linkages between monitoring activities, ERAs, and effectiveness and efficiency monitoring;
- ensure that monitoring activities are not duplicated or overlooked;
- consider the resources required; and
- address issues such as information management, data quality collection, storage, use, access, and exchange of information, both within and outside the council.

All policies and methods, including non-regulatory policies and methods, need to be assessed for effectiveness and efficiency, and procedures for doing this need to be detailed at the time a planning document is developed and included in monitoring strategies.

Effectiveness and efficiency monitoring is essential to determine which parts of planning documents are achieving the desired goals, and which are not – and therefore where improvements are required. With new requirements to publicly report the results of this monitoring at least every 5 years, councils will need to improve the way in which they plan and carry out effectiveness and efficiency monitoring.

Compliance monitoring should be planned and implemented to ensure that communities receive assurance that plans and consent conditions are in effect, and that there is an incentive for consent-holders to make the effort to comply.

Example of good practice and innovation at Horizons and Otago Regional Councils

Both councils operate systems to record staff suggestions for improvements to planning documents. These are good initiatives and useful to policy staff when preparing new policies and plans.

Acting on information and informing communities

We examined how the 2 councils respond to:

- non-compliance with resource consents;
- complaints and environmental incidents; and
- monitoring data.

We also looked at how the councils provide information to their communities.

Key findings

Both councils had taken action in response to monitoring information, including the development of targeted education programmes and new policies. Council staff have the opportunity to provide input into plan improvement processes.

Both councils accept that enforcement action is appropriate where consent-holders do not comply with consent conditions, and are not willing to change their practices or are repeat offenders.

Each council operates a pollution hotline so people can tell the council about environmental pollution or an accidental spill. However, stakeholders in both regions were concerned that the regional council did not always respond promptly to pollution complaints. Some stakeholders also commented that the council did not inform them about the result of an investigation resulting from a complaint they had made.

Both councils had published State of the Environment Reports, but neither council had reported publicly on whether ERAs and objectives were achieved.

Key messages

Taking enforcement action where consent-holders do not comply with resource consent conditions, and are not willing to change their practices or are repeat offenders, is a valuable mechanism for signalling to the community which activities the regional council considers are unacceptable.

Responding to complaints is part of the “public face” of regional councils. Where members of the community perceive that regional councils are not fulfilling this role, they can become frustrated and lose faith in the council’s ability to protect the environment. This, along with reducing the negative effects of environmental incidents, is an important reason to promptly respond to and investigate pollution incidents.

Reports to councillors and senior management on responses to non-compliance should include information on the follow-up action taken to ensure that the non-compliance will not continue.

Information on progress toward, or achievement of, ERAs and objectives should be provided in regional councils’ effectiveness and efficiency monitoring reports.

We consider that councils should be responsive to the information requirements of their communities. This includes providing a final copy of resource consents to affected parties, and information on compliance monitoring and responses to environmental incidents where appropriate.

Example of good practice and innovation at Horizons and Otago Regional Councils

Both councils provide up-to-date graphs and information on their websites about river levels and flows.

Introduction

Why did we do this audit?

- 1.1 In October 2003, we began a comprehensive scoping review of the implementation of the Resource Management Act 1991 (RMA) in order to identify areas for potential audits.
- 1.2 Our review established that freshwater¹ management was an area of interest for most agencies that we consulted. It also is one of the nation's most significant current environmental issues.
- 1.3 The RMA provides the framework for freshwater management, and regional councils have responsibility for implementing the framework.
- 1.4 In addition to these aspects, we considered that an audit of local government monitoring activities was timely.

Purpose of our audit

- 1.5 The purpose of our audit was to:
 - report to Parliament on the freshwater management frameworks in place in 2 regional councils;
 - assess whether the selected 2 regional councils have prepared planning documents that comply with the RMA and are in line with our expectations;
 - assess whether the selected 2 regional councils are implementing the policies and methods outlined in their RMA planning documents;
 - review the monitoring activities undertaken by the selected 2 regional councils, and action in response to monitoring; and

¹ The term "freshwater" refers to all water except geothermal water and coastal water. Freshwater may be surface water (such as that in rivers, lakes, streams, or wetlands) or groundwater.

- identify examples of good practice by the selected 2 regional councils, or examples of where improvements could be made, that would be useful for all regional councils.

Why we chose Horizons Regional Council and Otago Regional Council

- 1.6 Because of its broad and complex nature, we limited our audit to 2 regional councils – Horizons Regional Council² and Otago Regional Council.
- 1.7 The 2 councils were selected – not because of any particular performance issues, but because we aimed to identify councils where our audit findings would be the most transferable to the greatest number of councils.
- 1.8 For this reason, we selected councils that had regional plans in place for water management, water allocation issues, and water quality pressures from increased agricultural land use. Details of the selected 2 regions and their communities are discussed in paragraphs 3.1-3.34.
- 1.9 Our key findings were similar for both the Horizons and Otago Regional Councils. We consider that the key messages we have drawn from these findings are transferable to other regional councils.

How did we carry out our audit?

- 1.10 To assess the management of freshwater resources by the Horizons and Otago Regional Councils, we established audit criteria (or expectations). Our audit criteria are listed in the Appendix.
- 1.11 To establish our audit criteria, we looked at what is required for planning documents to comply with the RMA, and drew on best practice outlined in published guidance material. In particular, we referred to:
- guidance notes on the Quality Planning website³ – www.qp.org.nz;
 - *Drafting Issues, Objectives, Policies and Methods in Regional Policy Statements and District Plans*, Ministry for the Environment, 2003; and
 - *Regional Policy Statements and Regional Plans, A Guide to their Purpose, Scope and Content*, Hawkes Bay Regional Council, Taranaki Regional Council, Manawatu-Wanganui Regional Council, Otago Regional Council and Southland Regional Council, 1998.

² Horizons Regional Council is the trading name of the Manawatu-Wanganui Regional Council.

³ The purpose of the Quality Planning website is to promote best practice in the development of plans under the Resource Management Act (RMA). The Quality Planning Project is a partnership between the NZ Planning Institute, the Resource Management Law Association, Local Government New Zealand, the NZ Institute of Surveyors and the Ministry for the Environment. The project is funded by the Ministry, which currently owns and administers the website.

- 1.12 We also received input from external advisors, and consulted with planning practitioners. Our external advisors were:
- Dr Ton Snelder, Natural Resource Engineer, National Institute of Water and Atmospheric Research;
 - Robert Brodnax, Programme Manager, Land, Water and Waste Policy, Environment Waikato; and
 - Neil Ericksen, Gregory Mason, and Jan Crawford, Planning Under Cooperative Mandates, International Global Change Institute, The University of Waikato.
- 1.13 To assess the selected 2 councils against these criteria, we reviewed council documents and interviewed council staff, councillors, and community stakeholders. The stakeholders we interviewed were:
- community groups;
 - consent-holders;
 - Department of Conservation;
 - farmers;
 - Federated Farmers of New Zealand;
 - Fish and Game New Zealand;
 - Fonterra Co-operative Group;
 - local iwi; and
 - territorial authorities.⁴

What our audit did not cover

- 1.14 We did not look at regional council flood protection programmes, or at how local authorities manage the quality and provision of drinking water. While we make references to groundwater throughout the report, we did not look in detail at the management of groundwater in the 2 selected regions.
- 1.15 The Ministry for the Environment also has a role in freshwater management, particularly in the development of National Environmental Standards, National Policy Statements, and environmental performance indicators. We did not audit the performance of the Ministry in this role, nor did we consider the management of freshwater from a national perspective.

⁴ Territorial authorities are city or district councils.

Water, the Resource Management Act, and the planning framework

- 2.1 New Zealand's unique natural environment contributes to the country's reputation for scenic beauty, recreational opportunities, and a "clean, green" image. However, the activities of people can and do affect the quality of that environment.
- 2.2 This report discusses how the selected 2 regional councils use the RMA framework to manage activities that affect the quality and quantity of freshwater resources in their regions.
- 2.3 In a 2004 survey of public perceptions of the environment⁵, respondents considered rivers and lakes to be among the least well managed of the 11 components of the environment studied. The management of farm effluent and run-off was perceived to be the least well managed of the specific environmental problems investigated by the survey.
- 2.4 Compared to a previous survey in 2002, there was a 96% increase⁶ in the number of respondents who judged water pollution to be the most important environmental issue facing the country.
- 2.5 According to the Quality Planning website – www.qp.org.nz – clean, abundant freshwater is a key element of:
- economic prosperity – for power generation, industrial processes, agriculture, irrigation, and tourism;
 - health – for drinking, bathing, and cleaning;
 - environmental values – for recreation, fishing, biodiversity, nutrient recycling, and climate regulation; and

5 Hughey, K.F.D., Kerr, G.N. and Cullen, R. 2004. *Public Perceptions of New Zealand's Environment: 2004*. EOS Ecology, Christchurch 102pp. ISBN 0-476-01265-1.

6 In 2002, 678 people answered this question and 47 considered that water quality/pollution was the most important environmental issue facing New Zealand. In 2004, 670 people responded to this question and 91 selected water quality/pollution as the most important environmental issue facing New Zealand.

WATER, THE RESOURCE MANAGEMENT ACT, AND THE PLANNING FRAMEWORK

- cultural identity – for collection of food and weaving materials, and preservation of mauri and kaitiakitanga.

Water quality and quantity

Water quality

- 2.6 In the past, it was common practice to discharge contaminants directly into rivers, streams, lakes, and other water bodies. These **point source discharges** (such as factory or wastewater treatment plant⁷ outfalls) are now largely controlled under the RMA.
- 2.7 More difficult to deal with are **non-point source discharges**, which enter freshwater either:
- directly – from stormwater, run-off from agriculture, forestry, or farmland that contains contaminants such as fertiliser, animal waste, or sprays, and from eroding soil that is washed from the land into freshwater; or
 - indirectly – from nutrients (for example, fertiliser or animal waste) which leach through the soil into groundwater, and eventually into lakes and rivers.
- 2.8 These discharges are difficult to manage because it is hard to establish a direct link between the contaminant and its source. The cumulative environmental effects of non-point source discharges are often significant.
- 2.9 The Parliamentary Commissioner for the Environment notes in his 2004 report *Growing for Good*⁸ that –
- New Zealand's waters are a limited, fragile resource coming under increasing pressure from farming activities, both in terms of the effects on water quality and the increasing demand for water. Although pollution of rivers from point sources ... has declined over the last 20 to 30 years, pollution from non-point sources is a major and increasing problem. Farming has been identified as the main source of pressure on water quality in New Zealand.*
- 2.10 Contaminants such as animal waste, fertilisers, soil erosion, septic tank leachate, and sewage contain the nutrients nitrogen and phosphorus, which are needed for aquatic plant growth.

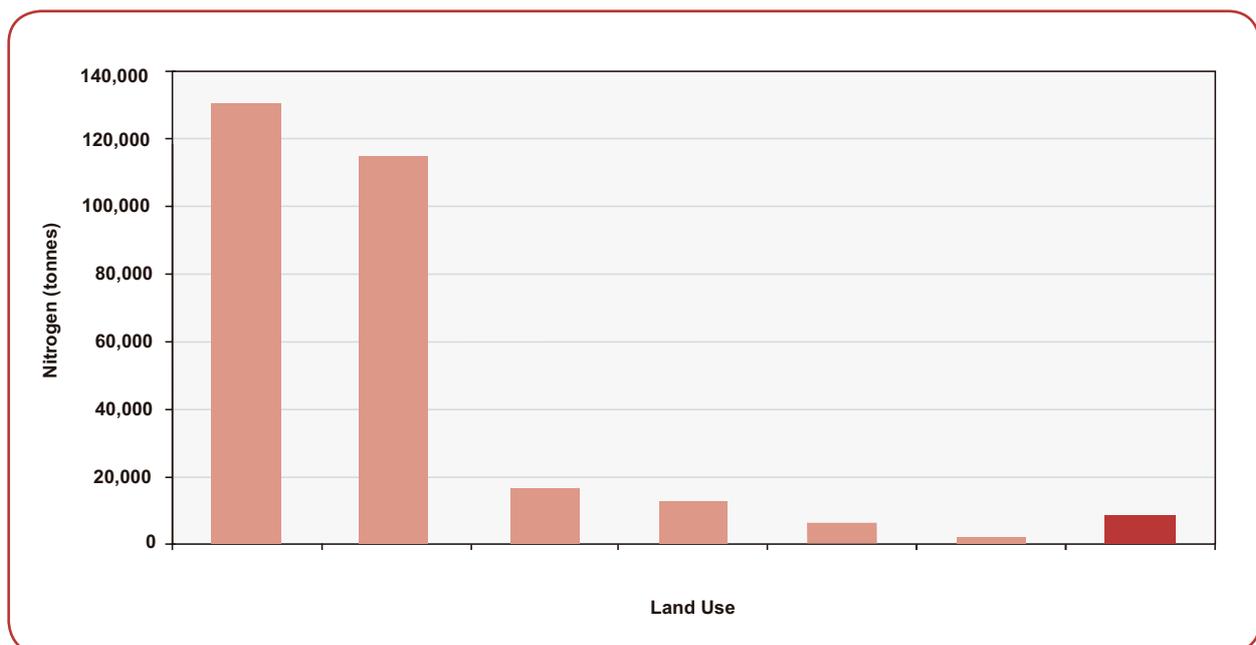
7 A system for processing human domestic waste and/or sewage.

8 Parliamentary Commissioner for the Environment, *Growing for Good: Intensive farming, sustainability and New Zealand's environment*, October 2004.

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- 2.11 However, too much nitrogen and phosphorous in the water can cause excessive plant growth (which makes swimming unpleasant and deprives fish of oxygen), and toxic algal blooms (which affect the central nervous system and liver, and could kill livestock, wildlife and humans).
- 2.12 Sustained levels of nitrogen in the form of ammonia can be toxic to fish. High levels of nitrates and nitrites can make water unsafe for human and livestock consumption.
- 2.13 Figure 1 shows how many tonnes of nitrogen leached as a result of various land uses in 2001, compared to that from point source discharges.

*Figure 1
Nitrogen leaching from various sources in
New Zealand in 2001**



* Parfitt, R., Schipper, L.A. and Baisden, W.T. 2005, National nitrogen budgets for New Zealand in 2001 – a first approximation, in *Developments in fertiliser application technologies and nutrient management* (Eds L.D. Currie and J.A. Hanly), Occasional Report No. 18, Fertiliser and Lime Research Centre, Massey University, Palmerston North, New Zealand (in press).

- 2.14 While agricultural activities appear to affect water quality the most, urban discharge of sewage and industrial waste, and stormwater, also affects water quality.

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- 2.15 Towns of more than 5000 people have a reticulated sewage system which pipes wastewater to a treatment plant. This treated effluent is ultimately discharged to rivers or the sea. Only a small percentage of urban wastewater is disposed of onto land. On-site wastewater treatment (using septic tanks) is used in small towns and beach communities. This can be an efficient form of sewage treatment, but if septic tanks malfunction, undesirable levels of contaminants can enter nearby waterways.
- 2.16 Wastewater is also discharged by industry, either into a reticulated wastewater system or directly to rivers or coastal waters.
- 2.17 Urban stormwater can also be a significant source of pollution. Where rainwater is not absorbed by soil and vegetation, it runs over paved surfaces, is mixed with contaminants such as sediment or oil, then enters gutters and drainage pipes, where it eventually discharges into streams, lakes, or coastal waters.
- 2.18 Whether they are from a point source or non-point source, discharges of contaminants into our waters are of concern because they affect aquatic health, visual amenity, or pose a risk of contact-related illness – for example, vomiting, diarrhoea, or skin infections.

Water quantity

- 2.19 Water takes⁹ for municipal and domestic use comprise only 0.2% of annual national rainfall. Two-thirds of the water for municipal and domestic use is taken from surface water, and the remainder from groundwater.¹⁰
- 2.20 The increasing demand for freshwater to generate hydro-electricity and to irrigate is placing pressure on local and central government to put processes in place to manage allocation of freshwater for consumption, storage, and use.
- 2.21 “Out of stream” uses of water (such as irrigation) can reduce the ability of our waters to sustain wildlife, and the quality of tourist attractions, water-based recreational opportunities, and cultural values.
- 2.22 Rivers, in particular, can be put under considerable stress during summer periods, when demand for irrigation water is high. The sustainable management of water requires an adequate residual flow in rivers to safeguard fish and wildlife habitats and provide for other environmental values.

⁹ The term “water take” refers to the extraction of water from a water body.

¹⁰ Statistics New Zealand, *Water Physical Stock Accounts for the years 1995 to 2001, Inaugural Report, 2004.*

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- 2.23 A reduction in water volume also reduces the ability of the river or stream to cope with contaminants.

The Resource Management Act 1991

Purpose and principles

- 2.24 The RMA is the country's principal environmental legislation, and sets a framework for the "sustainable management" of land, air, and water.
- 2.25 The RMA defines "sustainable management" as –
... managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for social, economic, and cultural well-being and for their health and safety, while:
- *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
 - *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
 - *avoiding, remedying, or mitigating any adverse effects of activities on the environment.*
- 2.26 The RMA sets out "matters of national importance" which must be recognised and provided for by all persons who exercise functions and powers under the Act. These include:
- the preservation and protection of the natural character of wetlands, and lakes and rivers and their margins;
 - the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;
 - the maintenance and enhancement of public access to lakes and rivers; and
 - the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga.
- 2.27 The RMA also requires all persons exercising functions and powers under the Act to have particular regard to (among other things):
- kaitiakitanga;
 - the efficient use and development of natural and physical resources;

WATER, THE RESOURCE MANAGEMENT ACT, AND THE PLANNING FRAMEWORK

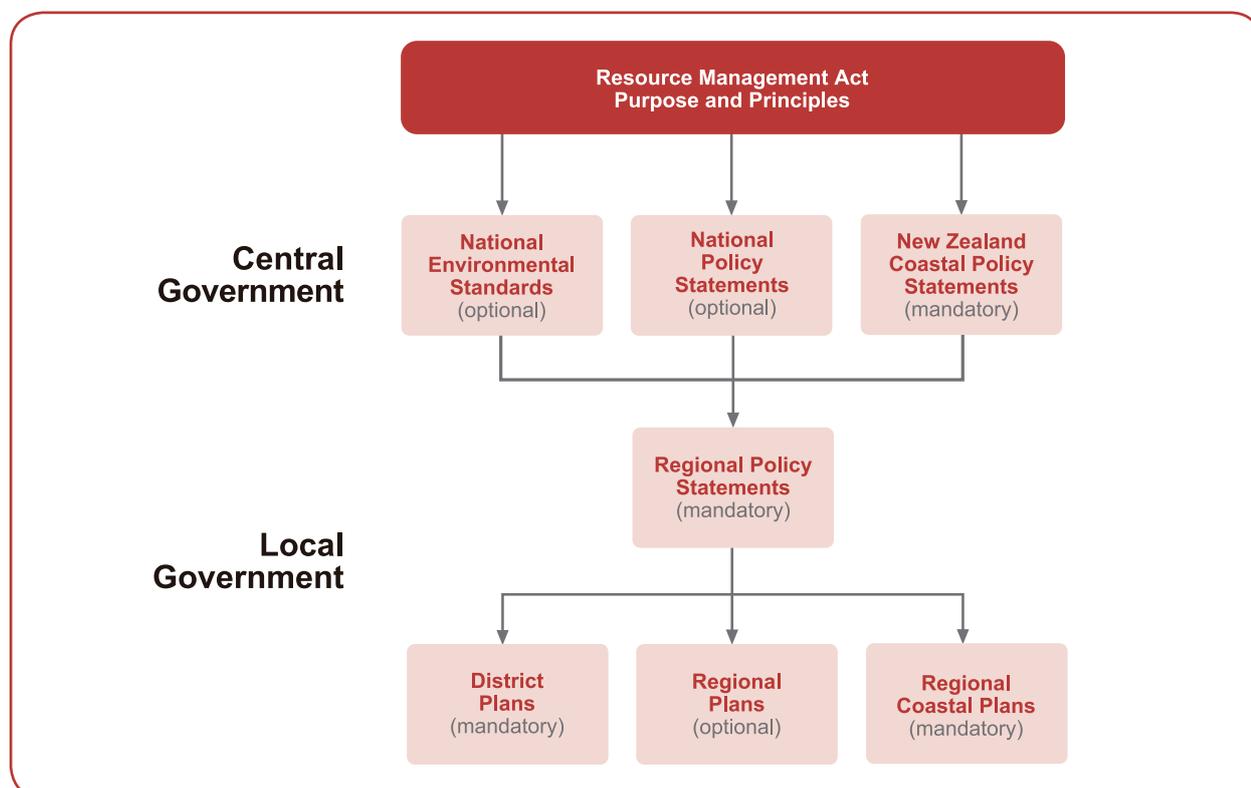
- the maintenance and enhancement of amenity values;
- intrinsic values of ecosystems;
- maintenance and enhancement of the quality of the environment;
- any finite characteristics of natural and physical resources; and
- the protection of the habitat of trout and salmon.

2.28 In addition, all persons exercising functions and powers under the Act are required to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

2.29 The RMA imposes a duty on all people to avoid, remedy, or mitigate adverse effects on the environment. The Act also contains restrictions on discharging contaminants into water and on the taking, use, damming, or diversion of water, and certain uses of the beds of lakes and rivers.

2.30 The RMA sets out the planning framework for the management of natural and physical resources. This is outlined in Figure 2.

Figure 2
The Resource Management Act's planning framework



National Environmental Standards and National Policy Statements

- 2.31** The RMA allows the Minister for the Environment to prepare National Policy Statements – to guide local authorities on matters of national significance, and National Environmental Standards, which have the force of regulation and are binding on local government.
- 2.32** There is only one National Policy Statement – the New Zealand Coastal Policy Statement – and one set of National Environmental Standards relating to air quality. There are currently no National Policy Statements or National Environmental Standards for freshwater quality or quantity.

Regional Policy Statements

- 2.33** Regional councils must produce Regional Policy Statements. These are high-level documents that provide an overview of the resource management issues of the region, and policies and methods to achieve integrated management of the natural and physical resources of the whole region. Regional Policy Statements must be reviewed no later than 10 years after they become operative.

Regional Plans

- 2.34** A regional council must prepare a Regional Coastal Plan, and may also prepare a Regional Plan for the whole or part of its region for any function related to:
- soil and water quality and quantity;
 - management of natural hazards;
 - control of discharges of contaminants into or onto land, air, or water, and discharges of water into water;
 - maintaining indigenous biological diversity; and
 - any other functions specified in the RMA.
- 2.35** Regional plans can assist councils to carry out their functions by specifying objectives, policies, methods, and rules, which allow, regulate, or prohibit certain activities. Regional plans can be particularly important for water management by placing restrictions on activities involving water and the disturbance of beds of rivers and lakes. This means that most water-related activities are prohibited unless they are expressly allowed by a rule in a regional plan or resource consent.¹¹

¹¹ A resource consent is a permit to carry out an activity that would otherwise contravene the RMA. Requirements included in the resource consent are known as resource consent conditions.

- 2.36 A regional council must not set standards in a regional plan that result, or may result, in a reduction in the quality of the water unless it is consistent with the purpose of the RMA to do so.¹²

District Plans

- 2.37 Territorial authorities (city and district councils) must produce District Plans, which set objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district. District Plans must not be inconsistent with the Regional Policy Statement of the region or a Regional Plan.¹³

Contents of planning documents

- 2.38 Regional Policy Statements and Regional and District Plans (referred to in this report as planning documents) must include (among other things):
- **issues** – an existing or potential problem that must be resolved to promote the purpose of the RMA;
 - **objectives** – a statement of what will be achieved through resolution of the issue;
 - **policies** – an intended action or attitude towards an issue;
 - **methods** – the way the policy is implemented (these can be regulatory or non-regulatory); and
 - **Environmental Results Anticipated (ERAs)** – what might be achieved from the combined effect of the objectives, policies, and methods.¹⁴
- 2.39 Regional and District Plans may also include rules which have the force of regulation.

Preparation of planning documents

- 2.40 The process to prepare planning documents is set out in Schedule 1 of the RMA. It involves public notification of planning documents, and allows for the public to make submissions to which a local authority must respond. If a person is unhappy with a local authority's decision about his or her submission, that person may appeal to the Environment Court. The Environment Court can direct the local authority to amend a planning document if appropriate.
- 2.41 The process for preparing planning documents is illustrated in Figure 3.

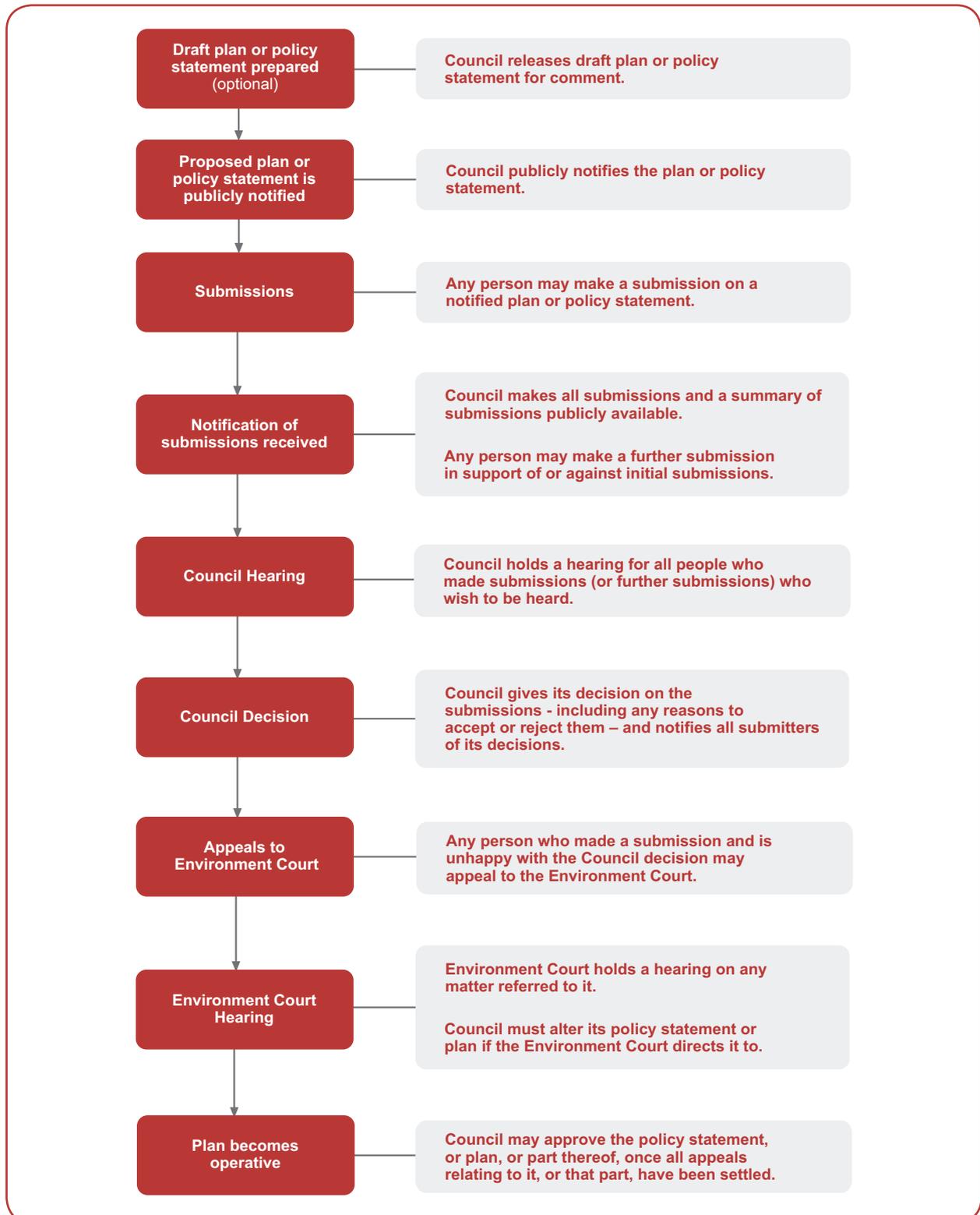
¹² RMA, section 69.

¹³ RMA, section 75(2).

¹⁴ Ministry for the Environment, *Drafting Issues, Objectives, Policies and Methods in Regional Policy Statements and District Plans*, 2003.

**WATER, THE RESOURCE MANAGEMENT ACT,
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Figure 3
Process for preparation of planning documents



Role and functions of local authorities for freshwater management under the Resource Management Act

- 2.42** The RMA sets out the functions, powers, and duties of local authorities in relation to the management of natural and physical resources. Functions and powers for freshwater management lie with regional councils. Other regional council functions that relate to freshwater management include management of soil and geothermal resources, the control of pollution, and the use of land as it affects natural resources.
- 2.43** Territorial authorities are responsible for the management of the effects of the use, development, or protection of land, and associated natural and physical resources of the district. Territorial authorities also control any actual or potential effects of activities in relation to the surface of water in rivers and lakes.
- 2.44** In terms of freshwater, regional councils have the power to control:
- the use of land for the purpose of:
 - the maintenance and enhancement of the quality of water in water bodies;
 - the maintenance of the quantity of water in water bodies; and
 - the maintenance and enhancement of ecosystems in water bodies;
 - the taking, use, damming, and diversion of water, and the control of the quantity, level, and flow of water in any water body, including:
 - the setting of any maximum or minimum levels or flows of water;
 - the control of the range, or rate of change, of levels or flows of water; and
 - the control of the taking or use of geothermal energy;
 - the discharge of contaminants into or onto land, air, or water, and discharges of water into water; and
 - in relation to any bed of a water body, the control of the introduction or planting of any plant in, on, or under that land, for the purpose of:
 - the maintenance and enhancement of the quality of water in that water body; and
 - the maintenance of the quantity of the water in that water body.

**WATER, THE RESOURCE MANAGEMENT ACT,
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- 2.45 Regional councils and territorial authorities must monitor the:
- effectiveness and efficiency of policies, rules, or methods in Regional Policy Statements or Regional Plans;
 - exercise of resource consents;
 - exercise of delegated or transferred functions and powers; and
 - the general state of the environment.
- 2.46 In addition, the RMA states that regional councils and territorial authorities must take appropriate action (in response to monitoring undertaken) where it is shown to be necessary.

About the Manawatu-Wanganui and Otago regions

The Manawatu-Wanganui region

- 3.1 The Horizons Regional Council oversees the Manawatu-Wanganui region – the sixth-largest region in New Zealand, accounting for 8.1% of the country’s total land area.
- 3.2 More than half of the region’s population of 220,440 live in the urban centres of Palmerston North and Wanganui. The remainder live in small rural communities throughout the region.
- 3.3 Agriculture has been at the core of the region’s economy since European settlement. In some rural districts, more than 25% of the population is employed in the agricultural sector.
- 3.4 The region has the greatest total area and percentage (61%) of hill country in New Zealand. Most of this is vulnerable to erosion, and accounts for 11 million tonnes of sediment entering rivers each year.
- 3.5 The region also has the highest percentage of pasture (61%). Soils on the plains and terraces are under intensive primary production pressure.
- 3.6 The region has 3 river systems – the Whanganui, the Manawatu, and the Rangitikei.
- 3.7 For the purposes of this report we have selected the Manawatu River as a water quality example and the Rangitikei River as a water quantity example.

ABOUT THE MANAWATU-WANGANUI AND OTAGO REGIONS

Figure 4
Map of the Manawatu-Wanganui region



Water quality

- 3.8 Surface water quality is affected by agricultural activity and by activities in towns and cities (particularly by stormwater and wastewater treatment plant discharges).
- 3.9 Three-quarters of the region's dairy shed discharges and half of the community sewage discharges to water are into the Manawatu catchment. The Manawatu River downstream from Palmerston North has one of the highest disease risks for swimmers in the region, and suffers from growths of periphyton (green slime) during low flow periods. Swimming below municipal sewage discharges on a number of rivers is not recommended.
- 3.10 In some parts of the region, most deep, confined groundwater meets drinking water quality standards. However, high nitrate levels in other parts pose a health risk for the rural populations that depend on groundwater for drinking water.

Water quantity

- 3.11 The region's temperate climate supplies ample rainfall to ensure a good flow of water in most rivers and streams, although flows in late summer and autumn can be low.
- 3.12 Irrigation needs in lowland areas are driving an increased demand for water from rivers – and demand for water is highest when flows are low. The demand for groundwater has also increased because of the greater intensity of land use, and large takes of groundwater in coastal areas increase the risk of contamination by saltwater.
- 3.13 The Oroua River (a tributary to the Manawatu River) is already fully allocated (meaning that no more water is available to resource users). Throughout the region, the number of resource consent applications to take water, and the size of the individual takes (particularly from the upper Manawatu and lower Rangitikei rivers), has increased since 2000. Some irrigation takes are now larger than the takes for a typical small town.

Community expectations

- 3.14 We asked stakeholders in the region what they expected of the management of freshwater. They told us that water quality should at least not be in decline, and that they wanted clean water for recreation (including swimming, fishing, and tourism).

The Otago region

- 3.15 The Otago Regional Council oversees New Zealand's second largest region, encompassing about 12% of the country's land area.
- 3.16 About 63% of the Otago region's population of 181,539¹⁵ live in the Dunedin City area. Like the Manawatu-Wanganui region, the agriculture sector has been central to the Otago region's economy.
- 3.17 The Clutha and Taieri river systems are the largest in the region, both traversing long distances with large catchment areas. Other smaller, but still significant, rivers in the region include the Shag, Kakanui, and Tokomairiro.
- 3.18 For the purposes of this report, we have selected the Taieri River as a water quality example and the Kakanui River as a water quantity example.

Water quality

- 3.19 Agricultural practices, and direct discharges from industry and wastewater from sewage treatment plants, have historically led to poor water quality in some Otago rivers. Intensification of agriculture has increased degradation of water quality in some rivers, lakes, and streams.
- 3.20 Sub-surface drains have been installed in low-lying parts of Otago to enable farming on previously unproductive land. Where these areas have been converted to dairy farms, the drains provide a conduit for nutrient-rich dairy farm effluent to reach waterways.
- 3.21 At present, all of Otago's groundwater is of useable quality.

Water quantity

- 3.22 Parts of Otago are very dry, with high pressure on a number of rivers and groundwater to provide for local water requirements. Small farming communities depend on limited water supplies for their livelihood.
- 3.23 Irrigation is an important feature of many areas of Otago, and often is critical to the continued well-being of the people and communities who rely on the primary production that it supports.

15 2001 Census Data, Statistics New Zealand.

ABOUT THE MANAWATU-WANGANUI AND OTAGO REGIONS

- 3.24 During the past 5 years, the Otago region has experienced a marked increase in the number of new dwellings built and the conversion of farms to dairying. This expansion has put pressure on a number of resources. For example, in Kakanui, there is no scope to increase the volume of water available from the Kakanui River for domestic purposes, so further development of the township is reliant on sourcing water by other means.

Figure 5
Map of the Otago region



- 3.25 “Deemed permits”, or rights to take, dam, or discharge water complicate the management of water quantity in the Otago region. While these permits are administered under the RMA, they are historical rights granted under the Mining Act 1926 or previous mining legislation to allow property-holders rights to water.¹⁶ Deemed permits, which were originally granted in perpetuity, now expire in 2021.
- 3.26 Some individuals and communities depend on water provided through these permits. One farmer told us that the water provided by his mining right was more valuable to him than the property he was irrigating.

Community expectations

- 3.27 Stakeholders we spoke to in the region had a variety of expectations. Some expected the Otago Regional Council to provide leadership in the management of water resources. Others expected fishery habitat and water flows to achieve healthy fish stocks.

Regional Council planning documents

Horizons Regional Council

- 3.28 The Horizons Regional Council’s Regional Policy Statement became operative in August 1998. The Council also has 6 regional plans for the management of natural resources, and 6 non-statutory strategies that focus on transport, land, and riparian management, animal and plant pests, and management of 2 of the region’s catchments.
- 3.29 Our report focuses mostly on the *Manawatu Catchment Water Quality Regional Plan* (the Manawatu Catchment Plan), which became operative in October 1998, and the *Land and Water Regional Plan*, which became operative in September 2003.
- 3.30 We also refer to the *Oroua Catchment Water Allocation and River Flows Regional Plan* (the Oroua Catchment Plan), which became operative in January 1995.
- 3.31 The Horizons Regional Council has begun development of its second generation planning document. This will be in the form of a single plan – referred to as *One Plan*, which intends to integrate the Regional Policy Statement, the Regional Coastal Plan, and 5 other regional plans.

¹⁶ These rights were continued by the Water and Soil Conservation Amendment Act 1971 and section 413 of the RMA.

Otago Regional Council

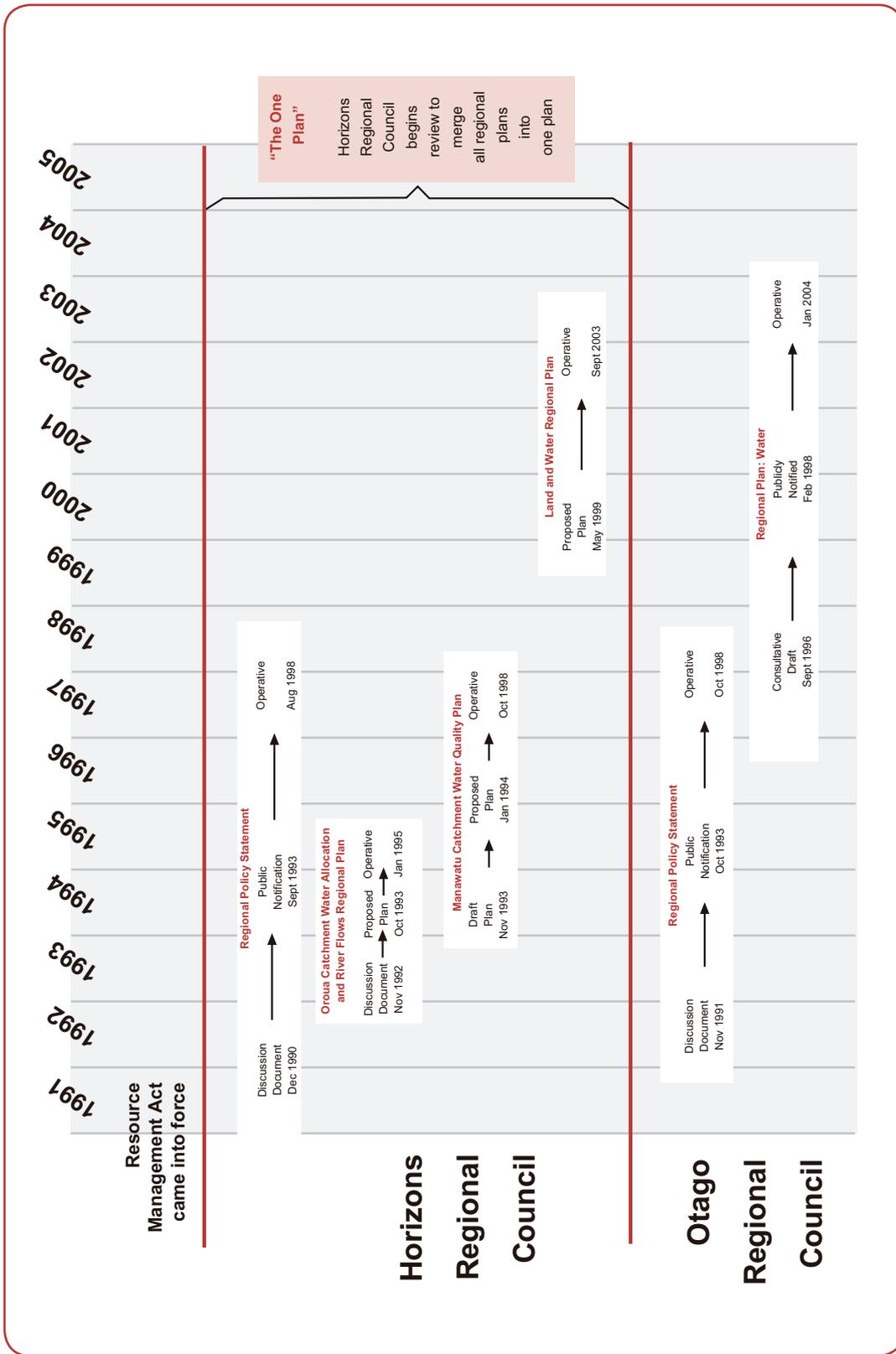
- 3.32 The Otago Regional Policy Statement became operative in October 1998. The Otago Regional Council has also produced 4 regional plans. This report discusses the *Otago Regional Plan: Water*, which became operative in January 2004.
- 3.33 The Otago Regional Council also prepared catchment management strategies for Lake Tuakitoto and Lake Hayes.

Timeline for preparation of planning documents

- 3.34 As described in paragraph 2.40, the RMA planning process involves several steps, including public consultation. Figure 6 shows the timing of preparation of the planning documents we have considered for both councils.

ABOUT THE MANAWATU-WANGANUI AND OTAGO REGIONS

Figure 6
Timeline for the preparation of planning documents by Horizons and Otago Regional Councils



Do Regional Policy Statements and Regional Plans meet our expectations?

- 4.1 In this Part, we discuss the Regional Policy Statements and Regional Plans of the Horizons Regional Council and the Otago Regional Council, and whether these planning documents meet our expectations in relation to the management of freshwater.
- 4.2 Our expectations were based on the planning requirements of the RMA, and published guidance material on best practice (see paragraph 1.11). We also received input from our external advisors, and consulted with planning practitioners.
- 4.3 Our expectations for planning documents fall into 3 categories:
1. The adequacy of guidance provided in planning documents – including the usability of the planning documents, whether they provide a framework for freshwater resource management in the region, and if roles and responsibilities between regional councils and territorial authorities are clearly explained.
 2. The composition of objectives, policies, methods, and ERAs, and how these measure against best practice.
 3. Compliance with the RMA – including whether Iwi Management Plans¹⁷ have been taken into account, and if planning documents set out procedures to monitor the effectiveness and efficiency of policies or methods contained in them.

Do planning documents provide guidance for the management of freshwater resources?

- 4.4 Regional Policy Statements and Regional Plans for water management set out how the water resources of a region will be managed, and establish provisions for both resource use and environmental protection and enhancement.

¹⁷ Any relevant planning document recognised by an iwi authority (the authority representing an iwi, and recognised by the iwi as having authority to do so) and lodged with the council.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.5 We considered how well these planning documents provide guidance for the management of water resources in the Manawatu-Wanganui and Otago regions – in particular:
- the usability of the planning documents;
 - the identification of environmental values;
 - the development of a water allocation framework;
 - how water quality issues are addressed; and
 - the clarification of roles and responsibilities between regional councils and territorial authorities.

Are Regional Plans usable?

- 4.6 A clearly understood relationship between issues, objectives, policies, and methods allows council staff to effectively prepare action plans to implement the policies and methods outlined in the Regional Plan. It also helps to ensure that the action taken will lead to progress in addressing the issues identified.
- 4.7 Regional plans also need to be accessible to the community so that resource users can determine which activities are allowed under the Regional Plan, require resource consents, or are prohibited.

Our expectations

- 4.8 Because Regional Plans can have a significant effect on a community's well-being – for example, on its recreational activities and economic needs – we expected that the plans would clearly outline for the community:
- the water management problems that need to be addressed (issues);
 - followed by what is intended to be achieved by the resolution of the problems (objectives); and
 - then an outline of what the regional council will do to address the problem (policies, methods, and rules).

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Our findings

- 4.9 The Horizons Regional Council has produced 6 regional plans – 4 of which relate to freshwater management, and 2 to specific catchments. Some stakeholders in the Manawatu-Wanganui region said that there is conflicting information both between and within plans, and that it can be confusing to have many plans. The Horizons Regional Council has acknowledged this point of view and is responding with its *One Plan*.
- 4.10 The *Otago Regional Plan: Water* is a large document (466 pages). In our view, it is not easy to follow the document's flow from issues, objectives, policies, and methods to ERAs. It is difficult to determine how specific issues will be addressed by the policies and methods because there are multiple links between issues, objectives, policies, and methods. Some stakeholders also said that they struggled to make sense of the plan.
- 4.11 The Council has produced a user guide for the *Otago Regional Plan: Water* that outlines which rules are relevant to certain activities. This helps resource users determine whether an activity is permitted or not.
- 4.12 In both regions, council staff and/or stakeholders commented that the plans are not specific enough, making it difficult for council staff to get a feel for how the issues are being addressed by the policies and methods, and what the plans intend to achieve. They also said that plans needed to be specific so decision-makers can justify, when necessary, a decision to decline a resource consent application. This may occur more frequently as pressure increases on freshwater resources.
- 4.13 When a plan is not specific, it is difficult for resource consent applicants to work out what is allowed and what is not. Often, applicants who want to know what they need to do to comply with regional council plans – for example, when building a dam or disposing of dairy effluent – will contact the council for advice, rather than trying to use the regional plan. Vague planning documents are open to different interpretations, and therefore provide less certainty for consent applicants about what requirements they need to meet and what level of resource use is acceptable.
- 4.14 In addition, when plan objectives are not well defined, stakeholders who have an interest in environmental protection are left in doubt as to what level of protection will be provided.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.15 At the Horizons Regional Council, staff and councillors considered it was important for them to have a good understanding of the plan and its rules. Workshops are held for councillors to gain an understanding of planning documents. However, staff do not receive formal training on these documents. Instead, training is given “on the job”. Some staff noted that this was a preferred approach to formal training.
- 4.16 At the Otago Regional Council, council staff and councillors had received detailed training on the plan and were able to describe the linkages between objectives, policies, methods, and ERAs for a water quality and water quantity issue. The Council also held a number of public workshops on how to use the *Regional Plan: Water* when it became operative.

Concluding remarks

- 4.17 We accept that regional plans cannot be simple documents, as they need to be scientifically and legally sound, and address complex resource management issues. It can be difficult to achieve the balance between writing a document that can be read and understood by the community, and which also meets the other requirements.
- 4.18 However, when planning documents are not specific:
- council staff and stakeholders can be unsure how the issues are being addressed by the policies and methods, and what the plans intend to achieve;
 - council staff can be unsure how to implement policies and methods;
 - decision-makers could find it difficult to justify some resource consent conditions, or decisions to grant or decline resource consent applications;
 - resource consent applicants can be unsure about the requirements they need to meet, and what level of resource use is acceptable; and
 - stakeholders who have an interest in environmental protection can be in doubt as to what level of protection will be provided.
- 4.19 We consider it important for council staff and councillors to receive formal training on the content of planning documents. This will help to ensure a high level of understanding of how the implementation of policies and methods relates to the achievement of objectives and the resolution of issues – that is, what the plans intend to achieve and how they will do it. It may also be appropriate to provide information for the community on planning documents.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.20 As staff with detailed knowledge of council planning documents are replaced, councils should ensure that a good knowledge of planning documents is maintained.

Have environmental values been identified?

- 4.21 Environmental values reflect the community's aspirations for the water in the region, and the level of water quality desired. They may include:

- ecological function and biodiversity;
- natural character;
- natural features and landscape;
- cultural and spiritual values;
- scenic and amenity values;
- contact recreation, such as swimming, fishing, kayaking, and boating; and
- mauri and mahinga kai.

- 4.22 In our view, the identification and communication of environmental values is an important first step in water resource planning. It is essential to understanding the resource, and to allow others to appreciate what it is about a particular water body that needs to be maintained and enhanced. Identification of environmental values also drives the planning process – including the setting of objectives, policies, and methods, and determining what resource monitoring is required.

Our expectations

- 4.23 We expected that the 2 councils would have identified environmental values for specific water bodies in their region, and in doing so would have undertaken (or used) scientific studies and consulted with the community. We also expected that environmental values would be included in planning documents so that it is clear to stakeholders what these values are, and what is important about specific water bodies.

Our findings

- 4.24 Both the Horizons and Otago Regional Councils had identified environmental values for specific water bodies, and these were included in planning documents. In both regions, stakeholders were aware of the environmental values identified.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.25 Environmental values reflected in the Horizons Regional Council planning documents include scenic, conservation, and recreational values. Scientific, intrinsic, economic, and cultural values were also mentioned, and specific fish and bird species and their habitats identified.
- 4.26 In the Manawatu-Wanganui region, the identification of environmental values has focussed on the main rivers and wetlands, and there is little understanding of values for small streams and tributaries. We appreciate that this type of work is labour intensive and may not be appropriate for the entire region.
- 4.27 In the Otago region, environmental values include natural and human use, water supply, historic places, and spiritual and cultural values. Specific fish species and habitats are also identified. The Otago Regional Council considers that the values included in its *Regional Plan: Water* are a “snapshot” and intend to add to these as new species and habitats are identified.
- 4.28 Both councils have drawn on the knowledge of external stakeholders such as the Department of Conservation and the local Fish and Game Council. Some stakeholders we spoke to said that information from external parties needs to be reviewed to ensure that it is objective.

Concluding remarks

- 4.29 Both councils have identified environmental values for specific water bodies, and these are included in planning documents. Both councils used information provided by external stakeholders to identify environmental values.
- 4.30 In both regions, stakeholders were aware of the environmental values identified. Identification of environmental values is a key starting point for planning water management, and we were pleased to see that both councils had done this.
- 4.31 While our expectations were largely met, there is little understanding of the environmental values of many small streams and tributaries. Where councils do not hold this information and a resource consent is sought, we consider that it is important to ensure that environmental values are identified as part of the resource consent process.
- 4.32 In addition, environmental values may change over time as new information becomes available. Management practices and monitoring requirements may need to be modified as new values are identified.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Do the planning documents set a water allocation framework?

- 4.33 A water allocation framework outlines how applications to take water (for example, for irrigation) are dealt with.
- 4.34 One mechanism used to establish a water allocation framework is to set a “minimum flow” rate and water “allocation limit” for rivers. A minimum flow is the flow below which the holder of any resource consent to take water must cease taking water from that river. The minimum flow specifies the volume of water that must remain in a river to protect ecological, cultural, and recreational values.
- 4.35 The allocation limit specifies how much water is available to be taken from the river for use. Once the limit is reached, the regional council will not grant any further consents to take water from the river.

Our expectations

- 4.36 We expected that:
- regional plans would make it clear how much freshwater is available for use; and
 - regional councils would have a mechanism in place to ensure enough freshwater remains in the water body to protect identified environmental values.

Our findings

- 4.37 The Horizons Regional Council developed the Oroua Catchment Plan in response to unnaturally low flows in the Oroua River during dry periods, and unacceptable water quality in the lower river at times of low flow. The plan contains policies to suspend takes from the river when flows reach a set rate, and establishes criteria for rostering of water takes during low flows. It also promotes water harvesting when flows are high, and establishes a transferable water permit regime. This is discussed further in paragraph 5.91.
- 4.38 The Oroua Catchment Plan notes that it is doubtful that any future application for a large volume of water could be accommodated unless current use declines. Minimum flows are set for 2 rivers in the catchment, and consents for another stream include minimum-flow provisions. Stakeholders we spoke to were aware that no further applications to take water from this catchment are likely to be granted.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.39 The Horizons Regional Council's *Land and Water Regional Plan* does not set minimum flows, except those established by Water Conservation Orders¹⁸ and Local Water Conservation Notices. Demand for water from rivers covered by this regional plan has increased since 2000. In response, the Horizons Regional Council is developing a new policy for allocating water under its *One Plan*.
- 4.40 The new water allocation policy allows for the establishment of minimum flows and allocation limits for all rivers and streams, and includes criteria for determining priority use of water. The policy also requires consent-holders to install water meters capable of real-time monitoring¹⁹ so that the Council can assess compliance with consent limits. Consent-holders must also undergo a water audit to determine water efficiency levels.
- 4.41 The Horizons Regional Council also intends to determine minimum flows on other rivers, and will undertake scientific analysis in pressure areas as a priority.
- 4.42 In the Otago region, the *Regional Plan: Water* sets out a surface water allocation policy framework, which is supported by rules.
- 4.43 In devising its allocation framework, the Otago Regional Council calculated the quantities of water available for allocation from specific rivers by taking an average of water flows during dry periods. The water available is called the "primary allocation".
- 4.44 When the Council has granted resource consents for the amount of water calculated as available for primary allocation, the river is considered "fully-allocated" and the Council will not grant any further consents for primary allocation.
- 4.45 The allocation framework also allows for the taking of water from a river when the river has high flows (this water can be stored for later use). The water available by this means is known as "supplementary allocation".
- 4.46 Having a resource consent to take water does not necessarily mean that water can be taken from the river at any time. The Otago Regional Council has also established a minimum flow on some rivers, and consent-holders can be required as a condition of their resource consent to cease taking water once the river flow is at or below minimum flow. Figure 7 represents a river with minimum flows for water available for, or allocated as, primary and supplementary allocation.

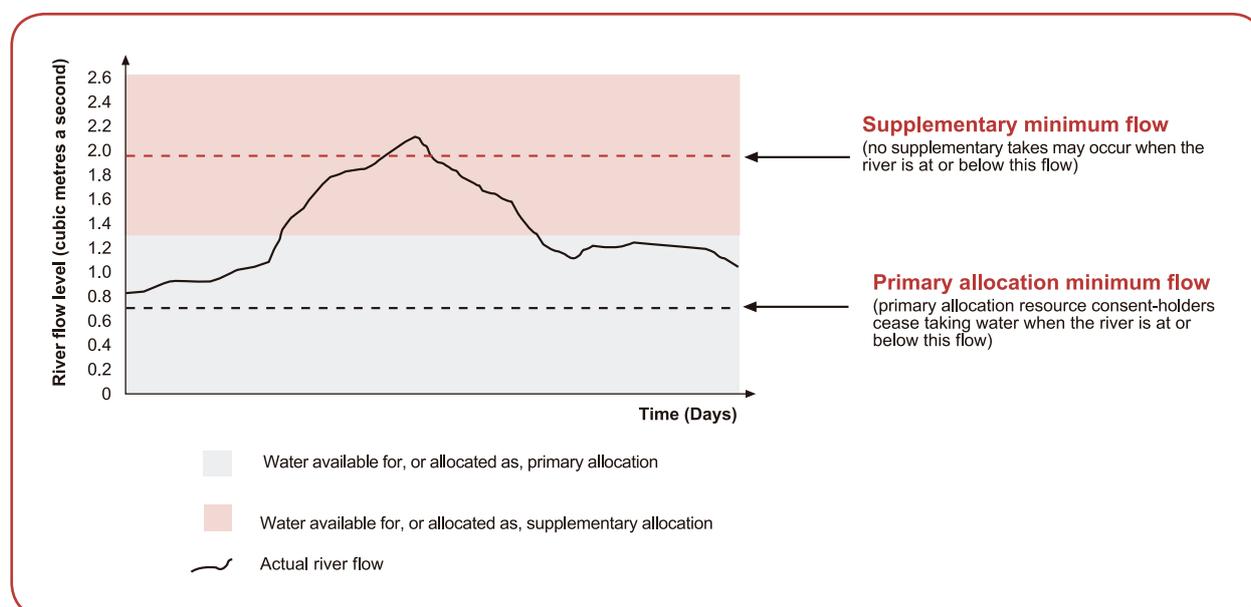
18 An order made under the Resource Management Act 1991 to recognise and sustain outstanding amenity or intrinsic values of water bodies. The order imposes restrictions or prohibitions on a regional council's powers related to matters including the quantity, quality, rate of flow, or level of the water body.

19 This allows councils to determine how much water is being taken (for example, for irrigation) on a regular basis so that the council has up-to-date information on the status of the river.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.47 The *Regional Plan: Water* provides for water allocation committees (or similar) to be set up for each water body. The committee for the Kakanui River is responsible for establishing and managing a system that restricts water takes when river flows approach the minimum-flow level. Water allocation committees are discussed further in paragraphs 5.56-5.65.
- 4.48 Stakeholders in both regions were generally well informed about the water allocation frameworks in place.

Figure 7
Water allocation in the Otago region



Concluding remarks

- 4.49 Both the Horizons and Otago Regional Councils had either established, or were in the process of establishing, a water allocation framework in areas where demand for water is high. Good progress has been made in this complex area.
- 4.50 When there are many competing demands for water use and conflicting environmental values, it is important that stakeholders understand when, and where, water can be used. Stakeholders we spoke to, whether irrigators or community groups, were usually well informed about the water allocation frameworks in place in their regions, highlighting the community's acute interest in water allocation.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Do the planning documents address water quality issues?

- 4.51 The RMA restricts regional councils from allowing permitted activities (section 70) or granting resource consents (section 107) to discharge contaminants or water into water, or onto land where it may enter water, with the following effects:
- the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - any conspicuous change in the colour or visual clarity;
 - any emission of objectionable odour;
 - the rendering of freshwater unsuitable for consumption by farm animals; and
 - any significant adverse effects on aquatic life.
- 4.52 A regional council may also set water quality standards in its regional plan. The RMA states that any standard set in a regional plan must not reduce the quality of the water unless it is consistent with the purpose of the RMA to do so.
- 4.53 Water quality standards define the limit of acceptable risk in a given situation. There are currently no national water quality standards, and it is not mandatory to set water quality standards in a regional plan. If standards are set within rules, they have the force of regulation.
- 4.54 A standard can be numeric – for example, “the average daily concentration of particulate organic matter shall not exceed 5 grams per cubic metre” – or narrative (a description of an environmental state) – for example, “the water shall not be rendered unsuitable for bathing by the presence of contaminants”.
- 4.55 The RMA requires that any water quality standards that are imposed shall be met after allowing for “reasonable mixing” of discharges. This means that it may be necessary (and acceptable) to allow for a zone where water quality standards are not met (a non-compliance zone). There has been much debate about what size of non-compliance zone is reasonable.
- 4.56 The Surface Water Quality guidance on the Quality Planning website²⁰ outlines the benefits and disadvantages of setting water quality standards in a regional plan:
- standards provide certainty about desired environmental outcomes and therefore what is expected from resource users;
 - standards are generally measurable and can provide benchmarks against which to measure cumulative effects as well as the effectiveness of plans;

20 See <http://www.qp.org.nz/content.php?id=214>.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- standards provide clear guidance for processing resource consents;
- it can be difficult to define standards that are appropriate for a range of different types of water bodies with different values and characteristics; and
- standards can reduce the discretion that a regional council has when processing resource consents on a case-by-case basis.

Our expectations

- 4.57 We expected that regional councils would have set water quality standards where appropriate, and that these standards would be included in regional plans.
- 4.58 We also expected that regional plans would make it clear where future discharges of contaminants to water would be allowed, and that regional council planning documents would not allow any discharge to water or land that would be likely to have the effects prohibited in sections 70 or 107 of the RMA.²¹

Our findings

- 4.59 The Horizons and Otago Regional Councils have taken different approaches to water quality planning.
- 4.60 The *Manawatu Catchment Water Quality Regional Plan* (the Manawatu Catchment Plan) uses rules to set water quality standards, both by quantifying the narrative standards in the RMA set under section 70, and by setting numerical standards in place of the narrative standards for contact recreation in Schedule 3 of the RMA. Existing resource consent-holders have been given deadlines to comply these with standards – 1, 5, or 10 years from when the plan became operative in 1998.
- 4.61 The Manawatu Catchment Plan specifies the methodology that will be used to calculate the mixing zone allowable for discharges to the Manawatu River. The plan also deals with the cumulative effects of discharges. This includes allowing major resource consents to be processed together so that the combined effect on the river can be assessed and conditions attached to the resource consents to ensure water quality standards are not breached.
- 4.62 Horizons Regional Council staff use the narrative standards in sections 70 and 107 of the RMA as baseline standards for resource consents. Rules in the Manawatu Catchment Plan make any activity that would breach these standards a non-complying activity.

21 Unless permitted under section 107(2), which allows a council to grant a consent to do something that would otherwise contravene section 107(1) of the RMA if the council is satisfied that exceptional circumstances justify the granting of the permit, the discharge is of a temporary nature, or the discharge is associated with necessary maintenance work, and it is consistent with the purpose of the RMA to do so.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.63 Horizons Regional Council staff told us that sections 70 and 107 of the RMA are inadequate and misleading for applicants, who think that if they comply with the conditions, their discharges will be allowed.
- 4.64 Horizons Regional Council staff and stakeholders also consider that the standards in sections 70 and 107 are open to interpretation. There can be conflict about what is “conspicuous”. It is also difficult to monitor compliance with these standards. Some stakeholders we spoke to consider that it is better to have numeric standards as they provided more certainty.
- 4.65 The Otago *Regional Plan: Water* permits activities that do not have effects prohibited by section 70 of the RMA. Resource consents are required for activities that would breach section 107 of the RMA.
- 4.66 A rule in the *Regional Plan: Water* sets numerical standards as a threshold for assessing whether discharges are permitted without a resource consent. While the plan provides for guidelines and standards to be considered in setting conditions for resource consents, it does not set generic numerical values for particular contaminants.
- 4.67 When considering applications for resource consents, the *Regional Plan: Water* states that staff will consider the cumulative effects of discharges of contaminants and the assimilative capacity of the water body.
- 4.68 The *Regional Plan: Water* includes a list of factors to be taken into account when establishing a mixing zone, such as “the sensitivity of the receiving environment” and “the natural character of the water body”. While this provides some guidance to staff processing resource consents, it can be difficult for consent applicants to interpret.

Concluding remarks

- 4.69 The planning documents of both councils do not allow any discharge to water or land that would be likely to have the effects described in the narrative water quality standards set out in sections 70 and 107 of the RMA – that is, they do not allow permitted activities or consented discharges if the effects are prohibited by the RMA.
- 4.70 Relying on narrative standards can be less effective than setting numeric standards because narrative standards can be open to interpretation and can create confusion. In contrast, numeric standards can provide the decision criteria and regulatory standards that will be applied to the resource consent application, stating in advance what is expected from resource users.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.71 Specifying in regional plans what methodology will be used to calculate mixing zones guides staff who process resource consents. Where the approach is not quantified, it is left open for discussion and can cause debate between resource consent applicants, council staff, and affected parties.
- 4.72 The Manawatu Catchment Plan makes good use of numeric water quality standards and sets out a comprehensive framework for improving water quality in the catchment.
- 4.73 The Otago *Regional Plan: Water* provides some numeric standards for permitted activity discharges to water, but none for discharges to water that require a resource consent.

Do the planning documents explain the roles and responsibilities of the regional councils and territorial authorities?

- 4.74 As noted in paragraphs 2.42-2.46, the RMA defines the respective roles of regional councils and territorial authorities. Some of the activities controlled by territorial authorities have implications for the achievement of regional council objectives. These include:
- ensuring that new subdivision development takes account of water availability and natural hazards;
 - on-site waste water treatment and septic tanks, and the potential effects of leachate on water quality;
 - the effects of stormwater on water quality; and
 - intensification of agricultural activities.

Our expectations

- 4.75 We expected that planning documents would explain the roles and responsibilities of regional councils and territorial authorities regarding land use activities that affect, or have potential to affect, water resources. We also looked for a formal agreement between the regional council and the territorial authorities, setting out various responsibilities.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Our findings

- 4.76 The Horizons Regional Council's Regional Policy Statement specifies methods for territorial authorities to achieve the Council's objectives for water quality and quantity. These include:
- placing conditions in subdivision consents for riparian planting, and promotion of riparian planting;
 - promoting efficiency of water use; and
 - protecting groundwater from septic tank contamination.
- 4.77 The Otago Regional Council's Regional Policy Statement and *Regional Plan: Water* set out methods for dealing with cross-boundary issues. They include the promotion and encouragement of:
- protocols with territorial authorities for resolving issues;
 - joint working groups/council committees and other joint approaches between territorial authorities and the regional council; and
 - joint processing of resource consent applications that cross administrative boundaries.
- 4.78 Both councils have triennial agreements with the territorial authorities in their regions, as required by section 15 of the Local Government Act 2002.

Concluding remarks

- 4.79 Both councils' planning documents provide an adequate framework for working with the territorial authorities in their regions to address land uses that affect freshwater quality and quantity. Implementation of this framework is discussed in Part 5.
- 4.80 As outlined in paragraph 2.9 and shown in Figure 1, pollution from non-point sources is a major and increasing problem. Agricultural activities are a significant cause of non-point source pollution. It may be timely (as councils prepare second generation planning documents) for regional councils and territorial authorities to review procedures for permitting intensive agricultural activities where there are likely to be significant effects on water quality.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Do objectives, policies, methods, and Environmental Results Anticipated meet best practice?

4.81 We considered the extent to which the objectives, policies, methods, and ERAs outlined in both councils' planning documents met our audit criteria (see Appendix). In particular, we assessed whether:

- objectives are measurable;
- policies specify a course of action;
- methods include regulation, education initiatives, and economic instruments; and
- ERAs are achievable within the life of the planning document.

Are objectives measurable?

4.82 An “issue” is an existing or potential problem that must be resolved to promote the purpose of the RMA. An “objective” is a statement of what will be achieved through the resolution of this issue. Best practice guidance states that objectives should be SMART – Specific, Measurable, Achievable, Relevant, and Time-bound.

Our expectations

4.83 We expected that objectives would be measurable and set a clear direction for policies.

Our findings

4.84 Objectives for water management in the Horizons Regional Council's Regional Policy Statement are relatively clear. However, many also simply restate what the RMA already requires, rather than reflecting the specific requirements of the region.

4.85 The Council's *Land and Water Regional Plan* objectives for discharge to surface water are clear and guide policy direction. For example:

- *To maintain or enhance water quality in rivers to standards at least suitable for contact recreation at flows less than half-median, wherever practicable.*
- *To maintain water quality in those rivers that have existing high water quality.*
- *To avoid accelerated eutrophication and sedimentation of lakes in the Region, in particular coastal dune lakes.*

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.86 Horizons Regional Council staff acknowledge that they need better targets, and policies and methods that are quantifiable. They say that many of their objectives are imprecise and do not enable them to measure progress against their achievement. The Horizons Regional Council intends to include measurable objectives in its *One Plan*.
- 4.87 Many of the objectives in the Otago Regional Council's Regional Policy Statement and *Regional Plan: Water* are broad and do not provide a clear direction or a basis for determining whether they are achieved or not. Examples include:
- *To safeguard the life-supporting capacity of Otago's water resources through protecting the quantity and quality of those water resources.*
 - *To retain flows in rivers sufficient to maintain their life-supporting capacity for aquatic ecosystems, and their natural character.*
- 4.88 Objectives such as "safeguarding the life-supporting capacity of the water" merely repeat the RMA, and are not specific about what life the water will support.

Concluding remarks

- 4.89 The objectives in the Horizons and Otago Regional Councils' Regional Policy Statements and Regional Plans were not measurable. Many of the objectives did not provide a clear basis for setting policy direction.
- 4.90 In our view, regional council planning documents can be significantly improved by the inclusion of simply worded objectives that clearly set out what the plan intends to achieve and which specifically outline the environmental state sought.
- 4.91 Objectives that are measurable provide a basis for determining whether progress is being made in achieving the objective and assessing whether the policies and methods that flow from the objective are effective and efficient.

Do policies specify a course of action?

- 4.92 Policies that outline a course of action for meeting the stated objective provide a basis for forming action plans for the implementation of planning documents. They also guide how resource consent applications are considered.

Our expectations

- 4.93 We expected that the policies stated in the Regional Policy Statements and Regional Plans would specify a course of action. We also assessed whether policies anticipated potential future resource uses.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Our findings

- 4.94 Most policies in both councils' regional plans specified a course of action. The plans included policies to:
- *Develop and adopt formal non-regulatory strategies for soil conservation and the effects of land use on water quality. (Horizons Regional Council's Land and Water Regional Plan)*
 - *Promote the establishment of, and to support appropriate water allocation committees to assist in the management of water rationing and flow monitoring during periods of water shortage. (Otago Regional Plan: Water)*
 - *Promote discharges of contaminants to land in preference to water, where appropriate. (Otago Regional Plan: Water)*
- 4.95 Policies in Regional Policy Statements were more likely to set a council position on decision-making.
- 4.96 Both councils have attempted to provide for the future use of water resources in their plans. This includes provisions to promote water storage, and to maintain and enhance water quality at a standard suitable for a range of uses in the future.
- 4.97 While both councils have considered potential future demands on water as part of the planning process, staff consider that they could not have predicted the vast increase in some activities in their regions, such as conversion to dairy farming, subdivision, and demand for water for irrigation.

Concluding remarks

- 4.98 The majority of policies in both councils' regional plans specify a course of action. Planning documents also make provision for increased demand for water resources in future years.

Do methods include a range of regulatory methods, education initiatives, and economic instruments?

- 4.99 A comprehensive water management framework may include regulation to address significant resource management issues, economic instruments to encourage desired behaviour and efficiency of resource use, and education initiatives to help the community understand the effect of their activities on the environment and how to reduce negative effects.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Our expectations

- 4.100 We expected regional councils to use methods such as those described in paragraph 4.99 to manage water quality and water allocation issues in their regions.

Our findings

- 4.101 Both councils have used a regulatory approach to manage point source discharges and water takes.
- 4.102 Education initiatives are used to provide information and advice on the appropriate discharge of contaminants to land and water, and to improve understanding of the benefits of reducing the negative effects of land-use activities on water quality.
- 4.103 Both councils provide economic instruments in the form of financial incentives for wetland protection and enhancement. The Horizons Regional Council also uses a range of other economic instruments. The implementation of these methods is discussed in paragraphs 5.90-5.91.

Concluding remarks

- 4.104 The Horizons and Otago Regional Councils both provide for regulation, education, and economic instruments in their planning documents.

Are the Environmental Results Anticipated achievable within the life of the planning document?

- 4.105 ERAs are statements of what should be achieved when policies and methods in the planning document are implemented. Well-crafted ERAs provide a basis for monitoring the effectiveness of the plan. ERAs should provide the tangible outcomes sought by the implementation of the planning document.

Our expectations

- 4.106 We expected that ERAs would specify what will be achieved by the policies and methods in the Regional Policy Statement and Regional Plans, and would set targets to be achieved within the period covered by the planning documents.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Our findings

- 4.107 The ERAs set out in the Horizons and Otago Regional Councils' planning documents did not meet our expectations.
- 4.108 Rather than a statement of what will be achieved within the life of planning documents, many ERAs simply repeated the objectives, which adds little value. Most ERAs did not have timetables associated with them.
- 4.109 ERAs specified in the Horizons and Otago Regional Councils' planning documents include the following:
- *More efficient water taking and use practices are utilised. (Otago Regional Plan: Water)*
 - *The overall quality of coastal lowland lakes will be improved. (Horizons Regional Council's Regional Policy Statement)*
 - *The quality of surface water shall not be incompatible with values held by the tangata whenua. (Manawatu Catchment Plan)*
 - *Land use practices that are sustainable in terms of water quality requirements are utilised. (Otago Regional Plan: Water)*
 - *There is sufficient water remaining to support the life supporting capacity and natural character of rivers. (Otago Regional Plan: Water)*

Concluding remarks

- 4.110 The inclusion of ERAs in planning documents is a requirement of the RMA and is an important and relevant part of the planning process. In particular, ERAs can be used as a tool for setting out the results or outcomes that the plan intends to achieve, and to provide a basis for monitoring against expectations. To achieve the latter, ERAs should be linked to council monitoring strategies.
- 4.111 In our view, more thought needs to be given to drafting ERAs when planning documents are being prepared.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

Do the planning documents comply with Resource Management Act requirements?

- 4.112 We considered whether particular aspects of planning documents have been prepared as required by the RMA. We assessed whether:
- planning documents describe how policies and methods will be monitored for effectiveness and efficiency; and
 - Iwi Management Plans were taken into account.

Do the planning documents describe how policies and methods will be monitored for effectiveness and efficiency?

- 4.113 The RMA requires regional councils to monitor the effectiveness and efficiency of policies, rules, or other methods in Regional Policy Statements and Regional Plans.²² Planning documents must include the procedures used to monitor the effectiveness and efficiency of the policies or methods contained in the document.²³
- 4.114 In addition, the RMA now requires that councils must make available to the public a review of the results of their monitoring of the effectiveness and efficiency of the policies or methods at least every 5 years.²⁴

Our expectations

- 4.115 We expected that regional council planning documents would outline how the council would monitor the effectiveness and efficiency of its policies and methods. We expected that this would be integrated with other types of monitoring (for example, state of the environment and resource consent compliance monitoring), and with measuring the achievement of ERAs and objectives.

Our findings

- 4.116 The Horizons Regional Council's Regional Policy Statement discusses information and monitoring requirements. However, it does not specifically say how policies and methods will be monitored for effectiveness and efficiency. It contains a method to identify key indicators for monitoring the suitability and effectiveness of policies and plans. These indicators have not yet been developed.

²² RMA, section 35.

²³ RMA, sections 62 and 67.

²⁴ RMA, section 35(2A).

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.117 The Council's *Land and Water Plan* states that monitoring the effectiveness of the plan will be based on the information provided by the Regional Monitoring Strategy. While the Strategy attempts to link objectives and policies to monitoring data, it does not say how the data will be used to assess whether policies and methods are effective or efficient. The Strategy also does not address monitoring the effectiveness and efficiency of non-regulatory methods.
- 4.118 The Otago Regional Council's Regional Policy Statement outlines the types of monitoring undertaken by the Council. It also notes the value of state of the environment monitoring as a means of assessing the effectiveness of policies, plans, and processes, because this monitoring can be used to analyse trends and measure human effects on the environment.
- 4.119 The *Regional Plan: Water* states that the Otago Regional Council will follow the monitoring framework set out in the Regional Policy Statement. It describes techniques that may be used to determine the suitability and effectiveness of objectives and policies in the plan. These techniques include:
- analysis of feedback, compliments, and complaints received, and responses to complaints;
 - compliance audit monitoring, at appropriate intervals, to ensure the conditions on resource consents are being adhered to; and
 - commissioning research, as necessary, to provide additional information on the environment of water bodies.
- 4.120 Implementation of the procedures to monitor the effectiveness and efficiency of policies and methods is outlined in paragraphs 6.89-6.98.

Concluding remarks

- 4.121 The procedures for monitoring the effectiveness and efficiency of policies and methods are present in both councils' planning documents. However, they are not comprehensive.
- 4.122 The Horizons Regional Council provides minimal information in its planning documents on how policies and methods will be monitored for effectiveness and efficiency, and this has not been developed further.
- 4.123 The Council will need to make considerable progress in this area before it will be able to publicly report on its effectiveness and efficiency monitoring. Work is under way as part of the development of the *One Plan* to improve this aspect of planning, and a policy-monitoring officer has been appointed.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.124 The Otago Regional Council's procedures for monitoring effectiveness and efficiency are more developed, but are not linked to measuring the achievement of ERAs and objectives.
- 4.125 In our view, it is important that councils have procedures in place to ensure that policies and methods are having the desired effects, and that progress towards the achievement of the ERAs is assessed on a regular basis.

Have Iwi Management Plans been taken into account in the planning documents?

- 4.126 When preparing Regional Policy Statements and Regional Plans, regional councils are required by the RMA to have regard to any relevant planning document recognised by an iwi authority, and lodged with the council.²⁵ These documents are referred to as Iwi Management Plans.

Our expectations

- 4.127 Where relevant, we expected that Iwi Management Plans would have been taken into account, and that there would be evidence of iwi consultation in plan development.

Our findings

- 4.128 The Manawatu-Wanganui region is large and diverse, containing at least 18 distinct iwi. Establishing and maintaining relationships with many iwi and hapu can be difficult, particularly where these groups are not well resourced to participate in resource management processes.
- 4.129 The Horizons Regional Council's annual report for 2003-04 states that 2 Iwi Management Plans have been completed, and the current Long-Term Council Community Plan²⁶ states that 3 Iwi Management Plans have been completed. However, at the time of our audit these documents were in draft form and are still being negotiated with respective iwi.
- 4.130 Council staff have assisted in drafting the Iwi Management Plans, and funding was provided to iwi.

²⁵ Sections 61(2A) and 66(2A).

²⁶ A 10-year plan, adopted under section 93 of the Local Government Act, that sets out a city, district, or regional council's intended activities and their costs, and how these activities contribute to social, economic, environmental or cultural well-being, and to community outcomes. Its purpose is to provide for participation by the public in council decision-making and a basis for the council's subsequent accountability to the community.

DO REGIONAL POLICY STATEMENTS AND REGIONAL PLANS MEET OUR EXPECTATIONS?

- 4.131 At the time of our audit, a Memorandum of Understanding (MoU) was being developed with an iwi in the region. The MoU generally sets out how the iwi and the Horizons Regional Council will interact with one another, share information, and handle resource consent applications.
- 4.132 There is uncertainty about the status of this MoU. Horizons Regional Council staff consider that the document is in draft stage, whereas iwi feel that the content has been agreed and the document is ready for final sign-off by the Council.
- 4.133 In terms of Regional Policy Statement and plan development, an iwi representative we spoke to did not feel there had been adequate consultation by the Horizons Regional Council. There are particular concerns in relation to groundwater, and how further water takes will affect the mauri of water bodies.
- 4.134 The Council has attempted to consult with 40 iwi and hapu in the region during development of its *One Plan*. So far, only 2 of these groups have opted to participate in the consultation process.
- 4.135 There is 1 iwi in Otago called Kai Tahu, which consists of 4 runanga. Kai Tahu has established a consultancy – named Kai Tahu ki Otago Ltd – to facilitate consultation between resource consent applicants and the runanga.
- 4.136 Kai Tahu has lodged a Natural Resource Management Plan (NRM Plan) with Otago Regional Council.²⁷ The *Regional Plan: Water* notes that the NRM Plan has been considered during development of the regional plan. Kai Tahu representatives were also involved in the preparation of the Regional Policy Statement.
- 4.137 The Otago Regional Council and Kai Tahu have also established a Memorandum of Understanding for effective consultation and liaison. The Council and Kai Tahu appear to have a good relationship, with formal meetings held at least twice a year.
- 4.138 Kai Tahu is also developing guidelines for consultation, which will help Council staff to determine which resource consent applications need to be sent to Kai Tahu for consideration.
- 4.139 Implementation of policies and methods for iwi consultation and participation in resource management are discussed in paragraphs 5.100-5.117.

²⁷ This plan is currently being revised.

Concluding remarks

- 4.140** Progress in developing Iwi Management Plans, MoUs, and the participation of iwi in the regional council process, relies on building good relationships between council staff, councillors, and tangata whenua. This becomes more difficult when there are many iwi to consider, particularly when iwi are not resourced to participate in council processes.
- 4.141** The Horizons Regional Council faces a significant challenge to improve relationships and communication with the many iwi groups in the region. The status of Iwi Management Plans and MoUs needs to be clarified and communicated accurately in Council accountability documents, and to Council staff and iwi.
- 4.142** The Otago Regional Council has made good progress in developing relationships with Kai Tahu, and has included Kai Tahu and its Iwi Management Plan in the preparation of its planning documents.

Have policies and methods been implemented?

- 5.1 In this Part, we discuss the extent to which the Horizons Regional Council and the Otago Regional Council have implemented the policies and methods outlined in their planning documents.
- 5.2 We considered the implementation of policies and methods related to:
- working with territorial authorities to manage water resources;
 - regulatory methods, education initiatives, and economic instruments; and
 - increasing Māori participation, and protection of mauri.
- 5.3 In addition, we considered how the councils ensure that their policies and methods are implemented.

Do regional councils and territorial authorities work together to manage water resources?

- 5.4 The RMA promotes integrated management of natural resources. One aspect of integrated management involves different entities working together to achieve sustainable management. This includes the regional councils and territorial authorities of a region co-operating to maintain and enhance water quality, and to ensure efficient use of water resources.

Our expectations

- 5.5 Both councils' planning documents set out a framework for the councils and their territorial authorities to work together to manage the effects of land use on freshwater, and to promote efficiency of water use. We expected that the frameworks would be implemented.

- 5.6 Territorial authorities are obliged to notify regional councils of publicly notified resource consents under the Resource Management (Forms, Fees, and Procedure) Regulations 2003 Clause 10(2). We expected that territorial authorities would comply with this requirement.

Our findings

Notification of land use consents

- 5.7 Neither council is always informed of resource consent applications made to their respective territorial authorities for land use activities that could affect water quality and quantity.
- 5.8 We understand that there have been instances where territorial authorities have granted subdivision consents in natural hazard areas, or where water resources are fully allocated and no more water is available for new dwellings.
- 5.9 In addition, we understand that, in some cases, regional councils have needed to rely on observations to detect new land use activities.
- 5.10 The Horizons Regional Council is now putting processes in place to ensure that it is notified of resource consent applications processed by the territorial authorities that have implications for the regional council.
- 5.11 The Otago Regional Council has sought to address the issue by reminding its territorial authorities of their responsibility to advise the Council of publicly notified resource consent applications.
- 5.12 A regional council may make a submission on a resource consent application notified by a territorial authority, although the territorial authority is not bound to take regional council advice. A territorial authority may also impose conditions on a resource consent to reduce the effects of the land use activity on water. However, the regional council may not know whether the conditions are being complied with.

Quality of effluent from wastewater treatment plants

- 5.13 Tensions may arise between regional councils and territorial authorities about the quality of effluent discharged from wastewater treatment plants operated by a territorial authority. Both the Horizons and Otago Regional Councils have policies to promote the discharge of contaminants to land rather than water (where appropriate).
- 5.14 The Horizons Regional Council's Regional Policy Statement includes a policy to stop the discharge of human sewage to rivers and streams within 15 years.²⁸

28 Unless the discharge to rivers and streams is consistent with the policy to achieve water quality suitable for contact recreation, or discharging to land does not meet the purpose of the RMA.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- 5.15 These policies have substantial cost implications for territorial authorities when wastewater treatment system upgrades are required. Small territorial authorities with low rating bases may find it difficult to fund such upgrades without imposing a financial burden on ratepayers or diverting expenditure from other areas.
- 5.16 We were told that the Horizons Regional Council and some small rural territorial authorities are not seeking common outcomes in terms of improving the quality of effluent from wastewater treatment plants, and that territorial authorities are less prepared to do what is required to meet the Regional Policy Statement objectives.
- 5.17 The Horizons Regional Council and the territorial authorities have worked together to establish sewage effluent discharge consent conditions that result in an improvement in effluent quality without imposing unworkable costs on the territorial authority. Despite this, the Council is still granting some discharge consents that will not lead to the outcomes desired (that is, water quality suitable for contact recreation).
- 5.18 On average, territorial authorities account for almost 30% of non-complying activities detected by the Horizons Regional Council. Many of these instances of non-compliance relate to the quality and quantity of effluent discharge from wastewater treatment plants.
- 5.19 Territorial authorities in the Otago region have also been found to be non-compliant with their resource consents to discharge effluent from wastewater treatment plants. The Otago Regional Council has responded with a programme of repeated resource consent audits for these types of discharges, and by working with the territorial authorities to facilitate a solution.
- 5.20 Where upgrades to wastewater treatment systems had been made, stakeholders in each region were aware of the improvements that had been achieved in water quality. In both regions, substantial upgrades have been made in the largest cities (Dunedin and Palmerston North), but many smaller rural communities continue to discharge wastewater of varying quality into rivers.

Concluding remarks

- 5.21 Improvements would be desirable in the way that regional councils and some territorial authorities interact to maintain and enhance water quality and quantity.
- 5.22 In particular, regional councils and territorial authorities need to work together to ensure that:
- new subdivision development takes account of water availability and natural hazards; and

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- the effects of stormwater and leachate from on-site wastewater treatment on water quality are avoided, remedied, or reduced.
- 5.23 Where territorial authorities include conditions on resource consents related to the management of water resources, it would be useful for those authorities to forward compliance monitoring information to the regional council.
- 5.24 Discharging treated human effluent into water is objectionable to many people. However, financial constraints or funding priorities can prevent territorial authorities from upgrading wastewater treatment plants to improve the quality of effluent discharged. Where communities desire improved effluent quality, alternative effluent disposal methods and funding sources should be investigated.

Have regulatory methods, education initiatives, and economic instruments been implemented?

- 5.25 In Part 4, we discussed whether the selected 2 regional councils had identified a range of regulatory methods, education initiatives, and economic instruments to manage water resources in their regions. In this Part, we consider whether these methods have been implemented.

Regulatory methods for water quality

- 5.26 Regulatory methods can be used to control significant resource management issues. Regulatory methods are applied by including rules in regional plans that restrict or prohibit certain activities. These rules have the force of regulation.²⁹
- 5.27 There are some activities, such as the discharge of contaminants to water, that the RMA specifies cannot occur unless permitted by a rule in a regional plan or a resource consent.³⁰ Regional councils may also include rules in regional plans that prohibit or restrict certain activities to achieve the objectives and policies of its regional plan.

Our expectations

- 5.28 Where regulatory methods had been used, we expected that they would be implemented. We also assessed whether these methods had been effective.

²⁹ RMA, section 68.

³⁰ RMA, section 15.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

Our findings**Horizons Regional Council**

- 5.29** The Horizons Regional Council's planning documents require a resource consent to discharge contaminants to water. Discharges covered by the Manawatu Catchment Plan must comply with water quality standards set as rules in the regional plan.
- 5.30** The clean-up of point source discharges since the 1950s (when freezing works, abattoirs, and dairy companies discharged waste into the region's rivers with little or no treatment) has been marked. Further progress is being made to clean up point source discharges (such as upgrading some wastewater treatment plants operated by territorial authorities). However, improvements in water quality in the region have not been as great as anticipated by the Council.
- 5.31** Horizons Regional Council staff concede that they have under-estimated the effect of non-point source discharge on water quality. While the Manawatu Catchment Plan includes rules about discharges from on-site sewage treatment systems to land, a non-regulatory approach (which is based on information provision and promotion of riparian management) has been taken to dealing with other non-point source discharges.

Otago Regional Council

- 5.32** Point source discharge is regulated by the Otago *Regional Plan: Water*.
- 5.33** Removal of the Dunedin City wastewater treatment plant discharge from the Taieri River has significantly improved water quality in the river below Allanton. However, water quality in the lower Taieri remains degraded. Some farmers in the Taieri catchment that we spoke to said the water quality was very poor and that their families no longer swam in the river.
- 5.34** The Council has acknowledged that the quality of the water in the lower Taieri is closely related to agricultural practices, and has responded to this with a strong education programme geared towards reducing non-point source discharges to the river. This response reflects the Otago Regional Council's educate first and regulate second approach.
- 5.35** Monitoring compliance with resource consents to discharge contaminants to water is discussed in paragraphs 6.71-6.85.

Concluding remarks

- 5.36 The discharge of contaminants into freshwater is regulated by both councils. While gains have been made in preventing water quality degradation through the application of these rules, including stopping (or reducing) the amount of human and agricultural effluent discharged directly to water, further improvements in water quality will require the councils to address non-point source discharges.
- 5.37 Issues related to non-point source discharges have traditionally been dealt with through education or financial incentives – for example, by providing advice on fertiliser use or funding for riparian planting. However, councils may now need to consider a regulatory approach for non-point source discharges where environmental effects are apparent or likely. This may include (but is not limited to) requiring nutrient budgeting³¹, reducing fertiliser application, or planting riparian margins.
- 5.38 Introducing or strengthening rules to address the effects of non-point source discharges could usefully be supported by education to ensure that people understand the reasons for taking a regulatory approach, and using financial incentives to help change behaviour. The success of a regulatory approach also relies on a comprehensive compliance and enforcement regime. This is discussed in paragraphs 7.3-7.25.

Regulatory methods for water allocation

- 5.39 Where there are competing pressures on freshwater resources, a balance may be required to ensure that there is sufficient water to support environmental values, while allowing enough water to be taken to support the region's economy.
- 5.40 Setting a water allocation framework includes determining how much water is available for use (for example, for irrigation) while ensuring that enough water is left in rivers, streams, and creeks to protect identified environmental values. Other aspects of water allocation include putting measures in place to restrict water takes during low flows.

Our expectations

- 5.41 We expected that regional councils would have identified waters under pressure, and established scientifically and legally sound mechanisms for allocating water and protecting environmental values. Where these mechanisms (such as minimum flows and allocation limits) were in place, we expected that resource consents for taking water would reflect them.

³¹ Nutrient budgeting is a tool for measuring nutrient inputs (such as fertiliser and effluent) and nutrient outputs (such as milk, meat, or nutrient leaching). It can help to identify nutrient surplus or deficit, which can be rectified with appropriate management changes to produce more environmentally friendly and economically effective farming systems.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

Our findings

Setting minimum flows

- 5.42 Both councils are drawing upon the Ministry for the Environment's *Flow Guidelines for Instream Values* to set minimum flows, and are using the Instream Flow Incremental Methodology (IFIM)³² which provides an estimate of the habitat available at different flows. These tools are useful in helping to determine the effect that water flows will have on ecosystems. Ultimately, the setting of minimum flows is decided by a range of scientific methods, and by taking into account the objectives set for the stream or river, and the views of the relevant community and other stakeholders.
- 5.43 In the absence of robust scientific data to set minimum flows for specific rivers, both councils had attempted to set minimum flows on a number of rivers, using estimated or default flow values. These values were challenged in both regions (in Manawatu-Wanganui at a resource consent hearing, and in Otago in the Environment Court). This highlights the need to have good research and science behind the minimum flow value, in order to adequately protect environmental values and to provide for resource use.
- 5.44 Resource users and conservationists we spoke to supported the establishment of minimum flows. They considered that minimum flows protected ecosystems and recreational use, and helped resource users determine what volume of water could be taken.
- 5.45 Other stakeholders we interviewed were affected differently by the setting of the minimum flows and allocation limits. These effects included:
- reduced recreational use of the river for extended periods of time, and degradation of existing water quality;
 - reduced economic viability of farms (with flow-on effects to local communities);
 - reduced ability to increase the volume of the community water supply, meaning that further expansion of the community must rely on alternative water sources; and
 - uncertainty about whether minimum flows would support sports fisheries in small side streams.

32 For more information see: <http://www.mfe.govt.nz/publications/water/flow-guidelines-for-instream-values-a-may98.pdf>.

Allocating water

- 5.46 For rivers facing increased demand, both councils had, in most resource consents we considered, included provisions requiring resource consent-holders to stop or reduce water takes as river flows declined. Resource consent-holders also had to record the volume of water taken and send this information to the regional council. Some resource consents require consent-holders to install automated systems for this purpose.
- 5.47 In addition, both councils commissioned a report on reasonable rates of water for domestic and rural use (either in a catchment, or throughout the region). The Horizons Regional Council intends that rates determined in its commissioned report will be used to apply limits to resource consents to take water. The more recent resource consents issued by the Otago Regional Council take account of a detailed assessment of water use against the water volumes suggested in its commissioned report.
- 5.48 In the Manawatu-Wanganui region, the majority of resource consents held by territorial authorities to take water for community supply include requirements to record volumes of water taken and report this information to the Horizons Regional Council. Newer consents also require territorial authorities to install water meters capable of providing the Council with telemetered³³ data on volumes of water taken.
- 5.49 Some resource consents to take water for community supply also require territorial authorities to prepare a Water Conservation Plan, with the objective of achieving efficient use of water.
- 5.50 In Otago, existing resource consents to take water for community supply are not subject to minimum flows, although any new future consent to take water for this purpose may be.
- 5.51 Since the *Regional Plan: Water* became operative, the Otago Regional Council has been including a requirement to monitor and report the volume and rate of water taken when resource consents are renewed.
- 5.52 Consents to take water for community supply on the Kakanui River (which is subject to a minimum flow) do not include any monitoring or reporting requirements. The Council will consider imposing these requirements when renewal of resource consents for these takes is sought.
- 5.53 Monitoring compliance with resource consents to take water is discussed in paragraphs 6.63-6.70.

³³ Telemetry is the science and technology of automatic measurement and transmission of data by wire, radio, or other means from remote sources, to receiving stations for recording and analysis. A telemeter is a device that measures, transmits, and receives data used in telemetry.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?**Restricting water takes during low flows**

- 5.54 As discussed in Part 4, the Horizons Regional Council's Oroua Catchment Plan sets up a framework for restricting water takes during periods of low flow. Implementation of this plan requires water users to be advised when these restrictions are in effect. The Council has devised an automated telephone message system for this purpose. However, the system is not operational because a list of telephone numbers has not been compiled.
- 5.55 Resource consents to take water from the Rangitikei River in the Manawatu-Wanganui region allow different volumes of water to be taken, depending on the flow of the river. The level of compliance monitoring of resource consents to take water was not sufficient to enable us to determine whether irrigators have reduced the volume of water taken when river flows have fallen.
- 5.56 In the Otago region, the chairperson of the Kakanui River Water Allocation Committee receives an automated text message when the river's flow falls, and is responsible for advising water users that a roster system for taking water from the river is in effect. The system requires some water users to stop taking water, while others may continue. Access to water is changed on a regular rotation.
- 5.57 If the river goes below the minimum flow of 250 litres a second, the chairperson must direct all irrigators to stop taking water until the flow increases to 400 litres a second. This means that all irrigators may not be able to use water from the Kakanui River for the remainder of the irrigation period (usually summer), which could lead to production losses.
- 5.58 In February 2004 (shortly after the *Regional Plan: Water* became operative, but before water-take consents had been amended to take account of minimum flow requirements) the flow on the Kakanui River dropped below 250 litres a second.
- 5.59 The Otago Regional Council responded by holding urgent meetings with irrigators in the region, emphasising the significance of the new regional plan requirements.
- 5.60 Stakeholders were aware of the breach of the minimum flow, and considered that the Otago Regional Council should have taken further action at this stage.
- 5.61 Under section 329 of the RMA, regional councils also have the ability to apportion, restrict, or suspend water takes or discharge of contaminants to water when they consider that there is a temporary shortage of water in the region. Neither council has used this provision to date.

Concluding remarks

- 5.62 Both councils are setting minimum flows on rivers where there is a high demand for water. Where minimum flows have been set, the resource consent conditions that we looked at reflect these flows and can be used to monitor compliance.
- 5.63 Both councils have designed automated systems to warn consent-holders when river flows are low and restrictions on water use are required. This system has not been fully implemented in the Manawatu-Wanganui region as a list of telephone numbers has not been compiled.
- 5.64 The system designed by the Otago Regional Council to restrict water takes on the Kakanui River during low flows has the potential to be effective, and allows users to manage water resources among themselves. However, the system could place considerable responsibility on the water allocation committee chairperson to ensure that minimum flows are not breached. A breach would result in all irrigators being prevented from taking water until river flows were restored to 400 litres a second.
- 5.65 Accordingly, we consider that the Otago Regional Council needs to continue to work closely with water allocation committees to ensure that minimum flows are not breached, now that the *Regional Plan: Water* is in effect and water users have had time to understand its implications.

Education initiatives

- 5.66 Education initiatives can help communities understand the effect of their activities, and how to reduce negative effects.

Our expectations

- 5.67 Where regional councils had identified education initiatives, we expected that they would have been implemented, or provision made to implement them.

Our findings

Horizons Regional Council

- 5.68 The Horizons Regional Council's education initiatives include:
- providing information to farmers about effluent treatment systems and appropriate methods for dealing with agricultural waste;
 - promoting riparian management (including promotion of landcare groups);

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- promotion of good practice guidelines;
- promoting efficiency in the use of surface water; and
- co-operating with organisations such as Federated Farmers to educate the community about the effect of discharges from agricultural activities and the benefits of riparian management.

5.69 The Council has sought to implement these education initiatives by:

- Employing council staff to advise on how to approach resource management issues, the consent process, and sustainable land use.³⁴ Advice and staff time is provided free to ratepayers.
- Producing documents such as the *Regional Action Plan* to implement the Fonterra Clean Streams Accord³⁵, brochures and booklets on topics such as riparian management and wetlands, and *On-site Wastewater System Guidelines*, which are designed to help people install or upgrade septic tank systems.
- Conducting workshops with targeted groups, such as market gardeners, to raise awareness of the effects of fertiliser use on water quality, and with iwi and hapu to provide information on research projects and how to use water quality monitoring kits.
- Holding public meetings and field days – for example, public meetings to discuss the new water allocation policy.
- Facilitating education in schools, which includes water quality education, stream monitoring, and a scheme where school children grow trees for riparian management.
- Promoting water conservation practices and efficient use of water by requiring installation of water meters, checking for leaking pipes during compliance inspections, and encouraging dairy farmers to re-use cooling water for dairy shed wash-downs. An action plan to promote water-use efficiency is being developed as part of the *One Plan*.

5.70 Some stakeholders we spoke to said that Horizons Regional Council staff were knowledgeable when providing advice, and were supportive of the one-on-one approach taken by soil conservators to encourage sustainable land use practices. Farmers we spoke to said that free advice was an incentive to use the soil conservators and do what they suggested.

34 Soil conservators may also work with farmers to develop *Environmental Farm Plans*, which identify options for sustainable land use – including soil conservation, nutrient budgeting, biodiversity protection, and stream fencing.

35 The *Dairying and Clean Streams Accord* is an agreement between Fonterra Co-operative Group, regional councils and unitary authorities, the Ministry for the Environment, and the Ministry of Agriculture and Forestry to work together to promote sustainable dairy farming. It includes performance targets, and requires regional councils and Fonterra to establish a Regional Action Plan for each region.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- 5.71 Little has been done to implement some methods in planning documents, such as co-operating with Federated Farmers and promoting land care groups. Some stakeholders told us that they had not been given information or help on how to efficiently use water resources.
- 5.72 Compliance officers at the Horizons Regional Council also have a role in educating resource consent-holders about good practice during on-site compliance monitoring inspections. However, they receive no training on how to best “get the message across”.
- 5.73 While compliance officers record when routine inspections are undertaken, there is no record of visits where advice is given. In addition, few records are kept when Horizons Regional Council staff give education presentations or advice, whether on the telephone or face-to-face.
- 5.74 The Horizons Regional Council is currently re-evaluating its approach to education, including whether forming partnerships with stakeholders and advocating compliance with industry standards and Codes of Practice could achieve more. Some staff consider that the current initiatives tend to maintain relationships with members of the community who are receptive to the education messages, but do not reach those who are not.
- 5.75 Territorial authorities we spoke to said they would like to see the Horizons Regional Council take a stronger leadership role with education in the region, and would be interested in being involved in co-ordinated education programmes. They considered it would be more cost-effective for the Horizons Regional Council to provide a centralised education resource.

Otago Regional Council

- 5.76 The education initiatives described in Otago Regional Council planning documents include:
- facilitating education programmes to improve community awareness and understanding of water issues and sustainable management in Otago;
 - providing resource information and education about the means available for better resource use and management;
 - promotion of water conservation practices and efficient use of water; and
 - promotion of codes of practice.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

5.77 These education initiatives are implemented through:

- Catchment programmes, which involve council staff working closely with communities, the Department of Conservation, the local Fish and Game Council, and groups such as the Taieri Trust.³⁶ Catchment programmes aim to build awareness of issues, provide education, run field days, and work with schools. Each programme has a 5-year life, with outcomes chosen by the community and tailored specifically to the catchment – for example, restoration of mahinga kai, and swimming areas. Catchment programmes may be supported by targeted water quality monitoring, and are funded through general rates.
- The Dairy Farming Waterway Protection Programme, which was developed in response to the pressures on the environment from increases in the number of farms being converted to dairying in the Otago region. Through this programme, the Otago Regional Council has set a target of total exclusion of dairy cows from waterways by June 2005, and reports that 85% of waterways on dairy farms are currently fenced. The programme includes newsletters and information packs, annual monitoring of dairy farms, and field days.
- Brochures and other information material – for example, for resource consent applicants and submitters, and on issues such as the environmental implications of farming, irrigation, riparian management, and wetlands.
- Public workshops, including workshops targeted at territorial authorities and Federated Farmers, and workshops on the content and purpose of the Otago *Regional Plan: Water*. These were well attended throughout the region.
- Field days providing education on water use efficiency, and a presentation to farmers and contractors on water storage.

5.78 The Otago Regional Council's catchment programmes are well developed, and highly regarded by most community stakeholders.

5.79 There was no evidence that the Otago Regional Council promotes codes of practice. It has prepared a Regional Action Plan to implement the Fonterra Clean Stream Accord. However, it is yet to agree the action plan's content with Fonterra. The region is currently ahead of the Accord's requirements, but wishes to include additional requirements for limiting dairy stock on farms where sub-surface drains provide a conduit for releasing dairy effluent into freshwater.

³⁶ The Taieri Trust is a community-based organisation focused on the sustainable management of the Taieri River, Otago. The Trust was established in 2001 with the aim of developing closer ties between the community and University of Otago in the Taieri catchment and encouraging environmental action.

Concluding remarks

- 5.80 Both the Horizons and Otago Regional Councils have implemented the majority of the education initiatives outlined in their planning documents.
- 5.81 Stakeholders generally considered that the advice provided by Council staff was of a high standard. Provision of free advice can be an incentive for people to implement Council suggestions on resource management issues.
- 5.82 Education programmes are most effective when regional councils and community groups work together to achieve common goals. The Otago Regional Council's catchment programmes are a good example of the gains that can be made when regional councils and communities co-ordinate their efforts.
- 5.83 Benefits could also be gained by regional councils and territorial authorities combining their education efforts – in particular, those related to promoting efficiency of water use and preventing stormwater contamination. Collaboration can be cost-effective and allow education initiatives to be undertaken throughout the region, including in small communities where regional council staff are not present on a regular basis.
- 5.84 Compliance officers are in a good position to educate resource consent-holders about good practice during on-site compliance monitoring inspections, and should receive training on how to best “get the message across” to consent-holders.
- 5.85 Requests for advice and information give councils an indication of which areas stakeholders are unsure about, and provide a mechanism for monitoring frequently asked questions, measuring how much advice is given, and for planning future education initiatives. Keeping records of the type of advice given, and to whom, is useful for these purposes.

Economic instruments

- 5.86 The use of economic instruments (such as financial incentives) by regional councils can encourage community groups and individuals to undertake projects to maintain or enhance water resources that might not otherwise be possible.
- 5.87 Financial incentives can also be used to encourage desirable behaviour, such as compliance with resource consents or efficient use of water resources.
- 5.88 Other economic instruments, such as transferable water permits, can lead to efficient allocation of freshwater resources.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

Our expectations

- 5.89 We expected that the economic instruments identified by regional councils in their planning documents would be implemented.

Our findings

Horizons Regional Council

- 5.90 The Horizons Regional Council's financial incentives for the management of water quality or quantity include:

- Annual funding of at least \$50,000 to He Tini Awa Trust³⁷ for wetland restoration, preservation, enhancement, and creation. Funding is fully allocated each year, and more than \$50,000 may be provided.
- Environmental grants to landowners and community groups for works to protect and enhance the environment. Applications for grants are assessed against an eligibility policy, and the number of applications generally exceeds the budgeted amount. Not all the money is paid out each year as some individuals or groups do not undertake the work that was proposed in the grant application.
- Reduced inspection fees for those who comply with resource consent conditions.
- Granting longer consent periods for more favourable activities such as land-based effluent discharge instead of discharge to water – for example, discharging dairy effluent to land is granted a 25-year consent, whereas consents for discharge to water are granted for only 3 years.

- 5.91 The Horizons Regional Council also provides for the transfer of water permits between irrigators in the same catchment during periods of water restrictions. The Council is the first regional council to include these provisions in a regional plan. However, the uptake of transferable permits has been low because demand for water in the catchment was not as high as expected.

Otago Regional Council

- 5.92 The Otago Regional Council's Chief Executive Officer and councillors told us that, in general, they did not consider financial incentives to be an equitable use of public money. Where funding is provided, the Council takes steps to ensure that the projects are sustained in the long-term and that public access is maintained.

³⁷ He Tini Awa Trust is a charitable trust established in late-2002. Its objective is to support the creation, preservation, restoration, and enhancement of the region's natural ecosystems and landscapes.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- 5.93 The Otago *Regional Plan: Water* provides for the encouragement and support (including funding) of community initiatives that help to maintain or enhance water resources and their riparian margins.
- 5.94 The Otago Regional Council also has a biodiversity fund. However, the uptake from this fund for enhancement of water resources – for example, by protecting wetlands or fencing riparian margins – has been limited. This may be because the fund requires covenants on land and the maintenance of public access.

Concluding remarks

- 5.95 The Horizons Regional Council has made more extensive use of, and introduced a wider range of, economic instruments than its Otago counterpart. These include reduced inspection charges for resource consent-holders who comply with their resource consent conditions and transferable water permits.
- 5.96 Both councils provide financial incentives in the form of environmental grants for wetland protection and enhancement, and for riparian management. Both councils assess applications for environmental grants against eligibility criteria.
- 5.97 Community demand for Council grants for environmental enhancement work is high in the Manawatu-Wanganui region. There is less demand for funding in the Otago region, probably because the grants are subject to conditions such as covenants and provision of public access to the area where work has been carried out.
- 5.98 While there is a higher level of demand for environmental grants in the Manawatu-Wanganui region, not all the projects for which grants are approved are undertaken by those who apply for the funding. There can be many reasons for this, including changing priorities or family circumstances. However, when it becomes clear that projects will not go ahead, this funding should be freed for other projects. The more projects undertaken in a financial year, the greater the opportunity for environmental enhancement.
- 5.99 We understand the Otago Regional Council's caution in providing public money for environmental enhancement projects. Nevertheless, if the community wants better water quality or wetland and biodiversity protection, then grants can be a useful way of enhancing the environment in these areas.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

Have policies and methods for increasing Māori participation and protecting mauri been implemented?

- 5.100** Both the Horizons and Otago Regional Councils included policies and methods in their planning documents related to iwi consultation and participation in resource management and protection of mauri.

Our expectations

- 5.101** We expected that iwi would be consulted about resource consent applications for activities with effects of concern to Māori.
- 5.102** We also expected that regional council staff and councillors would be trained to recognise activities that have implications for Māori, and to discharge their obligations in a manner that recognises the special interests of Māori.

Our findings

Resource consent processing

- 5.103** We assessed 25 resource consents granted by the Horizons Regional Council to discharge contaminants to water (including 13 to discharge human sewage effluent to water). In most cases, the Council assessment of the resource consent application did not include any reference to the protection and enhancement of mauri, and there was no mention of tangata whenua concerns about such discharges.
- 5.104** The Horizons Regional Council has not commissioned any reports from iwi and hapu for presentation at resource consent hearings (as provided for in the Manawatu Catchment Plan). Sometimes an iwi advisor will offer an interpretation of matters at the hearing, and Māori Commissioners are used when iwi issues are to be heard. There were few iwi submissions on resource consents.
- 5.105** An iwi representative we spoke to in the Manawatu-Wanganui region said they received copies of all publicly notified resource consent applications, but were unsure how the Horizons Regional Council determined who was an affected party for non-notified or limited notification consent applications.
- 5.106** Council staff told us that if iwi had identified an area of interest, then it would ensure that the iwi was included as an affected party for any resource consent application for that area. However, with no finalised Iwi Management Plans or Memoranda of Understanding, and little consultation on planning documents, it is not clear how iwi could identify areas of interest with the Horizons Regional Council.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- 5.107 The Otago Regional Council and Kai Tahu have determined that Kai Tahu ki Otago Ltd is best placed to facilitate consultation between resource consent applicants and runanga that may be affected parties. The Council provides some funding to Kai Tahu ki Otago Ltd for its involvement in this role. In addition, the Council is currently working with Kai Tahu ki Otago Ltd to prepare guidance for staff about which resource consents need to be sent to affected runanga for consultation.
- 5.108 In the Otago region, we looked at 10 assessments of resource consents to discharge contaminants to water. Nine of these consents showed evidence of involvement of, or attempted engagement with, iwi, or consideration of the Kai Tahu NRM Plan. The single consent where there was no evidence of iwi consultation was processed in 1994 and is currently being renewed.

Capacity to address iwi issues

- 5.109 At present, there is no formal structure for iwi representation to the Horizons Regional Council. Previously, an advisory committee called Te Roopu Awhina was responsible for integrating iwi priorities into the management of the region's resources.
- 5.110 The committee's role was not well defined, which led to a review of its structure and relationship with the Council. This review was completed in early 1998, and, while there was almost unanimous support for retaining the committee in some form, there has been little progress in determining what form of iwi engagement will exist in the future.
- 5.111 The Council intends to establish an iwi engagement policy, which sets out methods of engagement with Māori. An interim policy is currently in place.
- 5.112 The Horizons Regional Council employs a full-time iwi liaison officer. Some staff, who are prepared to commit personal time, have received basic training in Te Reo Māori. Council staff may find it difficult to appreciate how Māori views differ from those held by other cultures, as the Council does not offer an induction for new staff about iwi issues, and staff do not receive training in Māori resource management.
- 5.113 Otago Regional Council staff are required to attend a cultural workshop, which includes training on Kai Tahu's relationship with the land and natural resources. Council staff engage Kai Tahu ki Otago Ltd to write sections of planning documents related to iwi issues, and to identify issues affecting iwi during resource consent processing.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

Concluding remarks

- 5.114 The Horizons Regional Council has taken few steps to increase Māori participation or protect mauri. In most instances, the Council's assessment of the resource consent applications did not include any reference to protection and enhancement of mauri, and there was no mention of tangata whenua concerns, even when resource consents dealt with the discharge of human effluent.
- 5.115 The RMA establishes the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga as a matter of national importance. In addition, many regional plans make reference to the protection of mauri. Accordingly, (whether or not iwi make submissions on resource consents) we consider that regional councils should consider these issues as part of the resource consent process, particularly for consents to discharge treated human effluent to water.
- 5.116 The Otago Regional Council has made good progress in ensuring Kai Tahu ki Otago Ltd and affected runanga are involved in the resource consent process.
- 5.117 Understanding Māori values related to resource management is a key skill for Council staff who are involved in developing resource management policy, making resource consent decisions, and designing monitoring programmes.

How do regional councils ensure that policies and methods are implemented?

Our expectations

- 5.118 As well as implementing the policies and methods outlined in Regional Plans and Regional Policy Statements, we expected that each council would have a system in place to ensure that policies were implemented.

Our findings

- 5.119 Many policies and methods set out in Horizons Regional Council's planning documents have not been implemented. These include research projects and reviews of plan rules. Some of this work is now being done as part of the development of the *One Plan*.
- 5.120 The Horizons Regional Council has not developed a strategy for the implementation of its policies. The document *Horizons Regional Council 2004-06 Activity Business Plans* outlines the activities that staff will undertake. However, there are few references to policies and methods in planning documents, and very little detail is provided.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- 5.121 “Plan champions” have been appointed to ensure that non-regulatory methods in specific plans are implemented. However, the appointed “champions” do not appear to have the authority or the time to drive policy implementation.
- 5.122 In 2002, the Horizons Regional Council produced its first Environmental Progress and Planning Report. A second report was produced in 2003. These reports measure progress towards the achievement of Regional Policy Statement objectives by looking at the implementation of regulatory and non-regulatory tools, and the results of research and monitoring.
- 5.123 The reports are useful as a high-level description of progress towards Regional Policy Statement objectives. However, they are not a detailed account of whether policies and methods have been implemented.
- 5.124 Until the beginning of 2004, the Horizons Regional Council did not have a formal system for monitoring the implementation of policies and methods in its Regional Plans. Since then, Plan/Strategy Implementation Progress Reports have been submitted to the Council.
- 5.125 Statements on progress made in these reports are useful and also identify priority areas and action. However, the statements under these headings are broad, or state that “existing activities are continuing”. As a result, they give councillors or senior Council managers little insight into progress.
- 5.126 In Otago, most of the policies and methods that we looked at in the Regional Policy Statement and *Regional Plan: Water* had been implemented, or were in the process of being implemented.
- 5.127 In 2001, the Otago Regional Council reported to its policy committee on the implementation of its Regional Policy Statement and Regional Plans. A second report on the implementation of the *Regional Plan: Water* in 2003 included an *Implementation Strategy for achieving the outcomes of the Regional Plan: Water*. It set out whether action had been taken to implement specific policies, objectives and methods, and identified areas where no action had been taken.

Concluding remarks

- 5.128 At the Horizons Regional Council, many policies and methods have not been implemented. Council staff have only recently started to report to the Council on progress made in implementing policies and methods in its Regional Plans. While these reports identify priority areas for action, they do not allow councillors or senior Council managers to assess whether progress has been made.

HAVE POLICIES AND METHODS BEEN IMPLEMENTED?

- 5.129 During the preparation of planning documents, Council staff need to give careful thought to how the implementation of policies and methods will occur. Action plans that assign responsibility for individual tasks may be required.
- 5.130 When planning documents become operative, the community can rightly expect that the policies and methods outlined in the plans will be implemented. Council managers need to ensure that implementation is occurring. To provide assurance that this is happening, councils need to monitor progress towards implementation and report their progress – for example, to a council committee or senior council managers.
- 5.131 In Otago, the majority of policies and methods that we looked at in the Regional Policy Statement and *Regional Plan: Water* had been implemented, or were in the process of being implemented. Considering that the plan only became operative in early 2004, this is a significant achievement.
- 5.132 Council staff also provide reports to the Council on progress made towards implementation of policies and methods, allowing councillors to oversee progress.

What monitoring is performed?

- 6.1 In this Part, we examine how the Horizons and Otago Regional Councils undertake their monitoring obligations under the RMA, and any other freshwater monitoring initiatives that they carry out.
- 6.2 Regional councils' monitoring obligations under section 35 of the RMA include:³⁸
- the state of the environment – which involves collecting information on the condition of the environment and key environmental pressures; usually against key indicators;
 - the exercise of resource consents – which involves checking compliance with consent conditions, the effectiveness of consent conditions, and monitoring the effect of activities on the environment; and
 - the effectiveness and efficiency of the policies, rules, and methods in the Regional Policy Statement and Regional Plans.
- 6.3 In addition, the planning framework under the Local Government Act 2002 requires local authorities to identify in their Long-Term Council Community Plan:
- their activities;
 - the rationale they provide for their activities (including the community outcomes to which they contribute);
 - intended service levels; and
 - how performance will be measured.

³⁸ Section 35 of the RMA also includes a requirement to monitor the exercise of any functions, powers, or duties delegated or transferred by councils. We have not considered this type of monitoring as part of this report.

WHAT MONITORING IS PERFORMED?

- 6.4 In the annual report, a local authority must, in relation to each group of activities, describe any identified effects that any of their activities had on the social, economic, environmental, or cultural well-being of the community.³⁹ Monitoring undertaken under the RMA will assist councils to describe the effects of their activities on the environment.
- 6.5 Apart from being a statutory requirement, monitoring is also a critical part of the planning process. Monitoring enables an organisation to check that it is achieving what it sets out to achieve, and provides information for use in decision-making.
- 6.6 Considerable resources are used to prepare planning documents; therefore, it is important to monitor progress towards objectives and the ERAs, and to assess how well policies and methods are working.
- 6.7 Effective monitoring can provide early warning of issues or problems so that they may be addressed before they become serious, costly, or irreversible.

Planning monitoring activities, and managing and sharing data

How is monitoring planned?

- 6.8 There are strong linkages between different types of monitoring. An integrated approach to designing and implementing a monitoring programme allows a regional council to consider the overall outcomes it is seeking with all of its monitoring requirements, to ensure that monitoring activities are not duplicated or overlooked.
- 6.9 It also allows a regional council to consider resources and address issues such as information management, data quality, collection, storage, use, access, and exchange of information, both within and outside the council.

Our expectations

- 6.10 We expected the selected 2 regional councils to have clear strategies for state of the environment, compliance, and effectiveness and efficiency monitoring. We also expected the councils to have a defined strategy for undertaking monitoring, which describes the outcomes sought from the monitoring information, and the linkages between the different types of monitoring.

³⁹ Clause 15(d), Schedule 10 of the Local Government Act 2002. For the majority of councils, this requirement will apply for the first time to the annual report for the year ending 30 June 2005.

WHAT MONITORING IS PERFORMED?

Our findings

- 6.11 The Horizons Regional Council has a Regional Monitoring Strategy. However, it is incomplete and is not used by staff to guide monitoring activity. The Strategy does not include compliance monitoring, nor does it describe how data collected will be used to assess whether policies and methods are effective or efficient.
- 6.12 The Otago *Regional Plan: Water* states that a regional monitoring strategy will be prepared, but this has not yet occurred. The plan outlines monitoring techniques for determining the suitability and effectiveness of plan policies and objectives (see paragraph 4.119). Performance targets for compliance monitoring are set in the Council's annual plan.
- 6.13 While the Otago Regional Council does not have a monitoring strategy, it does carry out an annual review of state of the environment monitoring requirements for water quality through the annual planning process.
- 6.14 In 2002, the Council reviewed its state of the environment surface water quality monitoring programme. The review examined the suitability of existing monitoring sites and parameters, the appropriateness and frequency of sampling, and the adequacy of data management processes.

Concluding remarks

- 6.15 While both councils had some form of monitoring strategy, neither comprehensively covered all the types of monitoring that we expected.
- 6.16 When writing objectives, policies, and methods, it is useful for regional council planners to think about how these will be implemented, how implementation can be measured, and how to determine whether the policy is having the desired effect. This leads to the development of ERAs that are closely linked to the monitoring strategy.
- 6.17 A monitoring strategy that includes all the types of monitoring required by regional councils (including state of the environment, compliance, complaints, and effectiveness and efficiency monitoring) should be developed as part of the planning document process.

WHAT MONITORING IS PERFORMED?

How is data managed and shared?

- 6.18 Regional councils deal with a large volume of data that may be used for multiple purposes – for example, in looking for trends in the state of the environment, assessing the effect of a new activity, or determining non-compliance.
- 6.19 Agencies other than regional councils may have their own monitoring programmes. For example, the Department of Conservation and Fish and Game councils collect information as part of their own work programmes that can be useful to regional councils. Regional councils' use of information collected by other agencies can avoid duplication in monitoring activities.

Our expectations

- 6.20 We expected that monitoring data would be available in a format that is usable and accessible to all regional council staff who need to use it.
- 6.21 We also expected that regional councils would have explored opportunities for sharing information with other agencies, and would use this information where appropriate. In saying this, we recognise that monitoring programmes are often developed for specific purposes and it may not be possible for other parties to use the information.

Our findings

Internal data management

- 6.22 At both councils, compliance monitoring data was not in a format ready for use by staff because it:
- was not stored in a consistent manner; or
 - had not been provided to the council by the consent-holder.
- 6.23 At the Otago Regional Council, it is possible for self-monitoring data to be entered into 1 of 2 databases, depending on its format.⁴⁰
- 6.24 Both councils rely on scientific staff to supply data, or information derived from the data, to other parts of the council (for example, resource consents staff) as and when required. Consents staff told us that they get information from the scientists in a form that they can understand.

⁴⁰ Electronic data from commercial laboratories can be downloaded into the Environmental Quality Database, and data in other formats is entered intermittently into the Compliance Database.

WHAT MONITORING IS PERFORMED?

- 6.25 Stakeholders we spoke to in both regions were concerned that information was not shared sufficiently within each council – in particular, between the areas of the council administering the RMA and those undertaking engineering works. This can lead to situations such as the one when the Otago Regional Council served an infringement notice on itself when a contractor, working on the council's behalf, carried out river control work that breached the *Regional Plan: Water*.

Sharing information between agencies

- 6.26 There was collaboration between each Council and the local Fish and Game council, universities, other regional councils, and the Department of Conservation. Specifically, information from the Department of Conservation and the Fish and Game council was used in both regions to identify environmental values for water bodies.
- 6.27 The Horizons Regional Council's Regional Monitoring Strategy identifies sharing data and setting up joint projects with other agencies as cost-effective and efficient. The National Institute of Water and Atmospheric Research (NIWA) manages at least 1 rainfall site in the region, and an energy company operates some water flow sites.
- 6.28 In addition, the Horizons Regional Council has recently begun to monitor bathing water quality in collaboration with territorial authorities and the local District Health Board (see paragraphs 6.99-6.105).

Concluding remarks

- 6.29 Data management by both Horizons and Otago Regional Councils could be improved. In particular, compliance monitoring data is not stored in a consistent manner, nor is it readily available for use by staff.
- 6.30 Collection of monitoring data can be expensive and time-consuming, so it is important that it is stored in a consistent format and is readily available to those who need to use it. Without good information, council staff will not be able to effectively review and plan future activities – for example, targeted education or monitoring where problems are identified – or to amend planning documents where required.
- 6.31 Both councils were co-operating with other agencies to share information and collect monitoring data. Data-sharing and joint projects between agencies can be cost-effective and efficient. We support these initiatives.

WHAT MONITORING IS PERFORMED?

State of the environment monitoring

- 6.32 State of the environment monitoring can provide early warning of environmental problems and show where environmental management has been effective. This monitoring informs decision-making by helping to determine the need for further action, and by indicating broadly where policies and actions can be improved or may need review.
- 6.33 We assessed the surface water quantity and quality monitoring undertaken by the selected 2 regional councils.

What water quantity monitoring is done?

- 6.34 Water quantity monitoring provides useful information for identifying pressures on water bodies, the cumulative effects of water takes, as well as being a measure for low flow or flood warnings.

Our expectations

- 6.35 We expected the 2 councils to undertake water quantity monitoring as part of their state of the environment monitoring.

Our findings

- 6.36 Both councils monitored river flows for rivers in their regions and provided up-to-date graphs and information on their websites, and by an automated telephone service. In addition to providing essential information for the management of resources and flood prevention, this service is also useful for stakeholders, including irrigators, recreational users, and others with an interest in the river.
- 6.37 While information related to river flows is comprehensive, both councils have less information about the volume of water taken or the rate of take during the exercise of resource consents, or as a permitted activity.
- 6.38 To address this issue, the Horizons Regional Council proposes to help large-water-take resource consent-holders fund the costs of installing and maintaining telemetry equipment. The Otago Regional Council is including monitoring requirements in resource consents as they come up for renewal in areas with high demand for water.
- 6.39 Both councils have concluded that permitted-activity water takes in water-short, or potentially water-short areas, are of growing concern. Because of the nature of permitted activities, it is difficult for the councils to know the extent of the water takes, and it is therefore difficult to determine the pressure that the takes are putting on water resources.

WHAT MONITORING IS PERFORMED?

- 6.40 The Otago Regional Council is concerned about new property developments in water-short areas where there is a perception that water will be available to new residences through permitted-activity water takes from groundwater or surface water. In some parts of the region, water resources are not sufficient to support further development.

What water quality monitoring is done?

- 6.41 Regional councils monitor a set of parameters that represent the health of water bodies and look for any trends in these parameters. No single parameter, or set of parameters, is used to measure water quality throughout New Zealand, although many parameters are in common use.
- 6.42 Water quality parameters that are measured include:
- chemical measures – for example, nutrients (nitrogen and phosphorous levels), hydrocarbons, pesticides, acidity or alkalinity, and organic wastes;
 - physical measurements – such as temperature, suspended solids, colour, and clarity; and
 - biological measures – including measures of indicator bacteria, viruses, and protozoa; the types of invertebrates – for example, insects, snails, and worms – present at a site, and the amount of periphyton (green slime) growth.
- 6.43 The interpretation of water quality information is not a straightforward activity. The water quality measured is often the consequence of complex interactions between a number of factors, and understanding the relationship between measured water quality and land use often requires specialised skills.

Our expectations

- 6.44 In terms of monitoring water quality, we expected the councils to:
- identify suitable parameters for the region, or parts of the region;
 - perform regular monitoring of these parameters; and
 - ensure monitoring sites are representative of the region.
- 6.45 In the same way that there is no uniform set of water quality parameters that all regional councils measure, there is no standard benchmark to define when the level of a specific parameter should cause concern. The Australian and New Zealand Environment Conservation Council (ANZECC) provides guidance by specifying trigger levels above which environmental problems may arise.

WHAT MONITORING IS PERFORMED?

- 6.46 We expected regional councils to:
- have a benchmark of what an acceptable level is for each water parameter selected; and
 - analyse the data collected to determine trends in water quality.

Our findings

- 6.47 Both councils undertake regular water quality monitoring at a number of sites within their regions. This monitoring is generally related to the management purpose of the water body, or can be part of a targeted water quality investigation. Monitoring sites in both regions include those considered “pristine” and those affected by water-use activities.
- 6.48 The Horizons Regional Council uses a ranking system to rate water quality data from “very poor” to “excellent”, and also a method to rate how often a parameter at a site is at an acceptable level during a specified period. This data is used in the Council’s 2005 State of the Environment Report to describe the quality of the region’s rivers for a number of parameters, including suitability for contact recreation and nutrient enrichment. The thresholds used by the Horizons Regional Council relate to the ANZECC guidelines, international standards, or standards in the relevant regional plan.
- 6.49 The Otago Regional Council has identified benchmark levels for parameters measured, predominantly using the ANZECC guidelines for trigger levels. Water quality monitoring reports from the Otago Regional Council show trends in measured parameters over time.
- 6.50 The response to water quality data and the reporting of this information is discussed in Part 7.

Concluding remarks

- 6.51 State of the environment monitoring for water quantity by both councils includes frequent monitoring of river flows within each region. This provides essential information for the management of resources and flood prevention, and is useful for stakeholders, including irrigators, recreational users, and those with an interest in the river.

WHAT MONITORING IS PERFORMED?

- 6.52 However, the councils have less information about the volume of water taken or the rate of take during the exercise of resource consents⁴¹, or as a permitted activity. This means the councils do not know how much water is actually being used in the region – they only know how much water is allowed by resource consents or as permitted activities.
- 6.53 This gap in information reduces the councils' ability to manage the resource because some users may hold resource consents to take large volumes of water, but do not use it all. This means that more water is potentially available for allocation to other users, but the regional council cannot know how much. Both councils are now including conditions on resource consents to take water that will enable them to monitor the volume and rate of water taken.
- 6.54 Water quality monitoring is regularly undertaken by both councils at a number of sites within their regions – including sites considered pristine, and where contaminants are discharged or water quality is affected by non-point source discharges.
- 6.55 Both councils have set benchmarks or systems for assessing acceptability for each water parameter selected.

Compliance monitoring

- 6.56 Resource consent compliance monitoring ensures that any non-compliance with consent conditions is detected, and allows – where necessary – for appropriate action to be taken.
- 6.57 Compliance monitoring also gives stakeholders and the community confidence that resource consent conditions are being complied with, and gives consent-holders an incentive to comply with their consent conditions.
- 6.58 Assessing compliance with resource consents is undertaken through:
- Requiring consent-holders to monitor their own discharges to water, or water take rates and volumes, and to send the results to the regional council. This is referred to as self-monitoring.
 - An on-site audit or inspection by regional council staff to check compliance with consent conditions. This can include the collection of a sample of discharges to verify the accuracy of self-monitoring results.
 - Analysis of water quality and quantity monitoring information collected through state of the environment monitoring downstream of a discharge to water, or a water take.

⁴¹ Issues around a lack of information about volumes and rates of water taken by consent-holders are discussed in paragraphs 6.63-6.70.

WHAT MONITORING IS PERFORMED?

How do the councils assess compliance with resource consents?

6.59 The ability of the regional council to assess compliance with resource consent conditions, and to take action when non-compliance is detected, relies on well-crafted resource consent conditions.

Our expectations

6.60 We expected regional councils to:

- issue resource consents with suitable conditions that can be monitored and are enforceable;
- monitor resource consents; and
- analyse resource consent data to determine compliance.

Our findings

Writing resource consent conditions that can be monitored and enforced

6.61 Of the resource consents that we considered, the older consents issued by the Horizons and Otago Regional Councils for surface water takes did not include conditions that would enable the councils to obtain information about the volume of water the consent-holder was taking. Most of the more recently issued water take consents allow the councils to obtain the relevant information.

6.62 Compliance staff of both councils have an opportunity to comment on resource consent conditions written by consents' staff or contractors, to ensure that these are measurable, practical, and enforceable.

Monitoring compliance with consents to take water

6.63 We checked monitoring records for 22 resource consents to take water from the Rangitikei River in the Manawatu-Wanganui region. Horizons Regional Council staff had been persistent in following up the non-return of self-monitoring data. However, very few consent-holders had provided the data.

6.64 In late 2004, the Horizons Regional Council assessed the operation of its regional plan that sets a minimum flow for the Oroua River. The review found that:

- less than half of the consent-holders comply with any of the conditions to supply water-take monitoring records;

WHAT MONITORING IS PERFORMED?

- some consent-holders were not aware that they had to send in self-monitoring data; and
 - the Council's own record-keeping is poor, with water-use consent information spread through a number of different electronic and paper filing systems.
- 6.65 The review has highlighted a number of significant issues for the Horizons Regional Council's compliance monitoring. Lessons learned from the review can feed into development of a compliance regime under the water allocation policy.
- 6.66 There were significant gaps in how the Otago Regional Council monitors compliance with surface water takes. For example:
- some consent-holders do not submit the required self-monitoring data to the Council;
 - self-monitoring data sent to the Council is largely unchecked; and
 - of the consents we looked at, there have been no compliance inspections or audits of water take consent-holders.
- 6.67 As described in paragraph 6.22, the compliance monitoring data is not readily accessible to compliance staff.
- 6.68 For the most part, the Otago Regional Council is not monitoring consents to take water, so it has no way of knowing how much water is taken from the river by individual consent-holders, or whether these consent-holders are taking much less or much more water than their resource consents allow.
- 6.69 With the *Regional Plan: Water* becoming operative, the Council has taken action to ensure that compliance monitoring data will be available. It is formally reviewing resource consents on the Kakanui River, and setting conditions that require consent-holders to install systems that will automatically measure and telemeter water-take data to the Council.
- 6.70 The *Regional Plan: Water* includes a policy to include monitoring conditions on any new or renewed resource consents for water takes.

Monitoring compliance with consents to discharge contaminants to water

- 6.71 In the Manawatu-Wanganui region, we examined 10 resource consents to discharge contaminants into the Manawatu River. Of these:
- The Horizons Regional Council considers that 4 are "major discharges" – 2 of these have been monitored 4 times a year⁴²;

⁴² The Manawatu Catchment Water Quality Regional Plan specifies that compliance monitoring of all "major discharges" and all discharges of human sewage to the Manawatu River will be undertaken at least 4 times a year.

WHAT MONITORING IS PERFORMED?

- at least 1 inspection had been undertaken for 5; and
- no compliance monitoring had been undertaken for 3.

- 6.72** In addition, some discharge consents for the Manawatu River contain requirements to monitor specific parameters for which no monitoring method exists – for example, “change in hue” and “photosynthetically active radiation”. Consequently, these parameters have not been monitored.
- 6.73** We looked at the Otago Regional Council’s compliance monitoring of 15 discharges to surface water, which included 5 discharges of treated sewage. We found that:
- There were no self-monitoring requirements, or monitoring by the Council for 8 of the resource consents.
 - The remaining 7 consents required self-monitoring, but for 6 of these consents not all data had been received, or the data had been received but had not been analysed. The Otago Regional Council has performed its own monitoring of most, but not all, of the 7 consents.
- 6.74** The Otago Regional Council considers that most significant resource consents to discharge contaminants to water are monitored. It undertook a compliance review in 2004 to outline the different types of activities and how they should be monitored.
- 6.75** The compliance review established that all discharges should be subject to regular monitoring, and that 18 sites should be subject to self-monitoring and audit. Of the 15 resource consents that we analysed, one was in this self-monitoring and auditing category. The most recent audit of this consent showed that it was non-compliant, and the subsequent self-monitoring data received by the Otago Regional Council had not been analysed.
- 6.76** As stated previously, the Otago Regional Council includes performance targets for compliance monitoring in its annual plan. In 2003-04, most targets relevant to the monitoring of consents to discharge contaminants to water were not met. For example, 90% of self-monitoring data was not reviewed within 1 month, and not all non-compliance identified through self-monitoring was followed up.
- 6.77** At the time of our audit, staff were focussing compliance activities on wastewater treatment plants, and resource consent activities with potentially significant adverse effects on the environment.
- 6.78** Some stakeholders took the view that the Otago Regional Council did not employ sufficient staff to address compliance issues. The Council has now recruited more compliance staff.

WHAT MONITORING IS PERFORMED?**Concluding remarks**

- 6.79 The compliance staff of both councils have an opportunity to comment on resource consent conditions written by another part of the Council, to ensure that the conditions are measurable, practical, and enforceable.
- 6.80 The involvement of compliance staff in assessing the practical aspects of monitoring and enforcing resource consent conditions is a valuable step in resource consent processing, and helps to provide a strong basis for monitoring and enforcing consents.
- 6.81 It would be useful for regional councils to discuss compliance with consent-holders when resource consents are granted, to ensure that consent-holders are aware of what is required.
- 6.82 There are significant gaps in how compliance monitoring is undertaken at both councils. Specifically, many water take consent-holders fail to send in self-monitoring results on the rate and volume of water taken, and there is little scrutiny of these results if the councils do receive them. In addition, compliance monitoring data is not easily accessible and may be stored in different formats and databases.
- 6.83 In both regions, there was no monitoring for some resource consents to discharge contaminants to water. Further, in Otago, self-monitoring data was not reviewed promptly. This means that non-compliance and potential or actual adverse effects may not be detected (and thus addressed) early. Lack of monitoring, or lack of analysis of self-monitoring data, means there are gaps in the information that the regional council holds in relation to discharges to water.
- 6.84 A lack of monitoring of compliance with resource consent conditions significantly weakens the RMA planning and resource consent process.
- 6.85 People who make submissions on planning documents and resource consents put in a considerable amount of time and effort to establish plan provisions and consent conditions that they consider will protect their area of interest, and then agree to the conditions in good faith. When these are not monitored, the community receives no assurance that plans and resource consent conditions are in effect, and there is less incentive for consent-holders to make the effort to comply.

WHAT MONITORING IS PERFORMED?

Monitoring the effectiveness and efficiency of policies and methods

- 6.86 Monitoring the effectiveness and efficiency of policies and methods is a means of determining how well plans are working in practice. It builds on state of the environment monitoring, and can be complemented by resource consent compliance monitoring. Effectiveness and efficiency monitoring is useful for identifying possible changes and improvements in policy statements and plans.
- 6.87 Councils are required to publicly report the results of effectiveness and efficiency monitoring at least every 5 years.

How do the councils monitor effectiveness and efficiency?

- 6.88 Good monitoring of effectiveness and efficiency would require a specific monitoring approach for each policy and method, and should be linked to the objectives and ERAs in planning documents.

Our expectations

- 6.89 We expected that the councils would have developed and implemented processes for monitoring the effectiveness and efficiency of the policies and methods specified in planning documents.

Our findings

- 6.90 The Horizons Regional Council does not carry out effectiveness and efficiency monitoring. The Regional Policy Statement states that key indicators for monitoring the suitability and effectiveness of policies and plans will be identified, but this has not occurred.
- 6.91 Horizons Regional Council staff told us that they are struggling with monitoring the effectiveness and efficiency of policies, rules, and methods, and that they have no process for this.
- 6.92 The Otago Regional Council has implemented some of its methods for monitoring the effectiveness and efficiency of the *Regional Plan: Water* – for example, it assessed the effectiveness of its catchment education programmes. Monitoring information has been used to assess which rivers are high priorities for setting minimum flows, and to tailor catchment-based monitoring programmes.

WHAT MONITORING IS PERFORMED?

- 6.93 However, the Otago Regional Council's effectiveness and efficiency monitoring is not linked to specific policies and methods. Because the Otago Regional Council's objectives and ERAs are broad rather than specific and monitoring is not targeted at specific policies and methods, it is not clear how this monitoring will be analysed to determine the effectiveness and efficiency of policies and methods.
- 6.94 Neither council has sought feedback from stakeholders about the effectiveness and efficiency of its policies and methods.

Concluding remarks

- 6.95 Both councils need to improve the way in which they plan and carry out effectiveness and efficiency monitoring, particularly now that they are required to publicly report the results of this monitoring at least every 5 years.
- 6.96 Effectiveness and efficiency monitoring is essential to determining which parts of planning documents are achieving the desired goals and which are not, and therefore where improvements are required.
- 6.97 All policies and methods, including non-regulatory policies and methods, need to be assessed and procedures for doing this devised at the time a planning document is developed. Procedures for effectiveness and efficiency monitoring should be part of a monitoring strategy.
- 6.98 Regional councils could receive valuable feedback from stakeholders about whether they consider council policies and methods are effective or efficient.

Monitoring bathing water quality

- 6.99 During the summer months, water at bathing beaches (including rivers) can be regularly monitored to determine the risk to swimmers and other recreational users of water of developing an illness caused by bacterial pathogens – for example, *E. coli*.
- 6.100 The Ministry for the Environment's *Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas* recommends a framework for the roles and responsibilities of various entities, including regional councils, for performing this monitoring. The guidelines suggest that regional councils undertake the monitoring and inform the Medical Officer of Health and territorial authorities if alert or action levels are reached.
- 6.101 The guidelines require that samples be tested for *E.coli* weekly from November to March at any sites designated as "beaches", with daily sampling if a result exceeds a set value. If 2 consecutive results exceed the limit, the public should be warned (by signage or media advertising) that beaches are not safe for swimming.

WHAT MONITORING IS PERFORMED?

Our expectations

- 6.102 We expected that regional councils would participate in bathing water quality monitoring carried out in the region by an agency or a group of agencies.

Our findings

- 6.103 From late 2004, the Horizons Regional Council, in collaboration with the local District Health Board and territorial authorities, began monitoring bathing water quality throughout the region and reported the results on its website.
- 6.104 The Otago Regional Council considers that it does not have a statutory responsibility to monitor bathing water quality. At present, no agency in the Otago region undertakes this monitoring, and the public is given no information about whether or not it is safe to swim in the region's rivers.

Concluding remarks

- 6.105 The monitoring of bathing water quality is important. People want to know where and when it is safe – or not – to swim. We consider that in regions where this monitoring is currently not being done, the regional council, territorial authorities, and the District Health Board need to agree on who will co-ordinate, fund, and carry out this monitoring.

Iwi involvement in monitoring

- 6.106 While not a statutory requirement, monitoring activities may also draw on cultural values associated with water and the close relationship that Māori have with, and extensive knowledge of, waters in their tribal areas.
- 6.107 The Horizons Regional Council's Manawatu Catchment Plan states that the Council will provide opportunities for tangata whenua to be involved in monitoring water quality in the Manawatu catchment through the resource consent process and joint monitoring activities. It also states that the Council will assist tangata whenua to establish water quality monitoring initiatives (including financial assistance).
- 6.108 The Otago *Regional Plan: Water* notes that it may develop joint initiatives with parties such as Kai Tahu to monitor key aspects of Otago's water environment.

WHAT MONITORING IS PERFORMED?

Our expectations

- 6.109 We expected that regional councils would have considered cultural monitoring where iwi had expressed a desire for it, and that policies and methods involving joint monitoring with tangata whenua would be implemented.

Our findings

- 6.110 An iwi representative we spoke to in the Manawatu-Wanganui region expressed a desire to be involved in monitoring activities. Some resource consents granted by the Horizons Regional Council allow for an iwi representative to be present when compliance monitoring samples are collected, and for the results of this monitoring to be sent to the iwi.
- 6.111 One resource consent on which iwi had made a submission required a territorial authority to submit a cultural monitoring programme to the Horizons Regional Council within 3 months of the consent, and to implement it in conjunction with local iwi within 2 months of it being completed. At the time of our audit, this condition had not been complied with.
- 6.112 The Horizons Regional Council does not operate a cultural monitoring programme.
- 6.113 In the Otago region, Kai Tahu has already established cultural indicators for the Taieri and Kakanui rivers through participation in the Ministry for the Environment's cultural indicators' project.⁴³ The methodologies in this report have not yet been co-ordinated with the Otago Regional Council's monitoring programme. However, they are being discussed by Kai Tahu and the Council.

Concluding remarks

- 6.114 Planning documents in both regions contain mechanisms for involving tangata whenua in monitoring activities. To date, neither the Horizons nor the Otago Regional Council operates programmes with iwi for monitoring cultural values.
- 6.115 Cultural monitoring and joint monitoring programmes can be a means of building trust and strengthening relationships between regional council staff and iwi. Involvement in cultural monitoring can also encourage iwi participation in resource management matters.
- 6.116 In addition, the data that is collected can complement data collected through scientific methods, and help regional council staff to appreciate Māori cultural values in relation to water resource management.

43 *A Cultural Health Index for Streams and Waterways: Indicators for recognising and expressing Māori values*, Ministry for the Environment, 2003.

Acting on information and informing communities

- 7.1 In this Part, we examine how the selected 2 regional councils respond to:
- non-compliance with resource consents;
 - complaints and environmental incidents; and
 - monitoring information.
- 7.2 We also look at how the councils provide information to their communities.

Responding to non-compliance with resource consents

- 7.3 A set of options is available if a regional council decides to take enforcement action against consent-holders who do not comply with their resource consent conditions. These are set out in Figure 8.
- 7.4 Instead of enforcement action, the regional council may decide that an alternative approach is more suitable – for example, working with the consent-holder to achieve compliance or providing education programmes.
- 7.5 Regional councils have no obligation to take a consultative approach to non-compliance. A Ministry for the Environment report⁴⁴ states that –

...There is a perception that local authorities should give lots of warnings and time to comply. The local authority attitude towards the use of enforcement mechanisms is that the mechanisms should only be used as a last resort and as a result there is a public expectation that local authorities will give warnings and allow time to comply. However, there is no mandatory requirement for local authorities to allow those who breach the Resource Management Act time to comply.

⁴⁴ Ministry for the Environment, 2001 – *A Study into the Use of Infringement Notices Under the Resource Management Act 1991*, page 5.

Figure 8
Enforcement options under the Resource Management Act

Under the RMA, any person who does not comply with the Act, a rule in any plan, or resource consent conditions can be served with an:

Infringement notice – issued by a regional council or territorial authority enforcement officer if they observe, or have reasonable cause to believe, that a person is committing an infringement offence. Infringement fees range between \$300 and \$1000 and are set out in the Resource Management (Infringement Offences) Regulations 1999.

Abatement notice – served by a local authority to ensure compliance with regulations, a rule in a plan, proposed plan or resource consent, and to avoid, remedy, or mitigate any adverse environmental effects within the period specified in the notice. Failure to comply with an abatement notice can result in fines or imprisonment.

Enforcement order – issued by the Environment Court to ensure compliance with the same provisions as an abatement notice. It has additional scope, such as the ability to recover clean-up costs from the polluter. Any member of the public may apply directly to the Environment Court for an enforcement order.

A local authority may also prosecute an offender, which can result in the Environment Court imposing a fine of up to \$200,000 or imprisonment for up to 2 years.

Our expectations

- 7.6 We expected that regional councils would have a policy on what type of enforcement action would be taken and in which circumstances. We expected that this policy would be consistently applied.
- 7.7 Where non-compliance has serious environmental consequences, or consent-holders are repeat offenders or cavalier in responding to education initiatives, we would expect regional councils to take enforcement action.

Our findings

- 7.8 Both councils have enforcement policies to determine what action should be taken when non-compliance is detected. These documents offer a range of actions depending on the severity of the incident and whether it is a repeat offence.

ACTING ON INFORMATION AND INFORMING COMMUNITIES

- 7.9 The Chief Executive of each council makes decisions about pursuing prosecutions. However, senior staff members decide when infringement notices, abatement notices, or enforcement orders are to be issued.
- 7.10 We were told that staff at the Horizons Regional Council receive “inconsistent messages” from councillors about when to take enforcement action. We appreciate that there may be pressure on councillors to avoid being heavy-handed. However, in our view, to ensure equity in matters of non-compliance, councillors should endorse an enforcement policy and should expect staff to apply such a policy equitably.
- 7.11 Many stakeholders we spoke to considered that the response of both councils to non-compliance was weighted too heavily towards education, and that not enough enforcement action was being taken. Both the Horizons and Otago Regional Councils prefer to educate and work with consent-holders to remedy non-compliance rather than take enforcement action. Staff from both councils report that better results are often achieved with an education-focussed approach.
- 7.12 Regular reports on compliance monitoring activities are made to relevant committees at both councils.
- 7.13 At the Horizons Regional Council, these reports contain a good summary of action taken in response to non-compliance and identify where follow-up action is required. Subsequent reports do not state whether this follow-up action has been taken.
- 7.14 At the Otago Regional Council, these reports identify non-compliance, but provide limited information about action taken. Where comment on the action taken is included, the Council approach has been to ask consent-holders to ensure that they comply.
- 7.15 In 2002-03 and 2003-04, the Horizons Regional Council took 79 enforcement actions, and the Otago Regional Council took 89. In the Manawatu-Wanganui region, the majority were for rural activities (such as poor dairy effluent management). In the Otago region, the majority were infringement notices for poor dairy effluent management (reflecting the Council’s targeted monitoring of dairy farms) and for burning rubbish.
- 7.16 Interestingly, while farmers were subject to most of the enforcement action in each region, there was a strong feeling among the farmers we spoke to that some farmers were being allowed to “get away” with non-compliance, while others were spending time and money to comply.
- 7.17 When consent-holders see others “getting away” with non-compliance, it gives them little incentive to comply. Farmers also told us that when enforcement action is taken, it has a big effect on the others – making it an effective way to let people know what types of activity will not be tolerated.

- 7.18 Both councils see prosecution as a last resort and as being expensive and time-consuming. The Horizons Regional Council has prosecuted twice since 1998 and the Otago Regional Council twice since 2002. Some staff told us that prosecution does not necessarily make the problem go away.
- 7.19 Compliance staff also told us that it could be difficult to verify who had offended in some cases, and that it could be a challenge to establish cause and effect. To take enforcement action, council staff need to make a thorough assessment and collect evidence.
- 7.20 There were high levels of repeated non-compliance for discharges from wastewater treatment plants into freshwater. Rather than taking enforcement action, the councils are attempting to address this problem by requiring upgrades to wastewater treatment plants when resource consents come up for renewal.
- 7.21 Wastewater treatment plant operators (predominantly territorial authorities) can be under pressure to keep capital expenditure down, and a long resource consent renewal process can be seen as beneficial because capital spending is deferred.

Concluding remarks

- 7.22 Taking an educational approach has merit in that it helps the regional council maintain good relationships with consent-holders, and many of these will respond by improving their practices. However, enforcement action is appropriate where consent-holders are not willing to change their practices, or are repeat offenders.
- 7.23 Taking enforcement action in these circumstances is a valuable mechanism for signalling to the community which activities the regional council considers are unacceptable.
- 7.24 Councillors should endorse an enforcement policy and expect staff to ensure that this policy is applied equitably.
- 7.25 Both councils could improve their reporting to councillors and senior management on responses to non-compliance. These reports should include information on the follow-up action taken to ensure that the non-compliance will not continue.

Responding to complaints and environmental incidents

- 7.26 Under the RMA, regional councils are required to keep a summary of all written complaints received by them during the preceding 5 years about alleged breaches of the RMA or a Regional Plan, and information on how they dealt with each complaint.⁴⁵
- 7.27 It is important for regional councils to respond to pollution complaints quickly so that environmental damage can be minimised, and sufficient evidence of any wrongdoing can be gathered in case the council wishes to take enforcement action.

Our expectations

- 7.28 We expected that regional councils would:
- have procedures in place for responding to complaints;
 - investigate the cause of the complaints; and
 - take action to prevent further incidents, and to avoid, remedy, or mitigate adverse effects where possible.

Our findings

- 7.29 Both councils have procedures in place for responding to complaints. They each operate a pollution hotline, which allows members of the community to make a complaint about, or inform the councils about, environmental pollution or an accidental spill. Once a call is taken, a compliance officer is sent to the site of the incident to investigate the source of the pollution.
- 7.30 In 2003-04, 374 environmental incidents were reported to the Horizons Regional Council. About 20% of these related to water.
- 7.31 Horizons Regional Council response times are related to the type of incident. Incidents considered urgent (such as a petroleum spill or illegal dumping of waste oil) are responded to within 4 hours, while investigations of other incidents (a dumped car with no immediate effects on the environment) may not take place for up to 2 days.
- 7.32 The Council reports that 52% of urgent incidents were responded to within 4 hours, and 49% of non-urgent incidents within 2 working days. It notes that response to incidents is restricted by staff availability.

⁴⁵ RMA, section 35(5)(i).

- 7.33** The Otago Regional Council's policy is to respond to complaints within half an hour of receipt and take appropriate action. In 2003-04, the Council received 927 complaints (about 20% related to water). The Council reports that it responded to 83% of these complaints within 30 minutes (the majority of those taking longer than 30 minutes involved a longer travelling time).
- 7.34** Some of the stakeholders we spoke to in both regions were able to identify incidents when the councils had made a good response to a pollution complaint and addressed the environmental effects arising from the incident. However, stakeholders were concerned that the councils did not always respond, or respond promptly, to pollution complaints. Some also commented that the respective council did not tell them the result of an investigation to a complaint that they had made.
- 7.35** Otago Regional Council staff told us that the public might think that a regional council had not responded to an incident when it had done so. In many instances, the pollution might not be evident when the compliance officer arrived on the scene, making it difficult to determine the source and severity of the pollution.

Concluding remarks

- 7.36** Responding to complaints is part of the "public face" of regional councils. Where the community perceives that regional councils are not fulfilling this role, it can become frustrated and lose faith in the council's ability to protect the environment. This, along with reducing negative environmental effects, is an important reason to promptly respond to and investigate pollution incidents.

Responding to monitoring information

- 7.37** Monitoring information serves a number of purposes. For example, state of the environment monitoring shows how well the council is progressing towards its objectives and outcomes, and can also signal unexpected problems. Effectiveness and efficiency monitoring can highlight that a policy or method is not working in the way expected and needs to be amended.

Our expectations

- 7.38** We expected that regional councils would use their monitoring information to inform management decisions, and that councils would take action to respond to new and emerging issues.
- 7.39** We also expected regional councils to have a mechanism for capturing lessons learnt, and making amendments to planning documents where required.

Our findings

Responding to monitoring information

- 7.40 While the Horizons Regional Council has been collecting data for some time, it has only recently begun to turn this data into information. Ongoing analysis of data about the Manawatu River has allowed the Council to understand the state of water quality in the catchment, and this will lead to further analysis of trends.
- 7.41 For some time there have been indications that water quality is being affected by non-point source discharges. However, the Council is only now starting to investigate this issue.
- 7.42 The new water allocation policy in the Manawatu-Wanganui region was driven by an identified increase in demand for water.
- 7.43 There is evidence that the Otago Regional Council responds to state of the environment monitoring data – in particular, by tailoring its education programmes. For example, monitoring results showing degraded water quality in parts of the Lower Taieri led to a 5-year catchment programme to address water quality issues. This included a joint study with Dunedin City Council on septic tanks in the area.
- 7.44 In response to information that water in a number of catchments is fully allocated, the Otago Regional Council has devised measures to address the efficiency of water use.

Making amendments to planning documents

- 7.45 Both councils have systems in place to collect the information on operational issues that is needed to support policy amendments, and to identify lessons learned.
- 7.46 Staff at the Horizons Regional Council have the opportunity to make comments and provide feedback on plans and policies. These comments are then collated and staff are advised how their suggestions were dealt with.
- 7.47 Staff at the Otago Regional Council record how plans have been interpreted in various situations as “practice notes”. This information can lead to planning documents being amended.

Concluding remarks

- 7.48 There is some indication that the councils are using monitoring information to drive education programmes and the development of new policies.
- 7.49 Both councils have systems in place that allow staff to suggest possible changes to planning documents. These are good initiatives and useful to policy staff when preparing new policies and plans.

How is information provided to communities?

Our expectations

- 7.50 We expected that information on water quality and quantity in the region would be accurate and made available to the community in an understandable form. We also expected that the councils would publicly report whether their objectives and ERAs had been achieved.

Our findings

Public reporting of monitoring information

- 7.51 The Horizons Regional Council produced its first State of the Environment Report in 1999, and a second was produced in March 2005. An annual State of the Environment Report was produced in 2000-01. This report sets out relevant objectives and how the achievement of these objectives is determined by monitoring. Monitoring results are reported in an understandable form, and areas where more research or monitoring is required are identified.
- 7.52 In 2001, the Otago Regional Council produced a State of the Environment Report on the health of the region's lakes and rivers. The report concluded that Otago's waterways were in very good health and had improved during the previous decade, but that some areas should be targeted for improvement.
- 7.53 Stakeholders in both regions said that state of the environment reporting was not in a form that was useful for their requirements.
- 7.54 Neither council has compiled a report on the results of effectiveness and efficiency monitoring of their policies, rules, or methods, although this requirement was only introduced with the 2003 amendment to the RMA. The Ministry for the Environment considers that these reports should be made available at least once a planning document has been in effect for 5 years.

Availability of information

- 7.55 Both councils use their websites to provide reports and monitoring information to their communities.
- 7.56 Both councils provide up-to-date graphs and information on water quantity parameters, such as river level and flow, on their websites. This information can be accessed by irrigators to determine whether water can be taken from rivers. The community can use the information to check whether minimum flows have been breached. Some stakeholders we spoke to considered this information very useful.

ACTING ON INFORMATION AND INFORMING COMMUNITIES

- 7.57 The Horizons Regional Council also provides water quality results such as temperature, turbidity, and bathing water quality on its website at www.horizons.govt.nz. The Council provides downloadable copies of most of its key planning documents and publications on its website.
- 7.58 More than one stakeholder in the Manawatu-Wanganui region stated that they found it difficult to get information from the Horizons Regional Council, and after repeated requests had to resort to using the Local Government Official Information and Meetings Act 1987 and personal contacts within the Council.
- 7.59 Some stakeholders also told us that the Council does not provide affected parties to resource consents with a copy of the final consent. This means that stakeholders do not know if the conditions they agreed to are included in the final consent.
- 7.60 The Otago Regional Council website at www.orc.govt.nz has an electronic copy of the *Regional Plan: Water* and various newsletters. However, the Regional Policy Statement and most publications are not yet available online.
- 7.61 Stakeholders in both regions commented that they would like to see more reporting on compliance monitoring, and more action taken in response to non-compliance.

Concluding remarks

- 7.62 Both councils had published State of the Environment Reports, but neither council had reported publicly on whether the ERAs and objectives were achieved. In our view, this information should be provided in the councils' effectiveness and efficiency monitoring reports.
- 7.63 Councils should be responsive to the information requirements of their communities. This includes providing a final copy of resource consents to affected parties, and information on compliance monitoring and responses to environmental incidents where appropriate.
- 7.64 The Internet is a useful way for the community to access planning and accountability documents. We consider that council accountability and planning documents should be available online.

APPENDIX

Audit criteria

- 1 Environmental values for specific water bodies are identified.
 - Scientific studies and consultation with the community of interest have been undertaken.
 - Environmental values are specific – it should be clear exactly what is important about the water body – for example, which native fish habitats need to be protected.
 - Environmental values are included in the plan.
 - It is clear to stakeholders what the environmental values are for specific water bodies.

- 2 Regional Policy Statements clarify roles and responsibilities for regional councils and territorial authorities with regard to land use and management of water resources.
 - Expectations for territorial authorities and land use control are clear.
 - There is a formal agreement between the regional council and territorial authorities on responsibilities.

- 3 The plan is a useable document with a transparent flow from issues to objectives, policies, methods, and Environmental Results Anticipated.
 - Council staff are able to describe how each issue identified in the plan will be addressed, and there are processes within the council for following issues through to policies and methods.
 - Objectives and Environmental Results Anticipated are linked to the procedures specified in policy statements and plans for monitoring the effectiveness of documents.

- 4 Policies stated in the policy statement and plan(s) specify a course of action.
 - Policies flow from the objectives.
 - Policies deal with existing uses (and issues that result from these uses) and potential future uses.
 - Policies are clear and provide guidance when processing resource consents.

Appendix

- 5 Methods include a range of education initiatives, economic instruments, and regulation.
 - Methods deal with existing activities and potential future uses.
- 6 Regional policy statements and plans contain a statement on how policies and methods will be monitored for effectiveness and efficiency (RMA, sections 62 and 67).
 - Each policy and method has a specific monitoring approach.
 - There is a system in place so that lessons learned are carried forward to the next plan (or plan change).
- 7 Iwi Management Plans have been taken into account (where relevant), and there is evidence of iwi consultation.
 - Cultural monitoring is considered where iwi have expressed a desire for this monitoring.
 - Plan methods for joint monitoring with tangata whenua are being implemented.
 - Staff have an appreciation of iwi issues, needs, and values.
 - Staff and councillors are trained to recognise activities that may have implications for tangata whenua.
- 8 Minimum flows (or another technique that serves the same purpose) are set for rivers (where appropriate).
 - The councils have a scientifically and legally sound mechanism in place to ensure that enough water is left in rivers, streams, and creeks to protect identified environmental values.
 - Resource consents for water takes have conditions that reflect minimum flow (or other equivalent) regimes.
- 9 It is clear how much water is available to be allocated for use.
 - The plan makes it clear how much water is available for use from specific water bodies.
- 10 Water quality standards are set where appropriate.
 - Plans make it clear where future discharges to water will be allowed.

- 11 The regional council does not allow any discharge to water or land that would be likely to breach sections 70 and 107 of the RMA.
- The council does not allow any discharge to water that would be likely to cause:
 - the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - any conspicuous change in the colour or visual clarity;
 - any emission of objectionable odour;
 - the rendering of freshwater unsuitable for consumption by farm animals;
 - any significant adverse effects on aquatic life.
- 12 Objectives are measurable.
- Objectives set a clear direction and guide policy.
- 13 Policies and methods have been implemented (or provision has been made to implement them through the Long-Term Council Community Plan).
- There is a system in place to ensure policies and methods are implemented.
- 14 Environmental Results Anticipated are achievable within the lifespan of the policy statement and plan(s).
- Environmental Results Anticipated are a statement of what will be achieved by the policies and methods in the Regional Policy Statement and plan.
- 15 Monitoring information is shared between council departments and duplication is avoided.
- Monitoring information is in a useful and accessible form for all council staff who require it.
- 16 Monitoring is planned, with information collected for an intended use.
- Monitoring information is related to issues, the management purpose, and Environmental Results Anticipated.
 - There are clear strategies for state of the environment, compliance, and effectiveness and efficiency monitoring.

- There is regular state of the environment water quality monitoring of appropriate parameters at sites representative of the region.
 - State of the environment data is analysed to determine trends in water quality.
 - Monitoring information collected is used when processing consents.
 - Monitoring information is shared with other agencies.
 - Regional councils participate in bathing water quality monitoring carried out in the region by an agency or a group of agencies.
 - There is monitoring of non-regulatory programmes (education initiatives and economic instruments).
- 17 Action is taken in response to monitoring information where it is shown to be necessary (RMA, section 35).
- There is monitoring of compliance with regulations.
 - Procedures are in place for responding to complaints.
 - Causes of complaints are investigated.
 - Action is taken to prevent repeat pollution incidents and to avoid, remedy, or mitigate their adverse effects.
 - Enforcement action is taken when necessary.
- 18 Monitoring information is used to inform management decisions.
- Programmes and budgets are put in place as issues are identified.
 - Monitoring data is analysed, reported, and acted upon.
 - Plan changes are undertaken when required.
- 19 Water quality and quantity information provided to the community is accurate and presented in an understandable form.
- Results are reported in terms of achievement of Environmental Results Anticipated and objectives.

Recent Publications by the Auditor-General

Other publications issued by the Auditor-General in the past 12 months have been:

- The Auditor-General's auditing standards
- Annual Plan 2005-06
- Central Government: Results of the 2003-04 audits – B.29[05a]
- Progress in implementing key recommendations of the 1996 Transport Committee inquiry into truck crashes
- An assurance audit of the Annual Performance Report of the Electricity Commission for the period ended 30 June 2004
- Department of Conservation: Administration of the Conservation Services Programme – follow-up audit
- Ministry of Defence and New Zealand Defence Force: Further report on the acquisition and introduction into service of Light Armoured Vehicles
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- New Zealand Trade and Enterprise: Administration of the Visiting Investor Programme
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- NZ On Air's funding of NZ Idol: Letter to Deborah Coddington MP
- Annual Report 2003-04 – B.28
- Summary Annual Report 2003-04
- Inquiry into the Ministry of Education's monitoring of scholarships administered by the Māori Education Trust
- Local Government: Results of the 2002-03 audits – B.29[04b]
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Controller and Auditor-General

Tumuaki o te Mana Arotake

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