

New Zealand Government



Freshwater reform
2013 and beyond

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Message from the Ministers



This document marks an important milestone. It contains the Government's proposals for the most comprehensive and positive reform of our freshwater management system for a generation.

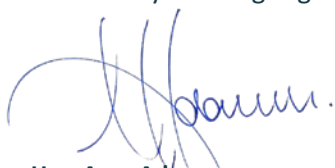
It is the culmination of four years of tireless effort, generously given time, and goodwill of many people. The significant progress over the past four years of the Land and Water Forum, and the constructive relationship the Government has with the Iwi Leaders Group, has provided a clear pathway for improving New Zealand's freshwater management system.

Fresh water is crucial to our way of life and our economy. It sustains the things all New Zealanders value: our unique natural environment; our well-being and prosperity; our lifestyle, recreation and culture; our cities, farms and businesses; and New Zealand's international reputation. Managed wisely, this precious natural resource offers us significant potential for economic growth. But this will only happen if we use and manage water carefully within environmental limits.

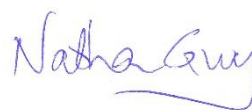
Our abundant freshwater resource is our greatest natural asset. Although it is replenishable, it is not unlimited. We know that water quality is declining in some areas. We need to start putting in place a coordinated nationwide plan of action now to make the improvements necessary to secure our future and protect what Māori call *te mana o te wai* – water's most important intrinsic qualities. Addressing the current challenges with the existing freshwater management system and setting a new direction starts today.

Beginning the water reforms is a priority for 2013, but not everything can or will happen right away. We need to get the first steps right because other important decisions in the system flow from them.

These reforms are about the Government supporting communities to make decisions, plan, set freshwater objectives and limits, and then meet the challenges over time of managing our land and water use within these limits. Greater direction and guidance from central government is crucial to enabling and assisting councils, communities and water users to manage our water well. The future New Zealand needs can't be achieved by any one of us alone. It can only be reached by working together.

A handwritten signature in blue ink, appearing to read 'Amy Adams'.

Hon Amy Adams
Minister for the Environment

A handwritten signature in blue ink, appearing to read 'Nathan Guy'.

Hon Nathan Guy
Minister for Primary Industries



1. Introducing freshwater reform

Purpose of this document

This paper sets out the Government's approach to reforming New Zealand's freshwater management system. The approach is based on extensive discussions and engagement with stakeholders. Your views are welcomed on the intended actions.

Fresh water matters to New Zealand

Fresh water matters to all New Zealanders. It is central to the environment, the economy and our identity. It is a key aspect of who New Zealanders are and what they bring to the world. For Māori, it is a taonga, essential to life and identity.

Fresh water is one of New Zealand's key economic assets. Directly and indirectly, rivers, lakes and groundwater resources support the creation of wealth, whether growing crops and livestock, generating electricity, thrilling jet boating tourists, allowing minerals to be mined, or through a host of other activities. In 2012, primary industries that depend on fresh water – such as livestock farming, horticulture and forestry – delivered more than 12 per cent of our GDP and over 52 per cent of overall exports (70 per cent of merchandise exports). Tourism, which also draws on the beauty of New Zealand's fresh water, accounts for a further 10 per cent of GDP and 15 per cent of overall exports. Approximately 58 per cent of New Zealand's electricity comes from hydro-power stations, with other power stations dependent on fresh water for cooling.

A plentiful supply of fresh water is one of New Zealand's major advantages in a world that is becoming increasingly resource-constrained. That advantage can be enhanced through innovation and skills, good governance and environmental stewardship.

Because water is so precious, it is vital that it is looked after and used sustainably – for today and future generations.

The path to reform

These reforms are the result of a four-year endeavour initiated in 2009, when the Government set its strategic direction for freshwater reform and initiated the Fresh Start for Fresh Water programme.

This paper presents the Government's intended actions. These actions reflect substantial discussions and engagement with stakeholders over the past four years, including advice sought from the Iwi Leaders Group and its advisors.

Advice has also been sought from the Land and Water Forum, which included a range of primary industries, electricity generators, recreational groups, environmental organisations, and iwi, and active observers from regional councils and central government. With its first report released in 2010 and two subsequent reports in 2012, it succeeded in building a wide consensus on a way forward for reform, based on more active and effective management of fresh water and stronger national direction.

The Government responded in 2011, delivering the first foundations of a more efficient and effective freshwater management system. The National Policy Statement for Freshwater Management 2011 was gazetted and the Government also created two new funds: to facilitate beneficial irrigation infrastructure and to clean up iconic lakes and rivers. The Government has recently taken further steps to enable the development of rural freshwater infrastructure for irrigation, including capital investment. Irrigation infrastructure designed and operated within the reformed freshwater management system outlined here will bring important economic benefits, as well as provide for more sustainable management of freshwater bodies.

In just a short time, greater progress has been achieved in freshwater management than during the first 20 years following the adoption of the Resource Management Act 1991 (RMA).

The National Policy Statement for Freshwater Management 2011 requires that councils set freshwater objectives for freshwater bodies that reflect national and local aspirations, and to set flow, allocation and water quality limits to ensure those objectives are achieved. It also requires councils to manage efficiently within those limits, avoid over-allocation and address existing over-allocation. Councils must manage land use and water in an integrated way and involve iwi and hapū in freshwater decision-making.

The freshwater reform package presented in this paper is based on and consistent with the Land and Water Forum's recommendations. The Forum's core proposals (collaborative planning and the national objectives framework) will be progressed immediately, while others will be integrated in the Government's direction and guidance in the next few years, or will be developed as part of the Government's longer term programme of reforms.

The Government is currently proposing a range of reforms across a number of inter-linked areas including housing affordability, business growth and regulatory efficiency. There are strong links between these freshwater reform proposals and wider resource management and local government reforms, particularly around national priorities, and planning and consenting improvements. These links are being coordinated across a number of government agencies.

The Government is committed to recognising Māori rights and interests in water in appropriate ways. Iwi/Māori rights and interests in fresh water are multifaceted. There is no one reform we could introduce now that would resolve all rights and interests at once. This resolution will need to be woven through different aspects of the reform.

The water reform package proposed for 2013 prioritises foundation measures: water planning mechanisms and setting of freshwater objectives and limits. The resolution of rights and interests related to other aspects of freshwater management will need to run alongside further reforms, built on those foundations, over the next few years.

These further reforms involve complex issues that need to be discussed at both the national and local level. It is important to take the time to develop appropriate outcomes that are workable and sustainable, and have broad support.

A 'once in a generation' opportunity

The National Policy Statement for Freshwater Management 2011 was the first foundational step towards reforming New Zealand's freshwater management system. This paper describes what happens next, and signals what still needs to be done. The scale of the reforms make this a 'once in a generation' opportunity. The process of making changes and improvements to New Zealand's freshwater management system is going to unfold over the next few years and take a generation to fully bed in. Its economic and environmental benefits will build up progressively.

Water reform is a priority. There is a clear path of reform ahead that will be addressed through a comprehensive and measured approach, starting in 2013. The immediate steps will provide a suite of changes to strengthen and enhance the foundations of our freshwater management system. Building on these will be an ongoing process over the next few years and will involve monitoring and review to ensure the reform's objectives are achieved on the ground, and adjustments and further instruments are introduced as needed.

Water users and managers working together, with greater government leadership

The Government is committed to playing its part to improve freshwater management in New Zealand by providing regulation, guidance and support. All users and managers of fresh water also have to play their part – councils, iwi/Māori, city dwellers, farmers, businesses, scientists, recreationists, and the community.

Many are already doing just that, and have committed to continue to do so, in particular through their involvement in the Land and Water Forum, industry programmes, community-based initiatives, and council planning processes. At regional and catchment level, users must come together with councils and iwi and achieve a common understanding of the uses, values and challenges around local water bodies, and agree on common aspirations and actions.

Regional and unitary councils will continue to play a fundamental role in freshwater management. And, the Government will work closely with them to provide direction, guidance and support.

Sector organisations acknowledge the need to improve the way our land and water is used and managed. They have begun to develop a suite of good management practice (GMP) schemes

and other tools, with assistance from scientists and the Government, to help resource users adjust and improve their practices, both in economic and environmental terms. The Land and Water Forum rightly emphasised the critical role of GMP's for achieving our environmental objectives on the ground while maintaining and enhancing economic profitability and growth.

On-going national and local partnerships between the Crown, councils, iwi/Māori, scientists, and resource users will be key to successfully implementing this water reform strategy. All parties are to be involved in: planning; setting freshwater objectives and deciding on the tools to achieve them; monitoring progress and assessing decisions; and building the knowledge, techniques and skills needed to meet New Zealanders' aspirations for fresh water.

The planned package of reforms

The tables below contain the freshwater reform actions the Government intends to progress, beginning this year. Actions are grouped according to the key reform areas:

- Planning as a community – immediate reforms and next step reforms
- A National Objectives Framework – immediate reforms and next step reforms
- Managing within quantity and quality limits – immediate reforms and next step reforms

The actions are described and discussed in chapters 4, 5 and 6 of this paper.

Your views on freshwater reforms are important, particularly those which require amendments to the Resource Management Act 1991. This is your opportunity to comment before the Government introduces the 2013 Resource Management Reform Bill later this year.

There will be further opportunities to engage and comment on all other elements proposed in this paper. For example, there will be a consultation process as part of considering a regulation to implement the National Objectives Framework.

The statutory review of the National Policy Statement for Freshwater Management 2011, scheduled for 2016, will be an opportunity to assess the reforms and their results, including the case for moving from guidance to regulation on some elements of the freshwater management system. It will also provide an opportunity for further review of the role of Water Conservation Orders in a reformed water management system.

Planning as a community

Immediate reforms	How
Include an optional collaborative planning process in the RMA, covering plan development, independent hearing panels, and limited appeal rights	Included in a Resource Management Reform Bill, to be introduced in 2013
Formalise a role for iwi in providing advice and formal recommendations, with a requirement for a council to consider that advice before making decisions on submissions, both for the new collaborative process and on Schedule 1 decisions relating to fresh water in a proposed plan	Included in Resource Management Reform Bill
Next step reforms	How
Provide national guidance and a support package on implementing the collaborative planning process	Guidance

A National Objectives Framework

Immediate reforms	How
Make consequential changes to the National Policy Statement and/or other regulation making powers to facilitate a National Objectives Framework and consequential amendments to section 69 and schedule 3 of the RMA	Included in Resource Management Reform Bill
Develop regulation to implement the National Objectives Framework including national bottom lines	Regulation (national policy statement or other national instrument)
Next step reforms	How
Provide guidance and regulations to set clear national expectations and support limit setting under the National Objectives Framework, including managing outstanding water bodies and wetlands	Guidance and regulation

Managing within quality and quantity limits

Immediate reforms	How
Amend the RMA to ensure that councils can obtain information needed for accounting systems	Included in Resource Management Reform Bill
To account for all freshwater takes: make amendments to ensure the Government can require councils to collect data from all water users and share data with central government; use any standard accounting system developed; and adopt defined methods for estimating water takes	Included in Resource Management Reform Bill plus guidance
To account for all contaminants (for regional decision-making): make amendments to ensure the Government can require councils to collect data on all sources of contaminants and share data with central government; and adopt defined methods for estimating discharges	Included in Resource Management Reform Bill
Provide national guidance and direction on the setting of allocation limits covering all water takes	Regulation (national policy statement) and guidance
Develop sector good management practice toolkits	Guidance
Develop national guidance on implementing the national policy statement provisions on water efficiency	Guidance
Develop national guidance on the specification of water permits	Guidance
Review the Water Research Strategy	Refreshed Water Research Strategy
Provide national direction on accounting for sources of contaminants	Regulation
Provide national guidance on the use of models for managing freshwater quality	Guidance
Next step reforms	How
Provide national guidance on dealing with over-allocation	Guidance
Provide national guidance and/or direction on dealing with transition issues (quantity)	Guidance and/or regulation
Provide national guidance and/or direction on managing takes that do not need consents	Guidance and/or regulation
Provide national guidance and/or regulation on compliance and enforcement (quantity)	Guidance and/or regulation
Provide national guidance and/or direction on the choice of methods and tools to manage water quality	Guidance and/or regulation
Review the duration of permits	Policy to be developed

Next step reforms	How
Develop alternative tools for initial allocation of fresh water	Policy to be developed
Develop options for allocating permits on expiry	Policy to be developed
Facilitate transfer and trade for quantity	Policy to be developed
Develop new transfer or offsetting mechanisms for water quality	Policy to be developed
Develop incentives for efficient water use (both for quality and quantity): for example, pricing and standards	Policy to be developed



2. Today's challenges

There are several challenges, described in this chapter, in managing fresh water in New Zealand. All result in significant pressures and risks for existing users of fresh water. They also result in a loss of actual or potential opportunities. Overall, the value of New Zealand's freshwater resource is not being maximised. As described below, one way or another, this costs us all.

The Government's reforms address these challenges.

Water quality is declining in some catchments across a range of indicators

Overall, New Zealand's water quality is still good by international standards, but this varies a great deal around the country depending on local land use, climate and geology. There are increasing signs of potential risks for New Zealand's ecosystems, for the economy, for tourism and recreation, for food gathering and mahinga kai, and for our international reputation. For instance, 44 per cent of monitored freshwater bathing sites were recently reported as 'poor' or 'very poor'. It is important to recognise that sites monitored are not a representative sample and monitoring focuses on sites of concern. Between 1989 and 2007, there have been strong increasing trends in phosphorus and nitrogen, particularly in catchments predominantly in pasture. The health of lowland streams, wetlands and several lakes is under pressure from declining water quality.

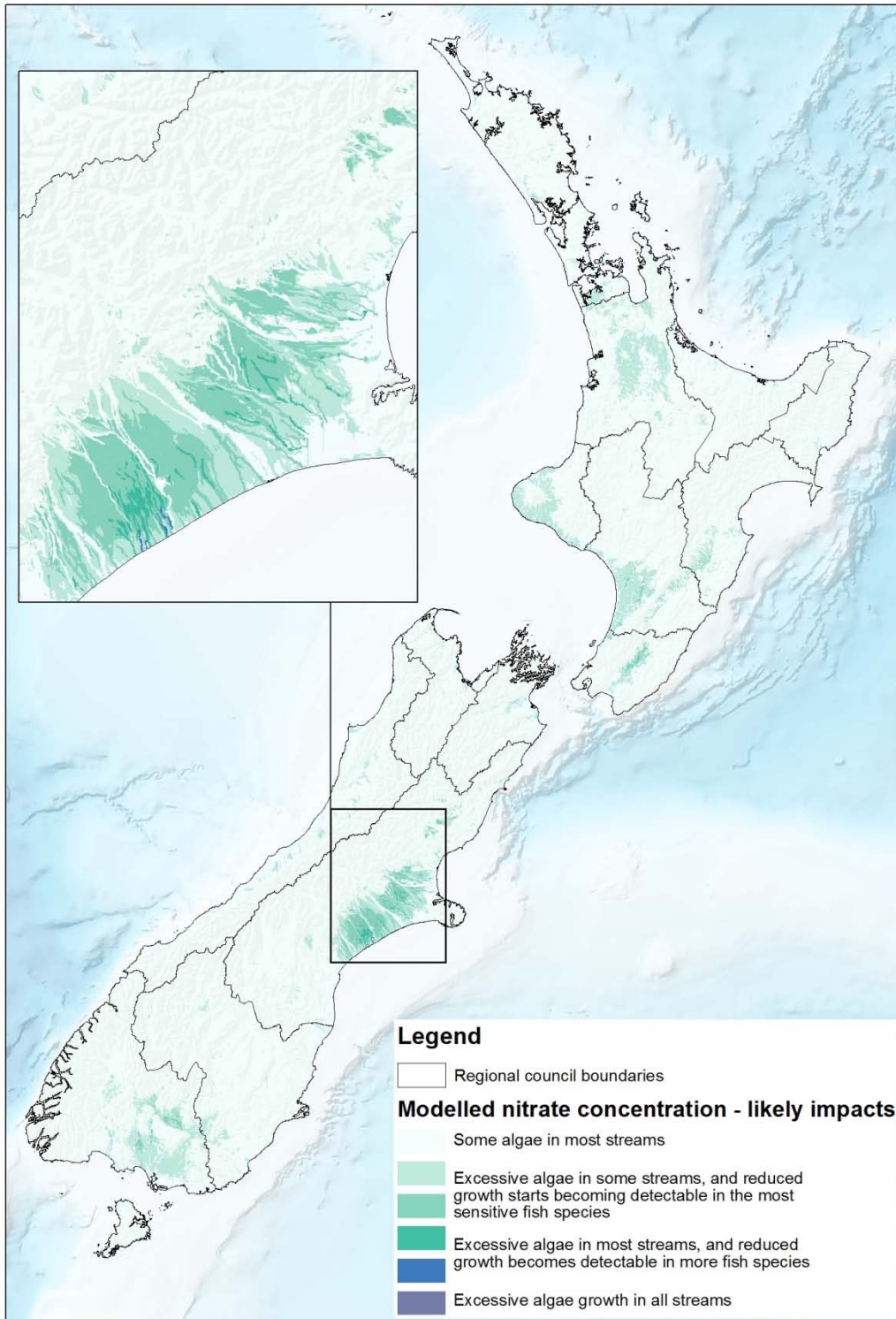
Adequate knowledge and information about the state and potential degradation of freshwater resources has not been readily available, particularly to decision-makers and those using the resource. On one hand this has led to some exaggerated claims and public disputes: on the other hand, it has discouraged early action to protect water quality.

Degraded freshwater quality has negative consequences for activities downstream from the pollution source, such as food processors, aquaculture farms, and urban water supplies. Taxpayers and ratepayers bear the cost of the poor management decisions that allow degradation to happen. Approximately \$500 million of government and community money is currently committed to the clean up of just eight lakes and rivers.

Figure 1 shows modelled nitrate levels in fresh water around New Zealand, based on work by the National Institute of Water and Atmospheric Research (NIWA). Nitrate is the most common form of nitrogen that is available for plant growth in water. Nitrate is highly soluble, so it is readily leached from land use that has nitrogen inputs.

Plant growth in fresh water is stimulated by the nutrients nitrogen and phosphorus. While both are essential to all life, excessive levels can stimulate excessive growth of nuisance plants and algae like periphyton and cyanobacteria. These can block waterways, interfere with fish and insect species and release toxins into the water, making it unfit for consumption or recreation. Elevated levels of nitrate are therefore likely to have adverse effects on ecosystem health. At even higher concentrations, nitrate can directly impact on freshwater life, for example, contributing to reduced growth and death of fish.

Figure 1: Modelled nitrate and surface water concentration



Source: Modelled from NIWA (2010).¹

¹ NIWA. 2010. *Modelling water quality in New Zealand rivers from catchment-scale physical, hydrological and land-cover descriptors using random forest models*. The models incorporate river water quality data from up to 601 sites between 2003 and 2007 and explain around 70 per cent of the variation in nitrate levels.

Water is over-allocated in some places

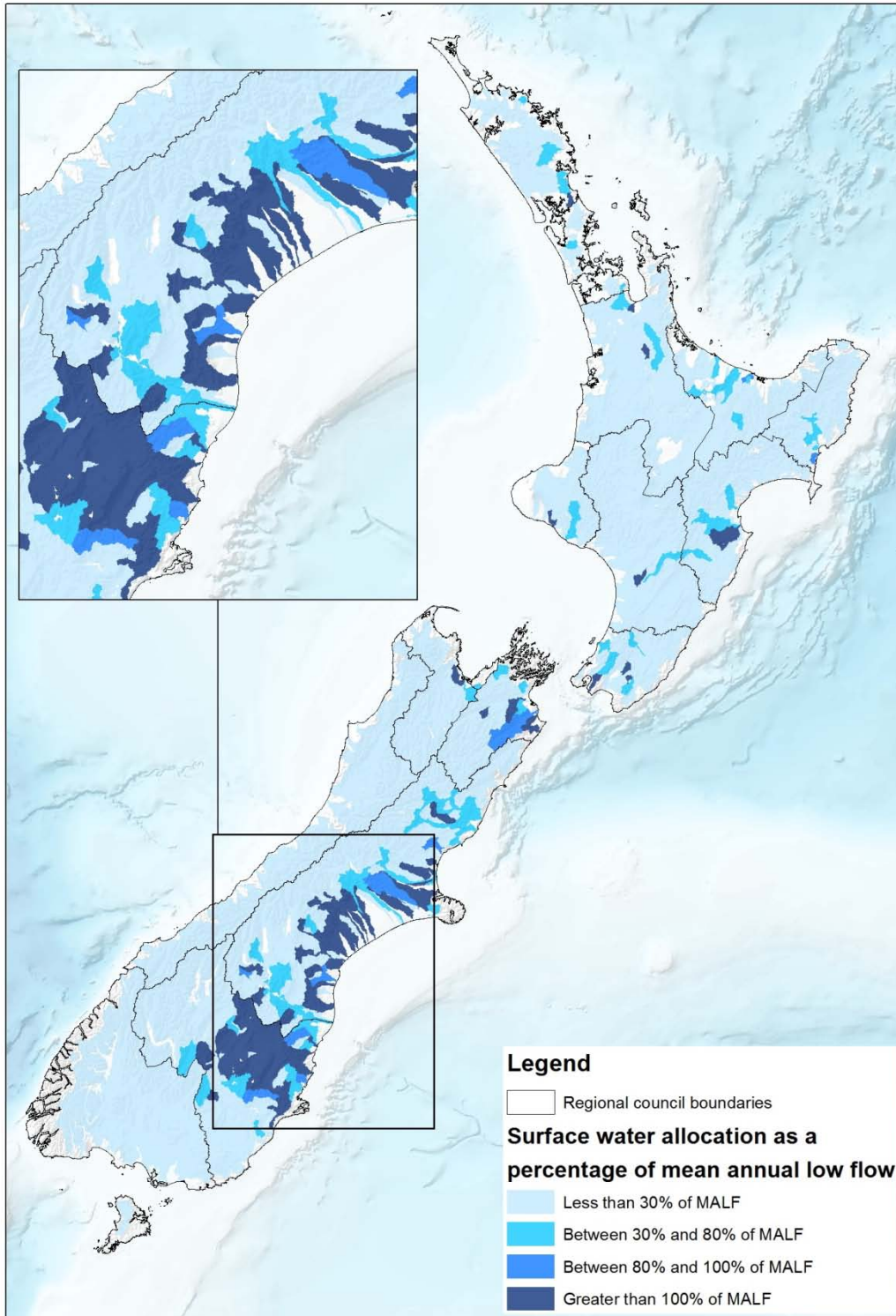
In some places, too much fresh water is allowed to be taken causing damage to the natural environment. This over-allocation also puts existing rights to take fresh water at risk, and means there is none available for new activities. This creates uncertainty about whether supplies are reliable which creates a significant barrier to investment. Over-allocation also runs the risk of expensive adjustments to try and bring freshwater quality and flows back to acceptable levels.

Even in catchments that are not yet fully allocated, there is concern that future freshwater supplies may not be reliable, especially in the context of climate uncertainties.

Figure 2 shows a NIWA model of where water might be over-allocated during the driest part of the year, if people take what has been allocated to them. The map shows a 'worst case' scenario by assuming all allocated water is actually taken. While this is unlikely, in reality the actual use of consented allocations is estimated to average 65 per cent of consented volume, the map shows where there is real pressure on our freshwater resources.

In figure 2, water availability is based on mean annual low flow. The map relates to consumptive takes from surface water – that is, it excludes storage, groundwater and non-consumptive takes (such as water used to generate hydro-electricity). Figure 2 captures 60 per cent of all consented consumptive allocation in New Zealand.

Figure 2: Potential allocation pressure for surface fresh water



Source: Ministry for the Environment.

Decision-making processes are litigious, resource-consuming and create uncertainty

New Zealand's freshwater management system is characterised by decision-making processes which are often divisive, slow and resource-consuming. This happens for a number of reasons – including the design of the planning process under the RMA, the relative absence of national direction, and emerging new challenges or competition in some catchments. The system encourages confrontation, where time and resources are invested in the back-end of the decision-making process (in particular Environment Court appeals) rather than in collaborating and engaging at the front-end.

A lack of clarity and certainty in some regional plans (eg, a lack of enforceable limits) has led to issues being decided consent by consent and often re-litigated.

This creates high costs and long delays for councils and users, and uncertainty for investors. Recent freshwater plans have taken between five and 10 years to finalise. Horizons Regional Council estimates the costs of its One Plan at approximately \$9.4 million, not including costs to the courts, submitters and appellants, or council costs before plan notification.

As a result of the system's flaws and a general lack of confidence within communities, the development of new infrastructure, whether for irrigation or generating hydro-electricity, has been slow and reliant on legal action to settle disputes.

There is a lack of robust information on impacts and outcomes of management decisions

Management decisions about fresh water need to be fit for purpose. They should not constrain economic growth for insufficient environmental outcomes, nor allow environmental degradation.

However, there are concerns that some regions set freshwater objectives, rules and timelines for freshwater management without drawing on sufficiently robust information about their impact (particularly economic analysis), without being transparent about why and how decisions are made, and/or proper stakeholder engagement.

In addition, there are too few adequate mechanisms to monitor, re-assess and adjust management decisions in the light of new information.

Water is not always used efficiently or for its highest value use

Generally, decisions about allocating fresh water are made through decisions on resource consents under the RMA and often on a first-in-first-served basis, rather than considering what is best overall for the economy and/or the environment. There is no guarantee that the first application to take fresh water is going to get the best overall outcome. In general, there have been very few incentives in the system for efficient freshwater use or for rewarding innovators and the best performing freshwater users.

Furthermore, the current consenting system ‘locks-up’ water, preventing others from using it, even when it is not used by the consent holder – as much as 35 per cent of consented freshwater takes is currently unused. The system also does not allow for easy transfer of water rights between users. The result is that opportunities are being missed. In some places, businesses that want to expand may not be able to get consents to use water even though there are no guarantees that those with consents are using them efficiently.

Iwi/Māori interests and values are not always fully considered in planning and resource management decision-making

Iwi/Māori rights and interests are sometimes not addressed and provided for, or not in a consistent way. Current arrangements do not always reflect their role and status as Treaty partners.

As a result, some iwi/Māori concerns which could be addressed through a better freshwater management system are dealt with through Treaty settlements, while other iwi continue to feel excluded from management processes.

Our freshwater management system is insufficiently adaptive and dynamic

The costs and delays in writing freshwater plans and in the decision-making processes make it difficult to apply new knowledge or adapt to new risks, expectations and opportunities in a timely way. This lack of agility makes it all the more difficult to reach agreement on aspirations and actions among stakeholders and resource users.

The way fresh water is allocated is also not dynamic enough to enable users to adapt to changing circumstances. This can also lead to lost opportunities.



3. The future for fresh water

Improving how we manage fresh water will secure and enhance the many benefits it brings to New Zealand's environment, economy, and our identities as New Zealanders. It will also create opportunities for the future. This chapter describes what the future will look like once the reforms have been fully implemented. It is the future New Zealand needs.

Healthy freshwater resources support long-term well-being and economic prosperity

New Zealand's freshwater resources need to be used to drive sustainable economic growth and provide for vibrant communities.

Freshwater environments need to be healthy and resilient. Overall freshwater quality must be maintained or improved over time.

Where issues have been inherited from the past, including the degradation of freshwater bodies and the exclusion of iwi, these need to be addressed and resolved transparently, in a way that is fair to all parties.

Communities understanding and addressing the issues in their catchments

Communities need to come together to decide how to use and manage their freshwater resources. The quality of conversations about fresh water needs to improve – whether at catchment, regional or national level. Together, communities need to come to a greater understanding of the different values of fresh water, and of how these can be accommodated.

National direction and guidance is needed to support robust local decision-making by regional councils and unitary authorities, in collaboration with local iwi/Māori and the wider community. Regional plans will need to be based on sound information on the potential impacts and outcomes of different choices, incorporating local knowledge and values.

Communities and resource users should have a voice in decision-making and planning processes and have confidence in the outcomes – whether it is a requirement to restore water quality, preserve and grow job opportunities, create headroom for new activities, or develop new infrastructure. Regional plans need to be tailored to local issues and aspirations. Trade-offs need to be addressed transparently, in a way that ensures the best overall benefits for communities.

Transparent and adaptive management systems are in place

All users should play their part towards achieving the outcomes desired for fresh water locally and nationally. Comprehensive information about the state of freshwater resources needs to be consistent, accessible and regularly updated.

Mechanisms need to be in place to keep track of progress towards desired outcomes, to incorporate new knowledge, and to review and adjust the planning framework. Freshwater users and managers will need to be able to respond and adjust to new risks and pressures, and to changes in values and expectations and do this openly and through collaborative engagement with stakeholders and resource users.

Fresh water is used in more efficient and productive ways

In both urban and rural New Zealand, there needs to be a drive towards greater efficiency, productivity and adding value in how we use fresh water. Whatever their activity, those who use fresh water should adopt better practices and continually improve their performance.

Over time, fresh water should be able to be allocated to the activities that generate the highest overall benefit for communities and the nation.

New development opportunities should be created for new activities and new or previously excluded users (including iwi/Māori), through efficiency and productivity gains, innovation, dynamic allocation mechanisms, and infrastructure development.

Reaping the benefits of stewardship

The reform of freshwater management will maintain and strengthen New Zealand's international reputation for strong environmental stewardship and as a supplier of safe, high quality products and services.

New Zealand farmers and businesses will continue to access current and new export markets based on credible environmental performance and expertise.

Iwi/Māori will have their values provided for without having to go through costly judicial processes.

New Zealanders and foreign visitors will enjoy accessible and high quality natural and cultural environments, along with outstanding recreational opportunities.

Freshwater management process and proposed reforms

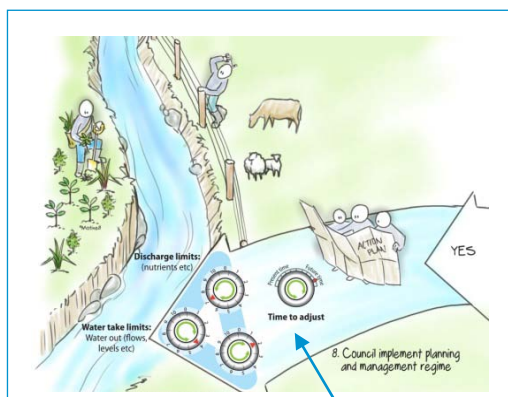
The following illustration sets out how the freshwater management system would work in practice. It emphasises the iterative process needed when communities, iwi/Māori and councils are setting freshwater objectives and limits, with full consideration of the impacts of their decisions.

The following three chapters discuss proposed reforms which relate to different aspects in the process. These are identified below to help you understand how each proposed reform fits with the overall freshwater management process.

A larger version of the illustration is included on the inside back cover of this paper.

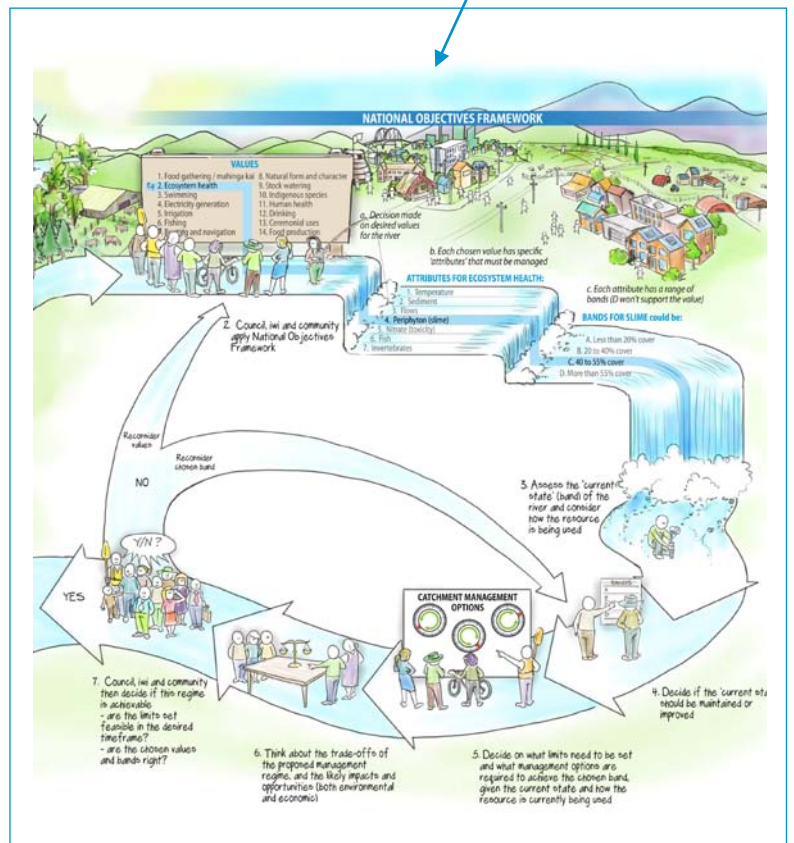
Chapter 4: Planning as a community

Reforms 1–2



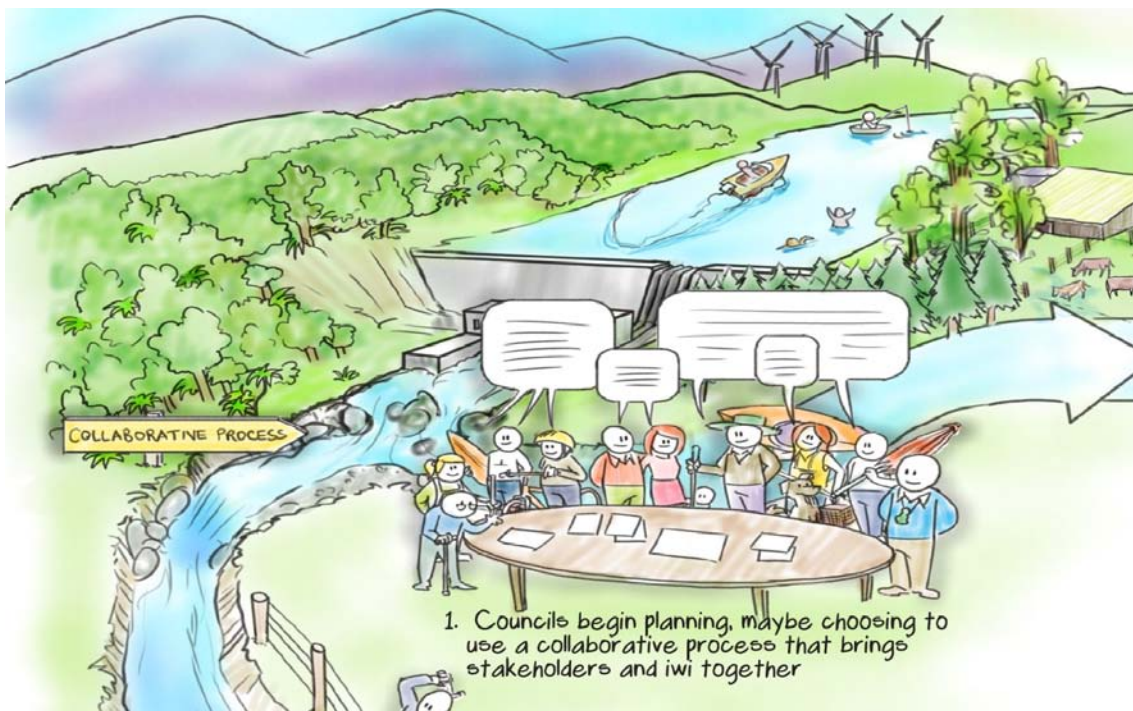
Chapter 5: A National Objectives Framework

Reforms 3–5



Chapter 6: Managing within quantity and quality limits

Reforms 6–11



4. Planning as a community

This is the first of three chapters that describe in more detail the Government's reforms. This chapter presents a new approach to planning and decision-making processes. Rather than legal action and conflict, this should facilitate inclusive community discussions on local challenges and aspirations, and the gathering of robust information.

The immediate reforms focus on quality decision-making and provide:

- a collaborative planning process for fresh water, as an alternative to the existing RMA process
- effective provisions for iwi/Māori involvement in freshwater planning and decision-making.

These topics are described in this chapter, along with the expected benefits and challenges, and how they will be achieved.

Building on its own experience and practice, the Land and Water Forum strongly emphasised the benefits of a collaborative approach to planning and decision-making. The Forum also endorsed the need to enhance and clarify the role and status of iwi in planning and decision-making processes regarding fresh water. Another significant message from the Forum was the need for stronger national leadership in freshwater management.

Quality decision-making

Reform 1: A collaborative planning process for freshwater-related regional plans and policy statements

Collaboration is about local government, iwi/Māori, resource users, and community members working together early in the decision-making process, and sharing science and knowledge to reduce conflict and achieve wider understanding and buy-in to decisions. Collaborative approaches are increasingly recommended internationally as good practice for dealing with contentious and complex resource management issues. Collaboration is already successfully occurring in New Zealand at regional level, and nationally, through the Land and Water Forum.

The Resource Management Act 1991 (RMA) will be amended to provide a collaborative planning process that councils may choose when preparing, changing and reviewing freshwater policy statements and plans. Councils will have a choice to use either the existing process (Schedule 1 of the RMA) or the proposed new collaborative planning model.

Using the alternative planning process would mean that:

- Councils will partner with communities and iwi/Māori from the beginning of the process to develop options and solutions jointly.
- Councils will appoint at least one collaborative stakeholder group involving representative(s) of the community and parties that have a major interest in the water body. This group will give advice as the plan is developed. Stakeholder group(s) will represent the broad range of interests affected by the plan change. The exact role of the group(s) may differ depending on the terms of reference for each, but could involve advice to council on desired values, freshwater objectives and limits for particular freshwater bodies and/or a role working alongside a council to draft plan provisions.
- Councils will have some flexibility in designing the process but, as a minimum, they must give public notice of the following elements of the process: how the council and stakeholder group(s) will work together to engage with the wider community; the nature of advice being sought from the stakeholder group(s); clear timeframes and deadlines for processes; and what to do if collaboration breaks down. Central government will provide further guidance on its expectations about the design of the process.
- The council will retain responsibility for approving a plan for notification, that reflects the consensus views of stakeholder groups. The council will be required to demonstrate a high level of transparency and rigour of analysis.
- An independent hearings panel with a majority of non-council commissioners will be appointed to consider public submissions against the evidence and analysis underpinning the notified plan. The hearings panel will make a recommendation to the council on any changes to the proposed plan arising out of submissions. The panel would run mediation processes (if required) and hold a hearing with Environment Court rigour (including cross examination). Appointments will be made by the council and include accredited commissioners and an independent chair (ie, not a councillor) with a mix of knowledge and experience on the subject matter of the plan. At least one member will be required to have an understanding of tikanga Māori and the perspectives of local iwi/Māori, and the council will consult with local iwi/Māori when deciding this appointment.
- The council will remain responsible for making decisions on submissions and consequential changes to a proposed plan. The council will be under a statutory requirement to consider the recommendations of the hearings panel. The council will be

required to give reasons for its decisions, including any reasons for deviating from the notified plan and/or the recommendations of the hearings panel. Iwi/Māori will have a role in providing advice and formal recommendations to council ahead of the final council decision and the council will be under a statutory requirement to consider this advice and recommendations when making its decision on submissions.

- Appeal rights would be limited, available only when council deviates from the recommendations of the hearings panel. The Environment Court will consider the original decision made by council and have the ability to re-hear evidence, though it could decide when this was appropriate. There may be limitations on new evidence being presented and heard by the Court, particularly where it was able to be produced during the hearings panel process. The right to appeal to the High Court on points of law will be available where a council accepted the hearings panel decisions/recommendations.

Reform 2: Effective provisions for iwi/Māori involvement in freshwater planning

A more effective role for iwi/Māori in national and local freshwater planning and decision-making is a crucial aspect of recognising them as Treaty partners.

There are benefits for all in clarifying and enhancing iwi/Māori role in decision-making processes. This will provide greater certainty for iwi/Māori and others with an interest in using fresh water.

A more effective role in freshwater planning for iwi/Māori will be provided for through:

- a statutory requirement ensuring iwi have a place alongside other key parties and interests in alternative collaborative planning processes, described in quality decision-making reform 1
- a role for iwi in providing advice and formal recommendations to a council ahead of its decisions on submissions, with a statutory requirement for the advice and recommendations to be explicitly considered before decisions are made. These requirements would apply to all decisions on submissions on freshwater plans, whether they are developed under the new collaborative process or the existing process in Schedule 1 of the RMA.

This new role will not displace or override any existing arrangements that have been created under Treaty settlements. Iwi and councils will also have the freedom to reach a different arrangement for the advisory and recommendation role, if this would better meet local needs, as currently occurs in some regions.

Benefits of these reforms

Many councils are choosing more collaborative approaches to planning. This reform supports this direction by limiting the costly appeals processes that could otherwise undermine good quality collaborative processes.

A collaborative planning process is more likely to reflect the diverse range of community values and interests than today's framework. It can provide opportunities to accommodate the broad range of community interests (eg, iwi, farmers, kayakers, urban dwellers, industry) by allowing people to have their say and to listen to the views of others early in the process. Communities can then work together towards the outcomes they want for fresh water in their region. A collaborative planning process will provide a basis for considering iwi values in decision-making processes and engaging with iwi, and better reflects the Treaty partnership.

Even if unsuccessful in reaching consensus or agreeing solutions, a collaborative process can provide good information to decision-makers. And by supporting councils to engage with communities about their values and interests earlier, and, over time, can build stronger relationships and trust.

Challenges of these reforms

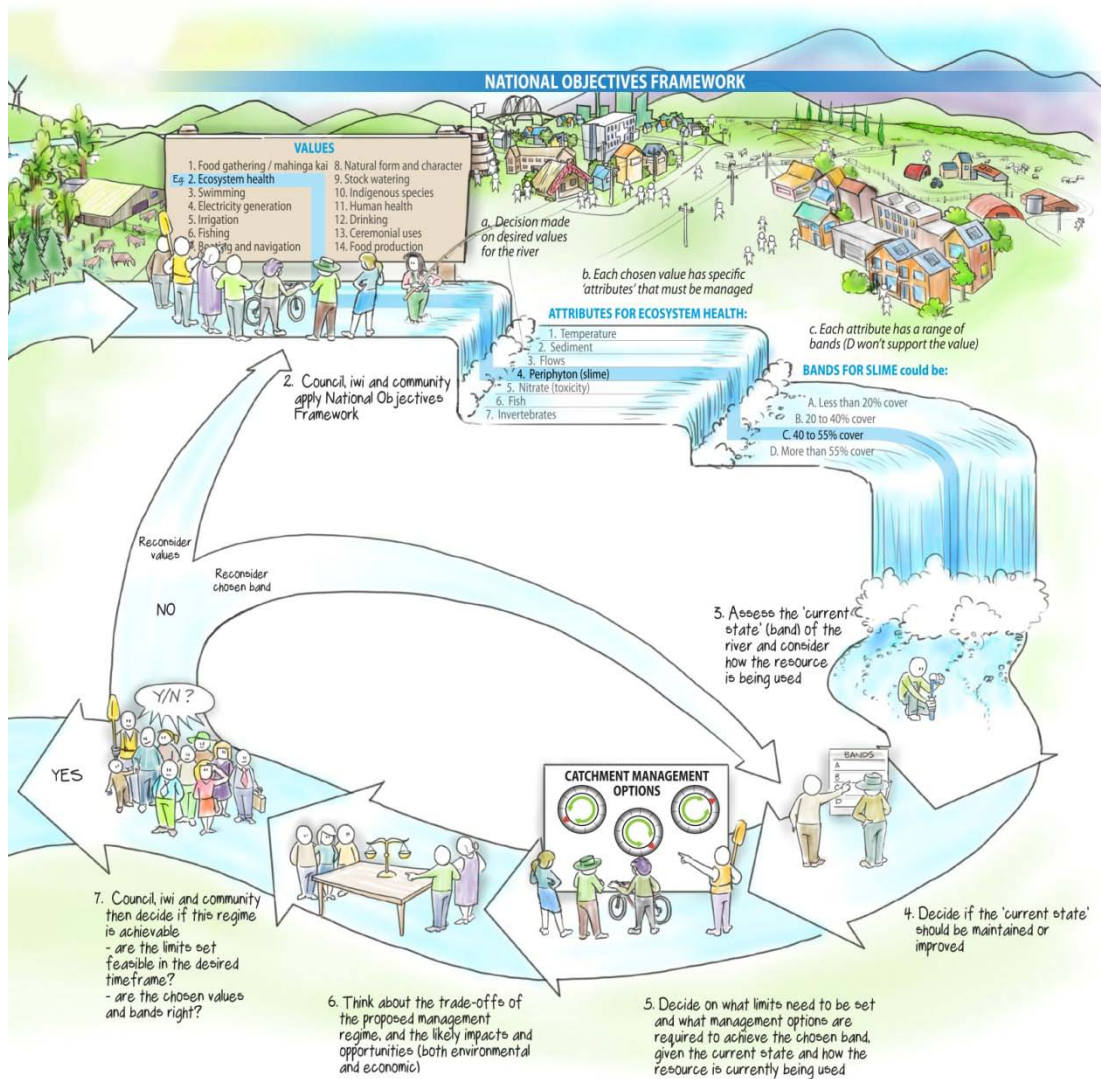
Planning as a community will be challenging and complex. Councils will need to build capability in running collaborative processes and communities will need to meet different (and possibly increased) demands as they commit to and engage in collaborative planning.

Where councils use the new collaborative process, councils are likely to find they have to commit a lot of effort and resources at the beginning to build and run a good collaborative process. This may require new skills to be built – for example, skills in running an intensive community process, or turning technical information into ‘plain English’. The Government has a role in supporting councils in these challenges by providing an implementation package – for example, tools or targeted assistance to help run a robust process.

Engaging in the alternative planning process (including the collaborative process and the hearings panel) will place different demands on those who participate (council, community, iwi, stakeholders) from what they are used to under the current Schedule 1 process, where full engagement may not occur until the Environment Court process. Collaborative engagement requires a significant commitment, such as time for reading materials, attending meetings, digesting scientific reports and travel (although there is expected to be an off-set of reduced costs and time spent resolving appeals). This may be particularly challenging for those whose interests are spread over many areas, rather than localised. Learning to work collaboratively and finding ‘win-wins’ rather than taking an adversarial approach may be a new way of working for some participants.

Reform phasing

Immediate reforms	How
Include an optional collaborative planning process in the RMA, covering plan development, independent hearing panels, and limited appeal rights	Included in a Resource Management Reform Bill, to be introduced in 2013
Formalise a role for iwi in providing advice and formal recommendations, with a requirement for a council to consider that advice before making decisions on submissions, both for the new collaborative process and on Schedule 1 decisions relating to fresh water in a proposed plan	Included in Resource Management Reform Bill
Next step reforms	How
Provide guidance and a support package on implementing the collaborative planning process	Guidance



5. A National Objectives Framework

The National Policy Statement for Freshwater Management 2011 requires councils to set freshwater objectives and limits in their regional plans.

'Freshwater objectives' are the intended environmental outcomes for a water body that will provide for the values the community considers important. Freshwater objectives need to be set for each water body, taking into account local and national values and aspirations and its existing condition. 'Limits' to use are derived from the specified freshwater objectives for each catchment and refer to the total amount of water that can be taken out of a freshwater body, or of contaminants that can be discharged into it without jeopardising the desired outcomes. Limits are a necessary instrument to achieve freshwater objectives, as part of a wider toolbox that also includes mitigation actions, such as riparian planting. Where limits could have an impact on existing uses, adequate adjustment timeframes must be introduced.

Greater central government direction is needed around the approach, methods and processes to be used under the National Policy Statement for Freshwater Management 2011. This will contribute to focussing discussion on community values and the impacts of decisions. Having national understanding about what state of water is needed to provide for a particular value

reduces the potential for the same technical issues to be argued, at high cost, every time a plan is prepared. A national framework will also ensure that the best science is applied across the country, that iwi values are understood and considered appropriately, and that freshwater objectives and limits are set in a consistent and well-targeted way. Regional councils and unitary authorities will be able to set effective freshwater objectives and limits reflecting national and community values and aspirations in a nationally-consistent way.

The Government proposes to:

- establish a regulated National Objectives Framework to support regions to set freshwater objectives and limits
- require freshwater objectives and limits to be set in an integrated way, allowing for the impacts of limits and adjustment timeframes to be well understood and factored into decision-making
- include a set of values a water body can be managed for with associated minimum states (eg, minimum states for bacterial contamination when a river is managed for swimming)
- require that all water bodies meet the minimum state for ecosystem health and human health for secondary contact, effectively establishing some national bottom lines
- provide further direction and guidance on additional elements of the National Policy Statement for Freshwater Management 2011
- make improvements to part of the process for Water Conservation Orders.

The concept of a National Objectives Framework, including some national bottom lines and direction and guidance on setting freshwater objectives and limits, was a key aspect of the Land and Water Forum's recommendations. This concept has been further developed by an officials-led National Objectives Framework Reference Group.

The illustration on the back cover sets out how the National Objectives Framework would work in practice. It emphasises the iterative process needed when communities, iwi/Māori and councils are setting freshwater objectives and limits, with full consideration of the impacts of their decisions.

Setting freshwater objectives and limits

Reform 3: A National Objectives Framework

A National Objectives Framework will have a standard list of possible values for which a particular freshwater body could be managed, such as swimming, fishing or irrigation. While the actual values chosen for each freshwater body would be a local decision, the minimum states that apply to those values will be set at a national level through the framework. The framework incorporates the consideration of tangata whenua values, consistent with the Mana Atua Mana Tangata Framework (refer to Appendix A).

The National Objectives Framework will have a range of values, two of which will apply to all water bodies (ie, ecosystem health and human health for secondary contact). For each value and attributes the minimum states will be described.

Fully populating a National Objectives Framework for every value and water body type is not possible today. It will be populated progressively over time as information becomes available. It may also change over time as science evolves and our understanding improves.

As an example, the table below identifies values and related attributes that could be included in a National Objectives Framework.

National Objectives Framework – values and related attributes (river example)

Value	Attributes to be managed	For each attribute	
Electricity generation	<ul style="list-style-type: none"> Sediment Flows 	<ul style="list-style-type: none"> There are four bands – A, B, C and D The boundary between C and D describes the minimum acceptable state to provide for that value 	
Irrigation	<ul style="list-style-type: none"> Sediment Flows <i>E. coli</i> 		
Stock watering	<ul style="list-style-type: none"> Sediment Flows <i>E. coli</i> 		
Fisheries – for specific species, eg, trout or inanga	<ul style="list-style-type: none"> Flows Sediment Periphyton (slime) Temperature Dissolved oxygen Nitrate (toxicity) Ammonia (toxicity) Invertebrates 		
Fish spawning – protection for specific species, eg, trout or inanga	<ul style="list-style-type: none"> Flows Sediment 		
Boating and navigation	<ul style="list-style-type: none"> Sediment Flows Periphyton (slime) 		
Natural form and character	<ul style="list-style-type: none"> Temperature Periphyton (slime) Sediment Flows Connectivity 		
√ Ecosystem health and general protection for indigenous species	<ul style="list-style-type: none"> Temperature Periphyton (slime) Sediment Flows Connectivity Nitrate (toxicity) Ammonia (toxicity) Fish Invertebrates Riparian margin 		√ = These two objectives apply to all water bodies
Indigenous species – protection for specific species	<ul style="list-style-type: none"> To be developed 		
√ Human health for secondary contact	<ul style="list-style-type: none"> <i>E. coli</i> Cyanobacteria 		

Value	Attributes to be managed	For each attribute
Swimming	<ul style="list-style-type: none"> • <i>E. coli</i> • Periphyton • Cyanobacteria • Water clarity • Flows 	
Drinking	<ul style="list-style-type: none"> • <i>E. coli</i> • Cyanobacteria • Water clarity 	
Food gathering / Mahinga kai	<ul style="list-style-type: none"> • <i>E. coli</i> • Cyanobacteria • Water clarity • Riparian margin 	
Food production / freshwater aquaculture	<ul style="list-style-type: none"> • To be developed 	
Ceremonial uses	<ul style="list-style-type: none"> • <i>E. coli</i> • Clarity 	

The framework will:

- specify which quality and quantity attributes of the freshwater body would need to be managed to allow for that value to be provided for
- for each attribute, provide a series of ‘bands’ – for example, A, B, C or D which represent a range of environmental states. A region may choose to manage to band A, B or C (ie, to maintain or improve) depending on the local context and on national and community aspirations. Choosing D would not be acceptable
- for each band, the framework will specify where possible, the minimum acceptable state. For example, band C for *E. coli* bacteria concentrations for swimming could be between 260/100mL and 550/100mL. Where it is not possible to specify numeric states nationally, the framework would direct regional councils and unitary authorities to determine these numbers at a regional level
- allow for tangata whenua values to inform decision-making, using the Mana Atua Mana Tangata Framework which shows the relationship between tangata whenua values and the values identified in the preamble of the National Policy Statement for Freshwater Management
- allow regionally-decided timeframes for management.

The Land and Water Forum recommended enhancing and giving greater clarity to the minimum environmental state required by the National Policy Statement for Freshwater Management. The National Objectives Framework would include a subset of values (as identified in the table above) applicable to all freshwater bodies, creating a limited number of national bottom lines. In other words, for these values there will be a set of minimum acceptable environmental states, and no freshwater body (apart from justified exceptions) may be managed with the aim of falling below that level.

The subset of values that apply nationally to all water bodies would be:

- ecosystem health and general protection for indigenous species
- human health for secondary contact.

How will it work?

Regional councils and unitary authorities will use the framework when engaging with iwi/Māori and communities to set freshwater objectives and limits in plans. The framework is designed to support these discussions by allowing for the consideration of all potential values of water (including those of iwi/Māori) and their requirements.

Councils, iwi and communities will consider which of the values in the framework are relevant for a particular freshwater body, the relevant attributes that will need to be managed, and to which band. The specific combination of values for a particular water body will determine the freshwater objectives needed in the plan. The council will then consider the potential management options and determine the discharge and take limits required to meet those freshwater objectives.

It is important that all impacts – environmental, cultural and economic – of different choices are well understood before final decisions are made. For example, robust economic analysis is required during the regional planning process so that communities can balance the costs and benefits of the various choices. The framework will require regional councils to consider the impacts and feasibility of those freshwater objectives when setting them in a plan, such as what limits would need to be set to achieve them, the cost and availability of mitigation measures where the freshwater objective or limit is not currently being met, and timeframes for adjustment.

How will it be implemented?

The National Objectives Framework will be implemented through regulation. This is likely to involve adding to the National Policy Statement for Freshwater Management 2011, or it may be given effect through a new regulatory instrument.

To implement the National Objectives Framework, changes will be required to section 69 of the Resource Management Act (RMA), which deals with rules about water quality, and schedule 3 will need to be removed – this lists water quality classes. National policy statement provisions in the RMA will also need to be amended to ensure the framework can be added to over time, and implemented as intended.

Your views are being sought on the concept of a National Objectives Framework. If we proceed with a National Objectives Framework we will seek further comment on the finer details of a full framework as part of the NPS process.

In particular, the work begun by the National Objectives Framework Reference Group that considered possible numbers and/or narratives for each attribute to be managed will be developed further. Consultation on a National Objectives Framework would occur mid-2013.

Significantly more scientific work is needed for some water quality attributes to support effective freshwater objective and limit setting at national and regional scales. The framework will need to be adaptable, so it can be extended and updated as science evolves. The programme for changes to the framework will need to be scheduled so regional councils and unitary authorities know what is coming. They will need guidance during the transition to the new regime.

Reform 4: Further national direction and guidance on setting freshwater objectives and limits

It is important that, beyond the National Objectives Framework, councils and communities have a clear understanding of what is expected of them when setting freshwater objectives and limits. To that end, central government will provide further regulation and guidance.

Amendments will be made to the RMA to give central government the power to provide for regulations on these matters, should that be necessary in the future.

Guidance and direction will be developed by central government working alongside councils over the next three years. It will focus on:

- how to give effect to the National Policy Statement for Freshwater Management's requirement to maintain or improve overall water quality within a region
- how to give effect to the National Policy Statement for Freshwater Management's requirement for outstanding freshwater bodies and significant values of wetlands to be identified and protected
- how to determine the appropriate mix of limits and other management options for achieving freshwater objectives set in plans
- methodologies for deriving the numeric limits needed to achieve freshwater objectives set in plans
- how to determine achievable and acceptable adjustment timeframes, and pathways where improvement is needed
- how freshwater objectives and limits should be expressed in planning documents to ensure they are effective and enforceable
- clear national expectations for monitoring and reporting.

Reform 5: Improving the process for Water Conservation Orders

Water Conservation Orders are a mechanism, under the RMA for protecting freshwater bodies that have outstanding amenity or intrinsic values. Freshwater objectives and limits to provide for those outstanding values are set through the Water Conservation Order.

The Government intends to improve the current process for Water Conservation Orders, to reduce costs and timeframes for decision-making on new orders and amendments, and to achieve better alignment with the other reforms outlined in this paper. Proposed changes are:

- providing clear circumstances in which the responsible Minister might refer an application to a regional council or unitary authority, or put it on hold. For example, if a regional council advises that the matters the application covers are being (or will be) considered through a regional planning process
- aligning the process with board of inquiry processes for matters of national significance. For example, have similar appointment provisions and/or only allow appeals on points of law
- requiring a clear scope for the application to be established at the beginning of the process and prevent changes to that scope once consideration is underway
- requiring Water Conservation Order processes to involve iwi and ensure that tangata whenua values and interests are considered in decision-making.

Benefits of these reforms

The National Objectives Framework will facilitate more transparent, informed and focused discussion about the different values for which freshwater bodies could be managed. It allows for greater flexibility in the choices of freshwater objectives that are set in regional planning documents.

The framework will reduce costs when developing regional planning documents to implement the National Policy Statement for Freshwater Management 2011. Savings will result from some aspects being sorted out once at national level, rather than every council having to work through the aspects.

A nationally-consistent framework does not in itself impose costs. Costs may arise from the choices communities make. Regions and local communities will need to think through and decide upon the management regimes and tools and the timeframes in which they will achieve the freshwater objectives and limits.

Incorporating national bottom lines will bring additional benefits including:

- clarity that freshwater bodies should not reach a state that puts them in danger of going over a major tipping point, causing change which may be impossible or highly expensive to reverse
- reduced risks to human health from freshwater recreational activities
- clarity about the minimum level of clean up required if the state of a freshwater body is already below a national bottom-line.

Challenges of these reforms

The challenge in establishing a National Objectives Framework is that it is not possible to fully populate it today. The information is not currently available to support the full range of values communities want to engage on. For example, sediment is a major contaminant that needs to be managed but further work is needed to fully understand the effect different levels of contamination have on different values across the full range of water body types.

It is expected that parts of the framework will be populated over time as the science and understanding develops and that the performance of the National Objectives Framework be monitored and evaluated to ensure it is delivering the outcomes desired by communities.

The state of water in some catchments may already be below the minimum acceptable state for desired values. Where a freshwater body is below the minimum acceptable state it would need to be improved over time. There is no proposal to set a deadline at the national level for when minimum states must be met. It is more important for the focus to be on choosing regionally-appropriate improvement pathways and timeframes to minimise costs to resource users and communities.

Effective and enforceable limits cannot be set in the absence of a clear understanding of the desired state of the water body that needs to be achieved – the freshwater objective setting process is a critical first step. Although the full set of information to populate a National Objectives Framework isn't available yet, it is important and possible to start the process in 2013 so that communities are clear on the national bottom lines and can start having conversations about any other aspirations they have for particular water bodies. Providing a clear path for further population of the framework will be critical, alongside guidance for councils on how to approach planning processes while the framework is expanded and

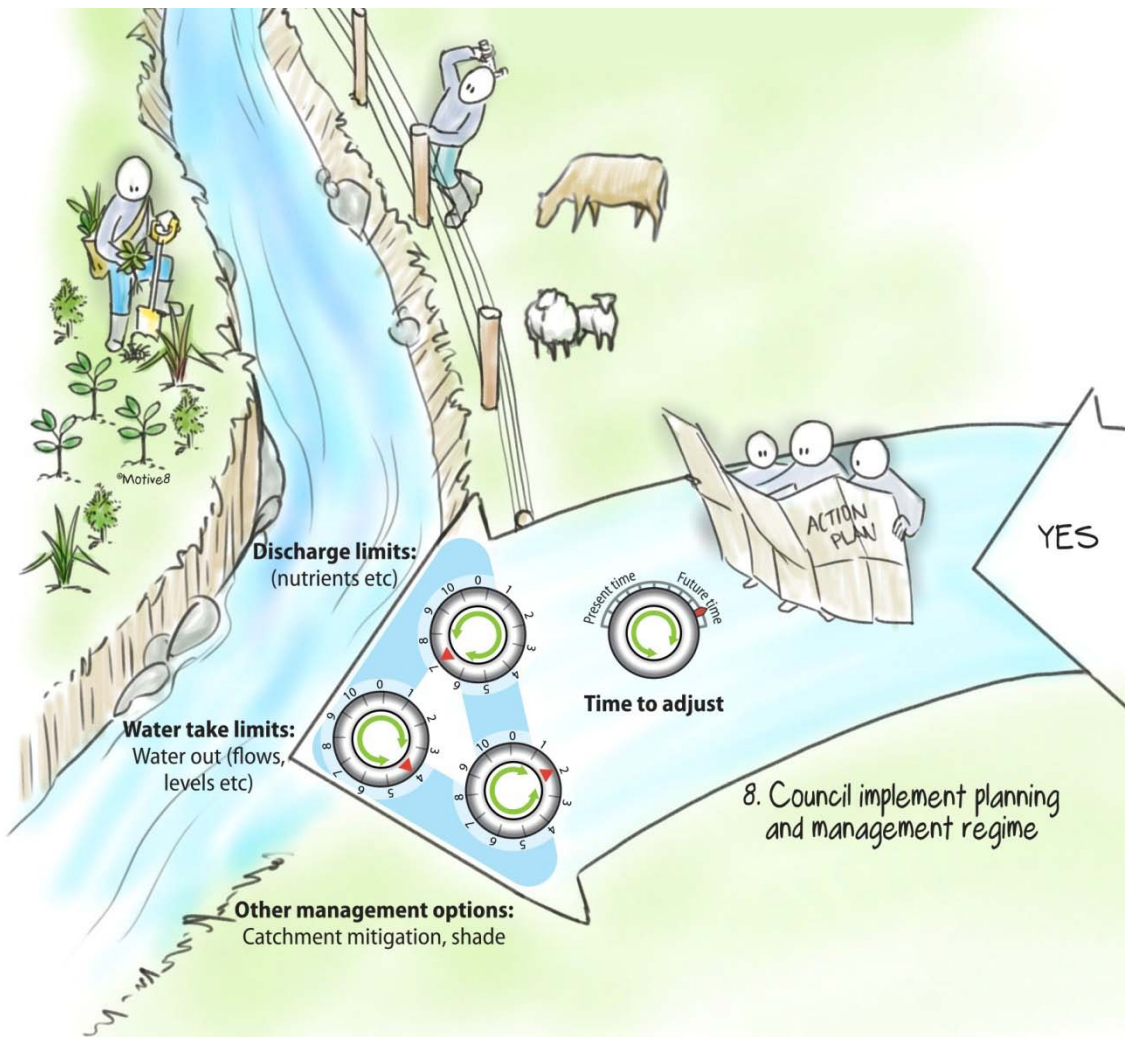
additional guidance developed. This will enable councils to focus their efforts on the science and information that is needed for local decision-making, such as understanding existing takes and discharges, as well as the existing state of water bodies.

Any approach that sets limits to resource use may result in adjustment costs in some catchments. Meeting limits may, for example, require more efficient resource use, tighter regulatory controls, changes in existing land-use practice (including improved management of farming systems) and a limited amount of land-use change in some catchments.

Officials are undertaking analysis in a range of catchments to quantify the potential economic impacts of meeting various freshwater objectives that might be set in plans.

Reform phasing

Immediate reforms	How
Make consequential changes to the National Policy Statement and/or other regulation making powers to facilitate a National Objectives Framework and consequential amendments to section 69 and schedule 3 of the RMA	Included in Resource Management Reform Bill
Develop regulation to implement the National Objectives Framework including national bottom lines	Regulation (national policy statement or other national instrument)
Next step reforms	How
Provide guidance and regulation to set clear national expectations and support limit setting under the National Objectives Framework, including managing outstanding water bodies and wetlands	Guidance and regulation



6. Managing within quantity and quality limits

How councils and communities manage within the limits they set to achieve their freshwater objectives is critical. Limits will help make freshwater management more results-based for both the environment and economy. Limits will also make it possible for communities to identify where there are opportunities for enhanced water use – that is, where a water body is in a state where it is sustainable to take or discharge more – or where being more efficient in using water can create more opportunities. Good management will lead to identifying and creating these opportunities, and that means communities can maximise opportunities for investment and economic growth.

Managing within limits will take place at the local level, in regions and catchments. Councils, communities and resource users will have the central role when setting freshwater objectives and limits. They will consider the range of actions and measures that are available to them to achieve those. In its third report (in 2012), the Land and Water Forum highlighted the key role of industry good management practice (GMP) schemes:

“GMP schemes are essential methods for achieving limits and freshwater objectives... [They] should be defined and adopted in all catchments.”

Central government also has a key role in providing direction, guidance and support to ensure the proper infrastructure, processes, techniques and tools are in place so councils, communities, iwi and businesses can manage their freshwater bodies effectively and efficiently. A key condition for this is to have adequate information and accounting systems in place for takes and discharges, which is not the case in all regions at the moment and should be addressed as a priority.

This chapter first discusses improvements to how we manage within quantity limits and then discusses improvements to freshwater quality. Specific reforms the Government proposes and issues needing consideration in the next steps are identified and discussed.

Managing quantity

Overall, it is important to ensure the system for managing within quantity limits maximises the value to society of the fresh water available for use, both now and in the future, while ensuring iwi/Māori rights and interests are considered.

Reforms to support managing within quantity limits have the following objectives:

- Fresh water will be allocated and used efficiently within limits.
- Fresh water will move easily to higher value uses over time.
- Competing uses for available fresh water will be dealt with effectively, transparently and equitably.
- Users will have clarity and certainty about their freshwater allowances.
- The allocation regime must be easy and cost-effective to access and manage, and able to adapt to differences between catchments and changes to limits over time.
- Any areas of over-allocation need to be identified, and a feasible and acceptable path to resolution put in place.

These objectives are consistent with the Land and Water Forum’s advice. In its third report, the Forum made specific recommendations about improving the freshwater accounting and authorisation regimes. It considered the introduction of new allocation tools and approaches and agreed that facilitating transfer and trading had the potential to play a key role in some catchments.

Over the next decade New Zealand needs to build a more effective regime for managing freshwater takes within the limits councils are required to set for water quantity. However, to build a system and have it all in place at once on a specific date is unrealistic. A complex system must be built in a step-wise fashion, beginning with the necessary foundations and building on them over time.

The reforms are therefore designed to:

- strengthen the foundations of the freshwater quantity management system:
 - immediately (over the next two years) address freshwater accounting systems, addressing management practice to improve water use efficiency and specification of water permits

- in the next two to five years, address enforcement and compliance, and transition issues
- address longer-term issues of permit duration, alternative allocation tools, alternative mechanisms for facilitating permit transfers and trade, and tools for ensuring efficient freshwater use.

Managing quantity: Strengthening the foundations

Reform 6: Freshwater accounting systems

An accounting system identifies and records all water takes. As demand and scarcity increase, it is vital to account for all different types of freshwater takes (both those that do and do not require water permits) to allow for the best decisions to be made about how fresh water is used.

Freshwater accounting will help councils identify areas where over-allocation needs to be managed and help provide users with clarity and certainty about their freshwater allowances.

The National Policy Statement for Freshwater Management 2011 will be amended to make it clear that councils are required to set allocation limits covering all takes, which will identify the amount of water available for allocation. The Government will provide guidance to councils on how to do this.

During 2013–2014 the Government will develop a freshwater accounting system that:

- requires all types of freshwater takes to be included, such as consented, permitted, domestic and stock water takes
- provides guidance on how unmeasured takes will be estimated and included in the system
- provides guidance on when the impact of changes in land use must be estimated and accounted for, eg, in catchments close to full allocation changing to some types of land use may have an impact on the fresh water available to existing users.

These would not require any additional measuring beyond that required by the National Environmental Standard on water measuring.

Some regional councils are already doing good work in this area. This reform builds on this and will develop best practice guidelines in consultation with councils. If necessary, in the longer term, the Government may develop standard approaches and require councils to use them.

It will be necessary to amend the Resource Management Act (RMA) to ensure councils have the powers to obtain relevant information. In addition, the RMA will be amended to ensure the Government can require councils to collect data from all water users, share data with central government, use any standard accounting system developed, and adopt defined methods for estimating water takes.

Requiring councils to include all types of take will impose some additional costs to develop the systems, collect information, estimate takes that are not measured and develop models. These costs can be minimised by ensuring that requirements imposed on councils reflect the level of freshwater scarcity in different catchments. For example, where a catchment is close to being fully allocated, councils need to have much more accurate information, which is more expensive. Costs might also be reduced for councils if a standard approach is developed to estimate the takes that are not measured.

There may also be small costs for freshwater users who have to provide additional information to councils.

Reform 7: Improving the efficiency of water use

Many tools that are likely to have the most impact on improving the (technical) efficiency of water use, such as tradability, will be addressed in the longer-term measures. However, there are actions that can be taken immediately to help encourage people to use their fresh water more efficiently.

Many water users already have information on or have adopted good management practices that enhance freshwater use efficiency. The work done by Irrigation New Zealand on improving water efficiency through an accreditation programme is one example. Many local councils have guidance on reducing water usage in urban areas. However, it would be useful to have sector-specific information on what these are, how effective they are in different circumstances, how much they cost, and how much freshwater use could be reduced.

Information needs to be compiled into 'toolkits' that are user-friendly, readily available and sector-specific. They can be made accessible through a centralised database or portal, and through sector organisations' existing networks. Sector organisations could also provide follow-up advice to their members.

Toolkits will help improve the efficiency of freshwater use in a number of ways:

- Resource users can use the toolkits to identify the least-cost ways to use their fresh water more efficiently. For example, farmers could use them to help decide whether to invest in a particular type of irrigation system.
- Sectors may select particular good management practices (GMPs) for industry or irrigation scheme self-regulation. For example, the North Otago Irrigation Company requires its members to have environmental farm plans.
- GMPs that prove to be widely applicable and cost-effective at improving the efficiency of water use could be included in regional council rules, or potentially in central government regulation.

These toolkits need to be consistent in quality, fit for purpose across a range of users and delivered in a timely way. To achieve this, over the next two years, central government will work with priority sectors and key stakeholders (including research agencies) to identify any gaps in the information available on good management practice, and develop and roll out sector specific toolkits where necessary.

The toolkits will cover good management practices for both efficient use and freshwater quality, as the two are closely related. For example, applying the right amount of irrigation water so that none is lost from the soil profile reduces both wastage of water and nutrient leaching.

The National Policy Statement for Freshwater Management 2011 (objective B3 and policy B4) requires councils to identify methods in regional plans to encourage the efficient use of fresh water. The Government will work with councils to develop best practice guidance on how to implement these provisions.

Reform 8: Specification of permits

a. Specifying water permits

Freshwater permits set out what the permit holder is allowed to do, including how much fresh water can be taken and what conditions apply. At present, councils can specify water permits in different ways, such as using different types of measurement to say what fresh water can be taken.

For accounting to work well and be cost effective, freshwater permits need to be specified in a consistent way both within and across regions. The permits also need to be specified in a way that allows enough flexibility for councils to respond to changes in the amount of water available.

The Government will provide best practice guidance on specifying permits, that may include a standard template for councils to use. There are other aspects of specifying permits that will be addressed in the longer-term measures. Any changes to how permits are specified will not change what is allowed under existing permits.

b. Ensuring permit durations are not unnecessarily short

Some freshwater permits are issued for short terms, such as five years, which reduces the incentives for freshwater users to invest – for example, in more efficient systems. This may be because councils are using permit duration as a way of managing risk and uncertainty: when a council thinks a catchment is close to fully allocated, it may issue short-term permits to manage any risk of over-allocation.

The water reform package as a whole provides councils with alternative ways to deal with such risks, reducing the case for short permits. However, if there is not a reduction in the number of unnecessarily short permits as other management tools are introduced the Government will consider whether further action is needed.

Managing quantity: Building on the foundations

There are a number of elements that were seriously considered by the Land and Water Forum. These are under active consideration and will continue to be so over the next 5-10 years.

In this section, for all the elements discussed, options will be investigated and changes implemented over the next 2-4 years. There will be future consultation on the details of any proposed changes.

Dealing with over-allocation

a. Addressing over-allocation of fresh water

Where a limit has been set and a catchment is over-allocated (that is, the amount of fresh water currently being taken exceeds the limit), councils need to be able to bring fresh water use within the limit. This will take time and involve costs. A number of things can be done to manage costs and ensure a smooth transition.

There are a number of ways use can be brought within a limit, such as:

- seeking voluntary reductions
- reviewing water permits – for example, where not all of the fresh water a permit allows to be taken is being used, permits could be reduced to a level closer to the actual level being used
- reducing all permits by the same amount (for example, by a certain percentage) or on a pro rata basis
- buying back freshwater permits
- improving efficiency of use across all users could reduce the amount of fresh water that needs to be recovered
- recovering a proportion of any fresh water transferred.

b. Considering restricting permit transfer in over-allocated catchments

There is evidence that in many regions a significant amount of fresh water covered by permits is not being used. This means that there is a difference between actual over-allocation (the amount of fresh water that is actually used beyond the limit) and over-allocation on paper (where the amounts allowed in permits breaches the limit but is not actually taken).

In regions where there is only paper over-allocation, there is a risk that allowing transfers would lead to actual over-allocation.

To support councils in managing this risk, the Government may:

- provide councils with guidance on making decisions on transfers in over-allocated catchments
- require transfer to be subject to conditions – for example, there being a plan in place for dealing with over-allocation and managing the risks of increasing actual over-allocation associated with transfer
- require councils to address over-allocation before approving transfers. This would mean prohibiting transfers in over-allocated catchments, and potentially in catchments where over-allocation is suspected but has not been confirmed.

Dealing with unauthorised takes

Some takes are not formally authorised through permits, regional plans or the RMA. These unauthorised takes have the same impacts – for example, on over-allocation – as other takes that are authorised and therefore monitored. Any system for managing within freshwater quantity limits needs to address these takes in some way.

Increasing monitoring and enforcement to prevent these types of take is one option for addressing them. But this does not provide any incentive for unauthorised freshwater users to come forward and be part of the new system. It also risks cutting off supply to people who, for one reason or another, genuinely believe they are entitled to use the fresh water.

An alternative is for the Government or councils to establish a process that encourages people to come forward and get the appropriate authorisation, such as a permit. Options include providing:

- information, so people can identify when they fall into this category
- an amnesty for coming forward
- a simplified process for applying for a water permit.

Managing takes that do not require water permits

As mentioned above, not all types of take need resource consent. Councils can include provisions in their regional plans that allow people to use fresh water without a permit (a 'permitted take') under certain circumstances. For example, if they take less than a specified amount.

There is also provision in the RMA (section 14(3)(b)) for people to take fresh water for domestic use, or for drinking water for their animals, including stock. The only restriction is that taking the water does not, or is unlikely to have, an adverse impact on the environment.

In some regions, these two types of take can be as high, or higher, than the consented takes. For councils to be able to manage freshwater take within the limits they set, they may need to be able to restrict the amount of these takes that occur.

The options for addressing this issue include:

- requiring councils to have rules in their plans for managing all types of take during droughts
- imposing water conservation measures
- more stringent controls on activities (eg, subdivision, some types of land-use change) that increase demand for these types of take. This may involve requiring water permits for activities that do not currently require them in some places where demand is high (eg, taking water for stock or domestic use)
- amending section 14(3)(b) of the RMA to require councils to manage these takes through rules in their regional plans, and/or allowing councils to set a limit on the amount of fresh water that can be taken for these uses in certain circumstances. For example, if a catchment is over-allocated.

Any changes would have to take into account other important considerations, such as the need to provide water for human and animal health.

Compliance and enforcement

While improved accounting will increase the information available on freshwater take and use, it will not ensure that all takes are within the rules.

There has been some criticism of inadequate compliance and enforcement, and inconsistency between regions. The Land and Water Forum recommended that the Government enhance its auditing programme for monitoring and reporting against council performance, including councils' compliance role.

The proposed accounting (and existing water metering) requirements is expected to make it easier for councils to monitor compliance with water permits and, potentially, with rules for other types of freshwater takes.

A number of opportunities exist to improve current practices including:

- the Government providing advice on best practice
- requiring councils to develop monitoring and compliance plans and report on progress against those plans
- requiring regular audits by an independent agency of councils' effectiveness in enforcing compliance with the freshwater management system
- establishing an independent body to investigate concerns about councils' performance in their compliance and enforcement responsibilities.

There would be additional costs to councils to develop plans, and potentially for increased enforcement activity, if necessary. There would be additional costs to both the Government and councils if regular audits were done or a new body established.

Managing quantity: Longer-term issues

A number of areas, if addressed, could bring significant economic benefits, and also ensure an efficient and effective regime for managing within quantity limits. However, they are complex and their successful implementation requires the foundation measures to be in place.

Providing a longer timeframe allows us to learn more about the potential economic and other impacts of different approaches. It also allows the Government to work alongside councils to develop proposals in each area and ensure we have a fit-for-purpose system that does not impose unnecessary costs on councils or freshwater users.

Options for addressing the following issues need to be investigated and any changes implemented over the next 5-10 years. There will be future consultation on the details of proposals to address these issues.

a. Permit duration

The RMA currently limits all resource consents to a maximum of 35 years. Work in this area will look at issues, such as whether permits for large-scale long-term infrastructure should be given for more than 35 years and whether there should be a minimum term for water permits – for example, 20 years.

b. Alternative tools for initial allocation

Councils need to be able to make decisions on freshwater permit applications in a way that reflects the level of freshwater scarcity in their region. In some cases this means making sure they can use approaches other than first-in-first-served.

The alternatives to be considered include:

- Administrative-based approaches – where decisions about who gets fresh water and how much they get are made by councils. Examples include: ballot, where permits are allocated to applicants in the order they are drawn from a ballot; and merit based, where a set of criteria are used to assess competing applications for permits.

- Market-based approaches – where applicants for fresh water compete with each other to purchase an initial allocation from the councils. Examples include: direct sale, where applicants purchase permits at a set price; tender, where applicants offer to buy water permits and the offers are considered against a set of criteria – such as the applicant’s ability to meet efficiency standards; and auction, where applicants publicly bid against one another to determine who is willing to pay the highest price for a permit.

c. Allocating permits on expiry

Currently there is no automatic right of permit renewal. However, existing permit holders are given priority over any new applications in that an existing permit holder’s application for a further permit is considered first. In making its decision, the council must have regard to the value of the existing permit holder’s investment, and the RMA criteria relating to efficiency, use of good industry practice and compliance.

Options that will be assessed for allocating expired permits include: rollover to the incumbent, rollover to the incumbent subject to conditions, first-in-first-served, merit based, tender, and auction. The Government will also look at whether or not all permits in a catchment should expire at the same time.

The work will also consider what other issues should be taken into account in making decisions. For example, should priority be given to fresh water going to its highest value use, or to protecting existing investment or to providing for new users.

d. Facilitating permit transfer and trade

The RMA currently provides for the transfer of freshwater permits when the ownership of land changes. It is also allowed if both sites are in the same catchment *and* it is either allowed under a plan, *or* the council has approved the transfer, which effectively involves going through the full consent process.

The Government will look at options for making transfer and trades of fresh water simpler and less costly. For example, through unbundling permits for freshwater take and use, reducing transaction costs and developing standard trading platforms.

e. Further incentives for efficient freshwater use

There are currently few incentives for people to use fresh water in the most efficient way. The Government will look at ways to provide incentives for efficient freshwater use, including pricing tools, national efficiency standards, increased water metering, and ensuring applicants only apply for the fresh water they need for the activity they want to do.

Benefits from these reforms

In the short term, having appropriate accounting systems will improve the reliability of freshwater supply and reduce over-allocation of permits to take fresh water. This will improve certainty and reduce conflict and legal disputes. Monitoring and reporting will also be easier.

The reforms will reduce the need for water permit holders to protect their security of supply by challenging new applications. They are also likely to reduce the risk of applicants having permits declined because there is insufficient fresh water available. Changes to permit specifications (how the amount of fresh water allowed to be taken is defined and what conditions are on the permit) and the duration of water permits will provide users with certainty and confidence to invest and innovate.

Transferring freshwater permits from one permit holder to another is allowed for under the RMA, but it could be easier and less expensive. Reforms may reduce transaction costs for transferring permits.

In the long term, improving the freshwater management system for freshwater quantity will provide significant economic benefits. There is the potential to increase the overall efficiency of New Zealand’s freshwater use and to free-up unused fresh water, which could generate significant economic benefits in freshwater-constrained catchments.

The reforms need to be developed into detailed policy so they can be implemented. Flexibility will be built in to reflect the different levels of freshwater scarcity in different catchments.

Challenges of these reforms

An improved system for managing water quantity will require councils and resource users to adjust and adapt to new ways of working.

Councils will be required to set allocation limits and develop accounting systems identifying all water takes. In many catchments there is a lack of information on the amount of water taken. This means councils will need to make decisions on the basis of limited and, in some cases, imprecise information. However, the reforms should ensure that the quality and quantity of data available to councils will improve over time, which will improve the quality of decision-making.

Over time councils will have to develop new approaches to address over-allocation of water and to improve the efficient use of water in their regions. In addition, councils may have to change the way they allocate water consents, both at the outset and upon expiry, and the way consents are transferred between users once they have been allocated.

Resource users will also have to adjust to new responsibilities and requirements. They may be required to measure and report their water use to councils. In catchments where water is over allocated, water users may have to reduce their use over time or face new incentives to use water more efficiently. Users may also have to adapt to changes in the way councils allocate water consents or the way consents are transferred between users.

Reform phasing

Immediate reforms	How
Amend the RMA to ensure that councils can obtain information needed for accounting systems	Included in Resource Management Reform Bill
To account for all freshwater takes: make amendments to ensure the Government can require councils to collect data from all water users and share data with central government; use any standard accounting system developed; and adopt defined methods for estimating water takes	Included in Resource Management Reform Bill plus guidance
Provide national guidance and direction on setting allocation limits covering all water takes	Regulation (national policy statement) and guidance
Develop sector good management practice toolkits	Guidance
Develop national guidance on implementing the national policy statement provisions on freshwater efficiency	Guidance
Develop national guidance on the specification of water permits	Guidance

Next step reforms	How
Provide national guidance on dealing with over-allocation	Guidance
Provide national guidance and/or direction on dealing with transition issues (quantity)	Guidance and/or regulation
Provide national guidance and/or direction on managing takes that don't need consents	Guidance and/or regulation
Provide national guidance and/or regulation on compliance and enforcement (quantity)	Guidance and/or regulation
Review the duration of permits	Policy to be developed
Develop alternative tools for initial allocation of fresh water	Policy to be developed
Develop options for allocating permits on expiry	Policy to be developed
Facilitate transfer and trade for quantity	Policy to be developed
Develop incentives for efficient water use (both for quality and quantity): for example, pricing and standards	Policy to be developed

Managing quality

The reality of freshwater quality in New Zealand today is the result of a long history of how our land and freshwater bodies have been used and managed. To date, management approaches have not been sufficiently effective to meet community expectations and environmental needs in many catchments.

This is in part because managing freshwater quality is complex. There are multiple contaminants, multiple contaminating sources, limited information on many freshwater bodies and catchments, and getting that information is costly. It is hard to measure or estimate the levels of contaminants discharged from land, and there are potential costs for stakeholders and/or ratepayers to reduce discharge levels. Added to this is the time lag between any changes in land use or management practice and how long it takes to show up in the freshwater body. In some catchments it will take many years before improvements are seen in water quality, even if changes are made to management practices right away.

It is also important to ensure the system for managing within quality limits maximises the value to society of fresh water's assimilative capacity, that is, its ability to absorb what is discharged into it, without breaching quality limits, today or in the future, while ensuring iwi/Māori rights and interests are considered.

In its October 2012 report, the Land and Water Forum developed a framework for freshwater quality management approaches at catchment level. This built on freshwater objectives and limits set in regional plans. The framework includes a set of principles and a toolbox with regulatory, non-regulatory, mitigation and economic instruments.

As already discussed, the Land and Water Forum emphasised the key role of good management practices (GMPs) to achieve freshwater objectives in a way that is helpful to economic activities. The Forum agreed that which tools are appropriate should be decided at the local level, but that central government has a key role in providing guidance on using them, and in developing the knowledge and expertise base for effective freshwater quality management.

Reforms to support managing within quality limits have the following objectives:

- Land and freshwater decision-making and implementation by councils and land users will be effective, well-informed (drawing on readily understood good quality scientific and economic data), well-integrated and adaptive.
- Stakeholders need to have good levels of buy-in to their catchment's freshwater quality objectives and approaches to managing to them.
- Stakeholders have clarity and certainty on what they are entitled to, and their responsibilities and roles in freshwater quality management.
- Growth and development in catchments will occur through efficient resource use, and through innovative approaches to managing freshwater quality within limits, at individual, business and catchment levels.
- Techniques and approaches to reduce the environmental impact of businesses while maintaining and enhancing profitability will be developed, shared and continually improved through partnerships between industries, scientific institutions, councils and the Government.
- Implementation and monitoring will be efficient and cost-effective for stakeholders and those enforcing the regime.
- Transition/adjustment methods must minimise economic and social costs, and be equitable.

Specifically, the reforms are designed to:

- Strengthen the freshwater quality management system in the following key areas:
 - the science, research, knowledge and information needed for water quality management
 - stronger central government guidance or direction to address issues related to accounting for all sources of contaminants and freshwater quality management planning
 - sector-specific good management practice toolkits.
- Consider longer-term measures that will encourage more efficient resource use and enable economic growth while achieving freshwater quality targets and objectives.

A staged approach will ensure the right foundational measures are successfully implemented before building on them with further measures in the longer term.

Managing quality: Strengthening the foundations

Reform 9: Science, research, knowledge and information

Good information is necessary if the right decisions are to be made on freshwater quality management, whether by central government, councils or resource users. New research and information needs are emerging as limits are set. Initially there will be a review of the research and information system, including the Water Research Strategy². This Strategy helps determine where central government invests its research funding. A refocused Water Research Strategy will ensure that money continues to be spent on the most important

² Foundation for Research, Science and Technology and Ministry for the Environment. 2009. *Water Research Strategy*. Wellington: Ministry for the Environment.

research needs. It is crucial to continue to develop, improve and share techniques and practices that enhance environmental outcomes and business profitability.

The review will focus on:

- priorities for scientific research including but not limited to the role of mātauranga Māori, and the computer modelling tools used for freshwater quality management
- improving the availability of the wider information needed for decision-making, including land use and economic data
- improving coordination across research providers
- improving how information, efficient techniques and research findings are communicated to end users.

Reform 10: Stronger government leadership to ensure effective water quality management

Regional councils and unitary authorities are taking various approaches to managing within freshwater quality limits. Central government will identify examples of good practice amongst New Zealand councils and overseas, and use this to provide good practice guidance to councils on freshwater management – for example through the Quality Planning website. Where it is important that councils take a consistent approach, the Government will regulate for good practice.

Regional councils and unitary authorities will be required or encouraged to adopt good practice in the following areas:

- Identifying and accounting for all sources of the contaminants to be managed:* The best methods and models will be identified to work out and quantify where the problems are coming from in a catchment, including native bush, forests, scrub, urban areas (eg, stormwater or sewage), factories and farm sources. This will mean actions to improve water quality can be adequately targeted. This is an area where consistent practice across regional councils may be needed, to ensure water quality management decisions are both fair and efficient.
- Monitoring and reporting:* The best methods will be identified for keeping track of changes in the levels of discharges, and for reporting back regularly to individuals, catchment groups, and regional and central government. This will reinforce good progress, or be used to initiate change where necessary.
- Regional council and unitary authority approaches:* The best approaches and strategies to match council actions to the unique circumstances and critical contaminants of each catchment would be identified – these may include regional plans, consent requirements, and community education. This action will include identifying the best ways to support communities in catchments where discharges must be reduced.
- The use of computer models:* The reforms will identify how models can be best used – for example, for making informed and transparent decisions on how to manage within quality limits, or to help monitor discharge levels from individual sites where this is necessary. Further detail is in the information box on the following page.

Using models in a regulatory context

Models are used for a number of purposes. For example, at a catchment scale, models may be used to estimate where contaminants are coming from, how long it takes before the contaminants reach the water body, and the environmental and economic impact of various options for managing within limits. At a smaller scale, models can be used to estimate discharges from a particular site, and test the impact of possible management actions to reduce them. Models such as OVERSEER®, SPASMO and APSIM are increasingly important for estimating diffuse nutrient discharges from agricultural land. However, it may be some years before systems like OVERSEER® are precise enough to be used as the basis for enforcing quantitative conditions on land use.

Models such as OVERSEER® enable policy approaches (including voluntary change policies and regulations) to be targeted more directly at reducing estimated farm discharges, rather than targeting inputs that affect discharges, such as fertiliser and stocking rates. In some catchments, councils are setting rules that include a discharge cap. This gives farmers flexibility to choose the way they meet the cap. However, stakeholders within the farming sector have not always supported approaches using OVERSEER®, especially when it is used to monitor compliance.

This reform initiative will help ensure regional councils use good practice for policy design and implementation when using models such as OVERSEER® in a regulatory context. This could include the use of model results as:

- a. a trigger for increased support by regional council land management officers or sector advisers, to help the farmer find ways to reduce discharge levels
- b. a threshold for increased regulatory requirements, eg, the farm may be required to submit an audited nutrient management plan or apply for a consent if discharges exceed a particular level
- c. an indicator of trends in a farm's discharges
- d. a way of monitoring compliance with a regulated discharge cap, with careful policy design to take account of the model's capabilities and limitations.

Reform 11: Development of good management practice toolkits

Developing sector-based user-friendly good management practice toolkits is discussed earlier in this paper. These toolkits will include both quantity and quality aspects, and cover the range of practical things that a resource user can do to reduce their discharges of contaminants (such as techniques, investments, improved practices), how much they cost, and how much they reduce discharges. For example, for dairy farming, practices could include upgrading effluent treatment facilities, changing wintering practices, and completing stream fencing. For stormwater management they could include treatment ponds, grass filter strips, and improved roading design.

As for managing within quantity limits, good management toolkits can help resource users, industries and councils:

- Resource users will be able to use the toolkits to identify least-cost ways to meet their freshwater quality responsibilities. For example, farmers could use them to help decide how to comply with resource consent requirements or permitted activity conditions that require diffuse discharges to be kept below a particular threshold.

- Sectors may select particular good management practices (GMPs) for industry self-regulation. For example, riparian fencing is a condition of supply to Fonterra, and some industries have accredited environmental management systems in place that include water quality management.
- GMPs that prove to be widely applicable and cost-effective at reducing discharges may be included in regional council and unitary authority rules, or potentially in central government regulation.

Managing quality: Ongoing improvements

Once the foundations for good freshwater quality management are in place, they will need to be monitored, assessed and improved. Further measures will be considered, informed by robust information, and an evaluation of the impacts of different approaches, including economic impacts. For example, stronger support measures or regulation may be needed to achieve sufficient uptake of good practice by councils, unitary authorities or resource users. In addition, as freshwater quality limits are progressively set in place, there will be a need to ensure economic growth can continue while freshwater quality targets or objectives are achieved. Māori rights and interests in water quality management will be addressed as an integral part of these ongoing improvements.

The reforms considered over a longer timeframe include:

- a. New or improved ways to encourage more efficient resource use so that room for new development is created. For example, recognition of good management practice by permitted activity status, national standards for good management practice, and pricing tools.
- b. Improved consent transfer and/or offsetting mechanisms that enable new higher-value activities to establish while maintaining or reducing catchment-wide discharges.
- c. Ways to provide investment certainty for resource users – for example, the nature and duration of consents.
- d. Further consideration of how to address iwi/ Māori rights and interests in this area.

It will be important to progress these areas by working alongside regional councils, unitary authorities, sector groups, and resource users to develop proposals. It is important to make sure that a future freshwater quality management system is fit for purpose and does not impose unnecessary costs or burdens on councils or resource users.

Benefits from these reforms

As a result of the foundational reforms, regional councils, unitary authorities and resource users will have the information and research findings needed for making good decisions on managing freshwater quality.

At the catchment level, sources of contaminants will be identified and quantified with sufficient precision. This will mean that regional council and unitary authority management actions can deliver the best value for money and be targeted fairly (for both point and diffuse sources and owners of both more and less developed land, eg, some Māori land). Capacity, knowledge and experience with quality management approaches and the use computer models will build up, allowing council management to be well-matched to the catchment and

the contaminant, and would enable communities to adjust and adapt when discharges have to be reduced.

Resource users will be able to access the information on good management practices needed to help manage businesses, forests and farms so that water quality limits are not breached. Regional councils and unitary authorities will use good management practice information as part of their approach to managing within limits.

In the long term, improving the water quality management system will enable community-agreed aspirations for freshwater quality, including iwi aspirations, to be achieved efficiently and equitably, while also providing for economic growth. Resource users will have sufficient certainty to invest in developing their businesses. There will be opportunities for new higher returning activities to be established, even when catchments are at, or reaching limits.

Challenges of these reforms

An improved system for managing water quality will require councils, communities and resource users to adjust and adapt to new ways of working.

Councils will need to identify all sources of the contaminants to be managed. In many catchments there is a lack of information on the contaminants of concern, including where they are coming from and the quantities from each source. In the meantime, councils will need to make decisions on the basis of limited and in some cases imprecise information. This will prove challenging in setting freshwater quality objectives and limits, and deciding on the actions to address them; councils will have to take account of uncertainty and provide for adaptive management.

Councils will also have to design new approaches and rules for managing within quality limits, especially for diffuse discharges. In many cases, councils will need to use business-scale models to monitor individual nutrient discharge levels. All models have their limitations, and the approaches and rules developed by councils will need to take careful account of the capabilities and the limitations of the models used. It may be some years before systems like OVERSEER® are precise enough to be used as the basis for enforcing quantitative conditions on land use.

Resource users will also have to adjust to new responsibilities and requirements to manage discharges, including diffuse discharges. Annual reporting on discharge levels will be required in some catchments, especially those that are approaching or over the catchment quality limit. For diffuse nutrient discharges, models will be needed to estimate annual discharge levels. Over time, changes in management practices will be needed in some catchments to reduce discharges from an individual's land or business.

Improving the availability and uptake of science and information, including good management practices and improved models, will be important to help everyone adjust to a new system and new requirements. Greater guidance and direction from the Government will support councils over the next few years and assist end users in having the right information to make decisions, particularly in adopting new technologies and practices.

Reform phasing

Immediate reforms	How
Amend the RMA to ensure that councils can obtain information needed for accounting systems	Included in Resource Management Reform Bill
To account for all contaminants (for regional decision-making): make amendments to ensure the Government can require councils to collect data on all sources of contaminants and share data with central government; and adopt defined methods for estimating discharges	Included in Resource Management Reform Bill
Develop sector good management practice toolkits	Guidance
Review the Water Research Strategy	Refreshed Water Research Strategy
Provide national direction on accounting for sources of contaminants	Regulation
Provide national guidance on the use of models for managing freshwater quality	Guidance
Next step reforms	How
Provide national guidance and/or direction on the choice of methods and tools to manage freshwater quality	Guidance and/or regulation
Review the duration of permits	Policy to be developed
Develop alternative tools for initial allocation of fresh water	Policy to be developed
Develop options for allocating permits on expiry	Policy to be developed
Develop new transfer or offsetting mechanisms for water quality	Policy to be developed
Develop incentives for efficient water use (both for quality and quantity): for example, pricing and standards	Policy to be developed

7 How to have your say

This paper sets out the Government's approach to reforming New Zealand's freshwater management system.

Further information on reforming New Zealand's freshwater management system can be found at www.mfe.govt.nz.

The Government is seeking your views and welcomes your ideas and opinions on the overall direction of the reforms. In particular, the Government is keen to hear what you think about the elements that require amendment to the Resource Management Act 1991. This is your opportunity to comment before the Government introduces the 2013 Resource Management Reform Bill later this year.

Further consultation will be provided on detailed elements of the longer-term reforms once they have been developed.

Your responses

Please provide your comments on freshwater reform by 5.00pm Monday 8 April 2013.

By email

Please email your comments to watercomments@mfe.govt.nz

By post

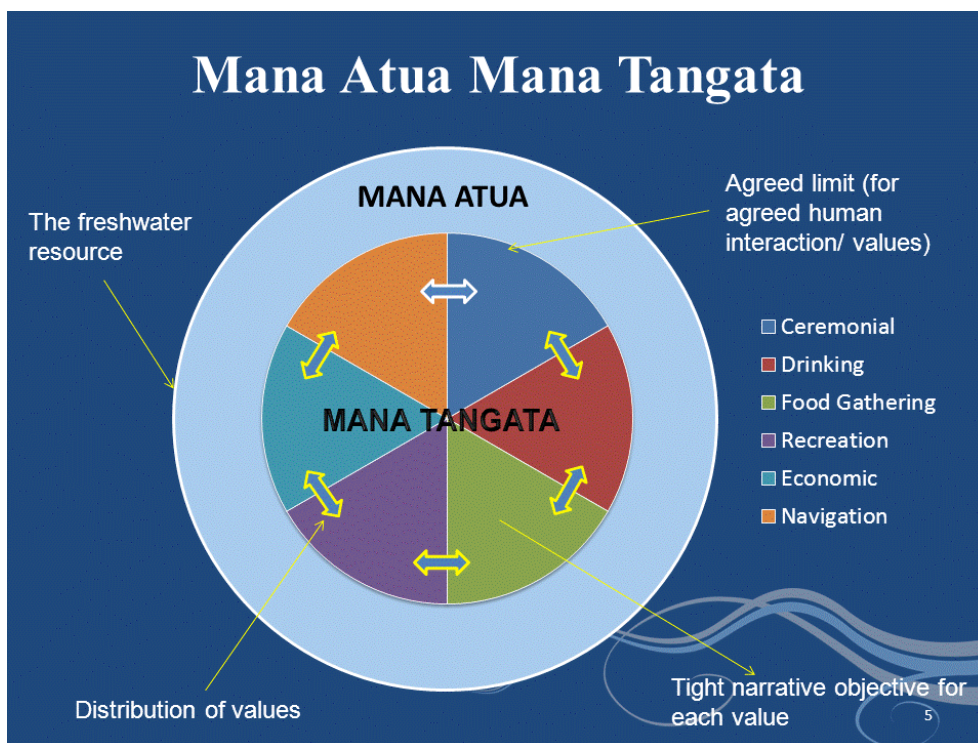
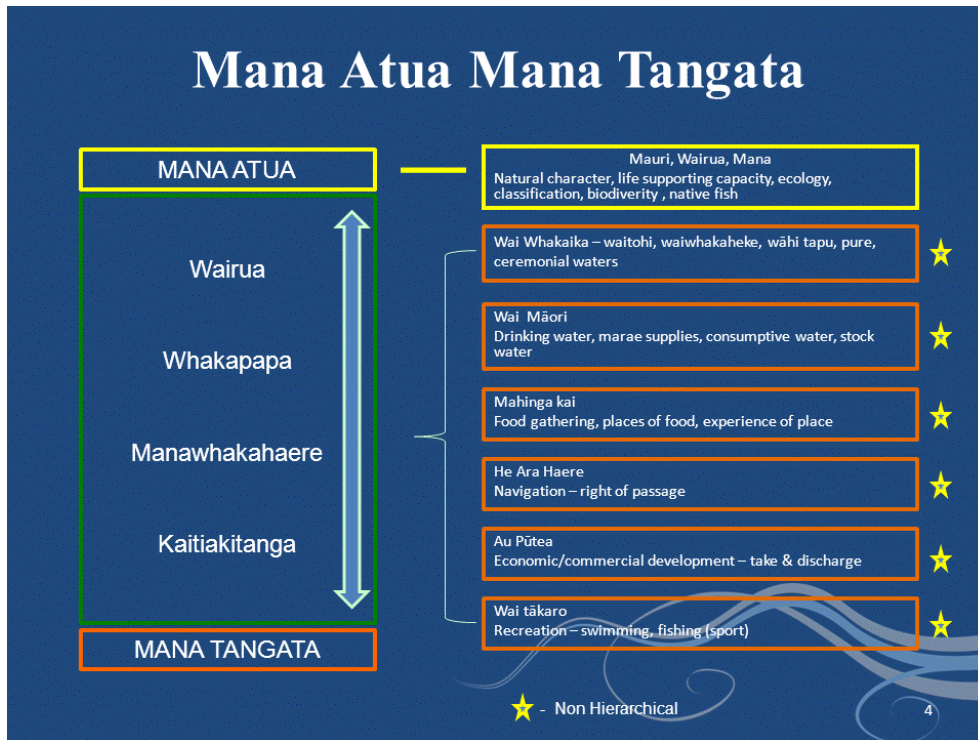
Freshwater Reform
Ministry for the Environment
PO Box 10362
Wellington 6143

In person

Hui and public meetings will be organised and widely advertised in your local paper and on the Ministry for the Environment's website: www.mfe.govt.nz.

As many people have an interest in both freshwater and resource management reform packages, where possible they will be discussed on the same day. Please check the Ministry for the Environment's website for combined meetings.

Appendix A: Mana Atua Mana Tangata Framework



Source: Land and Water Forum. April 2012. *Second Report of the Land and Water Forum: Setting Limits for Water Quality and Quantity Freshwater Policy and Plan Making Through Collaboration.*

Glossary

Term	Description
Accounting	An inventory of the locations of water takes and discharges and quantum of allocation to each user or discharge source.
Allocation	A process whereby a total amount of water that may be extracted, or an amount of contaminants that may be discharged, is divided and distributed to individuals, or groups of individuals for their use. The individual amounts of a resource so allocated are often referred to as allocations, and the total can be said to be the total allocation.
Attribute	An aspect of a water body that needs to be managed to provide for a given value.
Catchment	The total area of land draining into a river, reservoir, or other body of water.
Contaminant	Biological (eg, bacterial and viral pathogens) or chemical (eg, toxicants) introductions capable of producing an adverse effect in a water body.
Diffuse discharge	Pollutants sourced from widespread or dispersed sources (eg, from pasture runoff of animal wastes, fertiliser and sediments, as well as runoff of pollutants from paved surfaces in urban areas). Also called non-point source discharges.
Discharge	The release of contaminants into the environment either directly into water, or onto (or into) land.
Efficient use of water	Generally considered to have three concepts: <ul style="list-style-type: none"> • Technical efficiency – the amount (say, percentage) of water beneficially used in relation to that taken. It relates to the performance of a water-use system, including avoiding water wastage. • Allocative efficiency/economic efficiency – relates to water uses resulting in the optimum outcome for both the environment and community. Water is allocated to the use which has the highest value to society. • Dynamic efficiency – relates to the use of water adjusting over time, to maintain or achieve allocative efficiency.
Equitable management	Management regimes that are fair to all resource users.
Fresh water	Naturally occurring water on the Earth’s surface in bogs, wetlands, ponds, lakes, rivers and streams, and underground as groundwater in aquifers.
Freshwater body	Means fresh water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.

Term	Description
Freshwater objectives	Describes the intended environmental outcomes(s) (definition from National Policy Statement for Freshwater Management). Freshwater objectives are set in regional planning documents and describe the desired state of the water body, having taken into account all desired values.
Good management practice (GMP)	GMP refers to the evolving suite of tools or practical measures that could be put in place at a land user, sector and industry level to help achieve community-agreed outcomes (in this case for water quality).
Governance	The institutional arrangements for resource management decision-making.
Groundwater	Water located underground in rock crevices and in the pores of geologic material. It supplies springs and wells.
Iwi Chairs Forum	<p>The Iwi Chairs Forum was convened at Takahanga Marae in Kaikōura in 2005. The Forum meets four times a year to discuss and enable Māori aspirations in the spheres of cultural, social, economic, environmental and political development.</p> <p>All iwi chairpersons have an open invitation to participate in, and contribute to, the Forum. Crown representatives, Members of Parliament and stakeholder and community groups are regularly invited to present at hui on projects and issues that concern iwi. More information about the Iwi Chairs Forum can be found at http://www.iwichairs.maori.nz/.</p>
Iwi Leaders Group	<p>The Fresh Water Iwi Leaders Groups (ILG) was established in 2007 by the Iwi Chairs Forum to advance the interests of all iwi in relation to fresh water through direct engagement with the Crown. The group also participated in the Land and Water Forum. The group comprises the leaders of Ngāi Tahu, Whanganui, Waikato-Tainui, Te Arawa and Tūwharetoa.</p> <p>As with other Iwi Leaders Groups, the Fresh Water ILG reports to the Iwi Chairs Forum at their quarterly hui. Their publications can be found on the Iwi Chairs website at: http://www.iwichairs.maori.nz/Kaupapa/Fresh-Water/.</p>
Land and Water Forum	The Land and Water Forum brings together industry groups, environmental and recreational NGOs, iwi, scientists, and other organisations with a stake in freshwater and land management. The Forum's objective is to develop a shared vision and a common way forward among all those with an interest in water, through a stakeholder-led collaborative process. The first phase of the Forum's work lasted from August 2009 to August 2010 and resulted in the report A Fresh Start for Freshwater. On 18 May 2012, the Forum released the Second Report of the Land and Water Forum. And on 15 November 2012, the Forum released the Third Report of the Land and Water Forum on managing within limits. Further information and the Forum's three reports can be found at www.landandwater.org.nz .

Term	Description
Limit	The maximum amount of resource use available, which allows a freshwater objective to be met (definition from National Policy Statement for Freshwater Management).
National bottom line	A value which all water bodies must provide for with associated minimum states.
National Objectives Framework	A national framework which guides and directs regional decision-making in the setting of freshwater objectives (and subsequent limits).
Outstanding freshwater body	A water body with outstanding values, including ecological, landscape, recreational and spiritual values (definition from the National Policy Statement for Freshwater Management).
Over allocation	The situation where the resource: <ul style="list-style-type: none"> a. has been allocated to users beyond a limit, or b. is being used to a point where a freshwater objective is no longer being met. <p>This applies to both water quantity and quality (definition from National Policy Statement for Freshwater Management).</p>
Permits	In the context of this paper, resource consents issued under section 14 and section 15 of the RMA to take, divert or dam water, or to discharge contaminants.
Point source discharge	Discharge of contaminants into a water body from a single fixed point, such as a pipe or drain (eg, from the likes of sewerage, factory and dairy shed outfalls). (See Diffuse discharge).
Quantity	The amount of water (eg, flow) in a water body. In the context of limits it refers to the amount of water that can be removed from a water body.
Quality	Refers to the quality of a water body and in the context of limits refers to the total amount of discharge in a catchment.
Resource users	Those that use land and water (by taking, diverting or damming water, or by discharging contaminants to water or to land).
Scarcity	The state of being scarce or in short supply; shortage.
Stewardship	The act of taking care of or managing something, for example, property, an organisation, money or valuable objects.
Transfer	The reassignment of an allocation from one person to another. Usually used in the context of the transfer of a resource consent (or part thereof) from one person to another.
Values	Values include both uses of fresh water and intrinsic values. National values are listed in the preamble of the National Policy Statement for Freshwater Management.
Water take(s)	The removal of water from a water body for use (eg, for irrigation).

Managing fresh water in New Zealand

NATIONAL OBJECTIVES FRAMEWORK

- VALUES**
- | | |
|---------------------------------|-------------------------------|
| 1. Food gathering / mahinga kai | 8. Natural form and character |
| Eg: 2. Ecosystem health | 9. Stock watering |
| 3. Swimming | 10. Indigenous species |
| 4. Electricity generation | 11. Human health |
| 5. Irrigation | 12. Drinking |
| 6. Fishing | 13. Ceremonial uses |
| 7. Boating and navigation | 14. Food production |

a. Decision made on desired values for the river

b. Each chosen value has specific 'attributes' that must be managed

ATTRIBUTES FOR ECOSYSTEM HEALTH:

1. Temperature
2. Sediment
3. Flows
4. Periphyton (slime)
5. Nitrate (toxicity)
6. Fish
7. Invertebrates

c. Each attribute has a range of bands (D won't support the value)

BANDS FOR SLIME could be:

- A. Less than 20% cover
- B. 20 to 40% cover
- C. 40 to 55% cover
- D. More than 55% cover

COLLABORATIVE PROCESS

1. Councils begin planning, maybe choosing to use a collaborative process that brings stakeholders and iwi together

2. Council, iwi and community apply National Objectives Framework

3. Assess the 'current state' (band) of the river and consider how the resource is being used

4. Decide if the 'current state' should be maintained or improved

5. Decide on what limits need to be set and what management options are required to achieve the chosen band, given the current state and how the resource is currently being used

6. Think about the trade-offs of the proposed management regime, and the likely impacts and opportunities (both environmental and economic)

7. Council, iwi and community then decide if this regime is achievable
 - are the limits set feasible in the desired timeframe?
 - are the chosen values and bands right?

8. Council implement planning and management regime

Reconsider values

Reconsider chosen band

NO

Y/N?

YES

Discharge limits:
(nutrients etc)

Water take limits:
Water out (flows, levels etc)

Other management options:
Catchment mitigation, shade

Time to adjust



CATCHMENT MANAGEMENT OPTIONS

