Regulatory Impact Statement

National Policy Statement for Freshwater Management

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry for the Environment. It provides an analysis of options to support the use of a National Policy Statement for Freshwater Management (NPS). The policy is intended to contribute to strengthening the sustainable management of freshwater under the Resource Management Act 1991 (RMA) to ensure it provides for economic development and growth, for our society and other values important to New Zealanders.

NPSs are at the top of the planning instrument hierarchy under the RMA and local authorities must give effect to them through their regional policy statements and regional and district plans. RMA decision-makers must also have regard to NPSs when considering consent applications. The NPS will therefore help drive national consistency in local RMA planning and decision-making to enable the improved freshwater management being called for by New Zealanders.

The cost benefit evaluation required under Section 32 of the RMA suggests that the efficiency of the policies in relation to the objectives creates the potential for net benefit. However, because of the wide variation in benefit estimates it is difficult to know how much the benefits outweigh the costs. The quantified benefits are estimated between $15 million and $328 million and the range of quantified costs at $68 to $101 million. There are a number of benefits and costs that could not be quantified.

Given that NPSs are only able set objectives and policies rather than definitive rules or regulations, the extent of the benefits/costs is largely dependent on how local government implements the NPS. At this stage it is difficult to precisely know how the NPS will play out on the ground, such as the level of limits set in individual catchments and how rigidly they are applied by councils. This uncertainty makes the NPS's review period of five years crucial to the success for the NPS over the long term.

Furthermore, additional implementation measures (such as options being considered in the Fresh Start for Fresh Water programme) will be required to reduce potential costs and improve the benefits of the NPS: in particular work covering the nature of limits, technical methods for describing and implementing limits, supporting measures such as catchment modelling and scientific tools, and additional RMA regulatory measures as required (e.g. National Environmental Standards). If these measures are not implemented in a timely manner, there is likely to be a continuation of the existing costly and contentious regional planning process.

Clearly there are uncertainties around the costs and benefits associated with this NPS which relate to both the difficulties in quantifying some of the benefits, and also uncertainty about how exactly the NPS will be implemented. The Ministry judges that as a standalone option, the NPS might not deliver net benefits to fresh water management in New Zealand. However, if the NPS is supported with additional implementation measures, such as those being considered under the Fresh Start for Fresh Water programme, the Ministry considers the NPS to be an important and necessary component which will drive significant net benefits for New Zealand.

Mark Sowden, Director, Natural and Built Environment 20 April 2011

Status quo and problem definition

Background

Fresh water is New Zealand's key strategic and productive asset. Improving the way we manage fresh water is critical to New Zealand's future economic growth, environmental integrity, and cultural well-being. Improvements to the current regime for managing water, and to the way that regime is implemented in practice, are needed to reduce the escalating costs of clean-ups and lost productivity, to optimise the range of benefits from our water resources, and to better deliver on New Zealanders' values and expectations for those resources.

In April 2006, an NPS was recognised by the government as a key action to support the improvement of freshwater management in New Zealand. In June 2008, the government agreed to publicly notify a proposed NPS and establish a Board of Inquiry (the Board) to hear submissions and make recommendations.

The Board provided the government with a report on its recommendations and a revised NPS on 28 January 2010. The Minister for the Environment's consideration of the Board's report and recommendations was put on hold pending the outcome of the Land and Water Forum[1].

In June 2009, the government announced a new strategy for the management of New Zealand's freshwater entitled *A New Start for Fresh Water*. Under this programme, Cabinet agreed that the new policy direction should be shaped by the assumption that resource limits will be set, within which different values in water must be balanced, in order to get the most value from finite water resources. It was also agreed that central government would provide stronger leadership and national direction, and that the proposed NPS for Freshwater Management would be part of this programme.

Current water management framework

The Resource Management Act 1991 (RMA) sets the regulatory framework for freshwater management. Current freshwater management in New Zealand occurs predominantly at a regional level.

Under the RMA, central government can be involved in water management by issuing NPSs and national environmental standards (NES)[2], making submissions on regional councils' plans, call-ins, and water conservation orders (WCO)[3]. Current operative national 'tools' relating to freshwater management include the NES for Sources of Human Drinking Water (2007), Regulation on the Measurement and Reporting of Water Takes (2010), and sixteen WCOs. A proposed NES on Ecological Flows and Water Levels is currently being considered.

This limited national policy guidance on freshwater has resulted in regional planning documents providing the main freshwater management framework. The main planning instruments have been mandatory regional policy statements and optional regional plans. All but two regional councils have operative regional plans (with these two having proposed regional plans) that address freshwater management. Through these plans, rules relating to the abstraction, use and discharge to water bodies are given statutory effect.

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1 The Land and Water Forum is a stakeholder-led collaborative process instigated under the New Start for Freshwater. It comprises of a range of primary industry groups, environmental and recreational NGOs, iwi and other organisations with an interest in freshwater and land management. There are 58 participating organisations. The Forum was tasked by government to identify shared outcomes and goals for freshwater and related land management and identify options to achieve these outcomes and goals.

2 National Environmental Standards are prepared under section 43 of the RMA and prescribe technical standards, methods or requirements.

3 Water Conservation Orders can be placed on water bodies in order to sustain their 'outstanding amenity or intrinsic values'. WCOs can control the quantity of water abstracted and minimum standards for water quality can be prescribed which regional councils are bound to uphold.

Appendix 1 shows the approach taken by regional councils to address water quantity allocation. Nearly all regional plans set water quantity limits, however the type of limit and how it is enforced varies widely. First-in-first served is the predominant method for allocating available 'out of stream' water to users under the RMA.

Setting water quality limits is a big challenge for councils. To date enforceable limits for fresh water quality have generally been set in place *after* problems emerge, with targets and methods for improvement then set. Appendix 2 shows the approach taken by regional councils to set water quality limits.

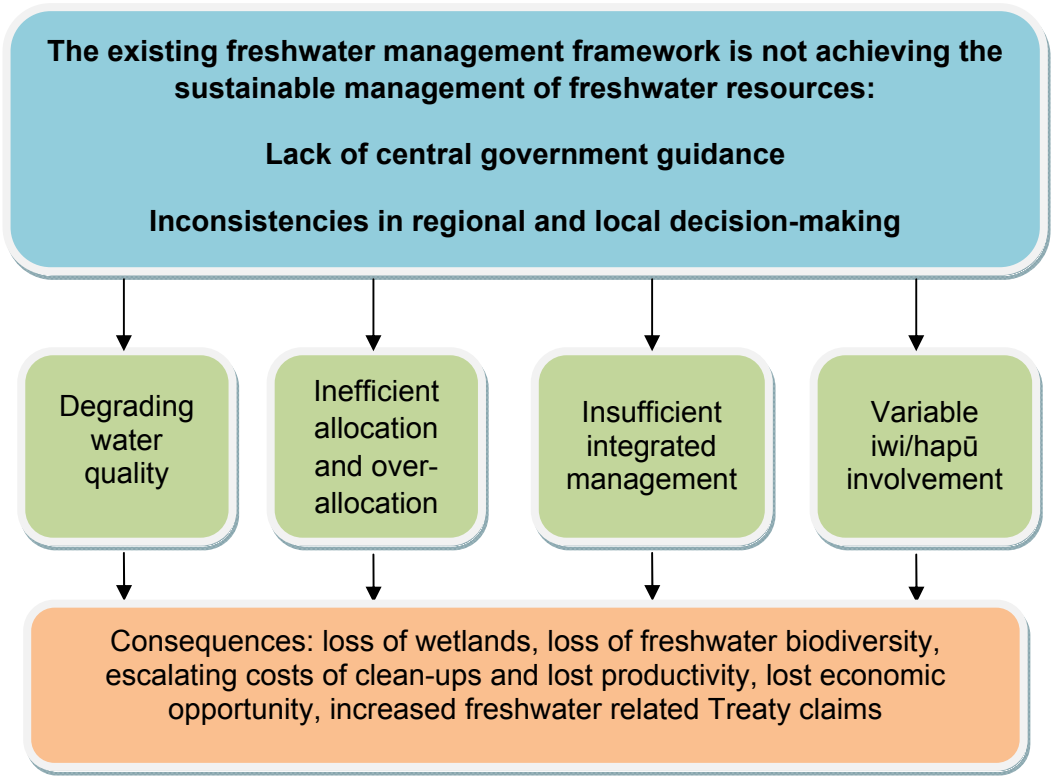
Appendix 3 provides a table which compares the status quo of regional plans against compliance with the NPS's policies (policies are focused on the management of water quality, quantity, allocation, integrated management, and providing for tāngata whenua values and interests).

The majority of regional councils undertake a wide range of monitoring activities of freshwater resources. This suggests there is a reasonable level of base information available to make increasingly informed decisions about freshwater management.

District Plans, prepared by territorial authorities, are predominantly concerned with land-use planning, which influences fresh water in many cases. District Plans are required to give effect to regional policy statements and not be inconsistent with regional plans and any WCOs in place in the district.

A number of non-regulatory methods have been employed by councils either as an alternative to, or as a complement to, the regulatory methods set out in plans. In addition, industry initiatives and agreements between a number of stakeholders and organisations to address water quality issues are also emerging.[4]

Problem definition



4 For example, the Dairying and Clean Streams Accord, developed in 2003 to address increasing concerns about the negative environmental impacts of dairying on stream water quality through setting five performance targets.

The diagram above sets out the overarching issue - the existing freshwater management framework is not achieving the sustainable management of freshwater resources.

Although the RMA provides a framework for good water management practice, there have been issues with implementation. Central government has not made sufficient use of the instruments available under the framework, with only one NES and one Regulation on freshwater issued since 1991. This absence of national prescription has resulted in variable approaches to the management of freshwater across the 17 regions. While regional variation is not necessarily a problem, some regions have made limited progress towards the sustainable management framework. For example, only four regional councils have a complete set of operative or proposed quality limits and flow regimes. Over half of the regional 17 councils do not have an allocation regime. Only eight have numeric limits for water quality.

The secondary problems are:

- *Lack of integration in the management of land use and water:* Regional councils have as one of their functions the responsibility of managing land for the purposes of managing water quality and quantity (section 30 of the RMA). Yet land use is rarely managed through regional plans.[5]

- *Variable Iwi/hapū involvement:* The RMA provides mechanisms for Treaty partnership with Māori in freshwater governance, but these have not been well or widely utilised. Central government has provided little national direction on this matter.

- *Degrading water quality*: Water quality in many parts of New Zealand is declining across a number of indicators[6] (refer to Map 1 – 3 in Appendix 4). The lack of quantitative enforceable quality limits in the majority of regional plans has meant that water quality degradation has continued unabated.

- *Increased demand on freshwater and inefficient allocation:* The allocation of water in New Zealand is growing substantially, with some areas already fully allocated or over-allocated (refer to Maps 4 – 5 in Appendix 4). Allocation on a first-in-first-served (FIFS) principle which does not reflect the value (i.e. economic, environmental, recreational or cultural) of fresh water when it is scarce.

  In many regions the allocation limits framework is inadequate, and is unable to stop or claw back over-allocation.

Consequently, New Zealand has lost 90% of its wetlands in the last 150 – 200 years; there are escalating costs of clean-ups[7]; lost productivity and economic opportunity[8]; and increasing expectations for co-management arrangements for waterways in Treaty Settlements.[9]

Forecasting the status quo

Demand for fresh water and assimilative capacity is steadily growing. Projections for the allocation of water show that further areas will be fully allocated in the near future, which is likely to be exacerbated by

5 Examples of good integrated management include - Environment Waikato Variation 5 – Lake Taupo; Environment Bay of Plenty Regional Water and Land Plan – Rotorua Lakes; Horizons proposed 'One Plan'

6 Nitrate and phosphate levels have reached ANZECC Water Quality Guideline trigger values for action in over half the monitored river sites in Northland, Waikato, Canterbury and Southland.

7 This is reflected in the $450 million allocated over the next 10 to 20 years to the clean-up of Lake Taupo, Rotorua Lakes and the Waikato River.

8 The costs of allocative inefficiencies and inefficient use of water are not transparent, but nonetheless a real cost to the economy. For example, the potential benefit of increased allocative efficiency by 5% in water-scarce catchments is estimated at $100 million quantified.

9 For example, the Waikato River Settlement

climate change and population growth. As a result the problems identified above are likely to continue to grow. In summary, the current freshwater management framework has seen:

- Demand for freshwater increasing, particularly in drier parts of the country, mainly as a result of an increase in the area of irrigated land. The national weekly consumptive water allocations increase by a third over the last 11 years[10]
- Water shortages, in urban and rural areas, of increasing frequency and severity[11]
- Levels of nutrients (e.g. nitrogen and phosphorus) increasing in our water bodies over the past two decades which is a reflection of the impact of pollution from urban stormwater, animal effluent, and fertiliser run-off
- A growing trend in land use intensification e.g. dairy cattle numbers have doubled (from 2.92 million in 1981 to nearly 6 million in 2010), with intensive pastoral land use and higher stocking rates and stocking densities[12]

It is important to note that the status quo is evolving. Many councils are making progress on new policy and plan initiatives which will improve the management of our fresh water (particularly for water quantity). However, other regions are further behind and have received little national direction and support on how to manage such an increase in demand.

Objectives

The policy objectives of this proposal are:

A. To strengthen the sustainable management of freshwater under the RMA to ensure that fresh water continues to contribute to our economic growth, environmental integrity, and social and cultural needs and aspirations

B. To provide a clear nationally consistent policy framework for the management of fresh water, while providing for sufficient flexibility for locally specific issues.

Regulatory impact analysis

The following is a description of a range of alternative policy options for addressing the problems outlined above, followed by an assessment against the objectives. The options considered in this assessment are:

1. Amendments to the RMA
2. Enhancement to the status quo
3. National environmental standards
4. Non statutory guidance
5. Regulatory provision for market based instruments
6. The National Policy Statement for Freshwater Management as drafted

Amendments to the RMA

Amendment to Part II: Given the existing and explicit reference to water in Part II of the RMA it is unlikely that further strengthening of these provisions will greatly influence the status quo.

Amendment to section 67(1) 'contents of regional plans': this section could include a requirement to include water quality and quantity management frameworks of the nature sought in the NPS. However, it is considered that even through s67 (and possibly also through s30 and s31) there would not be scope to

10 MfE, 2010, Update of Water Allocation Data and Estimate of Actual Water Use of Consented Takes 2009–10

11 Drought in 2009-10 in Northland is estimated to have cost Northland's economy more than $330 million.

12 http://www.mfe.govt.nz/environmental-reporting/land/use/pastoral.html

address the full extent of the key problems identified in the status quo. To do so would require the insertion of new, very detailed sections or sub-sections into a primary Act. This is more suited to secondary legislation.

Furthermore, amendments to the RMA would not allow the scope necessary to provide a detailed water management framework that can account for both the national importance of water while at the same time recognising that flexibility is required at a regional/local level to respond to particular biophysical, social, cultural and economic circumstances. Although this option is likely to add a net benefit to the status quo (by making it a legal requirement for limits to be set), the NPS option is considered to have a greater net benefit.

Enhancement to the status quo

Enhancement to the status quo would involve an increase in the consistent application of 'tools' currently allowed for under the RMA.

One instrument is 'whole of government' submissions on publicly notified regional policy statements and regional plans and resource consent applications. Under this scenario central government would more regularly engage in regional and local resource management processes to ensure that a clear and consistent view on the 'national interest' is provided for during these processes.

While submissions may assist councils, this approach can be viewed as being 'after the fact' in that submissions would only be made once the proposed regional policy statement, proposed plan or application is notified or lodged with the relevant local authority.

Central government could also seek improvements to the use and provision of Water Conservation Orders (WCO). Under a WCO, restrictions are imposed on regional council functions such as rates of flow and water levels, allocation and abstraction, contaminant loadings, temperature and pressure. However, WCO's only provide for a limited range of values, may not apply to an entire fresh water system, and the process of attaining a WCO can be lengthy.

This approach is reactionary and ad-hoc, and does not set a national policy framework or national direction for all regions. Thus this option will not result in a net benefit to the status quo.

National Environmental Standards

National Environmental Standards (NES) could be considered in relation to a range of issues raised regarding the status quo.

An NES on ecological flows and water levels has been proposed. Additional NESs could be proposed to address issues such as water quality standards and the management of land use activities.

A weakness of NESs is that they cannot provide a clear national policy framework for the management of fresh water.[13] Also, NESs effectively set national rules, hence would not be able to effectively provide for the variation of biophysical, social and economic circumstances that exist throughout the country.

Although NESs are likely to result in improved environmental outcomes, they are unlikely to improve the freshwater management regime overall. Thus the NPS option is considered to have a greater net benefit over this option.

Non-regulatory guidance

13 Submissions on the proposed NES for Ecological Flows found that many submitters asked for the NES to be prepared after the NPS for Freshwater Management was completed, because the NPS will provide a policy basis for developing the proposed NES.

Non-regulatory guidance could encourage improved freshwater management. Guidance (in the form of written and/or training workshops) could cover:

- model plan provisions related to freshwater management
- the sustainable management of land uses, such as dairy farming, forestry and viticulture
- efficient allocation mechanisms
- implementation of a limits framework

Non-regulatory guidance on its own is unlikely to be sufficient to adequately resolve the issues outlined in the problem statement because it has no statutory weight. Therefore this option on its own is unlikely to have a net benefit to the status quo.

Regulatory provisions for market based instruments

Introducing regulatory provisions for economic instruments will facilitate the establishment of nutrient trading schemes, water pricing, charges on discharging and tradable discharge and water take permits.

While economic instruments may assist in improvements in the efficiency of allocation and use of water and in managing the effects of land use activities on water quality, these measures will not be able to address several other problems identified with current fresh water management. For example, the setting of water quality and quantity limits would need to be a prerequisite to the use of any economic instrument.

Economic instruments on their own are unlikely to deliver the outcomes desired under the RMA, in that they may not reflect all the values considered by the RMA as important (ie social, economic, cultural and environmental). Operating on an ad-hoc basis with no overarching policy to provide an integrated outcome, regulatory provisions to facilitate market based instruments will not deliver a net benefit to the status quo.

The NPS for Freshwater Management as drafted

The NPS sets out a clear policy framework for freshwater management in New Zealand on matters identified as being nationally significant.

Being the highest order instrument available under the RMA, the NPS is considered to most fully address the issues with the status quo. It will provide central government direction and ensure a nationally consistent approach to freshwater management where appropriate.

Because each council has to go through their own plan making process, and the plans are ultimately subject to Environment Court ruling, there is likely to be some variation in the actual provisions themselves, as suited to the region. This is appropriate as the NPS allows for decision-making at a regional scale, allows for regional flexibility and recognises spatial variability in physical environments and communities, while requiring a resource use limits framework, efficient allocation, integrated management and the involvement of iwi and hapū.

It will have immediate effect on decision-making for resource consents as decision-makers have to ‘have regard’ to the NPS, which will bring some consistency to individual consent decisions, allowing for individual circumstances.

It is important to note that many of the alternative policy options would act as supporting measures for effective implementation and would strengthen the benefits that are likely to be obtained from the NPS. In particular, the role of non-statutory guidance will complement the NPS through interpretation and understanding of what the policies mean, as well as what tools that can help implement the NPS. This helps reduce council implementation costs by promoting consistent interpretation and implementation of NPS policies.

Table 1 summarises the alternatives against the policy objectives.

Table 1: Summary of evaluation of alternatives for addressing the problem and ability to achieve the policy objectives

Alternatives to the status quo	Brief description	Effect on freshwater management	Effect on freshwater outcomes	Main strength	Main weakness	Ability to meet Policy Objectives	Incremental net benefit against the status quo
Amend the RMA	Amend Part II Amend section 67(1) – require quality and quantity are managed in regional plans	Could clarify the importance of freshwater management.	By requiring limits to be set, it is likely to improve water quality and quantity. Unable to address the scope of all the issues.	Clear and directive	Freshwater is already recognised in Part II – unlikely to greatly influence the status quo Limited scope to address the full extent of key problems	A: **½** ✓ B: **½** ✓	Management **-/+** Fresh water Outcomes: **-/+**
Enhance the status quo	Whole of government submissions Improvement in use of WCOs	Assist in the consenting process Assist in protecting outstanding water bodies	May indirectly improve freshwater outcomes. However, it is a reactionary approach.	Could increase in awareness	No clear national framework developed WCO's do not apply to the entire fresh water systems	A: **½** ✓ B: **X**	Management **-** Outcomes: **-/+**
National Environmental Standards	Eg water quality standards, rules for managing land use activities	Sets up a clear and consistent rules	Standards and rules will help prevent degradation	Would increase certainty	Does not allow for appropriate local flexibility	A: ✓ B: **½** ✓	Management **-** Outcomes: **+**
Non-regulatory guidance	Eg training councils staff, model plan provisions	Up-skill council staff and encourage consistent freshwater management frameworks	Effective as a supporting measure (limited effectiveness on its own)	Improve consistency	No statutory weight	A: **½** ✓ B: **½** ✓	Management **-** Outcomes: **-/+**
Economic instruments	Eg charges on discharging, tradable discharge permits and water take permits	Assist in innovation in dealing with water flow and quality limits over time.	Improvement in the efficiency of allocation and use of water	Provides incentives for change	Focuses on economic uses relative to other uses	A: **½** ✓ B: **X**	Management **-** Outcomes: **-/+**
National Policy Statement as currently drafted	Sets out a policy framework for freshwater management	Nationally consistent approach while allowing for appropriate flexibility	Requires councils to manage outcomes. Supporting measures to improve its effectiveness	Addresses the issue of national significance of freshwater management	Objectives and policies subject interpretation (minor risk). Effectiveness is limited as a standalone instrument	A: ✓ B: ✓	Management **+** Outcomes: **-/+**

A. To strengthen the sustainable management of freshwater under the RMA to ensure that fresh water continues to contribute to our economic growth, environmental integrity, and social and cultural needs and aspirations. (B) To provide a clear nationally consistent policy framework for the management of fresh water, while providing for sufficient flexibility for locally specific issues.

✓ meets X does not meet - no + yes -/+ partially

Preferred option – the NPS for Freshwater Management as drafted

The NPS is considered to most fully address the fresh water management issues. The NPS will set the regulatory framework to help drive national consistency in local RMA planning and decision-making to enable improved fresh water outcomes. The NPS specifically:

- Provides national direction when local authorities formulate plan provisions and make decisions.
- As its major thrust, requires the setting of limits for both quantity and quality which will help maintain and improve the overall water quality and better manage demand. It will also result in greater certainty for users and reduce the risk of over-allocation (thus avoiding costly claw backs). The limit setting process will also take into account the protection of wetlands.
- Go some way in improving and maximising the efficient allocation of freshwater.
- Encourage better integration of water and land management.
- Reinforces the obligation of councils to involve iwi/hapū in freshwater management.

A section 32 report required for preparing the NPS evaluated the overall effectiveness of the NPS policies in achieving the policy objectives. It suggested that the efficiencies of the policies in relation to the objectives have potential for a net benefit (however, because of the wide variation in the estimated quantified benefit, it is difficult to know the extent of the benefits). The overall effectiveness of the NPS policies in achieving the policy objectives are shown in Appendix 5.

The NPS essentially signals that a change is required in the way we manage water. It is intended to be one part of a longer term wider package of reform (Fresh Start for Freshwater programme). Secondary measures will be needed to support the NPS, in particular in relation to interpretation and methods for establishing limits for water quantity and quality. Options being considered in the wider reforms (which may include some of the alternative policy options in this paper) will improve the effectiveness and benefits of the NPS and reduce potential costs.

Costs and benefits of the preferred option

The section 32 analysis on the proposed NPS suggests the quantified benefits to range between $15 and $396 million[14] and the quantified costs to range from $68 and $101 million[15]. Based on these estimates, at its worst the NPS could create a net quantified cost of $86 million. At its best, the NPS could create a net quantified benefit of $328 million.

There are also many costs and benefits that cannot be quantified which should also be taken into account as detailed below.

It is important to note there are likely to be large initial costs in the implementation of the NPS (particularly for the setting of quality limits). However there will be a linear increase of benefits over time which will reflect improved management of our fresh water.

14 There are very few studies that examine the national perspective of river values. A report by Sharp and Kerr (2005) found only 2 studies that have taken a national perspective on the benefits of improved water quality. These are – Kerr (1985) which suggested that New Zealand households would pay $197 ($242 in 2010 dollars) per household to prevent Kawarau River hydro-electricity development; and Greer & Sheppard (1990) which suggest that New Zealanders were willing to pay $7 ($8.61 in 2010) per household to prevent the spread of *clematis vitalba*.

15 Quantified costs are largely related to the policy changing and planning processes. The costs have been calculated with a net present value of 8%.

Benefits

The NPS has, as its major thrust, the setting of limits for both water quantity and quality. Water management within limits has many benefits including a clear understanding of what water is available which is likely to improve consenting efficiency; certainty in supply; avoidance of claw back of over-allocation; and the maintenance of ecosystem services which all water users are reliant on, such as good drinking water quality for public health.

The environment and a variety of stakeholders (recreational users and other NGOs, and local communities) stand to gain the most benefit from the introduction of the NPS. The key benefit given to the environment under the NPS is the maintenance or improvement in water quality (existence value) and increased efficient allocation of water.[16]

Benefits around the certainty of limits and associated lower consenting costs are anticipated.[17] There will also be improvements in the efficiency with which water is allocated, resulting in New Zealanders obtaining greater value from its limited water resources over time. The NPS will work particularly well with the recent Regulations on the Measurement and Reporting of Water Takes (2010) which will help maximise efficiency gains.[18]

For tāngata whenua benefits will accrue from improved collaboration with local authorities under the NPS. This is likely to improve the efficiency of the process and reinforce their kaitiakitanga (guardianship) role.

Similarly, local communities, recreational users and other NGOs gain benefit from existence values, certainty around allocation and water quality rules. All forms of government (central, regional and TLAs) also gain from more certainty in the process as do the commercial users.

There are also likely to be benefits for New Zealand's image, which may influence the attractiveness of our products and services and as a tourist destination. The NPS will help protect New Zealand's international reputation and future-proof against trade barriers.

Costs

The main costs will fall on regional government which are estimated between $33 million and $49 million. The development of plans and policies is likely to be a difficult process given the size of the problem that the NPS is attempting to address. It should be noted that these costs are those additional to the status quo.

Local communities, tāngata whenua, recreational users and other NGOs are also likely to experience costs as the NPS is introduced. Their costs will be transaction costs associated with dealing with plan changes, including participating in the setting of limits.

Commercial users of water such as primary industries, generators, and other industries will also have large costs submitting on regional council plans and policies, including participating in the setting of limits.

16 Intangible benefits associated with good water quality should not be underestimated – a recent analysis published by the Australian Conservation Foundation conservatively estimates that $9.8 billion is roughly what a protected and restored Murray-Darling is worth to Australians, *"simply for the sense of satisfaction and wellbeing it provides"* (2010)

17 For example an irrigation company applied for consents to take from the Rakaia River. This proved to be a relatively easy process as the Water Conservation Order placed a cap on the quantum of water allocation so all the debates about the limit had already taken place in the WCO process. The application costs were approximately <$100,000. However, the application by Central Plains for water takes from the Waimakariri has been far more costly, with the process costing approximately $8M (J. Bright, Aqualink Consulting, pers comm).

18 The Water Measurement Regulations alone are estimated to have allocative efficiency benefits at $101M (which does not include intangible benefits).

Potentially significant opportunity costs have not been able to be quantified and would be additional to the quantified costs. The level of lost opportunity depends on what level limits are set in individual catchments which is unknown at this point.

Central government costs associated with guidance, monitoring and review are likely to be relatively small. TLAs, however will face large costs associated with submitting on regional council plans and policies (associated with storm water) and also smaller costs associated with changing their own district plans.

Table 2 summarises the costs and benefits of the NPS.

Table 2 – Summary of costs and benefits

Stakeholder/resource	Benefits	Costs
Environment	*$15M and $396M* Improvement in water quality and allocation (Existence value and efficiency gains)	*Neutral*
Tangata whenua	*Large benefit not costed* Increased participation in management and monitoring of fresh water (existence value, improve participation, and efficiency gains)	*Large cost valued between $3M and $5M* Participation in process
Local communities	*Large benefit not costed* Increased participation and improvements in fresh water management (efficiency gains and existence value)	*Large cost valued between $7M and $10M* Participation in process
Consumers	Uncertain impact	Uncertain impact
Recreational users and environmental NGOs	*Large benefit not costed* Increased participation and improvements in fresh water management (efficiency gains and existence value)	*Large cost valued between $7M and $10M* Participation in process
Central Government	*Small benefit not costed* Certainty (efficiency gains)	*Small cost valued at $300,000* Guidance, monitoring and review
Regional Government	*Small benefit not costed* Certainty (efficiency gains)	*Large cost valued between $33M and $49M* Plans and policies; monitoring
Territorial Local Authorities	*Small benefit not costed* Benefit from certainty (efficiency gains)	*Large cost valued between $7M and $10M* Regional and district plans and policies
Primary Sector	*Small benefit not costed* Certainty (efficiency gains). Lower resource consenting costs.	*Large cost valued between $4.8M and $7M* Submitting on plans and policies + possible opportunity costs
Hydroelectricity generators	*Small benefit not costed* Certainty (efficiency gains). Lower resource consenting costs.	*Large cost valued $4.8M and $7M* Submitting on plans and policies + and possible opportunity costs
Other industries	*Small benefit not costed* Certainty (efficiency gains). Lower resource	*Large cost valued between $2M and $3M*

Table 2 – Summary of costs and benefits		
Stakeholder/resource	**Benefits**	**Costs**
	consenting costs.	Submitting on plans and policies + possible opportunity costs
Indirect impacts	*Small benefit not costed* Improve image	*zero*
Comparing costs & benefits	**Between $15 and $396 million quantified**	**$68 and $101 million quantified**
Note: (1) Although not quantified, for this analysis: A large benefit is greater than $1.5m, a medium benefit is between $0.5M and $1.5M and small benefit is under $0.5M; (2) Numbers have been rounded to reflect the approximate nature of the values and do not sum exactly; (3) These costs have been calculated with a net present value of 8%.		
Source: Amended Harrison Grierson and NZIER		

Consultation

Consultation for the RMA processes of notifying a proposed NPS

From December 2007 to February 2008, in accordance with section 46 of the RMA, the Minister for the Environment sought comments from relevant iwi authorities and a range of stakeholders on the notion of an NPS for Freshwater Management. Further consultation followed with representatives from local government, and other key stakeholders to obtain feedback on the potential scope and detail of the proposed NPS. Departments, local government and key stakeholders were also consulted on the drafting of the NPS.

In September 2008, the Proposed NPS was publicly notified. The Board of Inquiry received 149 submissions and 30 further submissions. A wide range of issues were covered in submissions, including local authority functions, boundaries, flexibility and resources; key national values of fresh water; Māori issues such as rights and interests; existing uses and activities; cumulative effects; use of the precautionary approach; and costs of implementation on local government. The Report and Recommendations of the Board of Inquiry into the Proposed National Policy Statement for Freshwater Management was presented to the Minister for the Environment on 28 January 2010.

Process since receiving the Board's report and recommendations

The Board's report and recommendations were provided to the Land and Water Forum (the Forum), Iwi Leaders and Officials for comment.

The Land and Water Forum and Iwi Leaders recommended that the NPS should be promulgated quickly, and recommended the Board of Inquiry's version as a basis to work from. It was recommended the government consider changes to provisions covering tāngata whenua roles and Māori values and interests, management of contamination, and the transitional measures. It also suggested a wider set of issues that the government may wish to consider the NPS to address.[19] It was decided such issues would be more suitably addressed in the broader Fresh Start for Fresh Water programme.

[19] Including specific measures dealing with use and development, recognising the benefits of infrastructure, making environmental values more specific by adding an objective which protects the values of fishing, swimming and mahinga kai, and providing for allocation efficiency.

Officials raised concerns that the Board's version of the NPS was too heavily balanced towards environmental protection and would have significant costs to the economy. The NPS has been amended to ensure a better recognition of people's economic well-being within an environmental context.

Consultation and feedback on the finalisation of the NPS and Section 32 evaluation

The Ministry of Agriculture and Forestry has been closely involved in the drafting of the final NPS. The Treasury, the Department of Conservation, the Ministry of Economic Development, Te Puni Kōkiri, the Department of Internal Affairs, and the Department of Prime Minister and Cabinet have been consulted during the finalisation of the NPS.

Local Government New Zealand, the Water Working Group of the Chief Executive Environment Forum, regional council delegates, the Land and Water Forum and Iwi advisers were provided with the draft section 32 analysis to ground-check the information and results (but were not invited to comment on the policies themselves). They were only given a limited amount of time to provide us with their feedback.

Local Government New Zealand and regional councils delegates are relatively comfortable with the section 32 analysis, however, were concerned with the uncertainties in quantifying the costs and benefits. Therefore, there is some concern about the risk that the NPS could cost regional councils a lot more than projected in the report. They particularly support development of complementary measures and guidance to support the implementation of the NPS.

The Land and Water Forum was also provided with a draft of the section 32 report but given a very limited time to comment. They did not provide a joint comment, and instead some small group members chose to provide comment on an individual basis. There was general dissatisfaction as they considered the costs to be under-estimated for the planning process. They were also dissatisfied with the lack of quantifiable data related to consenting and opportunity costs. Based on this concern, the section 32 analysis was amended to provide a range on the quantifiable costs. The section 32 also acknowledged that in recent experience under the status quo many parties have incurred costs larger than those included in the evaluation. However, those costs are likely to be higher because they were incurred in highly contentious catchments[20] and many of the catchments that remain to be addressed under the NPS are less contentious. Furthermore, it is expected that the costs incurred in future processes under the NPS would benefit from lessons learnt.

Conclusions and recommendations

Clearly there are uncertainties around the costs and benefits associated with this NPS which relate to both the difficulties in quantifying some of the benefits, and also uncertainty about how exactly the NPS will be implemented. The Ministry judges that as a standalone option, the NPS might not deliver net benefits to freshwater management in New Zealand. However, if the NPS is supported with additional implementation measures, such as those being considered under the Fresh Start for Fresh Water programme, the Ministry considers the NPS to be an important and necessary component which will drive significant net benefits for New Zealand.

The NPS is an important part of the broader and upcoming Fresh Start for Fresh Water reform package, as it sets in place some essential ingredients in a strengthened limits-based regime for water management and helping clarify the regulatory framework for the reform package as a whole.

Additional implementation measures to help mitigate potential costs and improve the NPS's effectiveness include work covering the nature of limits, technical methods for describing and implementing limit,

20 For example, Variation 6 to the Waikato Regional Plan

supporting measures such as catchment modelling and scientific tools, and additional RMA regulatory measures as required (e.g. National Environmental Standards).

Implementation

Local authorities must give effect to the NPS by making amendments to regional policy statements and regional and district plans by using the RMA Schedule 1 consultation process. The actual wording in the statements and plans is not prescribed by the NPS (except for two transitional policies), so it is possible councils may choose to include provisions which are ineffectual. This is considered to be unlikely as it opens up the plan change process to legal challenge.

Two transitional policies within the NPS will be directly inserted into regional plans immediately without a Schedule 1 process. It will require councils to consider specific criteria when making decisions on resource consents for new or increased discharge and/or new or increased water takes that currently require resource consent. The policies are made redundant once plan changes under Schedule 1 are given effect to.

An NPS has immediate effect on resource consent applications that are lodged and accepted under section 88 of the RMA, in that consideration must have regard to relevant provisions of a national policy statement under section 104(1)(B)(iii).

Guidance on the implementation of the NPS will be developed and made available to councils and the public.

Potentially contentious issues and risks

The NPS as recommended by the Board of Inquiry was markedly different from the notified version in terms of structure and scope. Section 52 of the RMA allows the Minister to make changes to the NPS as notified "as he or she thinks fit" after considering the Board's report and recommendations. The scope of change is however constrained by the RMA and by principles of administrative law. The ability to make changes does not extend to making new policy beyond the scope of the Board process.

Where possible the Board's recommendations and structure of their recommended NPS were retained. Amendments have been substantial in some instances (e.g. changes to objectives and policies to provide for a better balance of environmental and economic outcomes) and minor in others (e.g. changes to wording to improve workability in practice). Some of the policies were seen to create rules and were therefore beyond the scope of a NPS.

Changes made to the NPS in order to provide for a better balance of environmental and economic outcomes could be perceived from some quarters, including environmental groups, as weakening the NPS; while others may consider the revised version as a more balanced and fair approach.

The NPS has been drafted with considerable care to ensure all the policy changes that differ from the recommendations of the Board are within scope. However, given the extent of the changes it is not possible to rule out a challenge.

Other possible risks and means of mitigation include:

Risk	**Mitigation**
Councils have some flexibility in how they implement policies and plans. There is a risk that the policies are not applied and implemented as efficiently as	To ensure that this discretion does not undermine the effectiveness of the provisions, additional best practice guidance is required. Work is underway to

possible leading to high transaction costs and reduction in the net benefits.	develop non-statutory guidance to be released as close as possible to the notification of the NPS in the *New Zealand Gazette*.
Regional councils may have insufficient resources, both in capital and labour, to address additional work resulting from the NPS requirements, with the possibility that it diverts resources from other programmes. The relevant expertise may not exist in some councils.	The progressive implementation timeframe (implemented by no later than 31 December 2030) should enable councils to implement the NPS at a timeframe appropriate to their resourcing. Options being developed under Fresh Start for Fresh Water, in particular work covering governance, and the capacity and capability for identifying and setting water quality limits will help reduce potential costs.
Underestimation of the costs it will take to put the changes in place.	Uncertainties in relation to the extent of the costs and benefits of the NPS make the proposed review of the NPS significant. A short review period of five years will enable the Minister to consider the need to review, change or replace the NPS. Here potential risks of noted uncertainties can be mitigated and if necessary remedied.
Flexibility in implementation timeframe (by no later than 31 December 2030) provision may weaken the effectiveness of the NPS if it is used by councils to unduly delay the required plan changes.	The NPS requires councils to develop a plan of action for implementing the NPS which must be reported on annually. The NPS provides a framework for the Minister for the Environment to direct councils to take action under other provisions of the RMA where necessary. A robust monitoring framework for the NPS is also being developed.

Monitoring, evaluation and review

The Minister has the flexibility to review, change, or revoke an NPS at his or her discretion under section 53 of the RMA. The Minister has directed the Ministry to review the NPS within five years of it taking effect. This review will primarily focus on the effectiveness of the policies. In five years time, the policy framework to be developed under the Fresh Start for Fresh Water programme should be clear and it will be important that the NPS is still aligned with these measures.

The review will also help signal to local authorities that the NPS will be reviewed and monitored by central government, and commits to an assessment of its effects. Information gathering and collection will take place using various mechanisms, such as two yearly reporting and local authorities' duties under section 35 of the RMA.

This information collection framework fits with existing Ministry activities and will leverage existing freshwater data and information collection undertaken at the Ministry and by other organisations.

Appendix 1: Range of approaches to water quantity limit setting

Table 1 summarises the approach taken by each regional council to set allocation and flow regimes. Nearly all regional plans address this matter, however, the approach varies according to the degree of specificity to a particular water body; the type of limit (minimum flow; minimum allocation); and the regulatory mechanism to implement the limits (through objectives, policies and rules).

Table 1 - Range of approaches to allocation and flow regimes

	Does the plan set allocation regimes for surface water?		Does the plan set flow regimes?		Does the plan set allocation regimes for ground waters?	
Council	**Catchment specific**	**Default**	**Catchment specific**	**Default**	**Catchment specific**	**Default**
Auckland					✓	✓
Bay of Plenty		✓	✓[2]	✓		
Canterbury	✓P	✓P	✓P	✓P	✓P	✓P
Chatham Islands						
Gisborne						
Hawkes Bay	✓					
Horizons	✓P	✓P	✓P	✓P	✓P	✓P
Marlborough	✓		✓		✓	
Nelson		✓	✓			
Northland			✓	✓		
Otago	✓		✓	✓	✓	
Southland		✓		✓		✓
Taranaki						
Tasman	✓P	✓P	✓P	✓P	✓P	✓P
Waikato	✓P	✓P	✓P	✓P	✓P	✓P
Wellington	✓		✓		✓	
West Coast					✓	

Note: ✓P indicates provisions that are proposed and not yet operative.
[2] Bay of Plenty have only developed one catchment specific minimum flow to date.

Source: Table 2, Sinclair Knight Mertz, 2010, 'Regional Council practice for setting & meeting RMA-based limits for freshwater flows and quality', Ministry for the Environment

Appendix 2: Range of approaches to water quality limit setting

Table 2 summarises the approach taken by each regional council to deal with surface water quality limits. The approach taken within regional plans to the management of water quality varies. Most councils (13) have developed classification systems for their water bodies, for which region wide quality limits are attached. These limits are implemented variously through objectives, policies and rules.

Table 2 - Approach to limit setting and regulatory methods for surface water quality

Council	Region wide limits[1]	Compliance required in rules?[2]	Considered as assessment matter?	Activity Rule water quality limits
Auckland	None	-	-	✓
Bay of Plenty	Region wide numeric and descriptive limits as standards. Descriptive limits reference guidelines to aid their interpretation		✓	✓
Canterbury	Region wide numeric limits as environmental guidelines	✓	✓	✓
Chatham Islands	None	-	-	✓
Gisborne	None	-	-	✓
Hawkes Bay	Region wide numeric limits as standards		✓	✓
Horizons	Region wide numeric limits as standards	✓	✓	✓
Marlborough	Numeric and descriptive limits as standards	In part[3]	✓	✓
Nelson	Numeric limits as graded water quality classes	✓[4]	✓	✓
Northland	Reference to guideline documents outside the plan		✓	✓
Otago	None	-	-	✓[5]
Southland	Numeric and descriptive limits as standards	✓	✓	✓
Taranaki	Reference to guideline documents outside the plan		✓	✓
Tasman	Numeric and descriptive limits	In part[6]	✓	✓
Waikato	Numeric and descriptive limits	✓	✓	✓
Wellington	Reference to guideline documents outside the plan		✓	✓
West Coast	Descriptive limits		✓	✓

Note:[1] Use of words, standards or guidelines is as used by councils

[2] Indicates that some but not necessarily all rule require compliance with water quality limited in either the permitted and/or other discharge rules.

[3] Marlborough contains two Regional Plans based on geographic areas. Permitted rules in one plan require compliance only.

[4] Nelson's rules relate to the class of water into which the discharge passes.

[5] Otago has only three rules with minor reference to water quality effects. Their management approach of water quality instead takes a policy approach of maintaining existing quality.

[6] Tasman has limits specific to its water management zones, rules only require compliance with limits in certain zones.

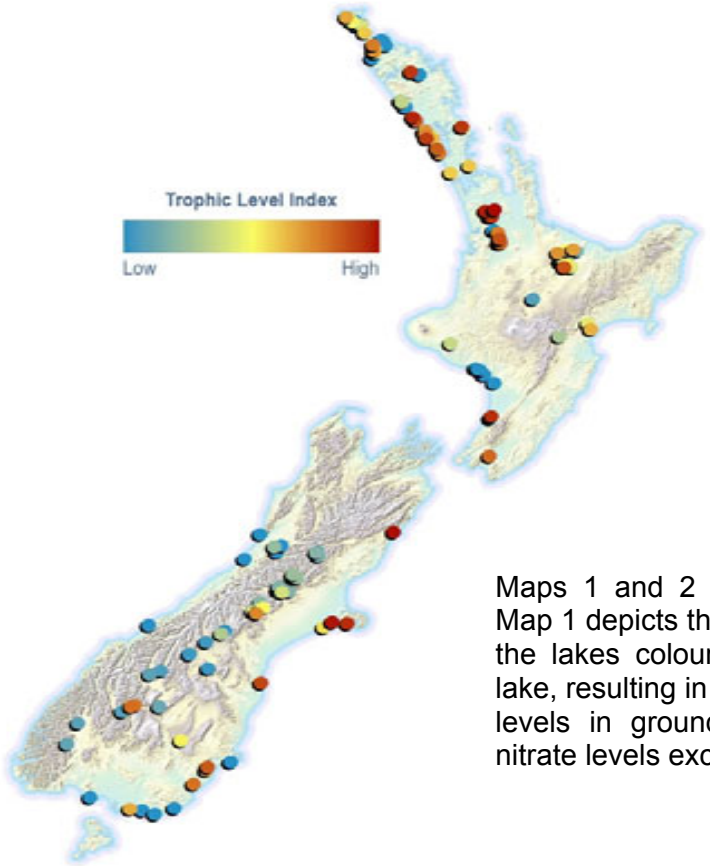
Source: Table 1, Sinclair Knight Mertz, 2010, 'Regional Council practice for setting & meeting RMA-based limits for freshwater flows and quality', Ministry for the Environment

Appendix 3: Status quo of regional plans and compliance with the NPS

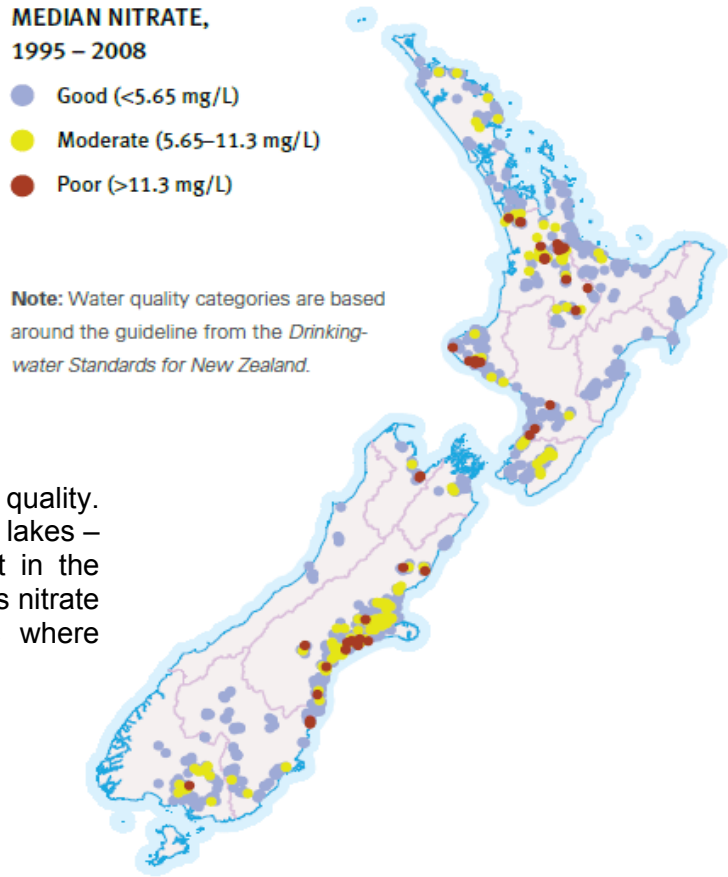
		Policy A1 Set quality objectives & limits	**Policy A2** Manage quality over-allocation	**Policy B1/B5** Set quantity objectives & limits	**Policy B2** Efficient allocation	**Policy B3** Facilitate transfer	**Policy B4** Encourage efficient use	**Policy B6** Manage over-allocation	**Policy C1/C2** Integrated management	**Policy D1** Tāngata whenua interests
Regional Councils										
Auckland		0	0	1	x	0	2	x	1	1
BOP		1	0	2	x	x	1	1	1	2
Canterbury		1	1	2	x	x	1	0	1	1
Chatham Is		0	0	0	x	x	x	x	0	1
Gisborne		0	0	0	x	x	1	0	1	1
Hawkes Bay		1	0	1	x	2	2	1	1	1
Horizons		1	1	2	1	2	2	0	2	2
Marlborough		1	1	1	x	0	1	0	1	1
Nelson		1	1	1	x	1	2	0	1	1
Northland		1	1	0	x	1	1	1	0	1
Otago		0	1	1	x	x	1	x	1	x
Southland		1	1	2	x	x	1	0	1	x
Taranaki		0	0	0	x	x	1	0	1	x
Tasman		1	1	2	x	1	0	x	1	1
Waikato		1	1	2	x	2	2	0	x	0
Wellington		1	1	1	x	1	2	1	1	1
West Coast		0	0	0	x	x	1	0	x	x
Not compliant = 0		6	7	5		2	1	9	2	1
Some compliance = 1		11	10	7	1	4	8	4	12	10
Largely compliant = 2				5		3	6		1	1
Do not know = x					16	8	1	4	2	4

Information based on the SKM (2010) Report on Regional Councils practices in setting limits. Please note, this is indicative and is only intended to provide a picture of what is currently being done under the status quo and where possibly the NPS may require changes to plans.

Appendix 4: Maps illustrating Hotspot areas

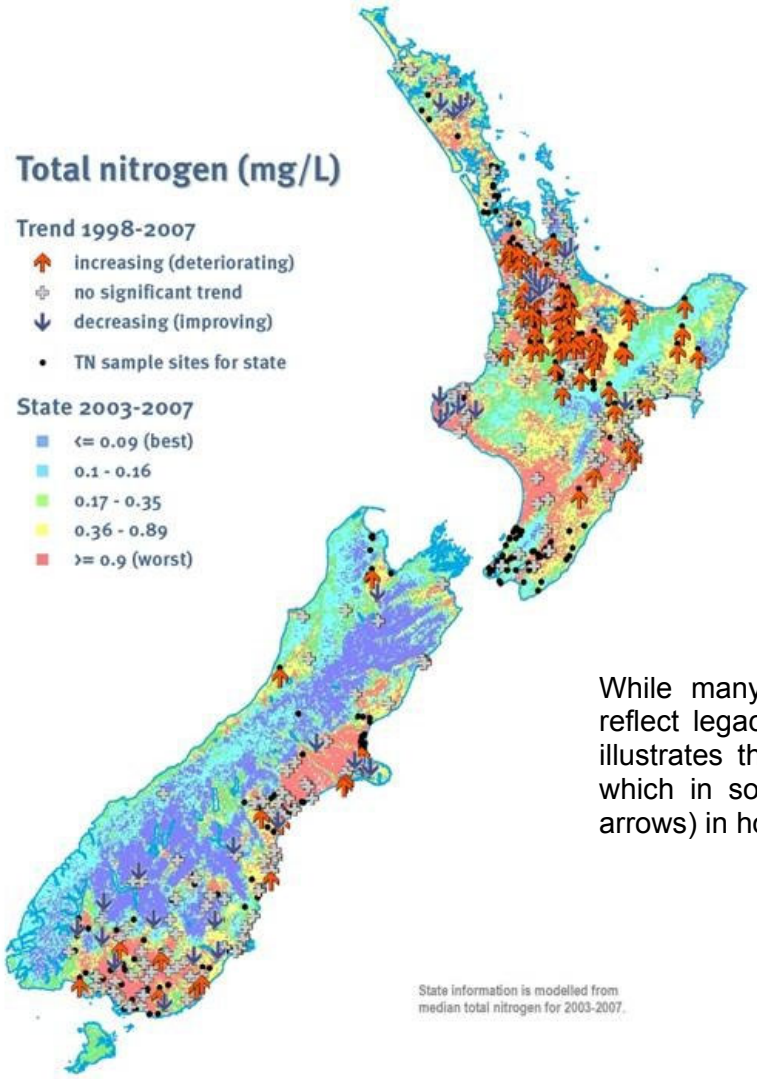


Maps 1 and 2 illustrate two aspects of water quality. Map 1 depicts the trophic (nutrient) level of major lakes – the lakes coloured red have too much nutrient in the lake, resulting in e.g. algal blooms. Map 2 depicts nitrate levels in groundwater, red dots indicate sites where nitrate levels exceed drinking water guidelines.



Map 1: Trophic Level Index for Major Lakes

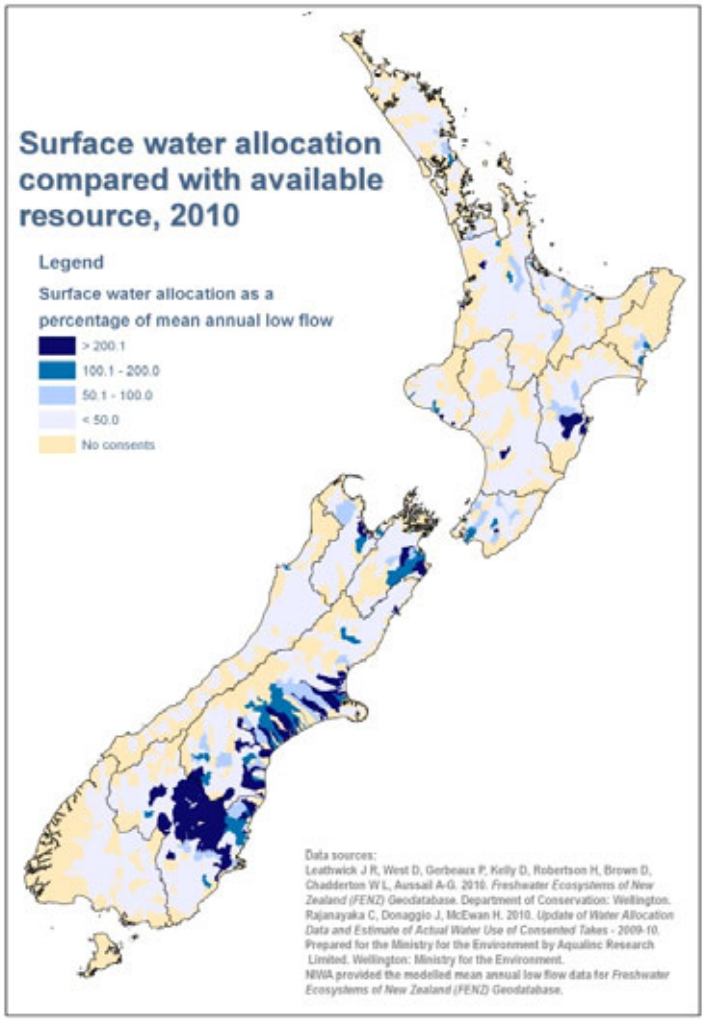
Map 2: Groundwater Nitrate levels



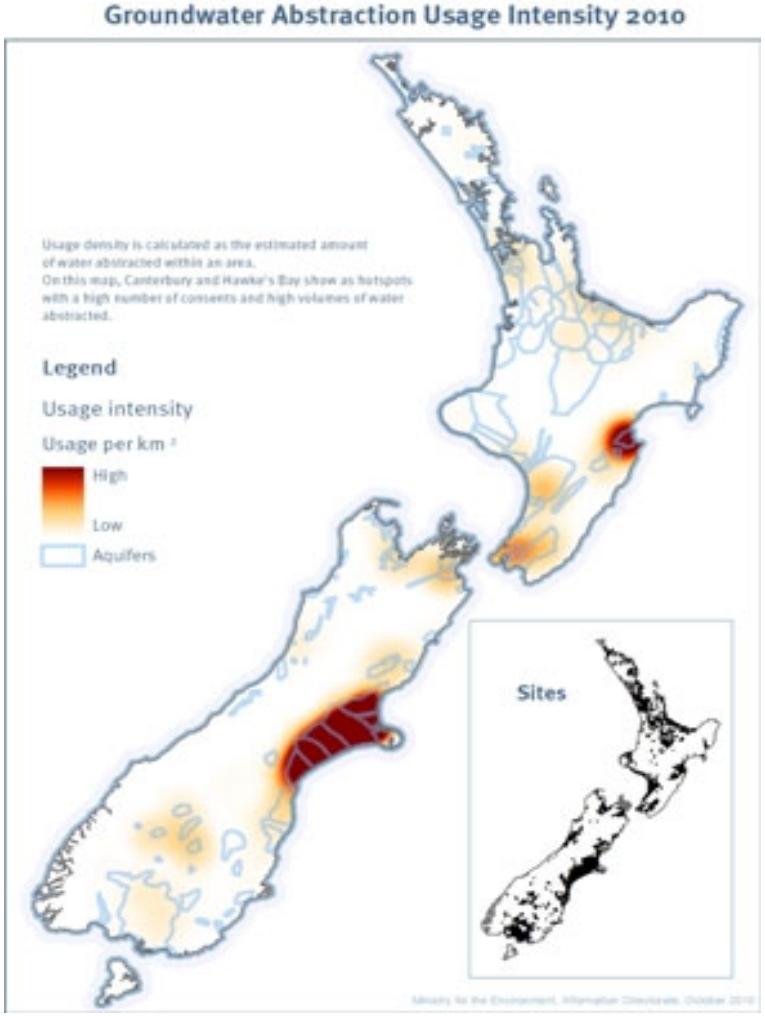
While many of the hotspots illustrated by the maps reflect legacy issues from the pre-RMA period, Map 3 illustrates the *trends* in nitrate levels in surface water, which in some cases are still increasing (red upward arrows) in hotspot catchments (pink coloured areas).

Map 3: State and Trends in River Nitrate Levels

Maps 4 and 5 illustrate the areas where demand for surface and groundwater is most intense, with the darkest areas in Map 1 indicating that allocated volumes are twice the mean annual low flow (although actual usage is about half of the allocation).



Map 4: Surface Water Allocation Presssures



Map 5: Groundwater Allocation Pressures

Appendix 5: Summary of effectiveness of the NPS policies and intention in achieving the policy objectives

NB: This should be read in conjunction with the National Policy Statement for Freshwater Management 2011

Summary of the effectiveness and efficiency of Water Quality Policies				
Policy Objectives	**Policy A1**	**Policy A2**	**Policy A3**	**Policy A4**
Safeguards the life supporting capacity, ecosystem processes and indigenous species and their associated ecosystems of fresh water	✓	✓	✓	✓
Sustainably managing the use of development of land, and of discharges to contaminants.	✓	✓	✓	-
Overall quality of fresh water within a region is maintained or improved.	✓	✓	✓	½ ✓
The quality of outstanding fresh water bodies is protected	✓	-	-	-
The quality of fresh water bodies that have been degraded to the point of over-allocation is improved	-	✓	-	-
Impacts on council plans	✓	✓	✓	-
Impacts on resource consents & designations	Indirectly	Indirectly	✓	✓
Impacts on non-regulatory methods	-	✓	-	-
Policy strength & clarity	✓	✓	✓	½ ✓

Source: Harrison Grierson and NZIER (Section 32 report)

Summary of the effectiveness of NPS Water Quantity Policies							
Policy objectives	**Policy B1**	**Policy B2**	**Policy B3**	**Policy B4**	**Policy B5**	**Policy B6**	**Policy B7**
Safeguard the life supporting capacity, ecosystem processes and indigenous species and their associated ecosystems	✓	-	-	-	✓	✓	✓
Sustainably managing the taking, using, damming or diverting of freshwater or of draining of wetlands	✓	✓	½ ✓	½ ✓	Indirectly	Indirectly	Indirectly
Avoid any further allocation	✓	-	-	-	✓	-	-
Reduce existing over allocation	✓	-	-	-	-	✓	✓
Efficient allocation and use of water	-	✓	½ ✓	✓	-	-	-
Protect the significant values of wetlands	½ ✓	-	-	-	½ ✓	½ ✓	½ ✓

Summary of the effectiveness of NPS Water Quantity Policies							
Policy objectives	**Policy B1**	**Policy B2**	**Policy B3**	**Policy B4**	**Policy B5**	**Policy B6**	**Policy B7**
Impacts on council plans	✓	✓	½ ✓	✓	✓	✓	-
Impacts on resource consents & designations	Indirectly	Indirectly	✓	✓	✓	✓	✓
Impacts on non-regulatory methods	-	-	-	✓	-	-	-
Policy strength & clarity	✓	✓	½ ✓	½ ✓	✓	½ ✓	½ ✓

Source: Harrison Grierson and NZIER (Section 32 report)

Summary of the effectiveness of NPS Integrated Management Objectives against Policies C1 – C2		
Policy objectives	**Policy C1**	**Policy C2**
Improved integrated management of fresh water and the use of land in whole catchments.	✓	✓
Impacts on council plans	✓ - not explicitly stated	✓- regional policy statements
Impacts on resource consents & designations	✓- not explicitly stated	½ ✓ indirectly
Impacts on non-regulatory methods	-	-
Policy strength & clarity	½ ✓	½ ✓

Summary of the effectiveness of Tāngata whenua Policy D1	
Policy objectives	**Policy D1**
Provide for the involvement of iwi and hapu	✓
Ensure Tangata whenua values and interests are identified and reflected in the management of and decision making regarding fresh water including associated ecosystems.	?
Impacts on council plans	✓
Impacts on resource consents & designations	✓
Policy strength & clarity	½ ✓

Source: Harrison Grierson and NZIER (Section 32 report)